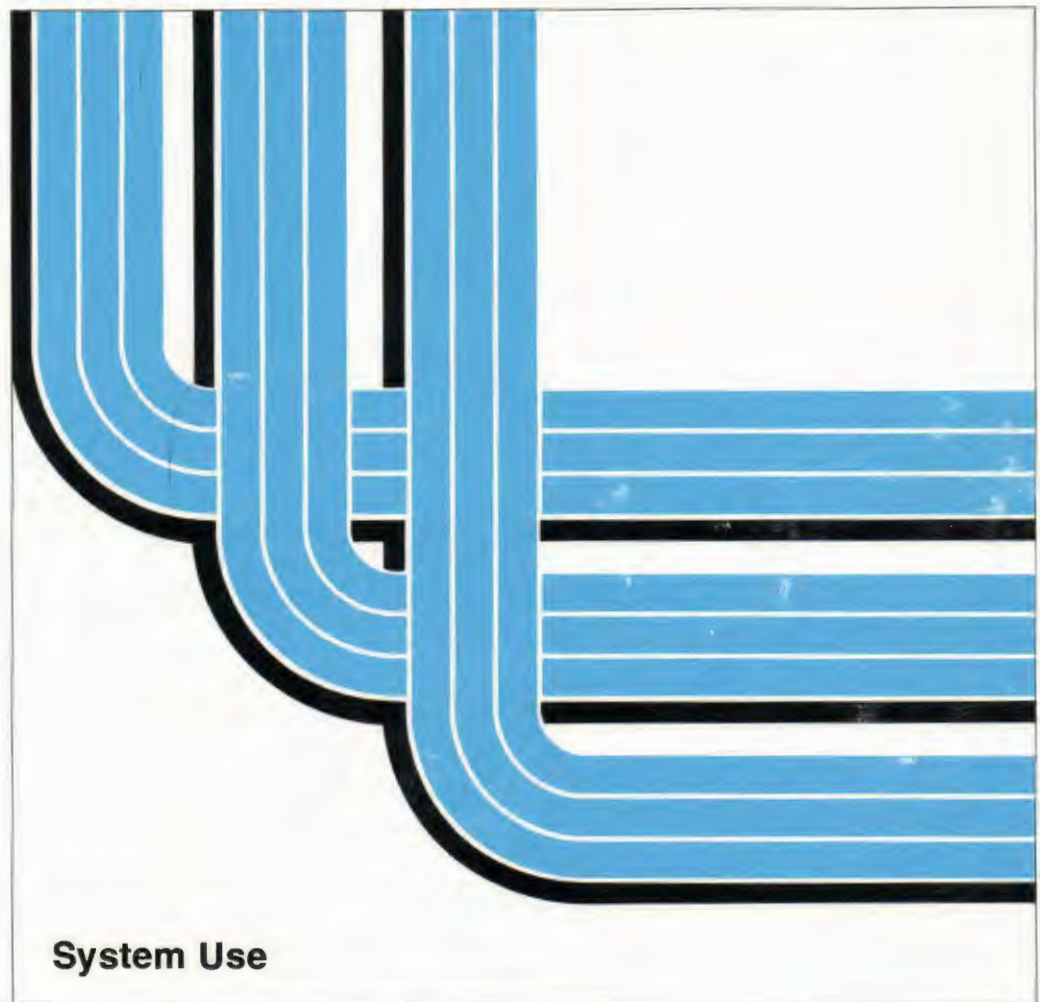


Application System/400

SC41-9618-02

**Systems Application Architecture OfficeVision/400:
Using OfficeVision/400 Word Processing**

Version 2



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Using OfficeVision/400 Word Processing**

Version 2

Take Note!

Before using this information and the product it supports, be sure to read the general information under "Notices" on page xv.

Third Edition (November 1993)

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Changes or additions to the text are indicated by a vertical line (|) to the left of the change or addition.

Refer to the "Summary of Changes" on page xix for a summary of changes made to the OfficeVision/400 licensed program and how they are described in this publication.

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About This Manual

This manual supplies information to help you use the word processing functions of OfficeVision/400 more efficiently and productively.

OfficeVision/400 is an IBM licensed program and it contains the word processing function. With this function, you can type letters and reports, store them, edit them, check the spelling or reformat them, and print them. You can type one letter and change the information to create several personalized letters. You can also do mathematical calculations on columns of numbers in your letter.

Unless otherwise indicated, this manual assumes that OfficeVision/400 word processing functions are always used to work with documents (for example, notes and mail items). However, your administrator might have set up your system so that other programs are used in place of certain OfficeVision/400 functions. The *Office Services Concepts and Programmer's Guide*, SC41-9758, contains information about using other programs in place of OfficeVision/400 functions.

You may need to refer to other IBM manuals for more specific information about a particular topic. The *Publications Guide*, GC41-9678, provides information on all the manuals in the AS/400 library.

For a list of publications related to this manual, see the "Bibliography."

Who Should Use This Manual

This manual is intended for a correspondence secretary or anyone who wants to use the word processing function of OfficeVision/400 to create and change documents.

Before using this manual, you must be enrolled in OfficeVision/400. For more information about enrollment, contact your administrator or refer to the manual *Systems Application Architecture* OfficeVision/400*: Managing OfficeVision/400*, SC41-9627.

This manual provides the office user with procedural as well as reference information on all the word processing functions and can be used with the OfficeVision/400 online information.

Before using this manual you should be familiar with the introductory material for using the system and for using your display station and printer. You should also understand how to use the online information and the Help key. The *New User's Guide*, SC41-8211, has information about using the help information and the Help key.

You should also be familiar with the information discussed in the manual *Systems Application Architecture* OfficeVision/400*: Learning about OfficeVision/400 Word Processing*, SC41-9617.

Some numbers and words appear in **bold** within the text. You can either type these words on the display as they appear in this manual or change them to apply to your office tasks.

Note: OfficeVision/400 now consists of a base and separately installable mail, calendar, and text search functions. Throughout the manual, a note indicates when one of these separately installable parts of OfficeVision/400 must be installed to do a task.

Summary of Changes

You can now take advantage of several enhancements added to the OfficeVision/400 word processing function. Each of these enhancements is mentioned briefly here.

Form Document Support

You can create a form document by inserting Form Field instructions throughout a document. The form document can then be completed using option 15 (Fill form) on the Work with Documents in Folders display or by using the FILLFORM command. This information is in Chapter 17, "Creating and Filling in a Form Document."

Editor Assistance Level

You can choose to use either the basic or the intermediate assistance level of the OfficeVision/400 editor. When the basic assistance level is chosen, fewer choices are shown on many displays. You can select these choices using a menu bar and pull-down menus. When the intermediate assistance level is chosen, functions are the same as in previous releases. Information about the basic assistance level and how to use some of the functions for this level are in Chapter 20, "Using the Basic Editing Functions."

Miscellaneous Changes

The following topics describe other changes that you will notice as you use the word processing function.

Create Document Details

The *Document type* prompt has been added to the Create Document Details display. This information is in Chapter 1, "Working with Documents and Folders."

The active text profile is shown on the first page of the Create Document Details display. This information is in Chapter 1, "Working with Documents and Folders."

Centering Text Instruction

You can center the printed result of a text instruction. This information is in Chapter 2, "Typing Text."

Goto Functions

Several goto functions have been added. This information is in Chapter 2, "Typing Text."

Include Instruction

You can now have up to 50 levels of nested includes for an Include instruction. This information is in Chapter 3, "Editing Text" and Chapter 4, "Checking and Correcting Your Spelling."

Spell Check Document

F9 (Unmark word) can be used to unmark all occurrences of a word in a document. This information is in Chapter 4, "Checking and Correcting Your Spelling."

Dictionary Selection

If a dictionary is not active, the system tries to automatically select an IBM default language dictionary. This information is in Chapter 5, "Using Spelling Dictionaries."

Setting a Bookmark

You can set a bookmark in the help text you are viewing. This information is in Chapter 6, "Text Instructions."

Work with Text Profiles Display

When the OfficeVision/400 word processing function is not installed on the system, only certain options are shown on the Work with Text Profiles display. This information is in Chapter 7, "Formatting a Document."

Print Options display

The *For Choice 2 or 3: Adjust margins for page binding* prompt on the Print Options display was changed. It now is *For Choice 2 or 3: Adjust margins on even pages for binding*. This information is in Chapter 8, "Ending, Saving, and Printing."

SAA Support for Type Styles

The column for the 4019 Printer does not apply to the chart in Appendix G, "SAA Support for Type Styles" and was removed.

Chapter 1. Working with Documents and Folders

This chapter has information about creating, naming, and finding folders and documents. It also has information about document formats.

A **document** can be a memo, a letter, a note, or a report. Documents may be stored in **folders**, which are used for the same purpose as paper folders in a filing cabinet; they help you organize documents that have something in common. You can also create **folders within folders**.

When you have signed on the system and reached the Work with Documents in Folders display, you are ready to create documents and folders.

The first time you use the word processing function, a folder is automatically created for you. The name of your folder is determined when the administrator enrolls you in IBM® SAA® OfficeVision/400®. The name of this folder is shown on the Work with Documents in Folders display.

Note: The OfficeVision/400 options installed on your system determine which options are shown on your display.

Work with Documents in Folders				
Folder HANSON		Starting characters		
Position to				
Type options (and Document), press Enter.				
1=Create	2=Revise	3=Copy	4=Delete	5=View
6=Print	7=Rename	8=Details	9=Print options	10=Send
11=Spell	12=File remote	13=Paginate	14=Authority	15=Fill form
Opt	Document	Document Description	Revised	Type
—	ENVSPEC	Envelope paper specifications	02/10/88	RFTAS400
—	INVSPEC	Invoice paper specifications	02/10/88	RFTAS400
—	MAGSPEC	Magazine paper specifications	02/10/88	RFTAS400
—	NEWSPEC	Newspaper paper specifications	02/11/88	RFTAS400
—	POTCRESP	Post card paper specifications	02/11/88	RFTAS400
—	PSTPAPSP	Poster paper specifications	02/12/88	RFTAS400
—	STATSPEC	Stationary paper specifications	02/10/88	RFTAS400
—	TRDESPEC	Trade journal paper specifications	02/12/88	RFTAS400
Bottom				
F3=Exit	F4=Prompt	F5=Refresh	F10=Search for document	
F11=Display names only		F12=Cancel	F13=End search	F24=More keys

You can create and store documents in this folder.

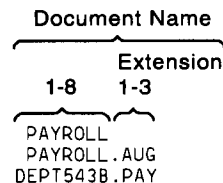
Naming Folders and Documents

Folder names should describe the contents of a folder. The names should be unique and easy to type, as well as descriptive to a user. To find a particular folder on the system to change a document stored in it, you must supply the folder name or select it from a list of names.

Document names should describe the contents of the document. Give careful consideration to the names you use to help you find the document later. Therefore, the names should be unique in the folder and easy to type, as well as descriptive.

The name you use for a folder or a document must follow these rules:

- The name must be unique within a folder.
- A document or folder name can be 1 to 12 characters long, including an optional extension. If no extension is included, a document or folder name can have a maximum of 8 characters. If an extension is included, the extension must start with a period and can have up to 3 additional characters. An extension in the document name allows you to identify the document by using specific information that can help you do a selective list of documents on your system.



RSLN345-0

When you print a document and *DOC is specified for the *Output file* prompt on the Print Options display, the document name is used for the output file name. However, if the document name is longer than 10 characters or the document name starts with a character other than A through Z, \$, #, or @, or contains a character other than A through Z, \$, #, @, an underscore (_), a period (.), or 0 through 9, the output file name is replaced by the printer file name. The printer file name is specified for the *Printer file* prompt on the Print Options display.

- You can use any characters except an asterisk (*), a slash (/), or a question mark (?). It is recommended that you do not start folder names with a Q because the system-supplied folder names start with a Q.
- The name cannot start with or contain spaces (blanks).
- The name cannot contain a period except at the beginning of an extension.
- The name cannot contain more than two single quotation marks. Also, limit the number of folders stored in another folder to four if you use single quotation marks in the name.
- When a folder is stored in another folder, both folder names are used, separated with a slash (/). These names are called a **folder path**. For example, if a folder named FOLDER2 is stored in FOLDER1, the path for FOLDER2 is FOLDER1/FOLDER2. FOLDER1 is the **first-level folder**. FOLDER2 is the **next-level folder**. The name of a single folder can be 1 to 12 characters long, including an optional extension. A folder path can contain a maximum of 63 characters.

The following are examples of permitted folder names and folder paths:

@LETTERS
FOLDER.PAY
PAYROLL/FOLDER.PAY
#TAX1/FOLD8.TAX/\$1988/PAYROLL/FOLDER.PAY

Using Commands to Work with Documents and Folders

You can use menus to work with documents and folders, or you can use commands. Typing commands with parameters can be a real time-saver. However, because remembering which parameters go with which commands can be difficult, you can type the command and press F4 (Prompt) to be prompted for the necessary parameters.

Using the WRKDOC (Work with Documents) Command

You can use the WRKDOC command to go directly to the Work with Documents in Folders display. On the Work with Documents in Folders display you can create, revise, copy, delete, view, print, rename, describe, send, check spelling, file, paginate, change authority, or fill in form documents.

Note: If the mail function of OfficeVision/400 is not installed on your system, option 10 (Send) is not shown on the display.

To go directly to the Work with Documents in Folders display, type **WRKDOC** on the command line and press the Enter key. The Work with Documents in Folders display is shown with the name of the folder used in your last edit session.

To use a particular folder on the Work with Documents in Folders display:

1. Type **WRKDOC DOC(*ALL) FLR(folder name)** on the command line.
If *SELECT is specified for the folder name, a list of folders is shown from which you can select a folder.
2. Press the Enter key.

Using the WRKFLR (Work with Folders) Command

You can use the WRKFLR command to go directly to the Work with Folders display. On the Work with Folders display you can create, delete, rename, and describe folders or work with documents in a folder.

To go directly to the Work with Folders display, type **WRKFLR** on the command line and press the Enter key. The Work with Folders display is shown with all first-level folders on the system.

To use a particular folder on the Work with Folders display:

1. Type **WRKFLR FLR(folder name)** on the command line.
If *ALL is specified for the folder name, a list of folders is shown from which you can select a folder.
2. Press the Enter key.

The Work with Folders display is shown with a list of all folders in the folder specified by folder name.

Creating a Folder

When you create a folder, you must specify the name of the folder being created. You can type a brief description to help you identify the contents of the folder. You can also assign a text profile to the folder, to specify that the documents created in the folder have the same format.

You may also want to limit who can use this folder by securing the folder. For information about securing folders, see the person responsible for security in your office, or the manuals *Planning For and Setting Up OfficeVision/400** and *Managing OfficeVision/400**.

You can create a first-level folder or a folder within a folder. You create folders from the Create Folder display or by using the Create Folder (CRTFLR) command.

Creating a First-Level Folder from the Create Folder Display

If you are permitted to create folders, you can get to the Create Folder display from the Work with Documents in Folders display or from the Work with Folders display.

1. To get to the Create Folder display, do one of the following:

- On the Work with Documents in Folders display:
 - a. Type the name of the new folder in the *Folder* prompt. The name can be 1 to 12 characters long, including an optional extension. See "Naming Folders and Documents" on page 1-1 for the rules for naming a folder.
 - b. Press the Enter key. The following message will appear if no one else has used this folder name:

Folder does not exist, press Enter to create

If you do not receive this message, then you are not permitted to create folders. Contact your system administrator to change your authorization to allow you to create folders.
 - c. Go to step 2 on page 1-5.
- On the Work with Folders display, the list of folders includes all folders in the folder or folder path that is shown at the top of the display. The only way to create a folder that is not within the folder path shown at the top of the display is to use a blank folder path (the slash only).

If the *Folder* prompt at the top of the display shows a folder path, the display lists the folders within the last folder named in the path.

To create a first-level folder that is not within another folder:

- a. Type a slash (/) in the *Folder* prompt at the top of the display (if there is not a slash in this prompt). The display is shown with a blank folder path (the slash only) and a list of all the first-level folders on the system.

Work With Folders							
Folder . . . /				Starting characters			
Position to							
Type options (and Folder), press Enter.							
1=Create		3=Next level		4=Delete		5=Work with documents	
7=Rename		8=Details		14=Authority			
Opt	Folder	Opt	Folder	Opt	Folder	Opt	Folder
—	ACDGS	—	DBCPQRST	—	FABMNB	—	HLMSRF
—	AUTOE	—	DCTGHST	—	FBNMNAT	—	HMSRF
—	AUTOF	—	DHKLMS	—	FHNMN	—	HNPSRTM
—	AUTOG	—	DJMBTU	—	FJKLMNCT.DTT	—	HPSTRM
—	BASMGSD	—	DKLGJCT.ABA	—	GBCRHKL	—	HRSTRM
—	BCACBSDA.DDS	—	DMKSTH	—	GBDRHKL	—	HSTRM
—	BDEGQCH	—	EARG	—	GNDK	—	IASTRMP
—	CDGHKJ	—	ECHJLM	—	HIKCKMN	—	IBSRTMWT
—	CELMJKA	—	EDJHN	—	HJLMN	—	ICDTH
More...							
F3=Exit		F5=Refresh		F6=Print list		F9=Work with	
F11=Display descriptions		F12=Cancel		F13=Previous level			

- b. Type a 1 (Create) for the *Option* prompt.
- c. Type the name of the folder for the *Folder* prompt located in the list.
The name can be 1 to 12 characters long, including an optional extension. See "Naming Folders and Documents" on page 1-1 for the rules for naming a folder.

2. Press the Enter key and the Create Folder display is shown.

The name you specified for the new folder is shown in the *Folder* prompt.

Create Folder		
Folder . . : /		
Type choices, press Enter.		
Folder	FOLR2	Name
Folder description		
Text profile for documents		

3. Type the following information on the Create Folder display:

- a. Type up to 44 characters to describe the folder you are creating for the *Folder description* prompt.
 - b. Assign a **text profile** to the folder if you want all the documents created in the folder to have the same format. To assign a text profile to the folder, type the name of the text profile in the *Text profile for documents* prompt. For more information on text profiles see "Using Text Profiles" on page 7-26.
4. Press the Enter key after you have completed the information. You are returned to the display you were using before the Create Folder display was shown.

Note: If you receive the following message, you are not permitted to create folders. Contact your system administrator to change your authorization to create folders.

Request not allowed with folder.

Creating a First-Level Folder Using the CRTFLR (Create Folder) Command

To create a first-level folder using the CRTFLR command:

1. Type the following on the command line:

CRTFLR FLR(folder name)

If you do not remember the parameters, type **CRTFLR** on the command line and press F4 (Prompt). You are prompted for the parameters.

2. Press the Enter key and a message appears telling you that the folder has been created.

If you do not receive this message, then you are not permitted to create folders. Contact your system administrator to change your authorization to allow you to create folders.

Note: You cannot assign a text profile to a folder using the CRTFLR command. If you want to create a folder with a text profile assigned, create the folder from the Work with Folders display or the Work with Documents in Folders display.

Creating a Folder within a Folder

To create a folder within a folder, you start on the Work with Folders display. The folder is created within the folder or folder path shown at the top of the display. You can specify a folder name or folder path in one of the following ways:

- If the folder you want to use is listed on the display:
 1. Type a 3 (Next level) for the *Option* prompt next to the folder you want to use.
 2. Press the Enter key. The name of the folder you selected is automatically shown in the *Folder* prompt at the top of the Work with Folders display.
 3. If you want to create another folder within this folder, type a 1 (Create) in the *Option* prompt and type the name of the folder for the *Folder* prompt located in the list.
- If the folder you want to use is not listed on the display:
 1. Type the name of the folder or folder path in the *Folder* prompt at the top of the display. For example, if you wanted to use the folder named FOLDR2 that is stored in FOLDR1, you would type FOLDR1/FOLDR2 in the *Folder* prompt at the top of the display.

Work with Folders			
Folder . . .	FOLDR1/FOLDR2		
Position to . . .		Starting characters	
Type options (and Folder), press Enter.			
1=Create	3=Next-level	4=Delete	5=Work with Documents
7=Rename	8=Details	14=Authority	
Option	Folder	Description	Revised
—	—	—	—

2. Press the Enter key.

If you typed a folder name, the contents of the folder you selected are shown on the Work with Folders display.

If you typed a folder path, the contents of the last folder in the path are shown.

You can now create a folder to be stored in this folder.

3. Type a 1 (Create) for the *Option* prompt, and type the name of the folder for the *Folder* prompt located in the list.

When you press the Enter key, the Create Folder display is shown. The name you specified for the new folder is shown in the *Folder* prompt.

Type the following information on the Create Folder display:

1. Type up to 44 characters to describe the folder you are creating for the *Folder description* prompt.
2. Assign a text profile to the folder if you want all the documents created in the folder to have the same format. To assign a text profile to the folder, type the name of the text profile in the *Text profile for documents* prompt.
3. Press the Enter key after you have completed the information. You are returned to the display you were using before the Create Folder display was shown.

Creating a Document

When you create a document, you must specify the name of a folder in which to store the document, and the name of the document being created. You may want to describe the document by specifying document details (such as document description and authors); this information can help you do a selective listing of documents on your system.

You may also want to limit who can use this document. For information about changing the authority for documents in a folder, see the person responsible for security in your office, or the manuals *Planning For and Setting Up OfficeVision/400** and *Managing OfficeVision/400**.

You can create a document from the Work with Documents in Folders display or by using the Create Document (CRTDOC) command.

Creating a Document from the Work with Documents in Folders Display

To create a document, start on the Work with Documents in Folders display:

1. Type the name of the folder where the document is to be stored if the folder name shown in the *Folder* prompt is not the name of the folder you want to use.
2. Type a 1 (Create) for the *Opt* prompt.
3. Type the name of the document you are creating in the *Document* prompt at the top of the display. The name can be 1 to 12 characters long, including an optional extension. See "Naming Folders and Documents" on page 1-1 for the rules for naming a document.
4. Press the Enter key and the first page of the Create Document Details display is shown.
5. Use the page keys (Page Up/Page Down) to go from one page to another. The prompts on this display are optional. For more information about using the document details, see "Describing a Document" on page 1-9.

Your document uses the formats and options described in the active text profile. The name of the active text profile is displayed for the *Profile being used* prompt on the first page of the Create Document Details display. For more information about formats, see "Working with the Document Format" on page 1-10.

To override the formats and options of the active text profile, do one of the following:

- Copy another document by typing a document and folder name for both the *Document to copy* and *From folder* prompts. Press the Enter key. The Edit display is shown.
- Type a Y (Yes) for the *Change formats/options* prompt on the Create Document Details display. When you press the Enter key, the system prompts you for the format options you want to change. The format is changed for this document, but the active text profile is not changed.

On the Edit display, you can start typing your document.

Creating a Document Using the CRTDOC (Create Document) Command

To create a document using the CRTDOC command:

1. Type the following on the command line:

CRTDOC DOC(document name) FLR(folder name)

- If *PRV is specified for the folder name, the name of the folder used in your last edit session is used.
- If you do not remember the parameters, type **CRTDOC** on the command line and press F4 (Prompt). Then you are prompted for the parameters.

For more information about this command, see the *Office Services Concepts and Programmer's Guide*.

2. Press the Enter key, and the first page of the Create Document Details display is shown.

After using the CRTDOC command, follow the instructions in step 3 under “Creating a Document from the Work with Documents in Folders Display.”

Describing a Document

The Create Document Details display is shown whenever you create a new document. Use this display to describe your document to the system. You can specify many of these details on the Search for Documents display so you can do a selective listing of documents on your system. This helps you find the document. All of the information on the Create Document Details display is *optional*. If you do not need a description, press the Enter key on this display and the Edit display (typing area) is shown.

There are three pages of the Create Document Details display. Use the page keys to go from one page to another.

The following prompts are on the Create Document Details display:

Document
Document type

Note: The *Document type* prompt is shown only if you are using Application Enabler Support.

Document description¹
Subject¹
Document to copy
From folder
Change formats/options
Authors¹
Keywords¹
Document class¹
Print as labels
Project¹
Reference¹
Status¹
Document date¹
Expiration date¹
Date action due¹
Date action completed¹
Sent to¹
Language ID
Country ID
Mark for offline storage

For additional information about a particular prompt, place the cursor next to the prompt and press the Help key.

¹ To find a document, you can specify this item on the Search for Documents display.

Changing Document Details

After you have created a document, you can change some of the document details, such as the document description. Select option 8 (Details) on the Work with Documents in Folders display, and the Change Document Details display is shown if you are allowed to change the document details. If you are not allowed to change the document details, the View Document Details display is shown where you can look at the document detail information.

Change Document Details		
Type changes, press Enter.		
Document description	Envelope paper specifications	
Subject	_____	
Authors	HANSON _____	
Keywords	_____	
Document class	_____	F4 for list
Print as labels	N	F4 for list
Project	_____	Y=Yes, N=No
Reference	_____	
Status	_____	
Document date	02/10/88	MM/DD/YY
Expiration date	_____	MM/DD/YY
Date action due	_____	MM/DD/YY
More...		
F3=Exit	F4=Prompt	F5=Refresh
F11=View additional details	F12=Cancel	F9=Change text index option
		F24=More keys

Working with the Document Format

Before you actually start typing text in the document, you will need to know about the document format. The **document format** describes how the document looks when it is printed. The document format includes such things as margin settings, tab settings, line spacing, left and right alignment, lines per inch vertically, type style and color, paper size, and page layout (blank lines at the top and bottom of the page). You can use the format supplied by the system for your documents, or you can make changes to the format.

You can store a document format in a text profile. Besides format options, a text profile also contains options for editing and printing a document.

The system provides a text profile named SYSTEM, which contains the default format settings. It is used for every document you create unless you create and activate a different text profile. (See "Using Text Profiles" on page 7-26.)

The characteristics of the default format settings are:

- Margins of 19 and 91
- Flush left tab setting every 5 spaces
- Single line spacing
- Lines aligned at the left
- 12-pitch type style (type style 86)
- 6 lines per inch
- Line endings are adjusted
- Page endings are adjusted

System page numbers are renumbered
6-space hyphenation zone width
8-1/2 x 11-inch paper size
6 blank lines at the top of the printed page
6 blank lines at the bottom of the printed page

You can start typing your document using this default format.

If you would like to change one or more of these characteristics for a line, page, section, or an entire document, you can change it before you type or print the document. For more information about formats, see Chapter 7, "Formatting a Document."

Finding a Document

To help you to find a document, you can:

- List or print folder names.
- List or print document names.
- Use the Search for Documents display to search for documents that have certain characteristics.
- Use the text search function to search for documents containing specified keywords.

Listing Folders

The Work with Folders display and the Select Folder display show the names of all the folders you are permitted to work with.

1. Display a list of folder names by doing one of the following:

- On the Work with Documents in Folders display, press F4 (Folder list).

The Select Folder display is shown listing all the first-level folders you are permitted to work with.

- Go to the Work with Folders display. The names of the folders you are permitted to work with are shown on this display.

If you want to display a folder within a folder:

- a. Move the cursor to the name of the folder for which you want to display a list.
- b. Type a 3 (Next level) for the *Option* prompt.
- c. Press the Enter key. A list of folders within that folder is shown.

2. If the folder you want to work with is not shown on the display, you can do one of the following:

- Type the character or characters in the *Position* to prompt if you know the starting character or characters of a name. Press the Enter key. The list of names is positioned to the folder names that start with the letters you specified. You may also specify *TOP to show the top of the list or *BOT to show the bottom of the list.
- Use the page keys to see folders that currently are not shown on the display.

On the lower right corner of the display (just above the function key line), a word appears that indicates the location of the list items currently shown on the display.

If the word *More* is shown, only the top or center of the list is displayed; other list items are available but not shown on the display.

If the word *Bottom* is shown, the bottom of the list is displayed. This means that either all the list items are contained in the present display, or that more list items are available farther up in the list but are not presently shown on the display.

3. When you find the folder you want to work with, type the number of the option you want to use in the *Option* prompt beside the name, or type the option number and the folder name in the *Option* and *Folder* prompts at the top of the list.
4. Press the Enter key.

Printing a List of Folders

You can press F6 (Print list) to print a list of folders from the *Work with Folders* display or the *Select Folder* display.

Listing Documents

You can display a list of document names and select the document you want. The list shows the names of all the documents stored in a specific folder that you are permitted to work with.

1. Go to the *Work with Documents in Folders* display. The names of all the documents are shown on this display.

If someone is currently using a document, *In use* will be shown in the *Document Description* column for that document.

If you are not permitted to use a document, ** Not authorized* will be shown in the *Document Description* column for that document.

2. If the document you want to work with is not shown on the display, you can do one of the following:
 - If you know the starting character or characters of a document name, type the character or characters in the *Position to* prompt and press the Enter key. The list of names is positioned to the document names that start with the letters you specified. You may also specify **TOP* to show the top of the list or **BOT* to show the bottom of the list.
 - Use the page keys to see documents that currently are not shown on the display.

On the lower right corner of the display (just above the function key line), a word appears that indicates the location of the list items currently shown on the display.

If the word *More* is shown, only the top or center of the list is shown; other list items are available but not shown on the display.

If the word *Bottom* is shown, the bottom of the list is shown. This means that either all the list items are contained in the present display, or that more list items are available further up in the list but are not presently shown on the display.

- When you find the document you want to work with, type the number of the option you want to use in the *Opt* prompt beside the name, or type the option number and the document name in the *Opt* and *Document* prompts at the top of the list.
- Press the Enter key and the document you selected is shown.

Printing a List of Documents

Press F6 (Print list) to print a list of documents from the Work with Documents in Folders display.

Searching for Documents

You can search for documents by using the information you specified for the document details. When you search for documents from the Work with Documents in Folders display, only the documents with the information you specify are shown on the Work with Documents in Folders display. See "Describing a Document" on page 1-9 for a list of the document details you can use to search for a document.

- Press F10 (Search for documents) on the Work with Documents in Folders display. The first part of the Search for Documents display is shown.

Search for Documents

Type search criteria, press F10 to start search.

Document description . . . _____

Subject _____

Authors _____

Keywords _____

F4 for list

Document class _____

F4 for list

Project _____

Reference _____

Status _____

More...

F3=Exit F4=Prompt F5=Refresh F9=Specify document text criteria
F10=Start search F12=Cancel F19=Display messages

- Complete any of the prompts on this display that help you find the document you are looking for.
- Press the Page Down key. The second part of the Search for Documents display is shown.

If you want to review the previous display, press the Page Up key.

Search for Documents

Type search criteria, press F10 to start search.

Sent to _____

From date/To date:

Filed	_____	_____	MM/DD/YY
Created	_____	_____	MM/DD/YY
Revised	_____	_____	MM/DD/YY
Document	_____	_____	MM/DD/YY
Expiration	_____	_____	MM/DD/YY
Action due	_____	_____	MM/DD/YY
Action completed . . .	_____	_____	MM/DD/YY

Bottom

F3=Exit F4=Prompt F5=Refresh F9=Specify document text criteria
F10=Start search F12=Cancel F19=Display messages

4. Complete any of the prompts on this display that help you find the document you are looking for.

5. If you want to review the previous display, press the Page Up key.

When you want to start the search, press F10 (Start search). The Work with Documents in Folders display shows a list of the documents with the characteristics you specified on the Search for Documents display. For more information about the Work with Documents in Folders display and searching for documents, see the *Using OfficeVision/400** manual.

6. You can now move the cursor to the document you want to work with and type an option number.

If you want to search multiple folders, see the *Using OfficeVision/400** manual.

Searching for Keywords in Document Text

You can search for keywords in a document if you have the text search function installed on your system. You can optionally include the text search function when installing OfficeVision/400.

The text search function searches for a group of keywords in a document by scanning it after it has been created or revised. The keywords are stored as entries in a text index. You can request a search of the text index to find filed documents.

There are two types of text search:

Text search only

For this type of search your search criteria can consist of a phrase, word, word fragment, or any other combination of characters in the national language character set you are using. Text search tells you in which documents your search criteria appear. A simple example of this type of search is to find all documents in the document library containing the phrase *annual sales figures*.

Combined search

This type of search combines the text search function with the document details criteria function found on the Search for Documents display. A simple example of this type of search is to find all documents in the document library that were written by *John Smith* and contain the phrase *annual sales figures*.

Performing a Text Search

To search for a document using text search, do the following:

1. On the Documents and Folders display, type option 3 (Search for documents). Press the Enter key. The Search for Documents display appears.

Note: The Specify Document Library to Search display may be shown instead of the Search for Documents display. If so, press the Enter key. The Search for Documents display is shown.

Search for Documents		
Working on behalf of. : PETERSON ROCH		
Type choices, press F9 or F11 to specify search criteria. Press F10 to start search.		
Document list description		
Wait for completion	Y	Y=Yes, N=No
Arrange alphabetically	N	Y=Yes, N=No
Maximum number of documents to return	*NOMAX	1-32767 *NOMAX
F3=Exit F5=Refresh F9=Specify document text criteria F10=Start search F11=Specify document details criteria F12=Cancel F19=Display messages		

2. Complete the necessary prompts on the Search for Documents display. For more information about the prompts, press the Help key or see the *Using OfficeVision/400** manual.
3. On the Search for Documents display, press F9 (Specify document text criteria). The Specify Document Text Criteria display appears.

Note: You can also show the Specify Document Text Criteria display by pressing F10 (Search for documents) on the Work with Documents in Folders display.

Specify Document Text Criteria

Document list description : SALES

Language : ENU US ENGLISH

Type search criteria, press F10 to start search.
 AND: + OR: | AND NOT: -

Phrases	AND/OR/ AND NOT	Exact	Synonym
annual sales figures _____	-	N	N
_____	-	N	N
_____	-	N	N
_____	-	N	N
_____	-	N	N
_____	-	N	N
_____	-	N	N
_____	-	N	N

More...

F3=Exit F10=Start search F11=Specify document details criteria
 F12=Cancel F16=AND all phrases F17=OR all phrases F24=More keys

4. Type your search criteria. (For information on typing the text search criteria, press the Help key.)
5. Press F10 (Start search) to start the text search.
6. The search is performed. If the *Wait for Completion* prompt on the Search for Documents display is Y (Yes), a list of documents containing the search criteria is shown.

The following manuals contain more information about text search:

- *Using OfficeVision/400**
- *Office Services Concepts and Programmer's Guide*

Chapter 2. Typing Text

To type text, you should be in **insert mode**, which is shown by a lighted block or triangle on the bottom or right side of the display. If you are using the PC text-assist function, insert mode is indicated by INS on the status line at the top of the display. As you type, any text preceding your cursor is moved to the right and automatically wraps to the next line on the display (called **word wrap**). If you are not in insert mode, press the Insert key once. Pressing the Insert key again will take you out of insert mode and into replace mode.

Note: If you are using the adapted word processing function, do not use the information in this chapter. Chapter 19, "Using OfficeVision/400 with the Adapted Word Processing Function," describes the differences while using the adapted word processing function. The *Using OfficeVision/400* Adapted Word Processing Function* manual describes how to use the adapted word processing function.

Moving through the Document

You can move vertically (roll) through a document by using the Page Down key or the Page Up key. If you have a document that is too wide to be shown on the Edit display, you can move horizontally in the document by using F7 (Window).

If you specify Yes for the *Auto window and roll* prompt on the Change Editing Options display, you can move vertically and horizontally through the document using the cursor movement keys. If you are using the PC text-assist function or a 3477 display station, you do not have to specify auto window and roll.

Moving Horizontally through the Document

To move horizontally:

1. Press F7 (Window) and the following prompt is shown:

Type left column (1-255), press Enter

2. Type the number of the column that you want positioned at the left edge of the display. (If you do not type a number, the display image shifts the width of one display, or until the right margin is shown on the right of the display.)
3. Press the Enter key to shift the display.
4. To continue moving horizontally across the document, press F7 (Window) and the Enter key until the right margin is displayed. If you press F7 (Window) and the Enter key when the right margin is displayed, the left margin will appear. You can also move horizontally to the last character on the line by pressing the Alt key plus the Cursor Right key. To get to the first character on the line, press the Alt key plus the Cursor Left key.

If your wide document contains text only, you can temporarily compress the margins so that you do not have to use F7 (Window). To temporarily compress the margins, type a Y (Yes) for the *Compress wide paragraphs* prompt on the Line Spacing/Justification Options display. This prompt is only shown if you are changing line spacing/justification for part of a document. It is not shown if you are changing the document format or alternate format. See "Changing the Line Spacing/Justification" on page 7-5 for more information about this display.

Note: If you are using the PC text-assist function, the *Compress wide paragraphs* prompt is not shown. Instead, to see the remaining text on a line, move the cursor to the farthest right position and press the Right Cursor Movement key. To see the text that moved off the display, move the cursor to the farthest left position and press the Left Cursor Movement key.

On some display stations, you can show 132 characters horizontally and 27 lines vertically. To do this, press F13 (Edit options) on the Edit display to go to the Change Editing Options display, and select option 2 (27x132) for the *Size of display* prompt. Press the Enter key to return to the Edit display. The manual that came with your display station tells you whether your display can show 132 characters horizontally and 27 lines vertically.

Moving Vertically through the Document

To look at text before or after the text shown on the display, press the Page Up key or the Page Down key.

Your display moves up or down 10 lines or 20 lines, depending on whether you specified 1 (Half) or 2 (Full) for the *Roll up/roll down* prompt on the Change Editing Options display. The default is 2 (Full). Rolling a full display allows you to roll through your document faster.

Note: The number of lines that your display moves up or down is also dependent on how many lines your display station is able to show and whether you are displaying the function keys at the bottom of the display.

To get to the first line of the page, press the Alt key and the Cursor Up key. Press the Alt key and the Cursor Up key again to get to the first line of the previous page. You can repeat this sequence until you are at the top of the first page.

To get to the last line of the page (the Page End control character of the current page), press the Alt key and the Cursor Down key. Press the Alt key and the Cursor Down key to get to the last line of the next page. You can repeat this sequence until you are at the bottom of the last page.

Using Automatic Window and Automatic Roll

You can specify to automatically move either horizontally (window) or vertically (roll) instead of using F7 (Window) or the page keys. If you are using the PC text-assist function or a 3477 display station, you do not have to specify auto window and roll.

Automatic Window

If you specify to use automatic window, you can use the Cursor Left key or the Cursor Right key as well as F7 (Window) to move horizontally (left or right) to look at wide documents.

To use automatic window:

1. Press F13 (Edit options) on the Edit display.

The Change Editing Options display is shown.

2. Type a Y (Yes) for the *Auto window and roll* prompt.

Whatever you specify for this prompt is remembered in your session profile until you change it.

3. Press the Enter key to return to the Edit display.

When you reach the far right position of the display while typing a wide document, the text automatically moves to the left to make room for you to type more text to the right. Text also moves right or left if you try to move the cursor beyond the right or left edge of the display. For example, to display the next 60 columns of your document, you can either move the cursor to the far right position and press the Cursor Right key or type the text to the far right position of the display.

While the display is changing, you can keep typing up to 32 keystrokes (10 keystrokes if you are using the PC text-assist function) without losing a keystroke. However, if you type more than 32 keystrokes while the display is changing, the keyboard locks (you may lose a few keystrokes and, you will need to retype them).

Notes:

1. When you press the Tab key to insert a tab or advance the cursor to the next tab stop, and the tab stop is past the right edge of the display, the display moves automatically to show the next tab stop on the display.
2. When using the Back Tab key to find a previous tab stop past the left edge of the display, the display automatically moves to the left if the tab stop is beyond the left edge of the display.

Automatic Roll

You can use the Cursor Up key or the Cursor Down key as well as the Page Down key or the Page Up key to roll vertically through a document.

To use automatic roll:

1. Press F13 (Edit options) on the Edit display.

The Change Editing Options display is shown.

2. Type a Y (Yes) for the *Auto window and roll* prompt.

Whatever you specify for this prompt is remembered in your session profile until you change it.

3. Press the Enter key to return to the Edit display.

You can now move up or down in your document using the Cursor Up key or the Cursor Down key. For example, move the cursor to the last line on the display. Press the Cursor Down key and the next 20 lines appear. Only 10 lines appear if you specified 1 (Half) for the *Roll up/roll down* prompt on the Change Editing Options display.

Note: The number of lines that your display moves up or down is also dependent on how many lines your display station can show and whether you are displaying the function keys at the bottom of the display.

To specify how much of the display rolls up or down:

1. Press F13 (Edit options) to show the Change Editing Options display.
2. Type a 1 (Half) or a 2 (Full) in the *Roll up/roll down* prompt.
3. Press the Enter key to return to the Edit display.

Notes:

1. When using automatic roll, press the New Line key to move your cursor to the message line. (You may have to press the New Line key several times to move the cursor to the message line.)
2. When working on a split display, press the New Line key to move the cursor between the Edit display and the split display.

Using the Goto Prompt (F5)

You can bypass menus and go directly to a display or go to another page or line in your document by using the *Goto* prompt. Press F5 (Goto) to show the *Goto* prompt. Different functions are allowed from the *Goto* prompt, depending on the type of edit session you are in and where your cursor is. For example, creating or revising a document allows different functions than creating or revising footnotes. Some functions are only allowed when your cursor is on the first line of the page or on the first line of the table.

To see which functions are allowed for the edit session you are in, press the Help key while the *Goto* prompt is shown. If you are creating or revising a document and you press the Help key while the *Goto* prompt is shown, the following list of request options is shown:

Select Goto Request

Goto allows you to go to another page or line in your document, or bypass menus to go directly to another display.

Select one of the following:

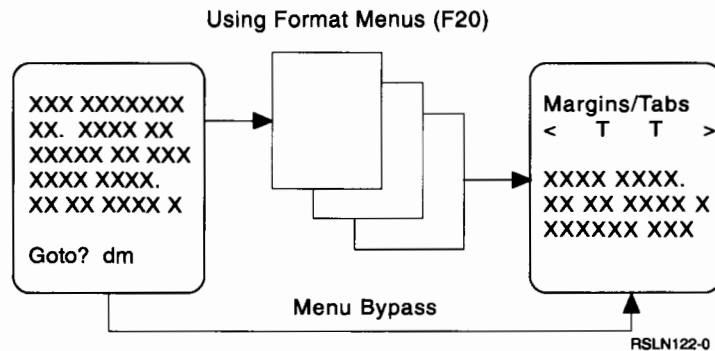
1. Format
2. Page and line
3. Table layout and text column
4. Instruction
5. Header and footer
6. Codes
7. Functions (Query, notepad, and sort)
8. Spell functions
9. Other

Selection

—

F3=Exit F12=Cancel

The following example shows how you can use the *Goto* prompt to see the Document Margins and Tabs display:



To use the *Goto* prompt:

1. Press F5 (*Goto*) from anywhere on the Edit display to show the *Goto* prompt.
2. Continue with step 5 if you know the abbreviation for the display you want to go to.

If you do not know the abbreviation for your request, press the Help key to show the Select Goto Requests display.
3. Select a list of menu abbreviations. For example, to see the menu abbreviations for the format displays, select option 1 (Format).
4. Press the Enter key and a list of abbreviations appears.
5. Type the abbreviation for the name of the display you want to go to, and press the Enter key. For example, type **dm** if you want to go to the Document Margins and Tabs display to change the margins or tab settings for the entire document. After you type the abbreviation and press the Enter key, the display you specified is shown.

Format Displays

If you select option 1 (Format) on the Select Goto Requests display, you see a list of abbreviations for format displays:

Format Displays	Abbreviation
Alternate Format	a
Alternate Line Spacing/Justification	al
Alternate Margins and Tabs	am
Alternate Page Layout/Paper Options	ap
Alternate Typestyle/Color	at
Display Current Format	dcf
Document Format	d
Document Line Spacing/Justification	dl
Document Margins and Tabs	dm
Document Page Layout/Paper Options	dp
Document Typestyle/Color	dt
Format Change Options	fco
Line Spacing/Justification	l
Margins and Tabs	m
Page Layout/Paper Options	p
Search/Replace - Formats	srf
Typestyle/Color	t

Reset Format	rf
Alternate Footnote Format	aff
Document Footnote Format	dff

Page/Line Requests

If you select option 2 (Page and line) on the Select Goto Requests display, you see a list of page and line requests:

Page/Line Requests	Abbreviation
Go to page 5	5
Go to line 5 of the current page	/5
Go to line 5 of page 6	6/5
Put line where cursor is at top of the display	/
Go ahead 5 lines	+5
Go back 5 lines	-5
Go to the beginning of the document	0
Go to the end of the document	9999

Table Layout and Text Column Requests

If you select option 3 (Table layout and text column) on the Select Goto Requests display, you see a list of table layout and multiple text column requests:

Column Mode	Abbreviation
Turn column mode on/off ¹	c
Table Layout	Abbreviation
Create/revise column layout (table layout)	tl
Insert new column	ci
Revise column (where cursor is positioned)	cr
Move column (where cursor is positioned)	cm
Copy column (where cursor is positioned)	cc
Delete column (where cursor is positioned)	cd
Reference areas	ra
Text Columns	Abbreviation
Define multiple text columns	mtc
Return to a single text column	stc
Start the next related text column	ntc
Multiple column editing	mce (use mce to start and end multiple column editing if you are using the PC text-assist function)

Instruction Displays

If you select option 4 (Instruction) on the Select Goto Requests display, you see a list of text instructions. Type a period (.) followed by the instruction keyword in the Goto prompt. For example:

Instruction	Abbreviation
Begin Conditional Text	.bct
Enter Current Date	.date
Form field	.ff

¹ This function is not supported when using the PC text-assist function or the adapted word processing function.

Include	.inc
Total	.tot
Color	.color
Index entry	.ie

Header and Footer Displays

If you select option 5 (Header and footer) on the Select Goto Requests display, you see a list of abbreviations for header and footer displays.

Header and Footer Displays	Abbreviation
Footer	f
Even Footer	ef
Odd Footer	of
Header	h
Even Header	eh
Odd Header	oh
Even/Odd Header/Footer	eo
Alternate Footer	af
Alternate Even Footer	aef
Alternate Odd Footer	aof
Alternate Header	ah
Alternate Even Header	ah
Alternate Even/Odd Header/Footer	aeo
Document Footer	df
Document Even Footer	def
Document Odd Footer	dof
Document Header	dh
Document Even Header	deh
Document Odd Header	doh
Document Even/Odd Header/Footer	deo

Code Requests

If you select option 6 (Codes) on the Select Goto Requests display, you see a list of abbreviations for code requests:

Code Requests	Abbreviation
Begin bold	bb
Begin underline	bu
Begin underline/bold	bub
Carrier return	car
Center	ct
End bold or underline	e
Half index down	hd
Half index up	hu
Page end	pe
Required carrier return	rcr
Required space	rs
Required tab	rt
Start new page	snp
Stop code	sc
Syllable hyphen	sh
Tab	tab

Word underline
Symbol

wu
sym

Function Displays

If you select option 7 (Functions) on the Select Goto Requests display, you see a list of abbreviations for query, notepad, and sort requests. If you are using the PC text-assist function, you also see the abbreviations for the cursor draw requests:

Query Requests

Query

Abbreviation

q

Notepad Requests

Notepad menu

Copy to notepad

Copy and add to notepad

Move to notepad

Move and add to notepad

Recall from notepad

Abbreviation

np

npc

npca

npm

npma

npr

Sort Requests

Sort

Abbreviation

s

Cursor Draw Requests

Change draw character

Cursor Draw menu

Draw with cursor

Erase with cursor

Abbreviation

cdc

cdm

dwc

ewc

Spell Functions

If you select option 8 (Spell functions) on the Select Goto Requests display, you see a list of abbreviations for spell functions:

Spell Functions

Spell options

Dictionary options

Add current word to dictionary

Spell aid for current word

Synonyms for current word

Grade level synonym for current word

Check document

Check document and prompt

Remove error marks

User dictionary

Abbreviation

so

do

aw

sp

sy

gsy

ck

ckp

re

ud

Exit Document Functions

Use the following goto requests to exit a document that is being created or revised. These requests allow you to bypass the Exit Document display:

Exit Requests

Exit and save

Exit, save, and print

Exit without saving

Abbreviation

es

esp

ens

Other Displays and Functions

If you select option 9 (Other) on the Select Goto Requests display, you see a list of other abbreviations that you can use with F5 (Goto):

Other Functions

Outline Heading Selection
Outline Heading Definition

Get Graphic
Text Month Names
Display Function Keys

Change Display Size

Display Codes

Abbreviation

dohs
dohx (x is a heading level 0 through 6)
gg
mn
k (use k to show or not show the function key definitions at the bottom of the Edit display)
ds (alternates the display size between 24 X 80 and 27 X 132)
dc (use dc to turn display codes on or off when using the PC text-assist function)

Highlighting Text

As you type, you can give the document a professional look by:

Centering text
Underlining text
Underlining a word
Using boldface type
Underlining boldface type

Centering Text

To center a line of text in the document:

1. Type the text to be centered, or move the cursor anywhere on the line of text to be centered.
2. Press the Alt key plus the C key, and all text on that line is centered between the current margins.

You can also center a line of text using the Center Text (CT) line command. See "Using Line Commands to Copy, Move, and Delete Text" on page 3-5. Another way to center a line of text is by pressing F5 (Goto) to show the Goto prompt and typing CT for the prompt. The text is centered only when printed.

Note: If you use Alt W to underline a word and then use Alt C to center the word, the word will be one space off center when it is printed.

If you use Alt C and then use Alt W, the word will be centered correctly.

To center text when using the PC text-assist function:

1. Tab or space to the position where you want the text centered.
2. Press the Alt key plus the C key.

Another way to center a line of text is by doing step 1 and pressing F5 (Goto). For the *Goto* prompt, type CT.

3. Type the text to be centered.
4. Press the Tab key to mark the end of the text to be centered.
5. Repeat steps 1 on page 2-9 through 4 if you want to center several groups of text on one line. You must press the Tab key once to end the first centering before positioning your cursor for the next center on the same line.

Note: When using the PC text-assist function, the text does not appear centered on the Edit display unless you have specified No for the *Display codes* prompt on the Change Editing Options display (F13 on the Edit display). However, the text will be centered when printed.

To center the printed result of a text instruction:

1. Define a center tab on the scale line at the location where you want the text centered. For information about defining a center tab, see "Changing Margins and Tabs" on page 7-8.
2. Tab to the center tab location.
3. Create the text instruction for the text you want centered.

Underlining Text

When you underline text and you are not using the PC text-assist function or a 3477 display station, the control characters take up a space on the display. To avoid having these extra spaces print, specify an N (No) for the *Print controls as spaces* prompt on the Line Spacing/Justification Options display. Or, you can use the control character as the space on your display and specify a Y (Yes) for the *Print controls as spaces* prompt. This may be useful when you are aligning text. Only valid control characters print as blanks. Unmatched control characters (such as an End Underline character without a Begin Underline character) are ignored and do not print as blanks.

Depending on the printer, underlining superscript or subscript text underlines the text at the typing line or at the superscript or subscript position. For more information on how underlining appears for your printer, see Appendix A, "Printers and the Functions They Support."

To underline text as you are typing it:

1. Press the Alt key plus the U key.
2. Type the text to be underlined.
3. Press the Alt key plus the J key to end the underlining.

To underline existing text while you are in insert mode:

1. Move the cursor to the first character to be underlined.
2. Press the Alt key plus the U key, and the line of text is underlined. The underlined text moves one space to the right on the Edit display unless you are using the PC text-assist function or a 3477 display station and are not displaying codes. Be sure you have specified N (No) for the *Print controls as spaces* prompt on the Line Spacing/Justification Options display.
3. Move the cursor one position past the last character to be underlined.

4. Press the Alt key plus the J key to end the underlining.

To underline existing text when you are not in insert mode:

1. Move the cursor to the space before the first character you want to underline and press the Alt key plus the U key. This removes an extra space on your display. Be sure you specify Y (Yes) for the *Print controls as spaces* prompt on the Line Spacing/Justification Options display.
2. Move your cursor to the position after the last character you want to underline and press the Alt key plus the J key to end the underlining.

Note: If you are working on an IBM personal computer with a color monitor display, the underline you specify with Alt U does not show on your display (because it is the same color as the text) if any of the following conditions is true:

- You are using 5250 emulation and you have not changed the default for underline.
- You are using the PC text-assist function and have changed some defaults except for the underline.

If you begin underlining by pressing the Alt key plus the U key on one line and end the underline by pressing the Alt key plus the J key on a following line, only the first line is underlined until you press the Enter key (except when using the PC text-assist function). If you press the Enter key before pressing the Alt key plus the J key to end the underline, the text is underlined from the Begin Underline control character to the next ending control character or the end of the page (whichever comes first).

If you are using the PC text-assist function, you do not need to press the Enter key for the lines following the first line to be underlined.

To end unwanted underlining:

1. Move the cursor to the position where you want the underlining to end.
2. Press the Alt key plus the J key.
3. Press the Enter key. The underlining following the End Underline control character is removed.

To remove underlining from the text:

1. Move the cursor to the position of the first letter of the underlined word. Be sure the cursor is positioned on the Begin Underline control character.
2. Press the Delete (Del) key.

A prompt is shown on the message line at the bottom of your display:

Delete what? Move cursor, press Enter.

3. Press the Enter key to delete the control character.
4. Move the cursor to the space following the underlined text. The cursor should be on the End Underline control character.
5. Press the Delete (Del) key and the Enter key to delete the control character. The underlining is removed.

Underlining Blank Lines and Spaces

When you use Begin and End Underline control characters to underline a blank line or blank spaces at the end of a line, you must type a Required Space before the End Underline control character.

Underlining Text with Two Lines

To underline text with two lines:

1. Move the cursor to the position of the first letter of the text to be underlined.
2. Press the Alt key plus the U key before the text you want to underline.
3. Move your cursor to the position after the last character you want to underline and press the Alt key plus the J key to end the underlining.
4. Press F9 (Instructions). Select option 15 (Required backspace) and press the Enter key.
5. Type a number for the *Backspace number* prompt that is equal to the number of characters that you want underlined with two lines. Press the Enter key to return to the Edit display.
6. Press the Alt key plus the H key (half-index down), followed by the underline character for the number of positions you want underlined with two lines.
7. Press the Alt key plus the Y key (half-index up).

The double underline does not appear on the display, but it does appear on the printed page. When you use the double underline this way, you cannot fit as many lines on a printed page.

If the printer you are using supports the Double-Underline control character, you can underline text with two lines more easily by specifying a Double-Underline control character for the *Overstrike character* prompt on the Begin and End Overstrike Instructions display. Because there is no Double-Underline control character shown on the keyboard, you can type the hex character that represents the Double-Underline control character for your system. See "Typing Symbols Not on Your Keyboard" on page 2-20 for more information.

Underlining a Word

You can underline a single word using the Alt key plus the W key (Word Underline control character).

When you are not using the PC text-assist function or a 3477 display station, the control character takes up a space on the display. To avoid having this extra space print, specify an N (No) for the *Print controls as spaces* prompt on the Line Spacing/Justification Options display. Or, you can use the control character as the space on your display and specify a Y (Yes) for the *Print controls as spaces* prompt. This may be useful when you are aligning text.

To underline a single word:

1. Type the word you want underlined.
2. Move the cursor to the first position *following* the word to be underlined.
3. Press the Alt key plus the W key to type a Word Underline control character.

The underlining is not shown on the display unless you are using the PC text-assist function or a 3477 display station, but the word is underlined when the document is printed. The text after the Word Underline control character moves one space to the right on the display.

Notes:

1. Underlining a single word with the Alt key plus the W key underlines the word in its correct position whether it is the typing line, superscript, or subscript. For more information on how underlining appears for your printer, see Appendix A, "Printers and the Functions They Support."
2. If you use Alt W to underline a word and then use Alt C to center the word, the word will be one space off center when it is printed.
If you use Alt C and then use Alt W, the word is centered correctly.
3. If the last word on a line is hyphenated, you cannot underline it by pressing the Alt key plus the W key. You can underline it by pressing the Alt key plus the U key. See "Underlining Text" on page 2-10 for more information.

Using Boldface Type

When you use boldface type and you are not using the PC text-assist function or a 3477 display station, the control characters take up a space on the display. To avoid having these extra spaces print, specify an N (No) for the *Print controls as spaces* prompt on the Line Spacing/Justification Options display. Or, you can use the control character as the space on your display and specify a Y (Yes) for the *Print controls as spaces* prompt.

To make text bold as you are typing it:

1. Press the Alt key plus the B key.
2. Type the text to be highlighted.
3. Press the Alt key plus the J key after the last character you want highlighted to end the highlighting.

To make existing text bold when you are in insert mode:

1. Move the cursor to the first character to be bold.
2. Press the Alt key plus the B key to turn on the highlighting. The highlighted text moves one space to the right on the Edit display (unless you are using the PC text-assist function or a 3477 display station and you are not displaying codes). Be sure you have specified No for the *Print controls as spaces* prompt on the Line Spacing/Justification Options display.
3. Move the cursor one position past the last character to be bold.
4. Press the Alt key plus the J key to end the highlighting.

To make existing text bold when you are not in insert mode:

1. Move the cursor to the first position *before* the first character you want printed in boldface type.
2. Press the Alt key plus the B key to turn on the bold type.

This removes a space on your display. Be sure you have specified Y (Yes) for the *Print controls as spaces* prompt on the Line Spacing/Justification Options display.

3. Move the cursor to the last position *after* the last character you want to be bold.
4. Press the Alt key plus the J key to end the highlighting.

If you begin boldface type by pressing the Alt key plus the B key on one line and end the boldface type by pressing the Alt key plus the J key on a following line, only the first line is in boldface type until you press the Enter key. If you press the Enter key before ending boldface type, the text is highlighted from the Begin Bold control character to the next ending control character or the end of the page (whichever comes first).

If you are using the PC text-assist function, the lines following the first line are highlighted without pressing the Enter key.

To end boldface type:

1. Move the cursor to the position where you want the boldface type to end.
2. Press the Alt key plus the J key.
3. Press the Enter key and the boldface type following the End Bold control character is removed.

To remove unwanted boldface type from the text:

1. Move the cursor to the position of the first letter of the highlighted word. Be sure the cursor is positioned on the Begin Bold control character.
2. Press the Delete (Del) key.

A prompt is shown on the message line at the bottom of your display:
Delete what? Move cursor, press Enter.
3. Press the Enter key to delete the Begin Bold control character.
4. Move the cursor to the space following the highlighted text. The cursor should be on the End Bold control character.
5. Press the Delete (Del) key and the Enter key to delete the End Bold control character. The boldface type is removed.

Underlining Boldface Type

To underline bold text:

1. Move the cursor to the first character you want underlined and bold.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type **bb** for the prompt and press the Enter key.
4. Move the cursor to the first position after the last character you want underlined and bold.
5. Press the Alt key plus the J key.

To underline bold text using the PC text-assist function:

1. Complete the steps to make the character, word, or phrase bold.

2. Move the cursor to the Begin Bold control character.
3. Press the Alt key plus the U key to underline the bold text.
4. To end the bold and the underline, move the cursor to the position where you want to end the underline and press the Alt key plus the J key.
5. To end the bold and continue the underline, press the Alt key plus the B key.
6. To end the underline and continue the bold, press the Alt key plus the U key.

To underline and make text bold when using the basic assistance level:

1. Move the cursor to the first character that you want underlined and bold.
2. Press F10 (Select action). The cursor moves to the menu bar at the top of the Edit display.
3. Make sure that the **c** in the word **Effects** on the menu bar is underlined and press the c key. The Effects pull-down menu is shown on the display with a list of the effect functions.

Note: If the c is not underlined, use the Tab key or one of the cursor movement keys to move the cursor to the word **Effects**. Press the Enter key. The Effects pull-down menu is shown on the display.

4. Select the Underline/bold action by doing one of the following:
 - If the letter **l** in Underline/bold is underlined, press the letter **l** key and the Enter key.
 - Move the cursor to the Underline/bold action and press the Enter key.

The following message is shown at the bottom of your display: Underline and bold what? Move cursor, press Enter.

5. To end the function, move the cursor to the first position after the last character where you want the function to end and press the Enter key.

Using Paragraphs

This section describes how to use the different types of paragraphs. These include paragraphs, indented paragraphs, and typing margin text in paragraphs.

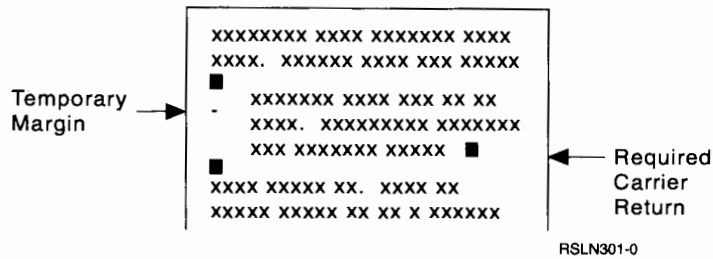
Typing Paragraphs

Paragraphs contain a **Carrier Return** or a syllable hyphen on the end of each line and a **Required Carrier Return** on the end of the last line of the paragraph. The Carrier Returns are automatically inserted as you type when the end of a line is reached. The Required Carrier Return is inserted when you press the Field Exit key to end the paragraph. You must press the Field Exit key a second time to put a blank line between paragraphs.

Indenting Paragraphs

You may want to indent a paragraph to set it off from the surrounding text.

You can indent a paragraph as you enter it, or indent an existing block of text by using the Required Tab control character (indent tab) as shown in the following steps:



To indent a block of text or a paragraph:

1. Move the cursor to the beginning of the first line you want indented.
2. Press the Alt key plus the Tab key (Required Tab). This takes you to the first tab stop. Repeat this step until you get to the tab stop you want.

Note: A Required Tab aligns the farthest left character of the text with the tab stop for all types of tabs. For example, if you have a colon tab at position 10 and press Required Tab and type 8:30, the 8 is at position 10 and the colon is not aligned at the colon tab stop.

3. If you are creating a new paragraph, type your text. When you reach the end of a line, the text automatically wraps under the first indented line. All lines will be indented until you press the Field Exit key to insert a Required Carrier Return, or insert a .pa to start a new page.

If you are indenting an existing paragraph, press the Enter key. The paragraph is adjusted to the new temporary left margin when you press the Enter key. If you are using the PC text-assist function, the paragraph is adjusted without pressing the Enter key. All the lines up to the next Required Carrier Return will be indented.

Note: The words Req'd tab appear in the audit window at the top of the Edit display when the cursor is positioned on a Required Tab control character.

Typing Paragraphs with Bullets

You can start a paragraph with any character or characters you prefer, such as a dash or a bullet.

To create a paragraph with bullets:

1. Type the character or characters you want to start the paragraph.
2. Press the Alt key plus the Tab key (Required Tab). A Required Tab sets a temporary left margin for the remainder of the paragraph.
3. Type the remainder of the paragraph.
4. Press the Field Exit key (Required Carrier Return) to end the paragraph. The Required Carrier Return will ends the temporary left margin for the paragraph.

Repeat the steps above for each paragraph with bullets.

Typing Margin Text with Paragraphs

To type text in the margin next to a paragraph:

1. Type the margin text for the first line of the paragraph.
2. Press the Tab key. This takes you to the first tab stop.
3. Type the first line of the paragraph, and press the Field Exit key.
4. Repeat the above steps for each line with text in the margin.
5. Press the Alt key plus the Tab key to insert a Required Tab control character.
6. Complete typing the remainder of the paragraph. The remaining lines of the paragraph are automatically indented.
7. Press the Field Exit key at the end of the paragraph.

Note: Lines that end with a Required Carrier Return (Field Exit) are not right-justified if 2 (Justify) is selected for the *Line justification* prompt on the Line Spacing/Justification Options display.

Typing Numbered Lists

You can automatically number a list of items in your document by using the Numbered List instruction. The instruction is processed when the document is printed. When items are added or deleted, the numbers are automatically changed.

To automatically number a list of items:

1. Position the cursor where you want the first number to appear.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type *.n1* in the prompt and press the Enter key.

The Numbered List Instruction display is shown.

4. Type the information in the prompts on the display. (For more information about any of the prompts, place the cursor next to the prompt and press the Help key.)

If the list starts with the number 1, and this is the first Numbered List instruction in the document, leave the *Reset to number* prompt blank.

5. Press the Enter key to return to the Edit display.

The Numbered List instruction is inserted in your text. Press the spacebar and type the list item, then press the Field Exit key.

6. For each additional item in the list, type the instruction *.n1* before the list item. Press the spacebar and type the list item.

If the list item is more than one line, press the Alt key plus the Tab key to insert a Required Tab, then type the list item.

After you have typed the list item, press the Field Exit key.

The period becomes an Instruction control character when you press the Enter key. The choices you made for the first Numbered List instruction (except for the *Reset to number* prompt) are used for any additional instruction you insert.

Note: This instruction is not processed until your document is printed. To see if your list is numbered correctly before printing your document, press F19

(Print/View Opts) and select option 3 (View printed output using split display) to look at the document at your display.

Ending Lines and Inserting Blank Lines

Press the Field Exit key to insert a Required Carrier Return control character whenever you want to do one of the following:

- End a line
- End an outline heading
- End a paragraph
- End a comment

You can insert blank lines in your text in any of the following ways:

- Using the Field Exit key.
 1. Position the cursor where you want to insert the line.
 2. Press the Field Exit key. A Required Carrier Return is inserted at the cursor position.

Any characters to the right of the cursor (including the character at the cursor location) are moved down a line.

Note: Unless you are using the PC text-assist function, any character that is entered on a line after a required character return is moved down a line.
 3. Press the Field Exit key to insert a Required Carrier Return for each blank line you want to insert. Lines that contain only Required Carrier Returns are printed as blank lines.
- Using the Insert line command. See "Using Line Commands to Copy, Move, and Delete Text" on page 3-5 for more information.

Note: If you are using the PC text-assist function, you cannot use line commands.
- Using a Skip to Line (.stl) instruction followed by the line number (in parentheses) you want to skip to or a Skip (.sk) instruction followed by the number of blank lines (in parentheses) you want to insert. You do not see any blank lines on the display but the lines are skipped when the document is printed. See Chapter 6, "Text Instructions," for more information.

XXXXXXX ■	■ = Required Carrier Return Codes
XXXXXXX ■	
■	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
XXXXXXXXXXXXXXXX ■	
.sk(2)	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	

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- You can also specify the number of blank lines to insert before and after every Outline Heading instruction (.h). Specify this number on the Outline Heading Format display.

Typing Superscripts and Subscripts

Superscript characters print a half space *above* the normal printing line. Subscript characters print a half space *below* the normal printing line. When using superscript or subscript characters, you may want to change the line spacing to a space and a half or double spacing in order to prevent the superscript or subscript character from printing on top of the lines of text above or below it. For more information, see "Changing the Line Spacing/Justification" on page 7-5. Only some printers support the printing of superscript and subscript characters. See Appendix A, "Printers and the Functions They Support," to determine if your printer supports superscripts and subscripts.

Subscript	Superscript
H_2O	$10^{(n-3)} + y = 55$
	RV2N252-0

Typing Superscripts

To type a superscript:

1. Position the cursor where you want a superscript to start.
2. Press the Alt key plus the Y key.

A Half-Index Up control character is inserted.

3. Type the characters for the superscript.

As you type, superscript characters are not shown indexed on the display. Indexing up occurs only during printing.

On the 3477 display station, superscript numeric characters (0-9) are shown indexed on the display.

4. Press the Alt key plus the H key to return to the typing base line.

A Half-Index Down control character is inserted. The superscript is complete.

Notes:

1. Superscripts can be deleted using the Delete key or the Erasing Backspace key. Delete *both* the Half-Index Up and Half-Index Down control characters. If you are using the PC text-assist function, you can only delete these using the Delete key; you cannot use the Erasing Backspace key.
2. Underlining using the Alt key plus the W key underlines the word in its correct position whether it is on the typing line, superscript, or subscript. However, underlining using the Alt key plus the U key always underlines at the typing line, even if the word has a superscript or subscript.
3. When you use superscripts and subscripts and you are not using the PC text-assist function or a 3477 display station, the control characters take up a space on the display. To avoid having these extra spaces print, specify an N (No) for the *Print controls as spaces* prompt on the Line Spacing/Justification Options display. Or, you can use the control character as the space on your display and specify a Y (Yes) for the *Print controls as spaces* prompt.
4. You can use only one level of superscripts and subscripts.

Typing Subscripts

To type a subscript:

1. Position the cursor where you want a subscript to start.
2. Press the Alt key plus the H key.

A Half-Index Down control character is inserted.

3. Type the characters for the subscript.

As you type, subscript characters are not shown indexed down on the display. Indexing down occurs only during printing.

4. Press the Alt key plus the Y key to return to the typing base line.

A Half-Index Up control character is inserted. The subscript is complete.

Notes:

1. Subscripts can be deleted using the Delete key or the Erasing Backspace key. Delete *both* the Half-Index Up and Half-Index Down control characters. If you are using the PC text-assist function, you can only delete these using the Delete key; you cannot use the Erasing Backspace key.
2. Underlining using the Alt key plus the W key underlines the word in its correct position whether it is on the typing line, superscript, or subscript. However, underlining using the Alt key plus the U key always underlines at the typing line, even if the word has a superscript or subscript.
3. When you use superscripts and subscripts and you are not using the PC text-assist function or a 3477 display station, the control characters take up a space on the display. To avoid having these extra spaces print, specify an N (No) for the *Print controls as spaces* prompt on the Line Spacing/Justification Options display. Or, you can use the control character as the space on your display and specify a Y (Yes) for the *Print controls as spaces* prompt.
4. You can use only one level of superscripts and subscripts.

Typing Symbols Not on Your Keyboard

You can print symbols in addition to the characters and symbols that appear on your keyboard. These symbols give you added flexibility in creating documents. You can print characters used in other languages or you can type symbols for scientific or business purposes. For example, you might want to print the prescription or trademark symbol in a document.

The symbols you insert *may not* appear correctly on the Edit display (they may appear as some other character), but the symbols print correctly when you print your document, if they are supported by the printer.

Whenever you request to insert a symbol, the system inserts a keyboard change at the cursor position. For example, the symbol ® is preceded by a Begin Keyboard Change control character (⌘) and is followed by an End Keyboard Change control character (⌘). This set of three characters (⌘ ® ⌘) is called a **keyboard change**. If you are using the PC text-assist function, this keyboard change would be shown as ■ ® ■ because control characters are shown as solid boxes (■). If the cursor was positioned **inside** an existing keyboard change, additional keyboard change control

characters are not inserted. The existing keyboard change control characters are used.

You can insert and print one symbol or many symbols in a document whether or not you know the correct symbol number.

To insert a symbol if you know the symbol number:

1. Move the cursor to the position in the document where you want to insert a symbol.
2. Press the Alt key plus the A key. The following prompt is shown:
Type symbol number(s), press Enter.
3. Type the symbol number or numbers that you want to insert in your document in the prompt at the bottom of the display.

If you are inserting more than one symbol number, leave a space after each number.

4. Press the Enter key. A keyboard change is inserted at the cursor position to mark the place in the document where the symbol will be printed.

If the symbol number you type is not correct, the Insert Symbols display is shown. The cursor is positioned to the incorrect symbol number and the following message is shown:

Incorrect value; select from values shown.

To insert a symbol if you do not know the symbol number:

1. Move the cursor to the position in the document where you want to insert a symbol.
2. Do one of the following:
 - Press the Alt key plus the A key. The following prompt is shown.
Type symbol number(s), press Enter
 - Either press the Help key, or leave the prompt blank and press the Enter key.
 - Press F5 (Goto) and type *sym* for the prompt.

Page 1 of the Insert Symbols display is shown.

3. Page through the list of symbols until you see the symbol name (or names), and number (or numbers) you want to insert into your document. To see a description of the symbol or what the symbol looks like, see "Printing Symbols" on page 2-23.

4. Type the symbol number or numbers you want to insert in the *Symbol number(s)* prompt at the bottom of the display.

If you are inserting more than one symbol number, leave a space after each number.

5. Press the Enter key. A keyboard change is inserted at the cursor position to mark the place in the document where the symbol is to be printed.

If the symbol number you typed is not correct, the Insert Symbols display is shown again. The cursor is positioned at the incorrect symbol number and the following message is shown:

Incorrect value; select from values shown

Press F3 (Exit) or F12 (Cancel) if you do not want to insert a symbol.

Copying, Moving, or Deleting Symbols

You can copy, move, or delete symbols (for example, ®) or keyboard changes (for example, ¯ ® ¯) in your document.

Notes:

1. If you are using the PC text-assist function, whenever you move or copy the *symbol* without the keyboard change control characters, the keyboard change control characters are automatically added as needed.
2. If you are not using the PC text-assist function, you must move or copy the symbol to a position within an existing keyboard change, or you must include the Begin and End Keyboard Change control characters in the text you are moving.

Copying Symbols

To copy a symbol:

1. Place the cursor *under* the keyboard change control character before the symbol you want to copy.
2. Press F1 (Copy). The following message is shown:
Copy what? Move cursor, press Enter.
3. Move the cursor to the keyboard change control character following the last symbol you want to copy.
4. Press the Enter key.
A prompt is shown on the message line at the bottom of your display:
To where? Move cursor, press Enter.
5. Move the cursor to the location in the document where you want the symbol copied. This location must be within an existing keyboard change. If you are using the PC text-assist function, the system automatically inserts any needed keyboard change control characters
6. Press the Enter key. The symbol (or symbols) is copied to the new location.

Moving Symbols

To move a symbol:

1. Place the cursor *under* the keyboard change control character before the symbol you want to move.
2. Press F2 (Move). The following message is shown:
Move what? Move cursor, press Enter.
3. Move the cursor to the keyboard change control character following the last symbol you want to move.
4. Press the Enter key.
A prompt is shown on the message line at the bottom of your display:
To where? Move cursor, press Enter.

5. Move the cursor to the location in the document where you want the symbol moved. This location must be within an existing keyboard change. If you are using the PC text-assist function, the system automatically inserts any needed keyboard change control characters.
6. Press the Enter key. The symbol (or symbols) is moved to the new location.

Deleting Symbols

You can delete a symbol by using either the Delete key or the Erasing Backspace key.

To delete a symbol using the Delete key:

1. Place the cursor *under* the keyboard change control character before the first symbol you want to delete.
2. Press the Delete (Del) key. The following message is shown:
Delete what? Move cursor, press Enter.
3. Move the cursor to the keyboard change control character following the last symbol you want to delete.
4. Press the Enter key. The symbol (or symbols) is deleted.

To delete a symbol using the Erasing Backspace key:

1. Move the cursor one position to the right of the last symbol you want to delete.
2. Press the Erasing Backspace key. The symbol (or symbols) is deleted.

Printing Symbols

To print a symbol, you must have a printer with a print element, font, or cartridge that includes the symbol you want to print. The profile you are using should also specify the appropriate information for your printer. If you do not know if your printer supports symbols, see Appendix A, "Printers and the Functions They Support."

If you already know the name of the symbol but you need to know the symbol number, use the table on page 2-24 to find the number. Type the number that appears after the symbol name for the *Symbol number* prompt on the Insert Symbols display.

If you already know the symbol number but you want to see what the symbol will look like when it is printed, use Figure 2-1 on page 2-24. The number shown in the upper right corner of each square corresponds to the symbol number listed on the Insert Symbols displays.

1	2	= 3	- 4	+ 5	∞ 6	π 7	Δ 8	→ 9	/ 10	[11	† 12	< 13	(14
15	√ 16	≤ 17	- 18	< 19	> 20	R 21	€ 22	∴ 23	↗ 24	↘ 25	‡ 26	] 27	• 28
29	≠ 30	∴ 31	^ 32	- 33	≥ 34	∨ 35	^ 36	37	∠ 38	< 39	> 40	+ 41	◻ 42
43	♀ 44	♂ 45	- 46	> 47	∫ 48	∩ 49	∪ 50	⊂ 51	⊃ 52	⊕ 53	⊥ 54	55	⊗ 56
57	˘ 58	÷ 59	± 60	° 61	˙ 62	“ 63	® 64	= 65	α 66	β 67	ψ 68	ø 69	ε 70
71	π 72	η 73	ι 74	□ 75	□ 76	□ 77	□ 78	∫ 79	∫ 80	% 81	∂ 82	κ 83	ω 84
85	μ 86	ν 87	ρ 88	γ 89	θ 90	□ 91	□ 92	□ 93	TM 94	∫ 95	∫ 96	≡ 97	~ 98
99	σ 100	τ 101	ξ 102	χ 103	δ 104	χ 105	υ 106	ζ 107	□ 108	□ 109	□ 110	— 111	∫ 112
113	0 114	1 115	2 116	3 117	4 118	5 119	6 120	7 121	8 122	9 123	⊥ 124	◊ 125	£ 126
127	⊗ 128	≠ 129	{ 130	∇ 131	∞ 132	Ψ 133	Φ 134	← 135	Π 136	Λ 137	↑ 138	- 139	◆ 140
141	∨ 142	● 143	144	ℬ 145	} 146	= 147	§ 148	Ω 149	∂ 150	~ 151	↓ 152	λ 153	θ 154
155	□ 156	■ 157	◻ 158	- 159	∇ 160	∠ 161	∖ 162	Σ 163	→ 164	≡ 165	∞ 166	Δ 167	= 168
169	Y 170	≈ 171	~ 172	⊥ 173	▶ 174	▲ 175	∫ 176	∫ 177	0 178	1 179	2 180	3 181	4 182
183	6 184	7 185	8 186	9 187	∅ 188	1/8 189	3/8 190	5/8 191	7/8 192				

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Figure 2-1. Symbols and Symbol Numbers

Note: Symbol number 55 is not a valid symbol number.

Symbol Name	Symbol Number	Symbol Name	Symbol Number	Symbol Name	Symbol Number
Acute accent	62	Center box bar horizontal	110	Delta capital	167
Alpha small	66	Center box bar vertical	78	Delta small	103
And symbol	36	Chi small	104	Delta superscript	8
Angle symbol	38	Circle plus, closed sum	53	Diaresis accent	31
"Approximately equal to" symbol	170	Circle x, closed product	56	Divide sign	59
Arrow indicator	173	Circumflex accent	32	Double dagger	26
Backslash	161	"Congruent to" symbol	97	Double overline	65
Beta small	67	Copyright symbol	15	Double underscore	146
Bottle symbol	142	Dagger	12	Down arrow	151
Box cross, box corner	92	Decrease	25	Eight subscript	121
Breve accent	57	Degree symbol	61	Eight superscript	185
Caron accent	141	Del, delt, nabla	130	Epsilon small	70

Symbol Name	Symbol Number	Symbol Name	Symbol Number	Symbol Name	Symbol Number
Equal sign superscript	3	Parallel symbol	37	Xi small	101
"Equivalent to" symbol, cycle symbol	171	Partial differential symbol	149	Yen sign	128
Eta small	73	Per mille symbol	81	Zero slash	187
Female symbol	44	Perpendicular symbol	123	Zero subscript	113
Five eights	190	Phi capital	133	Zero superscript	177
Five subscript	118	Phi small	69	Zeta small	106
Five superscript	182	Pi capital	135		
Four subscript	117	Pi small	71		
Four superscript	181	Pi superscript	7		
Gamma capital	153	Plus or minus sign	60		
Gamma small	89	Plus sign superscript	5		
Grave accent	58	Pound sign	126		
Greater than or equal sign	34	Prescription symbol	21		
Greater than sign	47	"Proportional to" symbol	166		
Identity symbol	168	Psi capital	132		
"Includes" symbol	52	Psi small	68		
Increase	24	Radical	16		
Infinity symbol	131	Registered trademark symbol	64		
Infinity symbol superscript	6	Required space	2		
Integral symbol	48	Rho small	88		
International currency symbol	127	Right angle bracket	40		
Intersection, logical product	49	Right angle bracket superscript	20		
Iota small	74	Right angle symbol	54		
"Is included in" symbol	51	Right arrow	164		
"Is not an element of" symbol	22	Right arrow superscript	9		
Kappa small	83	Right brace	145		
Lambda capital	136	Right bracket	27		
Lambda small	72	Right middle box side	108		
Large bullet, closed circle	125	Right parenthesis	30		
Left angle bracket	39	Seconds symbol	63		
Left angle bracket superscript	19	Section symbol (USA)	147		
Left arrow	134	Seven eighths	191		
Left brace	129	Seven subscript	120		
Left bracket	11	Seven superscript	184		
Left middle box side	76	Sigma capital	163		
Left parenthesis	14	Sigma small	99		
Less than or equal sign	17	Sine symbol	150		
Less than sign	13	Six subscript	119		
Liter symbol	152	Six superscript	183		
Logical not	172	Slash square (canceled)	157		
Lower integral section	176	Slash superscript	10		
Lower left box corner	77	Solid diamond	140		
Lower left parenthesis section	80	Solid square, histogram	156		
Lower right box corner	109	Solid triangle	174		
Lower right parenthesis section	96	Space	1		
Lower right/upper left brace section	111	Substitute blank	144		
Lower summation section	160	Syllable hyphen	139		
Lozenge	42	Tau small	100		
Macron accent	18	"Therefore" symbol	23		
Male symbol	45	Theta capital	154		
Middle box bottom	93	Theta small	90		
Middle box top	91	Theta small (open form)	82		
Middle dot, product dot	28	Three eighths	189		
Minus or plus sign	41	Three subscript	116		
Minus sign, hyphen	33	Three superscript	180		
Minus sign superscript	4	Tilde accent	98		
Minute symbol	43	Total symbol	124		
Mu small	85	Trademark symbol	94		
Multiply sign	102	Two subscript	115		
Nine subscript	122	Two superscript	179		
Nine superscript	186	Underscore	46		
Not equal sign	29	Union, logical sum	50		
Nu small	86	Up arrow	138		
Numeric space	162	Upper integral section	175		
Omega capital	148	Upper left box corner	75		
Omega small	84	Upper left parenthesis section	79		
Omicron small	87	Upper right box corner	107		
One eighth	188	Upper right/lower left brace section	112		
One subscript	114	Upper right parenthesis section	95		
One superscript	178	Upper summation section	159		
Open square	155	Upsilon capital	169		
Or symbol	35	Upsilon small	105		
Overline	158	Vertical line unbroken	143		
Paragraph symbol (USA)	137	Xi capital	165		

Typing Special Characters

You can display and print special characters in addition to the characters that appear on your keyboard and the symbols available through keyboard changes. This additional set of characters is called the multinational character set (MCS).

The multinational character set includes characters combined with diacritics (modifiers) and some other special characters. Refer to the *IBM 5250 Information Display System Functions Reference Manual*, SA21-9247, for a complete list of characters available.

To enter a MCS character, do one of the following:

- Type the hexadecimal equivalent for the specific character that you want. The key sequence will depend on the type of display station you have.

For a 5251 or 5292 display station, press and hold the CMD and Tilde (~) keys and type the hexadecimal value of the desired character. For a 31xx or 34xx work station, press and hold the Alt key, then press the key marked *HEX* (look for *HEX* on the Help or F7 key). Release the keys and type the hexadecimal value of the desired character.

- Type the desired character as a diacritic character. If the desired character has an accent mark (´) or a tilde (~), it can be typed as a diacritic character. To type a diacritic character, press the Accent Mark key or the Tilde key, followed by the letter under the accent mark or tilde.

Most display stations and printers supported by the AS/400 system allow the use of the MCS characters. Refer to your display station or printer user's guide for applicable instructions or limitations in the use of MCS characters.

Chapter 3. Editing Text

If you are using the adapted word processing function, do not use the information in this chapter. Use the *Using OfficeVision/400* Adapted Word Processing Function* manual.

There are several functions to make editing a document easier. You can use function keys and line commands to move, copy, and delete portions of text easily.

You can use the Get Options display to copy information from another document directly into the document you are editing. You can use the Include instruction to copy information from another document into your document when it is printed. You can use the Notepad menu to copy, move, or recall text into a storage area and then use it over and over again.

Using the sort function, you can sort lines of text in ascending order or descending order.

Using the *Goto* prompt, you can move around in the document to find a specific page or line in the document. Using function keys, you can find a specific character, word, or phrase.

Using the search/replace function, you can search for a word or phrase and replace it with a new one.

You can specify for the system to insert syllable hyphens automatically. You can also have the system adjust lines for a part of a document or the entire document.

Note: When editing a Final-Form Text: Document Content Architecture document, default values for the document format are taken from the active text profile. These default values are for the following:

- Margins and tabs
- Line spacing/justification
- Typestyle/color
- Page layout/paper options

The defaults are used only if one or more of the values specified for the document are not valid or not included in the Final-Form Text: Document Content Architecture document.

Editing a Document

You can select the document you want to edit from the Work with Documents in Folders display. To select a document, specify option 2 (Revise) for the *Opt* prompt next to the name of the document you want to edit. You can also go directly to the document you want to edit using the EDTDOC command.

Note: A resolved document cannot be edited.

To go directly to the document you want to edit:

1. Type EDTDOC DOC(document name) FLR(folder name) on the command line.
2. Press the Enter key and the Edit display is shown, where you can edit your document.

- If *PRV is specified for the document or folder name, the name of the document or folder used in your last edit session is used.
- If you do not remember the parameters, type **EDTDOC** on the command line and press F4 (Prompt). You are prompted for the parameters.
- To edit the document you were editing last, type **EDTDOC** and then press the Enter key.

Note: The EDTDOC command supports the EXITPNL parameter. If you do not specify a value for this parameter, the Exit display is shown when you exit the document. If you specify EXITPNL (*NO), the Exit display is not shown when you exit the document but all changes to the document are saved.

Copying, Moving, and Deleting Text

The following are ways to copy, move, or delete text in the document:

- Using function keys

Using the function keys F1 (Copy), F2 (Move), and the Delete key is the easiest and the fastest way to move, copy, and delete text when working with smaller pieces of text (sentences in paragraphs). Using function keys allows you to work with part of a line.

- Using line commands

Using line commands is a convenient way to copy, move, or delete a block of text (one or more lines). You can also use line commands to copy lines of text to several different locations. Using function keys allows you to work with part of a line, but line commands are quicker if you want to repeat Move commands or Copy commands several times.

Note: If you are using the PC text-assist function, you cannot use line commands.

Using Function Keys to Copy, Move, and Delete Text

You can use function keys to copy, move, or delete part of a line or one or more lines of text. You must use function keys to copy, move, or delete text when you are using the PC text-assist function.

The difference between copying and moving text is that after the *copy* is completed, the text exists in two places in the document. For information about moving, copying or deleting columns of text, see "Using Column Copy, Move, and Delete" on page 11-15 or "Deleting a Column from a Table" on page 11-14.

When using function keys to copy, move, or delete, you are prompted to move the cursor. When that prompt is shown, you can type any character and the cursor moves to the next occurrence of that character. For example:

- To move the cursor from word to word, press the spacebar.
- To move the cursor from sentence to sentence, type a period.
- To move the cursor from paragraph to paragraph, press the Field Exit key.
- To cancel a copy, move, or delete operation before completing it, press the Error Reset key or press F8 (Reset).

Copying Text

To use F1 to copy text:

1. Place the cursor under the *first* character of the text you want to copy.
2. Press F1 (Copy).

A prompt is shown on the message line at the bottom of your display:

Copy what? Move cursor, press Enter.

3. Move the cursor to the *last* character of the text you want to copy. Make sure you include the last two spaces at the end of a sentence. A fast way to move the cursor is to type the last character you want to copy; the cursor moves to that character.

4. Press the Enter key. A prompt is shown on the message line at the bottom of your display:

To where? Move cursor, press Enter.

5. Move the cursor to the location in your document where you want the text copied.

Using F5 (Goto) to go to a specific page or line number is faster than using the page keys.

6. Press the Enter key.

The text is copied to the new location and the cursor is under the first character of the copied text.

For information about copying columns of text, see "Using Column Copy, Move, and Delete" on page 11-15.

Copying Underlined or Boldface Text

To copy text that is underlined or bold in your document:

1. Move the cursor under the space that contains the Begin Underline or Begin Bold control character. You must copy the control character with the text. The words Begin Bold or Begin Und are shown on the top of the Edit display when the cursor is on one of these characters.

2. Press F1 (Copy).

A prompt is shown on the message line at the bottom of your display:

Copy what? Move cursor, press Enter.

3. Move the cursor to the space following the underlined or bold text. This space contains the End control character and must be copied with the text. The word End is shown on the top of the Edit display when the cursor is on this character. The End control character stops the underlining or the bold type from continuing through the remainder of your document. You can quickly reach the End control character by pressing the Alt key plus the J key.

4. Press the Enter key.

A prompt is shown on the message line at the bottom of your display:

To where? Move cursor, press Enter.

5. Move the cursor to the location where you want the text copied.

6. Press the Enter key and the underlined or bold text is copied.

Moving Text

To use F2 to move text:

1. Place the cursor under the *first* character of the text you want to move.
2. Press F2 (Move).

A prompt is shown on the message line at the bottom of your display:

Move what? Move cursor, press Enter.

3. Move the cursor to the *last* character of the text you want to move. Make sure you include the last two spaces at the end of a sentence. A fast way to move the cursor is to type the last character you want to move; the cursor moves to that character.

4. Press the Enter key. A prompt is shown on the message line at the bottom of your display:

To where? Move cursor, press Enter.

5. Move the cursor to the location in your document where you want the text moved.

Using F5 (Goto) to go to a specific page or line number is faster than using the page keys.

6. Press the Enter key.

The text is moved to the new location and the cursor is under the first character of the moved text.

For information about moving columns of text, see "Using Column Copy, Move, and Delete" on page 11-15.

Deleting Text

To delete text:

1. Place the cursor under the *first* character of the text you want to delete.
2. Press the Delete (Del) key.

A prompt is shown on the message line at the bottom of your display:

Delete what? Move cursor, press Enter.

3. Move the cursor under the *last* character of the text you want to delete.
4. Press the Enter key. The text is deleted.

If you specified Y (Yes) for the *Highlight text to delete* prompt on the Change Editing Options display, the text is shown in reverse image and a message asks you to confirm or cancel the delete.

Note: When using the PC text-assist function, text is automatically highlighted as the cursor is moved.

For information about deleting columns of text, see "Deleting a Column from a Table" on page 11-14.

Using Line Commands to Copy, Move, and Delete Text

You can use line commands to work with single lines of text or with blocks of text. You can use them to move, copy, or delete lines of text (or paragraphs). You can also use line commands to center text or insert lines. See page 3-5 for a complete list of line commands. Line commands can be typed as either uppercase or lowercase letters.

Note: If you are using the PC text-assist function or the adapted word processing function, you cannot use line commands.

To use any of the line commands:

1. Press the Home key to move the cursor to the line command area. (Five blank spaces to the left of the typing area; the left margin is not necessarily displayed.)
2. Type your line command in the line command area. If you want to use a block of text, type the line command in the line command areas of the first line and the last line of the text.
3. Press the Enter key and the function is completed.
4. To leave the line command area, press the Home key. The cursor moves to the first position of the text on that line.

Press the Enter key and the line command area is removed from your display.

Note: When the cursor moves to the first position of the text, if it is positioned on an Instruction character or format change symbol, the Instruction display or Format Change Options display is shown when you press the Enter key.

Function	Command
After	A
After repeated	AR
Before	B
Before repeated	BR
Center a block of text ¹	CCT
Center a line of text	CT
Check spelling on a line	S
Check spelling on a block of text ¹	SS
Copy a line of text	C
Copy a block of text ¹	CC
Copy a block of text repeated	CCR
Copy repeated	CR
Copy a specified number of lines of text	Cn (n=number of lines)
Delete a block of text ¹	DD
Delete a line of text	D
Delete a specified number of lines of text	Dn (n=number of lines)
Erase spelling marks from a line of text	E
Erase spelling marks from a block of text ¹	EE
Insert a blank line	I
Insert a specified number of blank lines	In (n=number of lines)
Move a block of text ¹	MM

¹ When working with blocks of text, put this command at the first line and last line of the block.

Move a line of text	M
Move a specified number of lines of text	Mn (n=number of lines)
Position first line of page n to top	n
Position first line of page n.n to top	n.n
Position line m of page n to top	n/m
Position line m of page n.n to top	n.n/m
Position line n to top	/n
Position line to top	/
Position n lines backward to top	- n
Position n lines forward to top	+ n
Shift a line of text to the left or right	Wn (n=left position of text)
Shift left a block of text ¹	LLn
Shift left a line of text	Lnn (nn=number of positions to shift)
Shift right a block of text ¹	RRn
Shift right a line of text	Rnn (nn=number of positions to shift)

Using the Copy Line Command

You can use the Copy line command to copy a single line of text or a block of lines.

Copying a Single Line of Text

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Type a **C** in the line command area next to the line you want to copy.
3. Type an **A** in the line command area next to the line you want the line copied *after*. Or, type a **B** in the line command area next to the line you want the line copied *before*.
4. Press the Enter key and the line is copied to the specified location.
5. Press the Home key again to return the cursor from the line command area to the text area.
6. Press the Enter key to remove the line command area from your display.

Copying a Block of Text

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Specify the block of text to be copied in one of two ways:
 - Type **CC** in the line command area next to the first and last line of the block of text you want to copy as shown in the following display. This way is faster when you have to page through your document searching for the last line of the block of text you want to copy.

```
LETTER P:12          EDIT          PG:1    LN:12
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.
■
Mr. John J. Phillips■
Wagner, Inc.■
2400 Wayside Park■
Milwaukee, WI 86204■
■
Dear John:■
■
cc The type of bolt you requested costs $8.64. Thank you for your kind
letter. Quantity discounts are available.■
cc ■
Thank you for your kind note. The type of bolt you requested
costs $8.64. Quantity discounts are available.■
■
b If you need any more information, please give me a call.■
■
■
Very truly yours,■
■
■
```

- Type a **C** followed by the number of lines in the block (for example, **C3** to copy three lines) next to the first line of the block of text you want to copy. This way is faster when you know exactly how many lines are in the block of text you want to copy.
3. After you specify the block of text to copy, type an **A** in the line command area next to the line you want the block of text copied *after*. Or, type a **B** in the line command area next to the line you want the block of text copied *before*.
 4. Press the Enter key to copy the block of text to the specified location.
 5. Press the Home key to return the cursor from the line command area to the text area.
 6. Press the Enter key to remove the line command area from your display.

Copying a Line of Text to Several Locations

You can copy a line of text to several locations in your document at one time using line commands.

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Type **CR** in the line command area next to the line you want to copy.
3. Type an **A** in the line command area next to each line you want the copied line placed *after*. Or, type a **B** in the line command area next to each line you want the copied line placed *before*.

```

LETTER P:12          EDIT          PG:1    LN:12
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.
■
Mr. John J. Phillips■
Wagner, Inc.■
2400 Wayside Park■
Milwaukee, WI 86204■
■
Dear John:■
■
a The type of bolt you requested costs $8.64. Thank you for your kind
letter. Quantity discounts are available.■
a ■
Thank you for your kind note. The type of bolt you requested
costs $8.64. Quantity discounts are available.■
■
cr If you need any more information, please give me a call.■
■
a Very truly yours,■
■
■

```

4. Press the Enter key. The line you specified (with CR) is copied after or before each location you specified, and the CR is shown next to the line.
5. Press F8 (Reset) or space over the CR to remove the CR.
6. Press the Home key to return the cursor from the line command area to the text area.
7. Press the Enter key to remove the line command area from your display.

Copying a Block of Text to Several Locations

You can copy a block of text to several locations in your document at one time using line commands.

To copy a block of text to several locations:

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Specify the block of text to be copied in one of two ways:
 - Type **CCR** in the line command area next to the first and last line of the block of text you want to copy. This way is faster when you have to page through your document searching for the last line of the block of text you want to copy.
 - Type **CR** followed by the number of lines in the block (for example, **CR20** to copy twenty lines) next to the first line of the block of text you want to copy. This way is faster when you know exactly how many lines are in the block of text.
3. Type an **A** in the line command area next to each line you want the block of text copied *after*. Or, type a **B** in the line command area next to each line you want the block of text copied *before*.
4. Press the Enter key. The block of text you specified is copied after or before each location you specified, and the CCR or CR is shown next to the block of text that was copied.
5. Press F8 (Reset) or space over the CR or CCR to remove them.

6. Press the Home key to return the cursor from the line command area to the text area.
7. Press the Enter key to remove the line command area from your display.

Copying Different Lines of Text to the Same Location

You can copy several different lines of text to the same location in your document using line commands.

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Type **AR** in the line command area next to the line you want the copied lines placed *after*. Or, type **BR** in the line command area if you want the copied lines placed *before* the line next to the BR line command.
3. Type a **C** in the line command area next to each line you want to copy.
4. Press the Enter key.

After you press the Enter key or a page key, the lines you specified (with a C) are copied after or before the location you specified and the AR or BR is shown next to the last line copied.

5. Press F8 (Reset) or space over AR or BR to remove AR or BR.
6. Press the Home key to return the cursor from the line command area to the text area.
7. Press the Enter key to remove the line command area from your display.

Copying Different Blocks of Text to the Same Location

You can copy several different blocks of text to the same location in your document using line commands. To copy different blocks of text to the same location:

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Type **AR** in the line command area next to the line you want the copied blocks of text placed *after*. Or, type **BR** in the line command area if you want the copied blocks of text placed *before* this line.
3. Specify blocks of text to be copied in one of two ways:
 - Type **CC** in the line command area next to the first and last lines of each block of text you want to copy. This way is faster when you have to page through your document searching for the last line of the block of text you want to copy.
 - Type a **C** followed by the number of lines in the block (for example, **C20** to copy twenty lines) next to the first line of each block of text you want to copy. This way is faster when you know exactly how many lines are in the block of text.

Note: You cannot copy more than one block of text at a time. You must repeat steps 3 and 4 for each block of text you want to copy.

4. Press the Enter key.

After you press the Enter key or a page key, the block of text specified is copied after or before the location you specified and the AR or BR is shown next to the last block of text copied.

5. Repeat steps 3 and 4 for each block of text you want to copy to this location.
6. Press F8 (Reset) or space over AR or BR to remove AR or BR.
7. Press the Home key to return the cursor from the line command area to the text area.
8. Press the Enter key to remove the line command area from your display.

Using the Move Line Command

You can use the Move line command to move a single line of text or a block of lines.

Moving a Single Line of Text

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Type an **M** in the line command area next to the line you want to move.
3. Type an **A** in the line command area next to the line you want the line moved *after*. Or, type a **B** in the line command area next to the line you want the line moved *before*.
4. Press the Enter key and the line is moved to the specified location.
5. Press the Home key to return the cursor from the line command area to the text area.
6. Press the Enter key to remove the line command area from your display.

Moving a Block of Lines

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Specify a block of text to be moved in one of two ways:
 - Type **MM** in the line command area next to the first and last lines of the block of text you want to move, as shown below. This way is faster when you have to page through your document searching for the last line of the block of text you want to move.
 - Type an **M** followed by the number of lines in the block (for example, **M3** to move three lines) next to the first line of the block of text you want to move. This way is faster when you know exactly how many lines are in the block of text you want to move.

```

LETTER P:12          EDIT          PG:1    LN:12
<2...T:...T3...T:...T4...T:...T5...T:...T6...T:...T7...T:...T8...T:...T9>.
■
Mr. John J. Phillips■
Wagner, Inc.■
2400 Wayside Park■
Milwaukee, WI 86204■
■
Dear John:■
■
mm The type of bolt you requested costs $8.64. Thank you for your kind
letter. Quantity discounts are available.■
mm
Thank you for your kind note. The type of bolt you requested
costs $8.64. Quantity discounts are available.■
■
b If you need any more information, please give me a call.■
■
■
Very truly yours,■
■
■

```

3. Type an **A** in the line command area next to the line you want the moved block of text placed *after*. Or, type a **B** in the line command area next to the line you want the moved block of text placed *before*.
4. Press the Enter key, and the block of text is moved to the specified location.
5. Press the Home key to return the cursor from the line command area to the text area.
6. Press the Enter key to remove the line command area from your display.

Moving Different Lines of Text to the Same Location

You can move several different lines of text from various locations to the same location in your document using line commands.

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Type **AR** in the line command area if you want the moved lines placed *after* the line next to the AR line command. Or, type **BR** in the line command area if you want the moved lines placed *before* the line next to the BR line command.
3. Type an **M** in the line command area next to each line you want to move.
4. Press the Enter key. After you press the Enter key or a page key, the lines you specified (with an M) are moved after or before the location you specified and the AR or BR is shown next to the last line moved.
5. Press F8 (Reset) or space over AR or BR to remove AR or BR.
6. Press the Home key to return the cursor from the line command area to the text area.
7. Press the Enter key to remove the line command area from your display.

Moving Different Blocks of Text to the Same Location

You can move several different blocks of text from various locations to the same location in your document using line commands.

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Type **AR** in the line command area next to the line you want the moved blocks of text placed *after*. Or, type **BR** in the line command area next to the line you want the moved blocks of text placed *before*.
3. Specify blocks of text to be moved in one of two ways:
 - Type **MM** in the line command area next to the first and last lines of the block of text you want to move. This way is faster when you have to page through your document searching for the last line of the blocks of text you want to move.
 - Type an **M** followed by the number of lines in the block (for example, **M20** to move twenty lines) next to the first line of the block of text you want to move. This way is faster when you know exactly how many lines are in the blocks of text.

Note: You cannot move more than one block of text at a time. You must repeat steps 3 and 4 for each block of text you want to move.

4. Press the Enter key.

After you press the Enter key or a page key, the block of text you specified is moved after or before the location you specified and the AR or BR is shown next to the last block of text moved.

5. Repeat steps 3 and 4 for each block of text you want to move to this location.
6. Press F8 (Reset) or space over AR or BR to remove AR or BR.
7. Press the Home key to return the cursor from the line command area to the text area.
8. Press the Enter key to remove the line command area from your display.

Shifting Text Left or Right

You can shift a line or a block of text left or right on your display by using the Left or Right line commands. The Left or Right line commands actually insert or delete spaces in front of the text on the line or lines.

To use the Left or Right line command:

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Do one of the following:
 - Type an **L** (Left) or an **R** (Right) followed by the number of spaces you want the *line* shifted (for example, **L10** to shift left ten spaces) in the line command area next to the line you want to shift.
 - Type **LL** (Left) or **RR** (Right) followed by the number of spaces you want the *block* of text to shift (for example, **LL3** to shift left three spaces) in the line command area next to the first line of the block of text you want to shift. Type **LL** or **RR** in the line command area next to the last line of the block of text you want to shift.

3. Press the Enter key and the text is moved horizontally on the display.
If the number of spaces you want the text shifted goes past the existing margin, the text is shifted as far as possible up to that margin.
4. Press the Home key to return the cursor from the line command area to the text area.
5. Press the Enter key to remove the line command area from your display.

Using the Delete Line Command

You can use the Delete line command to delete a single line of text or a block of lines.

Deleting a Single Line of Text

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Type a **D** in the line command area next to the line you want to delete.
3. Press the Enter key and the line is deleted.
4. Press the Home key to return the cursor from the line command area to the text area.
5. Press the Enter key to remove the line command area from your display.

Deleting a Block of Lines

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Specify a block of text to be deleted in one of two ways:
 - Type **DD** in the line command area next to the first and last lines of the block of text you want to delete. This way is faster when you have to page through your document searching for the last line of the block of text you want to delete.

```

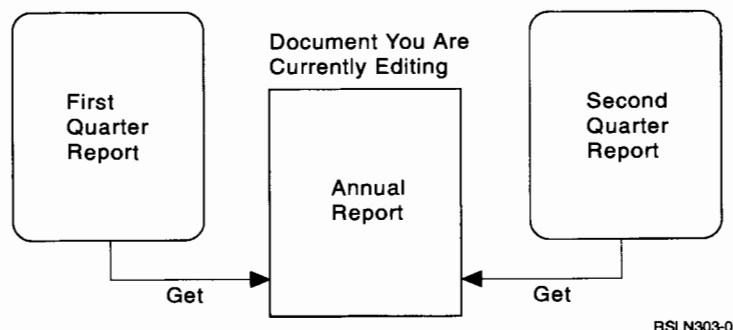
LETTER  P:12                      EDIT                      PG:1    LN:12
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.
■
Mr. John J. Phillips■
Wagner, Inc.■
2400 Wayside Park■
Milwaukee, WI 86204■
■
Dear John:■
■
Thank you for your kind note. The type of bolt you requested
costs $8.64.  Quantity discounts are available.■
■
dd The type of bolt you requested costs $8.64. Thank you for your kind
letter.  Quantity discounts are available.■
dd ■
If you need any more information, please give me a call.■
■
Very truly yours,■
■
■

```

- Type a **D** followed by the number of lines in the block (for example, **D3** to delete three lines) next to the first line of the block of text you want to delete. This way is faster when you know exactly how many lines are in the block of text you want to delete.
3. Press the Enter key and the block of text is deleted.
 4. Press the Home key to return the cursor from the line command area to the text area.
 5. Press the Enter key to remove the line command area from your display.

Copying Text from Another Document

You can insert all or part of another document into the document you are currently editing. For example, you might want to insert parts of the first and second quarter reports into the final annual report for your company. This information is already typed and stored in other documents on your system. You can insert all or selected pages from either report (or both reports) directly into the document you are currently editing at the place you want it.



You can insert text in one of the following ways:

1. Using the get function. The get function immediately gets the text into the document you are editing. You can get text from any document or source physical file.
2. Using the Include instruction. The text is not included in your document until you print the document. You can include text from any document, but you cannot include text from a source physical file.

Note: The document you are getting or including assumes the format of the document you are currently editing unless specific format changes are in the text you are getting or including.

Using Get

To use the get function:

1. Move your cursor to the place in your document where you want to insert the text.
2. Press F14 (Get options) to see the Get display.
3. If you want to get text from another document, type the document name and folder name for the document you are getting the text from.

If you want to get text from a source physical file, type the file name, library name, and member name for the source physical file you are getting the text from.

Note: If the member name for the file contains double byte character set data, you may get unexpected results.

If you want to get text from a PC file document, see "Copying Text from a PC File Document" on page 3-17.

4. To get specific pages, type the page numbers in the *Pages to get* prompt. Type the page numbers in the order you want them copied into your document and separate them by blanks (such as 1 7 5 3), or specify a range of pages (such as 1-5).

If you want to get the entire document, leave the *Pages to get* prompt blank.

5. Type a 1 (Get directly to document) for the *Get option* prompt.
6. Press the Enter key.

You are returned to the Edit display and the text is inserted into your document.

Using Get with Split Edit

If you are not sure where the text you want to get is located, you can split the typing area and bring a copy of the other document to the bottom of the Edit display to look at it. Then, when you see the text you want to get, you can copy it from the second document into the document you are editing.

To split the typing area:

1. Press F14 (Get options) to see the Get display.
2. Type the document name and folder name for the document you are getting the text from.

If you want to get text from a file, type the file name, library name, and member name for the file you are getting the text from.

If you want to get text from a PC file document, see "Copying Text from a PC File Document" on page 3-17.

3. Leave the *Pages to get* prompt blank. You cannot specify pages when splitting the typing area.
4. Type a 2 (Get to split display) for the *Get option* prompt.
5. Press the Enter key.

You return to the Edit display and the document or file you specified is shown in the split edit area at the bottom of the display. The document in the split edit area cannot be changed.

6. Copy the text from the split edit area into the document you are editing (at the top of the display), using F1 (Copy) or line commands. If you do not remember how to copy, see "Copying Text" on page 3-3 or "Using the Copy Line Command" on page 3-6.

Press the New Line key to move the cursor from the split edit area to the top of the display.

When you have finished copying text, press F3 (Exit) to remove the document from the bottom of the Edit display.

Notes:

1. The default size of the split edit area is 10 lines. You can change this size by pressing F13 (Change editing options) and specifying the number of lines you want for the *Lines on split edit* prompt.
2. If you specified Y (Yes) for the *Auto window and roll* prompt on the Change Editing Options display or you are using the PC text-assist function, use the Shift key and the New Line key to move the cursor back and forth from the split edit area to the Edit display.

Using Include

To include text from another document in your document, do the following:

1. Press F5 to show the *Goto* prompt.
2. Type `.inc` and press the Enter key. The Include Instruction display is shown.
3. Type the name of the document that has the text you want to include for the *Document* prompt. You can use a data field or a variable name for this prompt. Data fields and variable names must begin with an ampersand (&).

Note: If you use a variable name, it must be defined somewhere else in the document with a Summary Math or Set Variable instruction.

4. Type the name of the folder containing the document you want to include for the *Folder* prompt. You can use a data field or a variable name for this prompt. Data fields and variable names must begin with an ampersand (&). If a data field or variable is used for the *Folder* prompt, the data retrieved for the folder name must be in uppercase letters.
5. To include specific pages of the document, type the page numbers in the *Pages to include* prompt in the order you want them included in your document and separated by blanks (such as 1 7 5 3). You can use a data field or a variable name for this prompt. Data fields and variable names must begin with an ampersand (&).

Note: When including a specific page of a document, page end controls for the specified page are ignored. Also, if a Page Break instruction (.pa) is immediately followed by a page end control, the Page Break instruction is ignored.

If you want to include the entire document, leave the *Pages to include* prompt blank.

6. Press the Enter key to return to the Edit display. The Include instruction is inserted at the cursor position and the text is inserted in the document when the document is printed.

If you use include instructions in your document, you should specify one of the following on the Print Options display:

- Y (Yes) for the *Adjust page endings* prompt.
- N (No) for the *Adjust page endings* prompt and Y (Yes) for the *Renumber system page numbers* prompt.

If you specify N (No) for the *Adjust page endings* prompt and N (No) for the *Renumber system page numbers* prompt, you need to make sure that you have enough available system page numbers in your source document for all of the include pages. Each new page of the include is placed on the next available

decimal point page number. There are only 99 decimal point page numbers available between each whole system page number. For example, there are 99 pages available between 1 and 2 (1.01, 1.02, 1.03, and so on up to 1.99). If you do not have enough available system page numbers in your source document, an error message is printed on the error log and only part of the include may be printed.

In the following example, the include is on page 2. The next page used in the source document after the include is page 3. Up to 99 new include pages can be printed between pages 2 and 3. If the include has more than 99 new pages, only the first 99 pages are printed and an error is printed in the error log.

Source Document	Include
Page 1 of source 1.00	include page www 1.00
Page 1.10 of source 1.10	include page xxxx 2.00
Page 2 of source 2.00 *inc	include page yyyy 2.01
Page 3 of source 3.00	include page zzzz 3.00

Printed Document
Page 1 of source 1.00
Page 1.10 of source 1.10
Page 2 of source 2.00
include page www
include page xxxx 2.01
include page yyyy 2.02
include page zzzz 2.03
Page 3 of source 3.00

← Notice that the next page of the include is put on the next available decimal point page number, 2.01.

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Notes:

1. You cannot include a label document.
2. You can include text containing another Include instruction (up to 50 levels).
3. If you use data fields in any of the prompts for the Include instruction, you must specify the merge source. To specify the merge source, press F15 (Merge Data Options) on any page of the Print Options display when printing a document, or press F15 (Merge Data Options) on the Merge Options display when merging a document.

Copying Text from a PC File Document

You can get a PC file document from a shared folder and copy it to an OfficeVision/400 document. You can copy text directly into your document, or you can view both your document and the text from the PC file document and then copy the desired text into your document. Before you can copy text from a PC file document, you must set the ASCII options.

To set the ASCII options:

1. On the Edit display, press F14 (Get), and then press F9 (ASCII options). The ASCII Options display is shown.

```

USERDOC,USERLIB P:12          EDIT          PG:1      LN: 7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
This is sample text that appears at the top of the Edit display when the
following split screen is displayed. This text is positioned to the top
of the display based on the cursor position when the split screen
display was requested. This is sample text that appears at the top of
the display.

```

ASCII Options

Type choices, press Enter.

Item	Choice	Possible Choices
Type of ASCII text.	1	1=8-bit, 2=7-bit
ASCII code page	437	437, 850

F3=Exit F12=Cancel

- If the text you are getting is 7-bit ASCII (for example, a document from certain PC word processing applications or other PC applications), type a **2** (7-bit) for the *Type of ASCII text* prompt. Otherwise, leave this prompt set at **1** (8-bit).

Each time you change your choice for this prompt, the system automatically remembers your choice and uses it the next time.

- The *ASCII code page* prompt shows a default code page based on the system value for the type of keyboard. If you want to use a code page other than the default, type one of the following code pages for the *ASCII code page* prompt:

Code Page	Name
437	USA, Personal Computer
850	Multilingual Page, Personal Computer
851	Greece, Personal Computer
857	Latin #5, Turkey
860	Portugal, Personal Computer
861	Iceland, Personal Computer
863	Canadian French, Personal Computer
865	Nordic, Personal Computer
869	Greek, Personal Computer

- Press the Enter key to save your changes and return to the Get display.
- Press F3 (Exit) to return to the Edit display.

Copying PC File Document Text Directly into Your Document

To copy text directly into your document:

- Move the cursor to the place in your document where you want to insert the text from the PC file document.

Using Split Display to Get a PC File Document

To use a split display to get a PC file document:

1. Press F14 (Get options) and the Get display is shown.

```
DOCNAME P:12          EDIT Page End          PG:1      LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
This is sample text that appears at the top of the Edit display when the
following split screen is displayed. This text is positioned to the top
of the display based on the cursor position when the split screen
display was requested. This is sample text that appears at the top of
```

Get

Type choices, press Enter.

Document	_____	Name, F4 for list
Folder	_____	Name, F4 for list

-OR-

File	_____	Name
Library	_____	Name, *LIBL
Member	_____	Name, *FILE, *FIRST, *LAST
Get option	-	1=Get directly to document 2=Get to split display

Pages to get _____

F3=Exit F4=Prompt F9=ASCII options F12=Cancel

2. Type the name of the document and folder where the PC file document (to be copied) is stored for the *Document* and *Folder* prompts. Or, press F4 for a list of documents or folders from which to select the document copy.
3. Leave the *File*, *Library*, and *Member* prompts blank.
4. Type a 2 (Get to split display) for the *Get option* prompt.
5. Leave the *Pages to get* prompt blank.
6. Press the Enter key. The text from your current document is shown at the top of your display and the text from the PC file document is shown at the bottom of your display. If some of the text could not be copied, the following message is shown:

ASCII data that could not be converted was found.

The characters that could not be copied are replaced with spaces.

```
MRG6          P:12 A          EDIT          PG:1      LN:7
<2T.....3.....4..T.....5...v....6.....t.....8.....9>.....
This is sample text that appears at the top of the Edit display when the
following split screen is displayed. This text is positioned to the top
of the display based on the cursor position when the split screen
display was requested. This is sample text that appears at the top of
the display.
```

```
PCDOC2          P:12          DOCUMENT          PG:1      LN:1
This is sample data that appears from the PC file document you are getting.
You can use F1 (Copy) to copy the data. If you are not using the
PC text-assist function, you can use the copy line commands.
```

7. Use F1 (Copy) to copy the data you want from the PC file document into your document. If you are not using the PC text-assist function, you can use the Copy line commands instead of F1 (Copy). If you do not remember how to use these functions, see "Copying Text" on page 3-3 or "Using the Copy Line Command" on page 3-6.

If you specified Y (Yes) for the *Auto window and roll* prompt on the Change Editing Options display, use the New Line key to move the cursor back and forth from the split edit area to the Edit display.

8. After completing the copy, press F3 (Exit/Save) and the PC file document is removed from the bottom of the Edit display. Your document now contains a copy of the data from the PC file document. You can edit any of this data.

Note: The default size of the split edit area is 10 lines. You can change this size by pressing F13 (Change editing options) and specifying the number of lines you want for the *Lines on split edit* prompt.

Sorting Lines of Text

You can sort lines of text in ascending order (low to high order; for example, A to Z), or in descending order (high to low order; for example, 10 to 01).

Ascending	Descending
Adams	06/12/1989
Samson	05/12/1989
Thompson	04/10/1989

When you sort numeric data, you must either align the numbers on existing or implied decimal points or make sure that all numbers have an equal number of digits.

Decimal Alignment Equal Number of Digits

1024	06/03/89
238.6	10/30/89
5.25	
68	

Other numeric editing symbols such as negative and currency symbols should not be placed in numeric data. Numeric data containing these symbols is not sorted correctly.

When you sort text, first specify the block of lines you want to sort. Then specify how you want the lines sorted. After you specify the block of lines you want to sort, all the lines (from the left margin to the right margin) within the sort block are highlighted.

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
The following employees have been approved to attend
the Presidents Luncheon on July 9, 1989.

Smith	Fred	089515
Samson	Kate	089541
Smith	Ann	086124
Simpson	Joe	126481

After the block of lines is highlighted, you press the Enter key to verify that this is the block of lines you want to sort. The Sort Options display is shown. On this display, specify how you want the lines sorted. You can specify up to four sort fields at one time. For example, to sort a list of names, the first sort field could be the last name, the second sort field could be the first name, the third sort field could be the employee number, and so on. You specify the sort fields by starting position (left edge) and ending position (right edge).

You can move the scale line by pressing F7 (Window) to help you determine the starting and ending position for each sort field.

To sort lines of text:

1. On the Edit display, move the cursor to the first line you want to sort.
2. Press F5 (Goto), type s for the prompt.
3. Press the Enter key and the first line is highlighted.

A prompt is shown on the message line at the bottom of your display:

Move cursor to end of sort block, press Enter.

4. Move your cursor to the last line of the block of lines you want to sort.

If you are using the PC text-assist function, the text is highlighted as you move the cursor.

If you are not using the PC text-assist function, press the Enter key. The entire block of lines is highlighted.

5. Press the Enter key to verify that this is the block of lines you want to sort.

The Sort Options display is shown.

```

USERDOC,USERLIB P:12          EDIT          PG:1      LN: 7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>:....
Smith   Fred      089515
Samson  Kate       089541
Smith   Ann        086124
Simpson Joe       126481

```

Sort Options			
Type information for 1 to 4 sort fields, press Enter. (Sort fields may overlay, follow, precede, or be adjacent to other sort fields.)			
Sort Order Fields	Starting Position (1-999)	Ending Position (1-999)	Sort Order (1=Ascending, 2=Descending)
First	19	28	1
Second	29	38	1
Third			1
Fourth			1

F3=Exit F7=Window F12=Cancel

- Type the number of the starting position for each sort field in the *Starting Position* column. For example, if you want to sort the previous list of names by last name, specify the starting position for the first sort field as **19**

Note: The default shown on your display is the left margin of your document.

- Type the number of the ending position for each sort field in the *Ending Position* column. For example, if you want to sort the previous list of names by last name, specify the ending position for the first sort field as **28**

Note: The default shown on the display is the right margin of your document.

- Type a **1** (Ascending order) or **2** (Descending order) in the *Sort Order* column for each sort field.

- Press the Enter key.

- If the block of lines to sort *does not* contain one or more controls that could cause undesirable results after the sort (such as a Change Font instruction or Reset Format control character), you are returned to the Edit display with the text sorted in the order you specified.

For example, if you sort a list of names in ascending order with the last name as the first sort field (19-28) and the first name as the second sort field (29-38):

```

<2...T:...T3...T:...T4...T:...T5
Smith   Fred      089515
Samson  Kate       089541
Smith   Ann        086124
Simpson Joe       126481

```

The result of the sort is:

```

<2...T:...T3...T:...T4...T:...T5
Samson  Kate       089541
Simpson Joe       126481
Smith   Ann        086124
Smith   Fred      089515

```

- If the block of lines to sort *does* contain one or more controls that could cause undesirable results after the sort (such as a Change Font instruction or Reset Format control character), the Confirm Sort display is shown with the applicable control or controls highlighted.

Confirm Sort

Warning: The block to be sorted contains text controls that may cause undesirable results in the sorted block.

Press Enter to confirm your choice to sort the block.
Press F12=Cancel to change your choice(s).

Significant formatting changes could occur in your document because of the following text controls:

o Begin conditional text	o End overstrike
o Begin keyboard change control	o End running heading
o Begin overstrike	o End table
o Begin running heading	o Next text column
o Begin table	o Font
o Cancel running heading	o Line format change
o Color	o Reset format
o End conditional text	o Super/subscript
o End keyboard change control	o Text columns

F12=Cancel

See "Sorting Lines of Text that Contain Text Instructions or Controls" and then do one of the following:

- Press the Enter key to continue.
- Press F8 (Reset) from your edit display to cancel the sort function.
- Press F12 (Cancel) to return to your edit display to change your choices.

Sorting Lines of Text that Contain Text Instructions or Controls

If you are sorting lines of text that contain instructions or controls, consider the following:

- Format changes stay with the line of text that follows the format change. If you are using the PC text-assist function, format changes remain on the same line.
- You must sort lines of text within a page. If a Page End control character is marked as the last line of the sort block, it is ignored and remains on the same line.
- Instructions that are automatically placed on a line by themselves are grouped together at the top of the sort block.
- Instructions that are within a line of the sort block are sorted according to whatever text of the instruction is displayed.
- Lines that are underlined or bold have Begin/End Bold or Underline controls automatically inserted at the beginning or end of the lines so that they appear bold or underlined after the sort.
- If your sort block contains formatted text, you must have both a Begin and End Formatted Text control character on the line that is to be sorted. If you do not have a matching Begin and End, the sort function is canceled.

- If you try to sort columns without any data, you do not receive an error message.

Using Revision Symbols

You may want to add revision symbols to a document to show what has changed. Revision symbols are not shown on the display after you add them, but are shown when the document is printed.

To add revision symbols to a document:

1. On the Edit display for the document you want to add revision symbols to, press F13 (Edit options).
2. For the *Revision symbols* prompt on the Change Editing Options display, type the character you want for the revision symbol; for example, a vertical bar (|). Press the Enter key.
3. Type the changes to the document.
4. Press F3 (Exit). The Exit Document display appears.
5. For the *Print document* prompt, type a Y (Yes).
6. For the *Display print options* prompt, type a Y (Yes).
7. Press the Enter key. The Print Options display is shown.
8. Press the Page Down key until page 4 of the Print Options display is shown.
9. For the *Print revision symbols* prompt, type a Y (Yes).
10. For the *Symbols to be printed* prompt, type the character for the revision symbol in your document. Up to five different symbols can be specified.
11. Press the Enter key. Your document is submitted for printing.

To remove revision symbols from a document:

1. On the Edit display for the document you want to remove revision symbols from, press F13 (Edit options).
2. For the *Remove revision symbols* prompt on the Change Editing Options display, type a Y (Yes). Press the Enter key.

Moving Around in the Document

Use F5 (Goto) to find a specific page or line in your document. You can use F4 (Find character) or F6 (Find) to find a specific character, word, or phrase in your document. Use F18 (Search/Replace) to find a word or phrase and replace it with another word or phrase.

Finding a Specific Page or Line

To move around in the document, press F5 (Goto) to use the *Goto* prompt to find a specific page or line in the document, to go to the beginning or end of the document, or to move a specific line to the top of the display.

Note: F5 cannot be used to find words or phrases.

To move forward or backward to a specific page number:

1. Type the desired page number in the *Goto* prompt.
2. Press the Enter key.

To move forward to the next page:

1. Do not type anything in the *Goto* prompt.
2. Press the Enter key.

To move forward or backward to a specific line number on the current page:

1. Type a slash (/) followed by the line number in the *Goto* prompt.
2. Press the Enter key.

To move ahead a specific number of lines:

1. Type a plus (+) and the number of lines in the *Goto* prompt.
2. Press the Enter key.

To move back a specific number of lines:

1. Type a minus (-) and the number of lines in the *Goto* prompt.
2. Press the Enter key.

To move to a specific page and specific line:

1. Type the page number followed by a slash (/) and the line number in the *Goto* prompt.
2. Press the Enter key.

To move to the beginning of the document:

1. Type a 1 in the *Goto* prompt.
2. Press the Enter key.

To move to the end of the document:

1. Type 9999 in the *Goto* prompt.
2. Press the Enter key.

To move the specific line where your cursor is positioned to the top of the display:

1. Type a slash (/) in the *Goto* prompt.
2. Press the Enter key.

Finding a Specific Character, Word, or Phrase

You can use F4 (Find character) or F6 (Find) to find a specific character, word, phrase, or format change in a document.

The document is searched forward from the position following the cursor to the end of the document. F4 (Find character) is uppercase and lowercase-sensitive. That is, you must type the character in the prompt exactly as you typed it in your document. F6 (Find) is not uppercase and lowercase-sensitive.

To find a single character:

1. Press F4 (Find character).

The following message is shown on the bottom of the display:

Find which character?

2. Type the character you want to find.

The cursor moves to the next occurrence of that character in your document. Each time you type the character, the cursor moves again to the next occurrence of the character.

3. To end the find function, press F8 (Reset) or the Reset key.

Note: You can limit the search for F4 to the currently displayed information by typing a 1 (Display only) for the *Find characters* prompt on the Change Editing Options display. When using the PC text-assist function, the entire document is always searched.

To find several characters, a word, a phrase, or a format change:

1. Press F6 (Find).

The following message is shown on the bottom of the display:

Find what?

2. Type the characters you want (up to 60) and then press the Enter key.

The cursor moves to the next occurrence of those characters in your document.

3. To find the same character string again, press F6 (Find) and press the Enter key. (It is not necessary to retype the character string.)

The system continues to find the next occurrence of this character string until you specify a different character string.

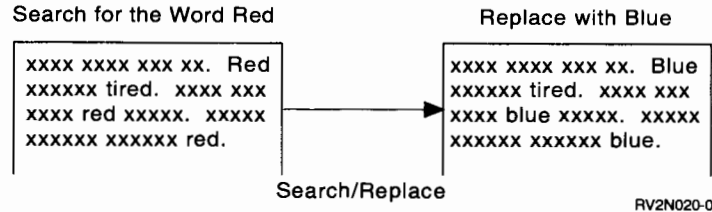
Notes:

1. You can specify control characters (for example, a Carrier Return, Page End, or a Tab) as well as alphabetic and numeric characters in the *Find* prompt. To find control characters, press the keys you would use to insert the control character. For example, to find the Begin Bold control character, press Alt B.
2. To find text instructions, press the Dup key for the *Find* prompt.
3. You can type hexadecimal values for the *Find* prompt. For more information on how to type hexadecimal values, see "Typing Special Characters" on page 2-26.
4. The characters (and control characters) typed for F6 (Find) are also used by F18 (Search/Replace). If you press F6 and then press F18, the *Search for* prompt is already filled in with the same character string.
F18 does not allow you to find instructions.
5. To find spelling errors marked in the document, type *SP or *SPELL as the find characters.
6. To find a format change in the document, type *FC as the find characters.
7. To find a Text Column format change (tc) in the document, type *MTC as the find characters.

Searching for and Replacing Text

You can search for a word or phrase and then replace it with another word or phrase throughout the entire document. The change can be automatic for all occurrences, or one at a time.

You can type up to 60 characters in the *Search for* prompt and the *Replace with* prompt. You can specify that only *words* be replaced, to keep the word *listless* from becoming *catalogless* when you replace *list* with *catalog* for all occurrences in the document. You can specify that the replacement characters be either inserted exactly as typed, or changed to uppercase or lowercase to match the characters being replaced.



Notes:

1. Search/replace searches forward from the cursor position. When searching for all occurrences of a word or character string, start at the top of page 1 in the document.
2. For information about searching for and replacing formats, see "Searching for and Replacing Formats" on page 7-4.

Using Search/Replace

To use search/replace:

1. Move the cursor either to the start of the document or before the first occurrence of the character string you are searching for.
2. Press F18 (Search/Replace).

The Search/Replace display is shown. For more information about any of the prompts, move your cursor next to the prompt and press the Help key.

3. Type the characters for the *Search for* and *Replace with* prompts. You can type up to 60 characters for each of these prompts.

Notes:

- a. If the *Search for* or *Replace with* phrase starts or ends with blanks, enclose the phrase in single quotation marks (' ').
 - b. To delete the *Search for* characters from the document, type two single quotation marks (' ') for the *Replace with* characters.
 - c. You can specify a different number of characters for the *Search for* prompt and *Replace with* prompt. For example, you could specify IBM for the *Search for* prompt and International Business Machines for the *Replace with* prompt.
 - d. You cannot replace text with a text instruction (for example, .date).
4. Type a 1 (Word) or a 2 (Exact character) for the *Type of match* prompt.
Select 1 (Word) if you want to find only entire words that begin and end with a blank or a punctuation mark; for example, if you specify to find the word 'side', the words ' side ' and 'side.' (last word in the sentence) will be found but 'sidewalk' will not.

Select 2 (Exact character) if you specify to find all occurrences of the specified characters, even those embedded within a word. For example, if you specify to find the exact characters 'for', the word 'information' will also be found because 'for' is part of that word.

5. Type a 1 (Ignore case) if you want to find all the characters whether they are uppercase or lowercase for the *Upper/lower case* prompt.

Or, type a 2 (Case must match) if you want to search for the word or phrase only if it matches the exact case such as all lowercase (word), uppercase and lowercase (Word), or all uppercase (WORD).

6. Type a 1 (Prompted) or a 2 (Automatic) for the *Type of replace* prompt.
7. If you want the characters to match the case of the characters that are found in the text, type a 1 (Match case) for the *Upper/lower case* prompt.

If you want the word or phrase to be replaced exactly as you typed it, type a 2 (Replace exactly as typed) for the *Upper/lower case* prompt.
8. Type a value for the *Ending page* and *Ending line* prompts. The search/replace function starts from the position of the cursor and goes to the end of the document unless you specify an ending page or ending line is specified.

9. Press the Enter key.

If you selected option 2 (Automatic) for the *Type of replace* prompt, you are returned to the Edit display after all replacements are made. The cursor position does not change. A message is displayed telling you how many phrases were changed.

If you selected option 1 (Prompted) for the *Type of replace* prompt:

1. The first occurrence of the *Search for* characters is found. The following message is displayed:

Press Enter to replace or F8 to not replace.
2. Press the Enter key to replace the characters; press F8 to leave the characters the same.
3. Press the Enter key to continue the search or press F8 to cancel the search. When all of the *Search for* characters have been found, a message is displayed:

Characters not found from cursor to end.

Finding and Replacing Control Characters

To specify control characters (such as Page End, Carrier Return, and Tab) for the *Search for* prompt:

1. Press F6 (Find).
2. Type the control character to be replaced. For example, to find and replace a Page End, press the Alt key plus the P key.

Note: Prompted stop codes are stored in a document as text instructions. If you press the Alt key plus the S key to replace stop codes, prompted stop codes are not replaced.

3. Press the Enter key. If the control character is found, the cursor moves to the first found character and the following message is displayed:

Search characters found.

4. Press F18 (Search/Replace).

The *Search for* prompt now has the same character string that you specified with F6. However, the control character is not displayed in the *Search for* prompt. A message is displayed:

Special characters changed in SEARCH string

5. Press the New Line key and type the desired information for the *Replace with* prompt. You can delete the control character specified in the *Search for* prompt by typing two single quotation marks for the *Replace with* prompt.

Note: You cannot replace a control character with another control character or with a text instruction (for example, .date).

6. Fill in any other search/replace prompts you want to use on the display.

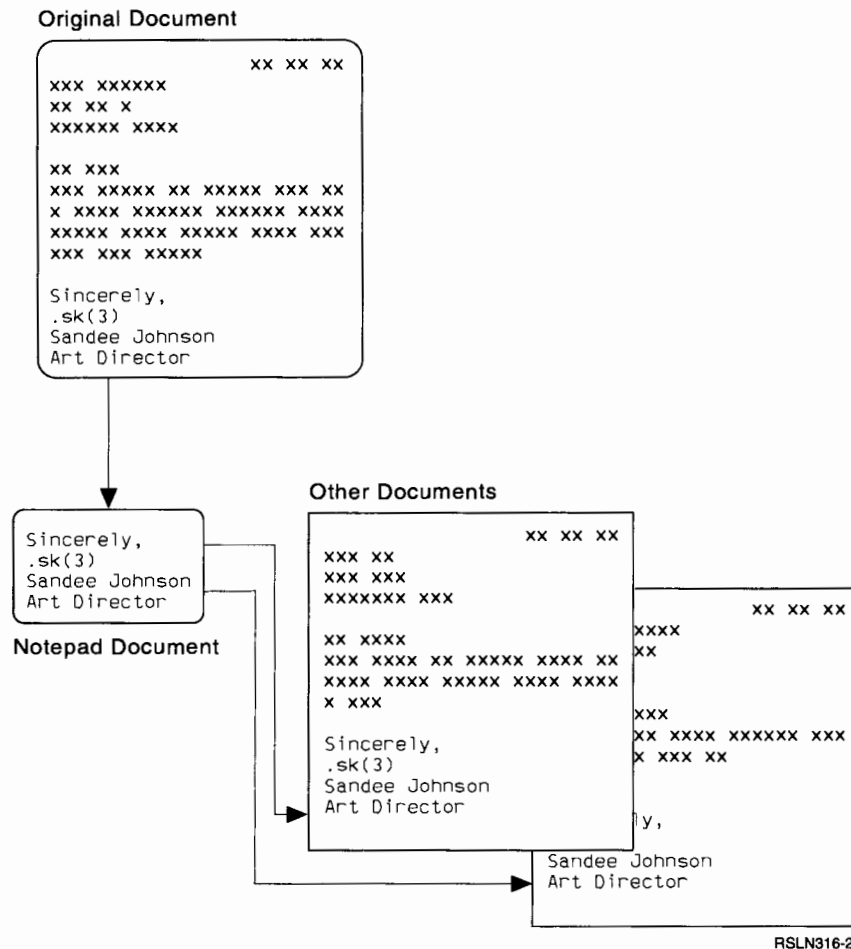
For information about the other search/replace prompts see "Using Search/Replace" on page 3-28.

Note: To limit the search/replace search, type an ending page and line number.

7. Press the Enter key and you are returned to the Edit display.

Saving and Recalling Text Using a Notepad

A **notepad** is a document you can use to store commonly used text. Use a notepad to store an often-used paragraph so you can insert it directly into your documents. You can easily copy or move text to a notepad, or recall the text from a notepad.



You can use the system-named notepad or user-named notepads.

To use a system-named notepad, select a notepad option. The system uses a notepad with the same name as your user ID, which is stored in folder QWPDOCS.

To use a user-named notepad, select a notepad option and then specify the name of the notepad. The system uses the notepad you specified. If you specify a notepad that does not exist, a new notepad is created.

If you only need to use one notepad, use the system-named notepad. If you need to use several notepads, use user-named notepads. Specify the kind of notepad you want to use on page 2 of the Change Editing Options display. The system automatically remembers which notepad you used in your last edit session.

In addition to text, a notepad can contain:

- Text instructions.
- Control characters such as underline, bold, stop codes, page ends, or tabs.
- Line format changes such as line spacing or type style.
- Page format changes such as headers, footers, or page layout.

You specify the notepad option on the Select Notepad Option menu or by using F5 (Goto).

You can get to the Select Notepad Option menu from the Edit display in one of the following ways:

- By pressing F17 (Functions) and selecting option 2 (Notepad). When the Select Notepad Option menu is shown, you can select to move or copy text to a notepad, or recall text from a notepad.
- By pressing F5 (Goto) and typing **np** for the prompt.

DOCNAME P:12

EDIT Page End

PG:1

LN:7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....

This is a document used to demonstrate the use of the notepad function.

np

Select Notepad Option

Select one of the following:

1. Move to notepad

2. Move and add to notepad

3. Copy to notepad

4. Copy and add to notepad

7. Recall from notepad

Selection

-

F3=Exit F12=Cancel

You can bypass the Select Notepad Option menu and select any of the notepad options directly by pressing F5 (Goto) and typing any one of the following:

npm	Move to notepad; <i>existing text in notepad is replaced</i>
npma	Move and <i>add</i> to notepad
npc	Copy to notepad; <i>existing text in notepad is replaced</i>
npca	Copy and <i>add</i> to notepad
npr	Recall from notepad

Using a System-Named Notepad

Each user has one system-named notepad. You can place text in the notepad and recall it from the notepad.

Placing Text in the System-Named Notepad

To place text in the system-named notepad:

1. If the text you want to place in the notepad is already typed, go to that document. If the text is not already typed, type the text for the notepad.
2. On the Edit display, press F13 (Change Edit Options) to go to the Change Editing Options display.
3. Go to page 2 of the Change Editing Options display.

Change Editing Options		Page 2 of 2
Type choices, press Enter.		
Notepad	1	1=System named 2=User named

4. Type a 1 (System named) for the *Notepad* prompt. This notepad is used each time you select the notepad function unless you change this prompt.
5. Press the Enter key. You are returned to the Edit display.
6. Position the cursor at the start of the text to be placed in the notepad.
7. Press F5 (Goto). Type one of the following for the Goto prompt:

npm	Move to notepad; <i>existing text in notepad is replaced</i>
npma	Move and <i>add</i> to text in notepad
npc	Copy to notepad; <i>existing text in notepad is replaced</i>
npca	Copy and <i>add</i> to text in notepad

Press the Enter key.
8. Move the cursor to the end of the text you want placed in the notepad.

If you are using the PC text-assist function, the text is highlighted as you move the cursor. If you are not using the PC text-assist function, press the Enter key; the text you selected is highlighted.
9. Press the Enter key. The text is placed in the system-named notepad.

Recalling Text from the System-Named Notepad

When you recall the text from the notepad, all the text stored in the notepad is inserted into the document at the cursor position. The text remains in the notepad and you can recall it over and over again.

To recall text from the system-named notepad and insert it into your document:

1. On the Edit display, position the cursor where you want to insert the text from the notepad.
2. Press F5 (Goto), type **npr** for the prompt, and press the Enter key.

The text is inserted into the document.

If you need to recall only a part of the text stored in the notepad, use F14 (Get) to view the notepad document using a split display, and then copy the text you need. The name of the system-named notepad is xxxxxxxx.yy (where xxxxxxxx is your user ID, .yy is the extension). This notepad is stored in the folder QWPDOCS. For information about using the Get function, see "Using Get with Split Edit" on page 3-15.

Using a User-Named Notepad

Each user can have any number of user-named notepads. To place text in a user-named notepad, you type the text, select the notepad option, and specify the notepad name. If you specify a notepad that does not exist, a new notepad is created.

Creating and Placing Text in a User-Named Notepad

1. If the text you want to place in the notepad is already typed, go to that document. If the text is not already typed, type the text for the notepad.
2. Press F13 (Change Edit Options) on the Edit display to go to the Change Editing Options display.
3. Go to page 2 of the Change Editing Options display.

Change Editing Options		Page 2 of 2
Type choices, press Enter.		
Notepad	1	1=System named 2=User named

4. Type a 2 (User named) for the *Notepad* prompt.
Note: Once you select option 2 (User named), you do not have to specify this prompt again unless you want to use the system-named notepad.
5. Press the Enter key. You are returned to the Edit display.
6. Position the cursor at the start of the text to be placed in the notepad.
7. Press F5 (Goto). Type one of the following for the Goto prompt:

npm	Move to notepad; <i>existing text in notepad is replaced</i>
npma	Move and <i>add</i> to text in notepad
npc	Copy to notepad; <i>existing text in notepad is replaced</i>
npca	Copy and <i>add</i> to text in notepad

Press the Enter key.
8. Move the cursor to the end of the text you want placed in the notepad.
If you are using the PC text-assist function, the text is highlighted as you move the cursor. If you are not using the PC text-assist function, press the Enter key; the text you selected is highlighted.
9. Press the Enter key to verify that you want the highlighted text placed in the notepad.

10. The Select Notepad Document display is shown.

DOCNAME P:12

EDIT Page End

PG:1

LN:7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....

This is a document used to demonstrate the use of the Notepad function.

Select Notepad Document

Type choices, press Enter.

Notepad document

Folder

Name, F4 for list

Name, F4 for list

F3=Exit F4=Prompt F12=Cancel

a. Type the name of the notepad you want the text placed in for the *Notepad document* prompt. If you type a name of a notepad that does not exist, it is created.

b. Type the name of the folder where the notepad document is stored for the *Folder* prompt.

If you do not know the name of the notepad or its folder, move the cursor to the prompt and press F4 (Prompt). A list of documents or folders is shown where you can select a name.

11. Press the Enter key. The text is placed in the notepad.

Recalling Text from a User-Named Notepad

When you recall the text from the notepad, all the text stored in the notepad is inserted into the document at the cursor position. The text remains in the notepad and you can recall it over and over again.

To recall text from a user-named notepad and insert it into your document:

1. Position the cursor on the Edit display where you want to insert the text from the notepad.

2. Press F5 (Goto), type **npr** for the prompt, and press the Enter key.

3. The Select Notepad Document display is shown.

a. Type the name of the notepad where the text you want is stored for the *Notepad document* prompt.

b. Type the name of the folder where the notepad document is stored for the *Folder* prompt.

If you do not know the name of the notepad or its folder, move the cursor to the prompt and press F4 (Prompt). A list of documents or folders is shown from which you can select a name.

4. Press the Enter key. The text is inserted into the document.

If you need to recall only a part of the text stored in the notepad, use F14 (Get) to view the notepad document using a split display, and then copy the text you need. For more information about using the Get function, see "Using Get with Split Edit" on page 3-15.

Specifying Words to Be Hyphenated

There are two types of hyphens:

- **Required hyphens** are used to connect two or more words to form a compound word; for example, father-in-law. These hyphens are never removed by the system.
- **Syllable hyphens** are inserted between syllables of a word at the end of a line. These hyphens are added and/or removed by the system as necessary during line adjustment and pagination.

You can either insert syllable hyphens as you are typing or you can let the system automatically hyphenate words for you.

Note: If you are using the PC text-assist function, you must insert syllable hyphens as you are typing or after you have typed the word. Automatic hyphenation is not supported.

Inserting Required Hyphens

To insert a required hyphen, just press the Hyphen key. These hyphens are not removed by the system when the document is paginated.

Inserting Syllable Hyphens

You can either insert syllable hyphens manually as you type, or you can have the system insert them automatically. Syllable hyphens are inserted between syllables of a word based on the hyphenation points already defined in the dictionaries; for example, syl-la-ble.

Inserting Syllable Hyphens As You Type

You can insert hyphens using F11 (Insert hyphen) either as you type or after you type the word. There are times when you will not be able to insert a hyphen because a better point to end the line was available.

Note: If you are using the PC text-assist function, you can insert syllable hyphens in any word (even if it is not at the end of a line) because the system remembers the syllable position.

To insert syllable hyphens as you type:

1. Press F5 (Goto) and type d1 for the *Goto* prompt.
2. Press the Enter key and the Line Spacing/Justification Options display is shown.
3. Type an N (No) for the *Insert hyphens* prompt.

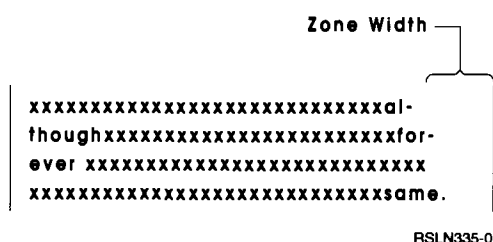
Words that do not fit on a line do *not* automatically have a syllable hyphen inserted.

4. Press the Enter key to return to the Edit display.
5. Move the cursor to where you want to insert a syllable hyphen.

If the word does not fit on the line, you receive the following message: Hyphen not allowed at cursor position. You must either choose another hyphenation point or move the word to the next line.

Inserting Syllable Hyphens Automatically

When you insert syllable hyphens automatically, words are hyphenated to fit within the right margin. Lines are adjusted so they end as near as possible to the right margin. You control how near to the right margin you want the text to print by specifying the hyphenation zone width. The hyphenation zone width is the area of the line to the left of the right margin where hyphenation is allowed as shown below. The larger the zone width, the more ragged or uneven your right margin. The smaller the zone width, the more even the right margin will be.



If you want the hyphenation points checked from a dictionary other than an IBM language dictionary, you must specify that name before the IBM language dictionary on the Specify Dictionary Options display. For more information, see “Using User Dictionaries” on page 5-2.

You can have the system insert syllable hyphens for an entire document or for a part of a document.

1. Press F13 (Edit options). The Change Editing Options display is shown.
2. Type a Y (Yes) for the *Adjust text when editing* prompt.
3. Press the Enter key to return to the Edit display.
4. Press F5 (Goto) and type d1 for the *Goto* prompt.
5. Press the Enter key and the Line Spacing/Justification Options display is shown.
6. Type a number from 1 to 30 for the *Hyphenation zone width* prompt.

7. If you want to have the words hyphenated automatically when you adjust line endings, type a Y (Yes) for the *Insert hyphens* prompt.

If you do not want the words hyphenated when you adjust line endings, type an N (No) for the *Insert hyphens* prompt.

8. Press the Enter key to return to the Edit display.

To have the system insert syllable hyphens for a part of your document:

1. Press F13 (Edit options) and the Change Editing Options display is shown.
2. Type a Y (Yes) for the *Adjust text when editing* prompt.

If a word is at the right margin and will not fit on that line, the word is automatically hyphenated.

3. Press Enter to return to the Edit display.
4. Move the cursor to where you want the system to start hyphenating words.
5. Press F5 (Goto) and type a 1 for the *Goto* prompt.
6. Press the Enter key and the Line Spacing/Justification Options display is shown.
7. Type a number from 1 to 30 for the *Hyphenation zone width* prompt.
8. Type a Y (Yes) for the *Insert hyphens* prompt. Your words will be hyphenated automatically when you adjust line endings.
9. Press the Enter key to return to the Edit display.
10. Move the cursor to where you want the system to stop hyphenating words.
11. Press F5, type rf for the *Goto* prompt, and press the Enter key.

The Reset Format display is shown.

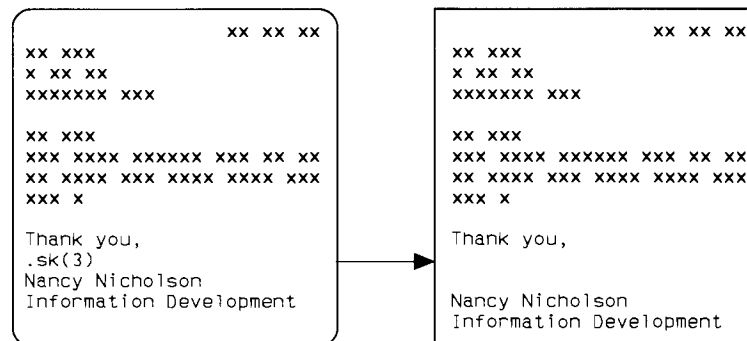
12. Type a 2 (Margins and tabs, line spacing/justification, typestyle/color) to reset the line spacing/justification to the values specified by the document format or alternate format, whichever was used last in the document.
13. Press the Enter key. The line spacing/justification values are reset.

Skipping Lines

If you want the printer to skip lines when printing a document, you can use the Skip (.sk) instruction to skip a specified number of lines, or you can use the Skip to Line (.stl) instruction to skip to a specified line number.

Skipping a Specified Number of Lines

You can use the Skip (.sk) instruction to have the printer skip a certain number of lines. For example, if you wanted to leave 3 blank lines between your closing and your signature, you would simply insert a skip instruction between your closing and signature.



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If you have an existing Skip instruction in your document and you want to know how many lines the printer will skip, position your cursor to the Skip instruction and press the Enter key. The Skip Instruction display shows the number of lines the printer will skip in the *Number of lines to skip* prompt.

To skip several lines:

1. On the Edit display, press F5 (Goto).
2. Type `.sk` for the prompt and press the Enter key. The Skip Instruction display is shown.
3. Type the number of lines you want the printer to skip for the *Number of lines to skip* prompt. For example, if you want to skip 4 lines, type 4.
4. Press the Enter key. The instruction is inserted at the cursor position and the lines are skipped when the document is printed.

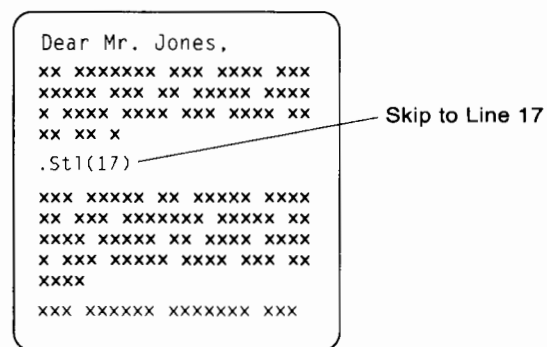
If you are using the PC text-assist function, the line number on the status line of the Edit display is increased by the number of lines you skipped. If you are not using the PC text-assist function, the line number on the status line is increased by one.

Notes:

1. If you have a Skip instruction in multiple text columns and the Skip instruction extends past the end of the column, the skip is shortened when you print the document and a warning message is printed in the error log.
2. For both the Skip and Skip to Line instructions, single lines of text are skipped even if you are using another type of spacing such as double or triple spacing.

Skipping to a Specified Line

You can use the Skip to Line (`.stl`) instruction to have the printer skip down and print text on a specific line number. This can be very helpful if you need exact placement of certain text on preprinted forms such as employment applications, or on certain kinds of reports.



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To skip to a specified line number:

1. On the Edit display, press F5 (Goto).
2. Type `.stl` for the prompt.

3. Press the Enter key.

The Skip to Line Instruction display is shown.

DOCNAME P:12

EDIT Page End

PG:1

LN:7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....

This is a document used to demonstrate the use of the Skip to Line function.

stlSkip to Line

This instruction causes the printer to skip down to the specified line number before printing is continued.

Type choices, press Enter.

Line number to skip to. 17_ 1-999.5

Instruction length 1-255, Blank=Entire Instruction

F3=Exit F12=Cancel F16=Delete Instruction

4. Type the line number you want the printer to skip to for the *Line number to skip to* prompt. For example, if you want to skip to line number seventeen, type 17.

Note: Remember that most documents start on line 7. The line number that is shown is the actual line number starting with line number 1 at the top of the paper.

5. Press the Enter key. The instruction is inserted at the cursor position. You do not see any blank lines on the display but the lines are skipped when the document is printed.

If you are using the PC text-assist function, the line number on the status line (when your cursor is positioned on the line following the instruction) is the actual line number you entered on the Skip to Line display. If you are not using the PC text-assist function, the line number on the status line is increased by one.

Notes:

1. A Skip to Line instruction is not allowed in multiple text columns.
2. If the line to skip to is before the current line, you receive an error message on the error log when the document is printed, and the Skip to Line instruction is ignored.
3. For both the Skip and Skip to Line instructions, single lines of text are skipped even if you are using another type of spacing, such as double or triple spacing.

Keeping Text Together

There are two functions that allow you to keep text together:

- Required Space control character, to keep words together on a line.
- Begin and End Keep instructions, to keep lines together on a page or column.

Keeping Text Together on a Line Using a Required Space

A Required Space keeps words together on the same line; for example, you want the month and day to be printed on the same line as the year.

Printed Incorrectly

The United States of America
became an independent country on July
4, 1776.

Printed Correctly

The United States of America
became an independent country on
July ▼ 4, ▼ 1776.

Required
Spaces

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To insert Required Spaces for the above example:

1. After you type the y in July, press the Alt key plus the spacebar.
2. After the comma (,), press the Alt key plus the spacebar.

To check that a Required Space is inserted between the words, move your cursor between the y and the 4. The words Required Space should appear in the audit window at the top of the Edit display.

Notes:

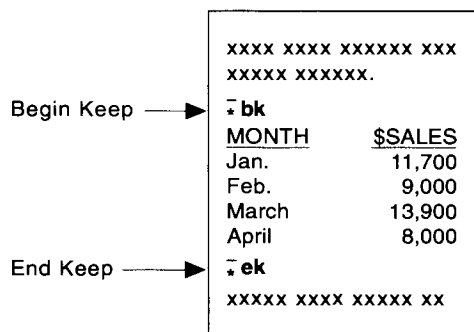
1. Required Spaces are not expanded during line justification.
2. Required Spaces are handled like text characters.
3. Required Spaces are always struck over by the Overstrike text instruction.
4. Required Spaces are underlined by a Word Underline control character.
5. Trailing Required Spaces are underlined.

Keeping Text Together on a Page or Column Using Keep Instructions

The Begin and End Keep instructions keep sections of text together that might be split across pages or columns by automatic pagination. For example, you would not want a table to be split, or a section heading to be separated from the text following it.

To insert Begin and End Keep instructions in your text:

1. Type a Begin Keep instruction (**.bk**).
2. Type the block of text you want to keep together.
3. Type an End Keep instruction (**.ek**).
4. Press the Field Exit key to insert a Required Carrier Return and continue typing text in the document.
5. When you press the Enter key, the period before each instruction becomes an Instruction character (an asterisk with a line above it or a graphic symbol shown as an ^L when using the PC text-assist function).



RV2N251-0

Notes:

1. You can delete the Begin and End Keep instructions using the Delete key. The Instruction character (an asterisk with a line above it or a graphic symbol shown as an ^L when using the text assist function) before the bk and ek must also be deleted.
2. If the text between the Begin and End Keep instructions cannot fit on a single page or column, the text is split regardless of the keep instructions.
3. If a Start New Page instruction (.pa) is between the Begin and End Keep instructions, the Start New Page instruction is processed during pagination and the text is split.
4. Begin and End Keep instructions are ignored when the document is printed if you specify **N** (No) for the *Adjust page endings* prompt on the Print Options display.
5. The Begin Keep instruction ends when any of the following text instructions occurs: Start New Page, an Outline Heading instruction that starts a new page, an End Keep instruction, a Table of Contents instruction, a Graphic instruction that does not print text with the graphic, or an Index instruction. The Begin Keep instruction also ends when the end of the page is reached.
6. A Required Carrier Return following the Begin or End Keep instruction creates a blank line.
7. Begin and End Keep instructions are ignored in Related Text columns. Also, Related Text columns are ignored in Begin and End Keep instructions.
8. If you are using a Begin or End Keep instruction within **flowing and balanced** text columns, keeping the text together has a higher priority than balancing the columns. However, the columns will be balanced as closely as possible.

Adjusting Lines

Line adjustment arranges the lines of text to fit between the left and right margins. If you want the lines to be adjusted, specify Y (Yes) for the *Adjust line endings* prompt on the Line Spacing/Justification Options display. It is done automatically each time you press the Enter key if you specify Y (Yes) for the *Adjust text when editing* prompt on the Change Editing Options display.

Word spill arranges lines of text to fit between the left and right margins, but moves an entire word to the next line. No attempt is made to hyphenate the word. To make word spill active, specify Y (Yes) for the *Adjust line endings* prompt on the Line Spacing/Justification Options display.

If you specify N (No) for the *Adjust line endings* prompt on the Line Spacing/Justification Options display, you get a word spill error if you attempt to type past the right margin.

There are times when you will not want automatic line adjustment. For example, if you are typing columns of data or a chart, you should end lines with a Required Carrier Return. This eliminates the need to make a format change before and after the chart. You can turn automatic line adjustment off by inserting a line format change and typing an N (No) for the *Adjust line endings* prompt on the Line Spacing/Justification Options display.

You can also adjust line endings on the Edit display using F16 (Adjust/Paginate) on the Save Options display when saving a document, or on the Print Options display when printing a document.

Adjusting lines arranges text *on* a page, not across pages. You should paginate your document (adjust page endings) when you have major changes that affect page endings. For more information about adjusting page endings, see "Paginating" on page 3-48.

Adjusting Lines Automatically When Editing a Document

You can change the current line adjustment setting for an entire document or for a section of the document. If you change the line adjustment setting for the entire document, it does not affect the sections that have a format change that is active.

To turn automatic line adjustment on or off for the entire document:

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type d1 to change the document line format and press the Enter key.

The Line Spacing/Justification Options display is shown.

3. Type the desired choice (Yes or No) for the *Adjust line endings* prompt. If you need more information about this prompt, move the cursor anywhere on the prompt line and press the Help key.
4. Press the Enter key to return to the Edit display.

To turn automatic line adjustment on or off for part of a document:

1. Move the cursor before the section for which you want line adjustment on or off.
2. Press F5 (Goto) to show the *Goto* prompt.

3. Type a 1 to change the line spacing/justification, and press the Enter key.

The Line Spacing/Justification Options display is shown.

4. Type the desired choice Y (Yes) or N (No) for the *Adjust line endings* prompt.
5. Press the Enter key to return to the Edit display.

A line format change is inserted at the cursor position.

6. To return the line format settings to the starting choice:
 - a. Move the cursor to the beginning of the line where you want to return to the starting line format.
 - b. Press F5 (Goto) to show the *Goto* prompt.
 - c. Type rf for the prompt and press the Enter key.

The Reset Format display is shown.

- d. Select option 2 to return the line format to the starting choice.

To turn automatic line adjustment on or off temporarily:

If you want to stop automatic line adjustment temporarily when you are editing, but you want to be able to adjust lines when saving or printing:

1. Press F13 (Edit options) to see the Change Editing Options display.
2. Type an N (No) for the *Adjust text when editing* prompt.
3. Press the Enter key.

You are returned to the Edit display. Automatic line adjustment does not occur, although the line format is set to allow adjustment.

4. To allow automatic line adjustment again, press F13 (Edit options) and type a Y (Yes) for the *Adjust text when editing* prompt.
5. Press the Enter key.

Note: Specifying Yes for the *Adjust text when editing* prompt on the Change Editing Options display does *not* cause line adjustment to occur if you specified No for the *Adjust line endings* prompt on the Line Spacing/Justification Options display.

Adjusting Lines Using F16

If you change the margins while editing a document, you may want to adjust the line endings. If you are not using the PC text-assist function and you changed the margins, the text is not shown past the right margin. To have the text displayed again, press F16 (Adjust/paginate), and the text that is past the right margin appears.

To adjust all the line endings in your document using F16 (Adjust/Paginate):

1. On the Edit display, press F16 (Adjust/Paginate). The Select Adjust/Paginate Option display is shown.

Revise Document		Ins	Pg 1
EXAMPLE,TEXTFLR		Typestyle 86 (12p)	Ln 7

<2.....3.....4.....5.....6.....7.>.....8.....9.....
 This is a document used to demonstrate the use of the paragraph
 adjust function.

Select Adjust/Paginate Option

Select one of the following:

1. Adjust line endings
2. Adjust line endings and page endings
3. Adjust to end of paragraph

Selection

—

F3=Exit F12=Cancel

2. Select option 1 (Adjust line endings) if you want to adjust only the line endings.

Select option 2 (Adjust line and page endings) if you want to adjust both the line and page endings.

Select option 3 (Adjust to end of paragraph) if you want to adjust the line endings to the end of a paragraph.

3. Press the Enter key.

If you select option 1 (Adjust line endings), the line endings in the entire document are adjusted.

If you select option 2 (Adjust line and page endings), all your lines are adjusted and the entire document is paginated.

If you select option 3 (Adjust to end of paragraph), your lines are adjusted from the current cursor location to the end of the paragraph.

If you select option 2 (Adjust line and page endings), you are returned to the first page in the document.

Adjusting Lines When Saving the Document

To adjust lines when saving a document:

1. Press F3 (Exit/Save) on the Edit display to end and save the document. The Exit Document display is shown.
2. Type a Y (Yes) for the *Display save options* prompt.
3. Press the Enter key and the Save Options display is shown.
4. Type a 2 (Line endings only) or 3 (Line and page endings) for the *Adjust/paginate option* prompt.

5. Type a Y (Yes) or an N (No) for the *Place on job queue* prompt.

If you select Yes for this prompt, you can also complete the following: *Send completion message*, *Job description*, and *Library* prompts.

6. Press the Enter key and your document is saved and adjusted.

Adjusting Lines When Printing a Document

Lines may be changed significantly when the document is formatted for printing. Merging data from a file, including information from another document, processing text instructions (for example, .date may be replaced with December 12, 1988), and removing display control characters (such as Begin and End Underline) are examples of ways that lines can become longer or shorter when the document is formatted for printing. Most documents need to have the lines adjusted when printing, although adjusting lines increases the time it takes to print a document.

To adjust lines when your document is printed:

1. Type a Y (Yes) for the *Display print options* prompt on the Exit Document display when ending and printing your document.

The Print Options display is shown.

2. Fill in the desired prompts.
3. Use the Page Down key to go to page 2 of the Print Options display.
4. Type a Y (Yes) for the *Adjust line endings* prompt.
5. Type a Y (Yes) for the *Adjust page endings* prompt.
6. Fill in any other desired prompts.
7. Press the Enter key.

Line endings and page endings are adjusted before the document is printed.

Notes:

1. If you specified No for the *Adjust line endings* prompt on the Line Spacing/Justification Options display, lines are not adjusted.
2. You must specify No for the *Place on job queue* prompt on the Print Options display if you are not saving the changes.

Creating Pages in a Document

Numbers are automatically assigned to the pages in the document as you are editing it. These pages are called **system pages**. A system page may contain several hundred lines of text, which are divided into several **printed pages** when you print the document. Your document is easier to manage (and the system response time is better) if you divide it into several system pages while you are editing it.

To create a new system page:

1. Move the cursor to the place where you want the current page to end.
2. Press the Alt key plus the P key.

A temporary Page End character is inserted in the document, and you are shown a new blank page on the Edit display. If you inserted a Page End character in the middle of a page, the page splits into two pages at the cursor position.

If you are at the end of the document when you press the Alt key and the P key, the page number on the status line at the top of the Edit display is increased by one. If you insert a new page between two existing pages when

revising a document, the system assigns **decimal point page numbers** (such as 1.1, or 1.2). You can create up to 99 decimal point page numbers between whole page numbers (for example, 1.01, 1.02, 1.03, and so on up to 1.99).

3. Type the next page of the document.

Temporary Page End characters are rearranged or deleted when the document is paginated. **Pagination** is the process of adjusting page and column endings based on the *First typing line* and *Last typing line* that were specified in the formats for the document.

If you specify Yes for the *Adjust line and page endings* prompt on the Save Options display, the document is paginated before it is saved. Any decimal point page numbers are renumbered so that the new system page numbers are all whole numbers.

Because temporary Page End characters are rearranged or deleted when the document is paginated, you cannot use Alt P to specify the start of a new **printed page**. Instead, you insert the Start New Page instruction (.pa), a text instruction that is processed when the document is printed.

Inserting a Start New Page instruction in your document does not split your page or give you a new blank page on the Edit display. It does not change the system page number until the document is printed. If you want a new page on the Edit display, press the Alt key and the P key after the Start New Page instruction. (If you are using the PC text-assist function, you can press the Alt key plus the R key to insert a Start New Page instruction, followed by a Page End control character.)

Using the Start New Page Instruction

To ensure that a new printed page begins:

1. Move the cursor to the position in the document where you want a new page to start.
2. Type .pa and press the Enter key.

Note: The period is changed to an Instruction control character and the Start New Page instruction is inserted in the text.

To delete the Start New Page instruction, you must delete the Instruction character (the asterisk with a line above it or the graphic symbol shown as an ^L).

If you type a Start New Page instruction (.pa) within **Related with variable width** text columns or if you want to specify N (No) for the *Renumber system page numbers* prompt on the Print Options display, press the Alt key plus the P key to insert a Page End control character after the .pa instruction.

Using Page End Control Characters

To insert a Page End control character in your document:

1. Move the cursor to the place where you want the current page to end.
2. Press the Alt key plus the P key to insert a Page End control character.

This ends the page on the display and puts you at the top of a new display.

Notes:

1. Page End control characters are rearranged or deleted when the document is paginated. Pagination inserts its own Page End control characters according to the *First typing line* and the *Last typing line* that were specified in the formats for the document. Pagination does not delete the Page End control character before a page format change.
2. You can delete any Page End control character (except the last one in a document or before a page format) the same way you delete any other character.

Inserting Both a Start New Page Instruction and a Page End Control

To insert both a Start New Page Instruction and a Page End Control at the same time, do the following:

1. Move the cursor to where you want the current page to end.
2. Press F5 to show the *Goto* prompt.
3. Type **snp** and press the Enter key. This inserts a Start New Page instruction, ends the current page, and starts a new page.

Paginating

When you paginate a document, the correct number of lines is placed on each page according to the first and last typing lines specified in the formats for the document. If multiple text columns are used, pagination also places the correct number of lines of text in each column. Text instructions such as Start New Page, Keeps, Running Headings, and Tables are also processed. Some Page Ends are deleted when you paginate a document. Any decimal point page numbers are renumbered so that the new system page numbers are all whole numbers.

When you print a document, it is paginated if you specify Yes for the *Adjust page endings* prompt on page 2 of the Print Options display. This is called **print paginating**.

You can also paginate your document without printing it. This is called **source paginating**. When you source paginate your document, it is easier to make changes to your document because the pages in the document more closely match the pages in the printed document. You can paginate your document using any of the following methods:

- Using the PAGDOC command
- Using F16 (Adjust/Paginate) on the Edit display
- From the Save Options display when saving a document
- Selecting option 13 (Paginate) on the Work with Documents in Folders display

When you paginate a document with Footnote instructions, the footnote text is placed at the bottom of the page that has the corresponding footnote reference. For more information, see Chapter 10, "Using Footnotes." Pagination also performs the following functions:

- Removes white space at the top of a page or multiple text column.
- Prevents widow lines from printing.

- Determines if a Keep fits on the current page or multiple text column. See “Keeping Text Together on a Page or Column Using Keep Instructions” on page 3-41 for more information.
- Puts running headings on a page or multiple text column.
- Determines if tables, outline headings, and graphics fit on the current page or multiple text column.

Processing White Space

White space is a blank line or lines caused by a Carrier Return, Required Carrier Return, or Skip instruction that appears on a line in the text. If you are print paginating a document, white space is removed. If you are source paginating a document, white space is placed at the bottom of the previous page or column.

Note: When you enter a Carrier Return or Required Carrier Return immediately following a full page or text column, it is placed at the bottom of the current page or column. If you want the Required Carrier Return or Carrier Return to be placed on the next page or column, put a blank before the Required Carrier Return or Carrier Return.

For example, if your format specifies that you can print 5 lines of text on a page and you are working on the following document, the 2 lines containing Required Carrier Returns are considered white space.

Line 1 (Required Carrier Return)
 Line 2 (Required Carrier Return)
 Line 3 (Required Carrier Return)
 Line 4 (Required Carrier Return)
 Line 5 (Required Carrier Return)
 (Required Carrier Return)
 (Required Carrier Return)
 Line 6 (Required Carrier Return)
 Line 7 (Required Carrier Return)

RV2N013-0

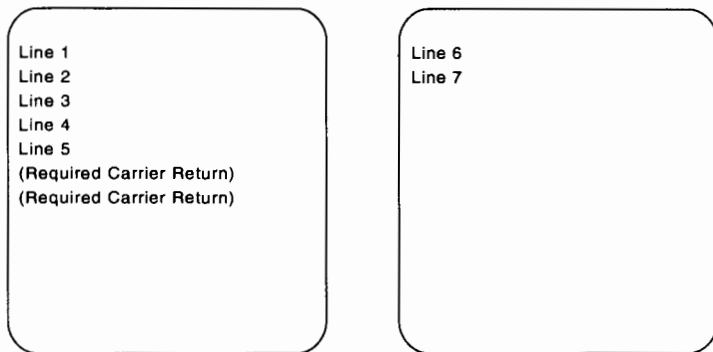
When the document is print paginated, the white space is removed.

Line 1
 Line 2
 Line 3
 Line 4
 Line 5

Line 6
 Line 7

RV2N014-0

When the document is source paginated, the white space is placed at the bottom of the previous page or column.



RV2N015-0

Notes:

1. If a line has a space or required space before the Carrier Return or Required Carrier Return, it is not considered a white space line.
2. White space lines do not exist in running headings, tables, or text using a Keep instruction.
3. When source paginating a document, the following instructions are considered to be on a white space line if there is nothing on the line except the instruction and a Carrier Return or Required Carrier Return:
 - Summary math instructions that do not print results
 - Comment instructions
 - Begin Conditional Text instructions
 - End Conditional Text instructions
 - Stop codes
 - Set Variable instructions that do not print results
 - Skip instructions
 - Skip to line instructions
4. In multiple text columns, white space is processed for each column and for the end of the page. However, a line in a related multiple text column is not considered a white space line.

Processing Widow Lines

A **widow line** is a single line of text that is separated from the remainder of a paragraph. Widow lines do not appear if you specify No for the *Allow widow lines* prompt on page 2 of the Print Options display. Widow lines are processed for both print and source pagination.

Note: You must specify whether you want widow lines when source paginating, even though you are not printing the document.

For example, your format specifies that you can print 5 lines on a page and you are working on the following document:

Note: A Required Carrier Return is counted as a line on a page.

Line 1 (Carrier Return)
Line 2 (Carrier Return)
Line 3 (Required Carrier Return)
(Required Carrier Return)
Line 4 (Carrier Return)
Line 5 (Carrier Return)
Line 6 (Required Carrier Return)

RV2N016-0

If you specify Yes for the *Allow widow lines* prompt on page 2 of the Print Options display, your document paginates as follows:

Line 1
Line 2
Line 3
(Required Carrier Return)
Line 4

Line 5
Line 6

RV2N017-0

Line 4 at the bottom of Page 1 in the above example is a line of a paragraph by itself. If you specify No for the *Allow widow lines* prompt, this line is moved to the next page so it is with the rest of the paragraph, as shown in the following diagram:

Line 1
Line 2
Line 3
(Required Carrier Return)

Line 4
Line 5
Line 6

RV2N018-0

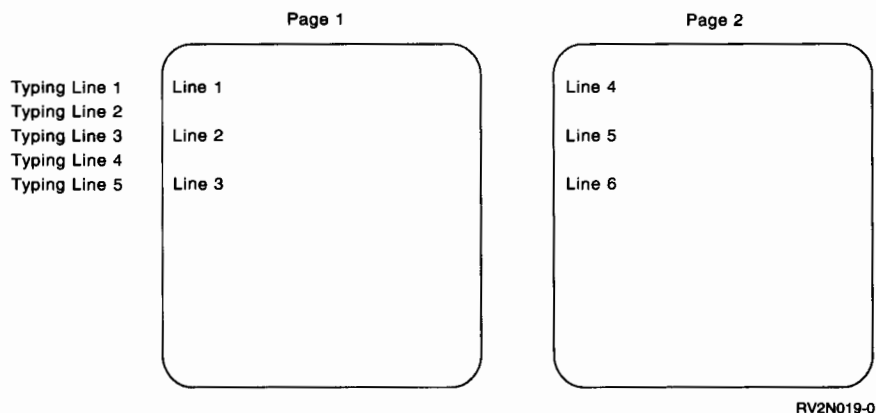
Notes:

1. When preventing widow lines, lines are always moved to the next page; the text for the next page is not moved to the previous page because pagination does not put text past the line you have specified for the *Last typing line* prompt on the Page Layout/Paper Options display.
2. In multiple text columns, widow lines are processed for each column and for the end of the page. However, widow lines are never moved in related multiple text columns.
3. For **flowing and balanced** columns, preventing widow lines has a higher priority than balancing the columns. However, columns will be balanced as closely as possible.

Spacing and Line Changes

When paginating a document, the maximum size of each page is calculated in 1440ths of an inch before text is typed on the page. The size of the page is calculated using the first typing line, last typing line, and the lines per inch or lines per centimeter value in the active page format. This page size is used until there is a page format change in the document. Pagination then processes each line of text in the document and determines if it fits on the current page. This method ensures that all of the footers print at the same location on every page.

If the spacing is greater than single spacing, only the text portion of the line needs to fit on the page; the spacing after the line does not need to fit on the current page. For example, if 5 lines of text can be placed on every page and the document is double spaced, 3 lines of text appear on the page.



Using the PAGDOC (Paginate a Document) Command

To paginate a document using the PAGDOC command:

1. Type the following on the command line:
PAGDOC DOC(document name) FLR(folder name)
2. Press the Enter key.

The request for pagination is placed on the job queue and you receive a message when the pagination is completed.

- If *PRV is specified for the document or folder name, the name of the document or folder used in your last edit session is used.
- If you do not remember the parameters, you can type **PAGDOC** on the command line and press F4 (Prompt). You are then prompted for the parameters.

Paginating While Editing the Document

You can start the pagination process from any place in the document and the entire document is paginated.

1. Press F16 (Adjust/Paginate) while on the Edit display.

The Select Adjust/Paginate Option display is shown.

2. Select option 2 (Adjust line and page endings).
3. Press the Enter key.

All your lines are adjusted and the entire document is paginated. If there are multiple text columns in the document, Next Text Column (ntc) instructions are inserted where the columns should end.

After the document is paginated, the first page of the document is shown.

Paginating When Saving the Document

To paginate when saving a document:

1. Press F3 (Exit/Save) on the Edit display to end and save the document. The Exit Document display is shown.
2. Type a Y (Yes) for the *Display save options* prompt.
3. Press the Enter key, and the Save Options display is shown.
4. Type a 3 (Line and page endings) for the *Adjust/paginate option* prompt.
5. Type a Y (Yes) or an N (No) for the *Place on job queue* prompt.

Specifying Yes for this prompt allows you to do other tasks while your document is being paginated. If you select No for the *Send completion message* prompt, you are not interrupted by a message that your document has completed processing.

If you specified Yes for the *Place on job queue* prompt, type the name of the job description for the *Job description* prompt and the name of the library where the job description is stored for the *Library name* prompt.

6. Press the Enter key.

Your document is paginated and saved.

Notes:

1. You cannot specify Yes for the *Place on job queue* prompt on the Print Options display if you are not saving the changes.
2. If you specify Yes for the *Place on job queue* prompt on the Save Options display, you must specify No for the *Place on job queue* prompt on the Print Options display.

Renumbering System Page Numbers

If you specify **N** (No) for the *Adjust page endings* prompt and **Y** (Yes) for the *Renumber system page numbers* prompt on the Print Options display, the system page numbers of your printed document are renumbered starting at page 1 and increase by one for each page. A decimal point page number is also put on the table of contents pages.

If you specify **Y** (Yes) for the *Adjust page endings* prompt on the Print Options display, the page endings of your document are adjusted and the system page numbers of your printed document are renumbered starting at page 1 and increase by one for each page. A decimal point page number is also put on the table of contents pages.

If you specify **N** (No) for the *Adjust page endings* prompt and **N** (No) for the *Renumber system page numbers* prompt on the Print Options display, the system page numbers of your printed document match the system page numbers of your source document. If you do not renumber the system page numbers and you use text instructions in your document, you should be aware of the following when typing your source document:

1. If you type a Table of Contents instruction (.toc) in your source document, the instruction should be on a page by itself.

If you paginate your source document, the instruction is placed on a page by itself.

2. If you type an Index instruction (.ix) in your source document, the instruction should be on a page by itself.

If you paginate your source document, the instruction is placed on a page by itself.

3. If you specify **N** (No) for the *Adjust page endings* prompt on the Print Options display, only one page is created for the table of contents or index.

If you need more than one page for the table of contents or index, specify **Y** (Yes) for the *Adjust page endings* prompt.

4. User page numbers are printed in the index, not system page numbers.

5. If you type a Graphic instruction (.gr) that specifies **N** (No) for the *Print with text* prompt on the Graphic Instruction display, the instruction should be on a page by itself in your source document.

If you paginate your source document, the instruction is placed on a page by itself.

6. If you type a Start New Page instruction (.pa) in your source document, the instruction should be at the end of the page preceding the text you want to start a new page.

If you paginate your source document, the instruction is placed at the end of the page.

7. If you type an Outline Heading instruction (.h), which specifies to start a new page in your source document, the Outline Heading instruction should be at the start of the page.

If you paginate your source document, the instruction is put at the start of a page.

8. Even or odd headers and footers use the user page number to determine if a page is even or odd, not the system page number.
9. If you have help tags in your document, you should specify **Y** (Yes) for the *Adjust page endings* prompt on the Print Options display. The Display Help Document (DSPHLPDOC) command does not support decimal point page numbers.
10. If you have includes in your document, you should not specify **N** (No) for the *Adjust page endings* prompt and **N** (No) for the *Renumber system page numbers* prompt on the Print Options display.

For information about using includes in your document, see "Using Include" on page 3-16.

11. If you have Run instructions that produce output in your document, you need to make sure there are enough decimal point page numbers available between the page with Run instructions and the next page used in the source document. Decimal point page numbers .01 through .99 are available between whole system page numbers. If you do not have enough available page numbers, a message is printed on the document error log and not all of the output is printed.
12. If you have a multiple letter document and do any of the following, the system page numbers are renumbered and an error is printed in the document error log:
 - Specify **Y** (Yes) for the *Saved resolved output* prompt on the Print Options display.
 - Specify **Y** (Yes) for the *Multiple line report* prompt on the Merge Options display.
 - Specify **2** (Display) for the *Output device* prompt on the Print Options display.
 - Use the Merge Document (MRGDOC) command.

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Chapter 4. Checking and Correcting Your Spelling

Your spelling is checked by comparing the words in the document to the words in a dictionary. A list of possible spellings for a misspelled word can be shown automatically, or when you press a function key.

You can check both the spelling and the reading grade level of the text in your document. Grade level checking is similar in function to spell checking, and indicates the reading difficulty of the words you have chosen.

If you want to use the spelling and the reading grade level functions, remember that:

- Both are started by selecting an option on the Spell Options display.
- Both check the text by comparing words in the document to words in a dictionary.
- Both indicate incorrect words by highlighting them.

You cannot check the spelling in tables or in the formatted text for footnotes when you check the spelling in the document. You should check the spelling in footnotes and tables as you create them. To check the spelling in your footnotes, use the Footnote Edit display. For more information, see "Creating a Footnote" on page 10-3. To check the spelling in your tables, use the Create Column display or the Column Revise display. For more information, see "Revising a Column" on page 11-9.

Selecting a Spelling Dictionary

You must select the name of the language dictionary and any other dictionaries you want to use before you can use any of the spell functions. Language dictionaries must be loaded onto your system before OfficeVision/400 can use them.

To select a spelling dictionary:

1. On the Edit display, press F5 (Goto) and type **do** for the prompt.
2. Press the Enter key and the Specify Dictionary Options display is shown.

If you previously selected a dictionary, it is shown in the list.

Specify Dictionary Options		
do		
Type dictionary search list information, press Enter.		
Order (1-8)	Dictionary	Library
-	_____	_____
-	_____	_____

Note: If you request a spell function and no dictionary is specified, the Spell Dictionary Options display is shown. The system automatically selects an IBM language dictionary based on the language in use.

3. Type the name of the dictionary for the *Dictionary* prompt; for example, **US**.

If you are using more than one dictionary, type the names of the other dictionaries in the remaining *Dictionary* prompts; for example, **LEGAL**.

4. Type the name of the library where the dictionary is stored for the *Library* prompt. All IBM language dictionaries are stored in the **QDCT** library.

If you are using more than one dictionary, type the names of the other libraries in the remaining *Library* prompts.

5. If you are using more than one dictionary, specify the order in which you want the dictionaries checked in the *Order (1-8)* prompt.

6. Press the Enter key to return to the Edit display.

If you type the name of a dictionary that is not loaded on the system, an error message is shown after you press the Enter key. If this happens, see your system administrator to load the dictionary on your system.

Checking Your Spelling

There are six different ways to check your spelling:

1. You can check the spelling from the Spell Options display while editing a document.
2. You can press F5 and type **ck** (check document) for the prompt. Then press the Enter key. This will check the entire document for misspelled words and mark each misspelling found.
3. You can press F5 and type **ckp** (check document and prompt) for the prompt. Then press the Enter key. This will check the entire document for misspelled words and put the cursor on the first misspelling found.

Note: If you have specified Yes for the *Prompted aid box* prompt on the Spell Options display, a spell aid box is also shown. It shows possible choices for the misspelled word. After you select a choice and press the Enter key, the cursor moves to the next misspelled word.

4. You can use interactive spell check to automatically mark your misspelled words as they are typed into the document, and correct any misspellings as you go.

Note: Interactive spell check is not supported by the PC text-assist function or the adapted word processing function.

5. You can use line commands (S and SS) to check the spelling in lines or blocks of text in a document while you are editing it.

Note: Line commands are not supported by the PC text-assist function or the adapted word processing function.

6. You can wait until your editing is complete and have the misspelled words marked throughout the document. When using this method, you can check the spelling in a document on the job queue.

The Spell Options display is shown when you press F22 (Spell functions) on the Edit display and select option 1 (Spell options). This display shows the choices you can make when you check spelling. If you need more information about any of the prompts on this display, move the cursor to any prompt line and press the Help key.

Spell Options		Page 1 of 2
Type choices, press Enter.		
Type of checking	_	1=Spell, 2=Grade level
Option to perform.	_	1=Check document
		2=Locate marks
		3=Check document and locate marks
		4=Remove marks
From page.	_____	1-9999.99
Through page	_____	1-9999.99
Interactive		
spell check.	_	1=On, 2=Off
Prompted aid box	_	Y=Yes, N=No
Grade level.	_	4-16

Note: You cannot use F5 (Dictionary options) while editing columns, footnotes, or headers and footers.

The grade level prompts are shown only if you are using the U.S. English dictionary.

For more information about how to add words, see "Adding Words to a Dictionary" on page 4-10.

Spell Options		Page 2 of 2
Type choices, press Enter.		
Dictionary for		
adding words	_____	Name
Library	_____	Name, *CURLIB
Language of		
dictionary	_____	*NONE, *ENGLISH, *DANSK ...
File for adding words	_____	Name
Library	_____	Name, *LIBL
Member	_____	Name, *DCT
Include user dictionary		
for spell functions	_	Y=Yes, N=No
Bottom		
F3=Exit F5=Dictionary options F12=Cancel		

Checking Spelling As You Type the Document

To use the interactive spell check function:

1. Press F22 (Spell functions) to show the Spell Functions display.
2. Select option 1 (Spell options) to show the Spell Options display.

Spell Options		Page 1 of 2
Type choices, press Enter.		
Type of checking	-	1=Spell, 2=Grade level
Option to perform.	-	1=Check document
		2=Locate marks
		3=Check document and locate marks
		4=Remove marks
From page.	_____	1-9999.99
Through page	_____	1-9999.99
Interactive		
spell check.	-	1=On, 2=Off
Prompted aid box	-	Y=Yes, N=No
Grade level.	-	4-16
		More...
F3=Exit F5=Dictionary options F12=Cancel		

3. Select option 1 (On) for the *Interactive spell check* prompt.
4. Press the Enter key to return to the Edit display. SP (Spell check is active) is shown on the status line.
5. Continue typing your document. If a word that you type or change is misspelled or not found in one of the dictionaries, it is marked when you press the Enter key. Spell marks go before and after the word and the word is shown in reverse image.

Note: Words that are both underlined and highlighted may also blink if they are marked as misspelled.

To correct a misspelled word, see "Correcting Your Spelling" on page 4-7.

To turn off interactive spell check:

1. Press F22 (Spell functions) to show the Spell Functions display.
2. Select option 1 (Spell options) to show the Spell Options display.
3. Select option 2 (Off) for the *Interactive spell check* prompt and press the Enter key.

Notes:

1. Interactive spell checking checks only new or changed text. Any misspelled words in existing text are ignored.
2. Interactive spell checking slows down system performance because all new and changed words are checked against the current dictionaries. You may prefer to check the spelling in a large document after you have completed it.
3. Interactive spell checking is not supported by the PC text-assist function or the adapted word processing function.

Checking Your Spelling with Line Commands

Note: Line commands are not supported when using the PC text-assist function or the adapted word processing function.

To use line commands to check spelling in part of a document while you are editing it:

1. Press the Home key to move the cursor into the line command area (five blank spaces to the left of the left margin).
2. Type one of the following line commands next to the line or lines you want checked:

Command	Function
S	Check spelling in this line.
SS	Check spelling in this block of lines. (Type SS on the first and last lines of the block.)
Sn	Check spelling in n lines starting with this line (where n is any whole number).

3. Press the Enter key.
Misspelled words are marked. For a suggested spelling, position the cursor on the misspelled word and press F23 (Word spell aid).
4. Press the Home key again to return the cursor from the line command area to the text area.
5. Press the Enter key to remove the line command area from your display.

Checking Spelling After You Have Typed a Document

To check the spelling of all text in a document:

1. Press F22 (Spell functions) to show the Spell Functions display.
2. Select option 1 (Spell options) to show the Spell Options display.
3. Select option 1 (Spell) for the *Type of checking* prompt.
4. Select option 1 (Check document) or select option 3 (Check document and locate marks) for the *Option to perform* prompt.

The difference between option 1 (Check document) and option 3 (Check document and locate marks) is that option 1 only marks errors, while option 3 marks errors and positions the cursor on the first marked word.

5. If you *do not* want to check the spelling in the entire document, specify the starting and ending pages to be checked.
6. Press the Enter key.

You are returned to the Edit display when the spelling has been checked. Any word that was not found in one of the spelling dictionaries is marked as misspelled. If you selected option 3 (Check document and locate marks) for the *Option to perform* prompt, and also selected N (No) for the *Prompted aid box* prompt, a list of function keys you can use to find spelling errors is shown on the bottom of the display.

To correct a misspelled word, see "Correcting Your Spelling" on page 4-7.

If you selected option 3 (Check document and locate marks) for the *Option to perform* prompt on the Spell Options display, this message is shown when all errors have been located:

Error marks not found from cursor to end

Notes:

1. Spelling in formatted text is not checked during this function.
2. You can bypass the Spell Options display and immediately check the spelling of your entire document by pressing F5 (Goto). Then for the prompt, type either **ck** (check document) or **ckp** (check document and prompt) and press the Enter key.

Checking Your Spelling While You Work on Another Document

If you want to check the spelling in a large document and you are concerned about system performance, place your spell check job on the job queue so that you can work on another document. You can do this by using option 11 (Spell) on the Work with Documents in Folders display, or by using the CHKDOC command.

To check the spelling in a document using the Check Document (CHKDOC) command:

1. Type the following on the command line:

```
CHKDOC DOC(document name) FLR(folder name) TYPE(*SPELL)  
STRPAGE(starting page number) ENDPAGE(ending page number)
```

2. Press the Enter key.

- If *PRV is specified for the document or folder name, the name of the document or folder used in your last edit session is used.
- If *BEGIN is specified for the starting page number, the spelling is checked starting on the first page of the document.
- If *END is specified for the ending page number, the spelling is checked to the end of the last page of the document.

If you do not remember what to type, you can type **CHKDOC** on the command line and press F4 (Prompt) to see a prompt display.

The request for checking the spelling is placed on the job queue, and you receive a message when the checking is completed. When you edit your document all the misspelled words are highlighted.

Locating Misspelled Words in Your Document

To locate misspelled words marked in the document:

1. Press F22 (Spell functions) to show the Spell Functions display.
2. Select option 1 (Spell options) to show the Spell Options display.
3. Select option 2 (Locate marks) or option 3 (Check document and locate marks) for the *Option to perform* prompt.

If you do not want to locate misspelled words in the entire document, specify the starting and ending pages to be searched.

If you want a list of possible spellings to be automatically displayed for each misspelled word found, type a Y (Yes) for the *Prompted aid box* prompt.

4. Press the Enter key.

You are returned to the Edit display and the cursor is positioned at the first misspelled word. If you selected Y (Yes) for the *Prompted aid box* prompt, use the function keys in the box for processing. If you selected N (No) for the *Prompted aid box* prompt, use the function keys at the bottom of the display. For more information, see the next section, "Correcting Your Spelling."

Key	Function
Enter	Find the next error.
F12	Cancel.
F9	Unmarks the word in error and remembers the word for the remainder of the edit session. The word is placed in the temporary dictionary called <i>New</i> . However, unlike words added by pressing F22 (Add word) are not added to the permanent dictionary and are only kept for the current edit session. For synonyms and grade level synonyms, pressing F9 only unmarks the word. The word is not remembered.
F22	Add word to dictionary (the spelling error mark is removed).
F23	Display spelling aid.

5. Press F12 (Cancel) after you have finished locating misspelled words.

Correcting Your Spelling

You can correct your spelling by:

- Typing over the misspelled word
- Using F23 (Word spell aid)

You can also add words to your dictionary so they are not marked as misspelled when you spell check your document. If you want to delete words from the dictionary, you must use the Start Source Entry Utility (STRSEU) command. After you change the source file, you must create the dictionary using the Create Spell Aid Dictionary (CRTSPADCT) command.

Using Word Spell Aid (F23) to Correct Misspelled Words

If you need help with the spelling of a word, you can use a prompted aid box that shows a list of possible spellings for the word. You can have this list shown automatically by:

- Selecting option 2 (locate marks) or 3 (check document and locate marks) for the *Option to perform* prompt and typing a Y (Yes) for the *Prompted aid box* prompt on the Spell Options display.
- Pressing F23 (Word spell aid) on the Edit display.

If you are working with a document written in Portuguese or Catalan, or in one of the Germanic languages (Danish, Dutch, German, Icelandic, Norwegian, Swedish, Swiss-German, or South African), you should read "Using Compound Word Spell Aid" before you use the prompted aid box.

To use the prompted aid box:

1. Move the cursor to any position in a word that has been highlighted as misspelled. If you selected option 2 (Locate marks) or option 3 (Check document and locate marks) for the *Option to perform* prompt on the Spell Options display, the cursor is automatically positioned on the first misspelled word.
2. If the list is not automatically shown, press F23 (Word spell aid). A list of possible spellings of the word is shown.
3. Correct the word by doing one of the following:
 - Move the cursor to one of the words in the box and press the Enter key. The new spelling replaces the misspelled word and the box is automatically removed from the Edit display.
 - Type the correct spelling over the misspelled word at the top of the box and press the Enter key. The new spelling replaces the misspelled word and the box is automatically removed from the Edit display.

If you do not find the correct spelling for the word in the displayed list, press F9 (Unmark word) to remove the list (the misspelled word will not be changed), or press F22 to add the word to the current user dictionary.

Using Compound Word Spell Aid

The Compound Word Spell Aid display is shown instead of the usual prompted aid box if you have:

- Selected the Portuguese, Catalan, or one of the Germanic dictionaries (Danish, Dutch, German, Icelandic, Norwegian, Swedish, Swiss-German, or South African).
- Pressed F23 to display the word spell aid box, or you are locating spelling errors and you specified Y (Yes) for the *Prompted aid box* prompt on the Spell Options display.
- Requested spell aid box for a compound word and no simple word choices are available for the spell aid box.
- Selected words that are at least 5 characters in length.

The Compound Word Spell Aid display below shows compound words up to 60 characters in length. When a word appears on this display, you can separate the

Compound Word Spell Aid

.....
: hinzuzzuzieheen :
::

Do the following:

1. Press the Ins key, then type slashes (/) to divide compound word into simple words.
2. Position cursor to simple word to be spell checked, then press F23.
3. Repeat step 2 for each incorrect simple word.
4. When all simple words are correct, press Enter to replace the entire compound word.

F9=Accept word	F12=Cancel
F22=Add word	F23=Word spell aid

The spelling of each word can then be verified by placing the cursor on any letter of the simple word and pressing F23. A box containing possible spellings is shown.

```

.....
: hinzu/zzuzieheen :
: .....
Do the fol .....
:                               Spell Aid :
1. Press :                               :
  simple : Position cursor, press Enter. :
         :                               :
2. Positi : Aid for                               :
         : zzuzieheen_____ :
3. Repeat : DEUTSCH                               :
         : zuzuziehende           :
4. When a : zuzuziehenden          :
  entire  : zuziehend           :
         : zuziehende           :
         : zuziehenden          :
         :                               :
F9=Accept : F9=Accept word  F12=Cancel  F22=Add word :
F22=Add wo : .....

```

Chapter 4. Checking and Correcting Your Spelling 4-9

After you are satisfied that each simple word is spelled correctly, press the Enter key and the whole compound word will be replaced on the Edit display. The slashes will be removed.

If you are working with a document written in Portuguese or Catalan, or in one of the Germanic languages (Danish, Dutch, German, Icelandic, Norwegian, Swedish, Swiss-German, or South African), you should be aware of the following:

- Spelling aid is performed only for simple words and for compound words stored in a dictionary.

Spelling aid for compound words not listed in the dictionary either presents no words or, in almost all cases, presents simple words that are meaningless in this context.

- System Germanic dictionaries contain positional characteristics of the words, and parts of compound words. Both are used for spelling verification and spell aid.

Adding Words to a Dictionary

To add words to a dictionary:

1. Position the cursor to the word you want to add to the dictionary.
2. Press F5 and type **aw**. Press the Enter key.

The Add Word box is shown on the Edit display.

Note: When working from the Column Revise display with reference areas defined, the Add Word box is not displayed. The word is added directly to the user dictionary.

3. Type a slash where you want the hyphens to be.

```
.....:
:           Add Word           :
:                               :
: Insert slashes (/) for       :
: hyphenation points, press Enter. :
:                               :
: dic/tio/nary                :
:                               :
: F9=Unmark word  F12=Cancel   :
:.....:
```

4. Press the Enter key and receive the following message:

Word will be added to dictionary 'xxxxxxxxxx'

Dictionary 'xxxxxxxxxx' is the name of the dictionary you specified on the Spell Options display for the *Dictionary for adding words* prompt.

5. Repeat steps 1 through 4 for each word you want to add to the dictionary.
6. Press F3 (Exit) or F12 (Cancel) when you have finished adding the words to your dictionary.

This dictionary is not actually created until you end your office session. Then you must go to the Dictionary Options display to activate the dictionary before you can use it to check the spelling in your document.

Displaying Synonyms

Synonyms are supported for the following languages:

Dictionary	Dictionary Name
French	FRANCAIS
French Canadian	FRA2
Norwegian-Bokmal	NORBOK
Spanish	ESPANA
Swedish	SVENSK
UK English	UK
US English	US

You can select two types of synonyms from the Spell Functions display: synonyms and grade level synonyms. Select option 5 (Synonyms) when you want any word with a similar meaning. If you are using the U.S. English dictionary, you can select option 6 (Grade level synonyms) when you want a word with a similar meaning at the specified grade level.

The synonyms are divided into four groups: nouns, verbs, adjectives, and adverbs. Not all words are represented in each group.

When you request synonyms for a word, you not only receive synonyms for that word but you may also receive synonyms for any base form words. For example, for the English word wound, you receive synonyms for wound and wind, because wound can be the past tense of the verb wind.

```
USERDOC,USERLIB P:12          EDIT          PG:1      LN: 34
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
                                wound
:                               US Synonyms
:                               :
: Position cursor, press Enter. :
:                               :
: Synonyms for                  :
: wound                         :
: Noun                          :
: - trauma                      :
: Verb                          :
: - hurt, injure                :
: - traumatize, shock           :
:                               :
: US Synonyms                   :
F1=Co:                               More... :
F2=Mo: F9=Unmark word F12=Cancel          :
F3=Ex:                               :
F4=Find char F11=Hyphenate F17=Functions F23=Word spell aid
F5=Goto      F13=Edit options F18=Search/Replace
F6=Find      F14=Get options  F19=Print/View  F24=More keys
```

Words are shown in present tense. For example, if you move the cursor under the word **walked**, the list of synonyms is shown for *walk*. When you select a synonym, you must form the past tense for the synonym you select.

To display a list of synonyms:

1. Position the cursor at the word you want synonyms for.
2. Do one of the following:
 - Press F5 (Goto) and type **sy** for the prompt.
 - If there are more words than can be shown in the synonym box, you will see the word **More...** in the bottom right corner. Go to the next page and a second box will be shown with additional synonyms in the box.
3. Move the cursor to the synonym you want.
4. Press the Enter key. The synonym replaces the original word and the box is removed from the Edit display.

Checking the Grade Level

Grade level checking is available for the U.S. English dictionary only. You can have the grade level checked by specifying grade level for the *Type of checking* prompt on the Spell Options display or by using the Check Document (CHKDOC) command. When your editing is complete, you can have the grade level errors marked throughout the document. Grade level checking cannot be done interactively.

The system checks for grade level errors by comparing the words in the document to the words in a dictionary. This indicates the difficulty of the words you have chosen. Grade level dictionaries for grades 4 through 16 are supplied.

A list of synonyms or possible replacements for a grade level error appears when you select option 6 (Grade level synonyms for the current word) on the Spell Functions display.

Spell Options		Page 1 of 2
Type choices, press Enter.		
Type of checking	2	1=Spell, 2=Grade level
Option to perform.	-	1=Check document
		2=Locate marks
		3=Check document and locate marks
		4=Remove marks
From page.	_____	1-9999.99
Through page	_____	1-9999.99
Interactive		
spell check.	-	1=On, 2=Off
Prompted aid box	-	Y=Yes, N=No
Grade level.	___	4-16
		More...
F3=Exit F5=Dictionary options F12=Cancel		

You can check the grade level at any time while you are editing a document, but you will save time if you wait until editing is complete.

To check the grade level using the Spell Options display:

1. Press F22 (Spell functions) to show the Spell Functions display.

2. Select option 1 (Spell options) to show the Spell Options display.
3. Type a 2 (Grade level) for the *Type of checking* prompt.
4. Type a 1 (Check document) or 3 (Check document and locate marks) for the *Option to perform* prompt.

The difference between option 1 (Check document) and option 3 (Check document and locate marks) is that option 1 only marks grade level errors, while option 3 marks grade level errors and positions the cursor to the first marked word.

5. If you want a list of synonyms to be automatically displayed for each word that is not at the specified grade level, specify Y (Yes) for the *Prompted aid box* prompt.
6. Select the grade level (4 through 16) you want to use for the *Grade level* prompt.
7. Press the Enter key to return to the Edit display.

Checking the Grade Level While You Work on Another Document

If you want to check the grade level in a large document and you are concerned about system performance, place your job on the job queue so that you can work on another document while the grade level is being checked. You can do this by using the CHKDOC command.

To check the grade level using the Check Document (CHKDOC) command:

1. Type the following on the command line:

```
CHKDOC DOC(document name) FLR(folder name) TYPE(*GRADE)
STRPAGE(starting page number) ENDPAGE(ending page number)
```

2. Press the Enter key.

- If *PRV is specified for the document or folder name, the name of the document or folder used in your last edit session is used.
- If *BEGIN is specified for the starting page number, the spelling is checked starting on the first page of the document.
- If *END is specified for the ending page number, the spelling is checked to the end of the last page of the document.

If you do not remember what to type, type **CHKDOC** on the command line and press F4 (Prompt) to see a prompt display.

The request for checking the grade level is placed on the job queue, and you receive a message when the checking is completed.

Removing Error Marks

You can remove all error marks from your document when you are saving or editing your document.

To remove all error marks when you are *saving* your document, do the following:

1. Press F3 (Exit/Save) on the Edit display. The Exit Document display is shown.

2. Type a Y (Yes) for the *Display save options* prompt. Press the Enter key and the Save Options display is shown.
3. Type a Y (Yes) for the *Remove error marks* prompt. Press the Enter key.
All error marks are removed from your document.

To remove all error marks when you are *editing* your document, do the following:

1. Press F22 (Spell functions) on the Edit display, and the Spell Functions display is shown.
2. Select option 1 (Spell options) to show the Spell Options display.
3. Select option 4 (Remove marks) for the *Option to perform* prompt.
4. Press the Enter key and the error marks are removed.

Note: You can bypass the Spell Options display by pressing F5 (Goto). Then for the prompt, type *re* (remove error marks) and press the Enter key. This removes all the error marks from your document.

Removing Specific Error Marks

You can remove specific error marks by using the Erase Error Mark line command or the Spell Options display.

Note: Line commands are not supported when using the PC text-assist function or the adapted word processing function.

To remove error marks using the Erase Error Mark line command:

1. Press the Home key to move the cursor to the line command area (five blank spaces to the left of the typing area).
2. Remove the error marks by doing one of the following:
 - Type an **E** in the line command area next to a single line to remove any error marks from that one line.
 - Type **EE** in the line command area next to the first line of a block of lines and **EE** next to the last line of a block of lines to remove error marks from that group of lines.
 - Type **E9999** in the line command area next to the first line to remove error marks from the document up to line 9999.

```

LETTER P:12          EDIT          PG:1    LN:12
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.
■
Mr. John J. Phillips■
Wagner, Inc.■
2400 Wayside Park■
Milwaukee, WI 86204■
■
Dear John:■
■
E   The type of bolt you requested costs $8.64. Thank you for your kind
    letter. Quantity discounts are available.■
■
EE  Thank you for your kind note. The type of bolt you requested
    costs $8.64. Quantity discounts are available.■
■
EE  If you need any more information, please give me a call.■
■
    Very truly yours,■
■
■

```

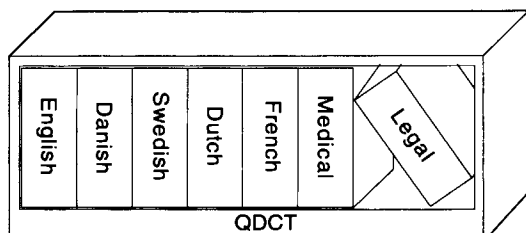
3. Press the Enter key and the error marks are removed.
4. Press the Home key to return the cursor from the line command area to the text area.
5. Press the Enter key to remove the line command area from your display.

To remove error marks using the Spell Options display:

1. Press F22 (Spell functions) on the Edit display and the Spell Functions display is shown.
2. Select option 1 (Spell options) to show the Spell Options display.
3. Select option 4 (Remove marks) for the *Option to perform* prompt.
4. Select the pages you want error marks removed from for the *From page* and *Through page* prompts. If these prompts are left unchanged, error marks are removed from the entire document.
5. Press the Enter key and the error marks are removed.

Chapter 5. Using Spelling Dictionaries

You can check the spelling of words in your documents by comparing the documents against the AS/400* Language Dictionaries. The language dictionaries include IBM language dictionaries, an English medical dictionary, and an English legal dictionary. These dictionaries are stored in a library named QDCT.

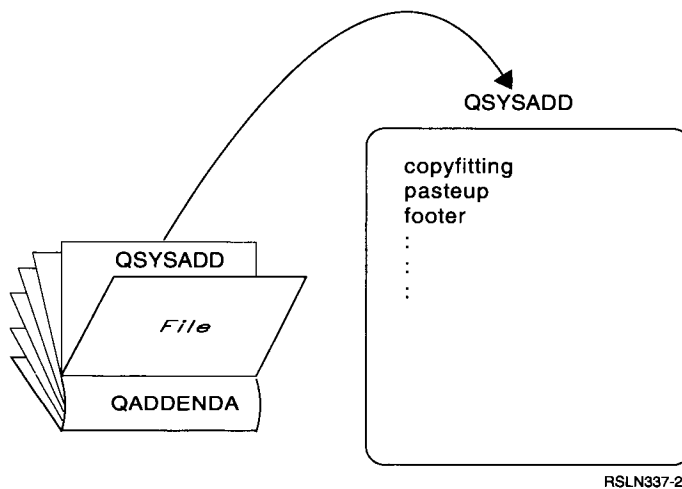


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The following language dictionaries are available:

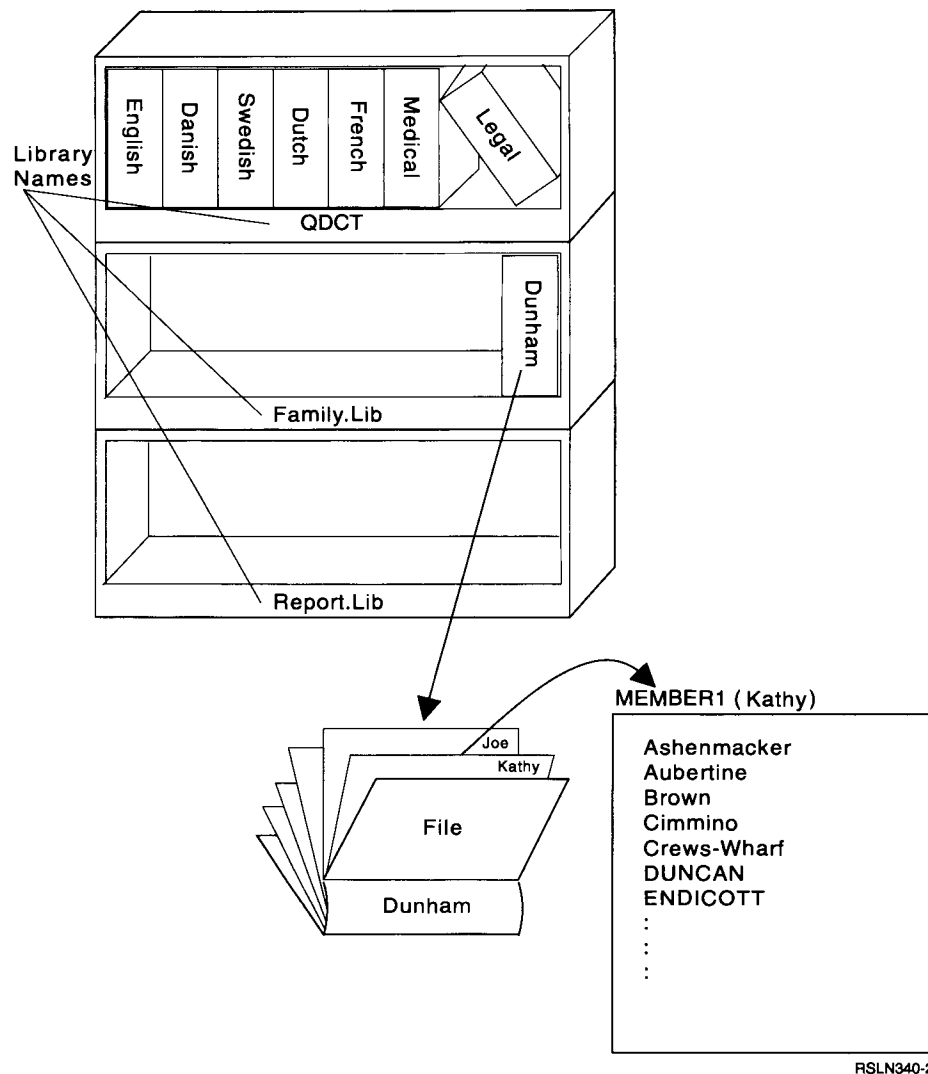
Language	Dictionary Name
Brazilian Portuguese	BRASIL
Catalonian Region of Spain	CATALA
Danish	DANSK
Dutch Preferred	NEDERLND
Dutch Modern	AKTUEEL
Finnish (hyphenation only)	SUOMI
French	FRANCAIS
French Canadian	FRA2
German	DEUTSCH
Greek	GREEK
Icelandic	ISLENSK
Italian	ITALIANO
Legal	LEGAL
Medical	MEDICAL
National Portuguese	PORTUGAL
Norwegian-Bokmal	NORBOK
Norwegian-Nynorsk	NORNYN
Spanish	ESPANA
South African	AFRIKAAN
Swedish	SVENSK
Swiss-German	DSCHWEIZ
UK English	UK
US English	US

Although you may never need to use any dictionary other than the IBM language dictionaries, you can create your own user dictionaries to be used for spell functions. These user dictionaries can contain words not found in the language dictionary, but often used in your office. They can be automatically created and you can add words when you edit a document by pressing a function key. Or, you can create them and change them using commands. User dictionaries make your job easier because these words are not marked as misspelled when you check the spelling of your document.



Using User Dictionaries

You can create a user dictionary using the Spell Options display while you are editing a document, or you can use commands to create and change a user dictionary. When you create a user dictionary from the Spell Options display, you need to tell the system the name of the library in which you want to store the user dictionary in. You also specify a file and a file member you want the words added to during the edit session. After the edit session, this file member is used by the system to create the dictionary.



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After you create a user dictionary, you must add the name of the dictionary to the dictionary list on the Specify Dictionary Options display. The dictionary name is then used by the system to check the spelling in your document. You can add the name of the dictionary to the dictionary list in a text profile, or in the document you are editing. After a dictionary is created, other users who have authority to use the dictionary can add the dictionary name to a dictionary list for their text profile or document.

Automatic Selection of an IBM Default Language Dictionary

If a spelling function is requested and no dictionary is active, an attempt is made to select an IBM language dictionary. The dictionary selected is based on the language in use. If a secondary language library is in use, the language ID of the library determines the dictionary selected. If no secondary language ID is in use, the language ID of the job is used. The Specify Dictionary Options display is always shown even if a default dictionary is located.

Using the Spell Options Display to Create a User Dictionary

To create a user dictionary using the Spell Options display:

1. Press F22 (Spell functions), and the Spell Functions display is shown.
2. Select option 1 (Spell options) to show the Spell Options display.
3. Go to page 2 of the Spell Options display.

Spell Options Page 2 of 2

Type choices, press Enter.

Dictionary for		
adding words	_____	Name
Library	_____	Name, *CURLIB
Language of		
dictionary	_____	*NONE, *ENGLISH, *DANSK ...
File for adding words	_____	Name
Library	_____	Name, *LIBL
Member	_____	Name, *DCT
Include user dictionary		
for spell functions	_____	Y=Yes, N=No

Bottom

F3=Exit F5=Dictionary options F12=Cancel

4. Type the name of the dictionary that you want to create for the *Dictionary for adding words* prompt.
5. Type the name of the library that you want to use for the *Library* prompt; for example, **QDCT**.

An AS/400 Language Dictionary may not be specified as a user dictionary if the library name is QDCT. This prevents accidental destruction of the system spelling dictionary. If you select the library name QDCT, the following message is shown:

Not authorized to dictionary

6. Type the name of the language that you want to use for the new dictionary for the *Language of dictionary* prompt; for example, ***ENGLISH**.
7. Type the name of the file where you want the source file members to be stored for the *File for adding words* prompt; for example, **DUNHAM**.
8. Type the name of the library where the file is to be stored for the *Library* prompt; for example, **FAMILY**.
9. Type the name of the source file member that will contain the words for your dictionary for the *Member* prompt; for example, **KATHY**, **JOE**, or **NICK**.

This is the member that actually will be used to create the dictionary.

10. If you want to check the spelling of the words in the document against the words in the user dictionary, type a Y (Yes) for the *Include user dictionary for spell functions* prompt.

11. Press the Enter key to return to the Edit display. When you end your office session, the system automatically creates the user dictionary from the file member.

Using Commands to Create a User Dictionary

There are three steps in creating a user dictionary using commands:

1. Create a source file using the Create Source Physical File (CRTSRCPF) command.
2. Add the words to the source file member using the Start Source Entry Utility (STRSEU) command.
3. Create the dictionary from the source file member using the Create Spelling Aid Dictionary (CRTSPADCT) command.

Creating a Source Physical File

To create a source physical file for your user dictionary:

1. Type the following on the command line:
CRTSRCPF FILE (library name/source physical file name) CCSID (*hex)
If you do not remember the values, you can type **CRTSRCPF** on the command line and press F4 (Prompt). You are prompted for the parameters.
 - a. On the Create Source Physical File display, complete the *File* and *Library* prompts.
 - b. Press F10 (Additional parameters).
 - c. For the *Coded character set ID* prompt, type ***hex**.
2. Press the Enter key.
3. Add the words to the source file member using the STRSEU command.

Adding Words to the Source File Member

To add the words to the source file member for your user dictionary:

1. Type **STRSEU** on the command line.
2. Press F4 (Prompt). The Start Source Entry Utility display is shown.
3. Type the source file name for the *Source file* prompt.
If you specify ***PRV** for the source file name, the system uses the source file name used in your last edit session.
4. Type the name of the library where the source file is stored for the *Library* prompt.
If ***PRV** is specified for the library name, the name of the library used in your last edit session is used.
5. Type ***SELECT** for the *Source Member* prompt.
6. Press the Enter key. The Work with Members Using SEU display is shown.

Work with Members Using SEU

Type information, press Enter.

Source file _____ Library _____

Position to _____

New Member _____

Type for new member SPADCT

Text. _____

Type choices, press Enter.

2=Edit 4=Delete 5=Browse 6=Print

Opt	Member	Type	Text
-	_____	_____	_____
-	_____	_____	_____
-	_____	_____	_____

F3=Exit F5=Refresh F14=Display date F15=Sort date
F17=Subset

7. Do one of the following:

- If the name of the member is listed at the bottom of the display, do the following:
 - a. Either page through the member names or type the name of the member you want to see for the *Position to* prompt.
 - b. Type a 2 (Edit) next to the member you want to edit for the *Opt* prompt.
- If the name of the member is not listed at the bottom of the display:
 - a. At the top of the display, type the name of the member where you want the words to be stored for the *New member* prompt.
If *PRV is specified for the source member name, the name of the member used in your last edit session is used.
 - b. Type SPADCT (Spelling Aid Dictionary) for the *Type for new member* prompt.
 - c. If you want to add a description for this member, type the description for the *Text* prompt.

8. Press the Enter key and an Edit display is shown with the current words (if any) in the source member.

9. Type the word or words you want to add to your user dictionary. You can include the hyphens that you want the words to have. (You must use a double hyphen if you want a hyphenation point to follow a Required Hyphen. A Required Hyphen is found between words instead of between syllables. For example, mother-in-law).

Each time you change the source file member, the dictionary must be created again. Therefore, it is best to type *groups* of words.

10. Delete the words (if any) you do not want to be included.

11. Press the Enter key to save the changes.

12. Press F3 (End) when you have completed adding your words.

13. Create the user dictionary by using the Create Spelling Aid Dictionary (CRTSPADCT) command or by selecting option 14 (Compile) on the Work with Members Using PDM display. If you use the command, specify the same source file name as you used for the Start Source Entry Utility (STRSEU) command in step 3 on page 5-5. For more information, see "Using the Create Spelling Aid Dictionary (CRTSPADCT) Command" on page 5-8.

If you are working with more than one language, you need to specify the **coded graphic character set identifier** (CHRID) before you create the dictionary using this source member.

Changing the CHRID

A **CHRID** is a combination of graphic character set identifier and code page identifier. The format of the CHRID is

aaaaabbbbb

in which aaaaa is the graphic character set identifier and bbbbb is the code page identifier. In the following example, the dictionary would be created using the character set 101 and the code page 37.

```
.CHRID 0010100037
```

The first 3 characters on the first line of the source file member are checked for a valid keyboard ID. See the *Device Configuration Guide* if you need to check for a valid keyboard ID.

Coded graphic character sets are in two types, a smaller set, identified by a *limited* CHRID, and a larger set, identified by an *extended* CHRID. Users with work stations that have a limited CHRID should be aware that the spelling aid may produce incorrect information if the work station displays a document having a different CHRID.

If you do not specify the CHRID, the words in your dictionary may seem misspelled. It is best to enter the CHRID before you create your user dictionary using the source member. The system value QCHRID, is the default CHRID. If no CHRID is specified in your member, the system value is used.

To display and change the CHRID:

1. Type **STRSEU** on the command line.
2. Press F4 (Prompt). The Start Source Entry Utility display is shown.
3. Type the source file name for the *Source file* prompt.

If you specify *PRV for the source file name, the system uses the name of the source file specified in your last edit session.

4. Type the name of the library where the source file is stored for the *Library* prompt.

If you specify *PRV for the library name, the system uses the name of the library specified in your last edit session.

5. Type ***SELECT** for the *Source Member* prompt.
6. Press the Enter key. A list of members is shown.
7. Type a 2 (Edit) next to the member you want to edit.

8. Press the Enter key. The last record in the member is the CHRID.
9. If this is not the CHRID you need, type the new CHRID (ten digit number) you want to use.
10. Press F3 (Exit).

You can now create the user dictionary.

Using the Create Spelling Aid Dictionary (CRTSPADCT) Command

To create the dictionary from the source file member by using the Create Spelling Aid Dictionary (CRTSPADCT) command:

1. Type the following on the command line:

```
CRTSPADCT SPADCT(library name/spelling aid dictionary name)
SRCFILE(library name/source file name)
SRCMBR(source member name) BASEDCT(base dictionary name)
VFYDCT(verify dictionary name) LNGATR(language) AUT(authority)
```

- If SRCMBR is not specified for the source file member, the member name is the same as the name of the dictionary being created. The default value *DCT means that the name of the dictionary being created is used.
- If BASEDCT is specified, the words in the specified base dictionary are added to the user dictionary you are creating.
- If VFYDCT is specified, only those words that are *not* found in the verify dictionary are placed in the new user dictionary.
- If LNGATR is specified, the new dictionary has the characteristics of the language you specified.
- If you do not remember the values, type **CRTSPADCT** on the command line and press F4 (Prompt). You are prompted for the parameters. If you need additional parameters, press F10 (Additional parameters) and you are then prompted for the parameters.

2. Press the Enter key.

Note: Additional words may be added to your user dictionary by repeating the steps in “Using Commands to Create a User Dictionary” on page 5-5. Each time you add a new word to the source file member, the dictionary must be created again using the Create Spelling Aid Dictionary (CRTSPADCT) command. Therefore, it is best to add several words at a time.

Creating a User Dictionary Using the WRKMBRPDM Display

To create the dictionary from the source file member by using the Work with Members Using PDM display:

1. Type **WRKMBRPDM** on the command line. Press the Enter key.
2. The Work with Members Using PDM display is shown. Move the cursor next to the member from which you want to create the dictionary, and select Option 14 (Compile). Press the Enter key. The dictionary is created interactively or in batch mode, depending on what you have specified on the Change Defaults display.

Note: This is only valid for members with type SPADCT.

Deleting a User Dictionary Using the DLTSPADCT Command

You can delete a spelling dictionary by using the Delete Spelling Aid Dictionary (DLTSPADCT) command.

To delete a spelling dictionary:

1. Type the following on the command line:
DLTSPADCT SPADCT(library name/spelling aid dictionary name)
2. Press the Enter key and the dictionary is deleted.

Deleting Words from a Dictionary

The only way you can delete words from any dictionary is by using the Start Source Entry Utility (STRSEU) command.

To delete words from a source file member:

1. Type the following on the command line:
STRSEU SRCFILE(source file name/library name)
SRCMBR(source member name)
 - If you specify *PRV for the source file name, the system uses the source file specified in your last edit session. *QXTSRC is used for the source file name the first time you use this command.
 - If you specify *PRV for the library name, the system uses the library specified in your last edit session.
 - If you specify *PRV for the source member name, the system uses the member specified in your last edit session.
 - If you do not remember the values, you can type **STRSEU** on the command line and press F4 (Prompt). You will be prompted for the parameters.

The *CL Reference* contains detailed descriptions of commands.

2. Press the Enter key and a display is shown with the current words in the source member.
3. Type a **d** in the margin next to the words you do not want to be included.
4. Press F3 (End) when you are finished deleting the words.
5. After you change the file, you must create the dictionary again using the Create Spell Aid Dictionary (CRTSPADCT) command. See "Using the Create Spelling Aid Dictionary (CRTSPADCT) Command" on page 5-8.

Adding Words to a User Dictionary from the Edit Display

To add words to your user dictionary:

1. Position the cursor onto the word you want to add to the dictionary.
2. Press F5 and type **aw**; then press the Enter key.

An Add Word box is shown on the Edit display with the specified word in the box.

```

:.....:
:      Add Word      :
:.....:
: Insert slashes (/) for :
: hyphenation points, press Enter. :
:.....:
:  dictionary         :
:.....:
: F9=Unmark word  F12=Cancel :
:.....:

```

3. Type a slash where you want each hyphen to be.

```

:.....:
:      Add word      :
:.....:
: Insert slashes (/) for :
: hyphenation points, press Enter. :
:.....:
:  dic/tio/nary         :
:.....:
: F9=Unmark word  F12=Cancel :
:.....:

```

4. Press the Enter key to receive the following message:

Word will be added to dictionary 'xxxxxxxxxx'

Dictionary 'xxxxxxxxxx' is the name of the dictionary you specified on the Spell Options display for the *Dictionary for adding words* prompt.

5. Repeat steps 1 on page 5-9 through 4 for each word you want to add to your dictionary.

This dictionary is not actually created until you end your office session. After the dictionary has been created, you must go to the Dictionary Options display to activate the dictionary before you can use it to check the spelling in your document.

When adding a word to a dictionary, the word processing function does not check to see if the word already exists in the dictionary. To check to see if a word already exists, or to delete a word from the dictionary, use the Start Source Entry Utility (STRSEU) command. For information about this command, see "Deleting Words from a Dictionary" on page 5-9.

Activating a User Dictionary for a Document

After you have created your user dictionary, you must add the dictionary name on the Dictionary Options display before you can use it to check the spelling in your document. You can add the name to the dictionary list for a document or in a text profile. If you add the name to the dictionary list for a document, it will be used to check the spelling for only that document. If you add the name of the dictionary list in a text profile, the dictionary will be used to check the spelling for any document you create that uses that profile.

To activate a user dictionary:

1. Do one of the following to view the Specify Dictionary Options display:
 - Press F5 (Goto) and type **do** in the *Goto* prompt.
 - Press F22 (Spell functions) and select option 2 (Dictionary options).

The Specify Dictionary Options display is shown. If you previously activated a dictionary, it is shown in the list.

do **Specify Dictionary Options**

Type dictionary search list information, press Enter.

Order (1-8)	Dictionary	Library
1	US	QDCT
2	LEGAL	QDCT
-	_____	_____
-	_____	_____
-	_____	_____
-	_____	_____
-	_____	_____
-	_____	_____

F3=Exit F12=Cancel

2. Type the name of the user dictionary for the *Dictionary* prompt.
If you are using more than one dictionary, type the names of the other dictionaries in the remaining *Dictionary* prompts.
3. Type the name of the library where the user dictionary is stored for the *Library* prompt.
If you are using more than one dictionary, type the names of the other libraries in the remaining *Library* prompts.
4. Specify the order in which you want the dictionaries checked, for the *Order (1-8)* prompt.
5. Press the Enter key to return to the Edit display.
If you type the name of a dictionary that you have not created yet, an error message is shown after you press the Enter key.

You may want to assign a user dictionary to a text profile so that when you create new documents they will have the correct dictionary search list.

To assign a user dictionary to a text profile:

1. On the Work with Documents in Folders display, press F9 (Work with) and the Work with Word Processing display is shown.
2. Select option 5 (Work with text profiles). The Work with Profiles display is shown.
3. Select option 2 (Revise text profile) or option 1 (Create text profile) if no text profile exists.
4. Press the Enter key. The Revise Text Profile display is shown.
5. Type the name of the profile you want for the *Profile* prompt. To change the text profile, type over the existing profile name.
6. Press the Enter key. The Select Text Defaults display is shown.

7. Select option 6 (Dictionary options).
8. Press the Enter key. The Specify Dictionary Options display is shown.

do **Specify Dictionary Options**

Revising profile 'BBBBBBBBBBBB' Name

Type dictionary search list information, press Enter.

Order (1-8)	Dictionary	Library
-	_____	_____
-	_____	_____

9. Type the names of the dictionaries you want to have in this profile for the *Dictionary* prompt.

Note: If *USERID is entered for the dictionary name, the dictionary name used will be the same as the current user ID.

10. Press the Enter key. You are returned to the Select Text Defaults display.
11. Press F12 (Cancel). The Exit Text Profiles display is shown.
12. Select option 4 (Save and return to profiles menu). The Work with Profiles display is shown.
13. Select option 5 (Activate text profile) or option 6 (Activate system profile).

If you select option 5 (Activate text profile), the Select Text Profile display is shown. Type the name of the profile you want activated for the *Profile name* prompt.

14. Press the Enter key to return to the Work with Text Profiles display.

Activating a User Dictionary for Your User ID

You can specify to have your user dictionary active automatically whenever you check any document for spelling. This checks the spelling of the words in the document against the words in the user dictionary. The user dictionary is activated by specifying Yes for the *Include user dictionary for spell options* prompt. This prompt is on both the Spell Options and User Dictionary displays. You need to complete the prompt only on one of the displays. To show this prompt, press F5 (Goto) on the Edit display. Then for the prompt, type **so** (spell options) or **ud** (user dictionary) and press the Enter key. The User Dictionary display contains only prompts for information about your user dictionary. Activating the user dictionary does not place the dictionary on the dictionary list. However, the dictionary is used each time you do a spell check no matter what document you are editing.

Note: If only the user dictionary is active, and you check the spelling of some pages or of the entire document, the Specify Dictionary Options display is shown. You can then specify an additional dictionary. Most words would not be correct if checked only against a user dictionary.

Using Portuguese, Catalan, or Germanic Languages

Portuguese, Catalan, and the Germanic languages (Danish, Dutch, German, Icelandic, Norwegian, Swedish, Swiss-German, and South African) contain compound words. If you are working with a document written in one of these languages, you should be aware of the following:

- List the language dictionary that you intend to use first on your dictionary search list if you want the removal of hyphens to work correctly.
- System language dictionaries contain positional characteristics of the words, and parts of compound words. Both are used for spelling verification.

Checking Spelling of Compound Words

Germanic languages contain simple words and compound words. Simple words are words that cannot be divided into smaller words. Compound words are formed by joining simple words.

In checking the spelling of a word, the system looks for the word in all dictionaries in the dictionary list. The system regards all words in user dictionaries as simple words. If it finds a word in a user dictionary, it considers the word to be correctly spelled.

Note: If the dictionary list contains a Dutch or South African dictionary and the word contains vowels with acute or grave accents, and if the word has not been found in any dictionary on the dictionary list, the system then strips the accents from the vowels and tries to find the new word in the Dutch or South African dictionaries on the list. Hyphenation is processed in a similar manner. For spelling aid, the replacement words are obtained from the unaccented word.

If the system does not find the word, it analyzes the word to find out if the word is a compound word. The system tries to find the simple words that form the compound word in the user and system dictionaries. If the words are found and positional requirements are met, the system then accepts the compound word. The system finds the simple words for all the Germanic languages in the dictionary list one at a time.

Note: The system finds the simple Dutch or South African words as originally spelled; accents on vowels are not removed.

However, for a compound word to be found correct, a word found in the spelling dictionary must meet a positional requirement. A simple word may be allowed only in certain positions of a compound word.

If the system finds all of the simple words with proper positional characteristics, it considers the compound word to be spelled correctly. The system considers the word to be misspelled if:

- The word is not a compound word, and it cannot be found in any dictionary.
- The word is a compound word, and one simple word or more cannot be found.
- The simple word is found in the spelling dictionary but does not meet the positional requirement.

For example, in checking the spelling of the German word
Seilbahn

The system looks for the word in a dictionary. If it finds the complete word (Seilbahn) in a dictionary, the word is spelled correctly. If the system does not find the complete word, the system analyzes the word into two simple words "Seil" and "Bahn." If it finds both simple words while searching the German dictionaries, the word is spelled correctly.

Hyphenation

Besides hyphenation without spelling changes, the Catalan and Germanic languages have two additional forms of hyphenation where the spelling of the word changes:

- In German and Swiss-German, a word may be hyphenated and one letter of the word may be changed without letters being added or removed. For example, the word Acker is hyphenated as Ak-ker. For easier understanding, this form of hyphenation is referred to as *k-k hyphenation*.
- In Catalan, German, Norwegian, Swedish, Swiss-German, and South African, a word may be hyphenated and one letter may be added or removed at the hyphenated point. For example, the German word Schiffahrt is hyphenated as Schiff-fahrt. This form of hyphenation occurs between two components of a compound word when:
 - The first component ends in a double consonant.
 - The second component starts with the same consonant.

In Norwegian and Swedish, letter insertion always occurs. In German, it occurs if:

- The second letter of the second component is a vowel.
- The consonant is a "t" and the second letter of the second component is either a vowel or an "h."

For easier understanding, this form of hyphenation is referred to as *ff-f hyphenation*.

Note: If, after ff-f hyphenation has been performed on a word in a document, you scan the document looking for the letter that forms the "f" in the "ff-f" combination, the system will find the first and third "f" letters but not the second.

- Hyphenation of Dutch or South African words with accented vowels is performed in the same way as checking spelling.
- In Catalan, a high dot character between two l's is removed during hyphenation.

Any spelling changes made during hyphenation are removed when hyphens are removed.

Chapter 6. Text Instructions

You insert text instructions in the text as you type it. These instructions are processed when your document is printed if you specify Y (Yes) for the *Resolve instruction* prompt on page 2 of the Print Options display. Text instructions are shown on the Edit display preceded by an instruction control character (⌘) or a graphic symbol that looks like an ^L if you are using the PC text-assist function. This character indicates that a special function must be done at this point in the document when the document is printed.

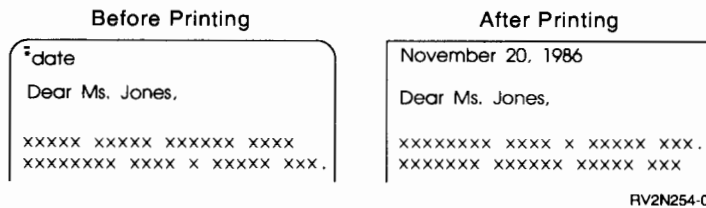
If you move the cursor under an Instruction control character, the word *Instruction* is displayed in the audit window at the top of the Edit display. If the instruction is received from another system you cannot see what the instruction is, but it is processed when the document is printed. For example, if you receive an instruction to change the code page, you cannot see the name of the instruction in the audit window but the code page is changed at print time. If the instruction is not supported, you receive the error message *Instruction not supported* at the bottom of your display.

Note: If you are using the PC text-assist function, the type of instruction is displayed. For example, if the cursor is on a Date instruction, *date* is shown in the audit window.

You can insert text instructions in your document in one of the following ways:

- By typing the instruction directly into your document.
- By using F9 (Instructions) to show the Instruction display:
 1. Press F9 (Instructions) to look at the list of available instructions.
 2. Select the option for the instruction you wish to insert in your text and press the Enter key.
 3. Fill in the prompts for the instruction, if any, and press the Enter key. You are returned to the Edit display and the instruction is inserted at the cursor position.
- By using F5 (Goto) to show the Instruction display:
 1. Press F5 (Goto) to show the *Goto* prompt.
 2. Type a period followed by the instruction keyword (for example, *.date*) for the instruction you want to use and press the Enter key.
 3. Fill in the prompts for the instruction, if any, and press the Enter key. You are returned to the Edit display and the instruction is inserted at the cursor position.

Using text instructions in your document makes your printed document look different from your displayed document. In some cases (for example, **date*), text is moved to the right (when the instruction is replaced by the longer *date*). In other cases (for example, change font **cf*), text is moved to the left because the instruction is removed when the document is printed.



Because of this, you should specify line adjustment in the print options when your document is printed if your document has instructions in paragraph text. To do this, type a Y (Yes) for the *Adjust line endings* prompt on page 2 of the Print Options display.

Note: Text instructions are not processed until your document is printed. To see if your instruction is correct before printing your document, press F19 (Print/View Opts) and select option 3 (View printed output using split display). Now you can look at the document at your display. However, F19 does not process the following instructions:

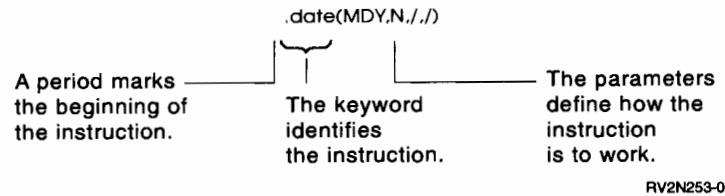
- Change Font
- Begin/End Overstrike
- Required Backspace
- Zero Index Carrier Return
- Color
- Graphic

Using Text Instructions

Text instructions are made up of the following parts:

- A period (.), which indicates the start of an instruction. The period changes into an Instruction control character (an asterisk with a line above it) when you press the Enter key, if the instruction is typed correctly. If you are using the PC text-assist function, the control character is a graphic symbol that looks like an .
- The instruction keyword (1 to 5 characters) that identifies the instruction, for example, **date**.
- Additional information (parameters) that further defines the instruction, if necessary. This additional information is specified on the Instruction display. Whether or not parameters are shown on the Edit display depends on the instruction length chosen.

The parameters for a text instruction can be shown following the keyword. The parameters are enclosed in parentheses and are separated by commas. The following example shows how the parameters might be shown for the Date instruction.



Note: Sometimes you may need to place a left parenthesis (()) immediately following a text instruction with no space between the text instruction and left parenthesis. If so, insert an end code between the text instruction and left parenthesis by pressing the Alt and J keys.

This instruction prints the date in month-day-year (MDY) format, using a number for the month, and separating the three parts of the date with slashes (/).

Once a text instruction has been inserted in your document, you can change it by typing over the existing parameters. If you are not sure what the available parameters are, place your cursor on the Instruction control character and press the Enter key. You are taken directly to the display for that instruction. You can change the parameters by typing over the existing information in the prompts of this display.

Note: If you are using the PC text-assist function, instructions on the Edit display cannot be changed by typing directly over the existing parameters.

Each instruction (shown in "Summary of Text Instructions" on page 6-4) has a separate display where you can type the parameters for that instruction and set the instruction length.

The instruction length determines how many spaces the instruction uses on the display. You can avoid unexpected positioning of text when the document is printed if you set the length of the instruction to the number of characters that will be printed for the resolved output. For example, if you use the Date instruction to print the date in the format 10/10/87, you could specify 8 for the instruction length. The Date instruction then uses the same number of spaces on the display as when it is printed.

You can also set the instruction length to the length of the keyword and Instruction control character so only these characters are shown on the display. For example, if you set the length of the .date instruction to 5, the instruction is shown on the display as *DATE.

If you leave the *Instruction length* prompt blank, the instruction is shown on the display followed by its parameters. If the instruction has many characters in the parameters, the lines may not adjust correctly when the document is printed.

Note: The instruction length may change when sending and receiving an existing document or when you use the RTVDOC (Retrieve Document) command.

Summary of Text Instructions

Press F9 (Instructions) on the Edit display to look at the Select Text Instruction display.

The following instructions can be typed in a document:

Figure 6-1 (Page 1 of 2). Summary of Text Instructions

Instruction	Keyword	Function
Change Font	.cf	Change type style
Color	.color	Print text in color
Comment	.*	Comment area
Conditional Text	.bct, .ect	Conditional information
Data Field	.&	Include information from a file, a query, or a fill-in document
Data Field Heading	.dfh	Print the heading that is stored with a data field
Date	.date	Print system date
Document ID	.docid	Document information
Footnote	.fn	Create footnote
Form Field	.ff	Defines an input field for a form document
Graphic	.gr	Print graphic in the document
Help Text Label	.help	Cursor-specific help
Include	.inc	Include information from another document
Index	.ix	Print an index in the document
Index Entry	.ie	Include entry in document index
Keep	.bk, .ek	Keep text together
Numbered List	.nl	Numbered list item
Next Text Column	.ntc	Start the next text column
Outline Heading	.h1—.h6	Print outline heading numbers (0-6) in a document
Overstrike	.bo, .eo	Overstrike text
Print Variable	.&&	Print result from Summary Math or Set Variable instruction
Required Backspace	.rbs	Backspace
Run	.run	Run a CL command
Running Headings	.brh, .erh, .crh	Print page headings
Set Variable	.set	Set a document variable
Skip Lines	.sk	Skip lines
Skip to Line	.stl	Skip to a line number
Start New Page	.pa	Start a new page
Summary Math		

Figure 6-1 (Page 2 of 2). Summary of Text Instructions

Instruction	Keyword	Function
Average	.avg	Average of all values in the list
Count	.cnt	Number of values in the list
High	.high	High value in the list
Low	.low	Low value in the list
Total	.tot	Sum of all values in the list
Table	.bt, .et	Begin and end text in a table
Table of Contents	.toc	Print a table of contents in the document
Time	.time	Print system time
Zero Index Carrier Return	.zicr	Return carrier to beginning of line

Notes:

1. For information on any text instruction, press F9 (Instructions). Move your cursor next to the instruction you would like more information about and press the Help key.
2. Color and graphics are only supported on certain printers. See Appendix A, "Printers and the Functions They Support" to see if your printer supports these functions.

Text Instructions for Headers and Footers

Press F9 (Instructions) on the Header or Footer Edit display to look at the Select Header or Footer Text Instruction display.

The following instructions can be used within headers and footers:

Figure 6-2. Summary of Text Instructions for Headers and Footers

Instruction	Keyword	Function
Change Font	.cf	Change type style
Color	.color	Print text in color
Comment	.*	Comment area
Date	.date	Print system date
Document ID	.docid	Document information
Graphic	.gr	Print graphic in the document
Outline Heading Text	.ht0-ht6	Print text of outline heading level (0-6) in a header or footer
Overstrike	.bo, .eo	Overstrike text
Required Backspace	.rbs	Backspace
Page Number	.pn	Print page number
System Page Number	.spn	Print system page number
Time	.time	Print system time
Zero Index Carrier Return	.zicr	Return carrier to beginning of line

Notes:

1. For information on any text instruction, press F9 (Instructions). Move your cursor next to the instruction you would like more information about and press the Help key.
2. A Graphic instruction cannot be used to place an image or a graphic on a page by itself for either a header or a footer.
3. Color and graphics are only supported on certain printers. See Appendix A to see if your printer supports these functions.
4. It is possible to insert other text instructions into headers or footers by recalling them from a notepad. However, this can lead to unpredictable results when the document prints.

Text Instructions for Footnotes

Press F9 (Instructions) on the Footnote Edit display to look at the Select Footnote Instruction display.

The following instructions can be used within footnotes:

Figure 6-3. Summary of Text Instructions for Footnotes

Instruction	Keyword	Function
Change Font	.cf	Change type style
Color	.color	Print text in color
Comment	.*	Comment area
Date	.date	Print system date
Graphic	.gr	Print graphic in the document
Numbered List	.nl	Numbered list item
Overstrike	.bo, .eo	Overstrike text
Required Backspace	.rbs	Backspace
Skip Lines	.sk	Skip lines
Time	.time	Print system time
Zero Index Carrier Return	.zicr	Return carrier to beginning of line

Notes:

1. For information on any text instruction, press F9 (Instructions). Move your cursor next to the instruction you would like more information about and press the Help key.
2. A Graphic instruction cannot be used to place an image or a graphic on a page by itself for footnotes.
3. Color and graphics are only supported on certain printers. See Appendix A to see if your printer supports these functions.
4. It is possible to insert other text instructions into footnotes by recalling them from a notepad. However, this can lead to unpredictable results when the document prints.

Creating a Help Document

You can create help text for your interactive applications. All necessary help text for your application can be typed into a document. You can use the Help Text Label instruction (a period followed by `help`) to specify the location in the document that you are taken to when you press the Help key. The information you see is determined by your cursor position on your application display when you press the Help key.

You can use the Table of Contents (`.toc`) and Outline Heading (`.h`) instructions to create a table of contents in your help document. You can then type `TOC` for the *Type section, page, TOC, GLOSSARY, INDEX*, or *press Enter* prompts when using the Display Help Document (`DSPHLPDOC`) command, and the table of contents is shown. If you type the outline heading section number for this prompt, that section of the help document is shown.

The *Start on new display* and *Show heading text* prompts on the Outline Heading display are used only for help documents. If you specify `Y` (Yes) for the *Start on new display* prompt, the outline heading shown on the `DSPHLPDOC` display starts a new display. If you specify `Y` (Yes) for the *Show heading text* prompt and that outline heading is active in the help document, the text for that outline heading is shown in the center at the top of the display.

You can create your own glossary in the help text by creating a help tag called `GLOSSARY` before the glossary. To create a glossary, type the text in the format you want.

You can also create an index in your help document. For information about creating an index, see Chapter 9, "Producing a Table of Contents or an Index." In order to use this function, you need to create a help tag called `INDEX` before the `.ix` instruction. If you specify `Y` (Yes) for the *Create help tags* prompt on the index display, a help tag is automatically created for each section of the index. For example, an `A` is created for the `A` section, a `B` for the `B` section, and so on. If there are any numeric sections, the `NUMBERS` tag is created, and if there is a special characters section, the `SPECCHAR` tag is created. If you type `A` for the *Type section, page, TOC, GLOSSARY, or INDEX* prompts, the `A` section of the index is shown.

To see the `TASKMENU` when you use your help document, insert a help text label for `TASKMENU`. Then, if you press the Help key, the line of text where `TASKMENU` is appears.

After you create a help document, you can use the `DSPHLPDOC` command to look at the help document. Cursor draw characters are not displayed. Also, headers, footers, and instructions with an instruction length of 1 are not displayed. Instructions such as `Skip`, `Skip to Line`, `Begin Overstrike`, `End Overstrike`, `Change Font`, `Required Backspace`, `Color`, `Graphic`, and `Zero Index Carrier Return` may be shown if they have an instruction length of 0 or greater than 1. If the instruction length is 1, these instructions are shown as blanks. For more information about this command, press `F4` (Prompt) after you type the command.

When using the page keys (Roll Up/Roll Down or Page Up/Page Down) to display a help document, a full display of data is shown regardless of where the pages end.

To create a help document:

1. Select option 1 (Create) on the Work with Documents in Folders display and type a name for the *Document name* prompt.
2. Press the Enter key and the Create Document Details display is shown.
3. Make any changes on this display and press the Enter key until the Edit display is shown.
4. Type the information you want as help text.
5. Position the cursor before a heading, paragraph, or section that you want to go to from a specific point on a display. It is at these specific places that you enter the Help Text Label instructions.
6. You must create at least one Help Text Label instruction for each help document you create. You can get to the Help Text Label Instruction display in one of the following ways:

- Press F5 (Goto) and type **.help**. Press the Enter key and you go directly to the Help Text Label Instruction display.
- Press F9 before each heading, paragraph, or section you want to get to from a specific point on a display. The Select Text Instruction display is shown.

Select option 16 (Help text label) and press the Enter key. The Help Text Label Instruction display is shown.

```

DOCNAME P:12          EDIT Page End          PG:1      LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
This is sample text that appears at the top of the Edit display when the
following split screen is displayed.
This text is positioned to the top of the display because of the cursor
position when the split screen display was requested.
This is sample text that appears at the top of the display.

```

help

Help Text Label Instruction

This instruction identifies the location within a help document that is to be displayed when the Help key is pressed. The specified label name must match a label name in an existing DDS specification. Use this instruction only if your document is an online help document.

Type choices, press Enter.

Label	_____	Name
Document	_____	Name, F4 for list
Folder	_____	Name, F4 for list

Instruction length 5 1-255, Blank=Entire instruction

F3=Exit F4=Prompt F12=Cancel F16=Delete instruction

7. Type a name for the *Label* prompt. Remember or write down this label name. You will need to specify this label name later when you specify the data description specifications that this help text is for.
8. If the help text is located in another document, specify the document and folder name of the help document where the label is stored for the *Document* and *Folder* prompts.

9. Press the Enter key. The Edit display is shown with the Help Text Label instruction inserted.
10. Repeat steps 5 through 9 for each help tag.
11. Press F3 (Exit/Save).
12. Type a Y (Yes) for the *Save document*, *Print document*, and *Display print options* prompts.
13. Press the Enter key and the Print Options display is shown.
14. Type a Y (Yes) for the *Resolve instructions*, *Adjust page endings*, and *Save resolved output* prompts.
15. Type a document name for the *Document* prompt, and a folder name for the *Folder* prompt. The name you specify for the *Document* prompt will be the name of the help document.
16. Press the Enter key and your help document is saved and printed.
17. Make sure that users who need access to the help document have the necessary authorization.

When creating a help document, separate paragraphs by using a space and then a Required Carrier Return (instead of just a Required Carrier Return). If you do not separate paragraphs by using both a space and a Required Carrier Return, some paragraphs may not be separated by a blank line when the help document is resolved.

You can also put an index in your help document. If you do this, the help tags can automatically be created for you in each index section. For information about indexing, see "Creating an Index" on page 9-4.

After you have created a document that contains Help Text Label instructions, you must define a link to this information from the display. The H specification identifies that part of the display that finds your document. The label name you assign in the H specification must be the same label as you use in the Help Text Label instruction. For information about the H specifications, see the *SDA User's Guide and Reference*.

Note: Help Text Label instructions are not allowed in multiple text columns.

If you are working on a user-defined display that has a help document linked to it, you can press the Help key to see the help document linked to that part of the display. If you want to set a bookmark at the part of the help text you are viewing, press F9 (Set bookmark and exit). The bookmark is placed at that part of the help text and you return to the user-defined display. If you press the Help key again, you return to the part of the help text where you set the bookmark. The bookmark remains in effect until you exit the user-defined display.

Note: F9 (Set bookmark and exit) is not available when using the DSPHLPDOC command to access a help document.



Chapter 7. Formatting a Document

Every document has a format that consists of specific line and page characteristics. The default text profile contains format options that are preset by the system. These preset format options are:

- Line format options

- Margins of 19 and 91
- Flush left tab setting every five spaces
- Single line spacing
- Lines aligned at the left
- Type style of 12-pitch (type style 86)
- Six lines per inch
- Line endings adjusted
- Hyphenation zone width of six spaces

- Page format options

- Paper size of 8-1/2 x 11 inches
- Six blank lines at the top of the printed page
- Six blank lines at the bottom of the printed page
- Header printed on line 3
- Footer printed on line 63
- Footnote references printed as superscript numbers

Note: When editing a Final-Form Text: Document Content Architecture document, default values for the document format are taken from the active text profile. These default values are for the following:

- Margins and tabs
- Line spacing/justification
- Typestyle/color
- Page layout/paper options

The defaults are used only if one or more of the values specified for the document are not valid or not included in the Final-Form Text: Document Content Architecture document.

If these defaults are not correct for you, you can change the format for part or all of a document. When changing formats from the Edit display, you may use F5 (Goto) to go directly to the format display that you need to change, or press F20 (Format options) to choose an item from the Format Change Options display.

Each document you type uses the format you specified for the document format. However, an **alternate** format is useful when you need different formatting for full pages, such as charts and envelopes. The alternate format is a second format that is available for each document you create. See "Creating an Alternate Format" on page 7-25 for more information.

To print an envelope along with a document, you could create an alternate format for an envelope and start using the alternate format at the top of the last page of the document before typing the envelope information. Using an alternate format to create envelopes is discussed in "Creating and Printing an Envelope" on page 16-11.

When you have decided on the most desirable format settings, you can create a text profile that includes the format settings you want. After you have created and activated this profile, each new document you create uses the format in this profile.

Getting to the Format Menus

You can get to the format menus by pressing F20 (Format options) on the Edit display. The Format Change Options display is shown. By making choices on a series of menus starting on the Format Options display, you get to the display on which you make the changes. You can change one or more characteristics of the document format for part or all of a document.

Making Format Changes

The following are types of format changes that you can make:

- Page format changes, which include:

Page layout/paper options
Headers and footers

These can occur only at the start of a new page.

- Line format changes, which include:

Line spacing/justification
Type style/color
Margins and tabs

These may occur anywhere in your document.

You can make these format changes for the entire document or for only a part of the document. To make changes for the entire document, you change the document format or the alternate format.

To make format changes for a part of the document (for example, to change margins for just a portion of the document), you can insert a page or line format change. A format change symbol (a highlighted F) appears on the screen at the cursor position. Format changes only affect the text following the format change symbol.

Format changes stay in effect until the next format change or until the format is reset to the starting choice. When you return a format to the starting choice, a format return symbol (a highlighted R) is inserted in the document to mark the return. The starting choice can be a document format or an alternate format, whichever format you were using before the format change. When changing formats in a document, press F20 (Format options) and choose an item from the Format Change Options display or press F5 (Goto) and type the format abbreviation for the format display to which you want to go directly.

Notes:

1. When the cursor is on an existing format change or on the line immediately following an existing format change, and you make a format change by pressing F20 (Format options) or by pressing F5 (Goto), a new format change is not inserted. Instead, the existing format is changed just as if you had placed the cursor on that format change and pressed the Enter key.

Multiple formats that result from a text revision (move, copy, or delete) are not combined into a single format change.

2. A new format change is not inserted if you press the Enter key on a format display without changing any information.
3. If you are using the PC text-assist function, a line format change is indicated by ¶ and the return to the starting line format is indicated by ¶. A page format change is indicated by ¶ and the return to the starting page format is indicated by ¶.

If you are not displaying codes, the format change character is shown only when the cursor is positioned on it.

How the Cursor Position Affects Format Changes

The cursor position affects the type of format change you can make.

- To change the document format or alternate format for the entire document, your cursor can be positioned anywhere in your document.
- To make a line format change for part of your document, your cursor can be positioned anywhere in your document. A format change symbol (a highlighted F) is inserted.
- To make a page format change for part of your document, your cursor must be positioned at the top of the page. A format change symbol (a highlighted F) is inserted.

When your cursor is *not* at the top of the page:

- Options 5, 6, 7, and 8 are not shown on the Format Change Options display. Those options cause page format changes to be inserted.
- You cannot use the menu abbreviations **p**, **h**, **f**, **eh**, **oh**, **ef**, **eo**, or **of** for a goto request because they cause page format changes to be inserted.

A single format change at the top of the page can include both page format and line format changes.

To combine a page and line format change into a single format change:

1. Move your cursor to an existing format change symbol for a page format change, and press the Enter key.
The Format Change Options display is shown.
2. Select option 1, 2, or 3 on the Format Change Options display for a line format change and make your changes.

Changing a Format Change

To change an existing format change:

1. Move your cursor on the format change symbol you want to change.
2. Press the Enter key.

The Format Change Options display is shown. The items on the Format Change Options display vary depending on the type of format change you are changing.

3. Select the items you wish to change, go to the display for each item, and make the necessary changes.

4. Press the Enter key to return to the Edit display.

Displaying the Current Format

To display the current format:

1. On the Edit display, press F5 (Goto) and type **dcf** (Display current format) for the *Goto* prompt. Press the Enter key.
2. The Display Current Format display shows the current values of the format that is active where your cursor is positioned. If there are no format changes, the document format is shown. If there are format changes, the display shows the current format values and the previous format values. If a current value is different than a previous value, the current value has a greater than (>) sign in front of it.

Note: If the current format is a line format, no data is shown on the second page of the display for the previous format column.

3. Press the Enter key to return to the Edit display.

Finding a Format Change

To find a format change:

1. On the Edit display, press F6 (Find).
You receive the message Find what?.
2. Type ***fc** in the prompt.
3. Press the Enter key.
The cursor is positioned to the next format change.
4. Continue pressing F6 (Find) and the Enter key until you find the format change you want to change.
5. When you have found the format change you want to change, do one of the following:
 - Press the Enter key to make changes to the format change.
 - Press the Delete key to delete the format change.

Searching for and Replacing Formats

You can make changes to several or all of the format changes in a document by using the Search/Replace function for formats. You can make changes to only those format changes that have a specific formatting value (for example, left margin=10), make changes to all the format changes in a document, or make changes to a certain range of pages in a document.

You can specify to search for format changes based on any or all of the line or page format information that can be associated with a format change. You can specify several *search for* and *replace with* combinations at one time. For example, if you specified the following, all format changes with left margins of 10 or right margins of 70 would be changed:

Format Option	Search For	Replace With
Left margin	10	20
Right margin	70	80

If you wanted to make a change to all format changes, regardless of what the current format value is for them, an asterisk (*) can be typed for the first character of the *Search For* prompt. For example, if you specified the following, all format changes would have a left margin changed to 20, regardless of what the current left margin value is:

Format Option	Search For	Replace With
Left margin	*	20

To search for and replace formats, do the following:

1. Press F5 (Goto) and type **srf** for the prompt.
2. Press the Enter key. The Search/Replace - Formats display is shown.
3. For each prompt on the display there is a *Search For* and *Replace With* column. For any of the prompts, type the information you are searching for and what you want to replace it with.

Note: You can type an asterisk (*) in the first position of any *Search For* column to change that format option for all format changes found.

For information about any of the prompts on the display, move your cursor to the prompt and press the Help key.

4. Go to the next two pages of the display and complete the prompts you feel are necessary.
5. Press the Enter key to begin the search and replace operation.

Line Format Changes

The line format includes items which affect the way lines of text look when the document is printed, such as:

- Line spacing
- Line justification
- Margins and tabs
- Type style and color
- Adjust line endings
- Lines per inch or lines per centimeter
- Hyphenation zone width
- Insert hyphens
- Print controls as spaces
- Compress wide paragraphs

Changing the Line Spacing/Justification

Changes to the line spacing/justification can be made for the entire document or for any part of the document.

Line spacing/justification changes remain in effect until you make another line format change, return to the starting line format, or activate the document format or alternate format.

Right-Justification

When you specify right-justification, all lines in the document are right-justified except the last line of each paragraph. A paragraph is one or more words that end with a control character that can define a paragraph. For a list of control characters that can define a paragraph, see "Control Characters That Define Paragraphs" on page C-2.

Right-justification is done only when the document is printed. Documents cannot be viewed as right-justified on the display.

To specify right-justification:

1. If you want the entire document right-justified, go to the next step.
If you want only part of your document right-justified, move your cursor to the beginning of the line where you want to start the right-justification.
2. Press F5 (Goto) to show the *Goto* prompt.
3. If you want the entire document right-justified, type **d1** to change the document line spacing/justification and press the Enter key. The Line Spacing/Justification Options display is shown.
If you want only part of your document right-justified, type an **1** to change line spacing/justification, and press the Enter key. The Line Spacing/Justification Options display is shown.
4. Type a **2** (Justify) or a **3** (1/2 justify) for the *Line justification* prompt and a **Y** (Yes) for the *Adjust line endings* prompt. Press the Enter key. The Edit display is shown.
5. Press F13 (Edit options). The Change Editing Options display is shown.
6. Type a **Y** (Yes) for the *Adjust text when editing* prompt. Press the Enter key. The Edit display is shown.
7. On the Edit display, press F3 (Exit/Save). The Exit Document display is shown.
8. For the *Print document* prompt and the *Display print options* prompt, type a **Y** (Yes). Press the Enter key. The Print Options display is shown.
9. Type a **Y** (Yes) for the *Adjust line endings* prompt.
10. Press the Enter key. Your document is submitted for printing and a message is shown that your request is being processed.

Changing the Line Spacing/Justification for the Entire Document

To change line spacing/justification for the entire document:

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type **d1** to change the document line spacing/justification, and press the Enter key.
The Line Spacing/Justification Options display is shown.
Note: The Line Spacing/Justification Options display has two pages. Use the Page Down key to see the second page of the display.
3. Make the desired changes on the Line Spacing/Justification Options display.
If you need more information about any of the prompts on this display, move your cursor next to that prompt and press the Help key.

4. Press the Enter key to return to the Edit display.

Changing the Line Spacing/Justification within the Document

To change line spacing/justification for a page or section within the document:

1. Move your cursor to the beginning of the line where you want to start a line format change.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type an 1 to change line spacing/justification, and press the Enter key. The Line Spacing/Justification Options display is shown.

Note: The Line Spacing/Justification Options display has two pages. Use the Page Down key to see the second page to change the *Print controls as spaces* or *Compress wide paragraphs* prompts.

If you are using the PC text-assist function, the *Compress wide paragraphs* prompt is not shown. Instead, to see the remaining text on a line, move the cursor to the farthest right position and press the Right Cursor Movement key. To see the text that moved off the display, move the cursor to the farthest left position and press the Left Cursor Movement key.

4. Make the desired changes on the display.

If you need more information about the prompts or options on this display, move your cursor next to the prompt or option and press the Help key.

5. Press the Enter key to return to the Edit display.

A format change symbol is inserted in the document to mark a format change. When you change the line format in the document, the change remains in effect until you change it again or return the format to the starting choice.

Returning the Line Spacing/Justification to the Starting Choice

Note: The starting choice can be either the document format or the alternate format, whichever format you were using before the format change.

1. Move the cursor to the beginning of the line where you want to return to the starting line format.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type **rf** for the prompt and press the Enter key.

The Reset Format display is shown.

4. Select option 2 to return the line format to the starting choice.
5. Press the Enter key to return to the Edit display.

A format return symbol is inserted in your document to mark the return to the starting line format.

Changing Margins and Tabs

You can change margin and tab settings for the entire document or any part of the document. These changes are made on the Margins and Tabs display and are shown on the scale line at the top of the Edit display.

You can change one or both of the margin settings, or set one of six different types of tabs:

- Flush left tab (set every fifth position by default)
- Center tab
- Decimal tab
- Flush right tab
- Comma tab
- Colon tab

The following example shows how these tab settings appear on a scale line.

Flush Left Tab < T > XXXXXX XXXXX XXXXXXX	Decimal Tab < D > X,XXX.XX XXX.XX XX,XXX.XX
Flush Right Tab < R > XXXXXX XXXXX XXXXXXX	Colon Tab < N > XXXX:XX XXX:XX XXXXX:XX
Center Tab < C > XXXXXX XXXXX XXXXXXX XXXX	Comma Tab < M > XXXX,XX XXX,XX XXXXX,XX

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Note: If you type a right parenthesis or a greater than (>) symbol in a decimal, colon, or comma tab field, the data alignment ends for that field.

The default is flush left tabs set at every fifth column position from the left margin. You can reset the tabs to enter columns of data at any point in your document.

Changing Margins or Tabs for the Entire Document

To change the settings for the entire document:

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type **dm** and press the Enter key.

The Margins and Tabs display is shown.

3. To change the margins, move the cursor to the position on the scale line where you want to set a margin and type < for a left margin, > for a right margin.

Note: If you need to make changes to a part of the scale line not displayed, press F7 (Window) to move the scale line left or right by typing the number of the column position to be displayed on the extreme left.

4. To change a tab, move the cursor to the scale line where you want to set a tab and type one of the following, depending on the type of tab you want:

T	Flush left tab
C	Center tab
D	Decimal tab
R	Flush right tab
M	Comma tab
N	Colon tab

Note: If you need to make changes to a part of the scale line not displayed, press F7 (Window) to move the scale line left or right by typing the number of the column position to be displayed on the extreme left.

5. Press the Enter key to return to the Edit display.

The new margins and tabs are shown on the scale line at the top of the Edit display.

Changing the Margins or Tabs for Part of a Document

To change the settings for part of the document:

1. Move your cursor to the point in your document where you want the margins or tabs changed.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type an **m** for the prompt and press the Enter key.

The Margins and Tabs display is shown.

4. To change a margin, move the cursor to the position on the scale line where you want to set a margin and type < for the left margin, > for the right margin.

Note: If you need to make changes to a part of the scale line not displayed, press F7 (Window) to move the scale line left or right by typing the number of the column position to be displayed on the extreme left.

5. To change a tab, move the cursor to the scale line where you want to set a tab and type one of the following, depending on the type of tab you want:

T	Flush left tab
C	Center tab
D	Decimal tab
R	Flush right tab
M	Comma tab
N	Colon tab

Note: If you need to make changes to a part of the scale line not displayed, press F7 (Window) to move the scale line left or right by typing the number of the column position to be displayed on the extreme left.

6. Press the Enter key to return to the Edit display.

The new margins and tabs are shown on the scale line at the top of the display. A format change symbol is inserted at your cursor position to mark a line format change.

Note: Margin changes in multiple text columns are ignored until the multiple text columns end. Tab changes in multiple text columns are used immediately.

Returning the Margins or Tabs to the Starting Choice

Note: The starting choice can be either the document format or the alternate format, whichever format you were using before the format change.

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type *rf* in the prompt and press the Enter key.
The Reset Format display is shown.
3. Select option 2 (Margins and tabs, line spacing/justification, typestyle/color) to return the margin and tab settings to the starting choice.
4. Press the Enter key to return to the Edit display.

A format return symbol is inserted in the document to mark the return to the starting margin and tab settings.

Changing the Type Style/Color

You can change the type style or color of ink for the entire document or any part of the document. This change remains in effect until the Change Font (cf.) instruction, Color instruction (.color), or format change occurs.

If the type style is changed for more than a word or phrase on the page, you should change the margins to allow for the change in type size.

If the pitch changes, you should specify Y (Yes) for the *Adjust margins and tabs* prompt on the Typestyle/Color Options display.

Notes:

1. Not all printers support all type styles or colors of ink. Check to see which type styles your printer supports and if it prints in color. See Appendix A, "Printers and the Functions They Support."
2. Headers and footers use the margins, tabs, type style, and color specified in the document format, not the current (active) format.
3. You can specify a typographic font in the *Typestyle* prompt.
4. The lines on the display may not appear as expected when using proportionally spaced fonts.
5. The following functions are not fully supported by typographical fonts:
 - Line adjustment
 - Right justification
 - Automatic adjustment of margins and tabs

If you need more information about this prompt, position your cursor next to the prompt and press the Help key.

Changing the Type Style, Font Size, or Ink Color for the Entire Document

To change the type style, font size, or ink color for the entire document:

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type **dt** to change the document type style/color and press the Enter key.
The *Typestyle/Color Options* display is shown.
3. Type the desired type style in the *Typestyle* prompt.
If you need more information about this prompt, position your cursor next to the prompt and press the Help key.
4. Type the desired font size you want for the *Font size (points)* prompt. Font size applies only to typographic fonts. Typographic fonts are a range of fonts that allow you to specify a point size that varies the height and width of characters.
For more information about font sizes, see Appendix G, "SAA Support for Type Styles" on page G-1.
5. If you want to change the ink color, type the desired color number for the *Color* prompt. If you need more information about this prompt, position your cursor next to the prompt and press the Help key.
6. If you have changed the type style to a different pitch or have changed the font size, and you want the system to change the margins and tabs in proportion to the previous values, type a **Y** (Yes) for the *Adjust margins and tabs* prompt.
This ensures that the text affected by the document format change is printed within the same margins on the printed page.
7. Press the Enter key to return to the Edit display.

Changing the Type Style, Font Size, or Ink Color for Part of a Document

To change the type style, font size, or ink color for one or more lines in the document:

1. Move your cursor to the point in your document where you want the type style changed.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type a **t** to change the type style/color and press the Enter key.
The *Typestyle/Color Options* display is shown.
4. Type the desired type style in the *Typestyle* prompt.
If you need more information about this prompt, position your cursor next to the prompt and press the Help key.
5. Type the desired font size you want for the *Font size (points)* prompt. Font size applies only to typographic fonts.
For more information about font sizes, see Appendix G, "SAA Support for Type Styles" on page G-1.
6. If you want to change the ink color, type the desired color number for the *Color* prompt.

If you need more information about this prompt, position your cursor next to the prompt and press the Help key.

7. If you have changed the type style to a different pitch or have changed the font size, and you want the system to change the margins and tabs in proportion to the previous values, type a Y (Yes) for the *Adjust margins and tabs* prompt.

This ensures that the text affected by this format change is printed within the same margins as the text preceding this format change.

Note: If you are changing the type style or font size for an existing format change, the adjustment of the margins and tabs is based on the previous values for that format.

8. Press the Enter key to return to the Edit display.

Returning the Type Style to the Starting Choice

Note: The starting choice can be either the document format or the alternate format, whichever format you were using before the format change.

1. Move the cursor *before* the text you want returned to the starting type style.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type *rf* for the prompt and press the Enter key.

The Reset Format display is shown.

4. Select option 2 (Margins and tabs, line spacing/justification, typestyle/color) to return the type style and color to the starting choice.
5. Press the Enter key to return to the Edit display.

A format return symbol is inserted in your document to mark the return to the starting type style.

Changing the Type Style in Mid-Line

To change the type style in mid-line:

1. Move the cursor *before* the text where you want to change the type style.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type *.cf* (Change Font instruction) and press the Enter key. The Change Font Instruction display is shown.
4. Type the desired type style in the *Typestyle* prompt.
5. Type the desired font size you want for the *Font size (points)* prompt.

For more information about font sizes, see Appendix G, "SAA Support for Type Styles" on page G-1.

6. Press the Enter key to return to the Edit display. A Change Font instruction is inserted at the cursor position.

Note: Making a mid-line type style (pitch) change in any of the following situations may produce unpredictable type style results:

- Label documents
- Column lists
- Fill-in documents
- Data totaled with column format math instructions

Returning the Type Style to the Starting Choice in Mid-Line

1. Move the cursor *before* the text you want to reset to the previous type style.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type **.cf** (Change Font instruction) and press the Enter key. The Change Font Instruction display is shown.
4. Leave the *Typestyle* prompt blank.
5. Leave the *Font size (points)* prompt blank.
6. Press the Enter key to return to the Edit display. The type style returns to the starting choice.

For example, to change the type style for a word in a sentence like this:

The lake is *beautiful* this time of year.

The text is typed like this:

The lake is .cf(91)beautiful.cf this time of year.

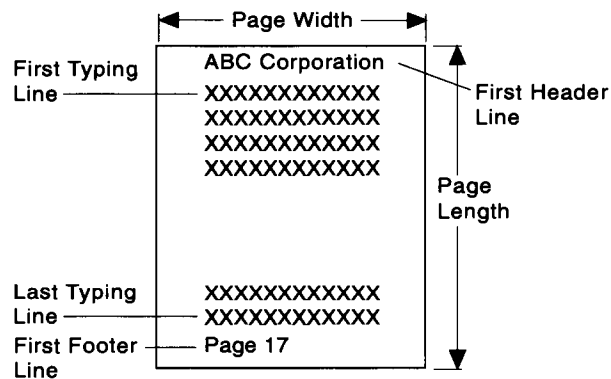
Changing the Ink Color in Mid-Line

To change the ink color in mid-line:

1. Move the cursor *before* the text you want to change to a different color.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type **.color** and press the Enter key. The Color display is shown.
4. Type the desired color number in the *Color* prompt.
5. Press the Enter key to return to the Edit display. A Color instruction is inserted at the cursor position.
6. Repeat these steps if you want to change the color again in mid-line.

Page Format Changes

The page format affects the way pages look when the document is printed. Page format changes include changing the paper length and width, the location of the first typing line or last typing line, headers, and footers.



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Changing the Page Layout/Paper Options

Changes to the Page Layout/Paper Options display can be for an entire document or for part of a document (several pages or a single page). However, you can make page format changes for part of a document only when the cursor is at the first line of a page.

Changing the Page Layout and Paper Options for the Entire Document

To change the page layout and paper options for the entire document:

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type **dp** in the prompt and press the Enter key.

Page 1 of the Page Layout/Paper Options display is shown.

DOCNAME P:12 EDIT Page End PG:1 LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
This is sample text that appears at the top of the Edit display when the
following split screen is displayed.
This text is positioned to the top of the display as a result of
the cursor position when the split screen display was requested.
This is sample text that appears at the top of the display.

dp

Page Layout/Paper Options

Page 1 of 2

Type of change : Chg Document Format

Type choices, press Enter.

First typing line for:

First page

Following pages

Header

Footer

Last typing line
before footer

7

7

3

63

60

1-999

1-999

1-999

2-999

2-999

F3=Exit F12=Cancel

More...

3. Make the desired changes on this display. If you need more information about any of the prompts, move your cursor next to that prompt and press the Help key.
4. Press the Page Down key to see the second page. If this page is shown with the measurements in metric and you want them in inches, press F13 (Edit options) on the Edit display. The Change Editing Options display is shown. Type 1 (Inches) for the *Units of measure for paper size* prompt.

DOCNAME P:12 EDIT Page End PG:1 LN:7
 <2...T:...T3...T:...T4...T:...T5...T:...T6...T:...T7...T:...T8...T:...T9>.....
 This is sample text that appears at the top of the Edit display when the following split screen is displayed.
 This text is positioned to the top of the display as a result of the cursor position when the split screen display was requested.
 This is sample text that appears at the top of the display.

dp	Page Layout/Paper Options		Page 2 of 2
Type of change	Chg Document Format		
Type choices, press Enter.			
Paper width	8.5	.1-45.5 inches	
Paper length	11	.1-45.5 inches	
Printing paper source			
First page	1	1-3=Paper drawer, 4=Manual feed	
Following pages	1	5=Envelope feed, 6=Continuous feed	
Rotate paper	1	1=Automatic, 2=0, 3=90, 4=180, 5=270 (Degrees)	
Print header on	2	1=All pages, 2=Following pages	
Print footer on	2	1=All pages, 2=Following pages	
F3=Exit F12=Cancel			Bottom

5. Make the desired changes on the display.

A separator page is printed from the paper drawer specified for the *First page* prompt.

If you need more information about any of the other prompts, move your cursor next to that prompt and press the Help key.

6. Press the Enter key to return to the Edit display.

Changing the Page Layout and Paper Options for Part of a Document

To change the page layout and paper options for a page or pages in the document:

1. Move the cursor to the top of the first page where you want to make a format change.

Note: Press the Alt key plus the Up Arrow key to move the cursor to the top of the current page.

2. Press F5 (Goto) to show the *Goto* prompt.

3. Type a **p** in the prompt and press the Enter key.

The Page Layout/Paper Options display is shown.

Note: The Page Layout/Paper Options display has two pages. Use the Page Down key to see the second page.

4. Make the desired changes on the display.

5. Press the Enter key to return to the Edit display.

A format change symbol is inserted at the top of the page to mark a page format change. This change remains in effect until you change it again.

Note: A new format change is not inserted if you press the Enter key on a format display without changing any information. However, you may want to create a page format without changing the display, so that the current value of the *First page* prompt takes effect. To do this, make a change to any field on

the display and press the Enter key to create the page format. Then edit the new page format and change the field back to the original value.

Returning the Page Layout and Paper Options to the Starting Choice

Note: The starting choice can be either the document format or the alternate format, whichever format you were using before the format change.

1. Move the cursor to the top of the page.

Note: Press the Alt key plus the Up Arrow key to move the cursor to the top of the current page.

2. Press F5 (Goto) to show the *Goto* prompt.
3. Type rf in the prompt and press the Enter key.

The Reset Format display is shown.

4. Select option 1 (All formats) to return the page layout and paper options to the starting choices.
5. Press the Enter key until you return to the Edit display.

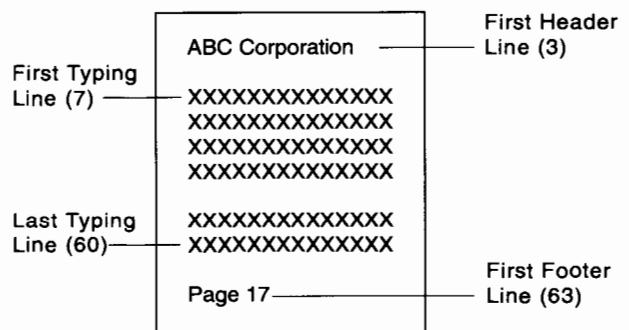
A format return symbol is inserted in the document to mark the return to the starting page layout/paper options.

Changing Headers and Footers

A header is text that prints at the top of the page in a document. A footer is text that prints at the bottom of the page. Header and footer text can be one or more lines, and can include text instructions such as system date, page number, outline heading, and document ID. Header and footer text can be printed on every page of the document or on all but the first page of the document.

Headers and footers are not shown with the text of the document until the document is printed. To see the way your document looks with its headers and footers before you print it, press F19 (Print/View Opts) and select option 3 (View printed output using split display) to show the formatted document at the bottom of the typing area.

The format of the header and footer is the current document format except that single spacing with left justification is always used and the line endings are not adjusted. The first header and footer lines are specified in the document format. The default characteristics in the document format for headers and footers are shown below:



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You can also have one header and one footer for all odd-numbered pages and a different header and footer for all even numbered pages.

Odd Header on P1 XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX Odd Footer	Even Header on P2 XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX Even Footer	Odd Header on P3 XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX Odd Footer

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Notes:

1. Header and footer changes for part of your document cause page format changes to be inserted because headers and footers affect the way your pages look. Page format changes in the document can be made only when the cursor is at the top of a page.
2. Odd and even headers and footers use user page numbers, not system or decimal point page numbers to determine if the pages are even or odd. User page numbers can be printed by using the Page Number (.pn) instruction. For information about using the .pn instruction in a header or footer, see "Using Page Numbers in a Header or Footer" on page 7-20.
3. To have system or decimal point page numbers print in the header or footer, use the System Page Number (.spn) instruction.

Typing or Changing Headers or Footers for the Entire Document

To type or change a header or footer for the entire document:

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type one of the following abbreviations in the prompt:

aef	alternate even footer
afh	alternate even header
aeo	alternate even/odd header/footer
af	alternate footer
ah	alternate header
aof	alternate odd footer
aoH	alternate odd header
df	document footer
dh	document header
def	document even footer
deh	document even header
deo	document even/odd header/footer
dof	document odd footer
doh	document odd header
3. Press the Enter key and an Edit display is shown where you can create or revise the header or footer.
4. Type your header or footer text.

5. Press F3 (Exit/Save) to return to the Edit display.

Notes:

- a. After you have typed header or footer text, information about the first typing line for a header or footer and what pages they are printed on can be specified on the Page Layout/Paper Options display.
- b. To have user page numbers printed in a document header or footer, or alternate header or footer, use the Page Number instruction (.pn). See "Using Page Numbers in a Header or Footer" on page 7-20 for more information. Other instructions may be used in headers and footers; to see those allowed in headers and footers, press F9 (Instructions) on the Edit display for headers and footers.

To have system or decimal point page numbers print in the header or footer, use the System Page Number (.spn) instruction.

- c. Headers and footers are not supported in label documents. If a label document contains header or footer information, it is not printed. Also, no error message is shown for this on the error log page.

Specifying Where a Header or Footer Is Printed for the Entire Document

To specify where a header or footer is printed:

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type **dp** in the prompt and press the Enter key.
The Page Layout/Paper Options display is shown.
3. On the Page Layout/Paper Options display, specify a number for the *First typing line for header* and *First typing line for footer* prompts.
4. Press the Page Down key to see the second page of this display.
5. Type a 1 (All pages) or a 2 (Following pages) for the *Print header on* and *Print footer on* prompts.

Note: Option 2 (Following pages) means that the header and footer print on all but the first page when your document format is active.

6. Press the Enter key to return to the Edit display.

Typing or Changing Header or Footer Text for Part of the Document

To type or change a header or footer for a page or section of the document:

1. Move your cursor to the top of the page where you want the new header or footer to start.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type one of the following abbreviations for a header or footer in the prompt:

h	header
f	footer
eh	even header
ef	even footer
oh	odd header
of	odd footer
eo	even/odd header/footer

4. Press the Enter key and the Header (or Footer) Edit display is shown.
5. Create or change your header or footer text.
6. Press F3 (Exit/Save) to return to the Edit display.

A format change symbol is inserted to mark a page format change.

Note: After you have typed the header or footer text, information about the first typing line for a header or footer and what pages they are printed on can be entered on the Page Layout/Paper Options display.

Specifying Where a Header or Footer Prints for Part of the Document

To specify where a header or footer is printed:

1. Move the cursor to the format change symbol that was just inserted, and press the Enter key.

The Format Change Options display is shown.

2. Select option 5 (Page layout/paper options) to change the page layout and paper options.
3. Press the Enter key and the Page Layout/Paper Options display is shown.
4. On the Page Layout/Paper Options display, specify a number for the *First typing line for the header* and *First typing line for the footer* prompts.
5. Press the Page Down key to go to the second page of this display.
6. Type a 1 (All pages) or a 2 (Following pages) for the *Print header on* and *Print footer on* prompts.

Note: Option 2 (Following pages) means that the header and footer print on all the pages following this page, but not on this page.

7. Press the Enter key until you return to the Format Options display. Then press F3 (Exit) to return to the Edit display.

Returning the Header or Footer to the Starting Choice

Note: The starting choice can be either the document format or the alternate format, whichever format you were using before the format change.

1. Move your cursor to the top of the page where you are resetting the header or footer.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type **rf** for the prompt and press the Enter key.
The Reset Format display is shown.
4. Type a 1 (All formats) to return all formats to the starting choice.
5. Press the Enter key to return to the Edit display.

A format return symbol is inserted in the document to mark the return to the starting formats.

Using Page Numbers in a Header or Footer

You can print user page numbers or system page numbers in a header or footer:

- User page numbers can be printed in the header or footer using the Page Number (.pn) instruction. The **user page number** is a count of the printed pages. Normally, the first page of the document is assigned a user page number of 1 and the user page numbers are increased by one for each additional page. User page numbers are always whole numbers. There are no decimals in the page numbers. User page numbers do not match the page numbers shown on the Edit display.

Table of contents pages are numbered with Roman numerals starting with i.

You can change the starting user page number within the document using the Page Number (.pn) instruction.

- System page numbers can be printed in the header or footer using the System Page Number (.spn) instruction.

If you specify N (No) for the *Adjust page endings* prompt and N (No) for the *Renumber system page numbers* prompt on the Print Options display, **system page numbers** match the page numbers shown on the Edit display. It is possible to have decimal point page numbers such as 1.01, 2.01, and so on.

If you specify Y (Yes) for the *Adjust page endings* prompt or Y (Yes) for the *Renumber system page numbers* prompt on the Print Options display, the system page numbers are renumbered when the document is printed starting with page 1 and increasing by one for each additional page. The only decimal point page numbers printed are for the table of contents pages and possibly the index pages.

Using User Page Numbers in a Header or Footer

To print or change the current user page number in your header or footer use the Page Number text instruction. You can also change the starting page number when using the Page Number text instruction.

1. If you do not want to print the page number on every page of the document, move your cursor to the top of the page where you want to begin printing the page number and use one of the abbreviations for "A Part of the Document" in step 3.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type one of the abbreviations for the header or footer you want to print the page number in:

A Part of the Document

h	header
f	footer
ef	even footer
eh	even header
eo	even/odd header/footer
of	odd footer
oh	odd header

The Document Format

dh	document header
df	document footer

def	document even footer
deh	document even header
deo	document even/odd header/footer
dof	document odd footer
doh	document odd header

The Alternate Format

af	alternate footer
ah	alternate header
aef	alternate even footer
aeh	alternate even header
aof	alternate odd footer
aoh	alternate odd header
aeo	alternate even/odd header/footer

4. Press the Enter key. The Header or Footer Edit display is shown.
5. Move your cursor where you want the page number to be printed. (You can also type other text in the header or footer.)
6. Press F5 (Goto) to show the *Goto* prompt.
7. Type **.pn** and press the Enter key. The Page Number Instruction display is shown.
8. If you want to use the current page number, leave the *Page number* prompt blank. If you want to start page numbering at a certain number, type that number for the *Page number* prompt.
9. Press the Enter key.
10. Press F3 (Exit/Save) when you have finished typing the header or footer. You will be returned to the Edit display.

Notes:

1. If you have a Page Number instruction (**.pn**) in the header or footer for the table of contents pages, those pages are numbered with Roman numerals starting with an *i*. If the page number is reset in a page format change immediately *before* the Table of Contents instruction (**.toc**), the page *after* the table of contents is numbered starting with the page number specified in the page format change. For example, if a page format change immediately before the Table of Contents instruction (**.toc**) resets the page number to 500, the page number following the table of contents is 500.
2. You can only have one sequence of page numbers in your document. Therefore, the number you specify in the *Page number* prompt on the Page Number Instruction display sets the numbers for the pages of your document. These page numbers are used for entries in the table of contents and in the index.
3. Selecting the option to return all formats to starting choice on the Reset Format display causes the page number specified in the header or footer to be ignored and increases the current page number by 1.
4. Page numbers may also be included as part of the odd/even header or footer text. If you want a page number to print in a header you must specify the Page Number instruction (**.pn**) in both the odd and even header typing area. The same is also true in footer text. If you type a number for the *Page number* prompt, you must type the same number in both the odd pages and even pages header or footer typing area.

5. If you are using the Page Number instruction (.pn) in a document for a multiple letters merge and you want each copy of the document to start with page number 1, you must type a 1 for the *Page number* prompt on the Page Number Instruction display.
6. To print the header or footer on all pages, go to the Page Layout/Paper Options display. Press the Page Down Key to display the next page of options. For the *Print header on* prompt, type a 1 (All pages) and for the *Print footer on* prompt, type a 1 (All pages).

Using System Page Numbers in a Header or Footer

To print the current system page number in your header or footer, use the System Page Number text instruction.

1. If you do not want to print the page number on every page of the document, move your cursor to the top of the page where you want to begin printing the page number and use one of the abbreviations for "A Part of the Document" in step 3.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type one of the abbreviations for the header or footer you want to print the page number in:

A Part of the Document

h	header
f	footer
ef	even footer
eh	even header
eo	even/odd header/footer
of	odd footer
oh	odd header

The Document Format

dh	document header
df	document footer
def	document even footer
deh	document even header
deo	document even/odd header/footer
dof	document odd footer
doh	document odd header

The Alternate Format

af	alternate footer
ah	alternate header
aef	alternate even footer
aeh	alternate even header
aof	alternate odd footer
aoh	alternate odd header
aeo	alternate even/odd header/footer

4. Press the Enter key. The Header or Footer Edit display is shown.
5. Move your cursor where you want the page number to be printed. (You can also type other text in the header or footer.)
6. Press F5 (Goto) to show the *Goto* prompt.

7. Type `.spn` and press the Enter key.

8. Press F3 (Exit/Save) when you have finished typing the header or footer. You will be returned to the Edit display.

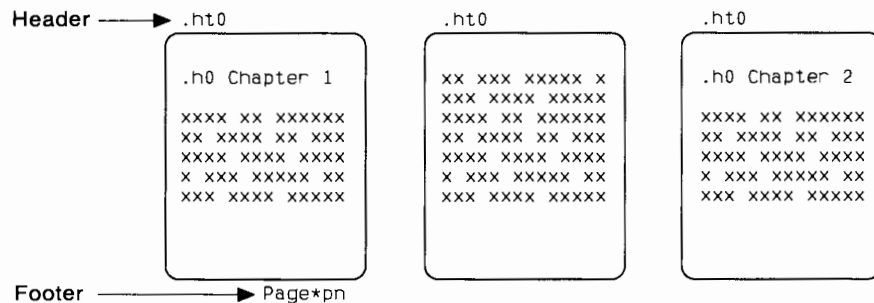
Note: User page numbers, not system page numbers, are used to determine if a header or footer is odd or even. System page numbers are ignored when determining if a header or footer is even or odd.

Printing Outline Heading Text in a Header or Footer

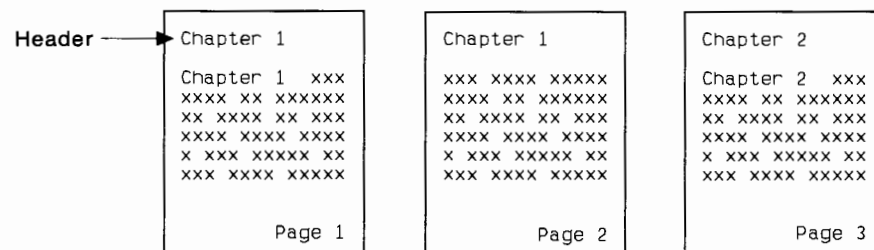
You can print the current outline heading (from a heading `(.h)` text instruction) in the header or footer of your document by using the Outline Heading Text `(.ht)` text instruction in the header or footer. For example, you could have `.ht0` in the header for the document, an outline heading `"h0 Chapter 1"` at the top of page 1 of the document, and an outline heading `"h0 Chapter 2"` at the top of page 3 in the document. Pages 1 and 2 would have Chapter 1 in the header and page 3 would have Chapter 2 in the header.

Using the Outline Heading text instruction in your header is a very good way to have the current chapter or major topic printed at the top of each page. This supplies the readers of your document a reference point that is available on every page.

Before Printing



After Printing



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See "Specifying Where a Header or Footer Is Printed for the Entire Document" on page 7-18 for information on specifying where a header or footer will print.

To insert the Outline Heading Text `(. t)` text instruction in the header or footer:

1. If you do not want to print the outline heading text for the entire document, move the cursor to the top of the page where you want the new header or footer to start, and use one of the abbreviations for "A Part of the Document" in step 3 on page 7-20.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type one of the following abbreviations for the header or footer you want to print the outline heading text for:

A Part of the Document

h	header
f	footer
ef	even footer
eh	even header
eo	even/odd header/footer
of	odd footer
oh	odd header

The Document Format

dh	document header
df	document footer
def	document even footer
deh	document even header
deo	document even/odd header/footer
dof	document odd footer
doh	document odd header

The Alternate Format

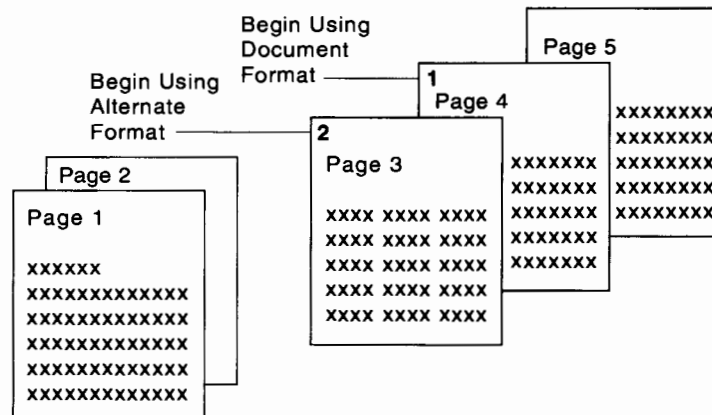
af	alternate footer
ah	alternate header
aef	alternate even footer
aeH	alternate even header
aof	alternate odd footer
aoh	alternate odd header
aeo	alternate even/odd header/footer

4. Press the Enter key and the Header (or Footer) Edit display is shown.
5. Move the cursor where you want the outline heading text to be printed. (You can also type other text in the header or footer.)
6. Press F5 (Goto) to show the *Goto* prompt.
7. Type **.ht** and press the Enter key. The Select Outline Heading display is shown.
8. Type the level of the outline heading text you want printed for the *Outline heading level* prompt.
9. Press the Enter key to create the instruction. When your document is printed, the text associated with the current outline heading with the level number specified by the **.ht** instruction is printed.
10. Press F3 (Exit/Save) when you have completed typing the header or footer. You are returned to the Edit display.

Using an Alternate Format

The alternate format is a secondary document format that you can use instead of making page or line format changes to the document.

In the following example, the first two pages were created using the document format. The alternate format was used on page 3 to display columns of data. The document format was used for the last two pages.



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Creating an Alternate Format

To create an alternate format, do the following:

1. Press F5 (Goto) to show the *Goto* prompt.
2. If you want to make more than one change, type an *a* in the prompt and press the Enter key. The Select Alternate Format display is shown. Select the option for one of the items you want to change.

If you want to bypass menus to make changes to an alternate format, you can press F5 (Goto) and type one of the following abbreviations:

am	alternate margins and tabs
al	alternate line spacing/justification
at	alternate typestyle/color
ap	alternate page layout/paper options
ah	alternate header
af	alternate footer
ao	alternate odd header
aof	alternate odd footer
aeh	alternate even header
aef	alternate even footer
aeo	alternate even/odd header/footer

3. Press the Enter key and the display for the option you selected is shown.
4. Make the changes on the display.
5. Press the Enter key. You are returned to the Select Alternate Format display if you typed an *a* for the *Goto* prompt. Otherwise, you are returned to the Edit display.
6. Select another option to change or continue with the next step.

7. Press the Enter key to return to the Edit display.

Using the Alternate Format

To use the alternate format:

1. Move your cursor to the top of the page.
Note: Press the Alt key plus the Up Arrow key to move the cursor to the top of the current page.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type **rf** in the prompt and press the Enter key.
The Reset Format display is shown.
4. Select option 4 (Begin using alternate format).
5. Press the Enter key to return to the Edit display.

A highlighted 2 is inserted at the top of the page to show that the alternate format is now in effect. If you are using the PC text-assist function, a ¶ is shown at the top of the page. If you begin using the alternate format while you are typing multiple text columns, the multiple text columns are ended.

Returning to the Document Format

To return to the document format:

1. Move the cursor to the top of the page you want to return to the document format.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type **rf** in the prompt and press the Enter key.
The Reset Format display is shown.
4. Select option 3 (Document format) to start using the original document format again.
5. Press the Enter key to return to the Edit display.

A highlighted 1 is inserted at the top of the page to show that the document format is now in effect. If you are using the PC text-assist function, a ¶ is shown at the top of the page. If you begin using the document format while you are typing multiple text columns, the multiple text columns are ended.

After you create an alternate format, you can switch between the document format and the alternate format by going to the Reset Format display and selecting the correct option.

Note: You can only switch formats when your cursor is at the top of the page.

Using Text Profiles

A text profile contains document format options, that determines what a document looks like. You can create, activate, change, copy, and delete a text profile. You can assign a text profile to a folder so that all documents created in that folder use the same format that you specified in the text profile. After you assign a profile to a folder, the assigned profile overrides an active text profile while you are creating documents in that folder.

There is a system-supplied text profile called SYSTEM, that contains commonly used default values. You can change or copy this profile but you cannot delete or rename it. Unless you create another text profile, the system profile is used. If you create a text profile, you must activate that profile to override the values in the system profile.

Each text profile specifies values for the following:

- Document format
 - Margins and tabs
 - Line spacing/justification
 - Type style/color
 - Page layout/paper options
 - Headers
 - Footers
 - Outline headings
 - Even/odd headers and footers
- Alternate format
 - Margins and tabs
 - Line spacing/justification
 - Type style/color
 - Page layout/paper options
 - Headers
 - Footers
 - Even/odd headers and footers
- Edit options
- Math format (numeric field editing options)
- Print options
 - Document print options
 - Label print options
- Dictionary options (Dictionary name)
- Merge options
- Text month names

All text profiles are stored in the folder QPRFFLR.

The purpose of creating and changing a text profile is to change the formats of the documents you create. When you select the option to create a document, the first display you see is the Create Document Details display. Each time you create a document, you can specify the format of the new document by specifying the name of a document for the *Document to copy* prompt on the Create Document Details display.

If you *do* specify a document to copy:

- The system copies this document into the new document.
- The system ignores any text profile that is active and uses the format of the document you copied.

If you *do not* specify a document to copy:

- If a text profile has been specified for the folder, Folder is highlighted on line 2. The formats in that text profile are used.
- If a text profile has not been specified for the folder, User is highlighted on line 2. The formats in the current active text profile are used.

Getting to the Work with Text Profiles Display

To work with text profiles, start on the Work with Text Profiles display. You can get to the Work with Text Profiles display in any of the following ways:

- Type **STRWP** on the command line and press the Enter key. The Word Processing menu is shown.
Select option 5 (Work with text profiles) and press the Enter key.
- Type **WRKTXTPRF** on the command line of any menu and press the Enter key.
- Press F9 (Work with) on any of the following displays to see the Work with Word Processing display:

Work with Documents in Folders
Work with Documents to be Printed
Work with Folders
Work with Nontext Document Data

Select option 5 (Work with text profiles) on the Work with Word Processing display and press the Enter key.

The Work with Text Profiles display is shown.

Note: If the OfficeVision/400 word processing function is not installed on the system, options 1 (Create text profile) and 2 (Revise text profile) are not shown on the display.

Work with Text Profiles

Active profile : SYSTEM

Select one of the following:

1. Create text profile
2. Revise text profile
3. Copy text profile
4. Delete text profile
5. Activate text profile
6. Activate system profile

Selection

-

F3=Exit F9=Work with F12=Cancel

Creating a Text Profile

To create a text profile:

1. Select option 1 (Create text profile) on the Work with Text Profiles display and press the Enter key.

Note: If the OfficeVision/400 word processing function is not installed on the system, options 1 (Create text profile) and 2 (Revise text profile) are not shown on the display.

The Create Text Profile display is shown.

2. Type the name and description of the profile to be created. Profile names follow the same naming rules as document names. For more information on naming a document or profile, see "Naming Folders and Documents" on page 1-1.
3. Press the Enter key and the Select Text Defaults display is shown.
4. On the Select Text Defaults display, select the item you want to change and press the Enter key.

Select Text Defaults

Creating profile : SYSTEM

Select one of the following:

1. Document format
2. Alternate format
3. Edit defaults
4. Math format (Numeric field editing)
5. Print options
6. Dictionary options
7. Merge options
8. Text month names

Selection

-

F3=Exit F12=Cancel

5. Make changes as needed for the selected options and press the Enter key.
6. You are returned to the Select Text Defaults display, where you can select another item to change. Press F3 (Exit) or F12 (Cancel) to end making changes.
7. On the Exit Text Profiles display, do one of the following:
 - To end working with text profiles and save the profile, select option 1 (Save and exit).
 - To cancel changes and end working with text profiles, select option 2 (Exit without saving).
 - To continue working with this profile, select option 3 (Resume text profile session).
 - To save the profile and return to the Work with Text Profiles display, select option 4 (Save and return to profiles menu).

Note: The profile you have just created cannot be used until you activate it.

Activating a Text Profile

Before you can use a text profile, it must be activated. After a text profile is activated, each document you create automatically uses the format described in that profile.

To activate a text profile:

1. Select option 5 (Activate text profile) on the Work with Text Profiles display and press the Enter key. The Activate Text Profile display is shown.
2. Type the name of the text profile to be activated for the *Profile* prompt.
If you cannot remember the name of your profile, move the cursor to the *Profile* prompt and press F4 (Prompt). A list of existing text profile names is shown. Select a profile name from the list.
3. Press the Enter key. You are returned to the Work with Text Profiles display. The name of the current active profile is changed to the profile you selected.

Activating the System Profile

To activate the system profile:

1. Select option 6 (Activate system profile) on the Work with Text Profiles display.
2. Press the Enter key. The Work with Text Profiles display is shown again, and the name of the current active profile has been changed to SYSTEM.

Changing a Text Profile

To change a text profile:

1. Select option 2 (Revise text profile) on the Work with Text Profiles display and press the Enter key.

Note: If the OfficeVision/400 word processing function is not installed on the system, options 1 (Create text profile) and 2 (Revise text profile) are not shown on the display.

The Select Text Profile display is shown and Change Profile is shown on the status line.

2. Type the name of the profile to be changed for the *Profile* prompt.
If you cannot remember the name of your profile, move the cursor to the *Profile* prompt and press F4 (Prompt). A list of profiles is shown. Select a profile to change from this list.
Press the Enter key and the Select Text Defaults display is shown.
3. Select the option for the item you want to change and press the Enter key.
4. Make changes as needed for the selected options and press the Enter key.
5. You are returned to the Select Text Defaults display, where you can select another item to change. Press F3 (Exit) or F12 (Cancel) to end making changes.
6. On the Exit Text Profiles display, do one of the following:
 - To end working with text profiles and save the profile, select option 1 (Save and exit).

- To cancel changes and end working with text profiles, select option 2 (Exit without saving).
- To continue working with this profile, select option 3 (Resume text profile session).
- To save the profile and return to the Work with Text Profiles display, select option 4 (Save and return to profiles menu).

Copying a Text Profile

To copy a text profile:

1. Select option 3 (Copy text profile) on the Work with Text Profiles display and press the Enter key.

The Copy Text Profile display is shown.

Copy Text Profile

Type choices, press Enter.

Copy from		Text profile, SYSTEM F4 for list
Copy to		Name, F4 for list
Replace existing profile	N	Y=Yes, N=No

F3=Exit F4=Prompt F12=Cancel

2. Type the name of the profile to be copied in the *Copy from* prompt.
If you cannot remember the name of the profile to be copied, move the cursor to the *Copy from* prompt and press F4 (Prompt). A list of existing text profile names is shown. Select a profile name from the list.
3. Type the name of the new profile in the *Copy to* prompt.
4. Type a Y (Yes) for the *Replace existing profile* prompt if you want to replace an existing text profile that has the same name you specified for the *Copy to* prompt.

Type an N (No) for the *Replace existing profile* prompt if you do not want to replace an existing text profile that has the same name you specified for the *Copy to* prompt.
5. Press the Enter key. You are returned to the Work with Text Profiles display.

Deleting a Text Profile

To delete a text profile:

1. Select option 4 (Delete text profile) on the Work with Text Profiles display and press the Enter key.

The Delete Text Profile display is shown.

2. Type the name of the text profile to be deleted for the *Profile* prompt.

If you cannot remember the name of the profile to be deleted, move the cursor to the *Profile* prompt and press F4 (Prompt). A list of existing text profile names is shown. Select a profile name from the list.

Note: You cannot delete the text profile SYSTEM.

A prompt is shown on the message line at the bottom of your display:

Press Enter to delete profile.

3. Press the Enter key to confirm your request.
4. Press the Enter key again and you are returned to the Work with Text Profiles display.

Assigning a Text Profile to a Folder

You can assign a text profile to a folder when creating a folder on the Work with Folders display. Once a profile is assigned to a folder, all documents created in that folder use the settings of that profile.

To get to the Work with Folders display, do one of the following:

- Type **WRKFLR** (Work with Folders) on the command line of any menu and press the Enter key.
- On the Work with Documents in Folders display, press F9 (Work with). The Work with Word Processing display is shown. Select option 3 (Work with folders) and press the Enter key.
- On the Word Processing menu, select option 3 (Work with Folders) and press the Enter key.

The Work with Folders display is shown.

To assign a text profile to a folder from the Work with Folders display:

1. Select option 1 (Create) and type the name of the folder you want to create. Press the Enter key. The Create Folder display is shown.
2. Type the name of the profile to be used for each document in that folder for the *Text profile for documents* prompt.
3. Press the Enter key and the Work with Folders display is shown.

Changing the Text Profile for a Folder

To change the text profile for a folder, you must start on the Work with Folders display.

To get to the Work with Folders display, do one of the following:

- Type **WRKFLR** (Work with Folders) on the command line of any menu and press the Enter key.
- On the Work with Documents in Folders display, press F9 (Work with). The Work with Word Processing display is shown.
- On the Word Processing menu, select option 3 (Work with folders) and press the Enter key.

The Work with Folders display is shown.

To change the text profile for a folder:

1. Select option 8 (Details) and type the name of the folder you want to change. Press the Enter key and the Change Folder Details display is shown.
2. Type the name of the text profile to be used for each document in that folder for the *Text profile for documents* prompt.

Note: Space over this prompt to leave it blank if you do not want a text profile associated with this folder.

3. Press the Enter key and the Work with Folders display is shown.



Chapter 8. Ending, Saving, and Printing

When you have completed working on a document, you end by pressing F3 (Exit/Save) or F12 (Cancel) on the Edit display. If you are on a split display, you have to press F3 (Exit/Save) twice: once to end the split display, and again to end your document.

From the Exit Document display you can decide the following:

- Do you want to save the changes you made while editing or cancel them?
- Where do you want the changes saved?
- Do you want to see additional save options?
- Do you want to print the document now?
- Do you want to see the print options for the document?
- Do you want the document indexed?

If you press the Enter key without making any changes on the prompts on the Exit Document display, the document is stored with the changes you made.

You can continue to work with another document, do other data processing tasks on the system, or sign off the system.

Ending and Saving a Document

You can end your document and save your changes, end your document and not save your changes, or save your changes in a different document.

1. On the Edit display, press F3 (Exit/Save) or F12 (Cancel) from anywhere in the document.

The Exit Document display is shown.

Note: When you press F3 (Exit/Save) or F12 (Cancel) but have specified **EXITPNL(*NO)** with the EDTDOC or CRTDOC command, the document is saved without the Exit display being shown.

2. Type a **Y** (Yes) for the *Save document* prompt if you want to save your changes. The default is Yes.

Or, type an **N** (No) and your changes are canceled.

3. Type the name of the document you want saved for the *Document* prompt.

The default is the document you just completed editing. However, you can save the changes into a different document by specifying a different document name. If you specify a different document name, the changes are not saved into the document you just completed editing.

4. Type the name of the folder where you want the document saved for the *Folder* prompt.

The default is the folder of the document you just completed editing.

5. To display the Save Options display for additional options, type a **Y** (Yes) for the *Display save options* prompt.

The default is No. You do not have to display the save options to save your document changes. On the Save Options display, you can adjust line and page endings, remove error marks, and clear the error log.

6. To print your document using the current print options, type a Y (Yes) for the *Print document* prompt.

The default is No.

7. To show the Print Options display, type a Y (Yes) for the *Display print options* prompt.

The options you specify are saved with your document if Yes is specified for the *Save document* prompt.

8. Type a Y (Yes) for the *Display text index options* prompt to add the document to the text index.

Note: If you do not have the text search function installed on your system, the *Display text index options* prompt does not appear on the Exit Document display.

The default is No when saving a new document. If you are performing a revision, the default for the *Display text index options* prompt is the last saved value for that document. For more information on text search, see "Searching for Keywords in Document Text" on page 1-14.

9. Do one of the following:

- To return to the Edit display at the place in the document where you were when you pressed F3 (Exit/Save) to end your document, press F12 (Cancel). The document is not saved or printed.
- To display the print queue, press F6 (Print queue) to go to the Work with Documents to be Printed display to look at the documents waiting on the queue to be printed.
- To process the options you specified on the Exit Document display, press the Enter key.

Ending a Document Without Printing

To end your document without printing it:

1. On the Edit display, press F3 (Exit/Save) or F12 (Cancel). The Exit Document display is shown with the default choices.
2. On the Exit Document display, specify the following options:
 - a. Type a Y (Yes) for the *Save document* prompt.
 - b. Type an N (No) for the *Display save options* prompt.
 - c. Type an N (No) for the *Print document* prompt.
 - d. Type an N (No) for the *Display print options* prompt.
3. Press the Enter key.

You receive a message that your document has been saved.

Printing

Printing a document, envelope, or label includes two steps. First, the text instructions typed in the text are processed and the text is arranged by the format. The result of the first step is a **resolved** document.

You can resolve your document using your work station, or you can place your document on the **job queue**, making your work station available for a new task. The job queue is a list of jobs waiting to be processed by the system.

After the document is resolved, it is changed into a form the printer understands, and depending on the type of printer you specify, the printing takes place. The result of the second step is a **printed** document.

In addition to printing your document from the Exit Document display, you can:

- Print the entire document or only the error log while editing your document by pressing F19 (Print/View Opts) and selecting an option.
- Print only the current page while editing your document by pressing the Print key.
- Print several documents at one time by selecting a document or documents from a list of documents.
- Print a document using the PRTDOC command.

Note: When printing a Final-Form Text: Document Content Architecture document, default values for the document format are taken from the active text profile. These default values are for the following:

- Margins and tabs
- Line spacing/justification
- Typestyle/color
- Page layout/paper options

The defaults are used only if one or more of the values specified for the document are not valid or not included in the Final-Form Text: Document Content Architecture document.

Ending and Printing the Document

After you have created or changed a document, you can save your changes and print your document.

To save your changes and print the entire document:

1. Press F3 (Exit/Save) on the Edit display.

The Exit Document display is shown.

2. Type a Y (Yes) for the *Print document* prompt and a Y (Yes) for the *Display print options* prompt.

(If you type an N (No) for the *Display print options* prompt, the print options are not shown and your document is printed using the current print option settings.)

3. Press the Enter key.

Page 1 of 4 of the Print Options display is shown. The Print Options consists of four pages (or three pages if your document is already resolved). The most

commonly used options are on the first page, and the less commonly used options are on the following pages. If you need more information about any of the Print Option prompts, press the Help key.

4. Type the values you want for the *Start page*, *End page*, and *Number of copies* prompts.

When the document prints, the pages are given system page numbers in numeric order starting with 1 unless you specify N (No) for the *Adjust page endings* prompt and N (No) for the *Renumber system page numbers* prompt. If the *Adjust page endings* prompt is N (No) and the *Renumber system page numbers* prompt is N (No), the pages are numbered according to the source document.

If you are printing any type of document except an FFTAS400 document, and you specify a page range that does not exist for the *Start page* and *End page* prompts, an error message is placed in the error log and the entire document is printed. If you are printing an FFTAS400 document, an error message is shown at the bottom of the display stating the page range does not exist and the document is not printed.

5. If you want to specify additional groups of pages to print, press F18 (Additional page ranges). Additional prompts are shown on the display for you to specify up to six more groups of pages to print.
6. Type a 1 (Printer) for the *Output device* prompt.
7. Additional prompts are shown on page 1 of the Print Options display.

Printer	*USRPRF	*USRPRF, *SYSVAL, *WRKSTN	
		Printer ID	
Output queue	*DEV	Name, *DEV, *FILE, *WRKSTN	
Library	*LIBL	Name, *LIBL	
Output file	*DOC	Name, *DOC, *FILE	
Form type		Printer form	
Printer file	QSYSPRT	Name	
Library	*LIBL	Name, *LIBL	
			More...

F3=Exit	F6=Print queue	F9=Format options	F12=Cancel
F15=Merge data options		F18=Additional page ranges	

8. Leave the *Printer* prompt value at *USRPRF. If you specify *USRPRF, the printer that is specified in your user profile is used.

If you specify *SYSVAL, the printer that is specified in the system value QPRTDEV is used.

If you specify *WRKSTN, the printer that is specified with the work station device description is used.

If you specify a printer (for example, P3), your document is printed on that printer. Do not change the output for the printed document to a different type of printer.

9. Type the name of the output queue where you want to hold your output until it is ready to print for the *Output queue* prompt.

If you specify *DEV, the output queue associated with the printer specified in the *Printer* prompt is used.

If you specify *FILE, the output queue and output queue library specified in the *Printer file* prompt are used.

If you specify *WRKSTN, the device description output queue specified with the work station is used.

10. If you specified *FILE on the *Output queue* prompt, leave the *Library* prompt blank. If you leave this prompt blank, the output queue and output queue library specified in the *Printer file* prompt are used.

If the output queue is not in the default library QUSRSYS, type the name of the library where the output queue is stored for the *Library* prompt.

If you specify *LIBL, your library list is searched for the output queue.

11. Type the name of the output file where you want the output stored while it is in the output queue for the *Output file* prompt.

If you specify *DOC for the *Output file* prompt, the document name is used for the output file name. However, if the document name is longer than 10 characters or the document name starts with a character other than A through Z, \$, #, or @, or contains a character other than A through Z, \$, #, @, an underscore (_), a period (.), or 0 through 9, the output file name is replaced by the printer file name. The printer file name is specified for the *Printer file* prompt (in this case, QSYSPRT).

If you specify *FILE, the output file name specified for the *Printer file* prompt is used. For more information about output files and queues, see Appendix D.

12. If you do not want to print your document on the standard form type (paper), type the name of the form for the *Form type* prompt. For example, if you specify *STD as the form type, the output is printed on the standard form (paper) used for your printer.

13. If you do not want to use the default values in the system printer file, and you want to create your own, see Appendix D. You can specify the name of the printer file for the *Printer file* prompt.

14. Type the name of the library where the printer file is stored for the *Library* prompt.

If you specify *LIBL, your library list is searched for the printer file.

If you created a new printer file, type the name of the library in which this file is located.

15. Press the Page Down key to see page 2 of the Print Options display.

Print Options		Page 2 of 4
Document		LETTER
Type choices, press Enter.		
Delay printing	N	Y=Yes, N=No
Draft spacing	N	Y=Yes, N=No
Print line numbers	N	Y=Yes, N=No
Resolve instructions	Y	Y=Yes, N=No
Print with large print	N	Y=Yes, N=No
Print separator page	N	Y=Yes, N=No
Adjust line endings	N	Y=Yes, N=No
Adjust page endings	Y	Y=Yes, N=No
For choice Y=Yes:		
Allow widow lines	N	Y=Yes, N=No
For choice N=No:		
Renum system page numbers	Y	Y=Yes, N=No
Print quality	1	1=Letter, 2=Text 3=Draft
		More...
F3=Exit	F6=Print queue	F9=Format options
F15=Merge data options		F12=Cancel
	F18=Additional page ranges	

16. If you want the pages numbered according to the source document, type an **N** (No) for the *Adjust page endings* prompt and type an **N** (No) for the *Renum system page numbers* prompt.

Note: For information about renumbering system page numbers, see "Renumbering System Page Numbers" on page 3-54.

17. The default for the *Print quality* prompt is 1=Letter, which is the best quality type. Press the Help key if you need more information about this prompt.
18. Make any desired changes for the other prompts on the display.

Note: A separator page is printed from the paper drawer specified for the *First page* prompt which is located directly under *Printing paper source* on the Page Layout/Paper Options display.

For more information about any of these prompts, press the Help key or see Appendix D.

19. Press the Page Down key to see page 3 of the Print Options display.

Print Options		Page 3 of 4
Document	:	LETTER
Type choices, press Enter.		
Place on job queue	Y	Y=Yes, N=No
For Choice Y=Yes:		
Send completion		
message	N	Y=Yes, N=No
Job description	QBATCH	Name
Library	*LIBL	Name, *LIBL
Cancel on error	N	Y=Yes, N=No
Print error log	N	Y=Yes, N=No
For Choice Y=Yes:		
Form type	_____	Printer form
Save resolved output	N	Y=Yes, N=No
For Choice Y=Yes		
Document	_____	Name, F4 for list
Folder	_____	Name, F4 for list
More...		
F3=Exit	F4=Prompt	F6=Print queue
F12=Cancel	F15=Merge data options	F9=Format options
		F18=Additional page ranges

20. If you type a Y (Yes) for the *Place on job queue* prompt, the document is resolved on the job queue and your work station is available for other work while your job is processing. (Yes is the default.) Jobs are processed in the order submitted.
21. If you type an N (No) for the *Send completion message* prompt, you are not interrupted by a message when your document has completed processing on the job queue. Otherwise, you will receive a message when your document has completed processing on the job queue and is ready to print.
22. Type the name of the job description that describes how you want the job to be run for the *Job description* prompt. The default is the system job description, QBATCH.
23. Type the library name that contains the job description for the *Library* prompt. The default is *LIBL; therefore, your library list is searched for the job description.
24. Press the Page Down key to go to Page 4 of 4 on the Print Options display.

Print Options		Page 4 of 4
Document	LETTER	
Type choices, press Enter.		
Print revision symbols	N	Y=Yes, N=No
Symbols to be printed	0 - - - -	0-99
Additional spaces to left	0	Identifier
Graphic character set	1	1=Single-sided
Type of page printing		2=Double-sided
		3=Double-sided tumble
For Choice 2 or 3:		
Adjust margins on even		
pages for binding	Y	Y=Yes, N=No
For truncated text:		
Shift left margin	N	Y=Yes, N=No
F3=Exit F6=Print queue F9=Format options F12=Cancel F15=Merge data options F18=Additional page ranges		Bottom

25. If you want your document to be printed on one side of the paper, type a 1 (Single-sided) for the *Type of page printing* prompt.
- If you want your document to be printed on both sides of the paper, type a 2 (Double-sided) for the *Type of page printing* prompt.
- If you want your document to be printed on both sides of the paper but bound at the top, type a 3 (Double-sided tumble) for the *Type of page printing* prompt.
- Note:** If the Printer ID you specify does not support double-sided printing, you receive a message on page 1 of the Print Options display that the printer for double-sided printing is not correct.
26. If you are printing your document on both sides of the paper, type a Y (Yes) for the *Adjust margins on even pages for binding* prompt. When your document is printed, the left and right margins for the even pages are automatically adjusted to line up with the odd pages. This is useful if you plan on binding the printed pages into a book. If you specify N (No) for this prompt, the margins that you have already defined are used.
27. If the right margin for the document exceeds the edge of the paper, but you want to fit as much text as possible on a page, type a Y (Yes) for the *Shift left margin* prompt. The left margin for the document is adjusted to fit as much text as possible on the page. The text may still be truncated if the right margin still exceeds the right edge of the paper.
- If the right margin for the document does not exceed the edge of the paper, type an N (No) for this prompt. The document prints as is. If there is text beyond the right edge of the paper, the text is truncated.
28. After selecting the options you want, press the Enter key. Your document is submitted for printing and a message is shown that your request is being processed.
- If you want to check the status of your job on the print queue, press F9 (Work with) from the Work with Documents in Folders display and then select option 2 (Work with documents to be printed).

Saving the Resolved Document

The first part of the printing process is to arrange the text by the specified format and process the text instructions. The result of this step is a resolved (final form) document. After a document is resolved, it is ready to be changed into a form the printer can use to be printed.

A resolved document may have the following characteristics depending on which options you select:

- Page and line endings have been adjusted (it has been paginated).
- Headers and footers have been added.
- The instructions in the text have been processed. (For example, .date has been replaced with February 19, 1986.)
- Revision symbols and line numbers have been inserted.

You can save the resolved output from a document in another document and use this resolved document to:

- Print a frequently printed document or form faster. Unless the document needs changing, printing a resolved document is much faster because the first part of the processing has already been done.
- Send a resolved document to another system that only accepts documents in that form, or to another department or location for printing.

To save the resolved output in another document:

1. Type a Y (Yes) for the *Print document* and *Display print options* prompts on the Exit Document display.

Page 1 of the Print Options display is shown.

2. If you do not want a paper copy of this document, type a 2 (Display) for the *Output device* prompt.
3. Page down to page 3 of the Print Options display.

Print Options		Page 3 of 4
Document	: LETTER	
Type choices, press Enter.		
Place on job queue	Y	Y=Yes, N=No
For Choice Y=Yes:		
Send completion		
message	N	Y=Yes, N=No
Job description	QBATCH	Name
Library	*LIBL	Name, *LIBL
Cancel on error	N	Y=Yes, N=No
Print error log	N	Y=Yes, N=No
For Choice Y=Yes:		
Form type		Printer form
Save resolved output	N	Y=Yes, N=No
For Choice Y=Yes		
Document		Name, F4 for list
Folder		Name, F4 for list
More...		
F3=Exit	F4=Prompt	F6=Print queue
F12=Cancel	F15=Merge data options	F9=Format options
		F18=Additional page ranges

4. Type a Y (Yes) for the *Save resolved output* prompt.
5. Type the name of a document where you want the resolved output saved for the *Document* prompt.
6. Type the name of a folder where you want the resolved output saved for the *Folder* prompt.
7. Press the Enter key.

The resolved output from your document is saved in the document and folder you specified. The resolved document is saved as a final-form text (FFTAS400) document.

Using the Print Key or F19 (Print/View Opts)

You can print the current page (display) of a document while you are editing the document by using the Print key. You can also print the document, print the error log, view the error log, or view the document by using F19 (Print/View Opts).

- To print the current page (display), press the Print key at any place in your document. The current page (display) is printed.
- To print the entire document or see other print options, press F19 (Print/View Opts) and the Select Print/View Options display is shown.

DOCNAME P:12
EDIT Page End
PG:1
LN:7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
 This is sample text that appears at the top of the Edit display when the
 following split screen is displayed. This text is positioned to the top
 of the display based on the cursor position when the split screen
 display was requested. This is sample text that appears at the top of
 the display.
 This is sample text that appears at the top of the Edit display when the
 following split screen is displayed. This text is positioned to the top
 of the display based on the cursor position when the split screen

Select Print/View Options

Select one of the following:

1. Print entire document
2. Print document with options
3. View printed output using split display

Selection

—

F3=Exit F12=Cancel

Note: If your document has errors, option 4 (Print error page) and option 5 (View error page) are also shown on the Select Print/View Options display.

- Do one of the following to submit your document for printing:
 - Select option 1 (Print entire document) if you want to print the entire document using the current print options specified on the Print Options display. Any changes you made to your document during this edit session are printed.
 - Select option 2 (Print document with options) if you want to see the Print Options display before printing your document. The Print Options display allows you to make decisions about printing your document, such as which

pages to print, how many copies, and where your output will be received. If the *Place on job queue* prompt is shown, and you type an **N** (No) for this prompt, the changes made to the document during the current edit session are printed. If you type a **Y** (Yes) for this prompt, any changes you made to the document during this edit session are not printed.

- Select option 3 (View printed output using split display) if you want to view the current document and the resolved output at the same time, one at the top and one at the bottom of the display. Any changes you made to your document during this edit session are shown.

Using the Document Error Page

The error page lists any errors that occur when you print a document, for example:

A zero index carrier return was used when justification was active. Text may not appear as desired.

The error page also contains informational messages, such as:

Folder FOOTNOTE does not exist.

The error page helps you determine and resolve errors that occur in your document when it prints. The error page lists the errors. When available, it also includes the page number and line number preceding the error message to indicate where the error occurred. However, sometimes page numbers and line numbers are not available and are not printed. Also, the page number and line number do not always refer to the printed document. Line and page numbers can be different in the source document (what you see on the display) than in the output document (the printed version), due to codes and instructions in the document and multiple passes during the formatting and printing processes. In some cases, the page number and line number refer to the source document, and you can find the error by looking at the document on the Edit display.

If you specify **N** (No) for the *Adjust page endings* prompt and **N** (No) for the *Renumber system page numbers* prompt on the Print Options display, the page numbers of the printed document closely match the page numbers of the source document. For information about renumbering system page numbers, see “Renumbering System Page Numbers” on page 3-54.

Printing the Error Log

There are several ways to print an error page:

- On page 3 of the Print Options display, for the *Print error log* prompt, select **Y** (Yes). Use the *Form type* prompt to select the type of paper to use for the error log, if necessary. For example, request plain paper for the error page if you are printing labels.
- Use the Print Document (PRTDOC) command. For information about using this command, see “Using the PRTDOC (Print Document) Command” on page 8-14.
- Select option 4 (Print error page) on the Select Print/View Options display. This option appears only if there are errors in your document.

Viewing the Error Log

To view the error log, select option 5 (View error log) on the Select Print/View Options display.

The error page format is determined by the document format and is set when the first error is logged. Any changes to the document format after the first error is logged do not affect the error page format. Once the error log is cleared, the error page format is set when the next error is logged. The following error page defaults are exceptions to the document format:

- The left margin is 1 (left paper edge).
- The right margin is 80.
- Spacing is single.
- Justification is off.
- The color is base.
- The paper drawer is drawer 1.
- Rotation is 0 degrees.

Clearing the Error Log

After you correct the errors, clear the error log. If you do not clear the error log, the same errors appear in the error log the next time you print the document.

To clear the error log:

1. On the Exit Document display, type a Y (Yes) for the *Display save options* prompt. The Save Options display is shown.
2. Type a Y (Yes) for the *Clear error log* prompt. (If you want to store the error log information, select N (No) for this prompt.)
3. Press the Enter key.

Printing from the Work with Documents in Folders Display

From the Work with Documents in Folders display, you can print a document without changing the print options. You can also look at and temporarily override the print options and then print the document. You can print several documents at one time by specifying option 6 or option 9 for several documents before pressing the Enter key.

To print a document without changing the print options:

1. Type a 6 (Print) in the *Option* prompt next to each document you want to print.

If the *Saved resolve output* prompt on the Print Options display is Y (Yes) and the resolved output already exists in the folder specified for the *Folder* prompt, a message is shown on the display that the resolved output already exists. If you do not want to replace the existing resolved output, either specify a new name for the *Document* prompt, or delete the resolved output from the folder before printing the document.
2. Press the Enter key.

The document is submitted to be printed.

To look at or change the print options before you print the document:

1. Type a 9 (Print options) for the *Option* prompt next to each document you want to look at or change the print options for before you print it. Any changes you

make temporarily override the existing print options for that document but are *not* saved for that document. You can only save changes that are stored with your document by doing the following:

- a. Revise the document.
 - b. Specify **Y** (Yes) for the *Save document* prompt on the Exit Document display.
 - c. Specify **Y** (Yes) for the *Display print options* prompt on the Exit Document display.
 - d. Change the print options.
2. Press the Enter key.
Page 1 of the Print Options display is shown.
 3. Make the desired changes.
 4. Page down to the next page or pages of the Print Options display.
 5. Make the desired changes.
 6. Press the Enter key.

The document is submitted to be printed.

Printing Your Document to a File

You can save the resolved output from a document into a file and use the file in your applications that use files. You can print your document to a file using the Print Options display or the PRTDOC command.

To print your document to a file:

1. Type a **Y** (Yes) for the *Print document* and *Display print options* prompts on the Exit Document display.

The Print Options display is shown.

2. Type a **3** (File) for the *Output device* prompt on page 1 of the Print Options display.

Additional prompts are shown.

File	_____	Name	
Library	_____	Name, *LIBL	
Member	_____	Name, *FILE, *FIRST, *LAST More...	
F3=Exit	F6=Print queue	F9=Format options	F12=Cancel
F15=Merge data options			

3. Type the file name, library name, and member name where you want the resolved output stored.
4. Press the Enter key.

Your resolved output is stored in the specified file. If this file already exists, the output is added to the end of the file. If this is a new file, the file is created and the output is stored in it.

If you want to know more about record layout in output files, see the information about OfficeVision/400 output file considerations in the *Office Services Concepts and Programmer's Guide*.

Using the PRTDOC (Print Document) Command

You can use the PRTDOC command to:

- Print your document after going through the Print Options display by specifying *YES for the OPTIONS parameter.
- Print your document without going through the Print Options displays by specifying *NO for the OPTIONS parameter.
- Print your document to a file by specifying *OUTFILE for the OPTIONS parameter.
- Print your document overriding one or more of the print and merge options that are stored with the document, or by overriding all the print options with the print options from a printer file by specifying *PRTFILE for the OPTIONS parameter.

Printing a Document Using the Print Options Display

1. Type the following on the command line:

```
PRTDOC DOC(document name) FLR(folder name) OPTIONS(*YES)
```

If you specify *PRV for the document or folder name, the name of the document or folder used in your last edit session is used.

2. Press the Enter key. The Print Options displays are shown with the values you previously specified filled in on the display.

Printing a Document without Using the Print Options Displays

1. Type the following on the command line:

```
PRTDOC DOC(document name) FLR(folder name) OPTIONS(*NO)
```

If you specify *PRV for the document or folder name, the document or folder name used in your last edit session is used.

2. Press the Enter key. The print request is submitted.

Printing a Document to a File

To print a document to a file using the PRTDOC command:

1. Type the following on the command line:

```
PRTDOC DOC(document name) FLR(folder name)  
OPTIONS(*OUTFILE) OUTFILE(library/file name) OUTMBR(*FIRST)
```

2. Press the Enter key.

Your resolved output is stored in the specified file and member. If this file already exists, the output is added to the file. If this is a new file, the file is created and the output is stored in the specified member.

Overriding the Print Options Using the Print Document (PRTDOC) Command

You can override one or more of the print options that are stored with the document, by specifying the parameter you want to override.

For example, if you want to print a document with a cover page, type:

```
PRTDOC DOC(document name) FLR(folder name)
OPTIONS(*NO) COVERPAGE(*YES)
```

If you want to print a document on a different printer, type:

```
PRTDOC DOC(document name) FLR(folder name)
OPTIONS(*NO) DEV(printerID) OUTQ(*DEV)
```

If you want to print a document with an error page, type:

```
PRTDOC DOC(document name) FLR(folder name)
OPTIONS(*NO) PRERRLOG(*YES)
```

If you want to print a document using the printer file, type:

```
PRTDOC DOC(document name) FLR(folder name)
OPTIONS(*PRTFILE) PRTFILE(library/file name)
```

For more information about how to override parameters, see *Application Development by Example* or the *CL Reference* manual.

Viewing a Document at Your Work Station

You can view resolved documents at your work station while you are editing by using a split display or while you are printing your document. Viewing the document using a split display can help you determine the corrections needed to print the document correctly the first time.

To view a resolved document while you are editing using a split display:

1. On the Edit display, press F19 (Print/View Opts).

The Select Print/View Options display is shown.

2. Select option 3 (View printed output using split display).
3. Press the Enter key.

Your document is shown in the printed format at the bottom of the Edit display. The format is according to the print options used the last time you printed the document (such as with the line and page endings adjusted or with the instructions resolved). If you are printing several copies of a document, only the first copy is shown.

Note: Due to codes and instructions in the document and multiple passes during the formatting and printing process, line and page numbers shown on the display for a document may be different from those in the printed output.

If you want to change the print options before using F19 (Print/View Options):

- a. Press F3 (Exit) and the Exit Document display is shown.
- b. Specify a Y (Yes) for the *Save document* and *Display print options* prompts.

- c. Press the Enter key. Page 1 of the Print Options display is shown.
 - d. Make the desired changes to the print options.
 - e. Press the Enter key. The Work with Documents in Folders display is shown.
 - f. Specify option 2 (Revise) to return to the Edit display and go back to step 1.
4. Press F3 (Exit/Save) to end the split display when you have completed looking at the document.

The following instructions are not resolved on the display:

Change Font
Overstrike
Required Backspace
Skip
Skip to line
Zero Index Carrier Return
Color
Graphic

To view a resolved document while you are printing:

1. On the Exit Document display type a Y (Yes) for the *Print document* and *Display print options* prompts.
2. Press the Enter key.

Page 1 of the Print Options display is shown.

3. Type a 2 (Display) for the *Output device* prompt.

Your document is displayed at your work station. If you are printing several copies of a document using a Data Field (.&) instruction for multiple letters, all of the copies are shown.

Note: Due to codes and instructions in the document and multiple passes during the formatting and printing process, line and page numbers shown on the display for a document may be different from those in the printed output.

4. Press F3 (Exit) when you have completed looking at the document.

No error log page is added when this method is used to display your printed output.

The following instructions are not resolved on the display:

Change Font
Overstrike
Required Backspace
Zero Index Carrier Return
Color
Graphic

Working with Documents on the Print Queue

The **print queue** is a list of jobs waiting to be printed. The print queue is shown on the Work with Documents to be Printed display. You can work with documents on the print queue to:

- Hold, release, or delete a single document
- Hold, release, or delete several documents with a single request
- Change information about a single document

Work With Documents to be Printed							
Output displayed : Office documents only							
Type options, press Enter.							
2=Change 3=Hold 4=Delete 5=View 6=Release							
Opt	Pos	User	Document	Status	Printer or queue	Form	Pages Wrt
1	MAK	NEWDOC	PENDING	P3	0001	25	
2	RRS	MEMO1223.FFT	WRITING	P2	0002	52	
3	MAK	USERDOC	PRINTING	P3	0001	25	
4	RRS	MEMO1224.FFT	PRINT HELD	P2	0002	52	
5	NNN	LETTER1	PRINT WAIT	P2	0001	12	
6	NNN	LETTER2	PRINT WAIT	P2	0001	1	
7	NNN	LETTER3	PRINT WAIT	P2	0001	1	
8	ABC	LETTER1	PRINT WAIT	P2	0001	12	
9	ABC	LETTER2	PRINT WAIT	P2	0001	1	
10	ABC	LETTER3	PRINT WAIT	P2	0001	1	
11	123	LETTERA	PRINT WAIT	P2	0001	1	
							Bottom
F3=Exit		F5=Refresh		F6=Perform options on several documents		F12=Cancel	
F9=Work with		F10=Subsetting options		F11=More information			

Displaying the Print Queue

To display the print queue, you must go to the Work with Documents to be Printed display. To get to the Work with Documents to be Printed display, do one of the following:

- Press F9 (Work with) on one of the following:

- Work with Documents in Folders display
- Work with Folders display
- Work with Profiles display
- Work with Nontext Document Data display

Select option 2 (Work with documents to be printed) on the Work with Word Processing display.

- Press F6 (Print queue) on one of the following:

- Exit Document display
- Print Options display (any page)
- Label Print Options display (any page)
- Resolved Print Options display

- Type the Work with Documents on the Print Queue (WRKDOCPRQT) command on the command line of any menu.
- Select option 2 (Print or view print status of document) on the Word Processing menu.

The Work with Documents to be Printed display is shown with all the documents that are waiting to be printed, which includes:

- The **print queue**, which is a list of jobs waiting to be printed. Jobs on the print queue are identified by the keyword PRINT shown in the status column.
- The **job queue**, which is a list of jobs waiting to be processed by the system. Jobs on the job queue are identified by the keyword JOBQ shown in the status column.

If you want to see additional information about the input queue or the status column, press the Help key.

You can limit the amount of information shown on the Work with Documents to be Printed display by using the subsetting options. The subsetting options allow you to specify what printed output is displayed on the Work with Documents to be Printed display. For example, if you only use printer P3 to print your documents, you can select to show only the information about documents that are printed on printer P3.

To use the subsetting options:

1. Press F10 (Subsetting options) on the Work with Documents to be Printed display.

The Subsetting Options display is shown:

Subsetting Options		
Type choices, press Enter.		
User	_____	Name, *ALL
Printer or queue	_____	Name, *ALL
Library	_____	Name, *ALL
Job queue	_____	Name, *ALL
Library	_____	Name, *ALL
Output to display	-	1=All printer output 2=Documents only

2. Type the user ID for the print jobs you want to look at for the *User* prompt.

If you type *ALL for this prompt, print jobs for all users are shown.

3. Do one of the following:

- Type the name of the printer for the print jobs you want to view for the *Printer or queue* prompt. For example, P3.
- Type the name of the output queue where you want your output held until it is ready to print for the *Printer or queue* prompt.

If the output queue is not in the default library QUSRSYS, type the name of the library where the output queue is stored.

If you specify *ALL for both the *Printer or queue* and *Library* prompts, all output queues are used.

If you specify *ALL for the *Printer or queue* prompt and leave the *Library* prompt blank, all output queues in QUSRSYS are used.

4. Type the name of the job queue for the *Job queue* prompt.

If you type *ALL for this prompt, print jobs for all job queues are used.

5. Type the name of the library where the job queue is stored for the *Library* prompt.
6. Do one of the following:
 - If you want to display all printed output, type a 1 (All printer output) for the *Output to display* prompt.
 - If you want to display documents only, type a 2 (Documents only) for the *Output to display* prompt.
7. Press the Enter key.

You are returned to the Work with Documents to be Printed display. Only the print jobs that match the values specified on the Subsetting Options display are shown.

Using the WRKDOCPRTQ (Work with Documents on the Print Queue) Command

To work with documents on the print queue:

1. Type the following on the command line:
WRKDOCPRTQ
2. Press the Enter key.

The Work with Documents to be Printed display is shown.

Changing, Holding, Deleting, Viewing, or Releasing Documents on the Print Queue

To change a print job that is on the print queue:

1. Type a 2 next to the print job or jobs you want to change.
2. Press the Enter key.

The Change Options display is shown. From this display, you can change any of the following items about the print job:

- Forms number
- Number of copies
- Printer, or queue and library

Note: Do not change the printer ID to a different type of printer. The document has been changed into a specified format for the printer type selected on the Print Options display.

- Start printing

Note: If you are printing a document with several pages, or if you are printing several copies of the same document using merge, changing this option to 3 (Immediately) allows printing to start immediately. All pages must be completely resolved before printing can start.

3. Select the option you want changed and fill in the correct prompt.

To hold a print job that is on the print queue:

1. Type a 3 next to the print job or jobs you want to hold.
2. Press the Enter key. The job is held and is not printed until it is released.

To delete a print job that is on the print queue:

1. Type a 4 next to the print job or jobs you want to delete.
2. Press the Enter key. The job is deleted from the print queue.

To view a print job that is on the print queue:

1. Type a 5 next to the print job or jobs you want to view.
2. Press the Enter key. The job is displayed on the Display Spooled File display.
3. Press the Enter key to return to the Work with Documents to be Printed display.

To release a print job that is held on the print queue:

1. Type a 6 next to the print job or jobs you want to release.
2. Press the Enter key. The job is released and starts printing.

Holding, Deleting, or Releasing a Group of Documents

You can hold, delete, or release a group of documents that have the same user ID, or that use the same printer or output queue, forms, or job queue.

To hold, delete, or release a group of documents:

1. Press F6 (Perform options on several documents) to show the Perform Options on Several Documents display.
2. Type the desired option (hold, release, or delete) in the *Option to perform* prompt.
3. Type the user ID for the print jobs you want to hold, release, or delete for the *User* prompt. If you type *ALL for this prompt, print jobs for all users are affected.
4. Type the printer ID for the print jobs to be held, released, or deleted, or type the name of the output queue for the *Printer or queue* prompt.

If the output queue is not in library QUSRSYS, type the name of the library where the output queue is stored for the *Library* prompt. If you leave the *Library* prompt blank, the library QUSRSYS is used.

If you specify *ALL for the *Printer or queue* prompt and leave the *Library* prompt blank, all output queues in QUSRSYS are used.

5. Type the name of the job queue and library name where the job queue is stored for the *Job queue* and *Library* prompts.

If you type *ALL for these prompts, print jobs on all job queues are affected.

6. Press the Enter key.

The selected option is performed for the selected print jobs. You are returned to the Work with Documents to be Printed display.

Note: If you are printing documents with different forms on the same printer, use the Perform Options on Several Documents display to organize your printing so that constant operator intervention is not necessary. For example, you

can hold all print jobs that use form B until those that use form A have printed. Then, release the print jobs that use form B.



Chapter 9. Producing a Table of Contents or an Index

If you are working on a large, multiple-page document, you may want to create a table of contents or an index to help the readers find specific information. You can create a table of contents and an index in your document using text instructions.

To create a table of contents, you must insert Outline Heading text instructions throughout the document and a Table of Contents text instruction at the place where you want the table of contents printed. The outline headings are the entries used in the table of contents.

You can create an index for a document in much the same way. You insert Index Entry instructions throughout the document to define entries for the index and an Index instruction at the place in the document where you want the index created.

Both Table of Contents and Index instructions can be typed anywhere in the document. The instructions are processed when the document is printed.

Using Outline Headings

Seven levels of outline headings can be used in a document. Each heading is automatically numbered in the printed document. When the document is printed, a table of contents can be created using the heading levels you specify. If you specify that heading levels 0 through 4 are to appear in the table of contents, your table of contents might look like this:

Table of Contents

1.0 Heading level 0 2

1.1 HEADING LEVEL 1 3

1.1.1 HEADING LEVEL 2 3

1.1.1.1 HEADING LEVEL 3 3

1.1.1.1.1 Heading level 4 4

1.2 HEADING LEVEL 1 5

1.2.1 HEADING LEVEL 2 5

1.3 HEADING LEVEL 1 6

2.0 Heading level 0 7

1.1.1 HEADING LEVEL 2

Page 3

xxxxxx xxxxxxxx xxxxxx xxx xxxxxxxxxxx x xxxxx xxxx
xxxx xxxxx xxx xxxxxxxx xxxxxxxx.

1.1.1.1 HEADING LEVEL 3

x xxxxx xxx xxxxx xxxxx xxxxxxx xxxxxxx xx xxx xxxxx
xxxx x xxx xxxxxxx xxx xxxxx xxxxx xxxxxxxx.

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You can change the way a heading looks by changing the options on the Outline Heading Definition display. You can specify how a heading appears in the document and how it appears in the table of contents. The following options control how a heading prints in the document:

- Print section number
- Start a new page
- Blank lines before
- Blank lines after
- Bold print
- Underline

You can specify for the *Include in table of contents* prompt the placement and appearance of headings in the table of contents. If you specify Yes for the prompt and you want to include the heading level in the table of contents, you can specify:

- Positions to indent
- Blank lines before entry

The All uppercase option controls how a heading prints in both the document and the table of contents.

Using any of these options, you can tailor each heading level to give you the look you want for your table of contents as well as the headings you have in your document.

Typing Headings

To insert an Outline Heading instruction in your document:

1. Move the cursor to the place in the text where you want a heading.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type `.h` in the prompt and press the Enter key. The Outline Heading Instruction display is shown.
4. Type the heading level number for the heading (0 through 6) and press the Enter key to return to the Edit display.

An Outline Heading instruction is inserted at the cursor position.

5. Type the heading text and press the Field Exit key to end the heading.

Note: If you specify N (No) for the *Adjust page endings* prompt and N (No) for the *Renumber system page numbers* prompt on the Print Options display, and the outline heading definition for the heading specifies to start printing a new page, you should type the outline heading at the start of a page in the source document. If you want to view or change the information about a heading level, see "Changing a Heading Level Definition."

Changing a Heading Level Definition

To change the definition of a heading level:

1. Press F5 (Goto) to show the *Goto* prompt.
2. In the *Goto* prompt, type `dohx` (where *x* is the heading level [0 through 6] you want to change), and press the Enter key. The Outline Heading Definition display for the heading level you specified is shown.

3. Change the heading definition and press the Enter key to return to the Edit display.

To change more than one heading level:

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type **dohs** in the prompt and press the Enter key. The Select Outline Heading display is shown.
3. Select option 0 through 6 for the heading level you want to change and press the Enter key.

The Outline Heading Definition display for the heading level you specified is shown.

4. Change the heading definition and press the Enter key.

You are returned to the Select Outline Heading display where you can select another heading definition to change.

5. Press F12 (Cancel) to return to the Edit display.

Note: Different heading levels cannot be defined for use in an alternate format.

Creating a Table of Contents

The table of contents is created from heading levels used in the document. If heading levels are not used, a table of contents is not printed.

Only one Table of Contents (.toc) instruction is allowed in each document. The table of contents creates a new page if the *toc instruction is not already on a page by itself. The table of contents cannot appear on the same page as document text. The table of contents page uses the current page and line format. To use a different page or line format for your table of contents, insert a page or line format change before the Table of Contents (.toc) instruction. If you inserted a format change for the table of contents and you do not want to continue to use this format after the table of contents, you must insert a new format change after the Table of Contents (.toc) instruction. For more information about format changes, see "Making Format Changes" on page 7-2.

The margins must be set so that at least 30 print positions are available between the left and right margins. If you have tabs in your outline headings, each tab is printed as one space in the table of contents.

A Required Carrier Return following the Table of Contents text instruction creates a blank line. If an Outline Heading instruction that is to start a new page follows the Table of Contents instruction, the Required Carrier Return creates a blank page.

If you are using even and odd headers and footers, the table of contents always starts with the odd page header and footer.

To create a table of contents for your document:

1. Move the cursor to the place in the document where you want the table of contents to appear.
2. Type the instruction **.toc**

3. Press the Enter key.

The Table of Contents (.toc) instruction is placed on a line by itself, and the table of contents will be included at this point in the document when the document is printed.

Notes:

1. If there is a Table of Contents instruction within multiple text columns, the table of contents prints in a single column and the multiple text columns continue after the table of contents.
2. If you are using a Required Tab, you must end it with a Required Carrier Return.
3. If you specify N (No) for the *Adjust page endings* prompt on the Print Options display, only one page is created for the table of contents.
4. If you specify N (No) for the *Adjust page endings* prompt and N (No) for the *Renumber system page numbers* prompt on the Print Options display, you should have the *toc instruction on a page by itself in the source document.

Creating an Index

To create an index in your document, insert Index Entry instructions (.ie) throughout the document near the information you want included in the index. Insert the Index instruction (.ix) at the place in the document where you want the index pages printed. The index is created from the index entries marked in the document. If no index entries are marked, an index cannot be created.

Only one index is allowed in each document. The index creates a new page and cannot appear on the same page as document text. Index pages use the current page and line formats. The margins must be set so that at least 30 print positions are available between the left and right margins. To use a different page or line format for your index, insert a page or line format change before the Index instruction. Format changes are discussed in "Making Format Changes" on page 7-2. Revision symbols are not printed in an index.

Understanding Index Entries

There are three levels for index entries: major, second-level, and third-level. If you specify an index entry with three levels, your index entries look like this when printed:

```
fruits
  apple 66
    delicious 67
    winesap 69
  orange 75
fudge 42
  See also candy
```

In the above example, fruits is the major entry, apple is the second-level entry, and delicious and winesap are the third-level entries. Candy is a reference entry for the major entry, fudge.

Note: The page number printed in the index is the page number printed by the Page Number (.pn) instruction, not the system page number.

Using Index Entry Instructions

Index entries are grouped in the index according to what is specified for the *Special character* prompt on the Index Entry Instruction display:

- If you specify N (No) for the prompt and the entry contains alphabetic or numeric characters, the entry is listed in the alphabetic or numeric section of the first alphabetic or numeric character found. If the entry contains only special characters, it is listed in the special characters section of the index.
- If you specify Y (Yes) for the prompt, no matter what kind of characters the entry contains, the entry is listed in the special characters section of the index.

Characters are sorted within each section of the index according to the following sequence:

1. Alphabetic characters in order a through z regardless of the case.
2. Numeric characters 0 through 9.
3. Special characters (any character other than alphabetic or numeric).

Note: Blanks, required spaces, and apostrophes are ignored in the sorting sequence and are treated as if they do not exist.

To insert an index entry in the document:

1. Move the cursor to the place in the text where you want to insert an index entry.
2. Press F5 (Goto) to show the *Goto* prompt.
3. Type **.ie** in the prompt and press the Enter key.

The Index Entry Instruction display is shown.

4. Type the information for the index entry on this display.

Note: If you specify more than 3 for the *Instruction length* prompt, the lines in the document may not adjust correctly when the document is printed.

The following example shows how you would specify a second-level index entry on the Index Entry display.

```
DOCNAME P:12          EDIT Page End          PG:1      LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
This is sample text that appears at the top of the Edit display when the
following split screen is displayed. This text is positioned to the top of
the display based on the cursor position when the split screen display was
requested. This is sample text that appears at the top of the display.

.ie                      Index Entry Instruction
This instruction indicates that entries to the index will be made in the
specified format.

Type choices, press Enter.
Major entry . . . . . fruits
Second level entry . . apple
Third level entry . . . . .
Entry descriptor . . . .
Entry type . . . . . 1=Primary, 2=Reference, 3=Start, 4=End
Special character . . . N Y=Yes, N=No
Print outline
heading level . . . . N Y=Yes, N=No
Instruction length . . . 3 1-255, Blank=Entire instruction
F3=Exit F12=Cancel F16=Delete instruction
```

The following example shows how you would specify a third-level index entry on the Index Entry Instruction display.

DOCNAME P:12	EDIT Page End	PG:1	LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....			
This is sample text that appears at the top of the Edit display when the following split screen is displayed. This text is positioned to the top of the display based on the cursor position when the split screen display was requested. This is sample text that appears at the top of the display.			
.ie Index Entry Instruction			
This instruction indicates that entries to the index will be made in the specified format.			
Type choices, press Enter.			
Major entry	fruits		
Second level entry . .	apple		
Third level entry . . .	delicious		
Entry descriptor			
Entry type		1=Primary, 2=Reference, 3=Start, 4=End	
Special character . . .	N	Y=Yes, N=No	
Print outline			
heading level	N	Y=Yes, N=No	
Instruction length . . .	3	1-255, Blank=Entire instruction	
F3=Exit F12=Cancel F16=Delete instruction			

The following example shows you how to specify a reference entry on the Index Entry Instruction display:

DOCNAME P:12	EDIT Page End	PG:1	LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....			
This is sample text that appears at the top of the Edit display when the following split screen is displayed. This text is positioned to the top of the display based on the cursor position when the split screen display was requested. This is sample text that appears at the top of the display.			
.ie Index Entry Instruction			
This instruction indicates that entries to the index will be made in the specified format.			
Type choices, press Enter.			
Major entry.	fudge		
Second level entry . . .	candy		
Third level entry. . .			
Entry descriptor			
Entry type	2	1=Primary, 2=Reference, 3=Start, 4=End	
Special character.	N	Y=Yes, N=No	
Print outline			
heading level.	N	Y=Yes, N=No	
Instruction length	3	1-255, Blank=Entire instruction	
F3=Exit F12=Cancel F16=Delete instruction			

Note: If fudge has a page number as well as the reference to candy, the reference to candy would be *See also*. However, if fudge did not have any other page references, the reference to candy would be *See*.

5. Press the Enter key to return to the Edit display.

An Index Entry instruction is inserted at the cursor position.

You can continue typing the document or move to the place in the text where you want to insert another index entry.

Specifying the Location of the Index

To specify where the index should appear in your document:

1. Move the cursor to the place in the document where you want the index to appear.
2. Type `.ix` and press the Enter key.

The Index (`.ix`) instruction is placed on a line by itself, and an index is created in the document when your document prints. You can continue typing the document.

Notes:

1. If there is an Index instruction within multiple text columns, the index prints in one column and the multiple text columns continue after the index.
2. If you specify N (No) for the *Adjust page endings* prompt on the Print Options display, only one page is created for the index.
3. If you specify N (No) for the *Adjust page endings* prompt and N (No) for the *Renumber system page numbers* prompt on the Print Options display, you should put the `*ix` instruction on a page by itself in the source document.



Chapter 10. Using Footnotes

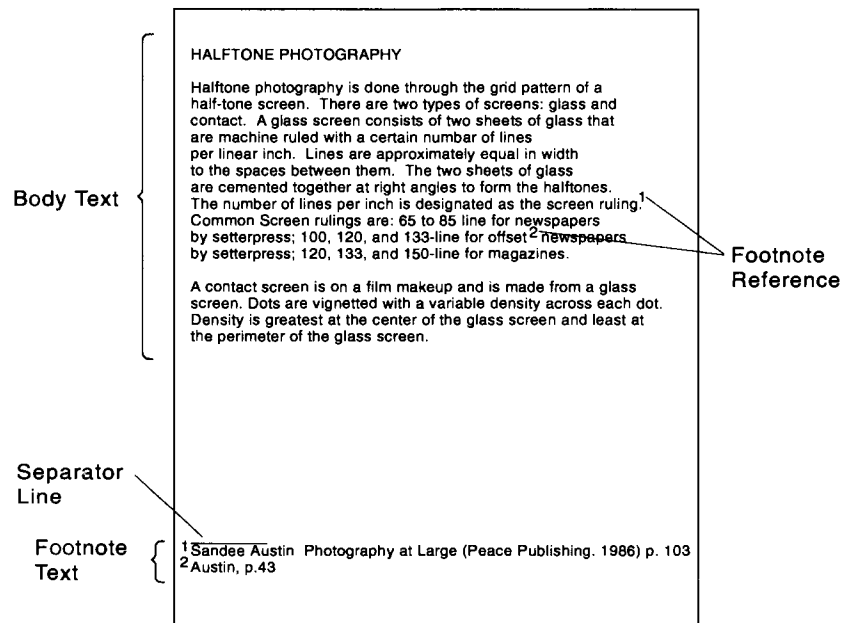
Notes of reference, explanation, or comment about the text, with corresponding reference numbers in the text, are called **footnotes** when they are printed at the foot of the page.

The system makes the addition or deletion of footnotes simpler for you because you do not have to compare the footnote number to the footnote text. The system numbers each footnote, calculates the amount of space needed at the bottom of the page, inserts a separator line between the body text and the footnote text, and prints the footnote in the correct position. When you paginate a footnoted document, the system automatically rennumbers and repositions the footnotes.

Wherever you want to use a footnote, you must insert a Footnote instruction and then type the footnote text when the Footnote Edit display is shown. The Footnote instruction indicates where the footnote reference (usually a number) should be placed and allows you to type the footnote text associated with the footnote reference. It also allows you to change the footnote text after it has been created.

A **footnote reference** is a number (for example, ¹) or character (for example, *) in the text that indicates that a footnote exists.

The **footnote text** is the text that is associated with one or more footnote references. The same number (¹) or character (*) that was used for the footnote reference is also used at the beginning of the footnote text.



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When you paginate a document that contains Footnote instructions, the system creates formatted text that includes both the footnote reference (number or character) and the footnote text itself. Formatted text starts with a Begin Formatted Text control character and ends with an End Formatted Text control character.

On some displays, you cannot see these control characters, but when you move the cursor to a Begin Formatted Text control character, Begin Formatted Text is shown in the audit window of the Edit display. Likewise, when you move the cursor to an End Formatted Text control character, End Formatted Text is shown in the audit window of the Edit display.

Every time you paginate a document that contains Footnote instructions, the system:

1. Deletes all formatted text associated with footnotes. Any changes that you made to the formatted text are lost. You should not edit the text that is between the Begin and End Formatted Text control characters.
2. Creates a new formatted footnote reference for each Footnote instruction. It also creates the formatted footnote text on each page that contains at least one footnote reference.

The following example shows what a document could look like before and after pagination.

Before Pagination

Halftone photography is done through the grid pattern of a half-tone screen. There are two types of screens: glass and contact. A glass screen *FN 1 consists of two sheets of glass that are machine ruled with a certain number of lines per linear inch. Lines are approximately equal in width to the spaces between them. The two sheets of glass are cemented together at right angles to form halftones. The number of lines per inch is designated as the screen ruling.

After Pagination

Halftone photography is done through the grid pattern of a half-tone screen. There are two types of screens: glass and contact. A glass screen *FN 1 consists of two sheets of glass that are machine ruled with a certain number of lines per linear inch. Lines are approximately equal in width to the spaces between them. The two sheets of glass are cemented together at right angles to form halftones. The number of lines per inch is designated as the screen ruling.

Begin Formatted Text

Formatted
Footnote
Text

End Formatted Text

■ F
*BK ■

■ F
1 This is footnote text. ■
■ R
*EK CR

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You cannot use Footnote instructions:

- In the footnote text of another footnote reference
- In a comment
- In a running heading
- On the same line as a Column List Data Field instruction
- In an outline heading
- On the same line as a Data Field Heading instruction
- In a label document
- Containing a reference to a page that cannot be found or to a document or folder that cannot be found

Note: If you use a Footnote instruction in any of the situations described above, an error message is printed in the error log when you print your document.

The text instructions you can use in footnotes are shown on the Select Footnote Instruction display. You can get to the Select Footnote Instruction display by pressing F5 (Goto) and typing `.fn` for the prompt. After the Footnote Edit display is shown, press F9 (Instructions) and the Select Footnote Instruction display is shown with the following instructions you can use in footnotes:

Date
Time
Numbered List
Skip Lines
Change Font
Overstrike
Required Backspace
Comment
Zero Index Carrier Return
Color
Graphic

Creating a Footnote

When you reach a place that requires a footnote reference, indicate the position of the footnote reference with the Footnote instruction (`.fn`). Then specify the footnote text on the Footnote Edit display. When you return to the Edit display, the footnote text is not displayed until you paginate the document. As you create each footnote, you can have it numbered and stored on a separate page at the end of the document, starting at page number 9000. These pages are called **system-controlled pages**.

If you think your document may contain more than 9000 pages of text, you must store your footnotes in a separate document. For more information on how to store footnotes in a separate document, see "Storing Footnotes for Repeated Use" on page 10-10.

To create a footnote:

1. On the Edit display, move the cursor to the position where you want the footnote reference placed (after the last letter of the word or phrase that you want the footnote text to explain).
2. Press F5 (Goto) and the *Goto* prompt is shown.
3. Type `.fn` and press the Enter key. The Footnote Instruction display is shown.

DOCNAME P:12 EDIT Page End PG:1 LN:7
 <2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
 This is sample text that appears at the top of the Edit display when the following split display is shown.
 This text is positioned to the top of the display based on the cursor position when the split display was requested.
 This is sample text that appears at the top of the display.

.fn Footnote Instruction
 This instruction marks the point in the document where a footnote reference will be placed.

Type choices, press Enter.

Type footnote text . . .	_____	Y=Yes, (Change reference only) N=No
System page number . . .	_____	1.00-9999.99
Document	_____	Blank=Current document, F4 for list
Folder	_____	Blank=Current folder, F4 for list

Reset footnote
 reference number . . . _____ 1-9999, any character
 F3=Exit F4=Prompt F12=Cancel F16=Delete instruction

4. Type a Y (Yes) in the *Type footnote text* prompt.
5. Leave the *System page number* prompt blank. The system uses the first available system page (at or above number 9000) to store the footnote text.
6. If you leave the *Document* and *Folder* prompts blank, the system stores the footnote text in the current document and folder. For additional information about these prompts, see "Storing Footnotes for Repeated Use" on page 10-10.
7. Leave the *Reset footnote reference number* prompt blank if you want the system to number the footnotes in sequence. For additional information about this prompt, see "Changing the Appearance of Footnotes" on page 10-5.
8. Press the Enter key and the Footnote Edit display is shown.
9. Type the text for the footnote.
10. You can check the spelling in the footnote text interactively by using the Spell Options display. For more information, see "Checking Spelling As You Type the Document" on page 4-3.
11. To correct a misspelled word, type over the misspelled word or press F23 (Word spell aid). If you need more information, see "Correcting Your Spelling" on page 4-7.
12. To save the footnote text and return to the Edit display, press F3 (Exit). To cancel the changes made to the footnote, press F19 (Exit/No save).

The Footnote instruction and the formatted reference number are added to the text of the document.

Note: Footnote instructions are allowed in multiple text columns but the footnote text always prints in a single column.

Changing Existing Footnote Text

To change existing footnote text:

1. On the Edit display, move the cursor to the Instruction character of the Footnote instruction that refers to the footnote text to be changed.
2. Press the Enter key and the Footnote Instruction display is shown.
3. Type a Y (Yes) for the *Type footnote text* prompt.
4. Press the Enter key and the Footnote Edit display is shown with the existing text for this footnote.
5. Make the necessary changes to the footnote text and check the spelling of the footnote text.
6. To save the footnote text and return to the Edit display, press F3 (Exit). To cancel the changes made to the footnote, press F19 (Exit/No save).

Changing the Appearance of Footnotes

You can change the appearance of the footnotes by changing the format of the footnote reference and footnote text. You can also reset the footnote reference number to a character or to a different number.

Formatting the Footnote Reference and Footnote Text

The choices you make on the Footnote Format display determine the appearance of footnote references and the associated footnote text found in the document.

You can specify:

- The type style for the footnote text
- The character to use for the line that separates the footnote from the body text
- The length of the separator line
- The number of lines of footnote text per page
- The number of lines between footnotes

To change the footnote formatting information for the document format:

1. On the Edit display, press F5 (Goto) and the *Goto* prompt is shown. Type **dff** and press the Enter key. The Define Footnote Format display is shown.

Note: Type **aff** to change the footnote formatting information for the alternate format.

USERDOC P:12 Edit PG:1 LN: 7
 <2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....

dff Define Footnote Format Page 1 of 2

Type of change : Chg Document Format
 Type choices, press Enter.

Typestyle	_____	1-65534, F4 for list Blank=Document typestyle
Font size (points)	*NONE	000.1 - 999.9, *NONE
Separator line character . .		Any character
Separator line length . . .	20	1-450 (Number of characters)
Maximum footnote lines per page	48	6-999
Lines between footnotes . .	1	0-999

F3=Exit F12=Cancel More...

2. Type the number of the type style that you want for your footnote text in the *Typestyle* prompt.

Note: The type style specified here does not affect how the footnote reference is printed in the body of the document.

3. Type the number of the font size you want for your footnote text in the *Font size (points)* prompt.

For more information about font sizes, see Appendix G, "SAA Support for Type Styles" on page G-1.

4. Type the character that you want the system to use for the line that separates the body text from the footnote text in the *Separator line character* prompt. If you leave this prompt blank, the separator line is a blank line.
5. Type a value between 1 and 450 in the *Separator line length* prompt to specify the length of the separator line. If the specified value is larger than the amount of space between the margins, the line ends at the right margin.
6. Type the maximum number of footnote text lines that you want to appear on a page in the *Maximum footnote lines per page* prompt. This number includes all footnote text lines and blank lines between footnotes. It does not include the separator line or the blank lines that the system puts before and after the separator line. The system uses this number along with the lines per inch and line spacing values to calculate the amount of space on the page that can be used for footnote text.
7. Type the number of blank lines you want the system to place between the last line of one footnote and the first line of the next footnote in the *Lines between footnotes* prompt.
8. Press the Page Down key, and page 2 of the Define Footnote Format display appears.

USERDOC P:12 Edit PG:1 LN: 7
 <2...T:...T3...T:...T4...T:...T5...T:...T6...T:...T7...T:...T8...T:...T9>.....

dff Define Footnote Format Page 2 of 2

Type of change: Chg Document Format
 Type choices, press Enter.
 Reference number in text:
 Leading characters . . . _____
 Trailing characters. . . _____

Footnote number:
 Leading characters . . . _____
 Trailing characters. . . _____

Continuation text
 for footnotes. (Footnote continued) _____

F3=Exit F12=Cancel Bottom

9. In the *Reference number in text* prompts, you can specify what goes before (*Leading characters*) and what follows (*Trailing characters*) the footnote reference in the body text. You can specify control characters, keyboard characters, or a combination of both.

Notes:

- a. On some displays, control characters are not shown on the display, but when the cursor is on a control character, the name of the control character is shown in the audit window.
- b. If you want to type a Tab or Required Tab on this display and are not using the PC text-assist function, press the Insert key first and then the Tab key.

The default value for the *Leading characters* prompt is a Half-Index Up control character.

The default value for the *Trailing characters* prompt is a Half-Index Down control character. This results in a footnote reference that is one-half line above all the other text.

The number¹ will appear in the text

You can change the values if you want to create footnote references that look different. For example, you could have the footnote reference preceded with an asterisk:

¹The number is preceded with an asterisk in the body text

To have each footnote reference printed one-half line above the other text, and preceded with an asterisk:

- a. Move the cursor to the *Leading characters* prompt and press the Alt key plus the Y key (Half-Index Up) to insert a Half-Index Up control character.
- b. Type an * (asterisk).
- c. Use the New Line key to move the cursor to the *Trailing characters* prompt.
- d. Press the Alt key plus the H key (Half-Index Down) to insert a Half-Index Down control character.

10. In the *Footnote number* prompts, you can specify what precedes and what follows the footnote number or character that appears at the beginning of the footnote text. You can specify control characters, keyboard characters, or a combination of both.

The default value for the *Leading characters* prompt is a Tab control character and a Half-Index Up control character.

The default value for the *Trailing characters* prompt is a Half-Index Down control character. This results in a footnote number that is one-half line above the other text and indented to the first tab.

¹This footnote is indented to the first tab.

You may use other control characters to change the way your footnotes look. For example, you may want the footnote number to be one-half line above all the other footnote text and also indented to the second tab.

¹This footnote is indented to the first tab.

²This footnote is indented to the second tab.

To have each footnote indented to the second tab:

- a. If you are not using the PC text-assist function, move the cursor to the *Leading characters* prompt and press the Shift key plus the Tab key twice.

If you are using the PC text-assist function, move the cursor to the *Leading characters* prompt and press the Tab key twice.

- b. Press the Alt key plus the Y key (Half-Index Up) to insert a Half-Index Up control character.

- c. Use the New Line key to move the cursor to the *Trailing characters* prompt.

- d. Press the Alt key plus the H key (Half-Index Down) to insert a Half-Index Down control character.

11. In the *Continuation text for footnotes* prompt, you can specify text to indicate a footnote that is being continued on the next page. If you leave this prompt blank, the continuation text is a blank line.

You can specify control characters, keyboard characters, or a combination of both. The text you specify prints on the bottom of the page where the footnote begins and again on the first line following the separator line on the next page as shown in the example below.

¹This is the first footnote
²This is the second footnote that continues
on the next page
(Footnote continued)

(Footnote continued)
This is the continuation of footnote two
³This is the third footnote

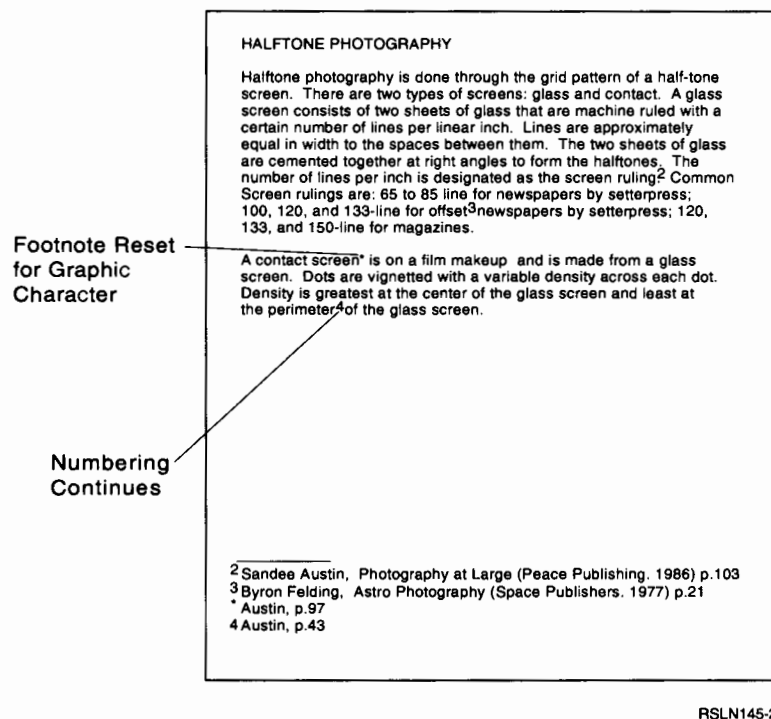
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12. Press the Enter key and the Edit display is shown.

Resetting the Footnote Number

You can reset the footnote reference number to any character on the keyboard. If you reset the footnote number to a numeric character, footnotes that follow in the document are numbered sequentially from that point. For example, if you reset the footnote number to 5, then the next footnote has a reference number of 6.

When you reset the footnote number to any character that is not a number (an asterisk, for example), the system uses the new character only for the current footnote. It continues numbering footnotes sequentially at the next footnote as shown in the example below.



To reset the footnote number:

1. On the Edit display, move the cursor to the Instruction character of the Footnote instruction and press the Enter key. The Footnote Instruction display is shown.
2. Type an N (No) for the *Type footnote text* prompt.
3. Type the number or character of your choice in the *Reset footnote reference number* prompt.
4. Press the Enter key to return to the Edit display.

Deleting a Footnote

This section describes how to delete a Footnote instruction and all of the associated footnote text.

When a Footnote instruction is deleted, the system does not immediately delete the associated reference number and text. The document must be paginated in order

to remove the reference number assigned to the Footnote instruction and renumber the remaining footnotes.

To delete a footnote:

1. On the Edit display, move the cursor to the control character of the Footnote instruction to be deleted.
2. Press the Enter key. The Footnote Instruction display is shown with the page number for this footnote.
3. Write down the page number shown in the *System page number* prompt. You will need this number to delete the footnote text stored on a system-controlled page when doing step 6.
4. Press F16 (Delete instruction). The instruction is deleted, but the reference number and associated text are left on the Edit display until the document is paginated. You are returned to the Edit display.
5. Paginate the document:
 - a. Press F16 (Adjust/Paginate). The Select Adjust/Paginate Option display is shown.
 - b. Type a 2 (Adjust line and page endings).
 - c. Press the Enter key. The document is paginated and the reference number for that footnote is removed from the Edit display.
6. When the document is paginated, the system does not delete the page containing the associated text. To delete the text you must go to the system-controlled page and delete the entire page. If the footnote text was obtained from a document other than the one currently being edited, you must go the document that was specified on the *Document* and *Folder* prompts and delete the footnote text.

Storing Footnotes for Repeated Use

If you need to refer to the same footnotes in several different documents, you may want to store those footnotes in a separate document called a **footnote document**. By storing footnotes in a separate document, you can use the footnotes in more than one document and only type them once.

To store footnotes in a footnote document:

1. On the Edit display, type the body text until you reach the place that requires a footnote reference.
2. Press F5 (Goto).
3. Type **.fn** and press the Enter key. The Footnote Instruction display is shown.
4. Type a Y (Yes) in the *Type footnote text* prompt.
5. Type the name of the document and folder where you want to store the footnotes in the *Document* and *Folder* prompts.

Note: The document and folder must already exist.

6. Leave the *System page number* prompt blank. The system stores the footnote on the first empty page in the footnote document, starting with page 1.01. Each footnote is stored on a separate page.
7. Press the Enter key to go to the Footnote Edit display.

8. Type the footnote text.
9. Press F3 (Exit) to save the footnote text and return to the Edit display.
10. Repeat steps 1 through 9 for each footnote.

Note: Do not paginate the footnote document that contains the footnote text. If you paginate the document, each footnote may not be on a separate page. Each footnote must be on a separate page in a footnote document.

To use footnotes already stored in a footnote document:

1. On the Edit display, type the body text until you reach the place that requires a footnote reference.
2. Press F5 (Goto).
3. Type `.fn` and press the Enter key. The Footnote Instruction display is shown.
4. Type an N (No) in the *Type footnote text* prompt.
5. In the *System page number* prompt, type the page number where the footnote you want to use is stored.
6. In the *Document* and *Folder* prompts, type the names of the document and folder containing the footnote you want to use.
7. Press the Enter key to return to the Edit display. A footnote reference is placed in the text.

Note: You may want to print a copy of the footnote document so you can determine the number of the page that contains the footnote text you want to use. When printing the footnote document, specify No for the *Adjust page endings* prompt on page 2 of the Print Options display.

Using Pages Reserved for Footnote Text

In a document that contains Footnote instructions, pages 9000 and above are reserved for footnote text pages. When the Footnote instructions are resolved, the footnote text is printed at the bottom of the appropriate pages in the document, and the footnote text pages are not printed.

You can print an entire document including the footnote text pages by making the following choices on page 2 of the Print Options display.

1. Type an N (No) for the *Resolve instructions* prompt.
2. Type an N (No) for the *Adjust page endings* prompt.

You cannot use pages 9000 and above for normal text unless you delete all footnotes from the document. If you want to use pages 9000 and above for normal text:

1. Delete all Footnote instructions from the document.
2. Delete all footnote pages associated with the Footnote instructions.
3. Press F16 (Adjust/Paginate). When the Adjust/Paginate display is shown, type a 2 (Adjust line and page endings).
4. Press the Enter key and the document is paginated.

Using the Include Instruction with Footnotes

You can specify how to handle footnotes for included documents on the Merge Options display when using the Merge Document (MRGDOC) command. The *Collect footnotes in merged document* prompt on this display tells the system how to handle footnote references found in included text.

To get to the Merge Options display:

1. Type **MRGDOC** on the command line and press F4 (Prompt) and the Merge Document display is shown.
2. Type the name of the source document in the *From document* prompt.
3. Type the name of the folder where the source document is stored in the *From folder* prompt.
4. Type the name of the new document (where you want the footnotes to go) in the *To document* prompt.
5. Type the name of the folder where you want the footnotes to be stored, in the *To folder* prompt.
6. Type ***YES** for the *Change merge options* prompt.

Note: To specify ***YES** for this prompt, you must have change authority to the document.

7. Press the Enter key and the Merge Options display is shown.
8. On the Merge Options display, type a Y (Yes) for the *Collect footnotes in merged document* prompt if you want the associated footnote text for all Footnote instructions found in the included text to become part of the document created during the merge. All footnote references found in the included text are **internal references**. Internal references refer to the footnote text stored in the document that contains the Footnote instruction.

Type an N (No) for the *Collect footnotes in merged document* prompt if you want the associated footnote text for all Footnote instructions found in the included text to remain outside of the document created during the merge. All footnote references found in the included text will be **external references**. External references refer to footnote text stored in a document other than the one that contains the Footnote instruction.

Using the Get Function with Footnotes

After you use F14 (Get options) to get text that contains Footnote instructions, you must do the following for each Footnote instruction in the copied text.

1. On the Edit display, move the cursor to the instruction character of the Footnote instruction.
2. Press the Enter key and the Footnote Instruction display is shown.
3. In the *Document* and *Folder* prompts, type the name of the document and folder from which you copied the text.
4. Press the Enter key.

Chapter 11. Working with Tables and Columns

You can create columns by using the Table function, Column Mode function, or the Multiple Text Column function. The multiple text column function is most often used for text that you want to format in more than one column, similar to newspaper columns. The table function is most often used for columns of numbers, text, or a combination of both.

You can also merge columnar data stored in a file or query report into your document. For more information about column list merge, see "Copying the Data from a Query (Direct Merge)" on page 14-29 or "Using a Query to Create a Shell Document for a Column List" on page 14-30.

Using the Table Function

You can create or revise tables that contain numbers, text, or a combination of both using the table function. A table is an orderly arrangement of data in rows and columns.

Note: The table function is not supported if you are using the adapted word processing function.

When you use the Layout Table display to create and lay out the table, you can press F9 (Adjust column spacing) to have the system calculate the spacing between columns. If you later revise the table by adding, deleting, or rearranging the columns, the system recalculates the column spacing and tabs accordingly.

Notes:

1. When you print a document with a table, the entire table moves to the next page if it does not fit on the current page.
2. To check the spelling in a table, use the Column Revise display or the Create Column display. On the Column Revise display, you can press F23 (Word spell aid) only if you do *not* have any reference areas displayed. When you do spell check from the Edit display, the text in a table is not checked.

After you have created a table, you can set up reference areas to help you revise the table.

To get to the Layout Table display from the Edit display, do one of the following:

- Press F15 (Table/Columns), and select option 1 (Layout new table) or option 2 (Define existing text as a table) from the Table/Columns display.
- Press F5 (Goto), and type t1 to go directly to the Layout Table display.

To see a list of keywords that can be used to go directly to a display, press F5 (Goto) on the Edit display, and then press the Help key. The Select Goto Request display is shown. Select option 3 (Table layout and text column) and press the Enter key. The Specify Goto Requests - Table Layout/Column display is shown with a list of keywords you can use.

- Move the cursor to a Begin Table instruction and press the Enter key.

The Layout Table display is shown.

Creating a Table

To create a table in your document:

1. Move the cursor to the place in the document where you want the table to start.
2. Press F15 (Table/Columns) and the Table/Columns display is shown.

DOCNAME P:12 EDIT PG:1 LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
This is sample text that appears at the top of the Edit display when the following split screen is displayed.
This text is positioned to the top of the display based on the cursor position when the split screen display was requested.
This is sample text that appears at the top of the display.

Table/Columns

Select one of the following:

Tables

1. Layout new table

2. Define existing text as a table

Columns

3. Define multiple text columns

Selection

-

F3=Exit F12=Cancel

3. Select option 1 (Layout new table) and press the Enter key.

The Layout Table display is shown.

Layout Table CREATE

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....

Do the following:

1. To define a column that is:

Flush left: Type the longest entry.

Decimal aligned: Type the longest entry with the decimal point.

Centered: Beginning with a C, type the longest entry.

Flush right: Beginning with an R, type the longest entry.

Comma aligned: Type the longest entry with the comma.

Colon aligned: Type the longest entry with the colon.

Text (wordwrap): Beginning with a T, type the longest entry.

2. Type a / to end each column definition.

3. Repeat steps 1 and 2 for each column.

4. Press F9 to adjust space evenly between columns.

5. Press Enter to verify column definitions.

F3=Exit F5=Refresh F6=Change margins F7=Window

F9=Adjust spacing F10=Reference area F12=Cancel

4. To change the margins for a table in your document:
 - a. Press F6 (Change margins) on the Layout Table display.

A prompt appears at the bottom of the Layout Table display showing the left and right margins.

2. Type a / to end each column definition.
3. Repeat steps 1 and 2 for each column.
4. Press F9 to adjust space evenly between columns.
5. Press Enter to verify column definitions.

Type margins for table layout, press Enter. Left . . 19 Right . . 91

F12=Cancel

- b. Change the margin settings as needed, and press the Enter key.

When you return to the Edit display, the format change symbol (a highlighted F) that goes before the table will have the margins that you just specified. If you change margins in multiple text columns, the changes are ignored until the multiple text columns end.

5. Decide which type of column you need to use.

The types of columns you can use in the table are defined on the Layout Table display. The correct tab is inserted in the Begin Table instruction for each column you define. (There is no tab corresponding to a text column; this is a special column feature.) If you want more information about the types of columns, see "Changing Margins and Tabs" on page 7-8. Type the longest entry for each column. Type a slash (/) to end each column.

The following is an example of what you would type to create a table with three columns. The first column is flush left, the second column is centered (C), and the third column is decimal aligned.

longest entry col1/Clongest entry col2/12345.67/

6. Press the Enter key. If you type the columns in the example, your display looks like this:

Layout Table	CREATE														
<2.....3.....4.....C..5.....v....6..D.:....7.....8.....9>..... aaaaaaaaaaaaaaaaaa/Caaaaaaaaaaaaaaaaa/aaaaa.aa/															
Do the following: 1. To define a column that is: <table style="width: 100%; border: none;"> <tr> <td style="padding-right: 20px;">Flush left:</td> <td>Type the longest entry.</td> </tr> <tr> <td>Decimal aligned:</td> <td>Type the longest entry with the decimal point.</td> </tr> <tr> <td>Centered:</td> <td>Beginning with a C, type the longest entry.</td> </tr> <tr> <td>Flush right:</td> <td>Beginning with an R, type the longest entry.</td> </tr> <tr> <td>Comma aligned:</td> <td>Type the longest entry with the comma.</td> </tr> <tr> <td>Colon aligned:</td> <td>Type the longest entry with the colon.</td> </tr> <tr> <td>Text (wordwrap):</td> <td>Beginning with a T, type the longest entry.</td> </tr> </table> 2. Type a / to end each column definition. 3. Repeat steps 1 and 2 for each column. 4. Press F9 to adjust space evenly between columns. 5. Press Enter to verify column definitions.		Flush left:	Type the longest entry.	Decimal aligned:	Type the longest entry with the decimal point.	Centered:	Beginning with a C, type the longest entry.	Flush right:	Beginning with an R, type the longest entry.	Comma aligned:	Type the longest entry with the comma.	Colon aligned:	Type the longest entry with the colon.	Text (wordwrap):	Beginning with a T, type the longest entry.
Flush left:	Type the longest entry.														
Decimal aligned:	Type the longest entry with the decimal point.														
Centered:	Beginning with a C, type the longest entry.														
Flush right:	Beginning with an R, type the longest entry.														
Comma aligned:	Type the longest entry with the comma.														
Colon aligned:	Type the longest entry with the colon.														
Text (wordwrap):	Beginning with a T, type the longest entry.														
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">F3=Exit</td> <td style="width: 33%;">F5=Refresh</td> <td style="width: 33%;">F6=Change margins</td> <td style="width: 33%;">F7=Window</td> </tr> <tr> <td>F9=Adjust spacing</td> <td>F10=Reference area</td> <td>F12=Cancel</td> <td></td> </tr> </table> Verify or change column definitions. Press Enter.		F3=Exit	F5=Refresh	F6=Change margins	F7=Window	F9=Adjust spacing	F10=Reference area	F12=Cancel							
F3=Exit	F5=Refresh	F6=Change margins	F7=Window												
F9=Adjust spacing	F10=Reference area	F12=Cancel													

Notice that the characters you typed are replaced with lowercase a's as shown above. The a's are place holders for the column width.

7. To space the columns evenly between the margins, press F9 (Adjust spacing).

Layout Table		CREATE
<2.....3.....4.....5.....v.....C.....7.....8.....D.9>.....		
aaaaaaaaaaaaaaaaaa/	Caaaaaaaaaaaaaaaaaa/	aaaaa.aa/

Do the following:

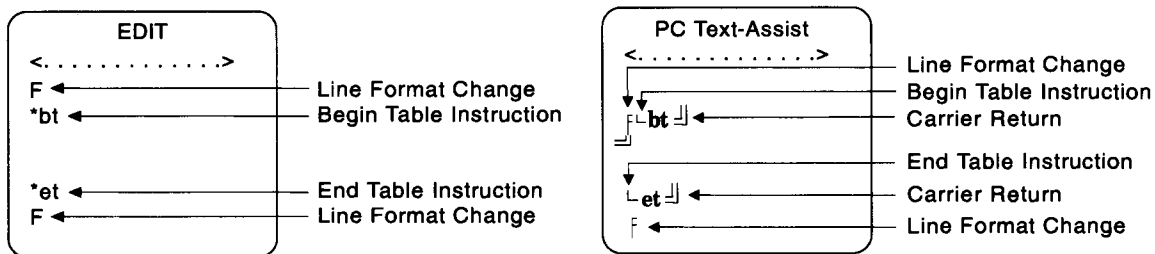
- To define a column that is.
 - Flush left: Type the longest entry.
 - Decimal aligned: Type the longest entry with the decimal point.
 - Centered: Beginning with a C, type the longest entry.
 - Flush right: Beginning with an R, type the longest entry.
 - Comma aligned: Type the longest entry with the comma.
 - Colon aligned: Type the longest entry with the colon.
 - Text (wordwrap): Beginning with a T, type the longest entry.
- Type a / to end each column definition.
- Repeat steps 1 and 2 for each column.
- Press F9 to adjust space evenly between columns.
- Press Enter to verify column definitions.

F3=Exit F5=Refresh F6=Change margins F7=Window
 F9=Adjust spacing F10=Reference area F12=Cancel

Verify or change column definitions, press Enter.

8. Press the Enter key again to return to the Edit display.

The system inserts format changes and text instructions to begin and end the table. A line format change and a Begin Table instruction are inserted at the start of the table. An End Table instruction and another line format change are inserted at the end of the table as shown below. The cursor is positioned on a blank line between the Begin and End Table instructions. If you are using the PC text-assist function and you are displaying codes, a line format change, a Begin Table instruction, and a Carrier Return are inserted at the beginning of the table. An End Table instruction and another line format change are inserted at the end of the table as shown below.



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Typing Data in a Table

After the table is created and the columns are defined on the Layout Table display, you can type the columns of data on the Edit display.

If a column is defined as a text column, type the text on the Column Revise display. For example, you have created and defined a table with four columns. The third column is a text column. Type the data for columns 1, 2, and 4, but tab over column 3 (the text column). After typing the data for columns 1, 2, and 4 on the Edit display, go to the Column Revise display to type the text in column 3. You should also check the spelling for each text column as it is created. See "Revising a Column" on page 11-9 for information on typing and checking spelling in text columns.

If you create headings for the columns in the table, the headings align with the tab you select for the column. To align headings differently (for example, a text heading for a decimal column), type the headings on a line above the Begin Table instruction. Do this after the table is created.

To enter data in a table:

1. Press the Tab key to move the cursor under the tab for the first column.
Note: If the first column is aligned at the left margin, the cursor is already in the correct position.
2. Type the information for column 1 of the first line (row 1).
3. Press the Tab key and type the information for column 2.
Repeat the above step for each column in row 1 of the table.
4. Press the Field Exit key to insert a Required Carrier Return and end row 1 of the table.
5. Repeat the above steps for each row until you have typed all of the data in the table.
6. To continue typing or changing text in a document, move the cursor down to a position after the End Table instruction and the format change symbol, but before the Page End control character, and continue typing or changing text in the document.

Notes:

1. If your columnar data does not fit on the display and you are using a 3180 display, a 3477 display, or a 3197 Model D display, press F13 (Editing options) and type a 2 (27x132) for the *Size of display* prompt. This allows you to enter up to 132 characters on the display.
2. If your columnar data does not fit on the display and you are *not* using a 3180 display or 3197 Model D display, enter all the data that fits on your display. Use F7 (Window) to shift your document and type the remaining columns. If you specify Yes for the *Auto window and roll* on the Change Editing Options display, your tabs are inserted and shifting is done automatically. If you are using the PC text-assist function, the shifting will be done automatically.
3. If you are typing columnar data that is wider than the display and you used F7 (Window), tabs on the scale at the far left or far right may be displayed as X. The X indicates the data in that column may not be aligned correctly on the display but will be printed correctly.

Creating a Table Using Existing Text

You must use tabs between the columns on each line of a table. If the text you are using to create a table does not have tabs, insert them on each line of the table.

To create a table using existing column text in your document:

1. On the Edit display, move the cursor to the first line of text you want in the table.
2. Press F15 (Table/Columns) and the Table/Columns display is shown.
3. Select option 2 (Define existing text as a table).
4. Press the Enter key and the Layout Table display is shown.

Layout Table	CREATE		
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....			
As you read the exercises in this manual, you will see numbers and words that appear in bold (darker type) in the text.			
Type them on the display as they appear in this manual.			
Do the following:			
1. To define a column that is:			
Flush left:	Type the longest entry.		
Decimal aligned:	Type the longest entry with the decimal point.		
Centered:	Beginning with a C, type the longest entry.		
Flush right:	Beginning with an R, type the longest entry.		
Comma aligned:	Type the longest entry with the comma.		
Colon aligned:	Type the longest entry with the colon.		
Text (wordwrap):	Beginning with a T, type the longest entry.		
2. Type a / to end each column definition.			
3. Repeat steps 1 and 2 for each column.			
4. Press F9 to adjust space evenly between columns.			
5. Press Enter to verify column definitions.			
F3=Exit	F5=Refresh	F6=Change margins	F7=Window
F9=Adjust spacing	F10=Reference area	F12=Cancel	

5. Type the column type or types and the largest number of characters needed for each column in the table. (See "Creating a Table" on page 11-2.)

Note: The columns you define should match the columns in the existing text.

6. Press F9 (Adjust spacing) to space the columns evenly between the margins.
7. Press the Enter key and you are returned to the Edit display. A line format change and Begin Table instruction are inserted at the start of the table.
8. Move the cursor to the last line of text you want in the table and press the Enter key.

An End Table instruction and a line format change are inserted at the end of the table.

Setting Up a Column Reference Area

After the table is created, you can set up **reference areas** for columns in the table. A reference area is a block of lines that is shown on top (top reference area) or next to (side reference area) the table column as shown below. These lines are used as reference points when you insert or revise data in the column.

With Top Reference Area

```
REVISE COLUMN P:12          EDIT          Pg:1   Ln:7
<...2.....3.....>4.....5.....6.....7.....8.....9
column heading
line 2 of heading
-----
10.82
1.53
325.44

After typing text, press F3 to save
```

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With Side and Top Reference Area

```
REVISE COLUMN          EDIT          Pg:1   Ln:7
.....1.....<...2.....3.....>4.....5.....6.....7.....
column heading
line 2 of heading
-----
January      10.82
February    1.53
March       325.44
April
May
June
July
August
September
October
November
December

After typing text, press F3 to save
```

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The data shown in the reference area is always taken from the data in the table (lines between the Begin and End Table instructions). The top reference area contains the first lines (up to 15 lines) of the column you are revising. The side reference area contains either the first column (if you are revising a column other than the first column) or all columns except the first (if you are revising the first column).

To get to the Set Up Reference Area display, do one of the following:

- On the Edit display, move the cursor to the first line of the table. Press F5 (Goto) and type **ra** for the prompt. Press the Enter key.
- On the Edit display, move the cursor to the Begin Table (bt) instruction and press the Enter key. The Layout Table display is shown. Press F10 (Reference area).
- On the Edit display, move the cursor to the first line of the table. Press F15 (Tables/Columns). The Revise Table display is shown. Select option 7 (Set up reference area). Press the Enter key.

Set Up Reference Area

Type choices, press Enter.

Side reference area	_	Y=Yes, N=No
Number of lines in top reference area	_	0-15

F3=ExitF12=Cancel

To set up a reference area:

1. Type a **Y** (Yes) for the *Side reference area* prompt, if you want a side reference area.
Type an **N** (No) if you do not want a side reference area.
2. Type the number of lines in the top reference area (0 through 15) for the *Number of lines in top reference area* prompt.
3. Press the Enter key.

When you have completed setting up the reference areas, you do not see anything in your document to indicate where the reference areas are. However, they appear on the Column Revise display when you insert or revise text in the columns.

For more information on changing text in columns, see "Revising a Column" on page 11-9.

Changing a Table

Once a table is created, you may want to make changes to it. You can change the layout of the table or you can revise the data in the table columns.

Changing the Layout of a Table

To change the layout of a table in your document:

1. Move the cursor under the Begin Table instruction and press the Enter key. The Layout Table display is shown.
2. To change the margins, press F6 (Change margins). A prompt appears at the bottom of the display showing the left and right margins. Change the margin values as needed, and press the Enter key. When you return to the Edit display, the table has the margins you just specified.
3. To change the column types and widths, type the new values over the existing ones.
4. To adjust the column spacing evenly between the margins, press F9 (Adjust spacing).
5. Press the Enter key. You are returned to the Edit display.

The margin or tab definitions on the scale line are updated to reflect the new layout of the table.

Revising a Column

When typing text in a text column, it is best to use the Column Revise display than to type the columns on the Edit display. If you type the columns on the Column Revise display, it is not necessary to tab over for each new line. Each line automatically wraps to the correct position on the next line of the display.

You can revise any type of column on the Column Revise display, but the word wrap function is only active for text columns.

To revise a column in a table:

1. On the Edit display, move the cursor under any character in the first line of the column you want to revise.
2. Press F5 (Goto), type *cr* in the *Goto* prompt, and press the Enter key.

The Column Revise display is shown. The column you selected, as well as any reference areas you defined in the table, is shown on this display.

COLUMN REVISE P:12	EDIT	Pg:1	Ln:7
	<...2.....V...3....>		
	column heading		
	line 2 of heading		
January	Spelling of words		
February	in this column		
March	will be checked.		
April	The months of the		
May	year shown on the		
June	left is the		
July	reference area		
August	that was previously		
September	defined.		
October			
November			
December			

F1=Copy	F7=Window	F14=Get	F20=Format options
F2=Move	F8=Reset	F15=Tables/Columns	F21=Nondisplay keys
F3=Exit/Save	F9=Instructions	F16=Adjust/Paginate	F22=Spell functions
F4=Find char	F11=Hyphenate	F17=Functions	F23=Word spell aid
F5=Goto	F12=Cancel	F18=Search/Replace	
F6=Find	F13=Edit options	F19=Print/View	F24=More keys

3. Make the changes to the column.

Notes:

- If you want to use any of the highlighting functions (such as underlining, bold, or overstrike), Change Font instructions, or keyboard changes in a table, you must end the function at the end of each line in the column. If you do not end it at the end of each line in a column, parts of other columns are included in the change.
- If you are using multiple text columns, you do not need to end a highlighting function, a Change Font instruction, or a keyboard change at the end of each line in a table. The system automatically does this when your document is printed.
- If you are revising a text column, all lines are shown ending in Carrier Returns, even if you previously ended the line with a Required Carrier Return. This may cause the text in the column to move together. If you do not want the text in the column to move together, use multiple text columns. For more information, see "Using Multiple Text Columns" on page 11-18.

4. To check the spelling in the column while on the Column Revise display:

Note: Use the Column Revise display to check text spelling in a table (lines between the Begin and the End Table instructions). If you do spell check on the Edit display, text in a table is not checked.

- Press F22 (Spell Functions) to show the Spell Functions display.
- Select option 1 (Spell options) to show the Spell Options display.
- Select option 1 (Spell) for the *Type of checking* prompt.
- Select option 1 (Check document) or select option 3 (Check document and locate marks) for the *Option to perform* prompt.

If you select option 1, the misspelled words are marked, but you are not prompted to replace them.

If you select option 3, the cursor is positioned at the first misspelled word.

- e. Press the Enter key.

You are returned to the Column Revise display when the spelling has been checked. Any word that was not found in one of the spelling dictionaries is marked as misspelled. If you selected option 3 (Check document and locate marks) for the *Option to perform* prompt, a list of function keys you can use to find spelling errors is shown on the bottom of the display. The following message is shown when all errors have been located:

Error marks not found from cursor to end

5. To correct a misspelled word, type over the misspelled word or press F23 (Word spell aid). If you need more information, see "Correcting Your Spelling" on page 4-7.

Notes:

- a. If you are changing only a few words, you may want to use interactive spell check.
 - b. Interactive spell checking checks only new or changed data in the table. Any misspelled words in the existing data in the table are ignored.
 - c. Interactive spell check is not supported by the PC text-assist function or the adapted word processing function.
 - d. Aid boxes are not supported on the Column Revise display if reference areas are displayed.
6. To save your changes, press F3 (Exit/Save). To cancel the changes made to the column, press F19 (Exit/No save). You are returned to the Edit display and the system automatically removes all spelling error marks from the table.
The revised column is shown in your document.
 7. Repeat the above steps for each column you are revising.

Adding an Entry to a Column

To add an entry to a column in a table:

1. On the Edit display, move the cursor under any character in the first line of the column you want to revise.
2. Press F5 (Goto), type *cr* in the *Goto* prompt, and press the Enter key.

The Column Revise display is shown and the selected column is shown on the display.

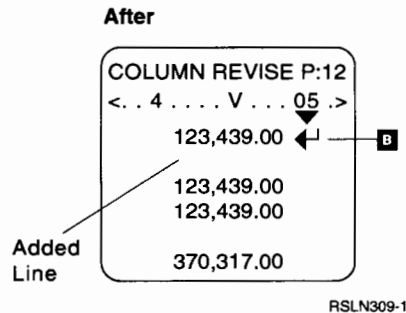
Before

COLUMN REVISE P:12	
< . 4 V . . . 05 .>	
— 123,439.00	← A
123,439.00	
123,439.00	
370,317.00	

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3. Move the cursor to the Required Carrier Return control character (indicated by the letter **A**).

- Press the Field Exit key to insert a Required Carrier Return (indicated by the letter **B**). A blank line is added to the column.



- Type the new entry for the column and press F3 (Exit/Save) to return to the Edit display.

The column is shown with the entry added.

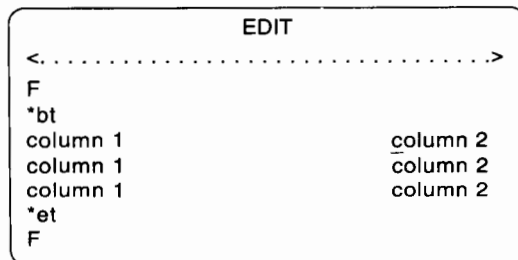
Inserting a Column in a Table

There are two things to remember when you are inserting a column in a table:

- You can only insert one column at a time.
- Do not change the definition (for example, flush left, decimal aligned) of an existing column when inserting a new column. If you do, the system cannot determine the definition of the inserted column.

To insert a new column in an existing table:

- On the Edit display, move the cursor to the first line of the table and do one of the following:
 - Move the cursor to any character in the column following the location where the new column is to be inserted.



- If you want to insert the new column after the last column in the table, move the cursor to a position on the first line of the table under the right margin symbol.

EDIT	
<.....>	
F	
*bt	
column 1	column 2
column 1	column 2
column 1	column 2
*et	
F	

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2. Press F5 (Goto), type *ci* in the *Goto* prompt, and press the Enter key.

The Layout Table display is shown. The cursor is in the blank space between the columns where the new column will be inserted. (The word *INSERT* is shown in the upper right portion of the Layout Table display.)

3. If the amount of space between the cursor and the next column is not large enough to hold the longest string of characters in the new column, you can insert additional space for the new column.

To insert additional space into a new column:

- a. Press F11 (Insert space). The *Type number of spaces to insert, press Enter* prompt is shown on the display.
 - b. Type a value that adds enough extra space to contain the width of the new column.
 - c. Press the Enter key. The requested amount of space is added at the cursor position.
4. Specify the column type and width of the new column.

The lowercase *a*'s on the Layout Table display define the original columns in the table. After you define the new column and press the Enter key, the new column is shown as lowercase *o*'s.

5. To adjust the column spacing evenly between the margins, press F9 (Adjust spacing).

6. Press the Enter key and the Column Create display is shown.

7. Type the data for the new column.

8. To check the spelling in the new column while on the Column Revise display:

- a. Press F22 (Spell functions) to show the Spell Functions display.
- b. Select option 1 (Spell options) to show the Spell Options display.
- c. Select option 1 (Spell) for the *Type of checking* prompt.
- d. Select option 1 (Check document) or select option 3 (Check document and locate marks) for the *Option to perform* prompt.

If you select option 1, the misspelled words are marked, but you are not prompted to replace them.

If you select option 3, the cursor is positioned at the first misspelled word.

- e. Press the Enter key.

You are returned to the Column Create display when the spelling has been checked. Any word that was not found in one of the spelling dictionaries is

marked as misspelled. If you selected option 3 (Check document and locate marks) for the *Option to perform* prompt, a list of function keys you can use to find spelling errors is shown on the bottom of the display. The following message is shown when all errors have been located:

Error marks not found from cursor to end

9. To correct a misspelled word, type over the misspelled word or press F23 (Word spell aid). If you need more information, see "Correcting Your Spelling" on page 4-7.
10. To cancel the changes, press F19 (Exit/No Save). To save your changes, press F3 (Exit/Save).

You are returned to the Edit display. The table is shown with the new column inserted and the system automatically removes all spelling error marks.

Deleting a Column from a Table

To delete a column from a table in your document:

1. On the Edit display, move the cursor under any character in the first line of the column you want to delete.
2. Press F5 (Goto), type `cd` in the *Goto* prompt, and press the Enter key.

The column to be deleted is highlighted. If the highlighted column is not the column you want deleted, press F8 (Reset).

3. Press the Enter key again to delete the column.

The column is deleted.

Moving or Copying a Column in a Table

To move or copy a column in a table:

1. On the Edit display, move the cursor under any character in the first line of the column you want to move or copy.
2. Press F5 (Goto), type `cm` (move) or `cc` (copy) in the *Goto* prompt, and press the Enter key.

The column to be moved or copied is highlighted. If the highlighted column is not the column you want to move or copy, press F8 (Reset).

3. Indicate where you want the column moved or copied. Move the cursor under any character in the first line of the column that will follow the moved or copied column. (The place must be in the table you are working on or in another table in the document.)

If the moved or copied column is to be inserted after the last column in a table, move the cursor to a position on the first line of the table under the right margin symbol.

4. Press the Enter key.

The column is moved or copied to the location indicated.

When a column is moved or copied and the type of column is not left aligned, the space between the end of the previous column and the column to be moved or copied is moved or copied with the column. If you do not want the extra spaces between the columns, change the layout of the table after moving

or copying the column. For information about changing the layout of the table, see "Changing the Layout of a Table" on page 11-9.

Using Column Mode

You can use **column mode** to work with columns of data even if the column is not part of a table that was created using the Layout Table display. You can alternate between normal edit mode and column mode by pressing F5 (Goto) on the Edit display and typing **C** for the *Goto* prompt.

Note: If you are using the PC text-assist function or the adapted word processing function, column mode is not supported.

Normal Edit Mode

```
DOC,
xxxxx xxxxx xxxxxxxx xxxx
F
*bt
xxxxx  xx.xx  xxxx
xxxx  xxx.xx  xxxxx
xxxx  xx.xx  xxx
xxxxx  xx.xx  xxxx
*et
F
xxxxxxxx xxx x xxxxx xxx
```

Column Mode

```
DOC,COL
xxxxx xxxxx xxxxxxxx xxxx
F
*bt
xxxxx  xx.xx  xxxx
xxxx  xxx.xx  xxxxx
xxxx  xx.xx  xxx
xxxxx  xx.xx  xxxx
*et
< .T . . T . . T . . T. >
xxxxxxxx xxx x xxxxx xxx
```

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When you are in column mode, the copy (F1), move (F2), and delete (Del) functions are temporarily changed for use with columns of data. Also, all format changes that appear in your document are displayed as **format scale lines** except those format changes before a table. These format scale lines show the margin and tab settings in effect for the corresponding format changes.

There are two ways of moving, copying, and deleting columns of data when in column mode:

1. You can copy, move, or delete the *data* in the column by marking the upper left and lower right corners of the column of data. This method is called **column** move, copy, and delete.
2. You can copy, move, or delete the *tab setting and the data below it* by marking the correct tab setting on the format scale. This method is called **format** move, copy, and delete. If your columnar data is aligned using tabs, this is the method you should use.

Using Column Copy, Move, and Delete

Note: If you are using the PC text-assist function, the column copy, move, and delete functions are not supported.

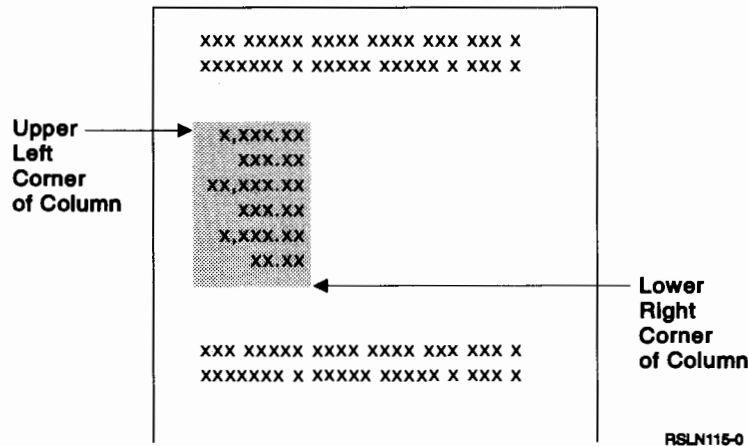
To use **column** copy, move, and delete:

1. Position the cursor in the typing area and press F5 (Goto).
2. Type a **C** to activate column mode. The characters COL appear to the right of the document name on the status line.
3. Move the cursor to the upper left corner of the column of data you want to copy, move, or delete.

If your data is underlined or highlighted, make sure you include the necessary control character.

4. Press one of the following:

- F1 if you want to *copy* the column of data
- F2 if you want to *move* the column of data
- The Delete key if you want to *delete* the column of data



5. Move the cursor to the lower right corner of the column of data.

If your data is underlined or highlighted, make sure you include the necessary control character.

6. Press the Enter key. One of the following occurs:

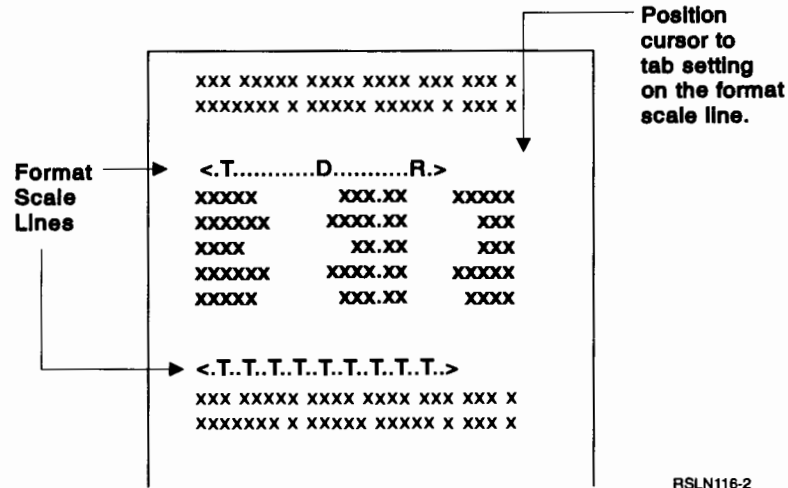
- If you are deleting the column and delete confirmation *is active*:
The whole column of data is shown in reverse image. The following message appears:
Press Enter to delete, F8 to not delete
Press the Enter key to delete the column of data.
- If you are deleting the column and delete confirmation *is not active*:
The column of text is deleted.
- If you are moving or copying the column:
 - a. The whole column of data is shown in reverse image. The following message appears:
To where? Move cursor, press Enter
 - b. Move the cursor to the position where you want the upper left corner of the column to appear after it has been moved or copied.
 - c. Press the Enter key and the column of data is moved or copied to this position and all data following it is shifted to the right.

Using Format Copy, Move, and Delete

Note: If you are using the PC text-assist function, the format copy, move, and delete functions are not supported.

To use **format** copy, move, and delete:

1. Position the cursor in the typing area and press F5 (Goto).
2. Type a **C** to activate column mode. The characters COL appear to the right of the document name on the status line, and any format changes are shown as format scale lines.
3. Move the cursor to the format scale line that appears above the column of data you want to copy, move, or delete.
4. Move the cursor to the tab setting over the column of data you want to copy, move, or delete. Press one of the following:
 - F1 if you want to *copy* the tab setting and corresponding column of data
 - F2 if you want to *move* the tab setting and corresponding column of data
 - The Delete key if you want to *delete* the tab setting and corresponding column of data



5. A prompt is shown at the bottom of the display. Leave the cursor on the tab setting and press the Enter key. One of the following occurs:
 - If you are deleting the tab setting and delete confirmation *is active*:

The whole column of data is shown in reverse image. The following message is shown:

Press Enter to delete, F8 to not delete

Press the Enter key to delete the tab setting and corresponding column of data.
 - If you are deleting the tab setting and delete confirmation *is not active*:

The tab setting and corresponding column of text are deleted.
 - If you are moving or copying the tab setting:
 - a. The whole column of data is shown in reverse image. The following message is shown:

To where? Move cursor, press Enter

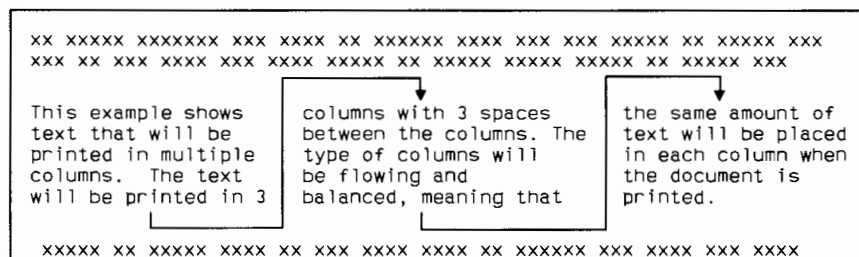
- b. Move the cursor to the position *on the same or another format scale line* in your document where you want the tab setting to appear after it has been moved or copied.
- c. Press the Enter key. The tab setting and corresponding column of data are moved or copied to this position and all data following it is shifted to the right.

Using Multiple Text Columns

While you are creating or revising a document, you may want to format and print the text into more than one column. You can do this using the multiple text columns function. You can let the system decide where the columns should end or you can specify where you want the columns to end. If you are using the PC text-assist function, see "Using the PC Text-Assist Function to Create Multiple Text Columns" on page 18-11.

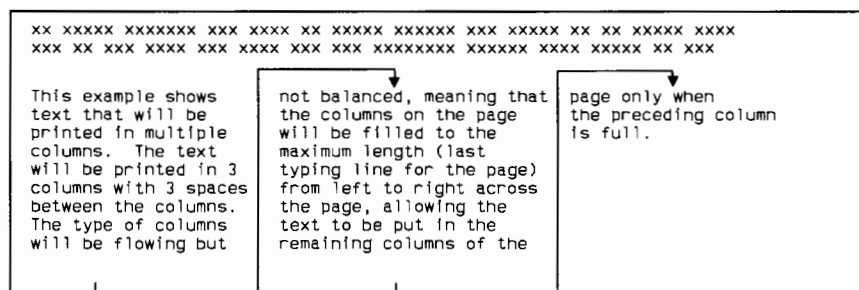
You can format text into one of four types of multiple text columns:

- **Flowing and balanced** columns format the text into columns of equal width and as even as possible in length. To specify this type of column, see "Using Flowing and Balanced Columns" on page 11-20.



RSLN327-1

- **Flowing but not balanced** columns format the text into columns of equal width, with the text filling the first column, then filling the next column. This continues across the page with text flowing into a new column only when all preceding columns are filled (reached the last typing line). To specify this type of columns, see "Using Flowing but Not Balanced Columns" on page 11-22.



RSLN328-0

- **Related** columns format the text into columns of equal width, but you decide where the next column starts by inserting a Next Text Column instruction (.ntc)

in the text. Text does not automatically flow from one column to the next. To specify this type of column, see “Using Related Columns with Equal Width” on page 11-22.

```

xx xxxx xxxxxxxx xxx xxxxxxxx xx xxxx xx xxxxxx xxx xxxxx xxxx xx
xxx xx xxx xxxxx xxx xxxxx xx xxxxxxxx xxxxx xxx xxxxxx xxxxx xxx xxx

```

This example shows text that will be printed in multiple columns. The text will be printed in 3 columns with 3 spaces between the columns.

The type of column is related, meaning that YOU determine where each column will end.

YOU can vary the amount of text in each column.

RSLN329-2

- **Related columns with variable column widths** format the text according to the widths that you specify. The columns are aligned horizontally across the page. Text does not flow from one column to the next. You must insert a Next Text Column instruction (.ntc) where you want the next column to start. To specify this type of column, see “Using Related Columns with Variable Width” on page 11-24.

```

xx xxxxx xxxxx xxx xxxxx xx xxxxx xxx xx xxxxx xxx xx xxxxx xxx xxxxx xx
xxx xx xxx xxxxx xxx xxxxx xxx xxxxx xxx xx xxxxx xxx xxxxx xxx xxxxx

```

This example shows text that will be printed in multiple columns. The text will be printed in 3 columns with 3 spaces between the columns.

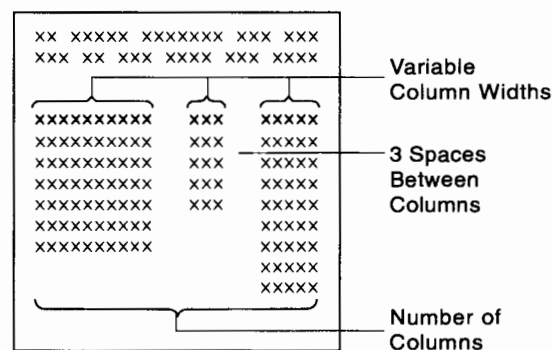
The type of column is related with variable column widths.

YOU determine where each column will end. In this example, the second column is the narrowest and the third column is the widest and the shortest.

RSLN330-1

For information about special considerations when using the PC text-assist function with multiple text columns, see “Using the PC Text-Assist Function to Create Multiple Text Columns” on page 18-11.

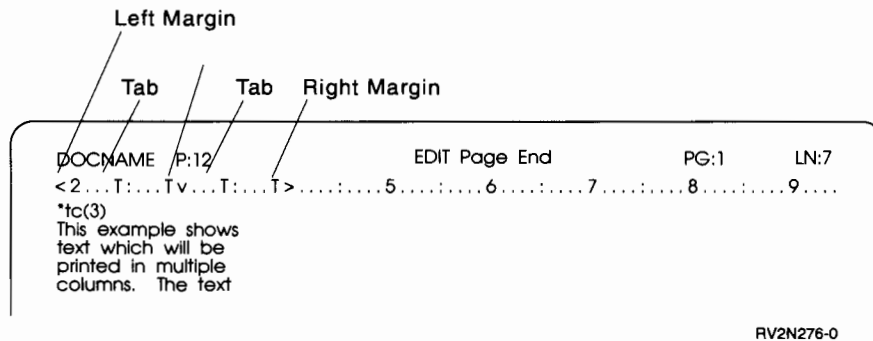
Before you can type the text for multiple columns, you must first define the columns by specifying the type of columns, the number of columns, and the number of spaces between columns.



RSLN331-0

After you have defined the text columns, you type the text columns on the Edit display just as you would type normal text. While you are typing text columns, the

system displays the text in only one column. The system also displays the scale line with the margins, the center position, and tab stops.



You can do highlighting, such as bold and underline, within your text columns, and you can also use instructions in the text columns. You do not need to end the highlighting functions at the end of each line within the column.

Using Flowing and Balanced Columns

Before typing the text, you must first define the type of columns, the number of columns, and the number of spaces between columns.

To define flowing and balanced columns:

1. Position the cursor where you want the multiple text columns to start.
2. Press F5 (Goto) and type `mtc` for the prompt.
3. Press the Enter key. The Define Multiple Text Columns display is shown.

```

DOCNAME P:12          EDIT Page End          PG:1      LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
This is sample text that appears at the top of the Edit display when the
following split screen is displayed. This text is positioned to the top
of the display based on the cursor position when the split screen
display was requested. This is sample text that appears at the top of
the display.
  
```

mtc **Define Multiple Text Columns**

Type choices, press Enter.

Number of columns	—	1-12
Number of spaces between columns		1-99
Type of columns	1	1=Flowing and balanced 2=Flowing but not balanced 3=Related 4=Related with variable width

F3=Exit F12=Cancel

4. Type the number of columns you want printed across the page for the *Number of columns* prompt.
5. Type the number of spaces you want between columns for the *Number of spaces between columns* prompt.
6. Select option 1 (Flowing and balanced) for the *Type of columns* prompt.

7. Press the Enter key. The Confirm Text Columns display is shown.

```
DOCNAME P:12                EDIT Page End          PG:1        LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
0000000000000000000000    00000000000000000000    00000000000000000000
```

Confirm Text Columns

The layout for text columns is shown above.

Press Enter to confirm the layout for your text columns.
Press F12 to return to change your choices.

F7=Window F12=Cancel F20=Format options

If you want to change the layout of the columns, you can press F12 (Cancel) to return to the Define Multiple Text Columns display, or you can press F20 (Format options) to change the format.

8. Press the Enter key to confirm the layout and return to the Edit display. A special format change (tc) followed by the number of columns is inserted. The cursor is positioned on the line following the special format change (tc).

Note: The character shown before the `tc` depends on the type of display station you are using. On some displays, the character looks like a dot and on another display it is shown as a blank. The `tc` is always inserted on a new line above the cursor. If the cursor is in the middle of a line within text, the `tc` is still inserted on a new line above the cursor.

To type the text for flowing and balanced columns:

1. Type the text columns on the Edit display just as you would type normal text.
2. When you have finished typing the text for the columns and you want to return to printing text in a single column, do one of the following:
 - Press F5 (Goto) and type `stc` for the *Goto* prompt.
 - Press F15 (Table/Columns) and select option 4 (Return to a single text column).
3. Press the Enter key.

A special format change `tc(1)` is inserted in your document to mark the end of multiple text columns. Text following this special format change `tc(1)` no longer prints in multiple text columns.

Using Flowing but Not Balanced Columns

Before typing the text, you must first define the type of columns, the number of columns, and the number of spaces between columns.

To define flowing but not balanced columns:

1. Position the cursor where you want the multiple text columns to start.
2. Press F5 (Goto) and type `mtc` for the prompt.
3. Press the Enter key. The Define Multiple Text Columns display is shown.
4. Type the number of columns you want printed across the page for the *Number of columns* prompt.
5. Type the number of spaces you want between columns for the *Number of spaces between columns* prompt.
6. Select option 2 (Flowing but not balanced) for the *Type of columns* prompt.
7. Press the Enter key. The Confirm Text Columns display is shown.

If you want to change the layout of the columns, press F12 (Cancel) to return to the Define Multiple Text Columns display, or you can press F20 (Format options) to change the format.

8. Press the Enter key to confirm the layout and return to the Edit display. A special format change (`tc`) followed by the number of columns is inserted. The cursor is positioned on the line following the special format change (`tc`).

Note: The character shown before the `tc` depends on the type of display station you are using. On some displays, the character looks like a dot and on another display it is shown as a blank. The `tc` is always inserted on a new line above the cursor. If the cursor is in the middle of a line within text, the `tc` is still inserted on a new line above the cursor.

To type text for flowing but not balanced columns:

1. Type the text columns on the Edit display just as you would type normal text.
2. When you have finished typing the text for the columns and you want to return to printing text in a single column, do one of the following:
 - Press F5 (Goto) and type `stc` for the *Goto* prompt.
 - Press F15 (Table/Columns) and select option 4 (Return to a single text column).
3. Press the Enter key.

A special format change `tc(1)` is inserted in your document to mark the end of multiple text columns. Text following this special format change `tc(1)` no longer prints in multiple text columns.

Using Related Columns with Equal Width

Before typing the text, you must first define the type of columns, the number of columns, and the number of spaces between columns. You can type more Next Text Column (`ntc`) instructions than the number of columns defined. If the number of instructions typed is more than the number of columns defined, a new column set is started. If related columns are at the top of the page and do not fit on the current page, the columns print past the last typing line. Whenever you place an `ntc` instruction within related columns, the start of the next column does not change

when the document is printed or paginated. You must delete any unwanted Next Text Column instructions within related columns because the system does not remove these instructions during pagination.

Note: Widow lines are not removed even if you specify No for the *Allow widow lines* prompt on the Print Options display.

To define related columns with equal width:

1. Position the cursor where you want the multiple text columns to start.
2. Press F5 (Goto) and type `mtc` for the prompt.
3. Press the Enter key.

The Define Multiple Text Columns display is shown.

4. Type the number of columns you want printed across the page for the *Number of columns* prompt.
5. Type the number of spaces you want between columns for the *Number of spaces between columns* prompt.
6. Select option 3 (Related) for the *Type of columns* prompt.
7. Press the Enter key. The Confirm Text Columns display is shown.

If you want to change the layout of the columns, press F12 (Cancel) to return to the Define Multiple Text Columns display, or you can press F20 (Format options) to change the format.

8. Press the Enter key to confirm the layout and return to the Edit display. A special format change (`tc`) followed by the number of columns is inserted. The cursor is positioned on the line after the special format change (`tc`).

Note: The character shown before the `tc` depends on the type of display station you are using. On some displays, the character looks like a dot and on another display it is shown as a blank. The `tc` is always inserted on a new line above the cursor. If the cursor is in the middle of a line within text, the `tc` is still inserted on a new line above the cursor.

To type text for related columns with equal width:

1. Type all of the text for the first column.
2. Specify where the next column will start by placing a Next Text Column instruction (`ntc`) at the end of the column in one of the following ways:
 - Press F5 (Goto) and type `ntc` for the prompt. Press the Enter key.
 - Press the Alt key plus the D key.
 - Press F15 (Tables/Columns) and select option 5 (Start next text column).

A Next Text Column instruction (`ntc`) is inserted at the cursor position on a line by itself (unless you are using the PC text-assist function).

Notes:

- a. The left margin on the scale line does not change, but the right margin on the scale line shows the width that the text appears on the display.
- b. When you specify more than one column, the text appears in one long column on the display, but prints in more than one column.

```

MTC P:12                      Edit                      Pg:7      Ln:23
<2...Tv...T3>.....4.....5.....6.....7.....8.....9.....
tc(3)
This is the
first column.
*ntc
This is the
text for the
second column.
As you can see,
the text for
the second col-
umn is still in
one long column
on the Edit
display.

```

3. Type the text for the next column.

If you want to print a blank column, insert two Next Text Column instructions, one after the other. A Carrier Return is inserted between the two Next Text Column instructions. If you type a Next Text Column instruction *before* or *after* a text column format change (tc), a Carrier Return is inserted between the text column format change and the Next Text Column instruction.

4. Repeat steps 2 and 3 for each text column.

Do not place a Next Text Column instruction after the last column unless you want the last column to be blank.

5. When you have finished typing the text for your columns and you want to return to printing text in a single column, do one of the following:

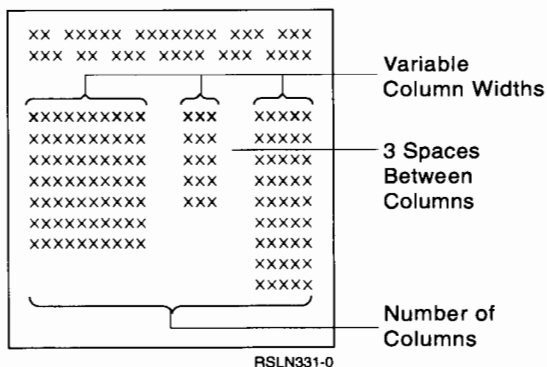
- Press F5 (Goto) and type `stc` for the prompt.
- Press F15 (Table/Columns) and select option 4 (Return to a single text column).

6. Press the Enter key.

A format change `tc(1)` is inserted in your document to mark the end of multiple text columns. Text following this special format change `tc(1)` will no longer print in multiple text columns.

Using Related Columns with Variable Width

Before typing the text, you must first define the type of columns, the number of columns, and the number of spaces between columns. You must also define the widths of the columns.



You can type more Next Text Column (ntc) instructions than the number of columns defined. If the number of instructions typed is more than the number of columns defined, a new column set is started. If related columns are at the top of the page and do not fit on the current page, the columns print past the last typing line. Whenever you place an ntc within related columns, the start of the next column does not change when the document is printed or paginated. You must delete any unwanted Next Text Column instructions within related columns because the system does not remove these instructions during pagination.

Note: Widow lines are not removed even if you specify No for the *Allow widow lines* prompt on the Print Options display.

To define related with variable width columns:

1. Position your cursor where you want the multiple text columns to start.
2. Press F5 (Goto) and type `mtc` for the prompt.
3. Press the Enter key. The Define Multiple Text Columns display is shown.
4. Type the number of columns you want printed across the page for the *Number of columns* prompt.
5. Type the number of spaces you want between columns for the *Number of spaces between columns* prompt.
6. Select option 4 (Related with variable width) for the *Type of columns* prompt.
7. Press the Enter key. The Define Related Column Width display is shown. The display is shown with the layout for the number of columns you specified.
8. Type the width you want for each of your columns for the *Width* prompts.

For example, if you wanted the first column to be 18 spaces wide, the second column to be 12 spaces wide, and the last column to be 8 spaces wide, you would type it as follows:

DOCNAME P:12
EDIT Page End
PG:1
LN:7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
 000000000000000000000000 000000000000000000000000 000000000000000000000000

Define Related Column Width

The layout for text columns is shown above.

Type information, press Enter.

Column	Width
1	18
2	12
3	8

F3=Exit
F7=Window
F12=Cancel
F20=Format options

9. Press the Enter key. The Confirm Text Columns display is shown with the layout for your text columns.

To change the layout of the columns, press F12 (Cancel) to return to the Define Related Column Width display, where you can change the widths you defined. To change the number of columns, spaces between columns, or types of columns, press F12 (Cancel) again to return to the Define Multiple Text Columns display. You can also press F20 (Format options) to change the format.

10. Press the Enter key to confirm the layout and return to the Edit display. A special format change (tc) followed by the number of columns is inserted. The cursor is positioned on a new line following the special format change(tc).

Note: The character shown before the tc depends on the type of display station you are using. On some displays, the character looks like a dot and on another display it is shown as a blank. The tc is always inserted on a new line above the cursor. If the cursor is in the middle of a line within text, the tc is still inserted on a new line above the cursor.

To type text for related with variable width:

1. Type all of the text for the first column.
2. Specify where the next column starts by placing a Next Text Column instruction (ntc) at the end of the column in one of the following ways:
 - Press the Alt key plus the D key.
 - Press F15 (Tables/Columns) and select option 5 (Start next text column).
 - Press F5 (Goto) and type ntc for the prompt. Press the Enter key.

A Next Text Column instruction (ntc) is inserted at the cursor position on a line by itself (unless you are using the PC text-assist function).

Notes:

- a. The left margin on the scale line does *not* change. The right margin on the scale line shows the width of the next column you are going to type.
- b. When you specify more than one column, the text appears in one long column on the display but prints in more than one column.

```

MTC P:12                      Edit                      Pg:7      Ln:23
<2...Tv...T3>.....4.....5.....6.....7.....8.....9.....
tc(3)
This is the
first column.
*ntc
This is the
text for the
second column.
As you can see,
the text for
the second col-
umn is still in
one long column
on the Edit
display.
```

3. Type the text for the next column.

If you want to print a blank column, insert two Next Text Column instructions, one after the other. A Carrier Return is inserted between the two Next Text Column instructions. If you type a Next Text Column instruction *before* or *after* a text column format change (tc), a Carrier Return is inserted between the text column format change and the Next Text Column instruction.

4. Repeat steps 2 and 3 for each text column.

Do not place a Next Text Column instruction after the last column unless you want the last column to be blank.

5. When you have finished typing the text for your columns and want to return to printing text in a single column, do one of the following:

- Press F5 (Goto) and type `stc` for the prompt.
- Press F15 (Table/Columns) and select option 4 (Return to a single text column).

6. Press the Enter key.

A special format change `tc(1)` is inserted in your document to mark the end of multiple text columns. Text following this special format change `tc(1)` will no longer print in multiple text columns.

Changing Formats in Multiple Text Columns

To make changes for the entire document, you change the document format or the alternate format.

To make format changes for a part of the document (for example, to change margins for just a portion of the document), you insert a page or line format change. For more information about these types of format changes, see “Making Format Changes” on page 7-2.

You can change the lines per inch or lines per centimeter in multiple text columns using a *page* format change, but you cannot change the lines per inch or lines per centimeter using a *line* format change in multiple text columns. If you do, the *Lines per inch* value in the page format is used and the line format change is ignored until the multiple text columns end or until there is a page format change in the multiple text columns.

You cannot change the value for the *Print as spaces* prompt on the Line Spacing/Justification Options display using a line format change in multiple text columns. If you do, the *Print as spaces* value in the page format is used and the line format change is ignored until the text columns end or until there is a page format change in the text columns.

Changing to the document format or the alternate format ends multiple text columns. Any active running heading defined within text columns is also canceled.

Any changes that you make to the margins within multiple text columns by a line or page format change are ignored until the multiple text columns end.

You can change formats while you are defining multiple text columns. You can also insert format changes within the text of multiple text columns. For more information about inserting format changes, see “Making Format Changes” on page 7-2.

To change the format when defining the text columns:

1. On the Confirm Text Columns display or the Define Related Column Width display, press F20 (Format options).

The Format Change Options display is shown. The items on the Format Change Options display vary, depending on the position of the cursor when you request to define the multiple text columns.

If your cursor is positioned at the top of the page, you can make any of the following format changes:

- Document Options
- Margins and Tabs
- Line Spacing/Justification
- Typestyle/Color
- Page Layout/Paper Options
- Header
- Footer
- Even/Odd Headers and Footers
- Reset Format

If the cursor is not at the top of the page when you requested to define multiple text columns, you can only change Document Options, Margins and Tabs, Line Spacing/Justification, Typestyle/Color, or Reset Format.

2. Select the items you want to change, go to the display for each item, and make the necessary changes.
3. Press F3 (Exit) to return to the Confirm Text Columns display or the Define Related Column Width display. Any margin or tab changes are shown on the scale line.

Changing the Definition of Multiple Text Columns

After you have text columns typed into your document, you may want to change the layout of the text columns.

To change the definition of existing text columns:

1. Move the cursor under the text column format change (tc).
2. Press the Enter key. The Define Multiple Text Columns display is shown.
3. Make the desired changes to the number of columns, spaces between columns, or type of columns.
4. If you want to change the width of the columns for related columns with variable width:
 - a. Press the Enter key to show the Define Related Column Width display.
 - b. Specify the width for each column.
5. Press the Enter key. The Confirm Text Columns display is shown with the layout for your text columns.
6. Press the Enter key again to use the changed column layout you specified and return to the Edit display.

Notes:

1. If you change the number of columns on the Define Multiple Text Columns display, the width for each column is calculated again for all types of columns.
2. If you change the type of columns on the Define Multiple Text Columns display, the width for each column is calculated again for all types of columns.
3. If you change only the number of spaces between columns on the Define Multiple Text Columns display, the width for each column is calculated again if the *Type of columns* is 1 (Flowing and balanced), 2 (Flowing but not balanced), or 3 (Related).

If the *Type of columns* is 4 (Related with variable width), the width for each column is not calculated again, and the Define Related Column Width display is shown with the new number of spaces between columns.

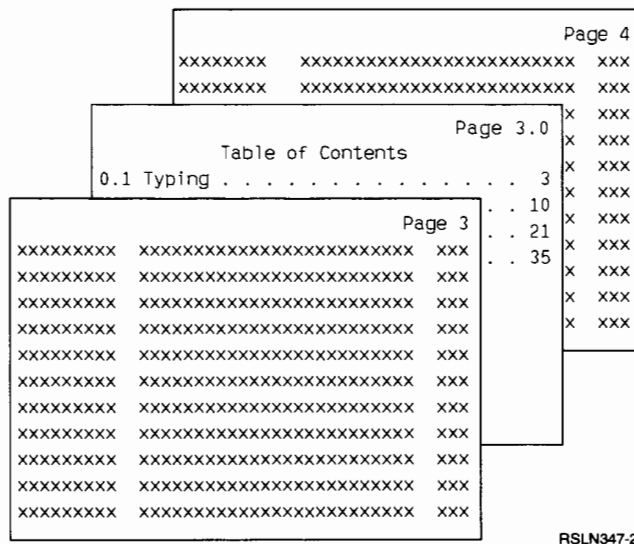
Moving Around within Text Columns

Use F5 (Goto) to find a specific page or line in your text columns. Use F4 (Find character) or F6 (Find) to find a specific character, word, or phrase in your text columns. You can use F18 (Search/Replace) to find a word or phrase and replace it with another word or phrase. For more information about moving within text columns, see "Moving Around in the Document" on page 3-25. If you are using the PC text-assist function, see "Moving through Multiple Text Columns" on page 18-17.

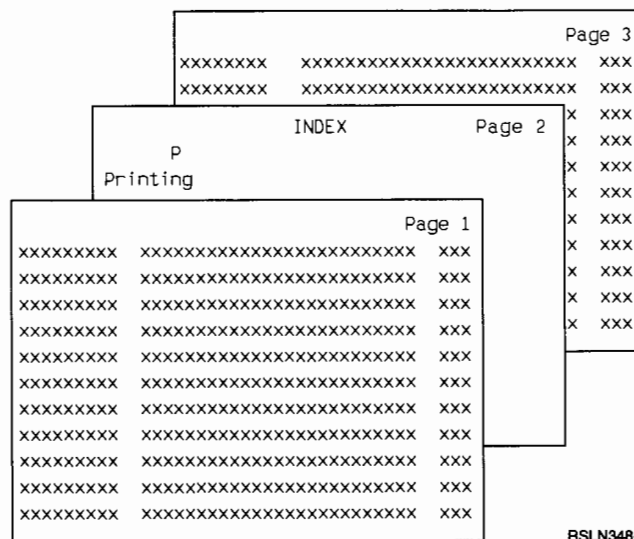
Using Text Instructions in Multiple Text Columns

Most instructions can be used in text columns. However, the following instructions work differently in multiple text columns:

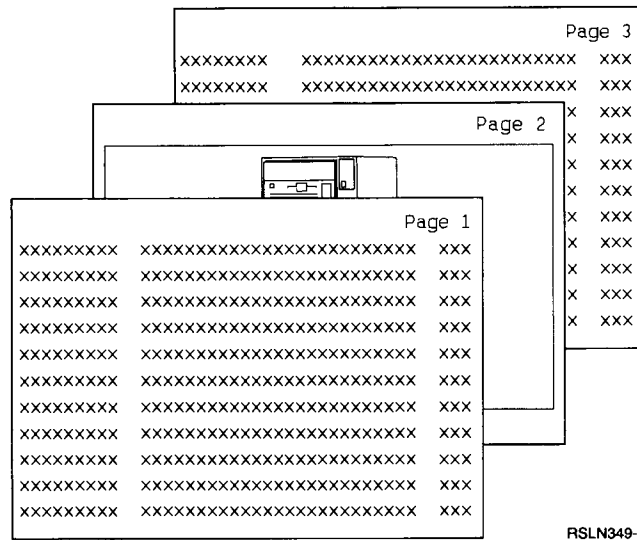
- The Skip to Line (.stl) and the Help Text Label (.help) instructions are not allowed in text columns. You cannot use the Help Text Label (.help) instruction anywhere within the document if you have multiple text columns within the document.
- If there is a Skip (.sk) instruction within multiple text columns that extends past the last typing line, you receive an error message on the error log and lines are skipped up to the last typing line.
- If there is a Table of Contents (.toc) instruction within multiple text columns, the table of contents prints in a single column and the multiple text columns continue after the table of contents as shown below. If you are using **related with variable width** columns, and you type a Table of Contents (.toc) instruction, press the Alt key plus the P key to start a new page. This corrects the margins on the Edit display.



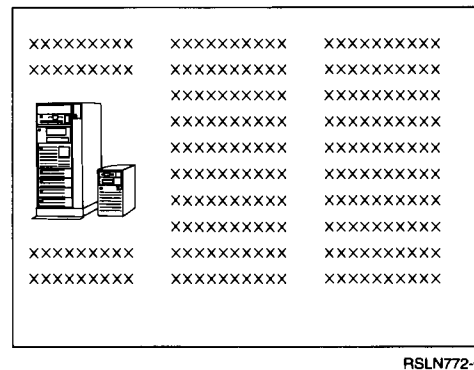
- If there is an Index instruction within the text columns, the index prints in a single column and the multiple text columns continue after the index as shown below. If you are using **related with variable width** columns and you type an Index Instruction (.ix), press the Alt key plus the P key to start a new page. This corrects the margins on the Edit display.



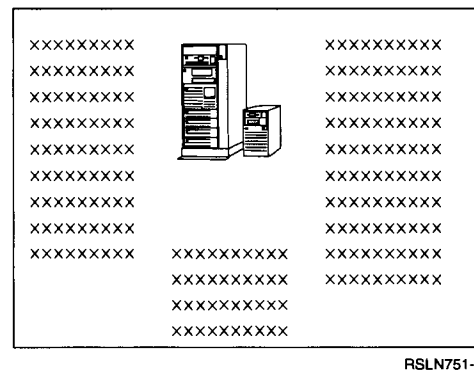
- If there is a Graphic instruction within a text column and you specified No for the *Print with text* prompt on the Graphic Instruction display, the graphic prints in a single column on a separate page and the multiple text columns continue after the graphic as shown below. If you are using **related with variable width** columns and you type a Graphic instruction (.gr), press the Alt key plus the P key to start a new page. This corrects the margins on the Edit display.



If there is a Graphic instruction within a text column and you specified Yes for the *Print with text* prompt on the Graphic Instruction display, the graphic prints in one of the columns and the text continues after the graphic as shown below.



If the graphic is too wide, the graphic prints over the text of the next column. If it is too long, it is adjusted to the next column and is the first item in that column.



- If the Graphic instruction has nothing specified for the *Indent from paper edge* prompt, the graphic is printed at the left edge of the columns. If the Graphic

- Graphic (.gr) (If you specify No for the *Print with text* prompt on the Graphic Instruction display)

If you want the running heading to continue after the instruction, you must type the running heading again after the Table of Contents instruction, the Index instruction, or the Graphic instruction.

Printing Multiple Text Columns

You can print multiple text columns either to your display or on your printer. To have text printed in multiple columns when the document is printed, specify a Y (Yes) for the *Adjust page endings* and *Adjust line endings* prompts on the Print Options display.

If you do not request to allow widow lines, the widow lines are removed from the end of **flowing and balanced** or **flowing but not balanced** columns. Widow lines are never removed from related columns.

If you put a Required Carrier Return or Carrier Return right after a full column of **flowing and balanced** or **flowing but not balanced** columns, it is placed at the bottom of the current column. If you want to insert blank lines in a column, put a blank before the Required Carrier Return or Carrier Return.

If you change line spacing in text columns, the line spacing for the text columns uses the lowest common denominator of line spacing in the text columns. For example, if you use both single spacing and 1-1/2 spacing in the text columns, the lowest common denominator is 1/2 spacing. Therefore, you must print to a printer which supports 1/2 spacing.

Note: If you use 1-1/2 spacing or 2-1/2 spacing and have a graphic or skip instruction in the text columns, you must print to a printer which supports 1/2 spacing.

If you request to print line numbers and revision symbols on the Print Options display, the text within the multiple text columns does not have line numbers or revision symbols as shown below.

0001 This document has two lines before the multiple text columns begin.		
0002 This type of columns used in this example is related.		
The multiple text columns do not have line numbers or revision symbols.	Multiple text columns format into the width you defined.	You decide where each new column will start by inserting a Next Text Column instruction.
0003 This is the first line of text after the multiple text columns.		
0004 Notice that there are no line numbers or revision symbol characters to		
0005 the left of the multiple text columns.		

RV2N277-0

You can save resolved output when printing a document with text columns. You should not edit or display this resolved output because it is not very readable. Editing the resolved output of a document that contains Multiple Text Column (mtc) instructions can also cause the resolved output to print incorrectly.

To view the resolved output that contains Multiple Text Column (mtc) instructions, do one of the following:

- Press F19 (Print/View Options) and the Select Print/View Options display is shown. Select option 3 (View printed output using split display) and press the Enter key.

Note: If you are not using the PC text-assist function, you may see extra instruction characters in your text.

- On the Exit Document display:
 1. Type a Y (Yes) for the *Print document* and *Display print options* prompts.
 2. Press the Enter key.

Page 1 of the Print Options display is shown.
 3. Type a 2 (Display) for the *Output device* prompt and press the Enter key.

Your document is displayed at your work station.
 4. Press F3 (Exit) when you have completed looking at the document.

No error log page is added when this method is used to display your printed output.

Chapter 12. Using Math with Rows and Columns

You can find the total, average, high value, low value, or count of a column or row of numbers using the **Summary Math instructions**. These are text instructions; therefore, you see the results only when the document is printed or when you press F19 (Print/View Opts).

Before Printing						After Printing					
Number of Listings 1st Qtr. 1986						Number of Listings 1st Qtr. 1986					
	Jan	Feb	Mar	Total			Jan	Feb	Mar	Total	
Tom	8	15	22	*tot		Tom	8	15	22	45	
Ron	7	11	15	*tot		Ron	7	11	15	33	
Sue	12	17	21	*tot		Sue	12	17	21	50	
Lou	11	15	30	*tot		Lou	11	15	30	56	
Ray	6	10	19	*tot		Ray	6	10	19	35	
Me1	10	16	26	*tot		Me1	10	16	26	52	
				*tot							
Ave.	*avg	*avg	*avg	*high		Ave.	9	14	22	22	
Total listings = *&grand						Total listings = 271					
High month ave = *&niavg						High month ave = 22					

RSLN119-0

Summary Math instructions can be placed below a column of numbers, or to the right of a row of numbers. You specify the direction of the calculation (column or row) when you insert the instruction. Calculation on a column starts on the line above the instruction and continues upward until no more numbers are found. Calculation on a row starts to the left of the instruction and continues to the left until no more numbers or the start of a line is found.

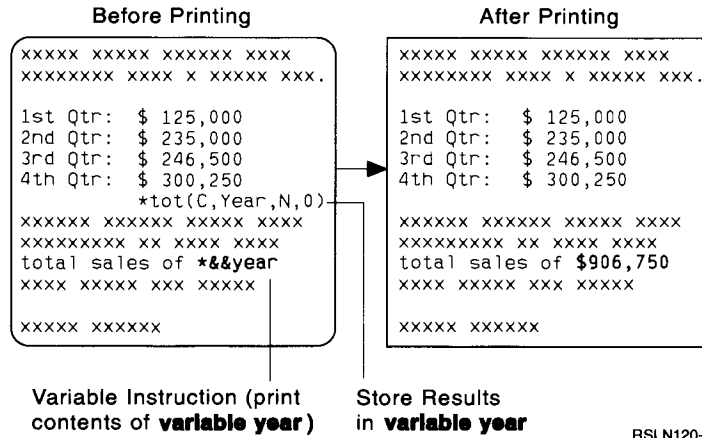
The five Summary Math instructions are:

Total	.tot
Average	.avg
High value	.high
Low value	.low
Count	.cnt

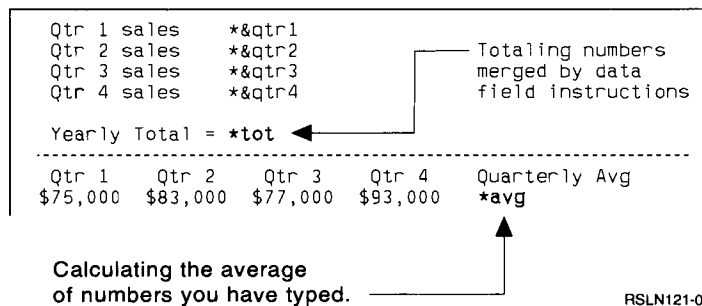
A null value from a query encountered during summary math instructions is ignored. For example, if you are averaging the numbers 100, 50, and a null, the result is 75; not 50.

Using the Summary Math instructions, you can:

- Print the result where the instruction is located.
- Store the result in a document variable and print it somewhere else in the document.
- Print the result now and store it in a document variable for later use.



You can use Summary Math instructions for calculations on numbers created using one of the merge functions as well as numbers that you type into your document. For example, you can place a Total instruction (.tot) below a column of data that contains numbers merged from a file, query, or fill-in document. When the document is printed, the numbers are inserted into your document where the Data Field instructions are located and the numbers totaled.



For more information about merging information and data field instructions, see "Using Data/Text Merge" on page 14-10.

Typing Numbers to Be Processed by Summary Math

Calculation on a row of numbers starts to the left of the instruction and continues from right to left until no more numbers or the start of a line is found. Therefore, the Summary Math instruction should be typed to the right of the row of numbers. The numbers in the row must be separated by one or more blanks or a tab.

Calculation on a column of numbers starts on the line above the instruction and continues up until no more numbers are found. Therefore, the Summary Math instruction should be under at least one digit of each number in the column.

Numeric Field Editing

The numbers used in a Summary Math instruction must have the same numeric field editing as specified for the result of the calculation.

If you do not specify numeric editing on the Summary Math Instruction display, the information about numeric field editing in the active text profile is used. The default values for numeric field editing in the system profile are based on the defaults for your country.

You can specify numeric field editing for the result of the calculation by pressing F5 (Numeric editing) on the Summary Math Instruction display. Page 1 of 2 of the Numeric Field Editing Options display is shown.

DOCNAME P:12

EDIT Page End

PG:1

LN:7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....

First Quarter: 125,000.

Second Quarter: 235,000.

Third Quarter: 246,000.

Fourth Quarter: 300,250.

Numeric Field Editing Options

Page 1 of 2

Type choices, press Enter.

Decimal point 1

Thousands separator 2

Show negative sign N

For choice Y=Yes:

Left negative sign

Right negative sign

1=. 2=, 3=: 4=\$ 5=None

1=. 2=, 3=' 4=Blank 5=None

Y=Yes, N=No

More...

F3=Exit

F12=Cancel

F16=Delete editing for this field

Use the following guidelines when you type numbers to be used in a Summary Math instruction:

- For the *Decimal Point* prompt, the decimal point must be the same as specified for numeric field editing. If you do not specify numeric editing, the default decimal point for your country is used. The decimal point specified in the active text profile is not used if it is different from the one for your country.
- For the *Thousands separator* prompt, the thousands separator must be the same as the numeric field editing.

Note: If you type a 4 (=Blank) for this prompt, the thousands separator used is a required space.

- For the *Left negative sign* and the *Right negative sign* prompts, type negative numbers the same way as specified for numeric field editing. Negative numbers can also be specified using the following methods:
 - A minus sign on the left; for example, -12
 - A minus sign on the right; for example, 12-
 - A CR sign on the right; for example, 12CR

- Parentheses around the number; for example (12)
- Less than and greater than sign around the number; for example <12>

Avoid using blanks or only digits in the left or right negative sign prompts.

Press the Page Down key to see more numeric field editing options. Page 2 of 2 of the Numeric Field Editing Options display is shown.

DOCNAME P:12
EDIT Page End
PG:1
LN:7

<2...T:...T3...T:...T4...T:...T5...T:...T6...T:...T7...T:...T8...T:...T9>.....
 This is sample text that appears at the top of the Edit display when the
 following split screen is displayed. This text is positioned to the top
 of the display based on the cursor position when the split screen
 display was requested. This is sample text that appears at the top of
 the display.

Numeric Field Editing Options
Page 2 of 2

Type choices, press Enter.

Show currency symbol	N	Y=Yes, N=No
For choice Y=Yes:		
Left currency symbol	\$	
Right currency symbol		
Print zero value	Y	Y=Yes, N=No
Replace leading zeros	Y	Y=Yes, N=No
For choice Y=Yes:		
Replace with	1	1=Blanks
		2=Asterisks
		3=Floating currency symbol
Show single leading zero	N	Y=Yes, N=No

F3=Exit
F12=Cancel
F16>Delete editing for this field

Bottom

Use the following guidelines when you type numbers to be used on page 2 of Summary Math instruction:

- For the *Left currency symbol* and *Right currency symbol* prompts, the currency symbol in the numbers must be the same as the currency symbol on the Numeric Field Editing display.

If you specify **N** (No) for the *Show currency symbol* prompt on the Numeric Field Editing display, the system value for the currency symbol is used in the calculation. If you do not know what the system value is for the currency symbol, type the Display System Values (DSPSYSVAL) command on the command line and press F4 (Prompt) for more information. The name of the system value is QCURSYM.

If you want to change the system value for the currency symbol, type the Change System Values (CHGSYSVAL) command on the command line and press F4 (Prompt) for more information. The name of the system value is QCURSYM. These commands are discussed in detail in the *CL Reference* manual.

Avoid using blanks or only digits in the left or right currency symbol prompts.

- Leading blanks are allowed between the numbers and the left negative sign or the left currency symbol.

Example 1:

```

1.000.000,03
- 2.000.000,04
x̄tot

```

Creates a result of -1.000.000,01 if you specify the following values on the Numeric Field Editing display:

```

Decimal point = ,
Thousands separator = .
Show negative sign = Y (Yes)
    Left negative sign = -
    Right negative sign = blank

```

Example 2:

```

$100.03
$10DEBIT
x̄tot

```

Creates a result of 90.03 if you specify the following values on the Numeric Field Editing display:

```

Decimal point = .
Show negative sign = Y (Yes)
    Left negative sign = blank
    Right negative sign = DEBIT
Show currency symbol = N (No)

```

Note: Do not specify the same value for the left and right negative signs and currency symbols. (For example, you should not specify the dollar sign (\$) for the left negative sign and the currency symbol.)

Considerations for Column Summary Math

Columns of numbers must be aligned under each other to avoid incorrect results or errors. Therefore, it is recommended that you always enter your numbers using decimal tabs. You can add columns on several pages as long as the numbers are decimally aligned. You should have two or more blanks between the columns of data.

In order to align numbers within parentheses or less than and greater than signs, blank spaces can be used on the left. Blank spaces are never allowed on the right.

```

(123.45)
( 23.45)
(  3.45)
(   .45)

```

If there is a blank space followed by a negative sign before a number, the number is negative. If there is a character followed by a negative sign before a number, the number is positive. For example, cars -25.00 is negative and cars- 25.00 is positive.

When searching for numbers above column instructions, Summary Math uses a minimum of 5 characters (or the display length of the instruction if greater than 5) as the width of the column of numbers.

Starting at the Instruction control character ($\bar{x}$) position and going right for 5 or more spaces, the lines above the instruction are searched for a number. Problems can arise when columns are very close together and some positions in a column do not contain a number, as shown in the following example:

```
< . . . . D . . . . D . . . . >
      10      1
      1      8
           10
      5      6
            
       $\bar{x}$       $\bar{x}$ 
```

With a display length of 1 on the total instruction under column one and the width between columns being small, the total for column does not calculate. When searching for a number above column one, the number 5 is found. The next line is searched starting at the position the Instruction control character ($\bar{x}$) is in and moving five positions to the right. The next number found is 10 in column two. Five and 10 are not decimal aligned and therefore cannot total.

If you change the display length from 1 to 2 in the column one total instruction, the total is correctly calculated because the Instruction control character ($\bar{x}$) is one position farther left. When searching on the second line, the 10 in column two is ignored because it is six positions from the control character ($\bar{x}$).

Creating Column Headings

When using summary math, you may have headings for your columns. The following characters should not be used as part of your column headings:

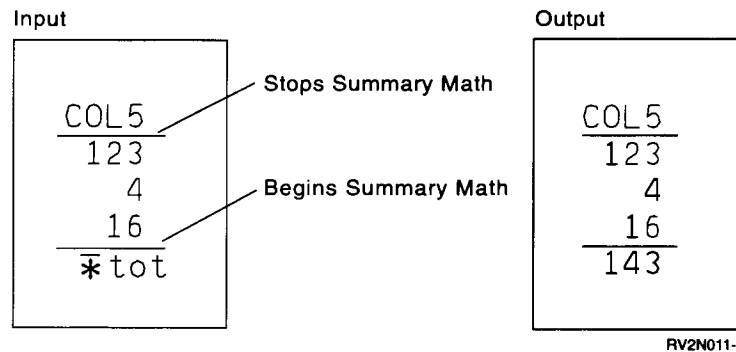
$\_ * () > < . , + \$$

You may use these characters with the numbers in your summary math calculations, but not in the column headings. Using these characters in your column headings may result in incorrect results. If your column headings have numbers, underline the headings so that the heading numbers are not included in the summary math calculation.

Underlining the Last Number in a Column

The Summary Math text instruction does not provide a line under a column, but you can create your own by doing the following:

1. Position the cursor where you want the underlining to start.
2. Press the Alt key plus the U key to start underlining.
3. Press the Tab key to align the last number with the numbers above.
4. Type the last number in the column.
5. Press the Alt key plus the J key to end the underlining.



Separating Groups of Numbers

Summary Math instructions ignore blank lines and spaces between numbers when figuring results. Therefore, numbers that you did not want may be included in the results. To prevent this, separate groups of numbers with non-numeric characters (such as an underline) as shown in the example below.

No Separators		With Separators	
xxxxxx	5500	xxxxxx	5500
xxxxxx	7200	xxxxxx	7200
xxxxxx	3575	xxxxxx	3575
xxxxxx	6325	xxxxxx	6325
Total: 22,600		Total: 22,600	
xxxxxx	1200	xxxxxx	1200
xxxxxx	3780	xxxxxx	3780
xxxxxx	5575	xxxxxx	5575
xxxxxx	1900	xxxxxx	1900
Total: 57,655		Total: 12,455	

When separators are not used, the Total instruction for the second column of numbers includes the numbers in the column above it, as well as the total of that column. Without separators, the total was 45,200 more than was intended.

Using a Blank for a Thousands Separator

When entering a blank for a thousands separator, you must use a required space. To enter a required space, press the Alt key plus the spacebar. If you press only the spacebar for a blank thousands separator, an incorrect result is shown.

Using only the Spacebar

```
xxxxxx 1 100
xxxxxx 2 200
xxxxxx 3 300
xxxxxx 4 400
```

Total: 1 000

Using the Alt key plus the Spacebar

```
xxxxxx 1 100
xxxxxx 2 200
xxxxxx 3 300
xxxxxx 4 400
```

Total: 11 000

In the first example, pressing the spacebar for a blank was used as the thousands separator. This resulted in only the numbers after the blank being calculated.

Typing Summary Math Instructions

If you do not use decimal tabs when typing the Total instruction (.tot), decimal alignment *does not* occur when the total is printed. The total starts printing at the instruction control character.

Edit Display

```
  3.3
  6.1
  1.2
  ---
* tot
```

Output
(using decimal tab)

```
  3.3
  6.1
  1.2
  ---
10.6
```

Output
(without using decimal tab)

```
  3.3
  6.1
  1.2
  ---
10.6
```

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To get the total aligned under the decimal position, either use the decimal tab or move the Summary Math text instruction to the left far enough to align the result.

To enter a Summary Math instruction:

1. Move the cursor under the column or to the right of the row of numbers where you want a math result calculated.
2. You can show the Summary Math Instructions display in one of the following ways:
 - On the Edit display, press F9 (Instructions). On the Text Instruction display, select option 19 (Summary math) and press the Enter key.
 - On the Edit display, press F5 (Goto) to show the *Goto* prompt.
Type the keyword for any of the Summary Math instructions (for example, **.tot** or **.avg**) and press the Enter key.

The Summary Math Instructions display is shown.

DOCNAME P:12		EDIT Page End	PG:1	LN:7
<2...T:...T3...T:...T4...T:...T5...T:...T6...T:...T7...T:...T8...T:...T9>.....				
This is sample text that appears at the top of the Edit display when the following split screen is displayed.				
This text is positioned to the top of the display based on the cursor position when the split screen display was requested.				
This is sample text that appears at the top of the display.				
.tot .avg .high .low .cnt	Summary Math Instructions			
The Summary Math instructions perform one of five different calculations either below a column or to the right of a row of numbers.				
Type choices, press Enter.				
Type of calculation . . .	—	1=Total, 2=Average, 3=Highest 4=Lowest, 5=Count		
Calculate by	—	1=Column, 2=Row		
Variable name	_____	Name to save results in		
Print result	—	Y=Yes, N=No		
Decimal positions . . .	—	0-31		
Instruction length	—	1-255, Blank=Entire instruction		
F3=Exit		F5=Numeric editing	F9=Date/time editing	
F12=Cancel		F16=Delete instruction		

3. Type the information on this display (for more information about any of the prompts, position your cursor next to that prompt and press the Help key.)
 - a. Select an option for the *Type of calculation* prompt, to specify the calculation you want done.
 - b. For the *Calculate by* prompt, select option 1 (Column) if you want to calculate by the column or select option 2 (Row) if you want to calculate by the row.
 - c. Type a name of a variable for the *Variable name* prompt if you want to store the result as a variable and use it later in the document.

If you need more information about using a variable, see "Using the Print Variable Instruction" on page 12-11.
 - d. Type a Y (Yes) for the *Print result* prompt if you want to print the result. Or, type an N (No) if you do not want to print the result. If you specify No for this prompt, you must specify a variable name for the *Variable name* prompt.
 - e. Specify the decimal positions (0-31) you want for the summary math result for the *Decimal positions* prompt.

Note: If the number of decimal positions specified for this prompt is less than the number of decimal positions created by the summary math operation, the entire decimal part of the number is not shown for the result. For example, the average of 16, 17, 17, and 17 is 16.75. But if a 0 was specified for this prompt, the average result is 16. If a 1 was specified for this prompt, the average result is 16.7
 - f. For the *Instruction length* prompt, type a number equal to the length of the expected result.

For example, if the largest possible result is \$xxx,xxx.xx, specify 11 for the *Instruction length* prompt. The result occupies 11 printed spaces.

By setting the length, you avoid any unexpected shifting of data when the summary math result is printed.

4. To specify numeric field editing for the result of this instruction:
 - a. Press F5 (Numeric editing) on the Summary Math Instructions display.
- Page 1 of 2 of the Numeric Field Editing Options display is shown.

DOCNAME P:12
EDIT Page End
PG:1
LN:7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
 This is sample text that appears at the top of the Edit display when the following split screen is displayed. This text is positioned to the top of the display based on the cursor position when the split screen display was requested. This is sample text that appears at the top of the display.

Numeric Field Editing Options
 Page 1 of 2

Type choices, press Enter.

Decimal point	_	1=. 2=, 3=: 4=\$ 5=None
Thousands separator	_	1=. 2=, 3=' 4=Blank 5=None
Show negative sign	_	Y=Yes, N=No
For choice Y=Yes:		
Left negative sign	_	
Right negative sign	_	

More...

F3=Exit
F12=Cancel
F16=Delete editing for this field

- b. Specify the type of numeric field editing you want to use.

If you want blanks in the negative sign or currency symbol, type an underline character () in the position in which you want a blank.

The values specified on the Numeric Field Editing display are also used when searching for valid numbers in the row or column.
 - c. Press the Enter key and you are returned to the Summary Math Instructions display.
5. To edit a date or time:

- a. Press F9 (Date/Time editing). The Date/Time Field Editing Options display is shown.

DOCNAME P:12
EDIT Page End
PG:1
LN:7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
 This is sample text that appears at the top of the Edit display when the following split screen is displayed. This text is positioned to the top of the display based on the cursor position when the split screen display was requested. This is sample text that appears at the top of the display.

Date/Time Field Editing Options

Type choices, press Enter.

Date/time separator	_	1=. 2=/ 3=: 4=- 5=,

- b. Select an option for the *Date/time separator* prompt. For example, if you want the month and year to be separated by a slash, select option 2 (/).
 - c. Press the Enter key to return to the Summary Math Instruction display.

6. Press the Enter key until you return to the Edit display.

You are returned to the typing area and the Summary Math instruction is inserted at the cursor position.

Using the Print Variable Instruction

You can store the result of a Summary Math instruction and use it later in the document. To store the result, you must specify a variable name on the Summary Math Instruction display. Then insert a Print Variable instruction at the place in the document where you want the result printed. When you print the document, the summary math result stored in the variable prints where you inserted the Print Variable instruction.

To insert a Print Variable instruction:

1. Move the cursor to the place in the document where the math result is to be printed.
2. Press F5 (Goto) on the Edit display.
3. Type `.&&` in the *Goto* prompt.
4. Press the Enter key and the Print Variable Instruction display is shown.
5. Type the variable name on this display. Use the same name you specified on the Summary Math Instruction display.
6. To specify numeric field editing for the variable:
 - a. Press F5 (Numeric editing) on the Print Variable Instruction display and the Numeric Field Editing Options display is shown.
 - b. Fill in the desired prompts on the Numeric Field Editing Options display. Use the page keys to go from one display to another.

If you want blanks in the negative sign or currency symbol, type an underline character () in the position where you want a blank.
 - c. Press the Enter key and you are returned to the Print Variable Instruction display.
7. To specify date or time editing for the variable:
 - a. Press F9 (Date/time editing) and the Date/Time Editing display is shown.
 - b. Select an option for the *Date/time separator* prompt. For example, if you want the month and year to be separated by a slash, select option 2 (/).
 - c. Press the Enter key to return to the Print Variable Instruction display.
8. Press the Enter key to return to the Edit display.

If you do not want to specify numeric editing or date/time editing for the variable, you can type the Print Variable instruction directly into your document.

To type the Print Variable instruction directly into your document:

1. Move the cursor to the place in your document where the math result is to be printed.
2. Type the Print Variable instruction `.&&XXXXXX` where `XXXXXX` is the variable name that you specified on the Summary Math Instruction display.

3. Press the Enter key.

Using Variables to Do Subtotals

If you type the following variables:

Month	Amount
Jan	12.45
Feb	113.23
Mar	6.45
Apr	.23
May	118.74
Jun	4.23
*tot(C,FIRST,N,2)	
First Half Total = *&FIRST	
Month	Amount
Jul	11.23
Aug	.45
Sep	118.74
Oct	.56
Nov	3.22
Dec	.78
*tot(C,SECOND,N,2)	
Second Half Total = *&SECOND	
Yearly Total = *TOT(C,,Y,2)	

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This is the result of the typed variables:

Month	Amount
Jan	12.45
Feb	113.23
Mar	6.45
Apr	.23
May	118.74
Jun	4.23
First Half Total = 255.33	
Month	Amount
Jul	11.23
Aug	.45
Sep	118.74
Oct	.56
Nov	3.22
Dec	.78
Second Half Total = 134.98	
Yearly Total = 390.31	

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Using Variables with Conditional Text Instructions

You can use Conditional Text instructions in a document with summary math variables.

The Begin Conditional Text (.bct) instruction marks the start of the text to be printed as part of the document if a given condition is met. All of the text from this instruction up to the End Conditional Text (.ect) instruction (or the end of the document) is printed if the condition is met. If the condition is not met, none of this text is printed. The condition may be based on the contents of a variable specified in a Summary Math instruction.

There can be as many as seven Begin Conditional Text instructions in a document before an End Conditional Text instruction is required. You may want to print up to seven different parts of the document if each of the specified seven conditions is met.

To use Conditional Text instructions with a summary math variable:

1. Do one of the following:
 - Press F9 (Instructions) on the Edit display to show the Text Instructions display.
Select option 10 (Conditional text) and press the Enter key.
 - Press F5 (Goto).
Type .bct (Begin Conditional Text) and press the Enter key.The Begin and End Conditional Text Instructions display is shown.
2. Type a 1 (Begin) in the *Instruction type* prompt.
3. Type the variable name (from a Summary Math instruction) that you want to compare against the test condition for the *Field* prompt.
4. Type a 3 (Variable) for the *Field source* prompt.
5. For the *Selection criteria* prompt, type the abbreviation for the condition that is to be met if the data is to be printed.

Condition	Abbreviation
Equal to	EQ
Not equal to	NE
Greater than	GT
Greater than or equal to	GE
Less than	LT
Less than or equal to	LE

6. For the *Test value* prompt, type the value that the contents of the variable will be compared against.
7. Type a number from 1 through 255 for the *Instruction length* prompt, to specify the number of spaces you want the text instruction to use on the display.

If you leave this prompt blank, the instruction length will contain enough spaces to show the Instruction character and the instruction keyword (.bct) on the Edit display.
8. Press the Enter key to insert the Begin Conditional Text instruction at the cursor position.

9. Type the conditional text you want printed if the condition is true.
10. Type **.ect** (an End Conditional Text instruction) at the end of the conditional text.

Note: A Carrier Return after an End Conditional Text instruction is not removed, even if the condition is false. If you want the text to adjust around Begin and End Conditional Text instructions, *do not* end a line with an End Conditional Text instruction.

11. Press the Enter key.

Chapter 13. Storing Information in Variables

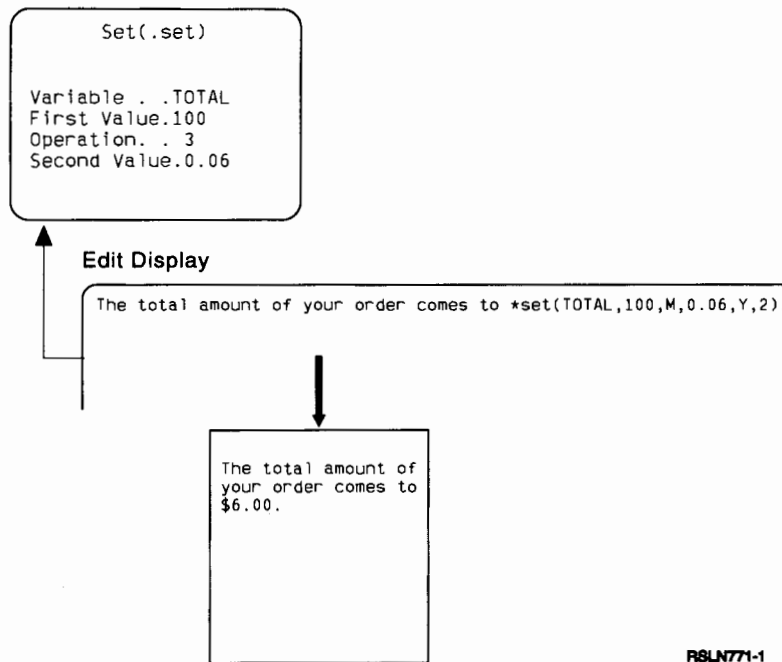
You can store variable information and then repeat it throughout the document without typing it again by using the Set Variable and the Print Variable instructions. This is helpful if you need to repeat several times a phrase or title that is likely to change.

Using the Set Variable Instruction

You can use the Set Variable instruction to define the value of a variable. The Set Variable instruction allows you to:

- Define the variable anywhere in the document.
- Use the variable throughout the document in another Set Variable or Print Variable instruction. You can use the variable for the *Document*, *Folder*, or *Pages to include* prompts on the Include Instruction display. You can also use the variable for the *Field* and *Test value* prompts in a Begin Conditional Text instruction or you can use it to set another variable.
- Set the variable to either a character or a numeric value.
- Set the variable to the result of an arithmetic operation.

The value of the variable is based on the options you specify on the Set Variable Instruction display. If you set a variable to the result of an arithmetic operation, you must specify two values and the operation to be performed. If one of the values is a null value from a query, a 0 is substituted for that value, the operation is completed, and an error is logged in the document error log. If a Begin Conditional Text (.bct) instruction encounters a null numeric value, it substitutes a 0 before it makes a comparison. A message is also logged on the error page. You can specify a constant, another variable, or a data field for each of the two values. For example, you can set the variable TOTAL to the result of multiplying the first value 100 by the second value .06. The result is 6.00. Therefore, TOTAL is set to 6.00.



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Typing the Set Variable Instruction

To define a variable, you begin on the Set Variable Instruction display. You can get to the Set Variable Instruction display from the Edit display or the Column Edit display. You cannot get to the Set Variable Instruction display from the Header/Footer or Footnote Edit display.

To get to the Set Variable Instruction display, do one of the following:

- Press F5 (Goto) to show the *Goto* prompt. Type `.set` and press the Enter key.
- Press F9 (Instructions) on the Edit display and the Text Instructions display is shown.

Select option 20 (Variable) and press the Enter key. The Select Variable Instruction menu is shown.

Select option 2 (Set a variable) and press the Enter key.

- To change a value for an existing Set Variable instruction, move the cursor to the instruction character (an asterisk with a line above it `⌘` or an `⌘` if you are using the PC text-assist function), and press the Enter key. The existing Set Variable instruction appears.

USERDOC,USERLIB P:12 EDIT PG:1 LN: 7
 <2...T:...T3...T:...T4...T:...T5...T:...T6...T:...T7...T:...T8...T:...T9>.....
 This is a document used to demonstrate the use of the Set function.

Set Variable Instruction		Page 1 of 2
This instruction marks the point in the document where the value of the specified variable is set.		
Type choices, press Enter.		
Variable	Name	
First value	Constant, data field, variable name	
Operation	1=Add, 2=Subtract	
	3=Multiply, 4=Divide	
Second value	Constant, data field, variable name	
		More...
F3=Exit	F5=Numeric editing	F6=Character editing
F9=Date/time editing	F12=Cancel	F16=Delete instruction

To define a variable from the Set Variable Instruction display:

1. On the Set Variable Instruction display, type the name of the variable for the *Variable* prompt; for example, TOTAL. You must specify a variable name.

Note: The variable name chosen should not be the same name as any data fields used in the document.

2. Type the information for the *First value* prompt. You can use a constant (numeric constant or character constant) or you can use the name of a data field or another variable. For character constants, enclose the characters in apostrophes; for example, 'NAME'. Character constants can be uppercase or lowercase. The character constants stay as you type them.

Data fields having a data type of either date/time or timestamp are treated as character data type. Since date/time editing is only valid for numeric data types, pressing F6 (Character editing) is supported, but pressing F9 (Date/time editing) is not supported.

If you are using a variable or a data field name, type an ampersand (&) for the first character. For example, &NAME. Variable names can be up to 6 characters long and data field names can be up to 10 characters long. The name following the & must be uppercase. If you are only storing the first value in the variable and you are not performing any operation, go to step 5.

If you type two numeric constants with decimal positions for the *First value* and *Second value* prompts, you must use the default decimal point that is determined by the system value for your country.

To indicate negative numbers, use a minus sign to the left or right of the number. You cannot use any other symbol to indicate negative numbers. You also cannot specify a currency symbol on the *Value* prompt.

If the *Second value* prompt is not specified and no operation is specified, the *First value* will be stored as the value of the variable you are setting.

3. Select the kind of operation you want to perform for the *Operation* prompt.

The meaning of the add operation depends on the type of values you specify. For example, if the values are numeric, then 1 (Add) means addition (the first

value is added to the second value) and the result is stored as a numeric variable. If the values are characters, then 1 (Add) means that the second value is joined to the end of the first value. For example, if the second value is '/400' and the first value is 'OfficeVision', the result is OfficeVision/400. The result is stored as a character variable.

Except for the add operation, both values must be numeric to perform an operation. If a character value is found with subtract, multiply, or divide operations, the instruction is ignored and the variable is not created. Any references to that variable will cause error messages.

4. Type the name of a variable, data field, or constant data for the *Second value* prompt. The second value must be numeric if the first value is numeric, or the second value must be character if the first value is character. Follow the same rules for the *Second value* prompt as for the *First value* prompt.
5. Go to Page 2 of the Set Variable Instruction display.

USERDOC,USERLIB*P:12
EDIT
PG:1
LN: 7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.
 This is a document used to demonstrate the use of the Set
 function.

set
Set Variable Instruction
Page 2 of 2

This instruction marks the point in the document where the value of the specified variable is set.

Type choices, press Enter.

Print result	Y=Yes, N=No
For choice Y=Yes:	
Decimal positions	0-31
Instruction length	1-255, Blank=Entire instruction

F3=Exit
 F9=Date/time editing

F5=Numeric editing
 F12=Cancel

Bottom
 F6=Character editing
 F16=Delete instruction

6. If you want the value of the variable to be placed at this position when the document is resolved, type a Y (Yes) for the *Print result* prompt.

If you want the variable defined but not printed at this position in the document, type an N (No) for the *Print result* prompt. (You can use a Print Variable instruction to print the variable in another place in the document.)
 7. If the variable is numeric and you specified to print the variable, type the number of positions you want to print to the right of the decimal for the *Decimal positions* prompt. The default is 2 (for example, 4.00).
 8. Press F5 (Numeric editing) if you want to specify editing on the numeric result.

Press F6 (Character editing) if you want to specify character editing on the character result.

Press F9 (Date/time editing) if you want to specify character editing on a date or time result.
- Note:** Specify editing on the Set Variable instruction to affect how the result looks when it is printed. The type of editing for data fields or variables specified for the *Value* prompt was determined when they were created.

The editing you specify for the result must be the same type specified for the values you are using. For example, you cannot specify character editing for the result if you are performing a math operation on two numeric values. If you do not specify any editing on the Set Variable instruction, the result will have the numeric or character editing that is specified in the text profile that was active when the document was created.

9. After you have specified editing information, press the Enter key to return to the Set Variable Instruction display.
10. Press the Enter key on the Set Variable Instruction display to return to the Edit display with the instruction inserted.

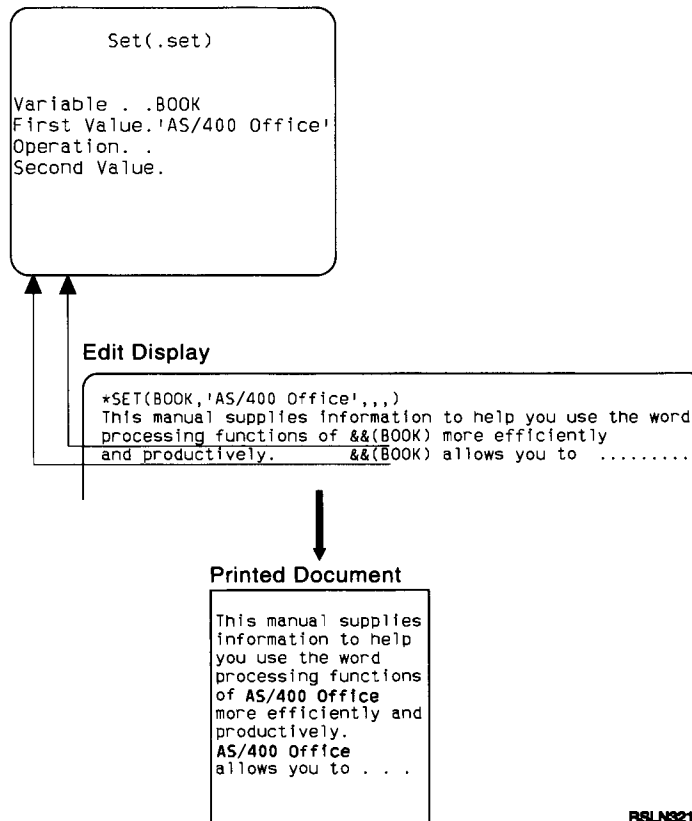
If you are inserting a Set Variable instruction within a paragraph of text and you are printing the result, specify Yes for the *Adjust line endings* prompt on Page 2 of the Print Options display when you print your document.

Additional Uses of the Set Variable Instruction

You can use the Set Variable instruction in combination with Print Variable and Summary Math instructions and data field values.

Using the Print Variable and Set Variable Instructions Together

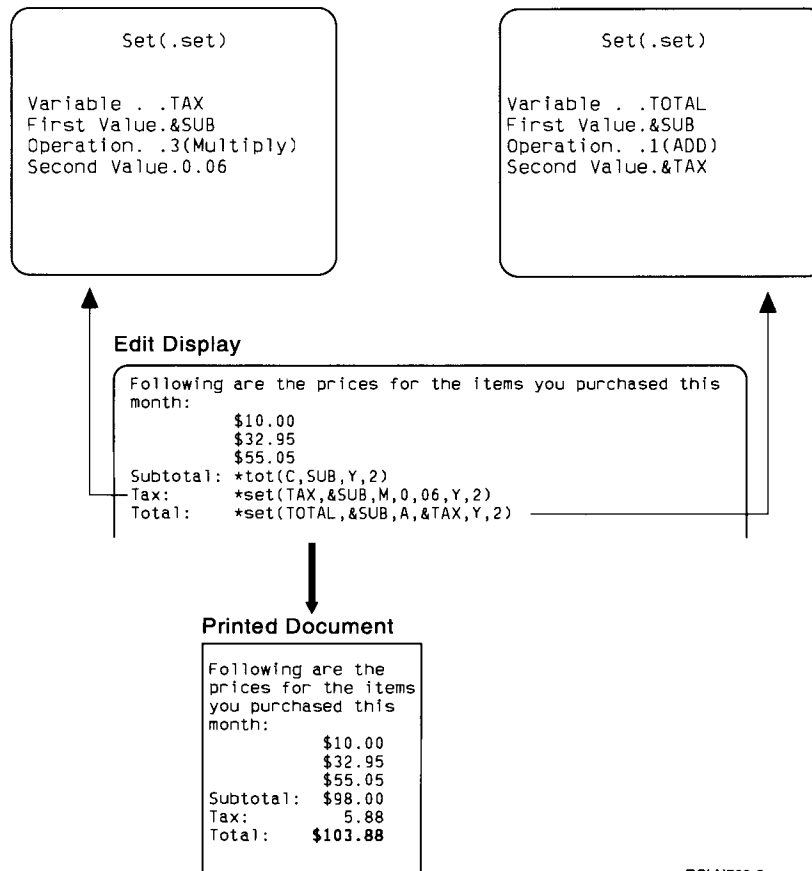
Using the Print Variable instruction, you can print the contents of a variable at any location in the document. For example, if you want to repeat a phrase or title that is very likely to change, instead of typing it again, you just insert a Set Variable instruction (to set a variable with the repeated text) at the beginning of the document. Then, whenever you want to use this text, you insert a Print Variable instruction (.&&) where you want the repeated text to print. If the phrase or title changes, all you have to change is the Set Variable instruction instead of retyping the text each time it occurs.



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Using Summary Math and Set Variable Instructions Together

Using the summary math instructions, you can define a variable and use that variable as the *first value* or *second value* in a Set Variable instruction. For example, using a Summary Math instruction, a total was calculated and its result was stored in the variable SUB. Set Variable instructions are used later in the document to perform other math operations using the variable SUB.



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Using Data Field Values within Set Variable Instructions

You can use data field values to set the value of a variable and cause multiple copies of the document to be produced. One copy is made for each value of the data field. In the following example, there are two data fields: **THISMONTH** and **LASTMONTH**. The Set Variable instruction was used to add the value of the two data fields **THISMONTH** and **LASTMONTH** and print the variable in each letter. When using data fields in a Set Variable instruction, you must specify the merge source. You can specify the merge source by pressing F15 (Merge Data Options) from either the Print Options display or the Merge Options display.

If you want all the records in the report printed in one copy instead of separately, print the report as a multiple line report. The multiple line report options are listed on the merge options when using the Merge Document (MRGDOC) command and on the Merge Data Options display when printing the document.

Set(.set)

Variable . . .TOTAL
First Value. .&THISMONTH
Operation. . .1(ADD)
Second Value. &LASTMONTH

Edit Display

Dear *&CUST(P,...,M.)
Thank you for the order you placed this month. The amount of the order this month was *&THISMONTH(P,...,M.), and the previous month's account balance was *&LASTMONTH(P,...,M.). Currently the total for your account is *set(TOTAL&THISMONTH,A&LASTMONTH,Y,2).

Merging File, Query, or Document

CUST	THISMONTH	LASTMONTH
Karla Wagner	\$200.00	\$100.00
Tina Bratsch	\$500.00	\$150.00

Printed Document

Dear Karla Wagner,
Thank you for the order you placed this month. The amount of the order this month was **\$200.00**, and the previous month's account balance was **\$100.00**. Currently the total for your account is \$300.00.

Printed Document

Dear Tina Bratsch,
Thank you for the order you placed this month. The amount of the order this month was **\$500.00**, and the previous month's account balance was **\$150.00**. Currently the total for your account is \$650.00.

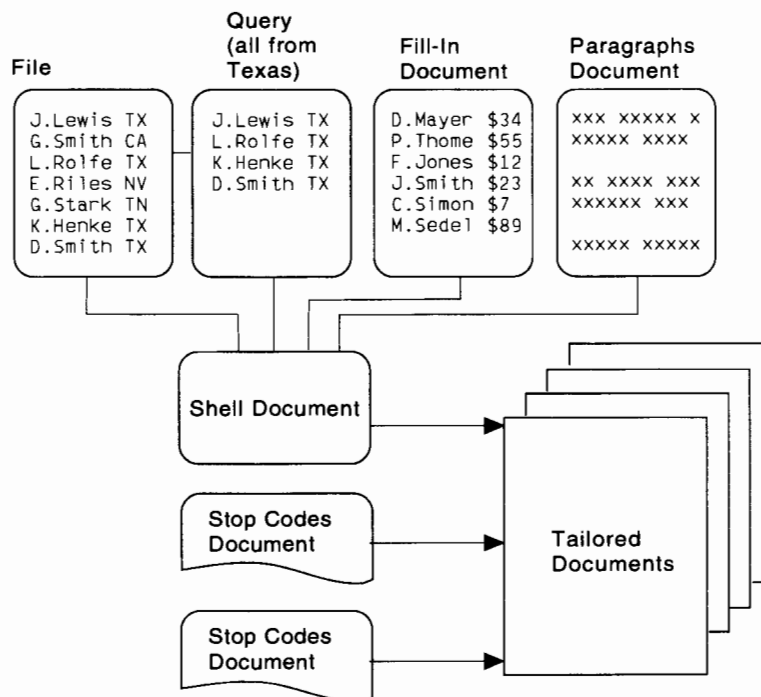
RSLN770-3

Chapter 14. Combining Information to Create Documents

The word processing function provides several ways to create and tailor standard documents (for example, form letters). All the methods include creating a shell document that contains the constant text, and combining the shell document with variable information.

You can use different methods for combining the shell document with the variable information:

- Using stop codes
- Using a form document
- Using a paragraphs document
- Using data/text merge
 - With a fill-in document
 - With a file or query
- Using AS/400 Query for data/text merge
 - To copy data from a query (direct merge)
 - To copy Data Field instructions with a query (column list and multiple letters)



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The following information can help you decide which method is best for your document:

- You may want to use stop codes if:
 - You need only a few copies of the document.
 - The variable information is not already stored in a document or a file.
 - The variable information does not need to be stored to use again.

If you create only a few documents using the same standard shell document, use stop codes. Stop codes mark places in the document where you want to type variable information. However, if you create 10 or more documents that use the same shell document, you should use data/text merge with information stored in a fill-in document or in a file.

- You may want to use a form document if you have:
 - Specific information that you want completed by multiple people.
 - Specific information that you need to complete multiple times.
- You may want to use a paragraphs document if each document can be created using a unique combination of several related paragraphs.

If you need a variety of tailored documents, each containing a different combination of related paragraphs, use a paragraphs document. A paragraphs document contains a set of standard paragraphs that can be combined in any order to create a tailored document. For example, you may create legal documents that combine a selected number of standard paragraphs, depending on the particular need.

- You may want to use data/text merge with a fill-in document if:
 - You need many copies of the document.
 - The variable information is not already stored in a file.
 - You need to merge controls and text instructions.
- You may want to merge from a file or query (with AS/400 Query) using multiple letters and/or column list merge if:
 - The variable information is already stored in a file.
 - The same variable information is used several times.
 - You need to create a detailed document, such as a quarterly sales summary (the shell document) that is sent to branch managers (multiple letters merge) and includes a list of top sales people for each branch (column list merge).

- You may also combine two or more of these methods to meet your particular needs.

For example, you can use a paragraphs document to uniquely combine a few standard paragraphs into a shell document, and then merge variable information from a fill-in document. This could create a form letter that would answer the particular questions of a selected set of customers, whose names and addresses would automatically be merged into the tailored document.

Using Stop Codes

Stop codes are control characters in documents that show where you can insert variable information. Prompted stop codes use a prompt to describe the variable information that should be typed for the stop code. The **stop code prompt** is shown at the bottom of the Edit display whenever a prompted stop code is located.

Stop codes are inserted into a document by pressing the Alt key plus the S key. For example, if you want to insert a stop code after the word Dear in your document; you type the word Dear, insert a space, and press the Alt key plus the S key. The Insert Stop Code/Prompted Stop Code display is shown. If you want a prompt, such as salutation or name, to appear at the bottom of the display when the variable information for the word Dear is typed, complete the *Stop code prompt* on this display and press the Enter key. If you do not want a prompt to appear, just press the Enter key.

You can locate stop codes in your document by pressing the Alt key plus the N key. Each time Alt N is pressed, the cursor advances to the next stop code and is placed one position to the right of the stop code so you can insert your information. If a prompted stop code is found, the prompt is shown at the bottom of the Edit display. Prompted stop codes can only be deleted by using the Delete key.

A stop code that is not associated with a prompt is shown on the Edit display as a high dash. It can be deleted using the Backspace key. A stop code that is associated with a prompt is shown on the Edit display as a blank. It can be deleted using the Delete key. If you are using the PC text-assist function and you are displaying codes, both the prompted stop codes and the stop codes are shown as a solid box (■).

Although stop codes do not appear in your printed document, the variable information you insert at the stop code is printed.

To use stop codes, create a shell document that contains the constant text, and insert the stop codes at the places where you want to type variable information. To tailor your shell document:

1. Press F14 (Get options) to get a copy of the shell document with the stop codes.
2. Press the Alt key plus the N key to find each stop code.
3. Type the variable information at the stop codes.

Type any spaces and punctuation before inserting the stop code and after the stop code in the shell document.

If you need more than one line for information, such as an inside address, use only one stop code in the shell document. When you type the variable information in the tailored document, insert a Required Carrier Return after each line of information you type.

Note: If you plan to turn off insert mode when typing the variable information, leave enough blanks in the shell document to type the variable information. If you do not leave enough blanks, you might accidentally type over a Required Carrier Return or other information on a line.

4. Repeat steps 2 and 3 until you have typed all of the constant text and inserted all of the stop codes needed.
5. Press F3 (Exit/Save) when you have completed your shell document, and save your document on the Exit Document display.

Creating Tailored Documents with Stop Codes

To create tailored documents using stop codes:

1. On the Work with Documents in Folders display, type a 1 (Create) in the *Option* prompt. Type the name of the tailored document you are creating in the *Document* prompt.

Note: The document name should *not* be the same as the name of your shell document.

2. Press the Enter key. The Create Document Details display is shown.
3. Type the name of the shell document in the *Document to copy* prompt.

Type the name of the folder where the shell document is stored in the *From folder* prompt.

4. Press the Enter key after you have typed any other desired information on the Create Document Details display. The Edit display is shown.

The tailored document has the same format and options as your shell document.

5. Press the Alt key and the N key to find the first stop code.

If the *Stop code prompt* on the Insert Stop Code/Prompted Stop Code display was completed for this stop code, a description of what to type appears at the bottom of the display.

6. Type the variable information.

If the variable information contains more than one line, such as an inside address, press the Field Exit key after each line.

7. Press the Alt key and the N key to find each stop code, and type the variable information.
8. Repeat step 7 until no more stop codes are found.

A message is displayed at the bottom of the display when no more stop codes are found.

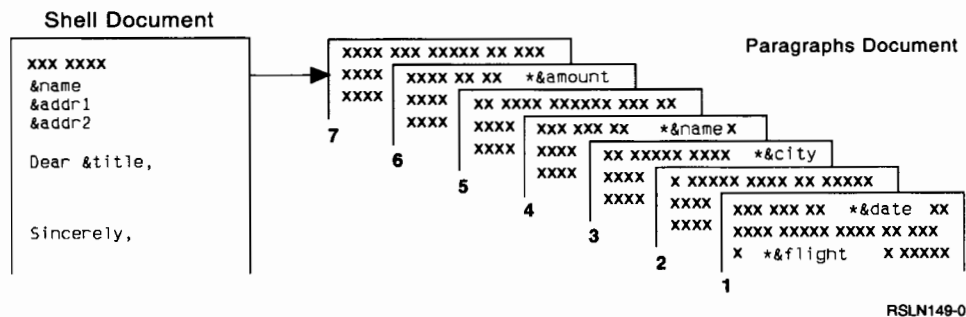
9. Type any additional text needed to complete the document.

If you are creating only one tailored document, press F3 (Exit/Save) to save your document. If you are creating several documents, continue with the next step.

10. Press the Alt key and the Down Arrow key until you are at the end of your document.
11. Type .pa and press the Enter key to insert a Start New Page instruction. Then press the Alt key and the P key to show a new page on the display.
12. Press F14 (Get options) to show the Get display.
13. Type the name of the shell document in the *Document* prompt.
Type the name of the folder where the shell document is stored in the *Folder* prompt.
Select option 1 (Get directly to document) for the *Get option* prompt.
14. Press the Enter key.
A copy of the shell document appears on the Edit display.
Repeat steps 7 on page 14-5 through 13 for each tailored document you want to create.
15. Press F3 (Exit/Save) to save and print your document.

Using a Paragraphs Document

To create tailored documents that combine standard paragraphs, create a shell document that contains the constant text. Also, create a paragraphs document containing the standard paragraphs, with each paragraph stored on a separate page. For each tailored document, copy the shell document containing the constant text, then use the Include instruction or F14 (Get options) to insert the desired paragraphs from the paragraphs document.



You may also want to use Data Field instructions in your shell document and merge variable information from a fill-in document, file, or query. This would allow you to use a standard heading (for example, an address line) in your shell and have variable information (for example, your customers' addresses) merged in automatically. For more information on merging with a fill-in document, see "Using Data/Text Merge with a Fill-In Document" on page 14-18.

Tailored Document

		xxx xxxxx
		Barb Jeens 255 East Broadway Rochester, MN 55904
		Dear Ms. Jeens:
Paragraphs from the Paragraphs Document	1	xxxxxxx xxx xxxxx August 16, 1986 xxx xx xxxxxxxx xxx x xxxxxx xxxx xxxxxxxxxxxx xxxxx xxxxxx 203 xxxxxxxxx.
	3	xxxx xxxxxxxx xxxx xxxxxx xxxxxx Rochester xx x xxx xxxxxxxx xxxxx xxxxxxxx xxxxxxxx.
	4	xxxxxxx xx xxxxxxxxxx Barb Jeens xxx xxxxxx xxxxx xx xxxxxx.
	6	xxxxx x xxxxxxx xxxxxxxxxx \$100.00
		Sincerely,

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Creating a Shell for the Paragraphs Document

The shell document may not have text in the document body. The body may be created entirely by inserting paragraphs from the paragraphs document.

To create a shell document:

1. Create and name the shell document just like any other document. Make any format changes in the shell document, because the tailored documents use the same format as the shell document.
2. Type the constant text for the tailored documents, such as a return address, salutation, and closing, on the Edit display.
3. Press F3 (Exit/Save) to save the shell document.

Creating a Paragraphs Document

To create a paragraphs document:

1. Create and name the paragraphs document just like any other document.
2. On the Edit display, type the first standard paragraph.
3. Press the Field Exit key to end the paragraph.
4. Press the Field Exit key once for each blank line you want following the paragraph in the document.

Required Carrier Returns needed between paragraphs in the tailored document must be typed in the paragraph that is stored in the paragraphs document.

5. Press the Alt key and the P key to show a new page on the display.

The page number on the status line is the number of the new paragraph you are typing.

6. Type the remaining paragraphs using steps 2 through 5.

Note: Do not press the Alt key and the P key after the last paragraph.

7. Press F3 (Exit/Save) after typing the last paragraph, and save the document, but *do not* paginate. If you did paginate the document, several paragraphs could be on the same page.
8. On the Exit Document display, type a Y (Yes) for the *Display print options* prompt and press the Enter key. The Print Options display is shown.
9. Type an N (No) for the *Adjust page endings* prompt and press the Enter key.

Printing a Reference Copy of the Paragraphs Document

The following is a method of printing a reference document.

Because each paragraph is placed on a new page in your paragraphs document, you may want to print a reference copy of this document so you can easily associate a particular paragraph with its page number. This makes it easier to print a tailored document with a combination of paragraphs.

To print a reference copy of the paragraphs document:

1. On the Work with Documents in Folders display, select option 9 (Print options) in the *Option* prompt. Type the name of the paragraphs document and the name of the folder it is stored in for the *Document* and *Folder* prompts. Press the Enter key.

Page 1 of the Print Options display is shown.

2. Type a 1 (Printer) for the *Output device* prompt. Additional prompts are shown. Specify the printer you want the reference copy to be printed on for the *Printer* prompt.

Specify *DEV for the *Output queue* prompt.

Page down to page 2 of the Print Options display.

Type an N (No) for the *Resolve instructions* prompt. Type a Y (Yes) for the *Adjust page endings* prompt if you want more than one paragraph printed on each page. Type an N (No) for the *Adjust page endings* prompt if you want each paragraph printed on a separate page.

3. Press the Enter key to print the reference copy.
4. Write the correct page number beside each paragraph on your printed reference copy.

```

1  xxx xx xxx xx xxx xxxxx x
   xxxxx xx xxx xx *&rate

2  xxx xxxxxxxx xxxxx xxxx
   xxxxx xxxx xx xxxxxx

3  xx xxxxxx *&amount xxxx
   xxxxx xxxxxxx xx xxx xxx
  
```

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Creating Tailored Documents with a Paragraphs Document

To create tailored documents using a paragraphs document:

1. On the Work with Documents in Folders display, type a 1 (Create) in the *Option* prompt.
2. Type the name of the document you are creating in the *Document* prompt.
The document name should *not* be the same as the name of your shell document or your paragraphs document.
3. Press the Enter key to show the Create Document Details display.
4. On the Create Document Details display, copy the shell document into your document by typing the name of the shell document in the *Document to copy* prompt.
5. Type the name of the folder where the shell document is stored in the *From folder* prompt.
6. Type any additional information on this display and press the Enter key.
The Edit display is shown. Your new document has the same format as the shell document.
7. Move the cursor to the place in the document where you want to insert a paragraph from the paragraphs document.
8. Use either the Include instruction or F14 (Get options) to insert the paragraphs you want.

The Include instruction includes the selected paragraphs when the new document is printed.

F14 (Get options) inserts the paragraphs directly into the new document at this time. If you need to make changes to the paragraphs after they are inserted, use F14.

To use the Include instruction to include paragraphs:

- a. Press F9 (Instructions) to show the Select Text Instruction display.
- b. Select option 11 (Include).
- c. Press the Enter key and the Include display is shown.
- d. Type the name of your paragraphs document for the *Document* prompt.

Type the folder name where your paragraphs document is located in the *Folder* prompt.

For the *Pages to include* prompt, type the paragraph numbers (page numbers) you want included in the order you want them to appear in your completed document. As you type in the paragraph numbers, separate each paragraph number with a space. You can include as many paragraphs as you can type on the *Pages to include* prompt.

Note: The paragraph you include can contain another Include instruction (up to 50 levels).

- e. Press the Enter key to return to the Edit display. The Include instruction is inserted at the cursor position.

To use F14 (Get options) to insert paragraphs:

- a. Press F14 to show the Get display.

- b. Type the name of the paragraphs document in the *Document* prompt.

Type the name of the folder where your paragraphs document is stored in the *Folder* prompt.

Select option 1 (Get directly to document) for the *Get option* prompt.

For the *Pages to get* prompt, type the numbers of the paragraphs or range of pages (page numbers) you want included in the order you want them to appear in your document. Separate the paragraph numbers with a space. You can get as many paragraphs as you can type on the *Pages to get* prompt.

- c. Press the Enter key.

The selected paragraphs are inserted into the document at the cursor position.

9. Type any text needed to complete the document.

10. Press F3 (Exit/Save) to save and print your document.

Using Data/Text Merge

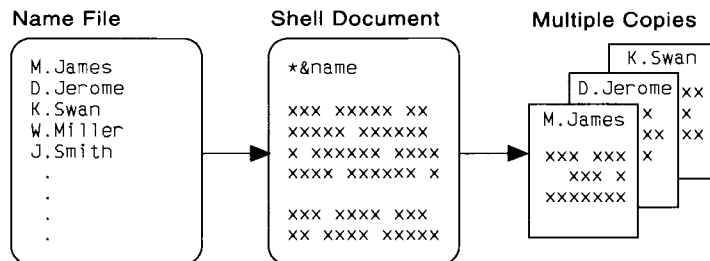
You can merge constant text in a shell document with variable data from a fill-in document, file, or query.

You may want to use data/text merge with a fill-in document if you need many copies of the document, if the variable information is not already stored in a file, or you want to merge controls and text instructions. In general, merging from a fill-in document is much easier than merging with a file or query. Creating a fill-in document requires only that you know how to work with documents and does not require you to work with files or queries. However, merging from a fill-in document is less flexible than merging from a query.

You may want to merge from a file or query (with AS/400 Query) using multiple letters and/or column list merge if the variable information is already stored in a file, or the same variable information is used several times.

When you insert the Data Field instructions in your shell document, you specify the type of merge you want to use. If you are merging with a fill-in document, you must select multiple letters merge. If you are merging with a file or query, you can select multiple letters merge or column list merge.

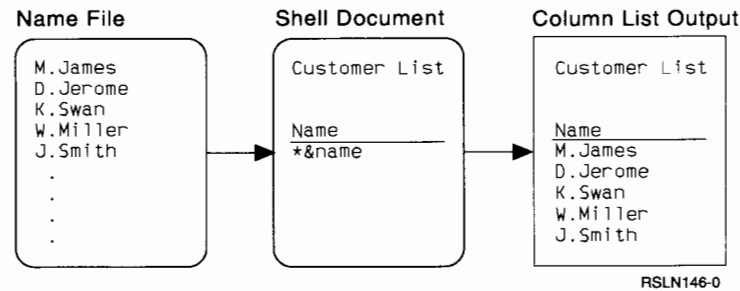
When you select **multiple letters** merge, each record of data selected prints a separate copy of your tailored document.



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When you select **column list** merge, each record selected causes another item in a column list to be printed in the same document.

Note: You can use more than one column list set in a document and have each set use a different merge source.



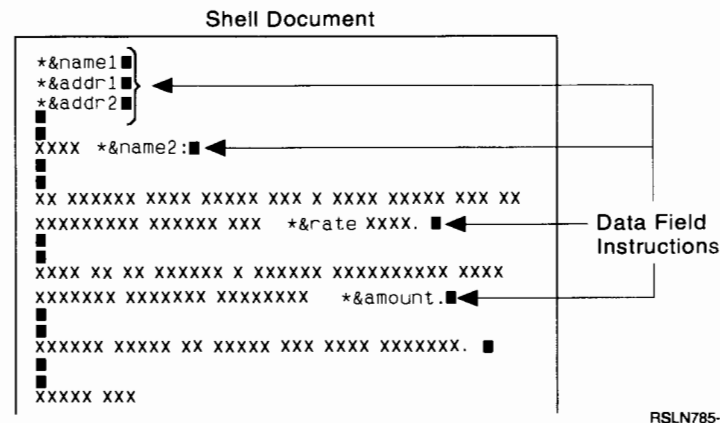
You can combine these two types of merges by setting up a multiple letters merge with a column list merge in each of the copies. This is called a **dependent column list**. To do a dependent column list merge, you must be merging with a query. See "Using a Dependent Column List Merge" on page 14-33 for more information about this kind of merge.

You can also create multiple letter merge applications by using data fields on the Set Variable instruction, the Include instruction, and the Begin Conditional Text (.bct) instruction. See Chapter 13, "Storing Information in Variables" for information on the Set Variable instruction, and page 14-9 for information on the Include instruction. You can also see "Using Conditional Text Instructions in a Shell Document" on page 14-13 for information on the Begin Conditional Text instruction.

You can merge the variable data into the shell document when the shell document is printed. Or, you can use the Merge Document (MRGDOC) command to merge the variable data with the shell document. Then create a document with the variable information that you can edit.

Creating a Shell Document for Data/Text Merge

If you need to create a large number of documents using the same shell document, you can merge the shell with a fill-in document, file, or query. The variable information is merged into the shell document wherever you insert a Data Field instruction.



A Data Field instruction reserves a place for variable information in the document, similar to a stop code. The information for a Data Field instruction is supplied from a fill-in document, a file, or a query stored on the system.

Merged Documents

K.J. Swanson 303 Fairway Ct. S St. Paul, MN 55102 XXXX Ms. Swanson: X XXXXXX XXXX XXX XX XXXXX XXXX XXXXXXXX XXX X XXXXX XXXXXX XXXXX 13% XXXXX. XX XXX XXXXXXX XXXXX XXX X XXXX XXXX XXXX \$665.55.	David Jerome 1026 Park Avenue Plaza Omaha, NE 68105	Mark James 1027 27th Street NW Fargo, ND 58103

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To create a shell document that contains Data Field instructions:

1. Create and name the shell document, just like any other document.
If the document starts with variable information, continue with step 3.
2. On the Edit display, start typing the constant text until you want to insert the variable information. Include any spaces and punctuation before marking where the variable information should be placed.
3. Press F5 (Goto) and the *Goto* prompt is shown.
4. Type .& in the prompt and press the Enter key.
The Data Field display is shown.
5. Type the name of the variable information (for example, NAME, ADDR, CITY, AMOUNT) for the *Data field* prompt.

The data field names must:

- Be no more than 10 characters long.
 - Describe the variable information that is to be filled in, for example, name or date.
 - Exist in the query, fill-in document, or the file you specify when you print the document.
 - Match the exact variable name used in the fill-in document or the interactive data definition utility (IDDU) definition for the data file.
6. The *Data field source* prompt on the Data Field display indicates where the system will find the fields when the document is printed.

If you specify option 2 (*PRINT) for the *Data field source* prompt, you specify the merge source (fill-in document, file, or query) when you print or merge the shell document. Specifying *PRINT makes it easier to merge your shell document with different fill-in documents, files, or queries.

7. Type a 1 (Multiple letters) or a 2 (Column list) for the *Letters or list* prompt.

Note: Option 2 (Column list) is not allowed for merging with a fill-in document.

8. If the instruction is on a line with other instructions or text, complete the *Instruction length* prompt specifying the longest possible length of text to be merged. If the merged value is less than the specified length, the text is moved accordingly.

9. Press the Enter key.

If you selected option 1 (From Merge Data Options) for the *Data field source* prompt, you will be prompted for additional information about whether the source is a query, a fill-in document, or a file.

If the source is a query, specify the query name and library name. If the source is a fill-in document, specify the document and folder name. If the source is a file, specify the file name, library name, and member name. Press the Enter key.

You are returned to the Edit display and the Data Field instruction is inserted at the cursor position.

Note: The same values must be typed for the *File*, *Library*, and *Member* prompts for all multiple-letter data field instructions.

10. Type any spaces and punctuation that follow the Data Field instruction (for example, the colon in Dear *&NAME:).

Make sure that you type only the number of spaces you need after a Data Field instruction. For example, in *&rate xxxx, type one space after the e.

11. Continue typing constant text to the next point where variable information is to be inserted.
12. Repeat steps 3 through 11 until all constant text and Data Field instructions are inserted in the shell document.
13. Press F3 (Exit/Save) to save your document.

Using Conditional Text Instructions in a Shell Document

Conditional Text instructions in a shell document determine what prints in a document depending on a certain condition that you specify. If the condition specified in the Begin Conditional Text instruction is true, the text following it, up to the End Conditional Text instruction, is printed. If the condition is not true, the text is not printed. For example, if some addresses have three lines and some have four lines, you can use Conditional Text instructions to keep blank lines from printing.

The condition is based on the contents of a data field located in a file, query, or fill-in document. Also, the condition can be based on the contents of a variable specified on a Summary Math instruction, set by the Set Variable instruction, or defined in the Form Field instruction.

You can use Conditional Text instructions in a document that is a multiple letter data/text merge document. You can also use Conditional Text instructions in a document with summary math variables, set variables, or a Form Field instruction that has a variable name specified. You cannot use Conditional Text instructions to control the printing of an entire document (only parts of a document). Also, Conditional Text instructions cannot be used on the same line as a column list data field instruction.

When using a Conditional Text instruction with data fields, you must create a file or fill-in document to contain the fields you plan to make comparisons against to meet a certain condition. For example, if you wanted to use Conditional Text instructions to test for an empty field (to avoid blank lines) and to choose a specific paragraph, you could create a file or fill-in document that contains the following fields: name, three street address lines, city, state, zip code, contract paragraph, and maintenance agreement paragraph.

By using the Begin and End Conditional Text instructions, you can choose between two different paragraphs depending on a condition you specify in a file. For example:

```

DOCNAME                      EDIT                      PG:2      LN:25
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
Dear .&FNAME .&LNAME:

Thank you for your recent order.
.bct Since you have signed the contract. . . (first paragraph)
.ect .bctWith your maintenance contract. . . (second paragraph)

.ect If I can be of any assistance to you, please call me.

```

The condition specified for the first Begin and End Conditional Text instructions in this example would be:

```

Field. . . . . PARAGRAPH
Field source . . . . . 2
Selection value. . . . . EQ
Test value. . . . . '1'

```

The condition shown above says: Print the information between the Begin and End Conditional Text instructions if the paragraph field is equal to one. This condition assumes the paragraph field is defined as a character field. If the paragraph field is defined as a numeric field, the test value should not be enclosed with apostrophes (').

Conditional Text instructions are used to check for certain fields during merge from a file, query, or fill-in document. For example, if data does not exist for a field, you do not want blanks printed; however, if data does exist, you want the data printed.

For example, you are using a second address field in a name and address file. Some of the addresses in the file have a second address line and an ADDR2 field is defined for each record of data.

If you type the Data Field instructions in your shell document like the first example (before printing) shown below, your document may end up looking like the second example (after printing).

Before Printing	After Printing
<pre> *&title *&fname *&lname *&addr1 *&addr2 *&city, *&state *&zip Dear *&title *&lname: </pre>	<pre> Ms. Daphne Swan 1300 Wilson Avenue St. Paul, MN 55102 Dear Ms. Swan: </pre>

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To avoid having a blank line in the address, place a Begin Conditional Text instruction before the field, and an End Conditional Text instruction after it. Remember to put the End Conditional Text instruction on the next line to ensure that the Required Carrier Return is in the conditional text.

Using the Conditional Text instructions, the document would look like this before and after printing:

Before Printing	After Printing
<pre> *&title *&fname *&lname *&addr1 *bct*&addr2 *ect*&city, *&state *&zip Dear *&title *&lname: </pre>	<pre> Ms. Daphne Swan 1300 Wilson Avenue St. Paul, MN. 55102 Dear Ms. Swan: </pre>

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The condition specified on the Begin and End Conditional Text Instructions display for this example would be:

```

Field. . . . . ADDR2
Field source . . . . . 2
Selection value. . . . . NE
Test value . . . . . ' '

```

The condition shown above says: Print the information (addr2) between the Begin and End Conditional Text instructions if the field is not equal to blank.

There can be as many as seven Begin Conditional Text instructions in the document before an End Conditional Text instruction is required. You may want to print up to seven different parts of the document if each of the specified seven conditions are met.

Notes:

1. Include instructions found inside a false Begin Conditional Text instruction are not processed. This means that you cannot close a false Begin Conditional Text instruction within one document with an End Conditional Text instruction inside an included document.
2. Automatic line adjustment inserts a blank space at the end of a line if the line ends in a Text instruction. This occurs when you are using Begin and End Conditional Text instructions and the conditional text is more than one line. To avoid getting this space, press F13 (Edit options). When the Change Editing Options display appears, type an N (No) for the *Adjust text when editing* prompt.

To insert Conditional Text instructions in a shell document:

1. Do one of the following:
 - Press F9 (Instructions) to show the Select Text Instruction display. Select option 10 (Conditional text) and press the Enter key. Type a 1 (Begin) for the *Instruction type* prompt.
 - Press F5 (Goto).
- Type **.bct** (Begin Conditional Text) and press the Enter key.

The Begin and End Conditional Text Instructions display is shown.

2. Type the name of the data field or variable name for the *Field* prompt.
3. Select an option for the *Field source* prompt.

If you select option 2 (*PRINT), you must specify the name of the fill-in document, file, or query that contains the data field when the shell document is printed or merged.

4. Select an option for the *Selection criteria* prompt.
5. Type a value for the *Test value* prompt. This value can be a constant, a data field, a variable name, or the values *FIRST or *LAST. If you type character data for the test value, enclose the characters with apostrophes (for example, 'NY'). If the merge data source is a fill-in document, the data must be enclosed in apostrophes because all data from a fill-in document is considered character data.

Note: Data fields and variable names must begin with an ampersand (&). If a data field is used, the merge source for the data field must be specified on the Merge Data Options display. You can get to the Merge Data Options display from the Print Options display when printing a document, or from the Merge Options display when merging a document by pressing F15 (Merge data options).

If you type a numeric value for the *Test value* prompt, you must use the default decimal point for your country.

To indicate negative numbers, use a minus sign to the left or right of the number. You cannot use any other symbol to indicate negative numbers. You also cannot specify a currency symbol on the *Value* prompt.

You can use the values of *FIRST and *LAST for this prompt. These values cause information to print or not print for the first or last copy of a multiple letters document. For example, if you specify a data field for the *Field* prompt with a condition of EQ (equal) and the *Test value* is *FIRST, this condition is true on only the first copy of the document when the first record of the merge source is processed. For all other copies of the document, the condition is false.

6. If you specified a query that uses more than one data file, type the file ID in the *File ID for query* prompt.
7. Press the Enter key.
8. If you selected option 1 (From Merge Data Options) for the *Field source* prompt, the Merge Data Options display is shown.

On the Merge Data Options display, make the following choices:

- a. For the *Merge data source* prompt, select option 1 (Query), option 2 (Document), or option 3 (File). This tells the system what you want to merge the document with.

Additional prompts appear on the display.

- b. Fill in the correct prompts.
- c. Press the Enter key to insert the Begin Conditional Text instruction at the cursor position.

9. Type the text you want printed if the condition is true.

This text can be any amount of text, a data field, a variable, or an instruction (such as Include).

10. At the end of the conditional text, type **.ect** (End Conditional Text instruction).

Note: A Carrier Return after an End Conditional Text instruction is not removed, even if the condition is false. If you want text to adjust around Begin and End Conditional Text instructions, *do not* end a line with an End Conditional Text instruction.

11. Press the Enter key to insert the End Conditional Text instruction at the cursor position.

Using Data Field Headings in a Shell Document

The Data Field Heading instruction (**.dfh**) provides a way for you to merge column headings into your document when it is printed. When you define fields in IDDU or AS/400 Query, you can specify up to three lines of heading text for each field. By using the Data Field Heading instruction (**.dfh**), you can specify to have those headings merged in your document. This is especially useful for column list shell documents.

To use Data Field Heading instructions in a shell document:

1. Do one of the following:
 - Press F9 (Instructions) to show the Select Text Instruction display.
Select option 12 (Data field) and press the Enter key. The Select Data Field Instruction display is shown.
Select option 2 (Print the headings from a data field) and press the Enter key. The Data Field Heading Instruction display is shown.
 - Press F5 (Goto).
Type **.dfh** (Data Field Heading) and press the Enter key. The Data Field Heading Instruction display is shown.
2. On the Data Field Heading Instruction display, type the name of the data field for the *Data field* prompt.
3. The *Data field source* prompt indicates where the system is to find the fields when the document is printed.
 - If the fields are always from the same source, type a **1** (From Merge Data Options) for the *Data field source* prompt.
 - To specify the source when you print or merge the document, type a **2** (***PRINT**) for the *Data field source* prompt.
Specifying ***PRINT** when you create the Data Field Heading instructions makes it easier to merge your shell document with a different file or query.
4. Select an option for the *Heading format* prompt. If you select option 1 (Column), the three heading lines are printed on three lines in a column format. For example,

Employee	Employee's
	Home
	Address

If you select option 2 (Row), the three heading lines are printed next to each other on one line. For example,

5. Press the Enter key.
6. If option 1 (From Merge Data Options) was used for the *Data field source* prompt, the Merge Data Options display is shown.

On the Merge Data Options display, make the following choices:

- a. For the *Merge data source* prompt, select option 1 (Query) or option 3 (File). This tells the system what you want to merge the document with.
Additional prompts appear on the display.
- b. Fill in the correct prompts.
- c. Press the Enter key to insert the Data Field Heading text instruction at the cursor position.

Using Data/Text Merge with a Fill-In Document

A fill-in document should contain the names of the data fields used in the shell document and the variable information needed to tailor the document. The variable information can be text or certain attributes or controls. If you use the Merge Document (MRGDOC) command to merge the fill-in document with the shell document, the variable information can also include text instructions.

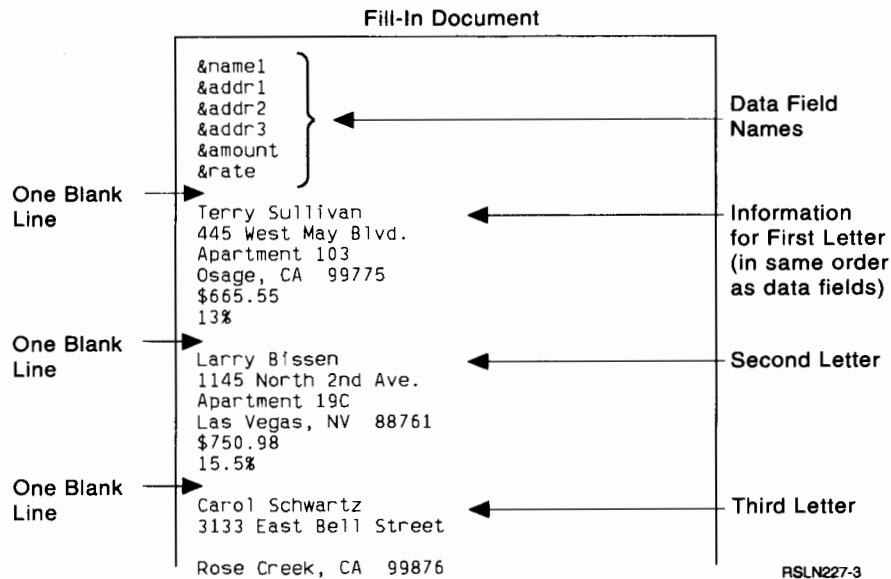
When the shell document is printed or merged, the data fields from the two documents (the shell document and the fill-in document) are matched, and the variable information from the fill-in document is merged with the shell to create the tailored documents.

The shell document and the variable information are both stored on the system. You do not have to retype information each time you create these tailored documents. If the variable information needs to be changed or deleted, you make those changes only in the fill-in document.

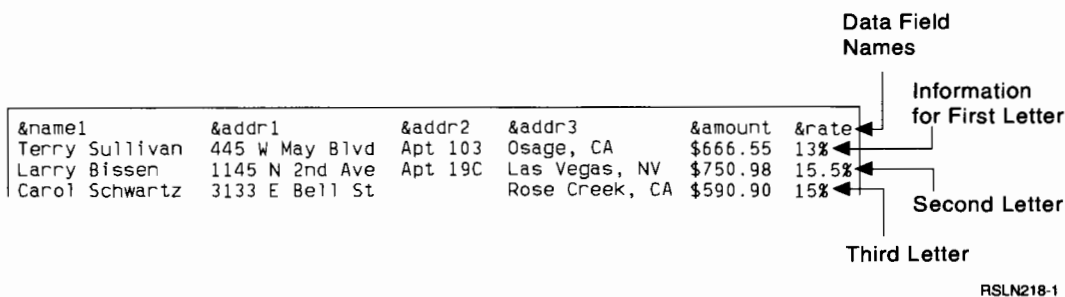
A fill-in document may be formatted in two ways: **row format** or **column format**. In row format, each piece of information takes up one row of the document. In column format, each piece of information takes up one column of the document.

- Use row format
 - When you are using several variables and the variable information does not fit on one row of your fill-in document.
 - When the total length of the fields to be merged is larger than 80 characters.
 - When the lengths of the fields vary, (for example, when the names that you enter vary in length from 10 to 50 characters.)
- Use column format
 - When you are using only a few variables in your shell document and the variable information fits on one row of your fill-in document.
 - When some of the fields are blank for certain letters and contain text for other letters.

In the following example, the variable information is typed in row format. When merged, each record (six rows) of information is inserted to create three separate documents.



In the following example, the variable information is typed in column format. When merged, each record (one row) of information is inserted to create three separate documents.



Using Instructions, Controls, and Attributes in a Fill-In Document

You can merge the following attributes and controls into a shell document when printing a document, or when merging a document using the Merge Document (MRGDOC) command. Attributes or controls that are not shown in the following list are not merged when printing a document and they are changed to blanks.

- Begin/End Error marks
- Bold
- Bold/Error marks
- Bold/Underline
- End Underline/Bold
- Half Index Down
- Half Index Up
- Syllable hyphen
- Underline
- Underline/Spell Aid marks
- Word Underline

The following controls and text instructions will be inserted when you use the Merge Document (MRGDOC) command to create a merged document you can edit.

These instructions are *not* resolved until the new merged document is printed. However, you can resolve the Data Field (.&), Data Field Heading (.dfh), Include (.inc), Run (.run), Set Variable (.set), and Begin and End Conditional Text (.bct, .ect) instructions by running another Merge Document (MRGDOC) command and specifying the new merged document for the *From document* prompt (FROMDOC parameter).

- Average
- Begin/End Conditional Text
- Begin/End Keep
- Begin/End Overstrike
- Change Font
- Color
- Comment
- Count
- Data Field
- Data Field Headings
- Date
- Document ID
- Help Text Label
- High
- Include
- Index Entry
- Keyboard Change
- Low
- Numbered List
- Outline Heading
- Outline Heading Text
- Print Variable
- Prompted Stop Codes
- Required Backspace
- Run
- Set Variable
- Stop Code
- Time
- Total
- Zero Index Carrier Return

The following text instructions are *not* merged into the new document created when a Merge Document (MRGDOC) command is processed. If found in a fill-in document, they are treated as blanks.

- Begin/End Formatted Text
- Column layout (Begin/End Table)
- Footnote

The following instructions are inserted into the new document created when a Merge Document (MRGDOC) command is processed. However, they are put on a line by themselves when entered into a document. They are only useful in a row-format fill-in document or a column-format fill-in document that contains just one column.

- Begin/End/Cancel Running Headings
- Graphic
- Index
- Next Text Column

Skip
Skip to Line
Start New Page (.pa)
Table of Contents

Creating a Fill-In Document

To create a fill-in document:

1. Create and name the fill-in document, just like any other document.
2. Type the data field names that describe the pieces of variable information. These names must:
 - Begin with an & (ampersand) character
 - Be up to 10 characters long
 - Match the spelling of the Data Field instructions used in the shell document (for example, &name or &addr)

Notes:

- a. Do *not* type a period before the & (ampersand).
 - b. If text instructions, controls, or attributes are found on the same line as a data field name, unexpected results may occur. For example, spelling marks.
3. Type data using row *or* column format.

Using Row Format: If you are using row format, do the following:

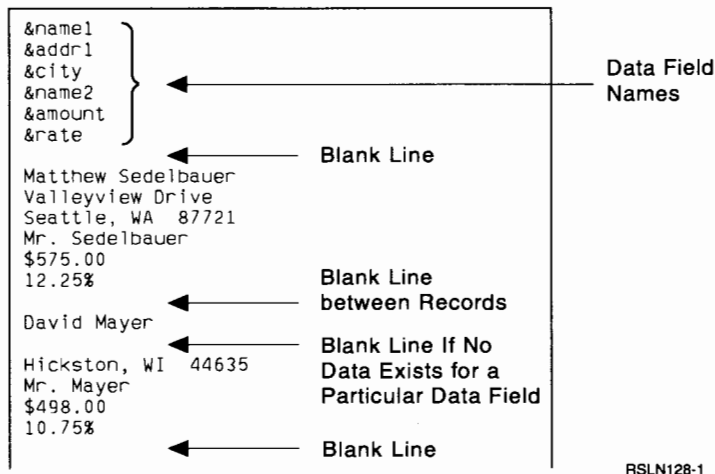
1. Begin on the first line of the fill-in document and type each data field name on a separate line. Press the Field Exit key after typing each data field name.
2. Press the Field Exit key again to leave a blank line after all data field names are typed.
3. Type the variable information for the data fields in the same order that the data field names are typed.

Type each field of variable information on a separate line and type the data exactly as you want it to appear when it is merged into the shell document. If you want a blank space as the first character in the variable information, insert a Required Space by pressing the Alt key plus the spacebar. Press the Field Exit key to end each line.

Type the variable information in exactly the same order as the data field names were typed as shown in the following example.

If variable information does not exist for a data field, leave the line blank by pressing the Field Exit key.

Leave a blank line after each **record** (a record is one set of data fields) of variable information by pressing the Field Exit key. Each record of variable information creates a separate document when your shell document is printed.



4. Press F3 (Exit/Save) to show the Exit Document display.
5. Press the Enter key to save the fill-in document.

Consider the following when using the row format for fill-in documents:

- In most cases, you will type all of the text on one page. However, you may type the text for each record on a separate page, pressing Alt P after each record to create a new page. This method works best if you want to use F5 (Goto) to go to a certain record.
- You may type comments describing the fields in your fill-in document. You can type those comments as lines of text before the first field name or you can type a comment after the name of each field.
- You can do character editing of fields merged from a fill-in document. To do character editing on the text that is to be merged, select the character editing option on the Data Field instruction in your shell document.
- You cannot do numeric editing of fields merged from a fill-in document. If the data fields contain numeric text, type the numeric symbols that you require in the fill-in document. For example, if you are typing a fill-in document and the value for the field named *Amount* is one hundred dollars, you type **\$100.00**
- Your fill-in document should not contain format changes.
- Your fill-in document should not contain text column format changes.
- You should not paginate a fill-in document.
- You should not change the alternate format in a fill-in document.

Using Column Format: If you are using column format, do the following:

1. Set tabs at each column position where a data field name is to be typed in the document. Leave enough space between tab positions so the longest possible piece of variable information for any data field does not run over into the next data field. Determine the column positions based on the longest possible length of the variable information. For example, if the maximum length of the NAME1 information is 20, the tab for the ADDR1 data field should be set at position 22. For information on how to set tabs, see "Changing Margins and Tabs" on page 7-8.

Typing information in columns is easier when you use tabs than it is when you use spaces between columns. If you do not use tabs, leave at least one space between field names.

2. On the first line of the fill-in document, type a data field name at each column position, using the Tab key to advance from one tab position to the next. Press the Field Exit key to end the line.

	T	T	D
&name1	&addr1	&addr2	&amount

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3. Type the variable information for the data fields in the same order that the data field names are typed.

Begin typing the variable information on the second line of the document. Do *not* leave a blank line after the data field names.

Type the variable information for each field below the data field name for that field. Type the data exactly as you want it to appear when it is merged into the shell document. If you want a blank space as the first character in the variable information, insert a Required Space by pressing the Alt key plus the spacebar. Press the Tab key to advance from one tab position to the next.

If variable information does not exist for a particular data field, leave that column blank by tabbing to the next field.

4. Press the Field Exit key to end the line.

Each line of variable information creates a separate letter when your shell document is printed. Do *not* leave a blank line after each line of variable information.

	T	T	D
&name1	&addr1	&addr2	&amount
Joe Smith	561 Westview	Enid, OK 50765	\$255.99
Doris Shaefer	Box 712	Blair, MN 55909	\$507.50
Mark Adams	456 N. Spruce	Alton, CO 42787	\$75.00
Carol Domino	201 W. 4th	Omaha, NB 87654	\$1256.70

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5. Repeat steps 3 and 4 until all variable information has been typed.
6. Press F3 (Exit/Save) to show the Exit Document display.
7. Press the Enter key to save the fill-in document.

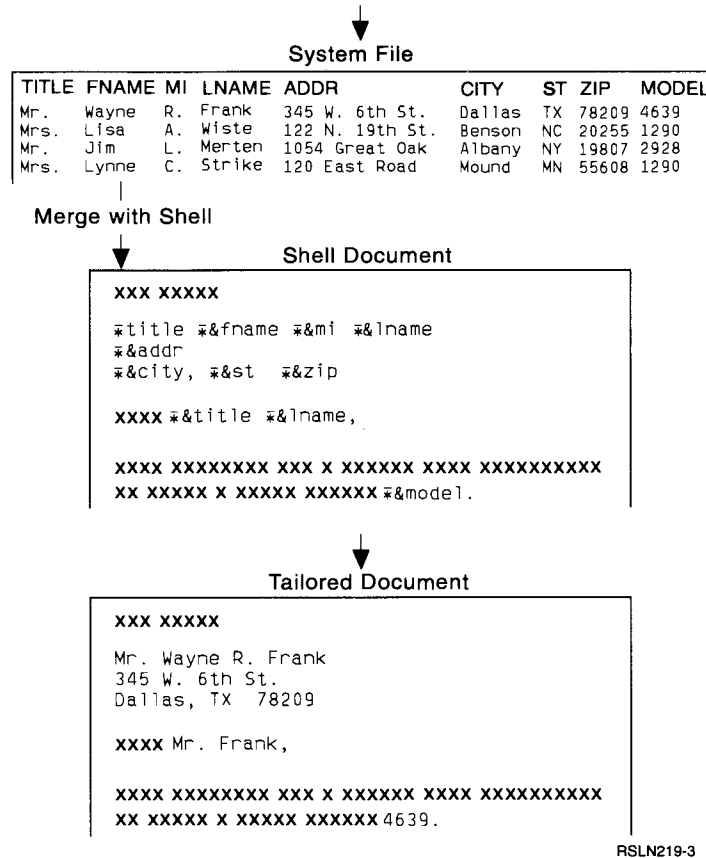
Consider the following when using the column format for fill-in documents:

- You can do character editing of fields merged from a fill-in document. To do character editing on the text that is to be merged, select the character editing option on the Data Field instruction in your shell document.
- You cannot do numeric editing in fields merged from a fill-in document. If the text that you are merging is numeric text, type the text in the fill-in document with the numeric symbols that you require. For example, if you are typing text in a fill-in document and the value for the field named *Amount* is one hundred dollars, you would type **\$100.00**
- Your fill-in document should not contain format changes.

- Your fill-in document should not contain text column format changes.
- You should not paginate a fill-in document.
- You should not change the alternate format in a fill-in document.

Using Data/Text Merge with a File

You can create tailored documents by merging a shell document that contains constant text with information from a file.



To merge from a file, you must have data stored in database files. You can then use multiple letters merge or column list merge to print tailored documents using the stored data.

To merge information from a file or query:

1. Describe data fields in files using interactive data definition utility (IDDU) or data description specifications.
2. Type the data into your files.
3. Create a shell document using Data Field instructions for variable information, and select multiple letters or column list merge on the Data Field display.
4. Merge the shell document with the file.

Describing Data in Files Using IDDU

You can use IDDU to describe data fields in a file. Like a fill-in document, a file contains data records made up of one or more data fields. These data records are stored in a database file. If you want to sort these records, you must use Query.

The steps required to define files are explained in the *IDDU User's Guide*. Data must be defined before it can be merged into a document. The steps required to describe data fields in a file are:

1. Create or select an existing data dictionary.
2. Create data definitions.
 - Create field definitions.
 - Create a record format definition.
 - Create a file definition.
3. Create a file or link the IDDU definition to an existing file.
4. Type information into a file.

Using Data/Text Merge with a Query

Create a shell document that contains the constant text and insert Data Field instructions that tell the system where to place the variable information from your query. When you insert the Data Field instructions in the shell document, you can select the option for multiple letters merge or column list merge on the Data Field Instruction display.

Merging variable information from a query with your shell document is done automatically when you print the shell document. The Data Field instructions in the shell document are replaced with the variable information found in the file. If you specified *PRINT in the *Field source* prompt when creating the Data Field instruction, you specify the query name when you print the document.

In addition to using a query with data/text merge, the AS/400 Query can help you merge data by copying data from a query directly into your document using a direct merge. You can also copy Data Field instructions from a query to create a shell document.

Printing a Shell Document

Merging variable information with your shell document is done automatically when you print the shell document. It can also be done by merging your document; see "Using the MRGDOC (Merge Document) Command" on page 14-38. The output is always another document that can be changed.

Use options available on the Print Options display to merge data when printing. Go to the Print Options display in one of the following ways:

- Press F3 (Exit/Save) on the Edit display to see the Exit Document display. Type a Y (Yes) for the *Print document* and *Display print options* prompts and press the Enter key.
- Select option 9 (Print options) and type the name of the shell document in the *Document name* prompt on the Work with Documents in Folders display. Press the Enter key.

- Type the Print Document (PRTDOC) command on the command line of any menu and press F4 (Prompt) to see a prompt display. Specify *YES for the *Options* prompt on this display. Press the Enter key.

Page 1 of the Print Options display is shown.

Type a 1 (Printer), for the *Output device* prompt. Additional prompts are shown.

Type the ID for the printer on which you want the tailored document printed for the *Printer* prompt. Press the Page Down key to go to the next page of the Print Options display.

On page 2 of the Print Options display, make the following choices:

1. Specify a Y (Yes) in the *Resolve instructions* prompt. This processes the text instructions in the document.
2. If you are merging variable length fields into a paragraph, type a Y (Yes) for the *Adjust line endings* prompt. This causes the paragraphs to be adjusted after the data has been merged. Otherwise, type an N (No).
3. If your shell document has more than one page, type a Y (Yes) for the *Adjust page endings* prompt. Otherwise, type an N (No).

Press F15 (Merge Data Options) and continue with the following instructions for the print option you want.

To merge the shell document with a query: On the Merge Data Options display, make the following choices:

1. Type a 1 (Query) for the *Merge data source* prompt. This specifies that you want to merge the document with information from a query. Additional prompts appear on the display.
2. Type the name of the query and the name of the library where the query is stored for the *Query name* and *Library name* prompts.
3. Press the Enter key again to return to the Print Options display.
4. Press the Enter key to print the document.

To merge the shell document with a fill-in document: On the Merge Data Options display, make the following choices:

1. Type a 2 (Document) for the *Merge data source* prompt. This specifies that you want to merge the shell document with information stored in a fill-in document. Additional prompts appear on the display.
2. Type the name of your fill-in document for the *Document* prompt.
3. Type the name of the folder where the fill-in document is stored for the *Folder* prompt.
4. Press the Enter key to return to the Print Options display.
5. Press the Enter key again to print the document.

To merge the shell document with a file: On the Merge Data Options display, make the following choices:

1. Type a 3 (File) for the *Merge data source* prompt. This specifies that you want

to merge the document with information from a file. Additional prompts appear on the display.

2. Type the name of the file, the name of the library where the file is stored, and the member name in the prompts.
3. Press the Enter key to return to the Print Options display.
4. Press the Enter key again to print the document.

How Query Can Help You Merge Data

A query can help you select, arrange, and analyze data in files before you merge the data into your document.

A query can select the specific data you need from files that contain hundreds or thousands of records. If the Data Field instructions in your document refer to a query, only the records selected by the query are merged, not all the records in the file.

↓
CUSTFILE

TITLE	FNAME	MI	LNAME	ADDR	CITY	ST	ZIP	MODEL
Mr.	Wayne	R.	Frank	345 W. 6th St.	Dallas	TX	78209	4639
Mrs.	Lisa	A.	Wiste	122 N. 19th St.	Benson	NC	20255	1290
Mr.	Jim	L.	Merten	1054 Great Oak	Albany	NY	19807	2928
Mrs.	Lynne	C.	Strike	120 East Road	Mound	MN	55608	1290
Ms.	Carol	T.	Bohr	45 South Main	Gary	IN	33216	1290

↓
Query of CUSTFILE
(all customers with model number 1290)

TITLE	FNAME	MI	LNAME	ADDR	CITY	ST	ZIP	MODEL
Mrs.	Lisa	A.	Wiste	122 N. 19th St.	Benson	NC	20255	1290
Mrs.	Lynne	C.	Strike	120 East Road	Mound	MN	55608	1290
Ms.	Carol	T.	Bohr	45 South Main	Gary	IN	33216	1290

RV2N259-0

A query can sort records. For example, you can use a query to create a mailing list and sort it alphabetically by city.

A query can do summary functions. For example, you can use a query to calculate the total of a list of purchases.

A query can also create new fields called **result fields**. For example, you could define a new field called **PROFIT** by subtracting an existing field *Overhead* from the *Price* field and get a result field. Or you could create a field called *Name* by combining the fields called *Fname*, *Mi*, and *Lname*.

The data from a file can be formatted in a query, and then printed, viewed at your display station, or saved in a database file. You can use the data saved in the query to print a tailored document.

When you create a query, you can save it and use it over again. You can create more than one query that uses the same data file.

A query can use more than one file. In fact, a single query can use up to 32 files. For example, if your customer information is in five separate files, you can create a query that selects information from common data fields in each of the files. You

can merge the information from the query with a shell document to create letters or reports.

In addition to using a query with data/text merge, there are other ways AS/400 Query can help you merge data.

While typing on the Edit display, you can use split edit and AS/400 Query to bring data from a file and copy the data directly into your document. For example, using the split edit display and AS/400 Query, you can create a carbon copy list and not type a single name.

You can create a query or use an existing one. From the Work with Queries display, you can create, change, display, and merge information. For additional information on how to create queries, see the *Query/400 User's Guide*.

Following are the different ways you can use a query to merge data:

- If the data to be merged into a document is not likely to change between the time the document is created and the time it is printed, it is better to copy the data into your document. You can copy the data directly into your document by using option 6 (Direct merge) on the Work with Queries display.
- If the data to be merged into a document is likely to change between the time the document is created and the time it is printed, it is better to use the Data Field instructions in your document. This is better than copying the data directly into your document. If the Data Field instructions are used, the current data for those fields is merged into your document when it is printed. You can use data/text merge with a query by creating a shell document with Data Field instructions. Then specify a query as the data field source. The variable data in the query is merged with the constant text in the shell document.
- You can copy the Data Field instructions into your document by using option 7 (Column list merge) or option 8 (Multicopy merge) on the Work with Queries display.

Note: Multicopy merge in the AS/400 Query corresponds to multiple letters merge in OfficeVision/400.

These Data Field instructions create a document using current information from the database files when your document is printed. If you do not know if a Data Field instruction is column list or multiple letters, move the cursor to the Instruction character (an asterisk with a line above it or an ^L if you are using the PC text-assist function), and press the Enter key. The full field name and the source of the field will be shown.

- Use Column list merge (option 7) on the Work with Queries display if you need to create a report that lists the data from the records you selected.
- Use Multicopy merge (option 8) on the Work with Queries display if you want to select only certain records and sequence those records in the order you define. When you print the document, one copy is printed for each record that was selected from the file.
- You can also combine the column list merge and the multiple letters merge (**dependent** column list merge) to create several copies of your tailored document and have a column list merge performed for each of the copies. This method is ideal when you want to create several reports but base them on the information (record) that is creating the new copy of the summary. For informa-

tion about this kind of merge, see "Using a Dependent Column List Merge" on page 14-33.

Copying the Data from a Query (Direct Merge)

Direct merge is ideal for one-time documents that are to be printed immediately, or for data that will not change, such as an annual report. If you need to merge data that may change before it is printed, use the column list merge methods. Direct merge also removes leading blanks from the data. If you do not want the leading blanks removed, use the column list merge methods. See "Using a Query to Create a Shell Document for a Column List" on page 14-30.

To copy actual data from a query (direct merge):

1. On the Edit display, press F17 (Functions) to show the Select Function display.
2. Select option 1 (Query) and the Work with Queries display is shown.
3. Select option 6 (Direct merge).
4. Type the name of the query and the name of the library for the *Query name* and *Library name* prompts or press F4 to see a list of names.
5. Press the Enter key and a split display appears with the data from the query at the bottom of the display, and the document you are editing at the top of the display. Notice that the query already contains the required format changes and headings.

MRG6	P:12 A	EDIT	PG:1	LN:7
<2T.....3.....4..T.....5....v....6.....t.....8.....9>.....				
These are the people working in department 124:				
CUSTQRY2,DMHLIB	P:12	QUERY OUTPUT	PG:1	LN:1
F				
.brh				
Employee's		Employee's		
Name		Home		
		Address		
.erh				
F				
Joe Smith		101 East River Road		
Ann White		12 Elm Street		
Bob Andrews		883 Center Street		
F				
.crh				

6. Use F1 (Copy) or the Copy line command to copy the data you want from the query into your document.

If you do not remember how to use these functions, see "Using Function Keys to Copy, Move, and Delete Text" on page 3-2 or see "Using the Copy Line Command" on page 3-6.

Note: You may be able to move the cursor to the top part of the display by pressing the New Line key until the cursor appears on the line you want to change. (On some displays, you may have to press the Shift and Field Exit keys.)

7. Press F3 (Exit/Save) and the Query Output display is removed from the bottom of the Edit display.

Your document now contains the actual data from the query. You can edit any of the actual data. This data is never changed again unless you change it or you copy the data again from the query.

Using a Query to Create a Shell Document for a Column List

You can save time by using a query to create your shell document for a column list merge. By creating a query, you can select the fields that will be included in your document, the order in which the fields should be included, and the sorting sequence for the records. AS/400 Query then builds the Data Field instructions, running headings, and format changes that you can copy into your shell document.

The printed results for a column list merge look exactly the same as a direct merge. The only difference is that the Data Field instructions are used instead of the actual data.

The advantage of copying the Data Field instructions is that the data is always current. In other words, you could print a document a year after it was created and it would contain the current data.

You can use several sets of column lists in a document and have each column list merge performed using different merge sources. However, all the Column List instructions on a line must use the same merge source.

To copy the Data Field instructions from a query and do a column list merge:

1. On the Edit display, press F17 (Functions) to show the Select Function display.
2. Select option 1 (Query) and the Work with Queries display is shown.
3. Do one of the following:

- If there is no existing query that has the definitions you want, specify option 1 (Create) and then define the query.

When you have completed defining the query, press F3 (Exit/Save) to show the Exit Data/Text Merge display.

Select option 7 (Column list data instructions) for the *Merge option* prompt on the Exit Data/Text Merge display.

Type the name of the query and the name of the library for the *Query name* and *Library name* prompts or press F4 to see a list of names.

- Select option 7 (Column list merge) on the Work with Queries display if you want the Data Field instructions to specify a column list merge.

Type the name of the query and the name of the library for the *Query name* and *Library name* prompts or press F4 to see a list of names.

4. Press the Enter key, and the Edit display is shown again as a split display with the document at the top of the display and the Query Output display at the bottom with the following information:

- A format change (a highlighted F or a ¶ if you are using the PC text-assist function)
- A Begin Running Heading text instruction (.brh)

- ```
MRG7 P:12 A EDIT PG:1 LN:7
<2.....3.....4.....5.....v....6.....7.....8.....9>.....
These are the people working in department 124:
```
- 
- ```
CUSTQRY2,DMHLIB  P:12          QUERY OUTPUT          PG:1          LN:1
```
-
- ```
 F
 .brh
Employee's Employee's
Name Home
 Address

.erh
.&NAME .&ADDR
.crh
```

You can edit, delete, or move any of the Data Field instructions. If you want to see the text that replaces the Data Field instructions after you have completed typing the document, but before it is printed, press F19 (Print/View Opts) and select option 3 (View printed output using split display).

## Using Query to Create a Shell Document for Multiple Letters

Using a query to create a multiple letters shell document can save you time. By creating a query, you can select the fields to be included in your document (such as only the names of the managers), the order in which the fields should be included (such as the manager's name first, then the salesperson's name), and the sorting sequence for the records. AS/400 Query creates the Data Field instructions, running headings, and format changes that you can copy into the shell document.

The main advantages of using a query are that you can be selective and the data is always current.

All multiple letters Data Field instructions must refer to the *same* field source.

To copy the Data Field instructions from a query and do a multiple letters merge:

1. On the Edit display, press F17 (Functions) to show the Select Function display.
2. Select option 1 (Query) and the Work with Queries display is shown.
3. Do one of the following:

- If there is no existing query that has the definitions you want, specify option 1 (Create) and then define the query.

Press F3 (Exit/Save) to show the Exit Data/Text Merge display.

Select option 8 (Multicopy data instructions) for the *Merge option* prompt on the Exit Data/Text Merge display.

Type the name of the query and the name of the library for the *Query name* and *Library name* prompts or press F4 to see a list of names.

- If you want to use an existing query, select option 8 (Multicopy merge) on the Work with Queries display.

Type the name of the query and the name of the library for the *Query name* and *Library name* prompts or press F4 to see a list of names.

4. Press the Enter key and the Edit display is shown again as a split display with the document at the top of the display and the Query Output display at the bottom of the display with the following information:

- A format change.
- The data field text instructions for the data fields that have been selected.

| CUSTQRY2,DMHLIB | P:12 | QUERY OUTPUT | PG:1 | LN:1 |
|-----------------|------|--------------|------|------|
| F               |      |              |      |      |
| .&NAME .&ADDR   |      |              |      |      |

**Copy what? Move cursor; Press ENTER**

- If you do not remember how to use these functions, see “Using Function Keys to Copy, Move, and Delete Text” on page 3-2 or see “Using the Copy Line Command” on page 3-6.

**Note:** You may be able to move the cursor to the top part of the display by pressing the New Line key until the cursor appears on the line you want to change. (On some displays, you may have to press the Shift and Field Exit keys.)

- You can edit, delete, or move any of the Data Field instructions. If you want to see the text that replaces the Data Field instructions when you have completed typing the document, but before it is printed, press F19 (Print/View Opts) and select option 3 (View printed output using split display).

## Using a Dependent Column List Merge

A **dependent column list** is a special type of merge using both multiple letters merge and column list merge. Each copy of a document has column list information that is only for the person receiving the letter.

For example, to send a quarterly sales summary to the manager of each of your branch offices that has salespeople with sales amounts of \$50,000 or more, you must create a shell document and set up a multiple letters merge so the letter is sent to each of your branch managers. Each letter will include a list of the top salespeople who had sales of at least \$50,000. The copy for each manager will include only a list of salespeople who are in the manager's branch office.

The last condition, that the salespeople must be from the same branch office as the manager receiving the letter, is the dependent column list merge because it is dependent on the branch office.

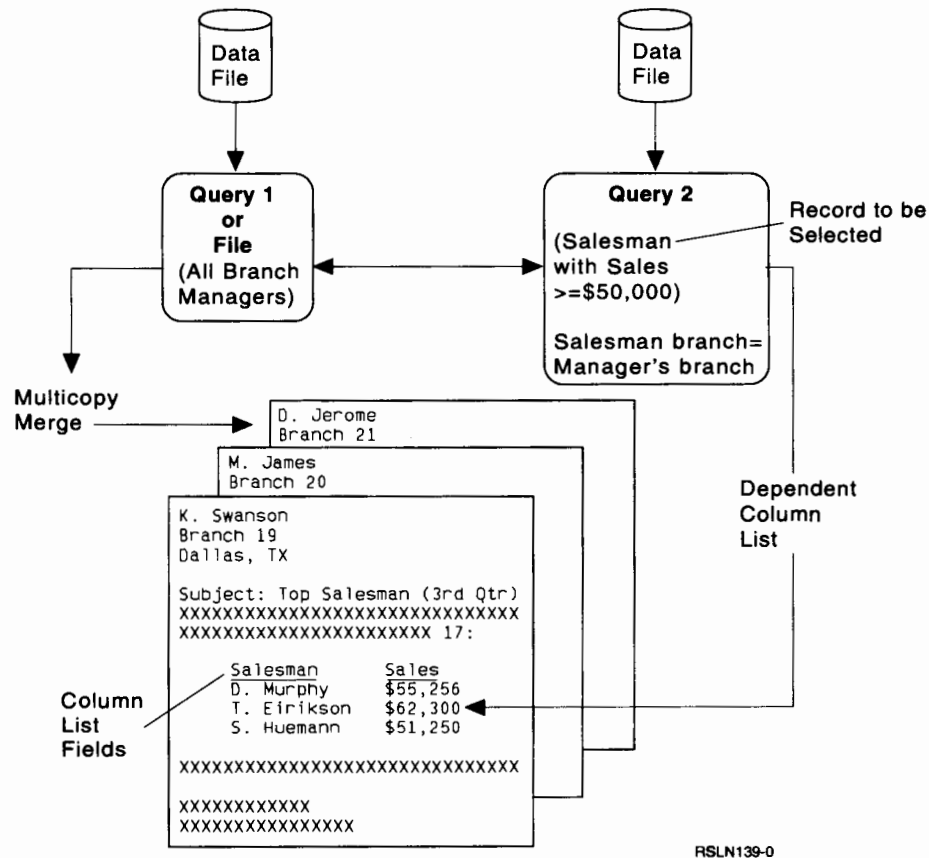
To do a dependent column list merge, you must link a query to another query or a file. The first query or file controls the multiple letters merge and the second (dependent) query controls the dependent column list merge. In the following example, the dependent column list query selects only the salespeople whose branch office number is the same as that of the manager receiving the copy of the letter.

There are two parts to a dependent column list document: the multiple letters instructions and the dependent column list instructions.

1. The multiple letters instructions must all have the same merge source, either a query or a file. In the following example, all of the multiple letters name and address field instructions come from Query1. Query1 selects all branch managers.
2. The dependent column list instructions must have a query for the merge source and this query must use a field dependent on the value of a field in the multiple letters query or file. In the following example, the column list instructions for the salespeople names and the sales amounts come from Query2. This query has a select records comparison that includes the record if the amount of sales is at least \$50,000, and the salesperson's branch office equals the manager's branch office. This field connects the column list to the multiple letters part of the document.

When the system prints the letter to the manager of branch office 19, Query2 compares the branch office number of each salesperson to branch office 19. Salespeople are listed in this copy of the letter only if their branch office is also 19. If there are no salespeople with sales of at least \$50,000 for that branch office, no letter is printed.

The branch number fields used in Query1 and Query2 must be either both numeric or both character, but they can have different field names and different field lengths.



To summarize, consider the following when you want to do a dependent column list merge:

- You must have multiple letter fields that are being merged from a query or data file before the column list fields can be merged (for example, the branch managers).
- You must have column list fields being merged from a query that selects records that are dependent on the multiple letters being printed (for example, the salesperson's names and their sales).
- If your column list field is empty, then no letter is printed (for example, if none of the salespeople in branch office 19 had sales greater than \$50,000, then no letter is printed for branch office 19).

You must create two queries (one file and a query can be used). It does not matter which one you create first, but you must create them both before the dependent column list merge can be done.

To do a dependent column list merge:

1. Create two queries (one file and a query can be used). The first query controls the multiple letters merge and the second controls the column list merge.
2. To specify the dependent value in the second column list query, do the following:
  - a. On the Define the Query display, type a 1 (Select) for the *Select records* prompt. The Select Records display appears.

- b. On the Select Records display, type the name of the field for the *Field* prompt at the top of the display.
- c. Type the test value for the *Test* prompt.
- d. Type a colon (:) followed by the name of the multiple letters data field value for the *Value* prompt. For example, BRAN0FC.
- e. Press the Enter key and the Specify Dependent Value Qualifiers display is shown.
- f. Type a 1 (Query) for the *Qualifier type* prompt.
- g. Type the name of the query that controls the multiple letters merge for the *Query or file* and *Library* prompts.  
  
Specify a 2 (File) for the *Qualifier type* prompt, a file name for the *Query or file* prompt, and a library and member for the *Library* and *File member* prompts.
- h. Press F3 (Exit/Save).

When you print the document, a copy is printed for each branch manager who had salespeople with sales greater than \$50,000.

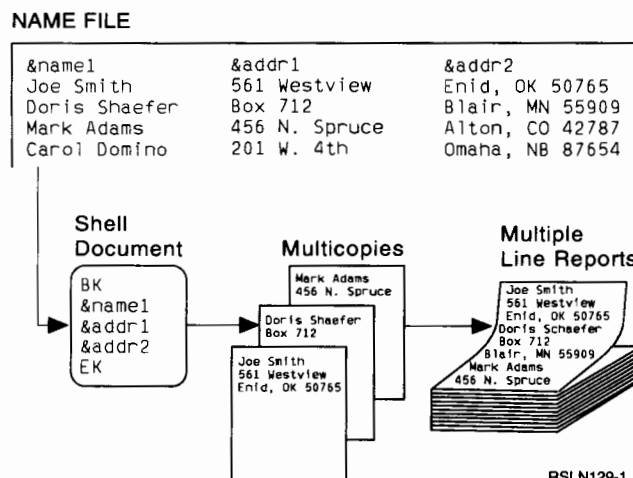
## Creating a Multiple Line Report

You may want to create a document where each record of data produces several lines of output in a report.

You can create a multiple line report in the following ways:

- If all the fields can be printed on one line, use the column list Data Field instruction (.&) described earlier in this chapter to create the report.
- If all the fields cannot be printed on one line, use the multiple letters Data Field instruction (.&) and specify *Y* for the *Multiple line report* prompt using the MRGDOC command or while printing the document using the Print Options display.

Before you can merge a multiple line report, you must create a shell document that contains the format of each record in the report as shown in the following:





**Note:** The Begin and End Keep instructions are used around the data fields and each line ends with a Required Carrier Return. The Required Carrier Returns ensure that the text for each field does not adjust from one line to another. The Begin and End Keep instructions ensure that no records in the report start on one page and end on another when the document is printed.

The Data Field instructions are all specified as multiple letters Data Field instructions. In addition to these instructions, you can use constant text, tabs, and other instructions, that define how each record will look.

When printing the document, you should specify one of the following on the Print Options display:

- Y (Yes) for the *Adjust page endings* prompt.
- N (No) for the *Adjust page endings* prompt and Y (Yes) for the *Renumber system page numbers* prompt.

## Creating a Multiple Line Report Using the MRGDOC Command

To use the MRGDOC command to create a multiple line report:

1. Type **MRGDOC** on the command line. If you know the parameters you want to specify for this command, type them on the command line and go to step 9 on page 14-39.
2. Press F4 (Prompt) if you do not know the parameters you want to specify, and the Merge Document display is shown.
3. Type the name of the shell document that you created for the *From document* prompt.
4. Type the name of the folder where the shell document is stored for the *From folder* prompt.
5. Type the name of the new document (where you want the multiple line report to go) for the *To document* prompt.

**Note:** A final-form text document cannot be used as the output document.

6. Type the name of the folder where you want the report to be stored, for the *To folder* prompt.

You can store the report in the same folder as the shell document, but the documents must have different names.

7. Type **\*NO** or **\*YES** for the *Replace document* prompt.

If you specify **\*YES**, the old document is deleted.

8. Type **\*YES** for the *Change merge options* prompt.

**Note:** To specify **\*YES** for this prompt, you must have change authority to the document.

9. Press the Enter key twice and the Merge Options display is shown (if you specified **\*YES** for the *Change merge options* prompt).

The options you specify on the Merge Options display are used for all subsequent merged data operations for this report, unless you change them. From this display you can place the merged data on the job queue, specify a file, query, or fill-in document for merged data, and adjust line and page endings in the merged text.

10. On the Merge Options display, do the following:
  - a. Type a 3 (Line and page endings) for the *Adjust/paginate options* prompt.
  - b. Type a Y (Yes) for the *Multiple line report* prompt.
  - c. Fill in any other desired prompts.

If you specified \*PRINT as the merge source for your data files, press F15 (Merge data options) and specify the merge source. Press the Enter key.

11. Press the Enter key again.

The report is created using the options you selected. The document contains each of the records in the format defined by the shell document. Each page will contain as many records as possible without starting one record on one page and completing it on another.

You can edit or change, store, and print this new report.

## Creating a Multiple Line Report Using the Print Options Display

You can create a multiple line report using the Print Options display by doing the following:

1. On any page of the Print Options display, press F15 (Merge data options). The Merge Data Options display is shown.
2. Type a Y for the *Multiple line report* prompt.
3. Press the Enter key.

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## Using the MRGDOC (Merge Document) Command

The Merge Document (MRGDOC) command allows you to merge data into a shell document without printing the document. The MRGDOC command processes some text instructions and creates a revisable document.

The following instructions are resolved when a MRGDOC command is processed:

- Data Field (.&)
- Data Field Heading (.dfh)
- Set (.set)
- Run (.run)
- Include (.inc)
- Begin Conditional Text (.bct)
- End Conditional Text (.ect)

The MRGDOC command should be used in the following situations:

- You need to edit your document after the data has been merged into your shell document.
- You need to merge text instructions from a fill-in document.
- You need to create Include instructions from a file by merging a character data field that specifies the Include instruction.

To go directly to the Merge Data Options display and merge text, data, and include documents together to create a revisable document, type **MRGDOC** with parameters on the command line, and press the Enter key. Or, if you do not know the parameters, type **MRGDOC** and press F4 to see the prompt display. The *CL Reference* manual contains detailed descriptions of these commands.

If you specify \*PRINT for the merge source for your Data Field instructions, the first time you do a MRGDOC you need to specify the merge source. The merge source is remembered the next time you do a MRGDOC on this document. To specify a merge source:

1. Type **MRGDOC** on the command line. If you know the parameters you want to specify for this command, type them on the command line and go to step 9.
2. Press F4 (Prompt) if you do not know the parameters you want to specify, and the Merge Document display is shown.
3. Type the name of the shell document that you created for the *From document* prompt.
4. Type the name of the folder where the shell document is stored for the *From folder* prompt.
5. Type the name of the new document (where you want the merged document to go) for the *To document* prompt.

**Note:** You cannot use a final-form text document as the output document.

6. Type the name of the folder where you want the merged document to be stored for the *To folder* prompt.

You can store the merged document in the same folder as the shell document, but the documents must have different names.

7. Type **\*NO** or **\*YES** for the *Replace document* prompt. If you specify **\*YES**, the old document is deleted.
8. Type **\*YES** for the *Change merge options* prompt.

**Note:** To specify **\*YES** for this prompt, you must have change authority to the document.

9. Press the Enter key twice, and the Merge Options display is shown (if you specified **\*YES** for the *Change merge options* prompt).
10. On the Merge Options display:
  - a. Press F15 (Merge data options). The Merge Data Options display is shown.
  - b. Specify the merge data source. Additional prompts appear.
  - c. Complete the prompts to indicate where you want to merge from.
  - d. Press the Enter key. The Merge Options display appears again.
  - e. Complete any of the prompts as necessary on the display.
11. Press the Enter key again.

To print your document error log using the MRGDOC command:

1. Edit or view the document that was specified for the TODOC parameter.

**Note:** On the Merge Document display:

- You cannot specify **\*YES** for the *Place on job queue* prompt if the *Edit or view merged document* prompt is **\*VIEW**, **\*EDIT**, or **\*FILLFORM**.
- You cannot specify **\*YES** for the *Change merge options* prompt if the *Edit or view merged document* prompt is **\*VIEW**, **\*EDIT**, or **\*FILLFORM**.

2. If there are error messages for the document, the message Press F19 to list errors appears at the bottom of the display. Press F19, and the Select Print Options display appears.
3. Select option 4 (Print error page), and press the Enter key to print the error messages. The error log is sent to your spooled files. From there it can be sent to the printer or displayed.

If you want to look at only the error log, select option 5 (View error page).

## Using MRGDOC for a Single Record Merge

You can use the MRGDOC command to merge a single record of data into a document. By specifying the merge type \*RECORD, you can search a database for information using an application program, and directly merge that information interactively into an object to be edited or viewed. You can specify up to 50 pairs of field name and data to merge combinations on the MRGDOC command.

To go directly to the Merge Data Options display and merge text, data, and include documents together to create a revisable document, type **MRGDOC** with parameters on the command line, and press the Enter key. Or, if you do not know the parameters, type **MRGDOC** and press F4 to see the prompt display. The *CL Reference* manual contains detailed descriptions of these commands.

You must specify \*PRINT for the *Merge source* prompt for your Data Field instructions if you are using the merge type \*RECORD. The first time you do a MRGDOC you need to specify the merge source. The merge source is remembered the next time you do a MRGDOC on this document. To specify a merge source:

1. Type **MRGDOC** on the command line. If you know the parameters you want to specify for this command, type them on the command line and go to step 9 on page 14-39.
2. Press F4 (Prompt) if you do not know the parameters you want to specify. The Merge Document display is shown.
3. Type the name of the shell document that you created for the *From document* prompt.
4. Type the name of the folder where the shell document is stored for the *From folder* prompt.
5. Type the name of the new document (where you want the merged document to go) for the *To document* prompt.
6. Type the name of the folder where you want the merged document to be stored for the *To folder* prompt.

You can store the merged document in the same folder as the shell document, but the documents must have different names.

7. Type \*NO or \*YES for the *Replace document* prompt. If you specify \*YES, the old document is deleted.
8. Type \*NO for the *Change merge options* prompt.
9. Type \*RECORD for the *Merge type* prompt.

10. Complete the *Field name* and *Data to merge* prompts. To see additional *Field name* and *Data to merge* prompts, type a + on the + for more values prompt on the Merge Documents display and press the Enter key.

**Note:** On the Merge Document display, you cannot specify \*YES on the *Place on job queue* prompt if the *Merge type* prompt is \*RECORD.

11. Press the Enter key again.

## Creating Include Instructions from a File

Sometimes you may want to select only certain paragraphs to be included in a letter. You can do this by typing an Include instruction directly into the document, or by merging it from a file. See "Using a Paragraphs Document" on page 14-6 for more information on how to include paragraphs in a document. To merge the Include instruction from a file, use the MRGDOC command.

To merge the Include instruction from a file:

- Build your files so they contain one or more fields of character data. One of the fields specifies which paragraphs are included. This field contains an Include (.inc) instruction (just as if you had typed it into the document) when it is merged into the document. By using the Data Field instruction to merge this field into your document, the Include instruction is automatically created and processed when you use the MRGDOC command.
- The text that is being merged must follow the same rules and format of Include instructions that are used on the Edit display. The fields must include all of the parentheses, commas, and parameters that are required for an Include instruction.

To see the exact format of an Include instruction:

1. Press F9 (Instructions). The Text Instructions display is shown.
2. Select option 11 (Include) and press the Enter key. The Include display is shown.
3. Type the Include instruction you want to use.
4. Leave the *Instruction length* prompt blank and press the Enter key.  
The instruction will be displayed.
5. Type the instruction into the file exactly as it is shown, except replace the Instruction character (an asterisk with a line above it), in the first position with a period. The Instruction character is shown as an <sup>L</sup> if you are using the PC text-assist function.

When creating Include instructions with the MRGDOC command, you should consider the following:

- The text is only recognized as an Include instruction when a MRGDOC command is processed. For example, the Print Document (PRTDOC) command does not recognize an Include instruction, and the contents of the field print as you type. Therefore, you must use a MRGDOC command to create the Include instruction. The Include instruction is processed when the MRGDOC command is completed.
- If your file contains Include instructions that are not permitted, the contents of the field may print as text or may result in errors when printing.

- The text is only recognized as an Include instruction if the first four characters of the field are a period followed by the three characters **inc**.
- The only instruction that can be created by the MRGDOC command is the Include instruction. You cannot create other instructions (such as Data Field or Date instructions) using this method.
- The data field in the shell document used to merge in the data field with the Include instruction must be a multiple letters data field. The function does not exist for column list data fields.

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## Merging Information Using the Run Instruction

The Run instruction allows you to issue a command from a document and include the output in the document at the place you have typed the instruction. This instruction can be used to include output from a program in a document.

To use the Run instruction, you must be permitted to use the following control language (CL) commands:

- Create Physical File (CRTPF)
- Copy Spooled File (CPYSPLF)
- Delete Spooled File (DLTSPLF)
- Delete Override (DLTOVR)
- Override with Printer File (OVRPRTF)

If you use the Run instruction for a CL command that creates more than one output file, only the last output file created is used.

You must also be permitted to use the Run instruction. Permission to use the Run instruction results from specifying **Yes** from the *Allow commands in documents* prompt on the Change Enrollment Information display. See your administrator if you are not permitted to use the Run instruction and the commands described above.

If you use the Run instruction to call a program that contains interactive commands, you will get results that cannot be predicted.

The output from the Run instruction is printed between the left margin and the right paper edge. If it is too long, the characters on the extreme right are not printed.

To merge information using the Run instruction:

1. Press F5 (Goto) and the *Goto* prompt is shown.
2. Type **.run** and press the Enter key.

The Run Instruction display is shown.

|          |      |      |      |
|----------|------|------|------|
| RUN P:12 | Edit | Pg:1 | Ln:7 |
|----------|------|------|------|

This is a document used to demonstrate the use of the run instruction.

---

|      |                 |
|------|-----------------|
| .run | Run Instruction |
|------|-----------------|

This instruction marks the point in the document where a CL command should be run, and the print file where the output should be placed.

Type choices, press Enter.

Command . . . . . \_\_\_\_\_

---

|                        |         |                                 |
|------------------------|---------|---------------------------------|
| Print file . . . . .   | QSYSPRT |                                 |
| S/38 command . . . . . | N       | Y=Yes, N=No                     |
| Instruction length . . | 4       | 1-255, Blank=Entire instruction |

F3=Exit      F4=Prompt      F12=Cancel      F16=Delete instruction

To see a list of AS/400 commands or System/38 commands, press F4 (Prompt). To get help for the parameters of a specific command name, type the name of the command (for example, WRKFLR) and press F4 (Prompt).

3. Type the command you want to run for the *Command* prompt.

4. Type the name of the print file for the *Print file* prompt.

If you need more information about this prompt, position the cursor on this prompt, and then press the Help key.

If you are using a user-written CL command, you must know the name of the spooled file created by the CL command (or print file used by the CL command).

Print file names used by IBM CL commands are in the *CL Reference* manual.

5. Type a Y (Yes) for the *System/38 command* prompt, if you are running in a System/38 environment.

If you are not running in a System/38 environment, type an N (No) for the *System/38 command* prompt.

6. Press the Enter key. When your document is printed, the command is run and the output is placed in your document where the Run instruction was inserted.

**Note:** If you specify N (No) for the *Adjust page endings* prompt and N (No) for the *Renumber system page numbers* prompt on the Print Options display, you need to make sure there are enough decimal page numbers available between the page with the run instruction and the next page used in the source document. Decimal page numbers .01 through .99 are available between whole page numbers. If you do not have enough available page numbers, a message is printed on the document error log and not all of the output is printed.

---

## Performance Considerations for Merging Information

The processing and printing time of a data/text merge application depends on many variables. The following information might improve the performance of your data/text merge application.

### Setting Up a Data/Text Merge Application

The multiple letter merge application is the slowest form of merging. An entire copy of the document is created for each record in the merge data source.

The column list data/text merge is a faster merge than multiple letter merge. All the data is retrieved at one time and placed in the document. Then one copy of the document is created during the print or MRGDOC command.

A direct merge is a fast merge. Use it only for documents that are to be printed immediately or for data that does not change.

### Running a Data/Text Merge Application

Run most data/text merge applications on the job queue. How the machine pool size and other storage pools are set up on your system affects how long it takes to run a data/text merge application on the job queue.

- If your job queue is set up so that data/text merge jobs share the machine pool with interactive jobs, then the larger the number of interactive jobs running, the longer it takes to complete the data/text merge job. However, the data/text merge job should have little effect on the interactive jobs.
- If your job queue is set up so the data text merge job has its own storage pool, the job should run in about the same amount of time every time it is run. (This storage pool is never available to interactive users, even when the data/text merge job is not running.)

For information on setting up machine pool size see the manual *Work Management Guide*.

### Setting up a Multiple Letter Merge Document

When setting up a multiple letter merge document, consider the following to make the processing and printing go more quickly:

- The fewer format changes the better. For example: Use the change font instruction instead of a line format to change type style; change the document format options instead of placing a format at the beginning of a document to change an entire document.
- When printing or using the MRGDOC command, do not specify adjust page endings on the Print Options display for a one-page document.
- Instructions that resolve differently for each page or letter, such as page number instructions in the headers or footers of a document, increase the processing time.
- A Table of Contents instruction (.toc) or an Index instruction (.ix) in a shell document increases the time it takes to merge each letter.
- Use Required Carrier Returns instead of Carrier Returns at the ends of paragraphs, or when adding a few blank lines.



- Use a Skip Line instruction or a Skip to Line instruction instead of using multiple blank lines to create a large amount of blank space in a document.

## Printing a Multiple Letter Merge Document

To improve performance when printing multiple letters documents, the system merges the data for 10 documents and then spools those documents to the output queue. This allows you to start printing the first 10 documents before the merge is completed while the system merges all the other documents in batches of 10. All of the documents are spooled to the same spooled file. You do not get a separate spooled file for each batch.

However, if you do any of the following when printing multiple letters documents, the system does not print documents in batches of 10.

- Print a label document.
- Save the resolved output (page 3 of the Print Options display).
- Print the document to the display (page 1 of the Print Options display).
- Specify a Y (Yes) for the multiple line report parameter on the Merge Data Options display.
- Specify something other than \*FIRST for the *Start page* prompt and \*LAST for the *End page* prompt on the Print Options display.
- Print the document to a file.

If the system does not print documents in batches of 10, the system internally creates one large document containing all of the copies. Try to avoid creating one large document containing all of the copies because this decreases the performance of the system.

If documents are printed in batches of 10, you can start printing the completed batches on the printer before all the other copies are merged by doing the following from the Work with Documents to be Printed display:

1. Type a 2 (Change) next to the document you want to start printing and press the Enter key. The Change Options display is shown.
2. Type a 3 (Immediately) next to the *Start printing* prompt to start printing.  
Press the Enter key to return to the Work with Documents to be Printed display.
3. Press F12 (Previous) to leave the Work with Documents to Be Printed display.

There is a limit to the number of pages you can print at one time. If you need to print more pages, you can use several smaller files or queries, each containing part of the data, and merge the data from each file or query into your document separately. For example, if your customer file contains 50,000 records, you create a query for customers whose names start with A-C, another query for those customers whose names start with D-F, and so on, until you have all customers in a query.

The limits are:

- A maximum of 32767 labels can be printed at one time.
- If you are saving resolved output (page 3 of the Print Options display), a maximum of 9999 pages can be printed. That is, you can send copies of a

one-page document to no more than 9999 people, or copies of a 100-page document to no more than 99 people.

- If you are printing in batches of 10, a maximum of 32768 pages can be printed for each batch.
- If the document you are printing has footnotes, a maximum of 8999 pages can be printed at one time.

To prevent all copies of a document from printing with an error, do one of the following:

- Press F19 (Print/View Opts) on the Edit display and select option 3 (View printed output using split display) to see the first copy of your document in final form. The document is processed and shown on the bottom of the Edit display. Go to the end of this resolved document and verify that there are no errors on the error log page.
- Type a Y (Yes) for the *Cancel on error* prompt on page 3 of the Print Options display. Your document will cancel the first time an error is found.

---

## Chapter 15. Using Graphics

You can use graphics in your document to add visual effects to your letters and reports. **Graphics** are pictorial representations of relationships by means of dots, lines, or curves. Graphics include graphs and images. A **graph** is a series of points representing variations of variables such as percentages or bar graphs. An **image** is a likeness of an object created photographically.

**Note:** For more information about using images in documents, see the manual *Managing OfficeVision/400\**.

A graph can be sent from another system, or created using Business Graphics Utilities (BGU) and stored in a graphics data file (GDF). An image can only be sent from another system.

**Note:** For more information on how to create a graph and store it on a graphics data file, see the *BGU User's Guide and Reference*.

The following example shows a document with an embedded graph created using BGU:

## Document

TO: All Employees

Sales are a big concern for this company. To help you understand how we did in the past year, I have analyzed the monthly sales for regions 4 and 5. The following chart shows how each region did.

I would like to thank all the employees for their efforts in making this company as successful as it is.

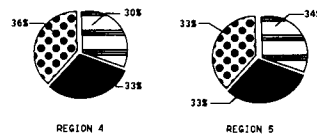
General Manager

T J Peterson

## Graphic Data File

MONTHLY SALES FOR REGIONS 4 AND 5

☒ OCTOBER ☐ NOVEMBER ☐ DECEMBER



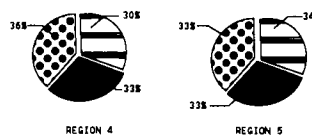
Printed Document  
with Chart

TO: All Employees

Sales are a big concern for this company. To help you understand how we did in the past year, I have analyzed the monthly sales for regions 4 and 5. The following chart shows how each region did.

MONTHLY SALES FOR REGIONS 4 AND 5

☒ OCTOBER ☐ NOVEMBER ☐ DECEMBER



I would like to thank all the employees for their efforts in making this company as successful as it is.

General Manager

T J Peterson

RV2N143-0

## Inserting Graphics in a Document

You use the Graphic text instruction (.gr) to mark the place in the document where the graphic is to be printed. You must also store the graphic in the document using the Get Graphic display before you print the document. If you do not store the graphic in the document before you print it, a blank space is printed after the Graphic instruction.

**Note:** Your printer must be capable of printing graphics. For a list of the printers that support graphics, see Appendix A, "Printers and the Functions They Support."

A graphic can be printed with text above and below it or on a page by itself. However, text cannot be printed to the left or the right of the graphic unless you are using multiple text columns. For more information about printing graphics in multiple text columns, see "Using Text Instructions in Multiple Text Columns" on page 11-29. When a graphic is printed on a page by itself, no headers, footers, or active running headings are printed on the page with the graphic.

- 

- ```

DOCNAME P:12                      EDIT Page End                      PG:1                      LN:7
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....
This is sample text that appears at the top of the Edit display when the
following split screen is displayed. This text is positioned to the top
of the display based on the cursor position when the split screen
display was requested. This is sample text that appears at the top of
the display.

```
-
- ```

.gr Graphic Instruction
This instruction marks the line in the document where a graphic should be
printed. Store the graphic in the current document before printing.

```
- 
- ```

Type choices, press Enter.
Graphic . . . . . _____ Name, F4 for list
Graphic type . . . . . - 1=Graph, 2=Image
Width (inches) . . . . . _____ 0.01-22.75
Length (inches) . . . . . _____ 0.01-22.75
Indent from paper edge . . . . . _____ 0.00-22.75, Blank=Left margin
Print with text . . . . . - Y=Yes, N=No
Top margin (inches) . . . . . _____ 0.00-22.75, Blank=First text line
Instruction length . . . . . _____ 1-255, Blank=Entire instruction

```
-
- ```

F3=Exit F4=Prompt F5=View graphic F12=Cancel F24=More keys

```

- Chapter 15. Using Graphics
- 15-3**

You can also leave this prompt blank and it will automatically be filled in when you get the graphic by pressing F14 (Get graphic) and fill in the information on the Get Graphic display.

4. Type a 1 (Graph) or 2 (Image) for the *Graphic type* prompt.
5. Type the appropriate information for the *Width* prompt and the *Length* prompt.

The *Width* and *Length* prompts determines the amount of white space needed for the graphic to be inserted. A *graph* is automatically scaled to fit into the white space, but the shape is not distorted. An *image* is not scaled to fit; it is trimmed to adjust to the specified size.

6. Type a value (the amount of space you want to leave for the left margin) for the *Indent from paper edge* prompt. If you leave this prompt blank, the graphic prints at the left margin. Using the *Indent from paper edge* prompt, you can position the graphic horizontally where you want it placed. A value of zero makes the graphic print at the left edge of the paper. If the graphic is within multiple text columns and you specified **Yes** for the *Print with text* prompt and you leave the *Indent from paper edge* blank, the graphic is printed at the left edge of the *column*. But if you do *not* leave the *Indent from paper edge* blank, the graphic is indented that value from the left edge of the *paper*.
7. If you want text to be printed above and below the graphic, type a Y (Yes) for the *Print with text* prompt. Otherwise, type an N (No).

If you select No, the graphic is printed on a page by itself. The page with the graphic has no headers, footers, or running headings printed on it. If the graphic is in multiple text columns, the columns continue after the graphic.

If you select to print the graphic on a page by itself, you can type a value for the *Top margin* prompt to leave blank space above the graphic. If the *Top margin* prompt is blank, the graphic starts printing on the first typing line.

**Note:** If you are merging the Graphic instruction in a header, footer, or footnote, type a Y (Yes) for the *Print with text* prompt.

If the graphic is not already stored in your document, you must store the graphic in your document using the get graphic function. If the graphic is already stored in your document, press the Enter key.

## Using the Get Graphic Function

After you have inserted the Graphic instruction, you must store the graphic in the document before you can print it. If you have the graphic stored in another document, you can copy the graphic into this document. If you do not have the graphic stored in another document, you must store the graphic in a graphics data file (GDF) using BGU before you can copy the graphic into your document. See "Saving Your Chart in a Graphics Data File" in the *BGU User's Guide and Reference* for information on storing a chart in a graphics data file.

To store a graphic:

1. Do one of the following to get to the Get Graphic display:
  - Press F14 (Get graphic) on the Graphic Instruction display.
  - Press F5 (Goto) on the Edit display, type **gg**, and press the Enter key.

The Get Graphic display is shown:

DOCNAME P:12 EDIT Page End PG:1 LN:7  
 <2...T:...T3...T:...T4...T:...T5...T:...T6...T:...T7...T:...T8...T:...T9>.....  
 This is sample text that appears at the top of the Edit display when the following split screen is displayed. This text is positioned to the top of the display based on the cursor position when the split screen display was requested. This is sample text that appears at the top of the display.

---

**gg Get Graphic**

Type choices, press Enter.

|                    |       |                   |
|--------------------|-------|-------------------|
| Document . . . . . | _____ | Name, F4 for list |
| Graphic . . . . .  | _____ | Name, F4 for list |
| Folder . . . . .   | _____ | Name, F4 for list |

---

-OR-

|                            |       |             |
|----------------------------|-------|-------------|
| Graphics data file . . . . | _____ | Name        |
| Library . . . . .          | _____ | Name, *LIBL |
| Member . . . . .           | _____ | Name        |

F3=Exit    F4=Prompt    F12=Cancel    F14=BGU

When you specify a graphic name on the Get Graphic display, remember that the name you specify must match exactly the name you specify on the Graphic Instruction display. For example, art2 is not the same as ART2.

2. Do one of the following:

- If the graphic is stored in a PC file, type the name of the document and folder for the *Document* and *Folder* prompts. Leave the *Graphic* prompt blank.
- If the graphic is stored in another document, type the name of the document, graphic, and folder for the *Document*, *Graphic*, and *Folder* prompts.  
 If you do not remember the name of the graphic, press F4 (Prompt) and the Select Nontext Document Data display appears. You can then select the graphic you want to store in your document.
- If the graphic is stored in a graphics data file, type the name of the graphics data file, library, and member for the *Graphics data file*, *Library*, and *Member* prompts.

3. Press the Enter key.

If you pressed F14 (Get Graphic) from the Graphic display, you are returned to the Graphic display. Press the Enter key again.

## Using the #\$\_INCLGRPH Function

There may be times when you need to include one or more graphics in a document, but it is inconvenient to edit the document and go through the steps to get the graphics into the document (as explained in "Using the Get Graphic Function" on page 15-4). The #\$\_INCLGRPH function can be used instead of the get graphic function.

The #\$\_INCLGRPH function can be used to:

- Print a graphic without having to get the graphic into the document.
- Print a graphic and print text to the left, right, above, below, or on the graphic.
- Print more than one graphic on a page or on a line of a page.

The **#\$@INCLGRPH** function is provided by the Operating System/400\* (OS/400\*) licensed program rather than OfficeVision/400; however, you can use the OfficeVision/400 office editor to enter one or more **#\$@INCLGRPH** command strings into a document. When a document containing this command string prints, special processing in the OS/400 program includes the graphics at the location on the page and at the size specified by the **#\$@INCLGRPH** command string.

To include the **#\$@INCLGRPH** command in a document, type **#\$@INCLGRPH FILENAME,x,y,w,l** at the top of the page on which the graphic should print. The **#\$@INCLGRPH** command and the file name must be all uppercase characters. For the FILENAME, x, y, w, and l, complete as follows:

- Type the BGU graph data file name for the FILENAME. The library that contains this BGU graph data file must be in your library list at the time the document prints in order for the BGU graph data file to be found. The last member in this file is always used.
- x is the distance in inches from the left edge of the paper.
- y is the distance in inches from the top edge of the paper.
- w is the width of the graphic in inches.
- l is the length of the graphic in inches.

**Notes:**

1. The printed graphic is enlarged or reduced to fit within the length and width specified.
2. Specify the values for x, y, w, l in the format aa.aa. For example, the value for x could be specified as 2.20 (inches). Any value not specified defaults to 0.
3. The document must be printed on an IPDS printer in order for the graphic to print (for example, a 3812 Printer).
4. There must be only one space between the command word and parameters.
5. Parameters should immediately follow one another, be supported by commas, and have no blanks.
6. The **#\$@INCLGRPH** command string is processed using characters from code page 500. In code page 500, # is hex 7B, \$ is hex 5B, and @ is hex 7C. Other code pages may use other characters in the **#\$@INCLGRPH** command string. You will need to change the characters depending on the code page being used.

The **#\$@INCLGRPH** command string must be first in a line of data processed by the OS/400 program. Because of the specific printer data streams that the OfficeVision/400 print function creates, you must be careful where you place the command string in a document. Consider the following information when placing the command string in a document.

- If the document contains more than 1 left margin value, make sure that the **#\$@INCLGRPH** command string is located at the smallest left margin specified in the entire document. For example, if you used a format change to change the left margin from 19 to 10, make sure that the active left margin is 10 at the point where the **#\$@INCLGRPH** command string is located.



- Justification cannot be active at the point where the `##$@INCLGRPH` command string is located. If justification is active, the printer data stream created by OfficeVision/400 contains some control characters at the start of each line. This causes the `##$@INCLGRPH` command string to be unrecognized. If the text on the page must be justified, insert a format change that turns justification off (off means left justification), before the `##$@INCLGRPH` command string. After the `##$@INCLGRPH` string, insert another format change to reset justification to the desired value.
- If the page containing the graphic is part of a multiple text columns set, use the multiple text columns function to return to single column mode before the `##$@INCLGRPH` command string. Then return to multiple text column mode following the `##$@INCLGRPH` command string.

The position of the `##$@INCLGRPH` command string in the document has no relationship to where the graphic actually prints. Therefore, if you place all `##$@INCLGRPH` command strings together at the top of the page on which the graphics will print, you minimize the number of format changes that may be necessary to ensure that the `##$@INCLGRPH` command string is recognized by the OS/400 program.

## Printing a Document with Graphics

When printing a document with graphics, do the following:

1. On the Edit display, press F3 (Exit/Save) to show the Exit Document display.
2. Type a Y (Yes) for the *Print document* and *Display print options* prompts.
3. Press the Enter key and page 1 of the Print Options display is shown.
4. Type a 1 (Printer) for the *Output device* prompt. Additional options are shown.
5. Type the printer ID of a printer where you want to print the graph or image for the *Printer* prompt.

**Note:** Not all printers print graphs and images. To see if your printer prints graphs or images, see Appendix A, "Printers and the Functions They Support" or your printer manual.

6. Press the Page Down key to show page 2 of the Print Options display.
7. Type a Y (Yes) for the *Resolve instructions* prompt.

This causes the Graphics text instruction to print the graph or image.

8. Press the Enter key to print the document.

### Notes:

- a. The graph or image is inserted into the document when the document is printed. The graphic is not shown when viewing a resolved document or when viewing a document using F19 (Print/View Opts).
- b. If the document is sent to a printer that does not print graphics, the graphic is not printed but a blank space is left where the Graphic instruction was typed.
- c. If the graphic you specify to print is not stored in the document, a blank space is left in the document following the Graphic instruction.

- d. When BGU changes a graph to a graphics data file (GDF), some of the color numbers and fill patterns may change. For more information on color numbers and fill patterns, see the *BGU User's Guide and Reference*.
- e. A document that contains a graph or image and is sent in final format to another user (either local or remote) does not contain the graph or image when printed by that user.

## Copying Images and Graphs

To copy an image or a graph, start on the Work with Nontext Document Data display. To get to this display, do one of the following:

- On the Work with Documents in Folders display, press F9 (Work with). The Work with Word Processing menu is shown. Select option 4 (Work with nontext document data), and press the Enter key.
- Type **WRKDOC DOC(\*NONTXTDTA) FLR(folder name)** on the command line, and press the Enter key.

The Work with Nontext Document Data display is shown.

**Work with Nontext Document Data**

Folder . . . GRAPHFLR  
 Position to . . . . . Starting characters

Type options (and Document), press Enter.  
 3=Copy    4=Delete    5=View    7=Rename    9=Print Options

| Opt | Document     | Data   | Type  | Opt | Document    | Data | Type  |
|-----|--------------|--------|-------|-----|-------------|------|-------|
| —   | PC.IMG       |        | IMAGE | —   | PS2STAT.GDF |      |       |
| —   | PS2SALES.GDF |        | GRAPH | —   | PC.GRA      | IMG1 | IMAGE |
| —   | PT88.PIF     |        | GRAPH | —   |             |      |       |
| —   | STATUSF      | GRAPH1 | GRAPH | —   |             |      |       |

F3=Exit            F4=Prompt            F5=Refresh  
 F6=Print list    F9=Work with        F12=Cancel

To copy one of the graphs or images listed on the Work with Nontext Document Data display:

1. Type a 3 (Copy) next to each document (graph or image) you want to copy.
2. Press the Enter key. The Copy Nontext Document Data display is shown.

**Copy Nontext Document Data**

From folder . . . . . :  
GRAPHFLR

Type choices, press Enter.  
To folder . . . . . Name, F4 for list

---

Replace existing data . . . \_ Y=Yes, N=No

To rename copied data, change To Document and/or To Data names.

| From Document | From Data | To Document | To Data |
|---------------|-----------|-------------|---------|
| PC.IMG        | ART1      | _____       | _____   |
| PC.IMG        | ART2      | _____       | _____   |

F3=Exit    F4=Prompt    F9=Reset    F12=Cancel

3. Type the name of the folder you want to copy the graphic to for the *To folder* prompt.
4. If you want to replace the graphic, type a Y (Yes) for the *Replace existing data* prompt.
5. The graphs or images you selected to copy are listed on the display. For each graph or image name, type the name of the document that you want them copied to for the *To Document* prompt.  
You cannot copy data into a PC file.
6. Type the name that you want to assign to the copied graphic for the *To Data* prompt.
7. Press the Enter key. The graphic is copied to the document and given the name you assigned.

---

## Deleting Images and Graphs

When you delete a PC file with an extension (IMG, GDF, or PIF), the entire file is deleted.

To delete an image or a graph, start on the Work with Nontext Document Data display. To get to this display, do one of the following:

- On the Work with Documents in Folders display, press F9 (Work with). The Work with Word Processing menu is shown. Select option 4 (Work with nontext document data), and press the Enter key.
- Type **WRKDOC DOC(\*NONTXTDTA) FLR(folder name)** on the command line, and press the Enter key.

The Work with Nontext Document Data display is shown.

To delete one of the graphs or images listed on the Work with Nontext Document Data display:

1. Type a 4 (Delete) next to the document (graph or image) you want to delete.

2. Press the Enter key. The Confirm Delete of Nontext Document Data display is shown.
3. Press the Enter key again to delete.

---

## Viewing Images and Graphs

To view images and graphs, you must have a display station that can display graphics. If you are using the word processing function of OfficeVision/400, you can view a graph but not an image. If you are using the PC text-assist function with DOS, you can view both images and graphs. If you are using the PC text-assist function with the OS/2\* program, you cannot view either images or graphs.

You can view an image or graph from the Work with Documents in Folders display, the Work with Nontext Document Data display, or the Graphic Instruction display. You will always see a full-page view of the graphic without text.

To view an image or a graph from the Graphic Instruction display:

1. On the Edit display, move the cursor under the Graphic instruction (.gr) and press the Enter key.

The Graphic Instruction display is shown.

2. Press F5 (View graphic) to see a full-page view of the graphic.

If you are not using a display station that can display graphics, you receive an error message.

3. Press F3 (Exit) or F12 (Cancel) to return to the Graphic Instruction display.

To view an image or a graph from the Work with Documents in Folders display or the Work with Nontext Document Data display:

1. On the Work with Documents in Folders display or the Work with Nontext Document Data display, type a 5 (View) next to the graphic you want to view.

**Note:** Depending on what OfficeVision/400 functions are installed on your system, not all options may be shown on the Work with Documents in Folders display.

| Work with Documents in Folders            |                |                           |                         |               |
|-------------------------------------------|----------------|---------------------------|-------------------------|---------------|
| Folder . . . _____                        |                |                           |                         |               |
| Position to . . . . . _____               |                | Starting characters _____ |                         |               |
| Type options (and Document), press Enter. |                |                           |                         |               |
| 1=Create                                  | 2=Revise       | 3=Copy                    | 4=Delete                | 5=View        |
| 6=Print                                   | 7=Rename       | 8=Details                 | 9=Print Opts            | 10=Send       |
| 11=Spell                                  | 12=File remote | 13=Paginate               | 14=Authority            | 15=Fill form  |
| Opt                                       | Document       | Document Description      | Revised                 | Type          |
| —                                         | PC.IMG         | Image of a PC             | 02/24/89                | PCFILE        |
| —                                         | PS2Sales.GDF   | Sales figures             | 03/03/89                | PCFILE        |
| —                                         | PT88.PIF       | 1988 Passenger Sales      | 02/23/89                | PCFILE        |
| —                                         | STATUSF        | Base for transparencies   | 04/10/89                | RFTDCA        |
|                                           |                |                           |                         | Bottom        |
| F3=Exit                                   | F4=Prompt      | F5=Refresh                | F10=Search for document |               |
| F11=Display names only                    |                | F12=Cancel                | F13=End search          | F24=More keys |

2. Press the Enter key and the graph or image is shown on the Edit display.
3. Press F3 (Exit) or F12 (Cancel) to return to the Work with Documents in Folders display, or the Work with Nontext Document Data display.

## Renaming Images and Graphs

You can rename an image or graph if it is not a PC file with an extension (IMG or GDF).

To rename an image or a graph, start on the Work with Nontext Document Data display. To get to this display, do one of the following:

- On the Work with Documents in Folders display, press F9 (Work with). The Work with Word Processing menu is shown. Select option 4 (Work with nontext document data), and press the Enter key.
- Type **WRKDOC DOC(\*NONTXTDTA) FLR(folder name)** on the command line, and press the Enter key.

The Work with Nontext Document Data display is shown.

To rename one of the graphs or images listed on the Work with Nontext Document Data display:

1. Type a 7 (Rename) next to each document (graph or image) you want to rename. You cannot rename a PC file with an extension (IMG or GDF).
2. Press the Enter key. The Rename Nontext Document Data display is shown with a list of all graphs and images in that document. The current name of the graphic is shown in the *Data* column.
3. Position the cursor in the *New data* prompt next to the graphic you want to rename.
4. Type the name you want to assign to the graphic for the *New Data* prompt.
5. Press the Enter key and the graphic is renamed.

## Printing Images and Graphs

To print an image or a graph, start on the Work with Nontext Document Data display. To get to this display, do one of the following:

- On the Work with Documents in Folders display, press F9 (Work with), The Work with Word Processing menu is shown. Select option 4 (Work with nontext document data).
- Type **WRKDOC DOC(\*NONTXTDTA) FLR(folder name)** on the command line, and press the Enter key.

The Work with Nontext Document Data display is shown.

Work with Nontext Document Data

Folder . . . GRAPHFLR

Position to . . . . . Starting characters

Type options (and Document), press Enter.

3=Copy    4=Delete    5=View    7=Rename    9=Print Options

| Opt | Document     | Data   | Type  | Opt | Document    | Data | Type  |
|-----|--------------|--------|-------|-----|-------------|------|-------|
| —   | PC.IMG       |        | IMAGE | —   | PS2STAT.GDF |      | GRAPH |
| —   | PS2Sales.GDF |        | GRAPH | —   | PC.GRA      | IMG1 | IMAGE |
| —   | PT88.PIF     |        | GRAPH | —   |             |      |       |
| —   | STATUSF      | GRAPH1 | GRAPH | —   |             |      |       |

F3=Exit    F4=Prompt    F5=Refresh

F6=Print list    F9=Work with    F12=Cancel

To print one of the graphs or images listed on the Work with Nontext Document Data display:

1. Type a **9** (Print) next to the document (graph or image) you want to print.
2. Press the Enter key and the Graphic Print Options display is shown.

| Graphic Print Options             |       |                                                     |
|-----------------------------------|-------|-----------------------------------------------------|
| Type choices, press Enter.        |       |                                                     |
| Graphic width (inches) . . . . .  | _____ | 0.01-22.75                                          |
| Graphic length (inches) . . . . . | _____ | 0.01-22.75                                          |
| Indent from                       |       |                                                     |
| paper edge (inches). . . . .      | _____ | 0.00-22.75                                          |
| Top margin (inches) . . . . .     | _____ | 0.00-22.75                                          |
| Paper width (inches) . . . . .    | _____ | 1-45.5                                              |
| Paper length (inches). . . . .    | _____ | 1-45.5                                              |
| Rotate paper . . . . .            | -     | 1=Automatic, 2=0<br>3=90, 4=180,<br>5=270 (Degrees) |
| F3=Exit      F12=Cancel           |       |                                                     |

3. Specify the width of the graphic for the *Graphic width* prompt.
4. Specify the length of the graphic for the *Graphic length* prompt.
5. Specify where you want the graphic to begin printing from the left margin for the *Indent from paper edge* prompt.
6. Specify where you want the graphic to begin printing for the *Top margin* prompt.
7. Specify the width of the paper for the *Paper width* prompt.
8. Specify the length of the paper for the *Paper length* prompt.
9. Select an option for the *Rotate paper* prompt.
10. Press the Enter key. Page 1 of the Print Options display is shown where you can specify other options such as the printer you want to use.

The graphic is printed using the information you specified on the Graphic Print Options display. For more information about printing the entire document, see "Printing" on page 8-3.





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## Chapter 16. Creating and Printing Labels and Envelopes

This chapter describes how to create and print labels and envelopes.

You create labels by creating a document and specifying that the document must be printed as labels. You must describe the format of the labels, which includes setting the margins and specifying the page layout and paper source for the label forms. You then provide the text, such as names and addresses, for the labels. You can type the names and addresses for each label, or you can use Data Field instructions to merge the names and addresses from a fill-in document, file, or query. When you print the labels, you specify additional information about the type of label form you are using on the Print Options display.

When you describe the page layout and paper source for your labels, you can describe **sheet feed labels** or **continuous form labels**.

- Sheet feed labels

When sheet feed labels are printed, each sheet is considered one page. When you specify the page layout on the Page Layout/Paper Options display, the length you specify for the *Paper length* prompt is the length of the sheet. For the *Paper source* prompt, you specify the paper drawer that contains the sheet feed forms.

You can also use this method to describe the page layout of continuous forms by considering the area of paper between the folds as one sheet. The length you specify for the *Paper length* prompt is then the length of one row multiplied by the number of rows between the folds. For the *Paper source* prompt, you would specify continuous forms.

- Continuous form labels

When continuous form labels are printed, each row of labels is considered one page. When you specify the page layout on the Page Layout/Paper Options display, the length you specify for the *Paper length* prompt is the length of one row of labels. If you use this method to describe the page layout for your labels, you must use continuous forms when you print your labels. However, you can use the sheet feed method to describe the page layout for continuous forms.

**Note:** For SCS printers, the paper length must be specified as a number that can be evenly divided by 1/8 inch. If the paper length is not a number that can be evenly divided by 1/8 inch, use the sheet feed label method to describe the page layout.

This chapter describes the following:

- Creating a label document
- Setting up for continuous or sheet feed labels
- Printing labels with and without using merged information
- Printing labels
- Solving label printing problems
- Creating and printing an envelope

---

## Creating a Label Document

You can create a label document by specifying on the Create Document Details display that the document must be printed as labels.

### To create a label document:

1. Select option 1 (Create) on the Work with Documents in Folders display to create a new document.

Type a document name for the *Document name* prompt.

2. Press the Enter key.

The Create Document Details display is shown.

3. Type a Y (Yes) for the *Print as labels* prompt and press the Enter key. The Edit display is shown.

4. Continue by specifying the format options for either continuous form labels or sheet feed labels.

**Note:** Headers and footers are not supported in label documents. If a label document contains header or footer information, it is not printed. Also, no error message is shown for this on the error log page.

## Setting Up for Continuous Form Labels

The paper length for continuous form labels is the distance from the top of one label to the top of the next row of labels as shown below. For example, if your labels are 3/4 inch long, your total label length is 3/4 inch plus the blank space of 1/4 inch, which equals one inch. This is the length you specify for the *Paper length* prompt on the Page Layout/Paper Options display.

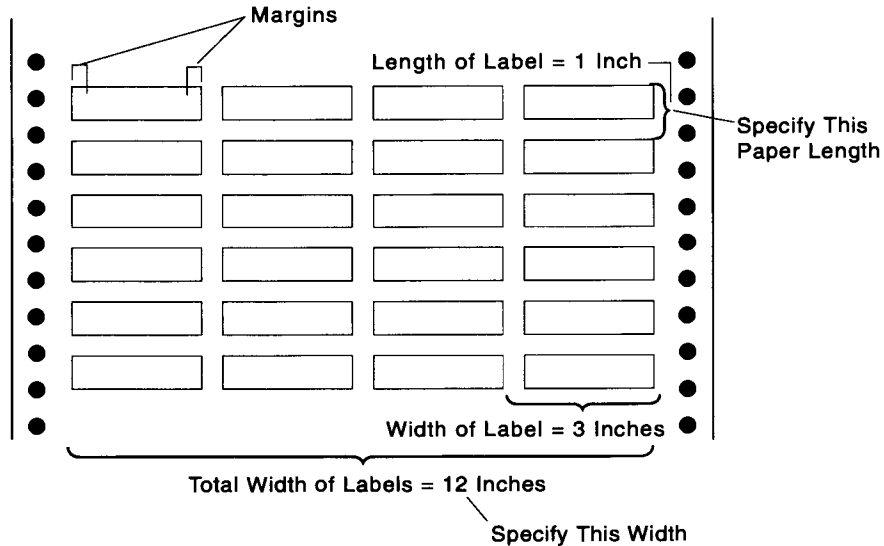
The paper width for continuous form labels is the total width of all the labels on the label form. For example, if you print four labels across and each label is three inches, that is a total width of 12 inches. Type 12.0 for the *Paper width* prompt on the Page Layout/Paper Options display. When you print your label document, you specify the width of a single label. The width of a label is measured from one edge of a label to the same edge of the next label as shown below. You must specify the number of characters for the label width. For example, if the label width is 3 inches and your type style is set for 12 characters per inch, you specify 36 for the *Width of label* prompt on the Label Print Options display.

You must use the total page length in the *Paper length* prompt when using continuous form labels on SCS printers.

**Note:** For SCS printers, you must specify the paper length as a number that can be evenly divided by 1/8 inch. If the paper length is not a number that can be evenly divided by 1/8 inch (for example, 1-1/3), use the sheet feed label method to describe the page layout.

Continuous form labels start printing on line 1 of the paper. If you want the labels to start printing on a different line, put the blank lines in the label document by inserting Required Carrier Returns.

### Continuous Form Labels



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### Specifying Page Layout/Paper Options for Continuous Form Labels

To specify the width and length of the label paper:

1. On the Edit display, press F5 (Goto) and the *Goto* prompt is shown.
  2. Type **dp** in the *Goto* prompt and press the Enter key. The Page Layout/Paper Options display is shown.
  3. Press the Page Down key until page 2 of the Page Layout/Paper Options display is shown. (You do not need to specify the first and last typing line for continuous form labels.)
    - a. Type the total paper width of the labels (for example, 12.0 inches) for the *Paper width* prompt.
    - b. Type the paper length of your label (for example, 1.0 inches) for the *Paper length* prompt.
- Note:** If labels are less than one inch in length, you must use a metric unit of measure for the *Paper width* and *Paper length* prompts. To use a metric unit of measure, you must select the metric option for the *Units of measure for paper size* prompt on the Change Editing Options display.
- c. Type a **6** (Continuous feed) for both the *Printing paper source first page* and *Printing paper source following pages* prompts.
4. Press the Enter key until the Edit display is shown.

## Specifying the Margins for Continuous Form Labels

You must change the margins so the margins are the width of the text on the first label on the label form.

To specify the margins for a continuous form label:

1. Press F5 (Goto) and the *Goto* prompt is shown.
2. Type **dm** in the *Goto* prompt and press the Enter key. The Margins and Tabs display is shown.
3. Press F7 (Window).
4. Type the left margin of the first label after the message:  
Type left column (1-255)
5. Press the Enter key and the scale line is displayed, starting with the left margin you specified.
6. Type a < at the position on the scale line for the left margin of the label.
7. Type a > at the position on the scale line for the right margin of the label.
8. Press the Enter key until the Edit display is shown. The new margins are shown on the scale line.
9. Continue creating the labels by typing the text or by using merged information from a file, query, or fill-in document. If you want to type the label text, go to "Typing Label Text" on page 16-6. If you want to use merged information, see "Using Merged Information for Label Text" on page 16-7.

## Setting Up for Sheet Feed Labels

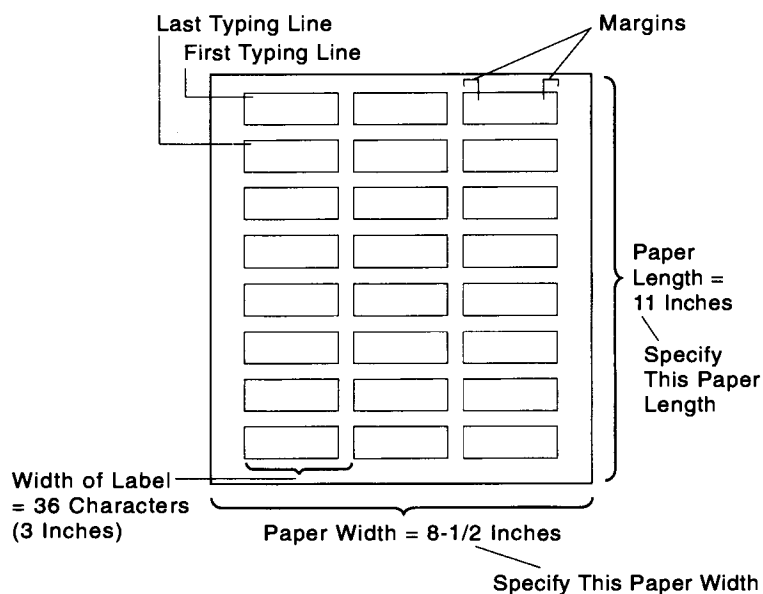
The paper length for sheet feed labels is the total page length of the sheet feed form. For example, if you wanted to print your labels on 8-1/2 x 11 inch paper, you would type 11 for the *Paper length* prompt on the Page Layout/Paper Options display.

The paper width for sheet feed labels is the total page width of the sheet feed forms. Specify the width of the sheet of paper for the *Paper width* prompt on the Page Layout/Paper Options display.

When you print the label document, you specify the width of one label on the Print Options display. The width of a label is measured from one edge of a label to the same edge of the next label as shown below. You must specify the number of characters for the label width. For example, if the label width is 3 inches and your type style is for 12 characters per inch, you specify 36 for the *Width of label* prompt on the Label Print Options display.

When you use sheet feed labels, you must specify the first typing line and last typing line for the first label on the sheet feed form.

## Sheet Feed Labels



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## Specifying Page Layout/Paper Options for Sheet Feed Labels

To specify the size of a sheet feed label:

1. On the Edit display, press F5 (Goto) and the *Goto* prompt is shown.
2. Type **dp** in the *Goto* prompt and press the Enter key.  
The Page Layout/Paper Options display is shown.
3. Type the line number that the first row of labels starts on for the *First typing line for first page* and the *First typing line for following pages* prompts.
4. Type a 1 for the *First typing line for header* prompt.
5. Type **999** for the *First typing line for footer* prompt.
6. The value for the *Last typing line* prompt is the first typing line plus the total number of lines from the top of one label to the top of the next label minus 1.  
For example:

```

5 First typing line
+12 Number of lines from the top of one label to the top of the next

17
- 1

16 Last typing line

```

Determine this value and type the value in the *Last typing line* prompt.

7. Press the Page Down key until page 2 of the Page Layout/Paper Options display is shown.
8. Type the width of your paper (for example, 8.5 inches) for the *Paper width* prompt.

9. Type the length of your paper (for example, 11 inches) for the *Paper length* prompt.
10. Type your paper drawer number for both the *Printing paper source first page* and *Printing paper source following pages* prompts.
11. Press the Enter key until the Edit display is shown.

### **Specifying the Margins for Sheet Feed Labels**

To specify the margins for a sheet feed label, you must change the margins so the margins are the width of the text on the first label.

1. Press F5 (Goto) and the *Goto* prompt is shown.
2. Type **dm** (Document margins) in the *Goto* prompt and press the Enter key.  
The Margins and Tabs display is shown.
3. Press F7 (Window).
4. Type the number of the column where the left margin will be after the message:  
Type left column (1-255)
5. Press the Enter key and the scale line is displayed starting with the left column number you specified.
6. Type a **<** at the position on the scale line for the left margin of the label.
7. Type a **>** at the position on the scale line for the right margin of the label.
8. Press the Enter key until the Edit display is shown. The new margins are shown on the scale line.
9. Continue creating the labels by typing the text or by using merged information from a file, query, or fill-in document. If you want to type the label text, go to "Typing Label Text." If you want to use merged information, see "Using Merged Information for Label Text" on page 16-7.

### **Typing Label Text**

To type label text:

1. On the Edit display, type the information for the first label.
2. If you want more than one label in the document, type each label on a separate page.
3. To place the labels on separate pages, use the Alt key plus the P key or a Start New Page instruction (.pa). If you use a Start New Page instruction, insert a Carrier Return after each (.pa).

To highlight lines in a label, use the Begin Bold (Alt B) and End Bold (Alt J) control characters on each line of the label.

To underline lines in a label, use the Begin Underline (Alt U) and End Underline (Alt J) control characters on each line of the label.

4. Continue by saving and printing the labels.

## Using Merged Information for Label Text

To create labels using merged information from data fields in a file, query, or fill-in document:

1. On the Edit display, move the cursor to the position you want the first data field printed on.
2. Press F5 (Goto), then type .& (data field) in the *Goto* prompt, and press the Enter key. The Data Field Instruction display is shown.
3. Type the name of the data field for the *Data field* prompt.
4. For the *Data field source* prompt, do one of the following:

- If you want to specify the name of a query, file, or document, type a 1 (From Merge Data Options).

**Note:** If you specify a 1 (From Merge Data Options), you cannot override the source later by typing a different source on the Print Options display.

- If you want to specify the name of the query, file, or document when you print your document, type a 2 (\*PRINT). This is done on the Print Options display.

**Note:** You cannot specify a 3 (\*NOTE) for this prompt when printing labels.

5. Select option 1 (Multiple letters) for the *Letters or list* prompt.

**Note:** You cannot specify a 2 (Column list) for this prompt when printing labels.

6. Press the Enter key.

If you selected option 2 for the *Data field source* prompt, go to step 9.

If you selected option 1 for the *Data field source* prompt, the Merge Data Options display is shown.

7. On the Merge Data Options display, do one of the following:

- If you want to merge data from a query, select option 1 (Query). Additional prompts are shown. Type the query name and library name.
- If you want to merge data from a document, select option 2 (Document). Additional prompts are shown. Type the document name and folder name.
- If you want to merge data from a file, select option 3 (File). Additional prompts are shown. Type the file name, library name (optional), and member name.

If the member name is the same name as the file name, type \*FILE for the *Member* prompt.

If the member is the first member in the file, type \*FIRST for the *Member* prompt.

If the member is the last member in the file, type \*LAST for the *Member* prompt.

8. Press the Enter key and the Data Field instruction is inserted into your document.
9. Repeat steps 1 through 8 for *each* data field you want printed on the label.
10. Save and print the labels.

More information on merging can be found in "Using Data/Text Merge" on page 14-10.

**Note:** To highlight lines in a label, use the Begin Bold (Alt B) and End Bold (Alt J) control characters on each line of the label.

To underline lines in a label, use the Begin Underline (Alt U) and End Underline (Alt J) control characters on each line of the label.

---

## Printing the Labels

Before you print the labels, it is a good idea to view them on your display to ensure that they print correctly. To view labels on your display, press F19 (Print/View Opts) from the Edit display and select option 3 (View printed output using split display).

If you created the labels using merged information, only one label is shown on the display. If you created the labels without using merged information, all of the labels are shown on the display.

If the labels do not appear the way you want them to print, see "Solving Label Printing Problems" on page 16-10.

To print labels:

1. Press F3 (Exit/Save) from the Edit display. The Exit Document display is shown.
2. Type a Y (Yes) for the *Print document* and *Display print options* prompts.
3. Press the Enter key. The Label Print Options display is shown.

**Note:** If the Label Print Options display is not shown, go to the Work with Documents in Folders display and type an 8 (Details) for the *Opt* prompt. The Change Document Details display is shown. Type a Y (Yes) for the *Print as labels* prompt. Press the Enter key and you are returned to the Work with Documents in Folders display. Type a 2 (Revise) for the *Opt* prompt next to the document you want to print as labels. The Edit display is shown. Go back to step 1.



| Label Print Options                                            |       | Page 1 of 3                    |
|----------------------------------------------------------------|-------|--------------------------------|
| Document . . . . .                                             | :     | _____                          |
| Type choices, press Enter.                                     |       |                                |
| Labels across page. . . . .                                    | —     | 1-99                           |
| Width of label. . . . .                                        | —     | 2-198                          |
| Sheet feed labels . . . . .                                    | —     | Y=Yes, N=No                    |
| Rows per sheet. . . . .                                        | —     | 1-99                           |
| Number of label sets. . . . .                                  | —     | 1-99                           |
| Output device . . . . .                                        | —     | 1=Printer, 2=Display<br>3=File |
|                                                                |       |                                |
| Printer . . . . .                                              | _____ | Printer ID                     |
| Output queue . . . . .                                         | _____ | Name, *DEV, *FILE              |
| Library . . . . .                                              | _____ | Name, *LIBL                    |
| Output file . . . . .                                          | _____ | Name, *DOC, *FILE              |
| Form type . . . . .                                            | _____ | Printer form                   |
| Printer file . . . . .                                         | _____ | Name                           |
| Library . . . . .                                              | _____ | Name, *LIBL                    |
|                                                                |       | More...                        |
| F3=Exit    F6=Print queue    F9=Format options    F12=Previous |       |                                |
| F15=Merge data options                                         |       |                                |

4. Type the number of labels on each row of your label form in the *Labels across page* prompt.
5. Type the width of each label in the *Width of label* prompt.  
The number typed for the *Width of label* prompt is the number of characters from the left edge of one label to the left edge of the next label.
6. Type a Y (Yes) for the *Sheet feed labels* prompt if you are using sheet feed labels.  
Type an N (No) if you are not using sheet feed labels.
7. Type a value for the *Number of rows per sheet* prompt if you are using sheet feed labels.
8. Type a value for the *Number of label sets to print* prompt.  
The number typed for this prompt is the number of copies of each label you want to be printed.
9. Select option 1 (Printer) for the *Output device* prompt. Additional prompts are shown.
  - a. Type the printer ID in the *Printer* prompt.
  - b. Type any additional information in any of the prompts. If you need more information about any of these prompts, move the cursor to the prompt and press the Help key.
10. If you are merging information from a file, query, or fill-in document, and specify \*PRINT in the *Data field source* prompt on the Data Field Instruction display, press F15 (Merge data options) and the Merge Data Options display is shown.
  - a. Select an option for the *Data field source* prompt. Additional prompts are shown.  
  
**Note:** For the data field instruction, you may have specified a 1 (From Merge Data Options) for this prompt. If so, entering different source information on this display does not override the original source.
  - b. Type any additional information about the document, file, or query.

- c. Press the Enter key to return to the Label Print Options display.
11. Press the Page Down key if you want to see additional print options.
12. Press the Enter key again to print your labels.

## Solving Label Printing Problems

If you find a printing problem, you can either print the error log or check the print problem summary shown in Figure 16-1. If the printing problem is not associated with labels, refer to the manual for your printer to solve the problem.

To print the error log:

1. Go to page 3 of the Label Print Options display.

Document . . . . . : \_\_\_\_\_
Label Print Options
Page 3 of 3

Type choices, press Enter.

|                           |       |                   |
|---------------------------|-------|-------------------|
| Cancel on error.....      | N     | Y=Yes, N=No       |
| Print error log.....      | Y     | Y=Yes, N=No       |
| Form type.....            | _____ | Printer form      |
| Save resolved output..... | N     | Y=Yes, N=No       |
| Document.....             | _____ | Name, F4 for list |
| Folder.....               | _____ | Name, F4 for list |

F3=Exit      F4=List      F6=Print queue      F9=Format options

F12=Previous      F15=Merge data options

Bottom

2. Type a Y (Yes) for the *Print error log* prompt.  
Specify a different form number for the error log if you want to avoid printing the error log on your label forms.
3. Press the Enter key. The error log is printed after the labels are printed.
4. Determine the type of problem from the error log.
5. Use the error log to determine the solution to your problem and to correct the problem.
6. Repeat the above steps until the labels print correctly.
7. Print the labels.

The following chart describes some of the most frequent problems that occur when you print labels. If you have checked this chart and still cannot find your printing problem, see the manual for your printer.

Figure 16-1. Print Problem Summary

| Problem                                                     | Cause                                                                                                                                                                                                                                        | Solution                                                                                                                                                                                                                                       |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Labels move to the left when printed.                       | The printer does not support the pitch that you specified. Therefore, the printer defaults to a different pitch causing the labels to move left.                                                                                             | Change the pitch to one that is supported on your printer using the <i>Typestyle</i> prompt on the <i>Typestyle/Color</i> display.                                                                                                             |
| Labels move to the right when printed.                      | The data you merged into your label is wider than the margins you specified, or you specified a proportional spaced (PSM) type style for your labels.                                                                                        | Increase the width between your margins or specify a type style that is not a PSM type style.                                                                                                                                                  |
| Only one row of labels prints on each sheet feed label.     | You did not type <b>Yes</b> for the <i>Sheet feed labels</i> prompt on page 1 of the Label Print Options display, or you specified an incorrect value for the <i>Paper length</i> prompt on page 1 of the Page Layout/Paper Options display. | Type the correct values and print the labels again. If you need help in determining the correct value, refer to "Setting Up for Sheet Feed Labels" on page 16-4.                                                                               |
| The right end of the labels does not print.                 | You have specified an incorrect value for the <i>Width of label</i> prompt on page 1 of the Label Print Options display or the <i>Width of label</i> prompt on page 1 of the Page Layout/Paper Options display.                              | Type the correct value in the desired prompt and print the labels again. If you need help in determining the correct value, refer to "Setting Up for Continuous Form Labels" on page 16-2 and "Setting Up for Sheet Feed Labels" on page 16-4. |
| Every other label is blank.                                 | Your label document contains an extra blank page.                                                                                                                                                                                            | Delete the blank page.                                                                                                                                                                                                                         |
| More than one line of text is printing for each data field. | The data field instruction in the shell document is defined for a column list instead of multiple letters.                                                                                                                                   | On the Data Field Instruction display, type a 1 (Multiple letters) for the <i>Letters or list</i> prompt.                                                                                                                                      |

## Creating and Printing an Envelope

To print an envelope with a letter, you can create an envelope page anywhere in the document, but it is usually created at the end of the document as shown below.

Begin using alternate format (an alternate format used at the end of a document to produce an envelope).

```

XXXX XXXXXXXXX
XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX
XXXXX
XXXXX
XXXXX

XXXXXXXXXXXXX
XXXXXXXXXXXXX
XXXXXXXXXXXXX

```

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To create an envelope at the end of a document, change the page format or use an alternate format. You do not have to print the document and the envelope sep-

arately. You can also create an envelope document to print more than one envelope.

Create an envelope page in your document by doing the following:

1. Press F5 (Goto) to show the *Goto* prompt.
2. Type an **a** in the prompt and press the Enter key. The Select Alternate Format display is shown.
3. Select option 4 (Page layout/paper options) and press the Enter key. The Page Layout/Paper Options display for the alternate format is shown.
4. If you are using the standard envelope (9.5 x 4.13 inches), type **15** for the *First typing line for first page* prompt.
5. Press the Page Down key.
6. Type **9.5** for the *Paper width* prompt (if you are using a 9.5 x 4.13 inch envelope).
7. Type **4.13** for the *Paper length* prompt (if you are using a 9.5 x 4.13 inch envelope).
8. Type a **5** (Envelope feed) for both the *Printing paper source first page* and *Printing paper source following pages* prompts.
9. Press the Enter key to return to the Select Alternate Format display.
10. Select option 1 (Margins and tabs) and press the Enter key. The Margins and Tabs display for the alternate format is shown.
11. Set the left margin at the position where you want the address printed. Set the right margin wide enough to contain the envelope information.
12. Press the Enter key and you are returned to the Select Alternate Format display.
13. Press F3 (Exit) to return to the Edit display.
14. Move the cursor to the Page End control character at the end of your document.  
**Note:** To move the cursor to the end of your document quickly, press F5 (Goto) and type **9999** in the prompt.
15. Press the Alt key and the P key to show a new page on the display.  
If your document is one page, the cursor will now be on page two. This is your envelope page.
16. Press F5 (Goto) to show the *Goto* prompt.
17. Type **rf** in the prompt and press the Enter key.  
The Reset Format display is shown.
18. Select option 4 (Alternate format) to begin using the alternate format.
19. Press the Enter key to return to the Edit display.  
A highlighted 2 is inserted at the top of the page to show that the alternate format is now in effect.
20. Type the name and address as they will appear on the envelope, pressing the Field Exit key at the end of each line.

**Note:** You can also merge information for your address, for example, an address from a customer list that exists in a file, query, or fill-in document. More information on merging can be found in Chapter 14. You can also copy the address information from somewhere else in the document.

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RSLN313-0



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## Chapter 17. Creating and Filling in a Form Document

A form document is a document which contains form fields. **Form fields** define specific areas where data input is allowed when filling in a form. All other text in the form document is protected from changes. Form fields are defined in a form document using any of the OfficeVision/400 editors and the Form Field instruction. Each field can be uniquely defined, allowing features such as numeric editing, input validity checking, input from/output to a database file, and field prompting.

In this chapter, the cursor position is represented by ■.

---

### Creating a Form Document

To create a form document, do the same steps as when creating any OfficeVision/400 document. You can create a form document by selecting option 1 (Create) on the Work with Documents display, or use the CRTDOC command. What distinguishes a form document from other documents is the existence of form fields within the document. Form fields can be defined during the creation or revision of a form document.

Each time you change a form document, an internal table is updated to show the current location of each form field. This table is used to locate form fields faster when the form is being filled in.

**Note:** If you change a form document using a system on a release prior to Version 2 Release 3.0, and then restore the document to a Version 2 Release 3.0 system, the table must be rebuilt. If the table is not rebuilt, your form fill in request fails. To rebuild the form field table:

1. Revise the form document.
2. Press F3 (Exit/Save) on the Edit display.
3. Specify a Y (Yes) for the *Save document* prompt on the Exit Document display.

### Defining Form Fields

Form fields are areas where users can type information in the form document. Form fields are defined using the Form Field instruction.

To insert Form Field instructions into a document, do the following:

1. Move the cursor to where you want a form field defined.

**Note:** Form Field instructions are only allowed within the body of the document. They are not allowed in headers, footers, or on footnote pages.

2. Press F5 (Goto) and type .ff for the *Goto* prompt.
3. Press the Enter key. The Form Field Instruction display is shown.

Form P:12

Edit

Pg:1

Ln:7

<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....

■

Name: ■

---

.ff

Form Field Instruction

Page 1 of 2

This instruction marks the location of a form field.

Type choices, press Enter.

|                                   |   |             |
|-----------------------------------|---|-------------|
| Length of form field . . . . .    | 0 | 1-78        |
| Decimal positions . . . . .       | 0 | 0-9         |
| Allow numeric data only . . . . . | N | Y=Yes, N=No |
| Value required . . . . .          | N | Y=Yes, N=No |
| Initial value                     |   |             |

---

Prompt text

---

F3=Exit

F5=Numeric editing

F6=Character editing

F9=Date/time editing

F12=Cancel

F16=Delete instruction

More...

4. Complete the prompts on page 1 of the Form Field Instruction display to define the form field.
- Note:** The prompts on page 1 are the most commonly used prompts when defining a form field. Additional prompts that are used less often are on page 2.
- Length of form field.** If this is going to be a numeric only form field:
    - The maximum length allowed is 32.
    - If the field will contain numeric editing, ensure that the length you select is long enough to include *both* the digits and the editing characters. For example, since the following result could be \$9,999.99, the length should be set to at least 9:
      - The form field is going to contain dollar amounts from \$0 to \$9999.
      - The form field is going to contain two decimal positions.
      - The editing will contain a floating dollar sign, thousands separator, and a decimal point.

If the same field needed to show negative dollar amounts with left and right parentheses, (\$9,999.99), the length would have to be at least 11.
  - Decimal positions.** This is needed for numeric only form fields. The prompt is ignored if the form field is not numeric.
  - Allow numeric data only.** Specify Y (Yes) for this prompt if the form field is going to allow only numeric data (for example, numbers, dates, and time).
  - Value required.** Specify Y (Yes) for this prompt if a value is required to be typed in this field by the end user. If you specify Yes for this prompt, an error is shown if the user filling in the form does not type data in this field.
  - Initial value.** Complete this field if you want an initial value displayed for this form field each time the form document is filled in. A user filling in the form can leave the data as is, or type over the data in the field. Specifying



an initial value is a good idea if the expected data for the field is often the same (for example, the same city and state). This allows users to complete the form faster.

**Notes:**

- 1) The initial value cannot be longer than the length specified for the *Length of form field* prompt.
- 2) Be careful when typing an initial value for a numeric field that contains editing. You may enter editing characters as part of the initial value, for example \$1,000.00. But ensure that the characters you enter are the same as the editing characters you specified for the form field editing. If they are not the same, it causes an error when end users fill in the form.
- f. **Prompt text.** Type up to 35 characters of text to describe what data is to be typed for this field. This prompt text appears at the bottom of the display when the form is being filled in if:
  - The cursor is moved to the form field by pressing F7 (Previous field) or F8 (Next field).
  - The Enter key is pressed when the cursor is within the form field.
5. Press the Enter key after you finish defining this form field. The form field will be inserted into your document at the cursor position.
6. Press the Page Down key if you need to specify additional information for this form field. The second page of the Form Field Instruction display is shown.

Form P:12
Edit
Pg:1
Ln:7

<2...T:...T3...T:...T4...T:...T5...T:...T6...T:...T7...T:...T8...T:...T9>.....  
 ■  
 Name: ■

---

.ff
Form Field Instruction
Page 2 of 2

Type choices, press Enter.

|                                        |       |
|----------------------------------------|-------|
| Print options:                         |       |
| Underline field . . . . .              | Y     |
| Highlight field . . . . .              | N     |
| Protect field . . . . .                | N     |
| Variable name . . . . .                | _____ |
| Form field identifier . . . . .        | _____ |
| Form field validity checking . . . . . | *None |

Y=Yes, N=No  
 Y=Yes, N=No  
 Y=Yes, N=No  
 Name  
 Name  
 \*None, \*IBM, \*USER

Bottom

F3=Exit  
 F9=Date/time editing

F5=Numeric editing  
 F12=Cancel

F6=Character editing  
 F16=Delete instruction

7. Complete on page 2 any additional prompts needed to define the form field:
  - a. **Underline field.** Specify Y (Yes) for this prompt if you want this form field underlined when the form document is printed.
  - b. **Highlight field.** Specify Y (Yes) for this prompt if you want this form field printed in bold when the form document is printed.
  - c. **Protect field.** Specify Y (Yes) for this prompt if you want this form field protected from input by the end user when filling in the form. For example, a field containing the form number, will let you know what form was com-

pleted when retrieving data from a data base file. The form number can be placed in the form document through the INDATA parameter on the FILLFORM command. Such a field would need to be protected since you do not want the end user to modify the form number.

d. **Variable name.** For this prompt you can specify the name of a document variable where you want the data entered in this field to be stored. The data can then be:

- Reproduced elsewhere in the form using the Print Document Variable instruction.
- Used to perform a calculation using the Set instruction.
- Used to determine if a section of the form should be included with the Begin Conditional Text instruction.

For example, you may have a form field for the state defined with a document variable name of STATE. Once the state name is filled in the form, you need to reproduce that name in several other locations throughout the form. You could have the user type the name where needed throughout the document. A better idea is to use the Print Document Variable instruction to print the contents of the variable whenever you need it in the form.

For more information on the use of document variables, see Chapter 13, "Storing Information in Variables."

e. **Form field identifier.** Use this prompt to define an identifier for your form field, if you plan on doing any of the following:

- Passing an initial value to this form field using the the Fillform command.  
The identifier must be identical to the identifier specified on the Indata parameter of the Fillform command.
- Getting data from this form field typed by the user and having that data returned to your application program.  
The identifier must be identical to the identifier specified on the Outdata parameter of the Fillform command.
- Performing validity checking on this field (either \*IBM or \*USER).  
The identifier must be identical to the identifier specified in the validity checking file (QAOEFFVL if using \*IBM checking).
- Allowing the end user to press F4 (Prompt) when using this form field to show the possible values for the field.  
The identifier must be identical to the identifier specified in the validity checking file (QAOEFFVL if using \*IBM checking).

f. **Form field validity checking.** Do one of the following for this prompt:

**Note:** If you specify \*IBM or \*USER for this prompt, data entered in this field is validity checked while the form is filled in. Validity checking also allows end users to press F4 to prompt for valid values for the form field.

- Specify \*None if you do not want any validity checking done for this form field.

- Specify **\*IBM** if you plan on entering valid data into the IBM supplied validity checking file (QAOEFFVL). Press the Enter key. The *Type of data* prompt is shown. Do one of the following:
    - Specify **1 (Values)** for this prompt if the valid values for this field are not all contained within a definite high value and low value. For example, if the form field is DEPT and valid values are 300, 400, and 500, then the type of data should be 1 (Values).
    - Specify **2 (Range)** for this prompt if the valid values for this field are all contained within a definite high and low value. For example, if the form field is AMTDUE and the valid values are \$1-\$1000, then the type of data should be 2 (Range).
  - Specify **\*USER** if you plan on using your own programs and files to perform data validity checking. Press the Enter key. The *Exit program* and *Library* prompts are shown. Do one of the following:
    - For the *Exit program* prompt, specify the name of the program that OfficeVision/400 needs to perform the validity checking and prompting.
    - For the *Library* prompt, specify the name of the library where the exit program is located.
8. Determine if you need to do any of the following for the form field you are creating:
    - If the information for the prompt includes numeric data, press F5 (Numeric editing). The Numeric Field Editing Options display is shown. Complete the prompt on the display and press the Enter key. The Form Field Instruction display is shown.
    - If the information for the prompt includes alphabetical data, press F6 (Character editing). The Character Field Editing Options display is shown. Complete the prompt on the display and press the Enter key. The Form Field Instruction display is shown.
    - If the information for the prompt includes date or time data, press F9 (Date/time editing). The Date/Time Field Editing Options display is shown. Complete the prompt on the display and press the Enter key. The Form Field Instruction display is shown.
  9. Press the Enter key. The Edit display is shown with the line you just created for the form.
  10. Repeat steps 1 through 9 for each remaining field needed for this form document.
  11. Press F3 (Exit/Save) after you finish entering the form fields for this form document. The Exit Document display is shown.
  12. Complete the prompts on the display and press the Enter key. For a description of the prompts, see "Ending and Saving a Document" on page 8-1.

## Additional Form Document Notes

When creating a form document, you should be aware that:

- When filling in the form, there is a limit of 255 input capable fields on the display. Any fields in excess of this limit are displayed, but are not input capable.

- There is no limit to the number of Form Field instructions that do not have any of the following defined for them:

- Form field ID
- Variable name
- Required input
- Numeric input

However, there is a limit of 5000 Form Field instructions for a form document that contains any of the preceding items. If this limit is exceeded, any request to fill in the form document is not allowed.

- The number of Form Field instructions that fit on a single line is determined by the internal limit for text line length. All information about the form field is stored in the Form Field instruction. The size of the instruction depends on how much information is associated with that form field. To maximize the number of Form Field instructions on a line, minimize the information in each instruction. To reduce the size of a Form Field instruction, omit or remove the following:
  - Prompt text
  - Field editing information
  - Unnecessary validity checking
  - Unnecessary field identifiers
  - Unnecessary variable names
- For uniform field editing without defining the editing for each field, use a text profile. When creating your form document, make sure that the text profile you use contains the appropriate field editing definition. For information about using text profiles, see "Using Text Profiles" on page 7-26.
- When filling in a form, each form field on the display is shown with a space separating it from preceding and following text. This increases the length of any line containing Form Field instructions that does not have a space separating it from the preceding and following text.
- Certain values stored in the form document affect filling it in:
  - If the display mode of the form document is 27 x 132, and the display station used supports that mode, the form is shown in that size.
  - Print options chosen when the form was created or changed remain in effect when completing the form.
  - Cursor draw lines are represented with asterisks (\*).
- If a form field gets completely filled, the cursor goes automatically to the next fill in form field on the current display. If the field being completed is the last field on the display, the cursor goes to the first field on the current display. If there is prompt text for the completed field, it does not change when the cursor automatically goes to the next fill in form field. To avoid this, when defining the length of a field, make it large enough so it does not get completely filled when data is typed in it.

## Form Field Editing

Form field editing is defined when you create a form field instruction using the Form Field Instruction display. If you specify Yes for the *Allow numeric data only* prompt, you can press F5 (Numeric editing) or F9 (Date/time editing). If you specify No for the prompt, you can press F6 (Character editing).

## Numeric Editing Considerations

Some numeric editing considerations are:

- If numeric editing is defined for a form field, the end user can type data in the field without editing characters. When appropriate, the end user should type a decimal character to specify where decimal positions begin. If no decimal character is included, the number typed is assumed to be a whole number. If no decimal character is included but decimal positions are defined (not 0), the rightmost digits typed are considered decimals. The following table illustrates both instances.

Figure 17-1. Numeric Editing Decimal Character Examples

| Length | Decimal position | Number only | Decimal character | Value entered | Edited value |
|--------|------------------|-------------|-------------------|---------------|--------------|
| 8      | 2                | yes         | period (.)        | 12345         | 12345.00     |
| 5      | 2                | yes         | none              | 12345         | 12345        |

- If numeric editing characters are entered by the end user, they must match the editing characters used when defining the form field. For example, one of the choices for the *Thousands separator* prompt on the Numeric Field Editing Options display is a comma (.). If a comma is specified as the thousands separator when the form field is defined, it must also be specified when the form is completed. If another character is specified, for example a period (.), an error is indicated. An exception to this rule is the minus sign. If the form field is defined to include a negative number, the end user may enter a minus sign (-) to indicate a negative number. The value is accepted and the proper editing performed.
- The following is an example of a form field definition:
  - Length = 15
  - Decimal positions = 2
  - Numeric only = Yes
  - Decimal character = .
  - Thousand separator = ,
  - Show negative symbol = Yes
  - Left negative symbol = -
  - Right negative symbol = CR
  - Show currency symbol = Yes
  - Left currency symbol = \$

The results of this form field definition are shown in the following table:

Figure 17-2. Numeric Editing Examples

| Value entered | Edited value       | Error message             |
|---------------|--------------------|---------------------------|
| 112233.44     | \$112,233.44       | None                      |
| -2000         | -\$ 2,000.00CR     | None                      |
| 300.33        | \$ 300.00          | None                      |
| CR250-        | Value not accepted | Only numeric data allowed |
| 35 000.50     | Value not accepted | Only numeric data allowed |
| *25.25        | Value not accepted | Only numeric data allowed |

- When defining a form field with numeric editing, include more than the exact number of positions required to complete the length of the form field. The length of a form field is specified for the *Length of form field* prompt on the Form Field Instruction display. Do this when a thousand separator is part of the edited value.

- Blanks may be entered before or after the value but not within the value.

**Note:** If a blank is chosen as an editing character when the form field is defined, blanks can be entered within the value.

## Date and Time Editing Considerations

Some date and time editing considerations are:

- An overflow error occurs when a form field containing more than six digits and date or time editing is requested.
- The character for the date or time separator of a form field is specified for the *Date/time separator* prompt. This prompt is on the Date/Time Field Editing Options display. The end user may type a date or time separator different from the one defined for the form field. If the character is valid, it is accepted. However, the edited field shows the defined separator, not the one entered by the end user.
- Date and time separators cannot be mixed. For example, if an end user enters 09/01-93 when completing the form field, a numeric data error message is displayed.
- Only date and time editing is done. No validity checking of data entered is done.
- The following shows some examples of the results to be expected when using data and time editing:

| Figure 17-3. Date/time Editing Examples |           |               |                    |
|-----------------------------------------|-----------|---------------|--------------------|
| Length                                  | Separator | Value entered | Edited value       |
| 8                                       | /         | 1/4/93        | 01/04/93           |
| 8                                       | /         | 0193          | 01/93              |
| 8                                       | :         | 14/5/1        | 14:05:01           |
| 5                                       | -         | 193           | 01-93              |
| 8                                       | /         | 1234567       | Overflow error     |
| 8                                       | /         | 1/4,93        | Numeric data error |

## Form Field Validity Checking and Prompting

If you want validity checking done when the form is filled in, specify either **\*IBM** or **\*USER** for the *Form field validity checking* prompt. This prompt is completed when the form field is being defined. The prompt is on the second page of the Form Field Instruction display.

Validity checking occurs after a user completes a form field and presses the Enter key or a function key. The Enter key should not be pressed when required data is missing or a field contains data not conforming to the limits set by the field definition. If the Enter key is pressed, a warning message is shown at the bottom of the display. If one of the function keys listed below is pressed when an error condi-

tion exists, a warning display is shown. The user can then press F12 (Cancel) to return to the Fill In Form display and correct the field. If the Enter key is pressed instead to continue, the data is ignored. Validity checking for all specified form fields, occurs when:

- The form document is being completed and one of the following keys is pressed.
  - F3 (Exit/Save)
  - F9 (Print)
  - F10 (Send)
- The form document is revised and F3 (Exit/Save) is pressed.

**Note:** If validity checking is specified for a form field where character editing has been defined, the editing occurs before the validity checking is done.

### Specifying \*IBM

If you specify \*IBM for the *Form field validity checking* prompt, the following must be done:

1. When defining the form field:
  - a. Complete the *Form field identifier* prompt on the second page of the Form Field Instruction display.
  - b. Complete the *Type of data* prompt on the second page of the Form Field Instruction display. This prompt is shown when \*IBM is specified for the *Form field validity checking* prompt and the Enter key is pressed.
2. Update the QAOEFFVL data base file with the valid values.

The QAOEFFVL data base file is shipped empty. To enter valid values use the Data File Utility (DFU) or create your own program.

**Validity Checking Database File:** The validity checking data base file is named QAOEFFVL and is shipped in the QGPL library. This file can be used for all of your validity checking requirements. Each record in the file is associated with the form field in the document by the form field identifier. If you have the same form field identifier defined in two or more documents, the same values from the file are used during validity checking. If you want each form field to have its own unique data in the data base file, use unique form field identifiers.

This file can also be used as an example to create other validity checking data base files in other libraries using the CRTDUPOBJ command. By creating copies of the file, you can specify different sets of valid data for the same form field identifier. The first copy of the QAOEFFVL file found in your library list is the one used during prompting and validation. The QAOEFFVL file can also be overridden using the Override Database File (OVRDBF) command.

Special consideration should be made when moving a document that contains form fields from one system to another. If those form fields are defined to have validity checking performed, the validity checking data base file must also be moved. If this is not done, unexpected results may occur. If validity checking is no longer required after the document is moved, the form field definitions should be changed.

**File layout:** The following is the file layout for the form field validity checking data base file QAOEFFVL. The record format name is QOEFFVL.

Figure 17-4. Form Field Validity Checking Data Base File Layout

| Field Name | Description                | Length/Type |
|------------|----------------------------|-------------|
| FVRCID     | Record ID=VC               | 2 char      |
| FVFFID     | Form field identifier      | 5 char      |
| FVVCKT     | Validity checking type=V/R | 1 char      |
| FVNEGV     | Negative value 1=negative  | 1 char      |
| FVVALU     | Valid value                | 78 char     |
| FVDESC     | Value description          | 35 char     |

*Field descriptions:*

- FVRCID - This constant must always contain the characters VC.
- FVFFID - The name of the value of the form field identifier must be identical to the name in the definition of the form field that is to be verified. This compare is case sensitive. The value in the data file must be upper case.
- FVVCKT - This constant must match the type of data in the definition of the form field. Possible constant values are V for values or R for range (values must be entered in upper case). Multiple records of type V can be entered for a form field identifier. If a form field has eight valid values, eight records should be entered into the validity checking data base file. For the type of range R, only two records should exist for each form field identifier that requires validity checking. The first two range records found in the data base file for that form field identifier are used. The values entered are included in the valid range.
- FVNEGV - This constant indicates the value is negative or positive. A 1 means the value is negative. A 0 or blank means the value is positive.
- FVVALU - Valid value.
  - Numeric values - The value must be left-justified and filled with leading zeros for the length specified in the form field definition. This is required to ensure the compare for validity checking functions properly and the values in the prompt box are displayed correctly.
  - Alphabetic values - values are case sensitive.
- FVDESC (optional) - Information that is displayed in a window on the display along with the valid value when prompting is requested.

*Example 1:* A form field is defined as follows:

- Length = 5
- Decimal positions = 0
- Numeric only = Yes
- Form field ID = IBMF1
- Validity checking = \*IBM
- Type = 2 (range)
- Decimal character = \*none
- Thousand separator = \*none
- Show negative symbol = Yes
- Left negative symbol = -



The valid range values are -555 through 55555. The following table shows how these records are entered in the data base file.

| Field Name | Range Record 1 | Range Record 2 |
|------------|----------------|----------------|
| FVRCID     | VC             | VC             |
| FVFFID     | IBMF1          | IBMF1          |
| FVVCKT     | R              | R              |
| FVNEGV     | 1              | 0              |
| FVVALU     | 00555          | 55555          |
| FVDESC     | Low value      | High value     |

*Example 2:* A form field is defined as follows:

- Length = 10
- Decimal positions = 2
- Numeric only = Yes
- Form field ID = IBMF2
- Validity checking = \*IBM
- Type = 1 (value)
- Decimal character = .
- Thousand separator = ,
- Show negative symbol = Yes
- Left negative symbol = -

The valid values are:

- -1,500
- 1,234.55
- 11,222.33
- 888

The following table shows how these records are entered in the data base file.

| Field Name | Value Record 1 | Value Record 2 | Value Record 3 | Value Record 4 |
|------------|----------------|----------------|----------------|----------------|
| FVRCID     | VC             | VC             | VC             | VC             |
| FVFFID     | IBMF2          | IBMF2          | IBMF2          | IBMF2          |
| FVVCKT     | V              | V              | V              | V              |
| FVNEGV     | 1              |                |                |                |
| FVVALU     | 0000150000     | 0000123455     | 0001122233     | 0000088800     |
| FVDESC     |                |                |                |                |

In this example, a blank was used for the FVNEGV field instead of a zero to signify a positive number. The FVVALU field in each record is padded with zeros. This ensures that the length of the field matches the length defined in the Form Field instruction. The decimal positions must also match the number of positions defined in the Form Field instruction. Since the FVDESC field is optional, it can be left blank as in this example.

**Example 3:** A form field is defined as follows:

- Length = 2
- Form field ID = IBMF3
- Validity checking = \*IBM
- Type = 1 (value)
- Capitalization option = 2 (All letters of all words)

The valid values are:

- TX
- MN
- IN
- IL
- IA

The following table shows how these records are entered in the data base file.

| Field Name | Value Record 1 | Value Record 2 | Value Record 3 | Value Record 4 | Value Record 5 |
|------------|----------------|----------------|----------------|----------------|----------------|
| FVRCID     | VC             | VC             | VC             | VC             | VC             |
| FVFFID     | IBMF3          | IBMF3          | IBMF3          | IBMF3          | IBMF3          |
| FVVCKT     | V              | V              | V              | V              | V              |
| FVNEGV     |                |                |                |                |                |
| FVVALU     | TX             | MN             | IN             | IL             | IA             |
| FVDESC     | Texas          | Minnesota      | Indiana        | Illinois       | Iowa           |

**\*IBM Prompting:** If validity checking is specified for a form field, prompting is available for it when the end user completes the form. If the cursor is on the form field and the end user presses F4 (Prompt), a display with possible values for the form field is shown. The Select Form Field Value display is shown if there are specific values for the form field. The Display Form Field Values display is shown if there is a range of values for the form field. The values are read from the QAOEFFVL file, which is the same file used for validity checking. If no values are found, a message is shown at the bottom of the display indicating that an internal failure occurred during prompting.

To select a value on the Select Form Field Value display, move the cursor to the *Opt* column in front of the value wanted and type a 1. Press the Enter key. The value chosen is then filled into the field that was prompted.



1. When defining the form field:

- a. Complete the *Form field identifier* prompt on the second page of the Form Field Instruction display.
- b. Complete the *Exit program* and the *Library* prompts on the second page of the Form Field Instruction display. These prompts are shown when you specify \*USER for the *Form field validity checking* prompt and press the Enter key.

2. Create your user exit program to perform validity checking and/or prompting.

**User exit program:** Control is passed to the user exit validity checking program when any of the following things happen:

- Data for the form field is modified.
- F4 (Prompt) is pressed when the form field is being filled in.

Figure 17-5 shows the parameter interface to the user exit program:

| Figure 17-5. User Exit Program Parameter List                                                                   |               |                                                                                                                                                   |     |
|-----------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Parameter                                                                                                       | Length/Type   | Values                                                                                                                                            | I/O |
| Form field identifier                                                                                           | 5 characters  | Name from form field definition                                                                                                                   | I   |
| Prompt/Validate indicator                                                                                       | 1 character   | 1 Prompt<br>2 Validate                                                                                                                            | I   |
| Exit program return code                                                                                        | 2 characters  | 11 Prompting successful<br>12 Prompter not available<br>20 Validity checking failed<br>21 Validity checking passed<br>22 Validation not available | O   |
| Function specific parameter                                                                                     | 83 characters | Function specific list (see Figure 17-6 on page 17-15)                                                                                            | I/O |
| <b>Note:</b> The I/O column indicates if the parameter is input only to the exit program, output only, or both. |               |                                                                                                                                                   |     |

Return code meanings:

- Return code 11 - Processing continues uninterrupted. No message is shown at the bottom of the display.
- Return code 12 - A message is shown at the bottom of the Edit display indicating that field prompting is not available.
- Return code 20 - A message is shown at the bottom of the Edit display indicating that a value entered is not valid.
- Return code 21 - Processing continues uninterrupted. No message is shown at the bottom of the display.
- Return code 22 - Processing continues uninterrupted. No message is shown at the bottom of the display. All values are accepted.

A message is shown at the bottom of the Edit display indicating an unexpected return code from the user exit program occurred if:

- The user exit program is called for prompting and a return code other than 1x (where x represents any number) is issued.

- The user exit program is called for validity checking and a return code other than 2x (where x represents any number) is issued.

Figure 17-6 shows the detail for the function specific parameter when using validation:

| <i>Figure 17-6. User Exit Program Function Specific List For Validation</i> |               |                                                                  |     |        |
|-----------------------------------------------------------------------------|---------------|------------------------------------------------------------------|-----|--------|
| Field                                                                       | Length/Type   | Values                                                           | I/O | Offset |
| Form field data                                                             | 78 Characters | Form field data from user input or returned because of prompting | I   | 0      |
| Negative value indicator                                                    | 1 Character   | 0 Positive<br>1 Negative                                         | I   | 4E     |
| Form field length                                                           | 2 Binary      | Form field length from instruction                               | I   | 4F     |
| Form field decimal positions                                                | 2 Binary      | Form field decimal positions from instruction                    | I   | 51     |

When the user exit program is called for validation, all parameters in the function specific list are passed to that program. Since these fields are passed as one parameter, a data structure is required in the user exit program to address each field.

Figure 17-7 shows the detail for the function specific parameter when using prompting:

| <i>Figure 17-7. User Exit Program Function Specific List For Prompting</i> |               |                                                                  |     |        |
|----------------------------------------------------------------------------|---------------|------------------------------------------------------------------|-----|--------|
| Field                                                                      | Length/Type   | Values                                                           | I/O | Offset |
| Form field data                                                            | 78 Characters | Form field data from user input or returned because of prompting | I   | 0      |
| Reserved                                                                   | 5 Characters  | Not used for prompting                                           | I   | 4E     |

When the user exit program is called for prompting, only the form field data from the function specific list is passed to that program.

**\*USER Prompting:** Prompting is under the user exit program control. This includes the appearance, function, and placement of the prompt window on the display.

## Security Considerations For Using Form Documents

To use the fill form document function, the end user must have at least \*USE authority to the original form document. With \*USE authority, the end user cannot modify the shell form document but can fill it in. Refer to the *Office Services Concepts and Programmer's Guide* for security considerations in using files for validity checking and receiving data.

## Migration of S/38 Text Management Form Fields to OfficeVision/400

The migration of S/38 TMS/38 documents to OfficeVision/400 documents includes the creation of Form Field instructions to replace TMS/38 form fields.

Information about this migration includes:

- Numeric, character, and date/time editing is set for the Form Field instruction based on existing TMS/38 editing options.
- Form field prompts become the Form Field instruction prompts.
- Form field data becomes the Form Field instruction initial value.
- TMS/38 form fields that contain functions (such as .tot, .xtot, or .&x commands) do not become OfficeVision/400 Form Field instructions. This is because TMS/38 users place these functions in form fields to use the editing features of form fields.

The following TMS/38 form field editing functions are not supported by OfficeVision/400 Form Field instructions:

- Removal of extra spaces after the form field data at print time.
- Centering of the form field data within the form field.
- Right justification and zero filling.

**Note:** Data is right justified, but OfficeVision/400 does not support zero filling.

## Language Considerations

By calling the FILLFORM command from a control language (CL) program, your application can pass data from a database file into a form document. Your application can also retrieve form data entered by the end user into a database file. Data passed from this program should be in the same code page as the job running your CL program.

If code page translation is necessary between the database file and the form document, OfficeVision/400 uses AS/400 database CCSIDS support to perform the proper translation. The validity checking data base file (QAOEFFVL) is created with the proper CCSID for your language version. If you change the CCSID value to \*HEX, translation does not occur.

---

## Filling in a Form

When filling in a form, you can type data only within the designated form fields. All other text on the form is protected from changes.

Select option 15 (Fill form) on any of the following displays to fill in a form document:

- Work with Documents in Folders
- Work with Documents in a Document List Display
- Work with Mail

You can also fill in a form using the FILLFORM command. Using the FILLFORM command allows you to insert data or override initial data values specified for form fields. This override stays in effect for the duration of the current form fill session. You can also return data from form fields to a database file to be used by other

programs. More information about using the FILLFORM command is in the *Office Services Concepts and Programmer's Guide*.

To fill in a form document from the Work with Documents in Folders display, do the following:

1. Move the cursor to the *Opt* prompt in front of the form document you want to fill in and type a 15 (Fill form).
2. Press the Enter key. The Fill in Form display is shown.

**Note:** If you want the status line to show on your display, press F13 (Form options). The Change Form Options display is shown. Type a Y (Yes) for the *Display status lines* prompt and press the Enter key.

The cursor is located on the first field on the display. If there are no fields shown on the first screen of text, the cursor is located on the first line of text. A field that is highlighted in bold requires that data be typed in it before you can exit, print, or send the form document.

FORM Fill In Form Pg:1 Ln:12  
<2.....3.....4.....5.....6.....7.....8.....9>.....  
Parking Space Request Form  
  
Complete the following information and give it to your manager. The form will be returned to you after your request has been processed.  
  
Name:  Date:   
Department:   
Building:   
  
Special considerations:   
  
For use by the parking space coordinator only:  
  
Parking space assigned:   
  

|              |                   |          |                     |
|--------------|-------------------|----------|---------------------|
| F3=Exit/Save | F6=Window         | F9=Print | F12=Cancel          |
| F4=Prompt    | F7=Previous field | F10=Send | F13=Form options    |
| F5=Refresh   | F8=Next field     | F11=Goto | F21=Nondisplay keys |

  
Enter the first and last name.

3. Type the data for the first field on the display. A description of what to type for this field may be shown at the bottom of the display.
4. Press F8 (Next field) and the cursor moves to the next field. If you want to go back to the first field, press F7 (Previous field).

**Notes:**

- a. To move the cursor to another field, you can also use the following keys:

- Tab
- Backtab
- New Line
- Field Exit
- Field +
- Field -

However, these keys do not cause any prompt text for a field to be shown, or validity checking of changed fields to occur.

- b. Press F11 (Goto) to find a specific page or line in the form document.  
When you press this key, the message Type page/line, press Enter is shown at the bottom of the display. The options available with this prompt are the same as those for F5 (Goto) on the Edit display. For more information about this, see "Finding a Specific Page or Line" on page 3-25.
5. Type the data for the remaining fields on the display.
6. Press F3 (Exit/Save). The Exit Form Document display is shown with the default choices.

| Exit Form Document                  |   |                   |
|-------------------------------------|---|-------------------|
| Type choices, press Enter.          |   |                   |
| Refresh form . . . . .              | N | Y=Yes, N=No       |
| Print form . . . . .                | N | Y=Yes, N=No       |
| Display print options . . . . .     | N | Y=Yes, N=No       |
| Send form . . . . .                 | N | Y=Yes, N=No       |
| Save form with current data . . .   | N | Y=Yes, N=No       |
| Document . . . . .                  |   | Name, F4 for list |
| Folder . . . . .                    |   | Name, F4 for list |
| F4=Prompt F6=Print queue F12=Cancel |   |                   |

7. Specify the following:
  - a. If you want to enter data again using this form, type a Y (Yes) for the *Refresh form* prompt.
  - b. If you want to print the completed form document, type a Y (Yes) for the *Print form* prompt.

**Note:** You can also print the form document by pressing F9 (Print) on the Fill In Form display. However, the print job is not placed on the job queue and you cannot continue working on your display station until the job is completed.

  - c. If you want to see the Print Options display, type a Y (Yes) for the *Display print options* prompt. On the Print Options display, you can change the print options for the document.
  - d. If you want to send the completed form to someone, type a Y (Yes) for the *Send form* prompt.
  - e. If you want to save the information in the form, type a Y (Yes) for the *Save form with current data* prompt. If you specify Yes for this prompt:
    - 1) For the *Document* prompt, specify the name of the document where you want the information saved.
    - 2) For the *Folder* prompt, specify the name of the folder where you want the document containing the information saved.
8. Press the Enter key. Depending on what you typed for the prompts on the Exit Form Document display, one of the following happens:



- If you typed a Yes for the *Refresh form* prompt, the form document is shown again and you can enter new data.
- If you typed a Yes for the *Print form* prompt, the Work with Documents in Folder display is shown. A message stating that the document was submitted for printing is shown at the bottom of the display.
- If you typed a Yes for the *Display print options* prompt, the Print Options display is shown. On the Print Options display, you can change the print options for the document.
- If you typed a Yes for the *Send form* prompt, the Send Form display is shown.

**Send Form**

Form description . . . . . :

Send as final form . . . . . N          Y=Yes, N=No

Type distribution list and/or addressees, press F10 to send.  
 Distribution list . . . . . \_\_\_\_\_ F4 for list

-----Addressees-----

| User ID | Address | Description |
|---------|---------|-------------|
| _____   | _____   |             |
| _____   | _____   |             |
| _____   | _____   |             |
| _____   | _____   |             |
| _____   | _____   |             |
| _____   | _____   |             |
| _____   | _____   |             |
| _____   | _____   |             |

More...

F3=Exit      F4=Prompt      F9=Attach memo slip      F10=Send      F11=Change details  
 F12=Cancel      F13=Change defaults      F18=Sort by user ID      F24=More keys

Do the following:

- If the form you are sending is to be filled in by the person who receives it, type an N (No) for the *Send as final form* prompt. If the form you are sending is only to be viewed by the person who receives it, type a Y (Yes) for this prompt.
- Complete the *User ID* and *Address* prompts for each person you want to receive the form document. You can also specify a distribution list for the *Distribution list* prompts.
- Press F10 (Send) to send the form.

9. Press F3 (Exit).

## Viewing a Wide Form Document

You can view portions of a wide document that are not visible. To do this you need to specify a different scale line for the left edge of the Fill In Form display.

To specify a different scale line for the left edge of the Fill In Form display, do the following:

- Press F6 (Window) on the Fill In Form display. The following message is shown at the bottom of the display.  
 Type left column (1-255), press Enter
- Type the number of the column you want positioned at the left edge of the display.

**Note:** If you decide not to type a number, press F12 (Cancel). The message is removed from the bottom of the display and the cursor returns to the text in the display.

3. Press the Enter key. If you did not type a number and the margins are wider than shown on the display, one of the following happens:
  - The display image shifts the width of one display.
  - The display image shifts until the right margin is shown on the right edge of the display.
4. Press F6 (Window) and press the Enter key until the right margin is shown to continue moving horizontally across the document. If you press F6 (Window) and the Enter key when the right margin is shown, the left margin is shown.

## Changing Form Options

You can change certain characteristics of the form fill in session. To do this:

1. Press F13 (Form options) on the Fill In Form display. The Change Form Options display is shown.

|                                                    |                                   |          |                     |
|----------------------------------------------------|-----------------------------------|----------|---------------------|
| FORM                                               | Fill In Form                      | Pg:1     | Ln:12               |
| <2.....3.....4.....5.....6.....7.....8.....9>..... |                                   |          |                     |
| Parking Space Request Form                         |                                   |          |                     |
| Comp1 .....                                        |                                   |          |                     |
| form :                                             | Change Form Options               |          |                     |
| :                                                  | :                                 |          |                     |
| Name:                                              | Type choices, press Enter.        |          |                     |
| Debar :                                            | :                                 |          |                     |
| Build :                                            | Confirm refresh of form . . . . . | Y        | Y=Yes, N=No         |
| :                                                  | Display status lines . . . . .    | Y        | Y=Yes, N=No         |
| Speci :                                            | Display function keys . . . . .   | Y        | Y=Yes, N=No         |
| :                                                  | Roll up/roll down . . . . .       | 2        | 1=Half, 2=Full      |
| For u :                                            | Size of display . . . . .         | 1        | 1=24x80, 2=27x132   |
| :                                                  | :                                 |          |                     |
| Parki :                                            | :                                 |          |                     |
| :                                                  | F12=Cancel                        |          |                     |
| :                                                  | :                                 |          |                     |
| :                                                  | :                                 |          |                     |
| .....                                              |                                   |          |                     |
| F3=Exit                                            | F6=Window                         | F9=Print | F12=Cancel          |
| F4=Prompt                                          | F7=Previous field                 | F10=Send | F13=Form options    |
| F5=Refresh                                         | F8=Next field                     | F11=Goto | F21=Nondisplay keys |
| Enter the first and last name.                     |                                   |          |                     |

2. The options you can change from this display include:
  - a. **Confirm refresh of form.** Specify a Y (Yes) for the *Confirm refresh of form* prompt, if you want a confirmation of the refresh request when you press F5 (Refresh) on the Fill In Form display. If you specify Yes, the Confirm Refresh of Form display is shown when you press F5. This display allows confirmation of the refresh before completing a form refresh.
  - b. **Display status lines.** Specify a Y (Yes) for the *Display status lines* prompt, if you want the two top lines of the display to show the form document information and scale line.
  - c. **Display function keys.** Specify a Y (Yes) for the *Display function keys* prompt, if you want the function key descriptions to be shown at the bottom of the Fill In Form display.

- d. **Roll up/roll down.** Specify a 1 (Half) for the *Roll up/roll down* prompt, if you want half of the display to roll when a page key is pressed. Specify a 2 (Full) if you want all of the display to roll when a page key is pressed.
  - e. **Size of display.** Specify a 1 (24 x 80) for the *Size of display* prompt, if you want the display to show 24 lines by 80 columns of data. Specify a 2 (27 x 132) if you want the display to show 27 lines by 132 columns of data. If you select a 2 (27 x 132), your display station must be capable of this display mode.
3. Press the Enter key after you make your choices. The Fill In Form display is shown.



## Chapter 18. Using OfficeVision/400 with a Personal Computer

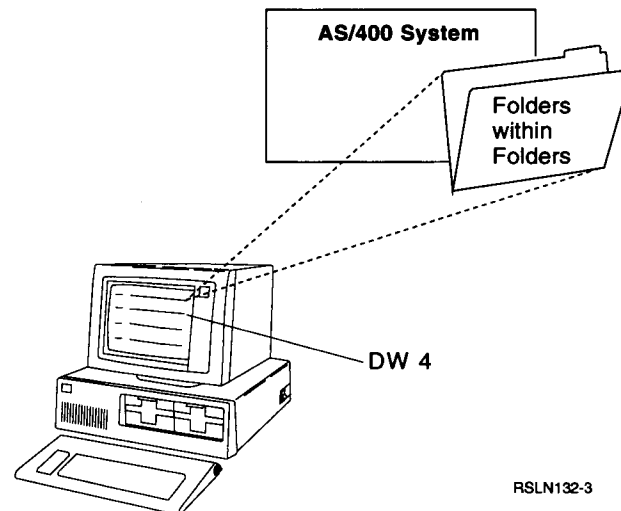
This chapter supplies information about using OfficeVision/400 with a personal computer. To use OfficeVision/400, the personal computer must be attached to the AS/400 system. If PC Support/400 is on your system and you are using the PC Support Organizer, you can:

- Use information stored in AS/400 folders.
- Use the PC text-assist function, which makes it easier for you to use OfficeVision/400 if you are familiar with the DisplayWrite\* series of text editors.
- Create a drawing using the cursor movement keys.
- Display text using multiple column editing.

### Using AS/400 Folders

Personal computer users can store and find documents and files in an AS/400 folder as though the folder were on a personal computer diskette or hard disk. Sharing AS/400 folders allows you to take advantage of the additional storage available on the AS/400 system.

Documents are moved and converted without any intervention from you.



RSLN132-3

You can also take advantage of certain personal computer functions, for example, using the Disk Operating System (DOS) directory and subdirectory functions.

### Naming Conventions for Documents in Folders

The naming conventions used for AS/400 documents are slightly different from those used on a personal computer. If you plan to use information in folders for both AS/400 applications and personal computer applications, you should use names that are permitted on both systems. For more information on AS/400 naming conventions, see "Naming Folders and Documents" on page 1-1.

## Folder Considerations

Folders within folders help you use AS/400 resource security more effectively and allow you to better organize the information you store in folders.

However, they also limit your ability to see a specific level in a folder. If you do want to see all of the members in a folder from a single display, you should not use folders within folders. If you want to do searches, all members must be in the same folder or folder path.

---

## Using the PC Text-Assist Function

The PC text-assist function provides better editing capability and better performance when you use OfficeVision/400 with a personal computer. The PC text-assist user notices the capability to move the document horizontally and vertically based on the cursor location. When you use the PC text-assist function to edit a document, the Edit display with the PC text-assist function looks similar to the DisplayWrite-series Edit display.

The following illustration shows the differences on the Edit display using the PC text-assist function.

Edit Display with the PC Text-Assist Function

```
Revise Document | Carrier Return | Ins | PCTA 1 | Pg 1
LISASHEL,TXTLRR53 | Typestyle 86 (12p) | Ln 7
<<2.....3.....4.....5.....6.....7.....8.....9>>.....

Mr. J.R. Smith
123 Main Street
Chicago, IL 67845

Dear Mr. Smith:

You are invited to attend an open house in our warehouse on Saturday,
October 11. Come at 9 A.M. and stay as long as you want.
```

Edit Display without the PC Text-Assist Function

```
LISASHEL, P:12 EDIT Carrier Return PG:1 LN:7
<2...T:...T3...T:...T4...T:...T5...T:...T6...T:...T7...T:...T8...T:...T9>.....

Mr. J.R. Smith
123 Main Street
Chicago, IL 67845

Dear Mr. Smith:

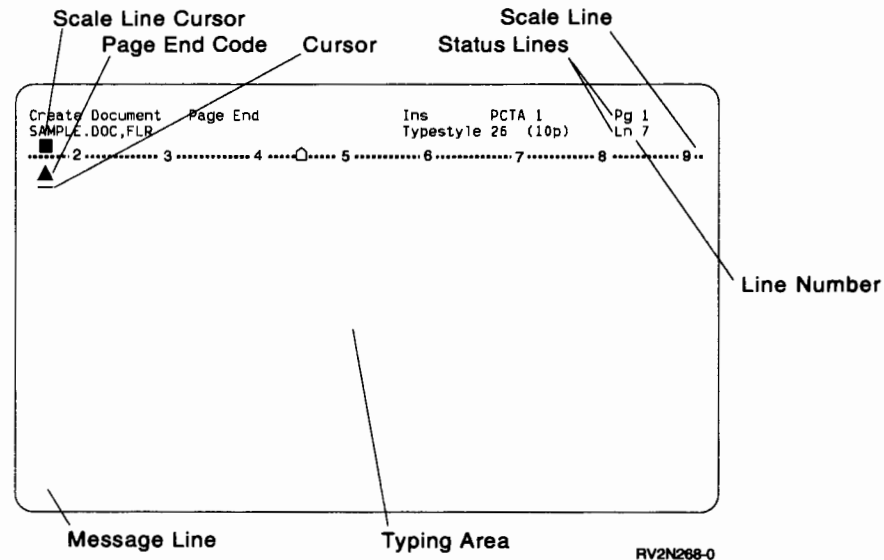
You are invited to attend an open house in our warehouse on Saturday,
October 11. Come at 9 A.M. and stay as long as you want.
```

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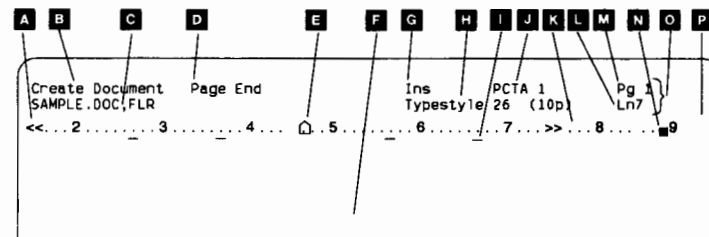
## Using the Edit Display with the PC Text-Assist Function

When you use the PC text-assist function, several editing functions are available with OfficeVision/400. All of these editing enhancements are available when using the Edit display.

At the top of the Edit display, you see two status lines that supply system information. (The OfficeVision/400 Edit display has one status line.) The last line before the typing area is the scale line which shows you the margin and tab settings, center point, and right paper edge. In addition, the scale has its own cursor that follows the cursor in the typing area and shows where the text will print.



The following diagram shows in detail the information given on the status lines and scale.

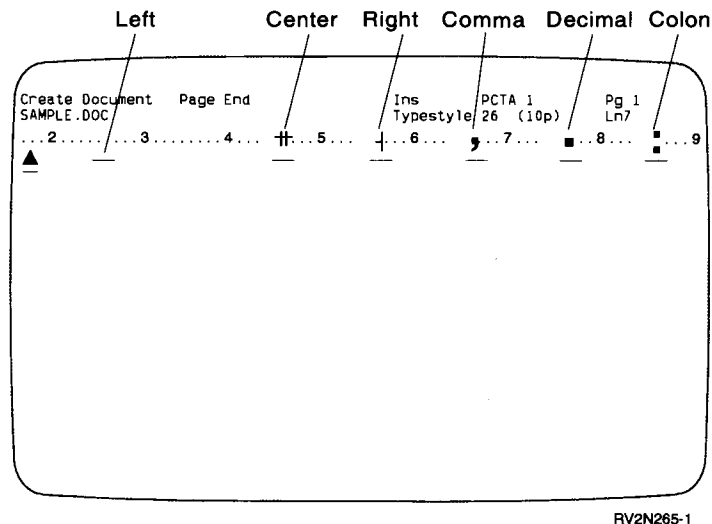


- |                              |                           |
|------------------------------|---------------------------|
| <b>A</b> Left Margin         | <b>I</b> Tab Settings     |
| <b>B</b> Current Task        | <b>J</b> Editor Name      |
| <b>C</b> Document Name       | <b>K</b> Right Margin     |
| <b>D</b> Audit Window        | <b>L</b> Line Number      |
| <b>E</b> Center Point        | <b>M</b> Page Number      |
| <b>F</b> Typing Area         | <b>N</b> Right Paper Edge |
| <b>G</b> Insert/Replace Mode | <b>O</b> Status Lines     |
| <b>H</b> Typestyle and Pitch | <b>P</b> Scale Line       |

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The tab stops shown on the scale line are shown differently when using the PC text-assist function. All tabs are underlined. The left tab setting does not overlay column positions on the scale line as it does with OfficeVision/400.

#### Tabs



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The typing line number, shown on the second status line, correctly indicates spacing due to the following: Zero Index Carrier Returns, Skip or Skip to Line instructions, Half-Index Up or Half-Index Down control characters, Graphic instructions, and multiple text columns.

In addition to the changes to the information shown on the top of the Edit display, using the PC text-assist function allows the following function changes in the typing area:

- The PC text-assist function may offer improved performance while editing a document. Response time may be improved because the personal computer controls much of the processing.
- Text that is moved, copied, or deleted is automatically highlighted as the cursor moves to mark the text. You are not prompted to verify a delete after marking the text, as you are when deleting with OfficeVision/400.
- You can choose not to show control characters (for example, Word Underline, Begin Bold) in the text if you type an **N** (No) for the *Display codes* prompt on the Change Editing Options display.
- To center text using the Center Text instruction, you must type an **N** (No) for the *Display codes* prompt on the Change Editing Options display.
- You can see the effect of overlapping when using the Center Text or Required Backspace instructions.

For example, if you use the Tab key to move the cursor to the center of a line and use the Center Text instruction to center the text, the text will overlap the tabs.

- You can use the Tab key while in replace mode.
- You can type in the area outside the margins if you specify **N** (No) for the *Adjust line endings* prompt on the Line Spacing/Justification display, or **N** (No) for the *Adjust text when editing* prompt on the Change Editing Options display.



- Words underlined using the Alt key plus the W key are shown as underlined on the Edit display. (Using OfficeVision/400, words underlined using Alt W are shown as underlined in the printed document only.)
- When you are using the PC text-assist function, a line format change is indicated by `␣` and the return to the starting line format is indicated by `␣`. A page format change is indicated by `␣` and the return to the starting page format is indicated by `␣`.
- If you are not displaying codes, the format change character is shown only when the cursor is positioned on it.
- Using the PC text-assist function, format changes do not occupy a whole line. They are hidden (like control characters) at the beginning of a line of text. You can make several format changes at the beginning of a line.
- It is not necessary to press the Reset key to unlock a locked keyboard. This is done automatically with your next keystroke.
- You can type a Required Backspace character with keystrokes (press the Alt key plus the Backspace key), as well as by using the text instruction menus.
- You can specify a Required Page End by pressing the Alt key plus the R key. A Required Page End combines the Page End control character (Alt P) with the Start New Page (.pa) text instruction.
- You can create a drawing using the cursor movement keys.
- You can use multiple column editing while you are revising text columns.

## Limitations of the PC Text-Assist Function

When using the PC text-assist function with the word processing function of OfficeVision/400, you should be aware of the following limitations:

- PC Support/400 provides two types of PC text-assist function. If you are using PC text-assist type 0, the following functions are not available:
  - Basic assistance level of the editor
  - Cursor draw
  - Form Field instruction
  - Insert symbols
  - Multiple column editing
  - Notepads
  - Set Variable instruction
  - Skip to Line instruction (Skip instruction is still available)
  - Sort
  - Support for Greek code page
  - View image

If you are using PC text-assist type 0 and are editing a document that contains controls associated with these functions, you may damage the document by making inappropriate changes; for example, deleting a Begin Keyboard Change control character without also deleting the End Keyboard Change control character.

- If you are using PC text-assist type 0, function keys are shown without the letter F in front of them.
- You cannot use line commands.

- You cannot change existing parameters of an instruction on the Edit display by typing over them.
  - You cannot display Required Carrier Return characters while editing a document unless you have specified Yes for the *Display codes* prompt on the Change Editing Options display.
- Note:** If you specify No for the *Display codes* prompt, and the cursor is on a control character, it is displayed. The type of control character your cursor is on is also shown in the audit window on the status line.
- You cannot use interactive spell check while you are editing a document. However, you *can* use all other spelling options. Press F22 (Spell functions) to see the Spell Functions display. Select option 1 (Spell options) to show the Spell Options display.
  - Words are not hyphenated during interactive editing; however, they are hyphenated when you print the document or when you use F16 (Adjust/Paginate) to adjust line endings.
  - The column layout function is used instead of the format move, format copy, format delete, column move, column copy, and column delete (column mode functions).
  - When searching for a Required Backspace character using F6 (Find), the search string must contain *only* the Required Backspace character.
  - The Required Backspace, Required Page End, and the Zero Index Carrier Return instructions are displayed as an Instruction character instead of a single control character when using the PC text-assist function.
  - To remove control characters (such as Begin Bold or Carrier Return), use the Delete key instead of the Erasing Backspace key.

---

## Drawing with the Cursor

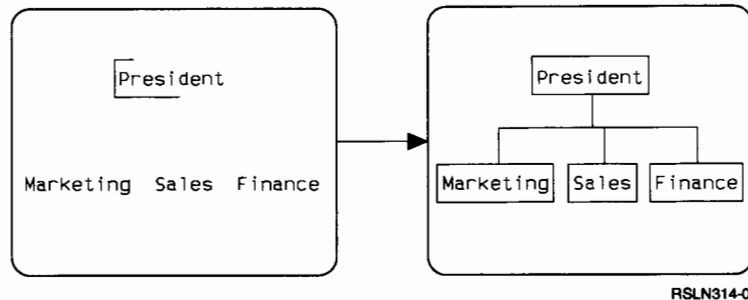
If you are using the PC text-assist function, you can create a drawing on the Edit display using the four cursor movement keys. You can also create a drawing within multiple text columns but not while you are displaying them as multiple columns. After you have selected to draw with the cursor, you can also select which symbol you want to use for the drawing character. The default drawing character is a line but you can use any valid keyboard character that appears on your keyboard. To change the drawing character, see "Changing the Drawing Character" on page 18-9.

**Note:** Keyboard change control characters are automatically inserted before and after each default drawing character. You will only see these characters if you are displaying codes and using the default drawing character.

While you are drawing with the cursor, control characters are not shown on the Edit display. However, as soon as you finish drawing with the cursor, the control characters are shown if you are displaying codes.

You can combine text and lines in one of two ways. You can either type the text and then draw a box around the text, or you can draw a box and then type the text inside the box using replace mode. You will probably find it easier to type the text first, and then draw around the text.

**Note:** If you use instructions within a cursor draw box and the text of an instruction is longer than the field provided for it, any cursor-drawn characters to the right of that instruction shift to the right and the right edge of the box is uneven when the document is printed or processed by MRGDOC. To prevent this, type a tab after the instruction to tab past the longest possible length of the data.



Whenever you select to use the cursor draw function, the system automatically goes into replace mode. If you want to insert text or lines, press the Insert key.

To get to the Cursor Draw display:

1. On the Edit display, press F17 (Functions) and the Select Function menu is shown. Select option 4 (Cursor Draw).
2. Press the Enter key.

The Select Cursor Draw Options menu is shown at the bottom of the Edit display.

| cdm                          | Select Cursor Draw Options |
|------------------------------|----------------------------|
| Select one of the following: |                            |
| 1. Draw with cursor          |                            |
| 2. Erase with cursor         |                            |
| 3. Change drawing character  |                            |
| Selection                    |                            |
| F3=Exit F12=Cancel           |                            |

3. Select the option you want to perform on the Select Cursor Draw Options menu and press the Enter key.

The Edit display is shown with the option you selected in the current task field. For example, if you select to draw with the cursor, you can see Draw with lines shown in the current task field.

|                 |                    |        |      |
|-----------------|--------------------|--------|------|
| Draw with lines | Rep                | PCTA 1 | Pg 1 |
| EXAMPLE,TEXTFLR | Typestyle 86 (12p) | Ln 7   |      |

<<2.....3.....4.....5.....6.....7.>>.....8.....9.....

This is a document used to demonstrate the use of the cursor draw function.

If you want to bypass menus, you can press F5 (Goto) and type one of the following abbreviations for the prompt:

**cdc** Change drawing character  
**cdm** Select Cursor Draw Options menu  
**dwc** Draw with cursor  
**ewc** Erase with cursor

If you want to create a large drawing where you are drawing past the right margin, you must specify **No** for the *Adjust line endings* prompt on the Line Spacing/Justification Options display before you begin to draw with the cursor. If the cursor is currently past the right margin, and you have specified **Yes** for the *Adjust line endings* prompt on the Line Spacing/Justification Options display, you must change it to **No** before you begin to draw with the cursor.

To draw with the cursor:

1. Move the cursor to the position on the line where you want to start drawing.
2. Press F5 (Goto) and type **dwc** for the prompt.
3. Press the Enter key. The Edit display is shown with Draw with lines in the current task field.
4. Use the cursor movement keys to create your drawing. As you are drawing with the cursor, you may want to move the cursor without drawing a line. To move the cursor without drawing:
  - a. Press F4 (Find char) and type the character you want to find, or press F6 (Find) and type the characters you want to search for and press the Enter key.
  - b. Press the Alt key plus the Cursor Right key to move the cursor three positions to the right, or press the Alt key plus the Cursor Left key to move the cursor three positions to the left.
  - c. To start drawing again, use the cursor movement keys.
5. Press F8 (Reset) to end drawing with the cursor. Your lines are not adjusted as you draw them. When you print this document, your lines are printed just as you drew them on the Edit display. If you later add text or lines without using the cursor draw function and then paginate the document, the drawing is adjusted just like any other text.

Press Error Reset if you want to end drawing with the cursor and return to editing the document.

Press F3 (Exit) if you want to end your edit session and go to the Exit Document display.

If your drawing does not contain text, you can delete the drawing using the Delete key. Otherwise, the only way you can delete a drawing is to edit the document and erase the drawing characters using the cursor.

To erase with the cursor:

1. Move the cursor to where you want to start erasing.
2. Press F5 (Goto) and type **ewc** for the prompt.
3. Press the Enter key. The Edit display is shown with Cursor erase in the current task field.

```
Cursor erase | |Ins | |PCTA 1 |Pg 1
EXAMPLE,TEXTFLR | |Typestyle 86 (12p)|Ln 7
<<2.....3.....4.....5.....6.....7.>>.....8.....9.....
This is a document used to demonstrate the use of the
cursor draw function.
```

4. Use the cursor movement keys to erase any characters you want to erase.
5. Press F3 (Exit) to end your edit session.

**Note:** If you want to revise text inside a box, make sure the system is in replace mode rather than insert mode. If you are not sure which mode you are typing in, press the Insert key and look at the status line.

## Changing the Drawing Character

You can change the drawing character to any character that appears on your keyboard. If you do not change the drawing character, the drawing is created with lines or whatever you used in your last edit session. Whenever you change the drawing character to something other than lines, the new drawing characters do not have keyboard change control characters around them.

To change the drawing character to a character on your keyboard:

1. On the Edit display, press F5 (Goto) and type **cdc** for the prompt.
2. Press the Enter key. The Change Drawing Character display is shown.
3. Type the character you want to use for the *New drawing character* prompt. To draw with lines, just leave this prompt blank.
4. Press the Enter key. The new character remains in effect until you change it.

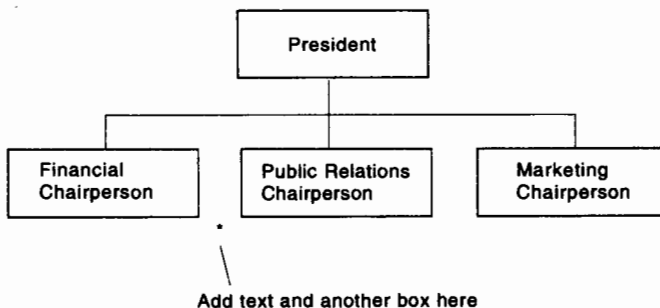
## Revising Text or Revising a Drawing

After you complete a drawing, which may include text, you can revise it using the cursor movement keys. Whenever you want to revise text inside a box, make sure you are in replace mode rather than insert mode. If you are not sure which mode you are typing in, press the Insert key and look at the status line.

The system acts as if you are in replace mode immediately after you revise a line and draw to the left (or draw up or down). Replace mode deletes dashed lines.

Whenever you connect two lines (creating a corner), the corner character is replaced by the line itself. If you do not want this corner character to be replaced by the line, press the Insert key to go into insert mode, type the text first, and then draw the line around the text.

If you want to insert a drawing between two existing drawings, insert the text on the Edit display before you draw the lines. For example, if you are creating an organizational chart, to add another box between the financial chairperson and the public relations chairperson, insert the text on the Edit display and then select the cursor draw function to draw the lines.



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To insert a drawing between two other drawings:

1. Press the Insert key once to go into insert mode.
2. Type the text to be inserted.
3. Press F5 (Goto) and type **dwc** for the prompt.
4. Use the cursor movement keys to draw lines around the text.
5. Press F8 (Reset) to end drawing with the cursor.

To erase part of the drawing and insert another drawing:

1. Move the cursor to where you want to start erasing.
2. Press F5 (Goto) and type **ewc** for the prompt.
3. Press the Enter key. The Edit display is shown with Cursor erase in the current task field.
4. Use the cursor movement keys to erase any characters you want to erase.
5. Press F8 (Reset) to end erasing with the cursor.
6. Press the Insert key once to go into insert mode.
7. Type the text to be inserted.
8. Press F8 (Reset) to end inserting text.
9. Press F5 (Goto) and type **dwc** for the prompt. Press the Enter key. The Edit display is shown with Draw with lines in the current task field.
10. Use the cursor movement keys to draw lines around the text.
11. Press F8 (Reset) to end drawing with the cursor.

---

## Using the PC Text-Assist Function to Create Multiple Text Columns

This section describes word processing differences if you are using the PC text-assist function to create multiple text columns. For specific information, see "Using Multiple Text Columns" on page 11-18. The differences are:

- You can type or edit text using single or multiple column editing. Multiple column editing allows you to type text in multiple columns across the Edit display. Multiple column editing is similar to newspaper columns.
- You can go back and forth between using single and multiple column editing.

There are also several functions to make editing your text columns easier. Using the *Goto* prompt, you can alternate between using single and multiple column editing or move around in the text columns to find a specific line or word. You can use all the highlighting functions that you can use for regular text. Using function keys you can move, copy, and delete portions of the text in your columns easily. You cannot draw with the cursor when typing text in multiple columns.

You can bypass menus and go directly to a display by using the *Goto* prompt. To go directly to typing, defining, or editing text in a single text column or in multiple text columns, press F5 (*Goto*), type one of the following abbreviations for the prompt, and press the Enter key.

|            |                                                      |
|------------|------------------------------------------------------|
| <b>mtc</b> | Define multiple text columns                         |
| <b>stc</b> | Type text in single text column                      |
| <b>mce</b> | Alternate between single and multiple column editing |
| <b>ntc</b> | Insert a Next Text Column instruction                |

You can type or edit multiple text columns using either single or multiple column editing. The difference between single and multiple column editing is that multiple column editing shows you the columns side by side.

If you are using single column editing:

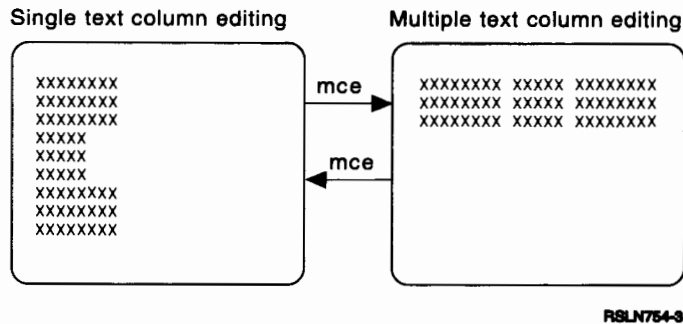
- Your columns are shown in one long column on the Edit display.
- You can display codes on the display.
- You do not see the exact layout of the columns (for example, if you specified three columns, you would not see three columns side by side on the display).

If you are using multiple column editing:

- You can see exactly where your columns begin and end on the Edit display.
- You cannot display codes on the display.
- You can see the exact layout of your columns (for example, if you specify three columns, you see three columns side by side on your display).

You can also specify how you want to type text (single or multiple column editing) on the Change Editing Options display.

While you are typing or editing text in multiple columns, you can switch back and forth between single and multiple column editing by pressing F5 (*Goto*), typing **mce** for the prompt, and pressing the Enter key. You can also specify how you want to type text (single or multiple column editing) on the Change Editing Options display.



If you are editing text in single columns, you can specify to have the codes (such as required carrier return, tabs, and highlighting or control characters) shown on the display by pressing F13 on the Edit display, typing Y for the *Display Codes* prompt, and pressing the Enter key.

Multiple column editing and displaying codes cannot both be active. Whenever you specify Yes for one, the system turns the other one off. For example, if you are typing text using multiple column editing and request to turn on display codes, the system turns off multiple column editing, turns on single column editing, and shows the codes on the display.

Before you can type text in multiple text columns, you must first define the columns, the number of columns, and the number of spaces between the columns on the Define Multiple Text Columns display. For information, see "Using Flowing and Balanced Columns" on page 11-20, "Using Flowing but Not Balanced Columns" on page 11-22, "Using Related Columns with Equal Width" on page 11-22, and "Using Related Columns with Variable Width" on page 11-24.

## Typing Multiple Text Columns

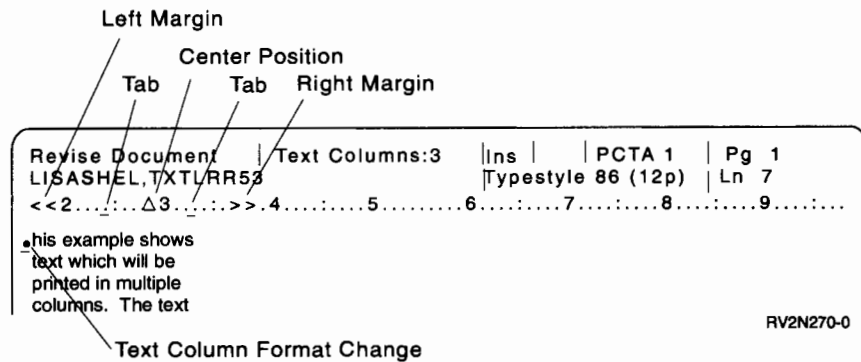
Before typing the text, you must first define the type of columns, the number of columns, and the number of spaces between columns.

As you type (with adjust line endings set to yes), the text automatically wraps to the next line on the display (word wrap) as your cursor reaches the right margin.

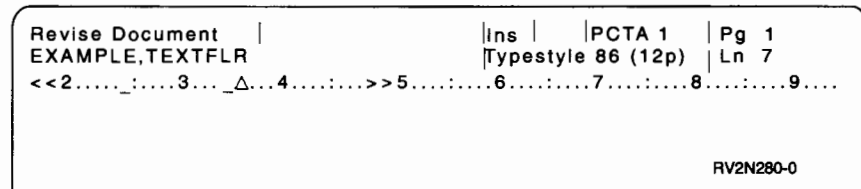
### Using Single Column Editing

After defining the text columns, type the columns on the Edit display just as you would type normal text. If you do not request to type text in multiple columns, the system displays the text in only one column. The system also displays the scale line with the margins, the center position, and tab stops for the column the cursor is currently on as shown below. The left margin does not change between columns; it indicates the left margin of the first column even though you may be on a different column. However, the right margin on the scale line changes as the cursor moves through the text to indicate the width of the column that the cursor is currently on. The text column format change is placed at the beginning of the line, as shown below), and not on a line by itself:

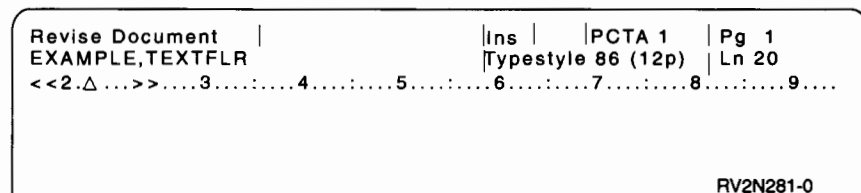




If the columns are **related with equal width** or **related with variable width**, you must insert a Next Text Column instruction where you want each column to end. If you are typing text for one variable width column and go to another variable width column, only the right margin will change. For example, if you specify that the first column starts in column 19, the width of the first variable width column is 30, and the width of the second variable width column is 6, while the cursor is within the first column your right margin is set at 49, as shown below:



However, when you move the cursor to the second variable width column, the right margin changes to 25 as shown below. The left margin remains at 19.

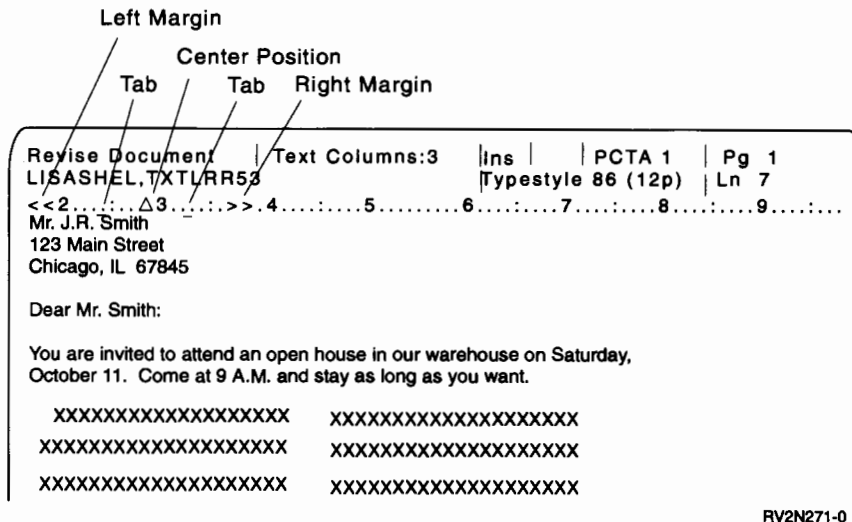


If you are working with columns of equal width, neither margin will change.

## Using Multiple Column Editing

If you request to type the text in multiple columns, the columns that you defined on the Define Multiple Text Columns display are shown on the Edit display. The scale line uses the margin settings of the line the cursor is currently on. If the text is defined as multiple text columns, the left and right margins for all the columns are displayed as shown below. However, the tabs, center margin, and temporary left margin are shown only for the column your cursor is on.

In the following example, the cursor is positioned on the text column format change in the first column. Notice that the margins for the typed columns have a different sign than the empty columns. The left margin of each typed column is shown as two less-than signs (<<) and the right margin of each typed column is shown as two greater-than signs (>>). The left margin of the empty column is shown as a left bracket ([) and right margin of the empty column is shown as a right bracket (]). The text column format change is placed at the beginning of the line (as shown below) and not on a line by itself.



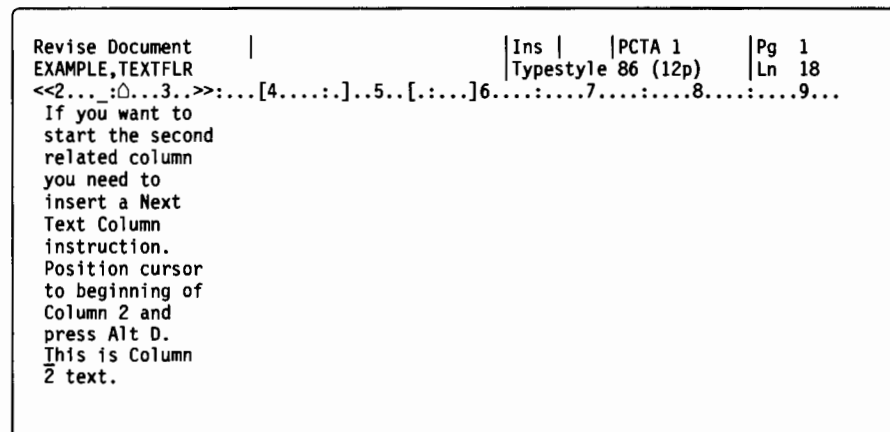
You can edit one of the multiple columns as if the column being edited is the only text on the line. When editing text in multiple columns in **replace** mode, the text for the column being edited replaces any existing text in the current column.

When you edit text in multiple columns in **insert** mode, the text is pushed toward the left margin of the next column and then disappears until the cursor is either moved off the current line or wrapped to the next line (word wrap). Then if you specified Y (Yes) for the *Adjust line endings* prompt on the Line Spacing/Justification Options display, text flows downward in the current column.

When you are using the PC text-assist function, you can insert Next Text Column instructions in all types of columns. If you want to place a Next Text Column instruction in the text at the current cursor position, press the Alt key plus the D key. If you place the instruction in the middle of an existing column, the remaining columns shift to the right by one column.

When you edit the columns in multiple columns on the display, consider the following:

- The Next Text Column instructions must be inserted at the location where you want the next column to begin.



- When you press the Alt key plus the D key, the text (beginning at the cursor position) is moved to the top of the next column.

| Revise Document                                                                                                                                             | Ins                    | PCTA 1 | Pg 1 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------|------|
| EXAMPLE,TEXTFLR                                                                                                                                             | Typestyle 86 (12p)     |        | Ln 7 |
| <<2.....3..>>...<<4..0.:.>>.5..[.....]6.....7.....8.....9...                                                                                                |                        |        |      |
| If you want to start the second related column you need to insert a Next Text Column instruction. Position cursor to beginning of Column 2 and press Alt D. | This is Column 2 text. |        |      |

- If you typed the text in *fewer* columns than you defined, you must insert a Next Text Column instruction (**.ntc**) where you want each column to end.

Notice in the following example, five columns are defined but only three columns are typed.

| Revise Document                                                                                                                                                 | Ins                                                                                                           | PCTA 1                                                                                                 | Pg 1 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------|
| EXAMPLE,TEXTFLR                                                                                                                                                 | Typestyle 86 (12p)                                                                                            |                                                                                                        | Ln 7 |
| <<2... ..3.....>>.....<<5.....>>.....<<7..... 8 .>>...:[...9.]...[...]                                                                                          |                                                                                                               |                                                                                                        |      |
| The scale line shows the margins of only 3 columns because you only used 3 of the 5 columns you defined. Notice that the last two columns do not have any text. | If you want to use all 5 columns you have defined, for columns that are not related columns, you can paginate | the document. For related columns, you must insert Next Text Column (.ntc) instructions where you want |      |

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To use all the defined columns, do one of the following:

- If the columns are flowing columns (balanced or not balanced), paginate the document. The paginated document has no more than the number of columns you defined. If the defined columns do not fit on a page, the system creates another set of columns on the following page using the same format as the previous page.  
You can insert a Next Text Column instruction to get the text to move to the next column, but if you want to match the printed document, you should paginate the document to let the system insert the Next Text Column instructions.
- If the columns are related columns, you must insert Next Text Column instructions where you want the new columns to begin. The instructions remain where you put them when the document is printed because pagination does not alter the number or location of .ntc instructions within related columns.
- If you type text in *more* columns than you defined (for example, you defined three columns, and type text in four columns but you only want to use one set of the defined columns), you must either paginate the columns or delete the Next Text Column instructions.
- If the columns are flowing (balanced or not balanced), paginate the document. All unused Next Text Column instructions are deleted.

- If the columns are related columns, delete the extra Next Text Column instructions. You may also want to delete the extra Next Text Column instructions when copying text from one text column to another text column.
- If you want to edit a different column, move the cursor to that column using the cursor movement keys. See section on "Moving through Multiple Text Columns" on page 18-17.

## Adding a Column

If you begin typing text and decide you would like to add another column, move the cursor to the text column format change (tc), press the Enter key and change the definition of the columns. If you do not increase the number of columns within this text column format change, the column that you add will be added to the next set of columns. For example, if you defined two columns and added another column without increasing the number of columns within this text column format change, that column would be added to the next set of columns as shown in the following:

|                                                                                                                                |  |                    |        |      |
|--------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--------|------|
| Revise Document                                                                                                                |  | Ins                | PCTA 1 | Pg 1 |
| EXAMPLE,TEXTFLR                                                                                                                |  | Typestyle 86 (12p) |        | Ln 7 |
| <<2...:0...3...>>:..<<4...:.....5...>>:....6.....7.....8.....9...                                                              |  |                    |        |      |
| xxxxxxxxxxxxxx                                                                                                                 |  | xxxxxxxxxxxxxx     |        |      |
| xxxxxxxxxxxxxx                                                                                                                 |  | xxxxxxxxxxxxxx     |        |      |
| xxxxxxxxxxxxxx                                                                                                                 |  | xxxxxxxxxxxxxx     |        |      |
| xxxxxxxxxxxxxx                                                                                                                 |  | xxxxxxxxxxxxxx     |        |      |
| This is the<br>added column.<br>You must<br>increase the<br>number of col-<br>umns to place<br>it beside the<br>columns above. |  |                    |        |      |

For information about adding columns, see "Changing the Definition of Multiple Text Columns" on page 11-28

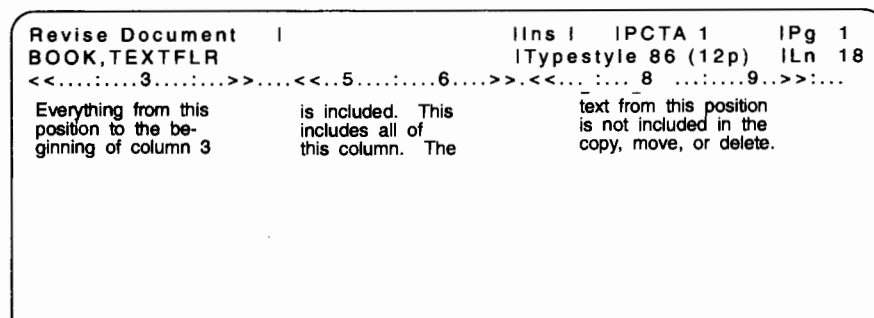
## Viewing Text in Multiple Columns

It is a good idea to paginate the document and view the columns on the display before you print them. You can view multiple text columns by pressing F19 (View/Print). For you to view the text in multiple columns, the Next Text Column instructions must be inserted to indicate where the one column ends and the next column begins. You can manually insert the Next Text Column instructions or you can let pagination put them in for you if you are using flowing and balanced columns.

## Copying, Moving, and Deleting Text Columns

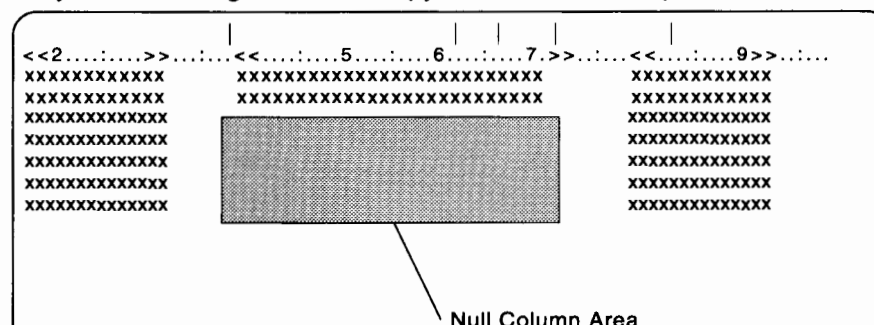
You can copy, move, and delete any part of text that is defined as multiple text columns. However, be especially careful when performing these functions on the text column format change (.tc) and Next Text Column (.ntc) instruction. Any Next Text Column (.ntc) instructions found outside of areas defined as multiple text columns are removed during pagination. If you move copy, move, or delete information within a flowing column, it is best to paginate the document before you print it. Otherwise, you may get unexpected results.

When you specify to copy, move, or delete text beginning in column 1 and ending in column 3, all of column 2 is included in the copy, move, or delete operation as shown below:



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Column areas that do not contain text (null column areas) cannot be copied, moved, or deleted. If you try to mark these areas for copy, move, or delete (including Sort and Notepad functions), you get an error message. In the following example, the area after column 2 (a column that is shorter than the surrounding columns) is a null column area. You may move the cursor in this area or type text, but you cannot begin or end a copy, move, or delete operation within this area.



RSLN784-0

## Moving through Multiple Text Columns

You can move horizontally through your text columns using the Cursor Right and Cursor Left key. If you have text columns that are too wide to be shown on the Edit display, you can position the display to show the text columns by pressing F7 (Window) or by using the Cursor Right key.

The following chart shows where the cursor moves when you press one of the cursor movement keys.

**Cursor Right** key moves one position to the right.

|                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> 7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx 8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx 9 10 xxxxxxxx xxxxxxxx xxxxxxxx 11 xxxxxxxx xxxxxxxx xxxxxxxx 12 xxxxxxxx xxxxxxxx xxxxxxxx 13 xxxxxxxx xxxxxxxx xxxxxxxx 14 15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx </pre> | <pre> 7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx 8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx 9 10 xxxxxxxx xxxxxxxx xxxxxxxx 11 xxxxxxxx xxxxxxxx xxxxxxxx 12 xxxxxxxx xxxxxxxx xxxxxxxx 13 xxxxxxxx xxxxxxxx xxxxxxxx 14 15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx </pre> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Alt plus Cursor Right** key moves to the last character of the current column (or to the first position of the next column if already at the last character or beyond the last character of the column).

|                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> 7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx 8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx 9 10 xxxxxxxx xxxxxxxx xxxxxxxx 11 xxxxxxxx xxxxxxxx xxxxxxxx 12 xxxxxxxx xxxxxxxx xxxxxxxx 13 xxxxxxxx xxxxxxxx xxxxxxxx 14 15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx </pre> | <pre> 7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx 8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx 9 10 xxxxxxxx xxxxxxxx xxxxxxxx 11 xxxxxxxx xxxxxxxx xxxxxxxx 12 xxxxxxxx xxxxxxxx xxxxxxxx 13 xxxxxxxx xxxxxxxx xxxxxxxx 14 15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx </pre> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Cursor Left** key moves one position to the left.

|                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> 7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx 8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx 9 10 xxxxxxxx xxxxxxxx xxxxxxxx 11 xxxxxxxx xxxxxxxx xxxxxxxx 12 xxxxxxxx xxxxxxxx xxxxxxxx 13 xxxxxxxx xxxxxxxx xxxxxxxx 14 15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx </pre> | <pre> 7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx 8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx 9 10 xxxxxxxx xxxxxxxx xxxxxxxx 11 xxxxxxxx xxxxxxxx xxxxxxxx 12 xxxxxxxx xxxxxxxx xxxxxxxx 13 xxxxxxxx xxxxxxxx xxxxxxxx 14 15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx </pre> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Alt plus Cursor Left** key moves to the first character of the current column (or to the last character of the previous column if already at the first character of the column).

|                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> 7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx 8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx 9 10 xxxxxxxx xxxxxxxx xxxxxxxx 11 xxxxxxxx xxxxxxxx xxxxxxxx 12 xxxxxxxx xxxxxxxx xxxxxxxx 13 xxxxxxxx xxxxxxxx xxxxxxxx 14 15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx </pre> | <pre> 7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx 8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx 9 10 xxxxxxxx xxxxxxxx xxxxxxxx 11 xxxxxxxx xxxxxxxx xxxxxxxx 12 xxxxxxxx xxxxxxxx xxxxxxxx 13 xxxxxxxx xxxxxxxx xxxxxxxx 14 15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx </pre> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

RSLN776-1

## Finding a Specific Page or Line within Text Columns

You can move around in multiple text columns using F5 (Goto). You can find a specific page or line within text columns. If you request to move to a specific page and line in multiple columns, the first occurrence of that page and line is found. For example, if you requested to find line 10 on page 27, the cursor would be positioned as shown below:

```
7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx
8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx
9
10 _xxxxxxx 10 xxxxxxxx 10 xxxxxxxx
11 xxxxxxxx 11 xxxxxxxx 11 xxxxxxxx
12 xxxxxxxx 12 xxxxxxxx 12 xxxxxxxx
13 xxxxxxxx 13 xxxxxxxx 13 xxxxxxxx
14
15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

RSLN763-1

## Finding a Character, Word or Phrase

Whenever you press F6 (Find) in the first column, the system searches the first column, then the second column, then the third column, until all columns have been searched. For example, if you want to search for the word major, the system searches for the word in the first column, then the second column, and so on, until all columns have been searched, as shown below:

```
7 xxx xxxxxxxx xxxxxxxx xxxxxx xxxxx
8 x xx xxx xxxx xxx xxxxxxxx xxxxxxxx
9
10 xxMajorxx 10 xxxxxxxx 10 xxxxxxxx
11 xxxxxxxx 11 xxxxxxxx 11 xxMajorxx
12 xxxxxxxx 12 xxMajorxx 12 xxxxxxxx
13 xxxxxxxx 13 xxxxxxxx 13 xxxxxxxx
14
15 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
16 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxMajorxxxxxxxx
```

RSLN764-2

## Adjusting Lines Using Multiple Column Editing

Line adjustment arranges the lines of text to fit between the specified left and right margins of your multiple text columns. If you want the lines within your multiple text columns to be adjusted, specify Yes for the *Adjust line endings* prompt on the Line Spacing/Justification Options display. If you also want it done automatically as you edit your document, specify Yes for the *Adjust text when editing* prompt on the Change Editing Options display.

If you specify No for the *Adjust line endings* prompt on the Line Spacing/Justification Options display, or No for the *Adjust text when editing* prompt on the Change Editing Options display, the following occurs:

- If the lines in a column are wider than the column you are typing, the lines will disappear behind the text in the next column. When you print the document, the text prints over the lines of the next column.
- If no other columns are defined to the right of the current column, you can type up to position 255 on the display.

If you specify Yes for the *Adjust line endings* prompt on the Line Spacing/Justification Options display, or Yes for the *Adjust text when editing* prompt on the Change Editing Options display, the following occurs:

- Text automatically wraps to the next line.
- While you are inserting text in the middle of a line, the text that is pushed toward the left margin of the next column wraps to the next line when the cursor reaches the right margin of the column. The text also wraps to the next line if you move your cursor off the line.

For more information on adjusting lines, see "Adjusting Lines" on page 3-43.

### **Paginating Flowing Text Columns**

Whenever you copy, move, or delete text within flowing columns, it is best to paginate the document (adjust page endings) before you print it. Changes made to a column may cause part of the column to spill over to the next column when the document is printed. You must paginate your document to see the same results that were displayed when you viewed them using F19 (Print/View function). Any Next Text Column instructions that were not used are removed during pagination. For more information about pagination, see "Paginating" on page 3-48.



## Chapter 19. Using OfficeVision/400 with the Adapted Word Processing Function

This chapter describes the differences between the OfficeVision/400 word processing function and the adapted word processing function, while typing on the Edit display. This includes 3270 display stations attached to 3274 controllers, 5250 family display stations locally attached to a System/38 with pass-through, work station function sessions without PC Support Organizer, and double-byte work stations such as the 5295 or the Personal System/55. For specific information on how to use the adapted word processing functions, see the *Using OfficeVision/400\* Adapted Word Processing Function* manual.

If you are using the PC text-assist function of PC Support, see Chapter 18.

### Using the Edit Display with the Adapted Word Processing Function

The following illustrations show the differences on the Edit display while using the adapted word processing function.

Edit Display with the adapted word processing function

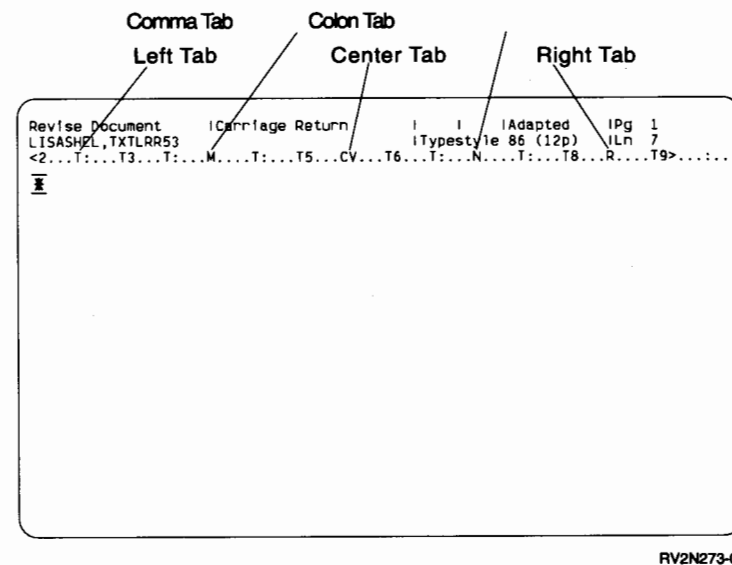
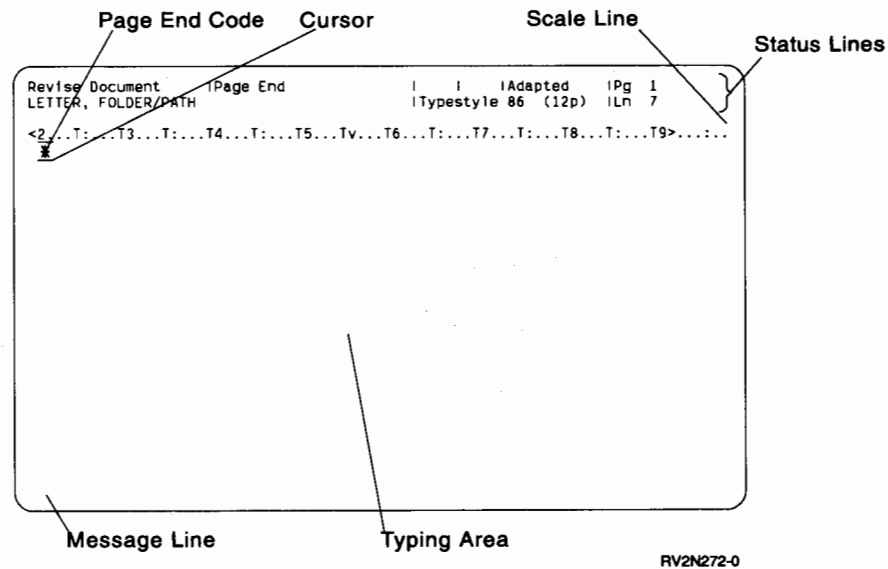
|                                                                                                                                     |                |                    |      |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|------|
| Revise Document                                                                                                                     | Carrier Return | Adapted            | Pg 1 |
| LETTER,FOLDER/PATH                                                                                                                  |                | Typestyle 86 (12p) | Ln 7 |
| <2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....                                                      |                |                    |      |
| Mr. J.R. Smith *                                                                                                                    |                |                    |      |
| 123 Main Street *                                                                                                                   |                |                    |      |
| Chicago, IL 67845 *                                                                                                                 |                |                    |      |
| *                                                                                                                                   |                |                    |      |
| Dear Mr. Smith: *                                                                                                                   |                |                    |      |
| *                                                                                                                                   |                |                    |      |
| You are invited to attend an open house in our warehouse on Saturday,<br>October 11. Come at 9 A.M. and stay as long as you want. * |                |                    |      |

Edit Display without the adapted word processing function

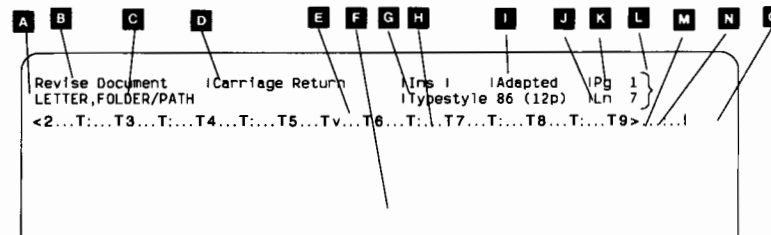
|                                                                                                                                   |      |                     |      |      |
|-----------------------------------------------------------------------------------------------------------------------------------|------|---------------------|------|------|
| LETTER,                                                                                                                           | P:12 | EDIT Carrier Return | PG:1 | LN:7 |
| <2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>.....                                                    |      |                     |      |      |
| Mr. J.R. Smith                                                                                                                    |      |                     |      |      |
| 123 Main Street                                                                                                                   |      |                     |      |      |
| Chicago, IL 67845                                                                                                                 |      |                     |      |      |
| Dear Mr. Smith:                                                                                                                   |      |                     |      |      |
| You are invited to attend an open house in our warehouse on Saturday,<br>October 11. Come at 9 A.M. and stay as long as you want. |      |                     |      |      |

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At the top of the Edit display, you see two status lines that supply system information. The last line (before the typing area) is the scale line which shows you the margin and tab settings, center point, and the right paper edge.



The following diagram shows in detail the information given on the status lines and scale line.



|                                                      |                       |
|------------------------------------------------------|-----------------------|
| <b>A</b> Left Margin                                 | <b>H</b> Tab Settings |
| <b>B</b> Current Task                                | <b>I</b> Editor Name  |
| <b>C</b> Document Name, Folder Name, and Folder Path | <b>J</b> Line Number  |
| <b>D</b> Audit Window                                | <b>K</b> Page Number  |
| <b>E</b> Center Point                                | <b>L</b> Status Lines |
| <b>F</b> Typing Area                                 | <b>M</b> Scale Line   |
| <b>G</b> Typestyle and Pitch                         | <b>N</b> Right Margin |
|                                                      | <b>O</b> Paper Edge   |

RV2N274-0

Notice that whatever line the cursor is on is highlighted. The line number on the status line indicates the highlighted line. For example, if the cursor is on line number 21, the number 21 is shown on the display. When you move the cursor to another line and press the Enter key, the line number changes on the Status line and that new line is highlighted.

In addition to the changes to the information shown on the top of the Edit display, there are certain functions that are not supported when using the adapted word processing function as well as differences while typing, editing, and using function keys. The following functions are not supported:

- Word wrap
- Line commands
- Automatic window and roll
- Alt N (Next Stop Code)
- Interactive spell check
- Column mode and table layout functions
- Some footnote functions (you can create and revise footnotes but you cannot specify formatting changes for footnotes)

---

## Differences While Typing Text

The following list identifies the typing tasks that are different, with an explanation of how you would perform the tasks using the adapted word processing function.

### Inserting Required Carrier Returns

You must select which key you want to use as a Required Carrier Return. Type that symbol for the *Required carrier return character* prompt on the Change Editing Options display. Whenever the instructions in the other chapters of this manual instruct you to press the Field Exit key, you must press the key you specified for the Required Carrier Return instead of the Field Exit key.

To insert a Required Carrier Return, press the specified key. After you press the Enter key, the symbol changes to an asterisk with a line above it (\*).

### Removing Required Carrier Returns

To remove unwanted Required Carrier Returns, use F4 (Delete).

### Ending Lines

To end a line or insert blank lines, press the Required Carrier Return key that you defined.

### Inserting Tabs

You must select which key you want to use as a Tab key. Type that symbol for the *Tab character* prompt on the Change Editing Options display.

### Centering Text

To center text using the Center Text instruction, you must position the cursor to the location on the line where you want the text centered, press F5 (Goto), type *ct* for the prompt, and press the Enter key. Type the text to be centered. Your text is not centered on the display, but it is centered when the document is printed.

### Finding Stop Codes

To find a stop code, press F6 (Find) and type *\*stop* for the prompt.

---

## Differences While Editing Text

The following list identifies the editing tasks that are different, with an explanation of how you would perform the tasks using the adapted word processing function.

Editing functions (such as Begin Bold, Underline, or Page End) are selected using codes instead of function keys.

## Selecting Codes

To select a code, press F5 (Goto) on the Edit display; then type **codes** for the prompt and press the Enter key. The Select Code display is shown. From this display you can insert any of the codes that are listed.

Revise Document | | | Adapted | Pg 1  
LETTER,XXXXXXXX | | | Typestyle 86 (12p) | Ln 7  
<2...T:...T3...T:...T4...T:...T5...Tv...T6...T:...T7...T:...T8...T:...T9>....  
\*

---

**codes**

**Select Code**

Select one of the following:  
Code to be Inserted at Cursor Position

1. Required carrier return

10. Center

2. Carrier return

11. Half index up

3. Tab

12. Half index down

4. Required tab

13. Required Space

5. Begin bold

14. Stop code

6. Begin underline

15. Syllable hyphen

7. End bold or underline

16. Symbol

8. Word underline

17. Begin bold and underline

9. Page end

18. Required page end

Selection

F3=Exit F12=Previous

## Inserting Codes Using Abbreviations

You can also insert a code (control character) into your document without using the Select Code menu. To insert a code, press F5 (Goto) and type one of the abbreviations shown in Figure 19-1 for the prompt (for example, type **tab** to insert a tab at the cursor position):

Figure 19-1. Editing Code Abbreviations

| Abbreviation | Function                 |
|--------------|--------------------------|
| bb           | Begin Bold               |
| bu           | Begin Underline          |
| bub          | Begin Underline/Bold     |
| car          | Carrier Return           |
| ct           | Center Text              |
| e            | End Bold or Underline    |
| hd           | Half Index Down          |
| hu           | Half Index Up            |
| pe           | Page End                 |
| codes        | Show Select Code display |
| sh           | Syllable Hyphen          |
| snp          | Start New Page           |
| rcr          | Required Carrier Return  |
| rs           | Required Space           |
| rt           | Required Tab             |
| sc           | Stop Code                |
| sym          | Symbol                   |
| tab          | Tab                      |
| wu           | Word Underline           |

To see the list of abbreviations that you can specify, select option 6 (Codes) from the Select Goto Requests display and press the Enter key.

**Specify Goto Requests - Codes**

Codes Requests:

|                              |                             |
|------------------------------|-----------------------------|
| bb=Begin bold                | rcr=Required carrier return |
| bu=Begin underline           | rs=Required space           |
| bub=Begin underline and bold | rt=Required tab             |
| car=Carrier return           | sc=Stop code                |
| ct=Center text               | sh=Syllable hyphen          |
| e=End bold or underline      | snp=Start new page          |
| hd=Half index down           | sym=Symbol                  |
| hu=Half index up             | tab=Tab                     |
| pe=Page end                  | wu=Word underline           |

Codes Display:  
codes=Select codes

Type choice, press Enter.

Goto request . . . . . \_\_\_\_\_

F3=Exit      F12=Cancel

### Finding Format Changes

To find a format change, press F6 (Find) and type **\*fc** for the prompt.

### Finding Instructions

To find an instruction, press F6 (Find) and type **\*inst** for the prompt.

### Finding Codes

To find a code, press F6 (Find) and type an asterisk (\*) followed by one of the abbreviations shown in Figure 19-1 on page 19-5 for the prompt (for example, type **\*tab** to find a tab).

### Using Goto Requests

To see which Goto requests are supported, press F5 (Goto) and then press the Help key to show the Select Goto Request display.

**Select Goto Request**

Goto allows you to go to another page or line in your document, or bypass menus to go directly to another display.

Select one of the following:

1. Format
2. Page and line
3. Table layout and text column
4. Instruction
5. Header and footer
6. Codes
7. Functions (Query, notepad, and sort)
8. Spell functions
9. Other

---

## Differences While Using Function Keys

You can either show or not show the function keys at the bottom of the display while you are typing your text. The typing sequence for using function keys depends on the type of keyboard attached to your display station.

### Using a 3270-Type Display Station

On some 3270-type display stations, function keys F1 through F12 are entered by pressing PA1, waiting for the system response, and then pressing a key PF1 through PF12. Function keys F13 through F24 are entered by pressing PF13 through PF24 if present or by pressing PA2, waiting for the system response, and then pressing a key PF1 through PF12.

Function keys on 3270-type display stations may have assigned functions different from the original defaults. The following table shows the original defaults assigned to the 3270 function keys and what the 5250 function key or the function performed is for each default. If you have a 3270 display station and the function keys are different, see your administrator for assistance, or see the *Alerts and DSNX Guide* for keyboard mapping information.

| 3270 Keys                                                               | 5250 Keys or Function Performed              |
|-------------------------------------------------------------------------|----------------------------------------------|
| PA1 then <sup>1</sup> PF1 through PF12                                  | Command keys 1 through 12 (F1 through F12)   |
| PA2 then <sup>1</sup> PF1 through PF12, or PF13 through PF24 if present | Command keys 13 through 24 (F13 through F24) |
| PF1                                                                     | AS/400 system help                           |
| PF2                                                                     | 3270 help                                    |
| PF3                                                                     | Clears display                               |
| PF4                                                                     | Prints display                               |
| PF5                                                                     | 3270 display of 5250 extended attributes     |
| PF6                                                                     | Test Request key                             |
| PF7                                                                     | Roll Down (Page Up) key                      |
| PF8                                                                     | Roll Up (Page Down) key                      |
| PF9                                                                     | Attention key                                |
| PF10                                                                    | Error Reset key                              |
| PF11                                                                    | System Request key                           |
| PF12                                                                    | Record Backspace key                         |

<sup>1</sup> Wait for system response after pressing a PA key, before attempting to press a PF key.

If you are using a 5250-type display station or a 3270-type display station with other default function keys, press the correct function key for your display station instead of the function key listed.

### Canceling a Function

Use F8 (Reset) to cancel a function such as copy, move, or delete. The Reset key does not cancel a function.

### Deleting Characters

Use the Delete (Del) key to delete one character. The Backspace key does not delete text.

### Deleting Blocks of Text

Use F4 (Delete) to delete blocks of text or control characters. The Delete (Del) key does not delete blocks of text. It only deletes one character and shifts the rest of the text to the left by one position.

**Deleting Control Characters**

Use F4 (Delete) to delete control characters instead of typing over them or removing them using the Delete (Del) key. If you do type over a control character (shown as an asterisk with a line above it or delete a control character using the Delete (Del) key, the extra control character is shown at the end of the line. The control character may result in a different control character from the one you intended.

**Inserting Blank Lines**

To insert blank lines, you must press the Required Carrier Return key that you defined instead of the Field Exit key.

**Inserting Text**

To insert text, you must use F11 (Insert lines). If you want to highlight your text (such as bold or underline), type all your text first, and then go back and insert all your highlighting.

**Getting to the Next Line**

To get to the next line and leave a space between the paragraphs, press the New Line key two times. When you leave a blank line between paragraphs, you do not need to type a Required Carrier Return. A blank line is automatically inserted for you.

**Inserting Tabs**

To insert tabs, you must press the Tab key that you defined and then press the Enter key. The Tab Arrow key is not supported.



---

## Chapter 20. Using the Basic Editing Functions

The purpose of the basic assistance level of the editor is to make the word processing function easier to use for beginning and casual users. To do this, the following things were done:

- A menu bar with actions is shown at the top of the Edit display. Each action in the menu bar has a pull-down menu. All functions can be done using the menu bar. No longer do you need to remember numerous function and text keys. Only two function keys are shown at the bottom of the Edit display replacing the seven lines of function keys that were normally shown. Although only two function keys are shown, all previously shown function keys are active if you want to perform functions without using the menu bar.
- Various displays have been simplified by showing only the necessary prompts and removing the less frequently used prompts. These displays include:
  - Work with Documents in Folders
  - Create Document Details
  - Margins and Tabs
  - Line Spacing/Justification Options
  - Typestyle/Color Options
- Several common tasks are now simpler by combining functions or removing the need to go to several displays to perform the task. These tasks, which can be simply done by selecting an item on a pull-down menu, include:
  - Exiting and saving a document
  - Exiting, saving, and printing a document
  - Exiting the document without saving changes
  - Underlining and making bold the same text
  - Creating a required page end
  - Checking the spelling of all the text in a document
  - Checking the spelling of all the text in a document and prompting you with correct spellings when errors are found
  - Having a default dictionary automatically specified on the Specify Dictionary Options display when a spelling function is requested and no dictionary was specified
  - Changing the user dictionary
  - Getting help for the current message shown
  - Going directly to InfoSeeker
  - Moving the cursor to the top or the bottom of a split Edit display
  - Going to the top or the bottom of a document
  - Changing the display size (24 x 80 or 27 x 132)

In this chapter, the cursor position is represented by ■.

---

### Selecting the Basic Assistance level

To select the basic assistance level, do the following:

1. Press F21 (Select assistance level) on the Work with Documents in Folders display. The Select Assistance Level display is shown.
2. Type a 1 (Basic) for the *Assistance level* prompt.

3. Press the Enter key. The Work with Documents in Folders display is shown again. Notice that only basic options and function keys are shown on the display.

Work with Documents in Folders

Folder . . . XXXXXXXX  
Position to . . . . . Starting characters

Type options (and Document), press Enter.  
1=Create      2=Revise      3=Copy      4=Delete      5=View  
7=Rename      9=Print options      10=Send      15=Fill form

| Opt | Document | Document Description       | Revised  | Type     |
|-----|----------|----------------------------|----------|----------|
| —   | LETTER   | Letters                    | 08/24/93 | RFTAS400 |
| —   | FORM     | Parking space request form | 09/15/93 | RFTAS400 |

F3=Exit  
F11=Display names only

F4=Prompt  
12=Cancel

F5=Refresh  
F21=Select assistance level

Bottom

The assistance level you are using remains the same, even if you leave the OfficeVision/400 function or sign off the system.

Press F21 (Select assistance level) on the Work with Documents in Folders display to change back to the intermediate level. When the Select Assistance Level display is shown, type a 2 (Intermediate) for the *Assistance level* prompt and press the Enter key.

## Using the Menu Bar

The basic editing functions are selected by using the menu bar at the top of the Edit display.

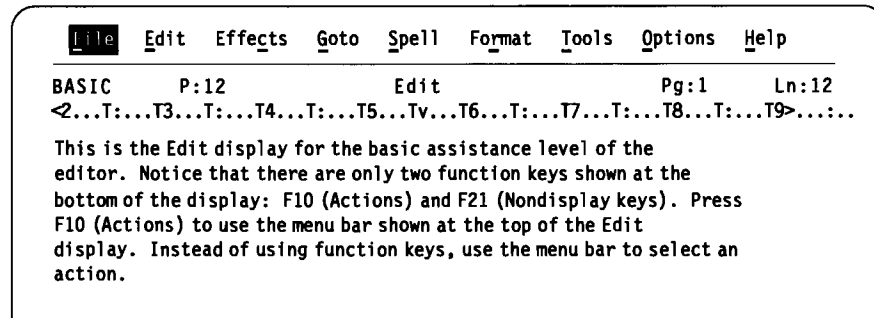
**Note:** You may pass through from another system that is at a release prior to Version 2 Release 3 Modification 0 and still use this function. However, the menu bar is not shown until F10 (Actions) is pressed.

To use the menu bar, do the following:

1. Press F10 (Actions) on the Edit display.

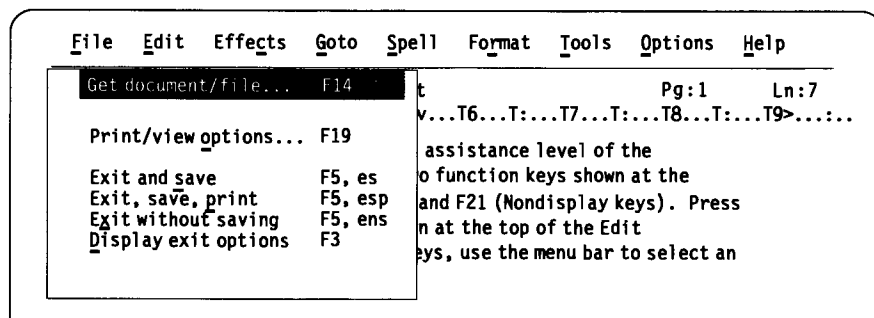
The cursor moves to the first action on the menu bar.

**Note:** If the cursor is on the menu bar but you want to return the cursor to the text in the document, press F10 (Actions) again.



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2. The method of selecting an action from the menu bar depends on the type of work station controller and display station you use. Possible methods include:
  - Press the selection character key for the action. For example, to select the File action, you press the **f** key. However, if you do not see an underlined character for each action then selection by character is not active on your display station.
  - Use the Cursor Right or Cursor Left key to move the cursor to the action you want and press the Enter key.
  - Use the Tab Right or Tab Left key to move the cursor to the action you want and press the Enter key.
  - If mouse support is available, select the action you want using the mouse.
3. The selected pull-down menu with a list of functions you can do for that action is shown on the display.



RV2N285-1

4. The method of selecting a choice from the pull-down menu depends on the type of work station controller and display station you use. Possible methods include:
  - If you see an underlined selection character for the choice you want, press the key for that character and the Enter key.
  - Use the Cursor Up or Cursor Down key to move the cursor to the choice you want and press the Enter key.
  - If numbers are shown to the left of the choices, type the number for the choice you want and press the Enter key.
  - If mouse support is available, select the choice you want using the mouse.

If you decide not to select a choice from the pull-down menu you are viewing, do one of the following:

- Press F12 (Cancel) to remove the pull-down menu and return to the menu bar where you can select a different action.
- Press F10 (Actions) to remove the pull-down menu and return to the text in the document.

**Note:** Not all the function keys are shown at the bottom of the Edit display. However, you can still use the function keys you are familiar with to perform functions instead of using the menu bar.

5. The following happens:

- a. The function you selected from the pull-down menu is done.
- b. The pull-down window is removed from the display.
- c. The cursor returns to the body of the document.

---

## Additional Information About Using the Basic Assistance Level

Additional information about using the basic assistance level includes:

- Four different menu bars are available when using the basic assistance level of the editor:
  - The revise document menu bar
  - The view document menu bar
  - The view mail menu bar
  - The fill in form menu bar
- Three of the actions (effects, spell, and tools) shown for the revise document menu bar have both short and full pull-down menu versions. The default is the short version and shows the most commonly used functions for that action. To select the full menu version, go to the Options action on the menu bar and press the Enter key. When the Options pull-down menu is shown, select **Full menus**.
- Function keys and fastpath abbreviations are shown to the right of the choices on the pull-down menus. They can only be used while the cursor is within the body of the document. They cannot be used when the cursor is on the menu bar or within a pull-down menu.
- Choices not currently available are identified in different ways depending on the type of work station controller and display station you use. Unavailable choices are identified in one of the following ways:
  - Choice is shown in blue
  - Cursor does not move to choice
  - An asterisk (\*) is shown in place of the first character of choice
- The enhanced work station controller allows you to use the cursor as follows:
  - Within a pull-down menu, press the Cursor Right or the Cursor Left key to go directly to the next or previous pull-down menu.
  - On the first action of the menu bar, go directly to the last action by pressing the Cursor Left key.
  - On the last action of the menu bar, go directly to the first action by pressing the Cursor Right key.

## Appendix A. Printers and the Functions They Support

The following charts include a partial list of the word processing print functions and should be used as a guide in determining which functions are supported by the various printers. Since many functions such as center, tabs, footnotes, outline, line numbers, and multiple text columns are supported by all printers, they are not included in these charts.

Some of the print functions may appear differently on the various printers.

For more information on a particular printer, see the manual for that printer.

All products may not be available in all countries. The IBM Personal Pageprinter 4216-D10 is available by RPQ #8V0443 in the United States.

Not all models of printers support all functions.

### SCS Printer Function Chart

Figure A-1 (Page 1 of 4). SCS Printer Function Chart

| OfficeVision/400: Word Processing Function   | SCS Printers                        |                                     |                   |                                |      |                |
|----------------------------------------------|-------------------------------------|-------------------------------------|-------------------|--------------------------------|------|----------------|
|                                              | 3287 4245<br>5256 5262<br>6252 6262 | 5224 5225<br>5553 5583 <sup>1</sup> | 4234 <sup>1</sup> | 4210 4214<br>4230 <sup>1</sup> | 5219 | 3812 3816      |
| Bold                                         | X                                   | X                                   | X                 | X                              | X    | X              |
| Change character set/code page ID            |                                     |                                     | X                 | X                              | X    | X              |
| Change font (type style)                     |                                     |                                     |                   |                                | X    | X              |
| Color                                        |                                     |                                     |                   |                                |      |                |
| Double-byte character set (DBCS) data        |                                     | X <sup>2</sup>                      |                   |                                |      |                |
| Double-sided printing                        |                                     |                                     |                   |                                |      | X <sup>3</sup> |
| Double-sided tumble printing                 |                                     |                                     |                   |                                |      | X <sup>3</sup> |
| Graphics                                     |                                     |                                     |                   |                                |      |                |
| Image                                        |                                     |                                     |                   |                                |      |                |
| Justification - Half (50%)                   | X                                   | X                                   | X                 | X                              | X    |                |
| Justification - Right (100%)                 | X                                   | X                                   | X                 | X                              | X    | X              |
| Lines per inch (any value from 1.00-1440.00) |                                     |                                     |                   |                                |      | X              |
| Lines per inch (2.54)                        |                                     |                                     |                   |                                | X    | X              |
| Lines per inch (4.0)                         |                                     | X                                   | X                 | X                              | X    | X              |
| Lines per inch (5.33)                        |                                     |                                     |                   |                                | X    | X              |
| Lines per inch (6.0)                         | X <sup>4</sup>                      | X                                   | X                 | X                              | X    | X              |
| Lines per inch (8.0)                         | X <sup>4</sup>                      | X                                   | X                 | X                              | X    | X              |
| Lines per inch (9.0)                         |                                     | X                                   | X                 | X                              |      | X              |
| Lines per inch (9.6)                         |                                     |                                     |                   |                                | X    | X              |
| Lines per inch (12.0)                        |                                     |                                     |                   |                                | X    | X              |
| Lines per inch (24.0)                        |                                     |                                     |                   |                                | X    | X              |

Figure A-1 (Page 2 of 4). SCS Printer Function Chart

| OfficeVision/400: Word Processing Function                              | SCS Printers                        |                                     |                   |                                |                            |                   |
|-------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------|--------------------------------|----------------------------|-------------------|
|                                                                         | 3287 4245<br>5256 5262<br>6252 6262 | 5224 5225<br>5553 5583 <sup>1</sup> | 4234 <sup>1</sup> | 4210 4214<br>4230 <sup>1</sup> | 5219                       | 3812 3816         |
| Lines per inch (48.0)                                                   |                                     |                                     |                   |                                | X                          | X                 |
| Line spacing (0.5)                                                      |                                     |                                     |                   |                                |                            | X                 |
| Line spacing (1.0)                                                      | X                                   | X                                   | X                 | X                              | X                          | X                 |
| Line spacing (1.5)                                                      |                                     |                                     |                   |                                | X                          | X                 |
| Line spacing (2.0)                                                      | X                                   | X                                   | X                 | X                              | X                          | X                 |
| Line spacing (2.5)                                                      |                                     |                                     |                   |                                |                            | X                 |
| Line spacing (3.0)                                                      | X                                   | X                                   | X                 | X                              | X                          | X                 |
| Paper size (maximum) in inches                                          | 13.20 x 42.50 <sup>5</sup>          | 13.20 x 14.17                       | 13.20 x 14.17     | 13.20 x 14.00                  | 13.20 x 22.75 <sup>6</sup> | 8.50 x 14.00      |
| Paper size (maximum) in inches - rotated                                |                                     |                                     |                   |                                |                            | 14.00 x 8.50      |
| Paper source - continuous feed                                          | X                                   | X                                   | X                 | X                              | X                          |                   |
| Paper source - envelope feed                                            |                                     |                                     |                   | X <sup>7, 8</sup>              | X <sup>7</sup>             |                   |
| Paper source - manual feed                                              |                                     |                                     |                   | X <sup>9</sup>                 | X                          |                   |
| Paper source - paper drawer (maximum)                                   |                                     |                                     |                   | 3 <sup>10</sup>                | 2 <sup>10</sup>            | 2                 |
| Print quality - draft <sup>11</sup>                                     | X                                   | X                                   | X                 | X                              | X                          |                   |
| Print quality - letter <sup>11</sup>                                    |                                     |                                     | X <sup>12</sup>   | X <sup>12</sup>                | X                          | X                 |
| Print quality - text <sup>11</sup>                                      |                                     |                                     |                   |                                |                            |                   |
| Rotation - automatic                                                    |                                     |                                     |                   |                                |                            | X                 |
| Rotation - 90 degrees                                                   |                                     |                                     |                   |                                |                            | X                 |
| Rotation - 180 degrees                                                  |                                     |                                     |                   |                                |                            | X                 |
| Rotation - 270 degrees                                                  |                                     |                                     |                   |                                |                            | X                 |
| Special characters (such as: cent sign, one half, and section symbol)   | X <sup>13</sup>                     | X <sup>13</sup>                     | X <sup>13</sup>   | X <sup>13</sup>                | X <sup>13</sup>            | X                 |
| Subscript/Superscript                                                   |                                     |                                     |                   |                                | X                          | X                 |
| Symbols (Code Page 259)                                                 | X <sup>14</sup>                     | X <sup>14</sup>                     | X <sup>14</sup>   | X <sup>14</sup>                | X <sup>15</sup>            | X                 |
| Typestyle/font numbers 1-65 (10-pitch) maximum characters per line      | 132                                 | 132                                 | 132               | 132                            | 132                        | 140 <sup>16</sup> |
| Typestyle/font numbers 66-153 (12-pitch) maximum characters per line    |                                     |                                     |                   | 158                            | 158                        | 168 <sup>16</sup> |
| Typestyle/font numbers 154-200 (proportional)                           |                                     |                                     |                   |                                | X                          | X                 |
| Typestyle/font numbers 201-210 (13.3-pitch) maximum characters per line |                                     |                                     |                   |                                |                            | 186 <sup>16</sup> |
| Typestyle/font numbers 211-239 (15-pitch) maximum characters per line   |                                     | 198                                 | 198               | 198                            | 198                        | 210 <sup>16</sup> |

Figure A-1 (Page 3 of 4). SCS Printer Function Chart

| OfficeVision/400: Word Processing Function                                          | SCS Printers                        |                                     |                   |                                |      |                   |
|-------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------|--------------------------------|------|-------------------|
|                                                                                     | 3287 4245<br>5256 5262<br>6252 6262 | 5224 5225<br>5553 5583 <sup>1</sup> | 4234 <sup>1</sup> | 4210 4214<br>4230 <sup>1</sup> | 5219 | 3812 3816         |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                |                                     |                                     |                   | 66                             |      | 70 <sup>16</sup>  |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line |                                     |                                     |                   | 220 <sup>2</sup> , 17          |      | 240 <sup>16</sup> |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               |                                     |                                     |                   |                                |      | 252 <sup>16</sup> |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             |                                     |                                     |                   |                                |      | 120 <sup>16</sup> |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               |                                     |                                     |                   |                                |      | 255 <sup>16</sup> |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line               |                                     |                                     |                   |                                |      | 255 <sup>16</sup> |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line               |                                     |                                     |                   |                                |      | 255 <sup>16</sup> |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts)             |                                     |                                     |                   |                                |      | X <sup>18</sup>   |

Figure A-1 (Page 4 of 4). SCS Printer Function Chart

| OfficeVision/400: Word Processing Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SCS Printers                        |                                     |                   |                                |      |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------|--------------------------------|------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3287 4245<br>5256 5262<br>6252 6262 | 5224 5225<br>5553 5583 <sup>1</sup> | 4234 <sup>1</sup> | 4210 4214<br>4230 <sup>1</sup> | 5219 | 3812 3816 |
| Zero index carrier return (ZICR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | X                                   | X                                   | X                 | X                              | X    | X         |
| <p><sup>1</sup> When you view the spooled output for these printers, the starting line shown on the Display Spooled File display will not match the first typing line in the document. However, the document will print correctly.</p> <p><sup>2</sup> Double-byte character set (DBCS) data can only be printed on the 5553 and 5583 Printers.</p> <p><sup>3</sup> Double-sided and double-sided tumble printing are not supported on the 3812 or 3816-01S.</p> <p><sup>4</sup> The 4245, 5256, 5262, and 6262 lines per inch can only be set once for the entire document (in the document format). The 5256 Printer must be set to the correct lines per inch value (using the hardware switch) to produce correct output.</p> <p><sup>5</sup> The maximum paper length for these printers is 31.88 inches when using 8.0 lines per inch. The maximum paper length for the 3287 Printer is 17.33 inches when using 6.0 lines per inch and 13.00 inches when using 8.0 lines per inch.</p> <p><sup>6</sup> The maximum paper length for these printers may be limited further when using the automatic sheet feed support.</p> <p><sup>7</sup> The automatic envelope feed support (drawers) is an optional feature. The automatic envelope feed support cannot be used without disabling the continuous forms support. The 4210, 4230, 3812, and 3816 printers do not have automatic envelope feed attachments.</p> <p><sup>8</sup> This function is not supported on the 4230 Printer.</p> <p><sup>9</sup> Manually fed paper is not supported on the 4230 Printer. Manual feed causes paper to be fed from drawer 3.</p> <p><sup>10</sup> The automatic sheet feed support (drawers) may be an optional feature on some printers. The 4210 Printer does not have an automatic sheet feed attachment.</p> <p><sup>11</sup> Unsupported print qualities for the 3812 and 3816 Printers will use letter quality. Unsupported print qualities for all other printers will use draft quality.</p> <p><sup>12</sup> Letter quality actually signifies near-letter quality on these printers.</p> <p><sup>13</sup> Some special characters may not print on these printers. The 4210 is an ASCII printer that emulates the 4214 Printer, therefore some characters will not print the same as the 4214. The 4245, 5256, 5262, and 6262 Printers may further restrict the special characters with certain print bands.</p> <p><sup>14</sup> Code Page 259 is not supported on these printers. However, 47 of the 191 symbols in Code Page 259 will be mapped to the supported code pages. The 4245, 5256, 5262, and 6262 Printers may further restrict these symbols with certain print bands. The 47 symbols mapped are: space, required space, left bracket, less than sign, left parenthesis, right bracket, right parenthesis, diaeresis accent, circumflex accent, minus sign (hyphen), underscore, greater than sign, grave accent, plus or minus sign, degree symbol, acute accent, registered trademark symbol, beta small, upper left box corner, left middle box side, lower left box corner, center box bar vertical, mu small, middle box top, box intersection, middle box bottom, tilde accent, upper right box corner, right middle box side, lower right box corner, long dash/throughscore, pound sign, international currency symbol, yen sign, left brace, paragraph symbol, syllable hyphen, vertical line unbroken, right brace, double underscore, section symbol, overline, backslash, numeric space, logical not, two superscript, and three superscript.</p> <p><sup>15</sup> Code Page 259 is supported on the 5219 Printer, but always uses Character Set 203. Therefore, not all symbols will print on a 5219 Printer.</p> <p><sup>16</sup> Using 14.00 inch wide paper (rotated).</p> <p><sup>17</sup> The printer actually uses a 16.7-pitch font, but it is referred to as a 17.1-pitch font.</p> <p><sup>18</sup> Typographical and user-defined fonts are treated as if they were 12-pitch. This means that centering, line adjustment, justification and tabs may not appear as desired. When using fonts that contain tall characters, you may wish to change your line spacing or lines per inch to avoid overlapping.</p> |                                     |                                     |                   |                                |      |           |



## IPDS Printer Function Chart

Intelligent printer data stream (IPDS) printers may be configured to use advanced function printing (AFP). Certain printers, such as the 3820 Printer, must be configured to use AFP when attached to an AS/400 system. To configure an IPDS printer with AFP, specify **AFP(\*YES)** for the CRTDEVPRT (Create device description printer) command. This can also be specified for the CHGDEVPRT (Change device description printer) command. The default for each command is **AFP(\*NO)**.

The IPDS printer function chart is divided into two sections, one for non-AFP printers (these are listed under **AFP\*NO**) and one for AFP printers (these are listed under **AFP\*YES**).

For more information about advanced function printing, see the manual *Guide to Programming for Printing*.

Figure A-2 (Page 1 of 4). IPDS Printer Function Chart

| OfficeVision/400:<br>Word Processing<br>Function | IPDS Printers        |                   |                |                      |           |                      |      |                |
|--------------------------------------------------|----------------------|-------------------|----------------|----------------------|-----------|----------------------|------|----------------|
|                                                  | AFP(*NO)             |                   |                |                      | AFP(*YES) |                      |      |                |
|                                                  | 4224<br>4230<br>4234 | 4028 <sup>1</sup> | 3812<br>3816   | 4224<br>4230<br>4234 | 3835      | 3820<br>3825<br>3827 | 4028 | 3812<br>3816   |
| Bold                                             | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Change character set/code page ID                | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Change font (type style)                         | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Color                                            | X <sup>2</sup>       |                   |                | X <sup>2</sup>       |           |                      |      |                |
| Double-byte character set (DBCS) data            |                      |                   |                |                      |           |                      |      |                |
| Double-sided printing                            |                      |                   | X <sup>3</sup> |                      |           | X <sup>4</sup>       |      | X <sup>3</sup> |
| Double-sided tumble printing                     |                      |                   | X <sup>3</sup> |                      |           | X <sup>4</sup>       |      | X <sup>3</sup> |
| Graphics                                         | X <sup>5</sup>       | X                 | X              | X <sup>5</sup>       |           |                      | X    | X              |
| Image                                            |                      | X                 | X              | X <sup>5</sup>       |           |                      | X    | X              |
| Justification - Half (50%)                       | X                    | X                 | X              | X                    | X         | X                    | X    |                |
| Justification - Right (100%)                     | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Lines per inch (any value from 1.00-1440.00)     | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Lines per inch (2.54)                            | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Lines per inch (4.0)                             | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Lines per inch (5.33)                            | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Lines per inch (6.0)                             | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Lines per inch (8.0)                             | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Lines per inch (9.0)                             | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Lines per inch (9.6)                             | X                    | X                 | X              | X                    | X         | X                    | X    | X              |
| Lines per inch (12.0)                            | X                    | X                 | X              | X                    | X         | X                    | X    | X              |

Figure A-2 (Page 2 of 4). IPDS Printer Function Chart

| OfficeVision/400:<br>Word Processing<br>Function                               | IPDS Printers                 |                   |                   |                               |                   |                              |                   |                   |
|--------------------------------------------------------------------------------|-------------------------------|-------------------|-------------------|-------------------------------|-------------------|------------------------------|-------------------|-------------------|
|                                                                                | AFP(*NO)                      |                   |                   | AFP(*YES)                     |                   |                              |                   |                   |
|                                                                                | 4224<br>4230<br>4234          | 4028 <sup>1</sup> | 3812<br>3816      | 4224<br>4230<br>4234          | 3835              | 3820<br>3825<br>3827         | 4028              | 3812<br>3816      |
| Lines per inch (24.0)                                                          | X                             | X                 | X                 | X                             | X                 | X                            | X                 | X                 |
| Lines per inch (48.0)                                                          | X                             | X                 | X                 | X                             | X                 | X                            | X                 | X                 |
| Line spacing (0.5)                                                             | X <sup>6</sup>                | X                 | X                 |                               | X                 | X                            | X                 | X                 |
| Line spacing (1.0)                                                             | X                             | X                 | X                 | X                             | X                 | X                            | X                 | X                 |
| Line spacing (1.5)                                                             | X <sup>6</sup>                | X                 | X                 |                               | X                 | X                            | X                 | X                 |
| Line spacing (2.0)                                                             | X                             | X                 | X                 | X                             | X                 | X                            | X                 | X                 |
| Line spacing (2.5)                                                             | X <sup>6</sup>                | X                 | X                 |                               | X                 | X                            | X                 | X                 |
| Line spacing (3.0)                                                             | X                             | X                 | X                 | X                             | X                 | X                            | X                 | X                 |
| Paper size<br>(maximum) in inches                                              | 13.20 x<br>22.75 <sup>7</sup> | 8.50 x<br>14.00   | 8.50 x<br>14.00   | 13.20 x<br>22.75 <sup>7</sup> | 8.50 x<br>14.00   | 8.50 x<br>14.00 <sup>8</sup> | 8.50 x<br>14.00   | 8.50 x<br>14.00   |
| Paper size<br>(maximum) in inches<br>- rotated                                 |                               | 14.00 x<br>8.50   | 14.00 x<br>8.50   |                               | 14.00 x<br>8.50   | 14.00 x<br>8.50 <sup>8</sup> | 14.00 x<br>8.50   | 14.00 x<br>8.50   |
| Paper source - con-<br>tinuous feed                                            | X                             |                   |                   | X                             | X                 |                              |                   |                   |
| Paper source -<br>envelope feed                                                |                               | X <sup>9</sup>    |                   |                               |                   |                              | X <sup>9</sup>    |                   |
| Paper source -<br>manual feed                                                  | X <sup>10</sup>               | X                 |                   | X <sup>10</sup>               |                   |                              | X                 |                   |
| Paper source - paper<br>drawer (maximum)                                       | 3 <sup>11</sup>               | 2                 | 2                 | 3 <sup>11</sup>               |                   | 2                            | 2                 | 2                 |
| Print quality - draft <sup>12</sup>                                            | X                             |                   |                   | X                             |                   |                              |                   |                   |
| Print quality - letter <sup>12</sup>                                           | X <sup>13</sup>               | X                 | X                 | X <sup>13</sup>               | X                 | X                            | X                 | X                 |
| Print quality - text <sup>12</sup>                                             | X                             |                   |                   | X                             |                   |                              |                   |                   |
| Rotation - automatic                                                           |                               | X                 | X                 |                               | X                 | X                            | X                 | X                 |
| Rotation - 90<br>degrees                                                       |                               | X                 | X                 |                               | X                 | X                            | X                 | X                 |
| Rotation - 180<br>degrees                                                      |                               | X                 | X                 |                               | X                 | X                            | X                 | X                 |
| Rotation - 270<br>degrees                                                      |                               | X                 | X                 |                               | X                 | X                            | X                 | X                 |
| Special characters<br>(such as: cent sign,<br>one half, and section<br>symbol) | X                             | X                 | X                 | X                             | X                 | X                            | X                 | X                 |
| Subscript/<br>Superscript                                                      | X                             | X                 | X                 | X                             | X                 | X                            | X                 | X                 |
| Symbols (Code Page<br>259)                                                     | X <sup>14</sup>               | X                 | X                 | X <sup>14</sup>               |                   |                              | X                 | X                 |
| Typestyle/font<br>numbers 1-65<br>(10-pitch) maximum<br>characters per line    | 132                           | 136 <sup>15</sup> | 140 <sup>15</sup> | 132                           | 138 <sup>15</sup> | 132 <sup>15</sup>            | 136 <sup>15</sup> | 136 <sup>15</sup> |

Figure A-2 (Page 3 of 4). IPDS Printer Function Chart

| OfficeVision/400:<br>Word Processing<br>Function                                    | IPDS Printers        |                   |                   |                      |                   |                      |                   |                   |
|-------------------------------------------------------------------------------------|----------------------|-------------------|-------------------|----------------------|-------------------|----------------------|-------------------|-------------------|
|                                                                                     | AFP(*NO)             |                   |                   | AFP(*YES)            |                   |                      |                   |                   |
|                                                                                     | 4224<br>4230<br>4234 | 4028 <sup>1</sup> | 3812<br>3816      | 4224<br>4230<br>4234 | 3835              | 3820<br>3825<br>3827 | 4028              | 3812<br>3816      |
| Typestyle/font numbers 66-153 (12-pitch) maximum characters per line                | 158                  | 164 <sup>15</sup> | 168 <sup>15</sup> | 158                  | 166 <sup>15</sup> | 158 <sup>15</sup>    | 164 <sup>15</sup> | 166 <sup>15</sup> |
| Typestyle/font numbers 154-200 (proportional)                                       | X                    | X                 | X                 | X                    | X                 | X                    | X                 | X                 |
| Typestyle/font numbers 201-210 (13.3-pitch) maximum characters per line             | 175 <sup>16</sup>    |                   | 186 <sup>15</sup> | 175 <sup>16</sup>    |                   | 186 <sup>15</sup>    |                   | 185 <sup>15</sup> |
| Typestyle/font numbers 211-239 (15-pitch) maximum characters per line               | 198                  | 204 <sup>15</sup> | 210 <sup>15</sup> | 198                  | 207 <sup>15</sup> | 198 <sup>15</sup>    | 204 <sup>15</sup> | 208 <sup>15</sup> |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                | 66                   |                   | 70 <sup>15</sup>  | 66                   |                   |                      |                   | 69 <sup>15</sup>  |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line | 220 <sup>17</sup>    | 233 <sup>15</sup> | 240 <sup>15</sup> | 220 <sup>17</sup>    | 240 <sup>15</sup> | 240 <sup>15</sup>    | 233 <sup>15</sup> | 237 <sup>15</sup> |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               | 239 <sup>16</sup>    |                   |                   | 239 <sup>16</sup>    |                   |                      |                   |                   |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             |                      |                   | 120 <sup>15</sup> |                      |                   |                      |                   |                   |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               |                      | 251 <sup>15</sup> | 255 <sup>15</sup> |                      | 254 <sup>15</sup> | 254 <sup>15</sup>    | 251 <sup>15</sup> | 254 <sup>15</sup> |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line               |                      |                   | 255 <sup>15</sup> |                      |                   |                      |                   | 254 <sup>15</sup> |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line               |                      |                   | 255 <sup>15</sup> |                      | 254 <sup>15</sup> | 254 <sup>15</sup>    |                   | 254 <sup>15</sup> |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts)             |                      | X <sup>18</sup>   | X <sup>18</sup>   |                      | X <sup>18</sup>   | X <sup>18</sup>      | X <sup>18</sup>   | X <sup>18</sup>   |

Figure A-2 (Page 4 of 4). IPDS Printer Function Chart

| OfficeVision/400:<br>Word Processing<br>Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | IPDS Printers        |                   |              |                      |      |                      |      |              |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | AFP(*NO)             |                   |              | AFP(*YES)            |      |                      |      |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4224<br>4230<br>4234 | 4028 <sup>1</sup> | 3812<br>3816 | 4224<br>4230<br>4234 | 3835 | 3820<br>3825<br>3827 | 4028 | 3812<br>3816 |
| Zero index carrier<br>return (ZICR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | X                    | X                 | X            | X                    | X    | X                    | X    | X            |
| <p><sup>1</sup> The 4028 Printer prints in whole-page or print-page format. If you select whole page format, OfficeVision/400 automatically shifts the printing down and to the right. This prevents printing in the no print area of a page. If you select print-page format, the 4028 Printer automatically does this shifting. Also, OfficeVision/400 shifts the printing down and to the right. To avoid having OfficeVision/400 doing the shift, type each of the following commands, one at a time, on the command line and press the Enter key:</p> <ol style="list-style-type: none"> <li>1. CRTDTAARA DTAARA(QUSRSYS/QOVPRVALS) TYPE(*CHAR) LEN(256) VALUE('Y')</li> <li>2. CHGOBJOWN OBJ(QUSRSYS/QOVPRVALS) OBJTYPE(*DTAARA) NEWOWN(QSYS) CUROWNOUT(*SAME)</li> <li>3. GRTOBJAUT OBJ(QUSRSYS/QOVPRVALS) OBJTYPE(*DTAARA) USER(*PUBLIC) AUT(*ALL)</li> </ol> <p>After you do this procedure, OfficeVision/400 does not do any shifting.</p> <p>For more information about whole-page and print-page formats, see the operator's guide for your printer.</p> <p>2 Some models of the 4224 and 4230 Printers do not support color.</p> <p>3 Double-sided and double-sided tumble printing are not supported on the 3812 or 3816-01S.</p> <p>4 The 3827 Printer only supports double-sided and double-sided tumble printing from drawer 1 (the lower drawer).</p> <p>5 The size and complexity of the graphs and images that the 4224 and 4230 Printers support are limited by the amount of memory installed in these printers.</p> <p>6 This function is supported only on the 4230 Printer.</p> <p>7 The maximum paper length for these printers may be limited further when using the automatic sheet feed support.</p> <p>8 The 3827 Printer only supports 14.00 inch paper from drawer 1 (the lower drawer).</p> <p>9 The automatic envelope feed support (drawers) is an optional feature.</p> <p>10 The manual sheet-feed support is a part of the automatic sheet-feed (drawers) support. The 4234-12 Printer does not have a manual sheet-feed attachment.</p> <p>11 The automatic sheet-feed support (drawers) is an optional feature. The automatic sheet-feed support cannot be used without disabling the continuous-forms support. The 4234-12 Printer does not have an automatic sheet-feed attachment.</p> <p>12 Unsupported print qualities for all of these printers use letter quality.</p> <p>13 Letter quality actually signifies near-letter quality on these printers.</p> <p>14 Code Page 259 is not supported on these printers. However, 47 of the 191 symbols in Code Page 259 will be mapped to the supported code pages. The 47 symbols mapped are: space, required space, left bracket, less than sign, left parenthesis, right bracket, right parenthesis, diaeresis accent, circumflex accent, minus sign (hyphen), underscore, greater than sign, grave accent, plus or minus sign, degree symbol, acute accent, registered trademark symbol, beta small, upper left box corner, left middle box side, lower left box corner, center box bar vertical, mu small, middle box top, box intersection, middle box bottom, tilde accent, upper right box corner, right middle box side, lower right box corner, long dash/throughscore, pound sign, international currency symbol, yen sign, left brace, paragraph symbol, syllable hyphen, vertical line unbroken, right brace, double underscore, section symbol, overline, backslash, numeric space, logical not, two superscript, and three superscript.</p> <p>15 Using 14.00 inch wide paper (rotated).</p> <p>16 The 4224 and 4230 Printers do not support a 13.3 or 18-pitch, but the 4234 Model 12 Printer does.</p> <p>17 The printer actually uses a 16.7-pitch font, but it is referred to as a 17.1-pitch font. Some older 4224 Printers may not support 16.7-pitch.</p> <p>18 Typographical and user-defined fonts are treated as if they were 12-pitch. This means that centering, line adjustment, justification and tabs may not appear as desired. When using fonts that contain tall characters, you may wish to change your line spacing or lines per inch to avoid overlapping.</p> |                      |                   |              |                      |      |                      |      |              |

## ASCII Printers

Not all printer emulation modes are described in this manual. For example, AS/400 PC Support work station function's 5224 and 5256 Printer emulation modes are not described.

For more information on a particular printer, see the manual for that printer. For more information on a particular printer emulation product, see the manual for that product.

### ASCII Printers Supported by the AS/400 Host Print Transform Function

The host print transform function supports more than 120 different printer models of several printer manufacturers. To view a list of supported printers, press the Help key when the cursor is on the *Manufacturer, type and model (MFRTYPMDL)* prompt. This prompt is on the following displays:

- Create Device Description (Printer) (CRTDEVPRT)
- Change Device Description (Printer) (CHGDEVPRT)

The host print transform function generates the ASCII data stream and sends the data transparently through existing emulators to the attached printer. The functional support is independent of the emulator. In addition to the host print transform function supporting a particular function, the printer must also support that function. For more information on a particular printer, see the manual for that printer.

Functions supported by the host print transform function, are described in the "AS/400 Host Print Transform Function Chart" on page A-13.

### ASCII Printers Supported by Various PC Printer Emulations

Figure A-3 (Page 1 of 2). ASCII Printers Supported by Various PC Printer Emulations

| ASCII Printer                               | AS/400 PCS<br>Work<br>Station<br>Function<br>(WSF) | OS/2 Extended<br>Edition Version<br>1.3 5250 Work<br>Station Feature<br>(OS/2 5250 WSF) |      |      | System/36 and<br>System/38 Work<br>Station Emu-<br>lation (WSE) |      |      | Enhanced 5250<br>Emulation V2.3<br>(E5250) |      |      | Remote<br>5250<br>Emulation<br>V2.0<br>(R5250) |      |
|---------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------|------|------|--------------------------------------------|------|------|------------------------------------------------|------|
|                                             | 3812 <sup>1</sup>                                  | 5219                                                                                    | 5224 | 5256 | 5219                                                            | 5224 | 5256 | 5219                                       | 5224 | 5256 | 5219                                           | 5256 |
| 2380 Personal Printer II                    | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | R    |
| 2381 Personal Printer II                    | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | R    |
| 2390 Personal Printer II                    | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | R    |
| 2391 Personal Printer II                    | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | R    |
| 3812 Pageprinter                            | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | —    |
| 3816 Pageprinter                            | R,D                                                | R                                                                                       | —    |      | R                                                               |      |      | R                                          |      |      | R                                              |      |
| 4019 Laserprinter (IBM<br>PPDS Mode)        | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | R                                              |      |
| 4019 Laserprinter (HP<br>PCL Mode)          | R,D                                                | R                                                                                       | —    | —    |                                                                 |      |      |                                            |      |      |                                                |      |
| 4029 LaserPrinter Series<br>(IBM PPDS Mode) | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | R                                              |      |
| 4029 LaserPrinter Series<br>(HP PCL Mode)   | R,D                                                | R                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 4072 ExecJet                                | R,D                                                | R,D                                                                                     | —    |      | R                                                               |      |      | R                                          |      |      | R                                              |      |

Figure A-3 (Page 2 of 2). ASCII Printers Supported by Various PC Printer Emulations

| ASCII Printer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | AS/400 PCS<br>Work<br>Station<br>Function<br>(WSF) | OS/2 Extended<br>Edition Version<br>1.3 5250 Work<br>Station Feature<br>(OS/2 5250 WSF) |      |      | System/36 and<br>System/38 Work<br>Station Emu-<br>lation (WSE) |      |      | Enhanced 5250<br>Emulation V2.3<br>(E5250) |      |      | Remote<br>5250<br>Emulation<br>V2.0<br>(R5250) |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------|------|------|--------------------------------------------|------|------|------------------------------------------------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3812 <sup>1</sup>                                  | 5219                                                                                    | 5224 | 5256 | 5219                                                            | 5224 | 5256 | 5219                                       | 5224 | 5256 | 5219                                           | 5256 |
| 4201-1 Proprinter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             | R    |      | R,D                                        | R    |      | —                                              | R    |
| 4201-2 Proprinter II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             | R    |      | R,D                                        | R    |      | —                                              | R    |
| 4201-3 Proprinter III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             | R    |      | R,D                                        | R    |      | —                                              | R    |
| 4202-1 Proprinter XL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             | R    |      | R,D                                        | R    |      | —                                              | R    |
| 4202-2 Proprinter II XL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             | R    |      | R,D                                        | R    |      | —                                              | R    |
| 4202-3 Proprinter III XL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             | R    |      | R,D                                        | R    |      | —                                              | R    |
| 4207-1 Proprinter X24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | R    |
| 4207-2 Proprinter X24E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | R    |
| 4208-1 Proprinter XL24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | R    |
| 4208-2 Proprinter XL24E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | R    |
| 4212 Proprinter 24P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | R                                              |      |
| 4216-10 Personal<br>Pageprinter (IBM PPDS<br>Mode)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | —                                                  | —                                                                                       | —    | —    | R,D                                                             |      |      | R,D                                        |      |      | —                                              | —    |
| 4216-10 Personal<br>Pageprinter (HP PCL<br>Mode)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | R,D                                                | —                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 4224-301                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                  | —                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 4224-302                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                  | —                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 4224-3E3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                  | —                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 4226 Model 302                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | —                                              | R    |
| 4234-13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | —                                                  | —                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 4712-1 Transaction<br>Printer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | R                                                  | —                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 4712-2 Transaction<br>Printer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | R                                                  | —                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 4722-1 Document<br>Printer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | R                                                  | —                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 4722-2 Transaction<br>Printer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | R                                                  | —                                                                                       | —    | —    | —                                                               | —    | —    | —                                          | —    | —    | —                                              | —    |
| 5201-2 Quietwriter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | R                                                  | R                                                                                       | —    |      | R                                                               |      |      | R                                          |      |      | R                                              |      |
| 5202-1 Quietwriter III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | R                                              |      |
| 5204-1 Quickwriter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | R,D                                                | R,D                                                                                     | —    |      | R,D                                                             |      |      | R,D                                        |      |      | R                                              |      |
| <b>R</b> Recommended printer emulation mode for this printer.<br><b>D</b> The capabilities of this printer, when used with this printer emulation mode, are described in the emulated printer function charts in this appendix.<br><b>blank</b> Supported for this printer emulation mode, but not recommended due to lack of function compared to other modes.<br><b>—</b> Not supported for this printer emulation mode.<br><sup>1</sup> With Version 2 Release 2 and later releases, the AS/400 PCS Work Station Function (WSF) only emulates a 3812 Printer emulation. |                                                    |                                                                                         |      |      |                                                                 |      |      |                                            |      |      |                                                |      |

## ASCII Printers Supported by Various Hardware Printer Emulations

Figure A-4 (Page 1 of 2). ASCII Printers Supported by Various Hardware Printer Emulations

| ASCII Printer                                | 3477 InfoWindow (3477) |      |      | 3486 3487 3488 InfoWindow II |      |      | 3197 Work Station (3197) |      | ASCII Work Station Controller (AWSC) |      |      |      |
|----------------------------------------------|------------------------|------|------|------------------------------|------|------|--------------------------|------|--------------------------------------|------|------|------|
|                                              | 5219                   | 4214 | 5256 | 3812                         | 4214 | 5256 | 4214                     | 5256 | 3812                                 | 5219 | 5224 | 5256 |
| 2380 Personal Printer Series                 | —                      | R,D  |      | —                            | R    |      | R,D <sup>1</sup>         |      | —                                    | —    | R,D  |      |
| 2381 Personal Printer Series                 | —                      | R,D  |      | —                            | R    |      | R,D <sup>1</sup>         |      | —                                    | —    | R,D  |      |
| 2390 Personal Printer Series                 | R,D                    |      |      | R                            |      |      | R,D <sup>1</sup>         |      | —                                    | R,D  |      |      |
| 2391 Personal Printer Series                 | R,D                    |      |      | R                            |      |      | R,D <sup>1</sup>         |      | —                                    | R,D  |      |      |
| 3812 Pageprinter                             | —                      | —    | —    | —                            | —    | —    | —                        | —    | —                                    | —    | —    | —    |
| 3816 Pageprinter                             | —                      | —    | —    | —                            | —    | —    | —                        | —    | —                                    | —    | —    | —    |
| 4019-1 Laserprinter (HP PCL Mode)            | —                      | —    | —    | —                            | —    | —    | —                        | —    | —                                    | —    | —    | —    |
| 4019-1 Laserprinter (IBM PPDS Mode)          | R,D                    |      |      | R                            |      |      | R,D                      |      | R,D                                  |      |      |      |
| 4029 LaserPrinter Series (IBM PPDS Mode)     | R,D                    |      |      | R                            |      |      | R,D <sup>1</sup>         |      | R,D                                  |      |      |      |
| 4072 ExecJet                                 | R                      |      |      | R                            |      |      | R                        |      |                                      | R    |      |      |
| 4201-1 Proprinter <sup>2</sup>               | —                      | R,D  | R    | —                            | R    | R    | R,D                      | R    | —                                    | —    | —    | —    |
| 4201-2 Proprinter II <sup>2</sup>            | —                      | R,D  | R    | —                            | R    | R    | R,D                      | R    | —                                    | —    | R,D  |      |
| 4201-3 Proprinter III                        | —                      | R,D  |      | —                            | R    |      | R,D                      |      | —                                    | —    | R,D  |      |
| 4202-1 Proprinter XL <sup>2</sup>            | —                      | R,D  | R    | —                            | R    | R    | R,D                      | R    | —                                    | —    | R,D  |      |
| 4202-2 Proprinter II XL <sup>2</sup>         | —                      | R,D  | R    | —                            | R    | R    | R,D                      | R    | —                                    | —    | R,D  |      |
| 4202-3 Proprinter III XL                     | —                      | R,D  |      | —                            | R    |      | R,D                      |      | —                                    | —    | R,D  |      |
| 4207-1 Proprinter X24 <sup>2</sup>           | —                      | —    | —    | —                            | —    | —    | —                        | —    | —                                    | R,D  |      |      |
| 4207-2 Proprinter X24E                       | R,D <sup>1</sup>       |      |      | R <sup>1</sup>               |      |      | R,D <sup>1</sup>         |      | —                                    | R,D  |      |      |
| 4208-1 Proprinter XL24 <sup>2</sup>          | —                      | —    | —    | —                            | —    | —    | —                        | —    | —                                    | R,D  |      |      |
| 4208-2 Proprinter XL24E                      | R,D <sup>1</sup>       |      |      | R <sup>1</sup>               |      |      | R,D <sup>1</sup>         |      | —                                    | R,D  |      |      |
| 4212 Proprinter 24P                          | R,D                    |      |      | R                            |      |      | R,D <sup>1</sup>         |      | —                                    | —    | —    | —    |
| 4216-10 Personal Pageprinter (IBM PPDS Mode) | R,D                    |      |      | R                            |      |      | R,D                      |      |                                      | R,D  |      |      |
| 4224-301                                     | —                      | —    | —    | —                            | —    | —    | —                        | —    | —                                    | R,D  |      |      |
| 4224-302                                     | —                      | —    | —    | —                            | —    | —    | —                        | —    | —                                    | R,D  |      |      |
| 4224-3E3                                     | —                      | —    | —    | —                            | —    | —    | —                        | —    | —                                    | R,D  |      |      |
| 4226 Model 302                               | —                      | R,D  |      | —                            | R    |      | R,D <sup>1</sup>         |      | —                                    | —    | R,D  |      |
| 4234-13                                      | —                      | —    | —    | —                            | —    | —    | —                        | —    | —                                    | —    | R,D  |      |
| 5201-2 Quietwriter <sup>2</sup>              | —                      | —    | R    | —                            | —    | R    | R                        |      | —                                    | —    | —    | —    |
| 5202-1 Quietwriter III                       | R,D                    |      |      | R                            |      |      | R,D                      |      | —                                    | —    | —    | —    |

Figure A-4 (Page 2 of 2). ASCII Printers Supported by Various Hardware Printer Emulations

| ASCII Printer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3477 InfoWindow<br>(3477) |      |      | 3486 3487 3488<br>InfoWindow II |      |      | 3197 Work<br>Station (3197) |      | ASCII Work Station Con-<br>troller (AWSC) |      |      |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------|------|---------------------------------|------|------|-----------------------------|------|-------------------------------------------|------|------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5219                      | 4214 | 5256 | 3812                            | 4214 | 5256 | 4214                        | 5256 | 3812                                      | 5219 | 5224 | 5256 |
| 5204-1 Quickwriter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | R,D                       |      |      | R                               |      |      | R,D                         |      |                                           | R,D  |      |      |
| <p><b>R</b> Recommended printer emulation mode for this printer.</p> <p><b>D</b> The capabilities of this printer, when used with this printer emulation mode, are described in the emulated printer function charts in this appendix.</p> <p><b>blank</b> Supported for this printer emulation mode, but not recommended due to lack of function compared to other modes.</p> <p>— Not supported for this printer emulation mode.</p> <p>1 The printer should be configured using ASCII Code Page 850.</p> <p>2 This printer has been replaced by a later model, except for the 5201-2 Quietwriter which has been replaced by the 5202-1 Quietwriter III. The emulated printer function charts for its replacement may be used as a guideline for this printer.</p> |                           |      |      |                                 |      |      |                             |      |                                           |      |      |      |



## AS/400 Host Print Transform Function Chart

The following chart shows the functions supported using the host print transform function. For more information about the host print transform function and how to configure it with existing emulators, see *Guide to Programming for Printing*. If you have an IBM printer, see the "Work Station Function (WSF) Printer Emulation Function Chart" on page A-16. The host print transform function support is similar for these printers. For information on the work station customization function, see the *Workstation Customization Function Programmer's Guide*.

Figure A-5 (Page 1 of 3). Host Print Transform Function Chart

| Function                                     | 3812 SCS   | Host Print Transform Support                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bold                                         | X          | Supported. There are some fonts with some printers that do not support bold.                                                                                                                                                                                                                                                                                                           |
| Change character set/code page ID            | X          | Supported.                                                                                                                                                                                                                                                                                                                                                                             |
| Change font (type style)                     | X          | Supported. For printers that support the Personal Printer Data Stream and font selection by Font Global ID or PCL 4/5 Data Streams, the font selection commands are generated automatically. If the font is not resident in the printer, the printer does a best fit algorithm. For other printers, font selection is controlled by the mappings identified in the customizing object. |
| Color                                        |            | Supported.                                                                                                                                                                                                                                                                                                                                                                             |
| Double-byte character set (DBCS) data        |            | Not supported.                                                                                                                                                                                                                                                                                                                                                                         |
| Double-sided printing                        |            | Supported.                                                                                                                                                                                                                                                                                                                                                                             |
| Double-sided tumble printing                 |            | Supported.                                                                                                                                                                                                                                                                                                                                                                             |
| Graphics                                     | X          | Not supported.                                                                                                                                                                                                                                                                                                                                                                         |
| Image                                        | X          | Not supported.                                                                                                                                                                                                                                                                                                                                                                         |
| Justification - Half (50%)                   |            | Supported. Justification with some proportional or typographic fonts is not supported.                                                                                                                                                                                                                                                                                                 |
| Justification - Right (100%)                 | X          | Supported. Justification with some proportional or typographic fonts is not supported.                                                                                                                                                                                                                                                                                                 |
| Lines per inch (any value from 1.00-1440.00) | X          | Supports variable line spacing with the smallest vertical unit available for the printer down to 1/144th inch. For example, the HP LaserJet** III supports 48 LPI and the IBM LaserPrinter supports 144 LPI.                                                                                                                                                                           |
| Line spacing (0.5-3.0)                       | X          | Supported.                                                                                                                                                                                                                                                                                                                                                                             |
| Margin adjustment                            |            | Adjustment for the no print area of some printers is supported. For example, if a 1/2 inch margin is defined in the document and your printer has a 1/4 inch no print area, the printed document will have a 1/2 inch margin instead of a 3/4 inch (1/2+1/4) margin. The Work Station Customization function can be used to remove this adjustment support.                            |
| Paper size (maximum) in inches               | 8.5 X 14.0 | 8.5 X 14.0 is supported by page printers and 13.2 X 22.75 is supported by continuous feed printers.                                                                                                                                                                                                                                                                                    |
| Paper size (maximum) in inches - rotated     | 14.0 X 8.5 | 14.0 X 8.5 is supported by page printers.                                                                                                                                                                                                                                                                                                                                              |

Figure A-5 (Page 2 of 3). Host Print Transform Function Chart

| Function                                                                            | 3812 SCS         | Host Print Transform Support                                                                                                                                                                               |
|-------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paper source - continuous feed                                                      |                  | Supported.                                                                                                                                                                                                 |
| Paper source - envelope feed                                                        |                  | Supported. With some printers, such as the HP LaserJet III, a Work Station Customization object must be modified to select the envelope feeder.                                                            |
| Paper source - manual feed                                                          |                  | Supported.                                                                                                                                                                                                 |
| Paper source - paper drawer (maximum)                                               | 2                | Two drawers are supported.                                                                                                                                                                                 |
| Print quality - draft                                                               |                  | Supported.                                                                                                                                                                                                 |
| Print quality - letter                                                              | X                | Supported.                                                                                                                                                                                                 |
| Print quality - text                                                                |                  | Text quality prints as Letter quality. With Work Station Customization, this selection can be mapped to any desired quality.                                                                               |
| Rotation - automatic                                                                | X                | Supported. For continuous feed printers, if the text does not print on the page, the text is compressed with no page rotation.                                                                             |
| Rotation - 90 degrees                                                               | X                | Supported.                                                                                                                                                                                                 |
| Rotation - 180 degrees                                                              | X                | Supported.                                                                                                                                                                                                 |
| Rotation - 270 degrees                                                              | X                | Supported.                                                                                                                                                                                                 |
| Special characters (such as the cent, one half, or section symbol sign)             | X                | Supported.                                                                                                                                                                                                 |
| Subscript/Superscript                                                               | X                | Supported.                                                                                                                                                                                                 |
| Symbols (code page 259)                                                             | X                | Mapping of EBCDIC code page 259 to ASCII code page 899 is supported. If code page 899 is not available on the ASCII printer, a partial mapping of code page 259 to the currently active code page is done. |
| Typestyle/font numbers 1-65 (10-pitch) maximum characters per line                  | 140 <sup>1</sup> | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 10.                                |
| Typestyle/font numbers 66-153 (12-pitch) maximum characters per line                | 168 <sup>1</sup> | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 12.                                |
| Typestyle/font numbers 154-200 (proportional)                                       | X <sup>2</sup>   | Supported. Justification, overstrike, underline, and tabs may not be shown as desired.                                                                                                                     |
| Typestyle/font numbers 201-210 (13.3-pitch) maximum characters per line             | 186 <sup>1</sup> | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 13.3.                              |
| Typestyle/font numbers 211-239 (15-pitch) maximum characters per line               | 210 <sup>1</sup> | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 15.                                |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                | 70 <sup>1</sup>  | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 5.                                 |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line | 240 <sup>1</sup> | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 17.1.                              |

Figure A-5 (Page 3 of 3). Host Print Transform Function Chart

| Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3812 SCS         | Host Print Transform Support                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 252 <sup>1</sup> | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 18.                                                                                                                                           |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 120 <sup>1</sup> | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 8.55.                                                                                                                                         |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 255 <sup>1</sup> | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 20. The maximum characters per line cannot exceed 255.                                                                                        |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 25. The maximum characters per line cannot exceed 255.                                                                                        |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 255 <sup>1</sup> | Supported. Refer to the <i>Change font (type style)</i> function listed earlier in this chart. To determine the characters per line, multiply the maximum print line by 27. The maximum characters per line cannot exceed 255.                                                                                        |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | X <sup>3</sup>   | Supported. Typographical and user-defined fonts are treated as if they were 12-pitch. This means that centering, line adjustment, justification and tabs may not be shown as desired. When using fonts that contain tall characters, you may want to change your line spacing or lines per inch to avoid overlapping. |
| Zero index carrier return (ZICR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | X                | Supported.                                                                                                                                                                                                                                                                                                            |
| <sup>1</sup> Using 14-inch wide paper (rotated).<br><sup>2</sup> Character widths for proportionally spaced fonts are approximate. Therefore justification, overstrike, underline, and tabs may not be shown as desired.<br><sup>3</sup> Typographical and user-defined fonts are treated as if they were 12-pitch. This means that centering, line adjustment, justification and tabs may not be shown as desired. When using fonts that contain tall characters, you may want to change your line spacing or lines per inch to avoid overlapping. |                  |                                                                                                                                                                                                                                                                                                                       |

## Work Station Function (WSF) Printer Emulation Function Chart

The following chart shows the functions supported by ASCII printers when attached using work station function (WSF). Beginning with Version 2 Release 2, WSF supports only 3812 emulation. For more information on a particular printer, see the manual for that printer.

*Figure A-6 (Page 1 of 3). WSF Printer Emulation Function Chart*

| Function                                          | SCS<br>Printer  | WSF Attached Printer |                        |                               |                      |                 |                      |                      |                 |
|---------------------------------------------------|-----------------|----------------------|------------------------|-------------------------------|----------------------|-----------------|----------------------|----------------------|-----------------|
|                                                   | 3812<br>SCS     | 3812<br>3816         | 4019<br>4029<br>(PPDS) | 4019<br>4029<br>4216<br>(PCL) | 4072<br>5202<br>5204 | 2380<br>4201    | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208    |
| Bold                                              | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Change character set/code<br>page ID              | X               |                      |                        |                               |                      |                 |                      |                      |                 |
| Change font (type style)                          | X               | X                    | X                      | X                             | X                    | X <sup>1</sup>  | X <sup>1</sup>       | X <sup>1</sup>       | X <sup>1</sup>  |
| Color                                             |                 |                      |                        |                               |                      |                 |                      |                      |                 |
| Double-byte character set<br>(DBCS) data          |                 |                      |                        |                               |                      |                 |                      |                      |                 |
| Double-sided printing                             |                 |                      |                        |                               |                      |                 |                      |                      |                 |
| Double-sided tumble<br>printing                   |                 |                      |                        |                               |                      |                 |                      |                      |                 |
| Graphics                                          |                 |                      |                        |                               |                      |                 |                      |                      |                 |
| Image                                             |                 |                      |                        |                               |                      |                 |                      |                      |                 |
| Justification - Half (50%)                        |                 | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Justification - Right (100%)                      | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Lines per inch (any value<br>from 1.00-1440.00)   | X               |                      |                        |                               |                      |                 |                      |                      |                 |
| Lines per inch (2.54)                             | X               | X <sup>2</sup>       | X                      |                               | X                    |                 |                      |                      |                 |
| Lines per inch (4.0)                              | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Lines per inch (5.33)                             | X               | X <sup>2</sup>       | X                      | X                             | X                    |                 |                      |                      |                 |
| Lines per inch (6.0)                              | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Lines per inch (8.0)                              | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Lines per inch (9.0)                              | X               | X <sup>3</sup>       | X                      |                               | X <sup>4</sup>       | X               | X                    | X                    | X               |
| Lines per inch (9.6)                              | X               | X <sup>2</sup>       | X                      | X                             | X                    |                 |                      |                      |                 |
| Lines per inch (12.0)                             | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Lines per inch (24.0)                             | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Lines per inch (48.0)                             | X               | X <sup>2</sup>       | X                      | X                             | X                    |                 |                      |                      |                 |
| Line spacing (0.5)                                | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Line spacing (1.0)                                | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Line spacing (1.5)                                | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Line spacing (2.0)                                | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Line spacing (2.5)                                | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Line spacing (3.0)                                | X               | X                    | X                      | X                             | X                    | X               | X                    | X                    | X               |
| Paper size (maximum) in<br>inches <sup>5, 6</sup> | 8.50 x<br>14.00 | 8.50 x<br>14.00      | 8.00 x<br>13.66        | 8.00 x<br>13.66               | 13.2 x<br>22.75      | 8.00 x<br>22.75 | 13.2 x<br>22.75      | 8.00 x<br>22.75      | 13.2 x<br>22.75 |

Figure A-6 (Page 2 of 3). WSF Printer Emulation Function Chart

| Function                                                                            | SCS Printer       | WSF Attached Printer |                       |                      |                 |                   |                   |                   |                   |
|-------------------------------------------------------------------------------------|-------------------|----------------------|-----------------------|----------------------|-----------------|-------------------|-------------------|-------------------|-------------------|
|                                                                                     | 3812 SCS          | 3812 3816            | 4019 4029 4216 (PPDS) | 4019 4029 4216 (PCL) | 4072 5202 5204  | 2380 4201         | 2381 4202 4226    | 2390 4207 4212    | 2391 4208         |
| Paper size (maximum) in inches - rotated <sup>5, 6</sup>                            | 14.00 x 8.50      | 14.00 x 8.50         | 13.66 x 8.00          | 13.66 x 8.00         |                 |                   |                   |                   |                   |
| Paper source - continuous feed                                                      |                   |                      |                       |                      | X               | X                 | X                 | X                 | X                 |
| Paper source - envelope feed                                                        |                   |                      | X <sup>7</sup>        | X <sup>7</sup>       | X <sup>7</sup>  |                   |                   |                   |                   |
| Paper source - manual feed                                                          |                   |                      | X                     | X                    | X               | X                 | X <sup>8</sup>    | X                 | X                 |
| Paper source - paper drawer (maximum) <sup>9</sup>                                  | 2                 | 2                    | 2                     | 2                    | 2               | 1                 | 1                 | 1                 | 1                 |
| Print quality - draft <sup>10</sup>                                                 |                   |                      |                       |                      | X               | X                 | X                 | X                 | X                 |
| Print quality - letter <sup>10</sup>                                                | X                 | X                    | X                     | X                    | X               | X                 | X                 | X                 | X                 |
| Print quality - text <sup>10</sup>                                                  |                   |                      |                       |                      |                 |                   |                   |                   |                   |
| Rotation - automatic                                                                | X                 | X                    | X                     | X                    |                 |                   |                   |                   |                   |
| Rotation - 90 degrees                                                               | X                 | X                    | X <sup>11</sup>       | X <sup>11, 12</sup>  |                 |                   |                   |                   |                   |
| Rotation - 180 degrees                                                              | X                 | X                    | X <sup>11</sup>       | X <sup>11, 12</sup>  |                 |                   |                   |                   |                   |
| Rotation - 270 degrees                                                              | X                 | X                    | X                     | X                    |                 |                   |                   |                   |                   |
| Special characters (such as: cent sign, one half, and section symbol)               | X                 | X <sup>13</sup>      | X <sup>13</sup>       | X <sup>13</sup>      | X <sup>13</sup> | X <sup>13</sup>   | X <sup>13</sup>   | X <sup>13</sup>   | X <sup>13</sup>   |
| Subscript/ Superscript                                                              | X                 | X                    | X                     | X                    | X               | X                 | X                 | X                 | X                 |
| Symbols (Code Page 259)                                                             | X                 | X <sup>14</sup>      | X <sup>14</sup>       | X <sup>14</sup>      | X <sup>14</sup> | X <sup>14</sup>   | X <sup>14</sup>   | X <sup>14</sup>   | X <sup>14</sup>   |
| Typestyle/font numbers 1-65 (10-pitch) maximum characters per line                  | 140 <sup>15</sup> | 140 <sup>15</sup>    | 136 <sup>15</sup>     | 136 <sup>15</sup>    | 132             | 80                | 132               | 80                | 132               |
| Typestyle/font numbers 66-153 (12-pitch) maximum characters per line                | 168 <sup>15</sup> | 168 <sup>15</sup>    | 164 <sup>15</sup>     | 164 <sup>15</sup>    | 158             | 96                | 158               | 96                | 158               |
| Typestyle/font numbers 154-200 (proportional) <sup>16</sup>                         | X                 | X                    | X                     | X                    | X               | X                 | X                 | X                 | X                 |
| Typestyle/font numbers 201-210 (13.3-pitch) maximum characters per line             | 186 <sup>15</sup> |                      |                       |                      |                 |                   |                   |                   |                   |
| Typestyle/font numbers 211-239 (15-pitch) maximum characters per line               | 210 <sup>15</sup> | 210 <sup>15</sup>    | 204 <sup>15</sup>     | 204 <sup>15</sup>    | 198             | 120 <sup>17</sup> | 198 <sup>17</sup> | 120 <sup>17</sup> | 198 <sup>17</sup> |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                | 70 <sup>15</sup>  | 70 <sup>15</sup>     | 68 <sup>15</sup>      | 68 <sup>15</sup>     | 66              | 40                | 66                | 40                | 66                |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line | 240 <sup>15</sup> | 240 <sup>15</sup>    | 233 <sup>15</sup>     | 233 <sup>15</sup>    | 226             | 136               | 226               | 136               | 226               |

Figure A-6 (Page 3 of 3). WSF Printer Emulation Function Chart

| Function                                                                         | SCS<br>Printer    | WSF Attached Printer |                        |                               |                      |                  |                      |                      |                  |
|----------------------------------------------------------------------------------|-------------------|----------------------|------------------------|-------------------------------|----------------------|------------------|----------------------|----------------------|------------------|
|                                                                                  | 3812<br>SCS       | 3812<br>3816         | 4019<br>4029<br>(PPDS) | 4019<br>4029<br>4216<br>(PCL) | 4072<br>5202<br>5204 | 2380<br>4201     | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208     |
| Typestyle/font numbers<br>258-259 (18-pitch)<br>maximum characters per<br>line   | 252 <sup>15</sup> |                      | 245 <sup>15</sup>      | 245 <sup>15</sup>             |                      |                  |                      |                      |                  |
| Typestyle/font numbers<br>260-273 (8.55-pitch)<br>maximum characters per<br>line | 120 <sup>15</sup> |                      | 116 <sup>15</sup>      | 116 <sup>15</sup>             |                      |                  |                      |                      |                  |
| Typestyle/font numbers<br>280-284 (20-pitch)<br>maximum characters per<br>line   | 255 <sup>15</sup> |                      | 255 <sup>15</sup>      | 255 <sup>15</sup>             | 255 <sup>18</sup>    | 160 <sup>1</sup> | 255 <sup>1</sup>     | 160 <sup>1</sup>     | 255 <sup>1</sup> |
| Typestyle/font numbers<br>285-289 (25-pitch)<br>maximum characters per<br>line   |                   |                      | 255 <sup>15</sup>      | 255 <sup>15</sup>             |                      |                  |                      |                      |                  |
| Typestyle/font numbers<br>290-299 (27-pitch)<br>maximum characters per<br>line   | 255 <sup>15</sup> |                      | 255 <sup>15</sup>      | 255 <sup>15</sup>             |                      |                  |                      |                      |                  |
| Typestyle/font numbers<br>300-65534 (typographical<br>and user-defined fonts)    | X <sup>19</sup>   |                      | X <sup>19</sup>        | X <sup>19</sup>               |                      |                  |                      |                      |                  |
| Zero index carrier return<br>(ZICR)                                              | X                 | X                    | X                      | X                             | X                    | X                | X                    | X                    | X                |

- 1 This function is available only with the 2380, 2381, 2390, 2391, and 4226 printers.
- 2 This function is available only with the 3816 printer.
- 3 This function is available only with the 3812 printer.
- 4 This function is available only with the 4072 and 5204 printers.
- 5 The paper size dimensions are the actual printable area dimensions.
- 6 An optional feature may be required on some printers to support larger (legal size) paper.
- 7 The automatic envelope feed support (drawers) is an optional feature on some printers.
- 8 Manual sheet feed is not supported on the 4226 Printer.
- 9 The automatic sheet feed support (drawers) is an optional feature on some printers.
- 10 Unsupported print qualities for the 3812, 3816, 4207, 4208, 4019, 4029, and 4216 Printers will use letter quality. Unsupported print qualities for all other printers will use draft quality.
- 11 This function is available only with the 4029 printer.
- 12 This function is supported only with HP PCLS Emulation.
- 13 Both the printer and emulator need to be configured for ASCII Code Page 850 in order to print all 191 characters correctly. If either the printer or the emulator is configured for ASCII Code Page 437, many special characters will not print correctly.
- 14 When Code Page 259 or 899 is not available or configured on the printer, only those symbols available in the resident Code Pages will be printed correctly.
- 15 Using 14-inch wide paper (rotated).
- 16 Character widths for proportionally spaced fonts are approximate, therefore justification, overstrike, underline, and tabs may not appear as desired.
- 17 The printer actually uses a 17.1-pitch font, but it is referred to as a 15-pitch font.
- 18 This function is available only with the 4072 printer.
- 19 Typographical and user-defined fonts are treated as if they are 12-pitch. This means that centering, line adjust, justification and tabs may not appear as desired. When using fonts that contain tall characters, you may wish to change your line spacing or lines per inch to avoid overlapping.

## OS/2 Extended Edition Version 1.3 5250 Work Station Feature Emulated Printer Function Chart

The following chart shows the functions supported by ASCII printers emulating a 5219 Printer when attached using OS/2 Extended Edition Version 1.3 5250 Work Station Function (OS/2 5250 WSF) emulation. For more information on a particular printer, see the manual for that printer.

Figure A-7 (Page 1 of 3). OS/2 5250 WSF 5219 Emulated Printer Function Chart

| Function                                                 | SCS<br>Printer | OS/2 5250 WSF 5219 Emulated Printer |                        |                      |              |                      |                      |               |
|----------------------------------------------------------|----------------|-------------------------------------|------------------------|----------------------|--------------|----------------------|----------------------|---------------|
|                                                          | 5219           | 3812                                | 4019<br>4029<br>(PPDS) | 4072<br>5202<br>5204 | 2380<br>4201 | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208  |
| Bold                                                     | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Change character set/code page ID                        | X              |                                     |                        |                      |              |                      |                      |               |
| Change font (type style)                                 | X              | X                                   | X                      | X                    |              |                      |                      |               |
| Color                                                    |                |                                     |                        |                      |              |                      |                      |               |
| Double-byte character set (DBCS) data                    |                |                                     |                        |                      |              |                      |                      |               |
| Double-sided printing                                    |                |                                     |                        |                      |              |                      |                      |               |
| Double-sided tumble printing                             |                |                                     |                        |                      |              |                      |                      |               |
| Graphics                                                 |                |                                     |                        |                      |              |                      |                      |               |
| Image                                                    |                |                                     |                        |                      |              |                      |                      |               |
| Justification - Half (50%)                               | X              | X                                   | X                      | X                    |              |                      | X                    | X             |
| Justification - Right (100%)                             | X              | X                                   | X                      | X                    |              |                      | X                    | X             |
| Lines per inch (any value from 1.00-1440.00)             |                |                                     |                        |                      |              |                      |                      |               |
| Lines per inch (2.54)                                    | X              |                                     |                        |                      |              |                      |                      |               |
| Lines per inch (4.0)                                     | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Lines per inch (5.33)                                    | X              |                                     |                        |                      |              |                      |                      |               |
| Lines per inch (6.0)                                     | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Lines per inch (8.0)                                     | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Lines per inch (9.0)                                     |                |                                     |                        |                      |              |                      |                      |               |
| Lines per inch (9.6)                                     | X              |                                     |                        |                      |              |                      |                      |               |
| Lines per inch (12.0)                                    | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Lines per inch (24.0)                                    | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Lines per inch (48.0)                                    | X              |                                     |                        |                      |              |                      |                      |               |
| Line spacing (0.5)                                       |                |                                     |                        |                      |              |                      |                      |               |
| Line spacing (1.0)                                       | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Line spacing (1.5)                                       | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Line spacing (2.0)                                       | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Line spacing (2.5)                                       |                |                                     |                        |                      |              |                      |                      |               |
| Line spacing (3.0)                                       | X              | X                                   | X                      | X                    | X            | X                    | X                    | X             |
| Paper size (maximum) in inches <sup>1, 2</sup>           | 13.20 x 22.75  | 8.50 x 14.00                        | 8.00 x 13.66           | 13.20 x 22.75        | 8.00 x 22.75 | 13.20 x 22.75        | 8.00 x 22.75         | 13.20 x 22.75 |
| Paper size (maximum) in inches - rotated <sup>1, 2</sup> |                | 14.00 x 8.50                        | 13.66 x 8.00           |                      |              |                      |                      |               |

Figure A-7 (Page 2 of 3). OS/2 5250 WSF 5219 Emulated Printer Function Chart

| Function                                                                            | SCS<br>Printer | OS/2 5250 WSF 5219 Emulated Printer |                        |                      |                   |                      |                      |                   |
|-------------------------------------------------------------------------------------|----------------|-------------------------------------|------------------------|----------------------|-------------------|----------------------|----------------------|-------------------|
|                                                                                     | 5219           | 3812                                | 4019<br>4029<br>(PPDS) | 4072<br>5202<br>5204 | 2380<br>4201      | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208      |
| Paper source - continuous feed                                                      | X              |                                     |                        | X                    | X                 | X                    | X                    | X                 |
| Paper source - envelope feed <sup>3</sup>                                           | X              |                                     | X                      | X                    |                   |                      |                      |                   |
| Paper source - manual feed                                                          | X              |                                     | X                      | X                    | X                 | X <sup>4</sup>       | X                    | X                 |
| Paper source - paper drawer (maximum) <sup>5</sup>                                  | 2              | 2                                   | 2                      | 2                    | 1                 | 1 <sup>4</sup>       | 1                    | 1                 |
| Print quality - draft <sup>6</sup>                                                  | X              |                                     |                        | X                    | X                 | X                    |                      |                   |
| Print quality - letter <sup>6</sup>                                                 | X              | X                                   | X                      | X                    | X                 | X                    | X                    | X                 |
| Print quality - text <sup>6</sup>                                                   |                |                                     |                        |                      |                   |                      |                      |                   |
| Rotation - automatic                                                                |                |                                     |                        |                      |                   |                      |                      |                   |
| Rotation - 90 degrees                                                               |                | X                                   | X <sup>7</sup>         |                      |                   |                      |                      |                   |
| Rotation - 180 degrees                                                              |                | X                                   | X <sup>7</sup>         |                      |                   |                      |                      |                   |
| Rotation - 270 degrees                                                              |                | X                                   | X                      |                      |                   |                      |                      |                   |
| Special characters (such as: cent sign, one half, and section symbol)               | X <sup>8</sup> | X <sup>9</sup>                      | X <sup>9</sup>         | X <sup>9</sup>       | X <sup>9</sup>    | X <sup>9</sup>       | X <sup>9</sup>       | X <sup>9</sup>    |
| Subscript/Superscript                                                               | X              | X                                   | X                      | X                    | X                 | X                    | X                    | X                 |
| Symbols (Code Page 259)                                                             | X              | X <sup>10</sup>                     | X <sup>10</sup>        | X <sup>10</sup>      | X <sup>10</sup>   | X <sup>10</sup>      | X <sup>10</sup>      | X <sup>10</sup>   |
| Typestyle/font numbers 1-65 (10-pitch) maximum characters per line                  | 132            | 110 <sup>11</sup>                   | 106 <sup>11</sup>      | 132                  | 80                | 132                  | 80                   | 132               |
| Typestyle/font numbers 66-153 (12-pitch) maximum characters per line                | 158            | 132 <sup>11</sup>                   | 128 <sup>11</sup>      | 158                  | 96                | 158                  | 96                   | 158               |
| Typestyle/font numbers 154-200 (proportional) <sup>12</sup>                         | X              | X                                   | X                      | X                    | X                 | X                    | X                    | X                 |
| Typestyle/font numbers 201-210 (13.3-pitch) maximum characters per line             |                |                                     |                        |                      |                   |                      |                      |                   |
| Typestyle/font numbers 211-239 (15-pitch) maximum characters per line               | 198            | 165 <sup>11,13</sup>                | 160 <sup>11,13</sup>   | 198 <sup>13</sup>    | 120 <sup>13</sup> | 198 <sup>13</sup>    | 120 <sup>13</sup>    | 198 <sup>13</sup> |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                |                |                                     |                        |                      |                   |                      |                      |                   |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line |                | 188 <sup>11</sup>                   | 181 <sup>11</sup>      | 226                  | 137               | 226                  | 137                  | 226               |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               |                |                                     |                        |                      |                   |                      |                      |                   |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             |                |                                     |                        |                      |                   |                      |                      |                   |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               |                |                                     |                        |                      |                   |                      |                      |                   |



Figure A-7 (Page 3 of 3). OS/2 5250 WSF 5219 Emulated Printer Function Chart

| Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SCS<br>Printer | OS/2 5250 WSF 5219 Emulated Printer |                        |                      |              |                      |                      |              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------|------------------------|----------------------|--------------|----------------------|----------------------|--------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5219           | 3812                                | 4019<br>4029<br>(PPDS) | 4072<br>5202<br>5204 | 2380<br>4201 | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208 |
| Typestyle/font numbers<br>285-289 (25-pitch) maximum<br>characters per line                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                     |                        |                      |              |                      |                      |              |
| Typestyle/font numbers<br>290-299 (27-pitch) maximum<br>characters per line                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                     |                        |                      |              |                      |                      |              |
| Typestyle/font numbers<br>300-65534 (typographical and<br>user-defined fonts)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                     |                        |                      |              |                      |                      |              |
| Zero index carrier return<br>(ZICR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X              | X                                   | X                      | X                    | X            | X                    | X                    | X            |
| <ol style="list-style-type: none"> <li>1 The paper size dimensions are the actual printable area dimensions.</li> <li>2 Some printers require an optional feature to support the larger (legal size) paper.</li> <li>3 The automatic envelope feed support (drawers) is an optional feature.</li> <li>4 This function is not supported on the 4226 printer.</li> <li>5 The automatic sheet feed support (drawers) is an optional feature on some printers.</li> <li>6 Unsupported print qualities for the 3812, 4019, 4207 and 4208 printers will use letter quality. Unsupported print qualities for all other printers will use draft quality.</li> <li>7 This function is available only with the 4029 Printer.</li> <li>8 The 5219 Printer has a limitation of 96 characters that it can print.</li> <li>9 Both the printer and emulator need to be configured for ASCII Code Page 850 in order to print all 191 characters correctly. If either the printer or the emulator is configured for ASCII Code Page 437, many special characters will not print correctly.</li> <li>10 Only those symbols in the printer resident code pages print correctly.</li> <li>11 Using 11.00 inch wide paper (rotated).</li> <li>12 Character widths for proportionally spaced fonts are approximate, thus justification, overstrike, underline, and tabs may not appear as desired.</li> <li>13 The printer actually uses a 17.1-pitch font, but it is referred to as a 15-pitch font.</li> </ol> |                |                                     |                        |                      |              |                      |                      |              |

## System/36 and System/38 Work Station Emulation (WSE) Emulated Printer Function Chart

The following chart shows the functions supported by ASCII printers emulating a 5219 Printer when attached using System/36 and System/38 work station emulation (WSE). For more information on a particular printer, see the manual for that printer.

Figure A-8 (Page 1 of 3). WSE 5219 Emulated Printer Function Chart

| Function                                     | SCS Printer | WSE 5219 Emulated Printer |                        |                      |              |                      |                      |              |                |
|----------------------------------------------|-------------|---------------------------|------------------------|----------------------|--------------|----------------------|----------------------|--------------|----------------|
|                                              | 5219        | 3812                      | 4019<br>4029<br>(PPDS) | 4072<br>5202<br>5204 | 2380<br>4201 | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208 | 4216<br>(PPDS) |
| Bold                                         | X           |                           |                        |                      | X            | X                    | X                    | X            |                |
| Change character set/code page ID            | X           |                           |                        |                      |              |                      |                      |              |                |
| Change font (type style)                     | X           | X                         | X                      | X                    |              |                      |                      |              | X              |
| Color                                        |             |                           |                        |                      |              |                      |                      |              |                |
| Double-byte character set (DBCS) data        |             |                           |                        |                      |              |                      |                      |              |                |
| Double-sided printing                        |             |                           |                        |                      |              |                      |                      |              |                |
| Double-sided tumble printing                 |             |                           |                        |                      |              |                      |                      |              |                |
| Graphics                                     |             |                           |                        |                      |              |                      |                      |              |                |
| Image                                        |             |                           |                        |                      |              |                      |                      |              |                |
| Justification - Half (50%)                   | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| Justification - Right (100%)                 | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (any value from 1.00-1440.00) |             |                           |                        |                      |              |                      |                      |              |                |
| Lines per inch (2.54)                        | X           |                           |                        |                      |              |                      |                      |              |                |
| Lines per inch (4.0)                         | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (5.33)                        | X           |                           |                        |                      |              |                      |                      |              |                |
| Lines per inch (6.0)                         | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (8.0)                         | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (9.0)                         |             |                           |                        |                      |              |                      |                      |              |                |
| Lines per inch (9.6)                         | X           |                           |                        |                      |              |                      |                      |              |                |
| Lines per inch (12.0)                        | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (24.0)                        | X           | X                         | X                      | X                    | X            | X                    | X                    | X            |                |
| Lines per inch (48.0)                        | X           |                           |                        |                      |              |                      |                      |              |                |
| Line spacing (0.5)                           |             |                           |                        |                      |              |                      |                      |              |                |
| Line spacing (1.0)                           | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| Line spacing (1.5)                           | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| Line spacing (2.0)                           | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| Line spacing (2.5)                           |             |                           |                        |                      |              |                      |                      |              |                |
| Line spacing (3.0)                           | X           | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |

Figure A-8 (Page 2 of 3). WSE 5219 Emulated Printer Function Chart

| Function                                                                         | SCS<br>Printer      | WSE 5219 Emulated Printer |                        |                      |                 |                      |                      |                     |                 |
|----------------------------------------------------------------------------------|---------------------|---------------------------|------------------------|----------------------|-----------------|----------------------|----------------------|---------------------|-----------------|
|                                                                                  | 5219                | 3812                      | 4019<br>4029<br>(PPDS) | 4072<br>5202<br>5204 | 2380<br>4201    | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208        | 4216<br>(PPDS)  |
| Paper size (maximum)<br>in inches <sup>1, 2</sup>                                | 13.20<br>x<br>22.75 | 8.50 x<br>14.00           | 8.00 x<br>13.66        | 13.20<br>x<br>22.75  | 8.00 x<br>22.75 | 13.20<br>x<br>22.75  | 8.00 x<br>22.75      | 13.20<br>x<br>22.75 | 8.00 x<br>13.66 |
| Paper size (maximum)<br>in inches - rotated <sup>1, 2</sup>                      |                     |                           |                        |                      |                 |                      |                      |                     |                 |
| Paper source - contin-<br>uous feed                                              | X                   |                           |                        | X                    | X               | X                    | X                    | X                   |                 |
| Paper source - envelope feed <sup>3</sup>                                        | X                   |                           | X                      | X                    |                 |                      |                      |                     | X               |
| Paper source - manual<br>feed                                                    | X                   |                           | X                      | X                    | X               | X <sup>4</sup>       | X                    | X                   |                 |
| Paper source - paper<br>drawer (maximum) <sup>5</sup>                            | 2                   | 2                         | 2                      | 2                    | 1               | 1 <sup>4</sup>       | 1                    | 1                   | 2               |
| Print quality - draft <sup>6</sup>                                               | X                   |                           |                        | X                    | X               | X <sup>4</sup>       |                      |                     |                 |
| Print quality - letter <sup>6</sup>                                              | X                   | X                         | X                      | X                    | X               | X                    | X                    | X                   | X               |
| Print quality - text <sup>6</sup>                                                |                     |                           |                        |                      |                 |                      |                      |                     |                 |
| Rotation - automatic                                                             |                     |                           |                        |                      |                 |                      |                      |                     |                 |
| Rotation - 90 degrees                                                            |                     |                           |                        |                      |                 |                      |                      |                     |                 |
| Rotation - 180 degrees                                                           |                     |                           |                        |                      |                 |                      |                      |                     |                 |
| Rotation - 270 degrees                                                           |                     |                           |                        |                      |                 |                      |                      |                     |                 |
| Special characters<br>(such as: cent sign,<br>one half, and section<br>symbol)   | X <sup>7</sup>      | X <sup>8</sup>            | X <sup>8</sup>         | X <sup>8</sup>       | X <sup>8</sup>  | X <sup>8</sup>       | X <sup>8</sup>       | X <sup>8</sup>      | X <sup>8</sup>  |
| Subscript/<br>Superscript                                                        | X                   | X                         | X                      | X                    | X               | X                    | X                    | X                   | X               |
| Symbols (Code Page<br>259)                                                       | X                   |                           |                        |                      |                 |                      |                      |                     |                 |
| Typestyle/font numbers<br>1-65 (10-pitch)<br>maximum characters<br>per line      | 132                 | 80                        | 80                     | 132                  | 80              | 132                  | 80                   | 132                 | 80              |
| Typestyle/font numbers<br>66-153 (12-pitch)<br>maximum characters<br>per line    | 158                 | 96                        | 96                     | 158                  | 96              | 158                  | 96                   | 158                 | 96              |
| Typestyle/font numbers<br>154-200 (proportional) <sup>9</sup>                    | X                   | X                         | X                      | X                    | X               | X                    | X                    | X                   | X               |
| Typestyle/font numbers<br>201-210 (13.3-pitch)<br>maximum characters<br>per line |                     |                           |                        |                      |                 |                      |                      |                     |                 |
| Typestyle/font numbers<br>211-239 (15-pitch)<br>maximum characters<br>per line   | 198                 | 120                       | 120                    | 198                  | 120             | 198                  | 120                  | 198                 | 120             |

Figure A-8 (Page 3 of 3). WSE 5219 Emulated Printer Function Chart

| Function                                                                            | SCS<br>Printer                                                                                                                                                                                                                                             | WSE 5219 Emulated Printer |                        |                      |              |                      |                      |              |                |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------|----------------------|--------------|----------------------|----------------------|--------------|----------------|
|                                                                                     | 5219                                                                                                                                                                                                                                                       | 3812                      | 4019<br>4029<br>(PPDS) | 4072<br>5202<br>5204 | 2380<br>4201 | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208 | 4216<br>(PPDS) |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                |                                                                                                                                                                                                                                                            |                           |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line |                                                                                                                                                                                                                                                            |                           |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               |                                                                                                                                                                                                                                                            |                           |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             |                                                                                                                                                                                                                                                            |                           |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               |                                                                                                                                                                                                                                                            |                           |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line               |                                                                                                                                                                                                                                                            |                           |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line               |                                                                                                                                                                                                                                                            |                           |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts)             |                                                                                                                                                                                                                                                            |                           |                        |                      |              |                      |                      |              |                |
| Zero index carrier return (ZICR)                                                    | X                                                                                                                                                                                                                                                          | X                         | X                      | X                    | X            | X                    | X                    | X            | X              |
| 1                                                                                   | The paper size dimensions are the actual printable area dimensions.                                                                                                                                                                                        |                           |                        |                      |              |                      |                      |              |                |
| 2                                                                                   | An optional feature may be required on some printers to support large (legal size) paper.                                                                                                                                                                  |                           |                        |                      |              |                      |                      |              |                |
| 3                                                                                   | The automatic envelope feed support (drawers) is an optional feature.                                                                                                                                                                                      |                           |                        |                      |              |                      |                      |              |                |
| 4                                                                                   | This function is not supported on the 4226 printer.                                                                                                                                                                                                        |                           |                        |                      |              |                      |                      |              |                |
| 5                                                                                   | The automatic sheet feed support (drawers) is an optional feature.                                                                                                                                                                                         |                           |                        |                      |              |                      |                      |              |                |
| 6                                                                                   | Unsupported print qualities for the 3812, 4019, 4207, 4208 and 4216 Printers will use letter quality. Unsupported print qualities for all other printers will use draft quality.                                                                           |                           |                        |                      |              |                      |                      |              |                |
| 7                                                                                   | The 5219 printer has a limitation of 96 characters that it can print.                                                                                                                                                                                      |                           |                        |                      |              |                      |                      |              |                |
| 8                                                                                   | Both the printer and emulator need to be configured for ASCII Code Page 850 in order to print all 191 characters correctly. If either the printer or the emulator is configured for ASCII Code Page 437, many special characters will not print correctly. |                           |                        |                      |              |                      |                      |              |                |
| 9                                                                                   | Character widths for proportionally spaced fonts are approximate, thus justification, overstrike, underline, and tabs may not appear as desired.                                                                                                           |                           |                        |                      |              |                      |                      |              |                |

## Enhanced 5250 Emulation V2.3 Emulated Printer Function Chart

The following chart shows the functions supported by ASCII printers emulating a 5219 Printer when attached using Enhanced 5250 V2.3 (E5250) Emulation. For more information on a particular printer, see the manual for that printer.

Figure A-9 (Page 1 of 3). E5250 V2.3 5219 Emulated Printer Function Chart

| Function                                     | SCS<br>Printer | E5250 V2.3 5219 Emulated Printer |                        |                      |              |                      |                      |              |                |
|----------------------------------------------|----------------|----------------------------------|------------------------|----------------------|--------------|----------------------|----------------------|--------------|----------------|
|                                              | 5219           | 3812                             | 4019<br>4029<br>(PPDS) | 4072<br>5202<br>5204 | 2380<br>4201 | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208 | 4216<br>(PPDS) |
| Bold                                         | X              |                                  | X                      | X                    | X            | X                    | X                    | X            | X              |
| Change character set/code page ID            | X              |                                  |                        |                      |              |                      |                      |              |                |
| Change font (type style)                     | X              | X                                | X                      | X                    |              |                      |                      |              | X              |
| Color                                        |                |                                  |                        |                      |              |                      |                      |              |                |
| Double-byte character set (DBCS) data        |                |                                  |                        |                      |              |                      |                      |              |                |
| Double-sided printing                        |                |                                  |                        |                      |              |                      |                      |              |                |
| Double-sided tumble printing                 |                |                                  |                        |                      |              |                      |                      |              |                |
| Graphics                                     |                |                                  |                        |                      |              |                      |                      |              |                |
| Image                                        |                |                                  |                        |                      |              |                      |                      |              |                |
| Justification - Half (50%)                   | X              |                                  | X                      | X                    | X            | X                    | X                    | X            | X              |
| Justification - Right (100%)                 | X              |                                  | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (any value from 1.00-1440.00) |                |                                  |                        |                      |              |                      |                      |              |                |
| Lines per inch (2.54)                        | X              |                                  |                        |                      |              |                      |                      |              |                |
| Lines per inch (4.0)                         | X              | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (5.33)                        | X              |                                  |                        |                      |              |                      |                      |              |                |
| Lines per inch (6.0)                         | X              | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (8.0)                         | X              | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (9.0)                         |                |                                  |                        |                      |              |                      |                      |              |                |
| Lines per inch (9.6)                         | X              |                                  |                        |                      |              |                      |                      |              |                |
| Lines per inch (12.0)                        | X              | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (24.0)                        | X              | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |
| Lines per inch (48.0)                        | X              |                                  |                        |                      |              |                      |                      |              |                |
| Line spacing (0.5)                           |                |                                  |                        |                      |              |                      |                      |              |                |
| Line spacing (1.0)                           | X              | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |
| Line spacing (1.5)                           | X              | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |
| Line spacing (2.0)                           | X              | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |
| Line spacing (2.5)                           |                |                                  |                        |                      |              |                      |                      |              |                |
| Line spacing (3.0)                           | X              | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |

Figure A-9 (Page 2 of 3). E5250 V2.3 5219 Emulated Printer Function Chart

| Function                                                                         | SCS<br>Printer      | E5250 V2.3 5219 Emulated Printer |                        |                      |                   |                      |                      |                     |                   |
|----------------------------------------------------------------------------------|---------------------|----------------------------------|------------------------|----------------------|-------------------|----------------------|----------------------|---------------------|-------------------|
|                                                                                  | 5219                | 3812                             | 4019<br>4029<br>(PPDS) | 4072<br>5202<br>5204 | 2380<br>4201      | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208        | 4216<br>(PPDS)    |
| Paper size (maximum)<br>in inches <sup>1, 2</sup>                                | 13.20<br>x<br>22.75 | 8.50 x<br>14.00                  | 8.00 x<br>13.66        | 13.20<br>x<br>22.75  | 8.00 x<br>22.75   | 13.20<br>x<br>22.75  | 8.00 x<br>22.75      | 13.20<br>x<br>22.75 | 8.00 x<br>13.66   |
| Paper size (maximum)<br>in inches - rotated                                      |                     |                                  |                        |                      |                   |                      |                      |                     |                   |
| Paper source - contin-<br>uous feed                                              | X                   |                                  |                        | X                    | X                 | X                    | X                    | X                   |                   |
| Paper source -<br>envelope feed <sup>3</sup>                                     | X                   |                                  | X                      | X                    |                   |                      |                      |                     | X                 |
| Paper source - manual<br>feed                                                    | X                   |                                  | X                      | X                    | X                 | X <sup>4</sup>       | X                    | X                   |                   |
| Paper source - paper<br>drawer (maximum) <sup>5</sup>                            | 2                   | 2                                | 2                      | 2                    | 1                 | 1 <sup>4</sup>       | 1                    | 1                   | 2                 |
| Print quality - draft <sup>6</sup>                                               | X                   |                                  |                        | X                    | X                 | X <sup>4</sup>       |                      |                     |                   |
| Print quality - letter <sup>6</sup>                                              | X                   | X                                | X                      | X                    | X                 | X                    | X                    | X                   | X                 |
| Print quality - text <sup>6</sup>                                                |                     |                                  |                        |                      |                   |                      |                      |                     |                   |
| Rotation - automatic                                                             |                     |                                  |                        |                      |                   |                      |                      |                     |                   |
| Rotation - 90 degrees                                                            |                     |                                  |                        |                      |                   |                      |                      |                     |                   |
| Rotation - 180<br>degrees                                                        |                     |                                  |                        |                      |                   |                      |                      |                     |                   |
| Rotation - 270<br>degrees                                                        |                     |                                  |                        |                      |                   |                      |                      |                     |                   |
| Special characters<br>(such as: cent sign,<br>one half, and section<br>symbol)   | X <sup>7</sup>      | X <sup>8</sup>                   | X <sup>8</sup>         | X <sup>8</sup>       | X <sup>8</sup>    | X <sup>8</sup>       | X <sup>8</sup>       | X <sup>8</sup>      | X <sup>8</sup>    |
| Subscript/<br>Superscript                                                        | X                   | X                                | X                      | X                    | X                 | X                    | X                    | X                   | X                 |
| Symbols (Code Page<br>259)                                                       | X                   |                                  |                        |                      |                   |                      |                      |                     |                   |
| Typestyle/font<br>numbers 1-65<br>(10-pitch) maximum<br>characters per line      | 132                 | 80                               | 80                     | 132                  | 80                | 132                  | 80                   | 132                 | 80                |
| Typestyle/font<br>numbers 66-153<br>(12-pitch) maximum<br>characters per line    | 158                 | 96                               | 96                     | 158                  | 96                | 158                  | 96                   | 158                 | 96                |
| Typestyle/font<br>numbers 154-200<br>(proportional) <sup>9</sup>                 | X                   | X                                | X                      | X                    | X                 | X                    | X                    | X                   | X                 |
| Typestyle/font<br>numbers 201-210<br>(13.3-pitch) maximum<br>characters per line |                     |                                  |                        |                      |                   |                      |                      |                     |                   |
| Typestyle/font<br>numbers 211-239<br>(15-pitch) maximum<br>characters per line   | 198                 | 120                              | 120                    | 198                  | 120 <sup>10</sup> | 198 <sup>10</sup>    | 120 <sup>10</sup>    | 198 <sup>10</sup>   | 120 <sup>10</sup> |

Figure A-9 (Page 3 of 3). E5250 V2.3 5219 Emulated Printer Function Chart

| Function                                                                            | SCS<br>Printer                                                                                                                                                                                                                                             | E5250 V2.3 5219 Emulated Printer |                        |                      |              |                      |                      |              |                |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------|----------------------|--------------|----------------------|----------------------|--------------|----------------|
|                                                                                     | 5219                                                                                                                                                                                                                                                       | 3812                             | 4019<br>4029<br>(PPDS) | 4072<br>5202<br>5204 | 2380<br>4201 | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208 | 4216<br>(PPDS) |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                |                                                                                                                                                                                                                                                            |                                  |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line |                                                                                                                                                                                                                                                            |                                  |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               |                                                                                                                                                                                                                                                            |                                  |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             |                                                                                                                                                                                                                                                            |                                  |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               |                                                                                                                                                                                                                                                            |                                  |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line               |                                                                                                                                                                                                                                                            |                                  |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line               |                                                                                                                                                                                                                                                            |                                  |                        |                      |              |                      |                      |              |                |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts)             |                                                                                                                                                                                                                                                            |                                  |                        |                      |              |                      |                      |              |                |
| Zero index carrier return (ZICR)                                                    | X                                                                                                                                                                                                                                                          | X                                | X                      | X                    | X            | X                    | X                    | X            | X              |
| 1                                                                                   | The paper size dimensions are the actual printable area dimensions.                                                                                                                                                                                        |                                  |                        |                      |              |                      |                      |              |                |
| 2                                                                                   | An optional feature may be required on some printers to support large (legal size) paper.                                                                                                                                                                  |                                  |                        |                      |              |                      |                      |              |                |
| 3                                                                                   | The automatic envelope feed support (drawers) is an optional feature.                                                                                                                                                                                      |                                  |                        |                      |              |                      |                      |              |                |
| 4                                                                                   | This function is not supported on the 4226 printer.                                                                                                                                                                                                        |                                  |                        |                      |              |                      |                      |              |                |
| 5                                                                                   | The automatic sheet feed support (drawers) is an optional feature.                                                                                                                                                                                         |                                  |                        |                      |              |                      |                      |              |                |
| 6                                                                                   | Unsupported print qualities for the 3812, 4019, 4207, 4208 and 4216 Printers will use letter quality. Unsupported print qualities for all other printers will use draft quality.                                                                           |                                  |                        |                      |              |                      |                      |              |                |
| 7                                                                                   | The 5219 printer has a limitation of 96 characters that it can print (based on the Character Set ID used when printing).                                                                                                                                   |                                  |                        |                      |              |                      |                      |              |                |
| 8                                                                                   | Both the printer and emulator need to be configured for ASCII Code Page 850 in order to print all 191 characters correctly. If either the printer or the emulator is configured for ASCII Code Page 437, many special characters will not print correctly. |                                  |                        |                      |              |                      |                      |              |                |
| 9                                                                                   | Character widths for proportionally spaced fonts are approximate, thus justification, overstrike, underline, and tabs may not appear as desired.                                                                                                           |                                  |                        |                      |              |                      |                      |              |                |
| 10                                                                                  | The printer actually uses a 17.1-pitch font, but it is referred to as a 15-pitch font.                                                                                                                                                                     |                                  |                        |                      |              |                      |                      |              |                |

## 3477 InfoWindow Emulated Printer Functions

### 3477 InfoWindow 5219 Emulated Printer Function Chart

The following chart shows the functions supported by ASCII printers emulating a 5219 Printer when attached using the 3477 InfoWindow (3477). For more information on a particular printer, see the manual for that printer.

Figure A-10 (Page 1 of 4). 3477 InfoWindow 5219 Emulated Printer Function Chart

| Function                                     | SCS Printer | 3477 InfoWindow 5219 Emulated Printer |                      |              |                |                      |
|----------------------------------------------|-------------|---------------------------------------|----------------------|--------------|----------------|----------------------|
|                                              | 5219        | 4019<br>4029<br>(PPDS)                | 2390<br>4207<br>4212 | 2391<br>4208 | 4216<br>(PPDS) | 4072<br>5202<br>5204 |
| Bold                                         | X           | X                                     | X                    | X            | X              | X                    |
| Change character set/code page ID            | X           | X                                     | X                    | X            | X              | X                    |
| Change font (type style)                     | X           | X                                     |                      |              |                | X                    |
| Color                                        |             |                                       |                      |              |                |                      |
| Double-byte character set (DBCS) data        |             |                                       |                      |              |                |                      |
| Double-sided printing                        |             |                                       |                      |              |                |                      |
| Double-sided tumble printing                 |             |                                       |                      |              |                |                      |
| Graphics                                     |             |                                       |                      |              |                |                      |
| Image                                        |             |                                       |                      |              |                |                      |
| Justification - Half (50%)                   | X           | X                                     | X                    | X            | X              | X                    |
| Justification - Right (100%)                 | X           | X                                     | X                    | X            | X              | X                    |
| Lines per inch (any value from 1.00-1440.00) |             | X                                     | X                    | X            | X              | X                    |
| Lines per inch (2.54)                        | X           |                                       |                      |              |                |                      |
| Lines per inch (4.0)                         | X           | X                                     | X                    | X            | X              | X                    |
| Lines per inch (5.33)                        | X           |                                       |                      |              |                |                      |
| Lines per inch (6.0)                         | X           | X                                     | X                    | X            | X              | X                    |
| Lines per inch (8.0)                         | X           | X                                     | X                    | X            | X              | X                    |
| Lines per inch (9.0)                         |             |                                       |                      |              |                |                      |
| Lines per inch (9.6)                         | X           |                                       |                      |              |                |                      |
| Lines per inch (12.0)                        | X           | X                                     | X                    | X            | X              | X                    |
| Lines per inch (24.0)                        | X           | X                                     | X                    | X            | X              | X                    |
| Lines per inch (48.0)                        | X           |                                       |                      |              |                |                      |
| Line spacing (0.5)                           |             |                                       |                      |              |                |                      |



Figure A-10 (Page 2 of 4). 3477 InfoWindow 5219 Emulated Printer Function Chart

| Function                                                              | SCS Printer    | 3477 InfoWindow 5219 Emulated Printer |                      |                |                |                      |
|-----------------------------------------------------------------------|----------------|---------------------------------------|----------------------|----------------|----------------|----------------------|
|                                                                       | 5219           | 4019<br>4029<br>(PPDS)                | 2390<br>4207<br>4212 | 2391<br>4208   | 4216<br>(PPDS) | 4072<br>5202<br>5204 |
| Line spacing (1.0)                                                    | X              | X                                     | X                    | X              | X              | X                    |
| Line spacing (1.5)                                                    | X              | X                                     | X                    | X              | X              | X                    |
| Line spacing (2.0)                                                    | X              | X                                     | X                    | X              | X              | X                    |
| Line spacing (2.5)                                                    |                |                                       |                      |                |                |                      |
| Line spacing (3.0)                                                    | X              | X                                     | X                    | X              | X              | X                    |
| Paper size (maximum) in inches <sup>1, 2</sup>                        | 13.20 x 22.75  | 8.00 x 13.66                          | 8.00 x 22.75         | 13.20 x 22.75  | 8.00 x 13.66   | 13.20 x 22.75        |
| Paper size (maximum) in inches - rotated <sup>1, 2</sup>              |                | 13.66 x 8.00                          |                      |                |                |                      |
| Paper source - continuous feed                                        | X              |                                       | X                    | X              |                | X                    |
| Paper source - envelope feed <sup>3</sup>                             | X              | X                                     |                      |                | X <sup>4</sup> | X <sup>4</sup>       |
| Paper source - manual feed                                            | X              | X                                     | X                    | X              |                | X                    |
| Paper source - paper drawer (maximum) <sup>5</sup>                    | 2              | 2                                     | 1                    | 1              | 2              | 2                    |
| Print quality - draft <sup>6</sup>                                    | X              |                                       | X                    | X              |                | X                    |
| Print quality - letter <sup>6</sup>                                   | X              | X                                     | X                    | X              | X              | X                    |
| Print quality - text <sup>6</sup>                                     |                |                                       |                      |                |                | X                    |
| Rotation - Automatic                                                  |                |                                       |                      |                |                |                      |
| Rotation - 90 degrees                                                 |                |                                       |                      |                |                |                      |
| Rotation - 180 degrees                                                |                |                                       |                      |                |                |                      |
| Rotation - 270 degrees                                                |                | X                                     |                      |                |                |                      |
| Special characters (such as: cent sign, one half, and section symbol) | X <sup>7</sup> | X <sup>8</sup>                        | X <sup>8</sup>       | X <sup>8</sup> | X <sup>8</sup> | X <sup>8</sup>       |
| Subscript/Superscript                                                 | X              | X                                     | X                    | X              | X              | X                    |
| Symbols (Code Page 259)                                               | X <sup>4</sup> | X <sup>9</sup>                        |                      |                |                | X <sup>9</sup>       |
| Typestyle/font numbers 1-65 (10-pitch) maximum characters per line    | 132            | 106 <sup>10</sup>                     | 80                   | 132            | 80             | 132                  |
| Typestyle/font numbers 66-153 (12-pitch) maximum characters per line  | 158            | 128 <sup>10</sup>                     | 96                   | 158            | 96             | 158                  |
| Typestyle/font numbers 154-200 (proportional) <sup>11</sup>           | X              | X                                     | X                    | X              | X              | X                    |

Figure A-10 (Page 3 of 4). 3477 InfoWindow 5219 Emulated Printer Function Chart

| Function                                                                            | SCS Printer | 3477 InfoWindow 5219 Emulated Printer |                      |                   |                   |                      |
|-------------------------------------------------------------------------------------|-------------|---------------------------------------|----------------------|-------------------|-------------------|----------------------|
|                                                                                     | 5219        | 4019<br>4029<br>(PPDS)                | 2390<br>4207<br>4212 | 2391<br>4208      | 4216<br>(PPDS)    | 4072<br>5202<br>5204 |
| Typestyle/font numbers 201-210 (13.3-pitch) maximum characters per line             |             |                                       |                      |                   |                   |                      |
| Typestyle/font numbers 211-239 (15-pitch) maximum characters per line               | 198         | 160 <sup>10</sup>                     | 120 <sup>12</sup>    | 198 <sup>12</sup> | 120 <sup>12</sup> | 198                  |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                |             | 53 <sup>10</sup>                      | 40                   | 66                | 40                | 66                   |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line |             | 181 <sup>10</sup>                     | 137                  | 226               | 137               | 226                  |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               |             |                                       |                      |                   |                   |                      |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             |             | 91 <sup>10</sup>                      | 68                   | 113               | 68                | 113                  |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               |             | 212 <sup>10</sup>                     |                      |                   |                   |                      |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line               |             | 265 <sup>10, 13</sup>                 |                      |                   |                   |                      |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line               |             |                                       |                      |                   |                   |                      |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts)             |             |                                       |                      |                   |                   |                      |

Figure A-10 (Page 4 of 4). 3477 InfoWindow 5219 Emulated Printer Function Chart

| Function                         | SCS Printer                                                                                                                                                                                                                                                | 3477 InfoWindow 5219 Emulated Printer |                      |              |                |                      |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------|--------------|----------------|----------------------|
|                                  | 5219                                                                                                                                                                                                                                                       | 4019<br>4029<br>(PPDS)                | 2390<br>4207<br>4212 | 2391<br>4208 | 4216<br>(PPDS) | 4072<br>5202<br>5204 |
| Zero index carrier return (ZICR) | X                                                                                                                                                                                                                                                          | X                                     | X                    | X            | X              | X                    |
| 1                                | The paper size dimensions are the actual printable area dimensions.                                                                                                                                                                                        |                                       |                      |              |                |                      |
| 2                                | An optional feature may be required on some printers to support large (legal size) paper.                                                                                                                                                                  |                                       |                      |              |                |                      |
| 3                                | The automatic envelope feed support (drawers) is an optional feature. The 4019 and 4029 Printer will print envelopes from the manual sheet feeder if an automatic envelope feeder is not attached.                                                         |                                       |                      |              |                |                      |
| 4                                | Code Page 259 is supported on the 5219 Printer, but always uses Character Set 203. Therefore, not all symbols will print on a 5219 Printer.                                                                                                                |                                       |                      |              |                |                      |
| 5                                | The automatic sheet feed support (drawers) is an optional feature on some printers.                                                                                                                                                                        |                                       |                      |              |                |                      |
| 6                                | Unsupported print qualities for the 4019, 4029, and 4216 printers will use letter quality. Unsupported print qualities for all other printers will use draft quality.                                                                                      |                                       |                      |              |                |                      |
| 7                                | The 5219 printer has a limitation of 96 characters that it can print.                                                                                                                                                                                      |                                       |                      |              |                |                      |
| 8                                | Both the printer and emulator need to be configured for ASCII Code Page 850 in order to print all 191 characters correctly. If either the printer or the emulator is configured for ASCII Code Page 437, many special characters will not print correctly. |                                       |                      |              |                |                      |
| 9                                | Symbols are supported on these printers, but requires using an ASCII Code Page 899 font. Refer to the Connecting IBM Personal Printers to IBM Systems manual (S544-4209) for a list of fonts that are provided on each font card or font cartridge.        |                                       |                      |              |                |                      |
| 10                               | Using 11.00 inch wide paper (rotated).                                                                                                                                                                                                                     |                                       |                      |              |                |                      |
| 11                               | Character widths for proportionally spaced fonts are approximate, thus justification, overstrike, underline, and tabs may not appear as desired.                                                                                                           |                                       |                      |              |                |                      |
| 12                               | The 4207 and 4208 Printers actually use a 17.1-pitch font, but it is referred to as a 15-pitch font.                                                                                                                                                       |                                       |                      |              |                |                      |
| 13                               | This function is only available on the H models of the 3477 InfoWindow displays.                                                                                                                                                                           |                                       |                      |              |                |                      |

## 3477 InfoWindow 4214 Emulated Printer Function Chart

The following chart shows the functions supported by ASCII printers emulating a 4214 Printer when attached using the 3477 InfoWindow (3477). For more information on a particular printer, see the manual for that printer.

| <i>Figure A-11 (Page 1 of 3). 3477 InfoWindow 4214 Emulated Printer Function Chart</i> |                  |                                         |                      |
|----------------------------------------------------------------------------------------|------------------|-----------------------------------------|----------------------|
| Function                                                                               | SCS Printer      | 3477 Work Station 4214 Emulated Printer |                      |
|                                                                                        | 4214             | 2380<br>4201                            | 2381<br>4202<br>4226 |
| Bold                                                                                   | X                | X                                       | X                    |
| Change character set/code page ID                                                      | X                | X                                       | X                    |
| Change font (type style)                                                               |                  |                                         |                      |
| Color                                                                                  |                  |                                         |                      |
| Double-byte character set (DBCS) data                                                  |                  |                                         |                      |
| Double-sided printing                                                                  |                  |                                         |                      |
| Double-sided tumble printing                                                           |                  |                                         |                      |
| Graphics                                                                               |                  |                                         |                      |
| Image                                                                                  |                  |                                         |                      |
| Justification - Half (50%)                                                             | X                | X                                       | X                    |
| Justification - Right (100%)                                                           | X                | X                                       | X                    |
| Lines per inch (any value from 1.00-1440.00)                                           |                  |                                         |                      |
| Lines per inch (2.54)                                                                  |                  |                                         |                      |
| Lines per inch (4.0)                                                                   | X                | X                                       | X                    |
| Lines per inch (5.33)                                                                  |                  |                                         |                      |
| Lines per inch (6.0)                                                                   | X                | X                                       | X                    |
| Lines per inch (8.0)                                                                   | X                | X                                       | X                    |
| Lines per inch (9.0)                                                                   | X                | X                                       | X                    |
| Lines per inch (9.6)                                                                   |                  |                                         |                      |
| Lines per inch (12.0)                                                                  |                  |                                         |                      |
| Lines per inch (24.0)                                                                  |                  |                                         |                      |
| Lines per inch (48.0)                                                                  |                  |                                         |                      |
| Line spacing (0.5)                                                                     |                  |                                         |                      |
| Line spacing (1.0)                                                                     | X                | X                                       | X                    |
| Line spacing (1.5)                                                                     |                  |                                         |                      |
| Line spacing (2.0)                                                                     | X                | X                                       | X                    |
| Line spacing (2.5)                                                                     |                  |                                         |                      |
| Line spacing (3.0)                                                                     | X                | X                                       | X                    |
| Paper size (maximum) in inches <sup>1</sup>                                            | 13.20 x<br>14.00 | 8.00 x 14.00                            | 13.20 x<br>14.00     |
| Paper size (maximum) in inches - rotated                                               |                  |                                         |                      |
| Paper source - continuous feed                                                         | X                | X                                       | X                    |
| Paper source - envelope feed <sup>2</sup>                                              | X                |                                         |                      |
| Paper source - manual feed                                                             | X                | X                                       | X <sup>3</sup>       |
| Paper source - paper drawer (maximum) <sup>4</sup>                                     | 3                | 1                                       | 1 <sup>3</sup>       |
| Print quality - draft <sup>5</sup>                                                     | X                | X                                       | X                    |

Figure A-11 (Page 2 of 3). 3477 InfoWindow 4214 Emulated Printer Function Chart

| Function                                                                                  | SCS Printer       | 3477 Work Station 4214 Emulated Printer |                      |
|-------------------------------------------------------------------------------------------|-------------------|-----------------------------------------|----------------------|
|                                                                                           | 4214              | 2380<br>4201                            | 2381<br>4202<br>4226 |
| Print quality - letter <sup>5</sup>                                                       | X <sup>6</sup>    | X <sup>6</sup>                          | X <sup>6</sup>       |
| Print quality - text <sup>5</sup>                                                         |                   |                                         |                      |
| Rotation - automatic                                                                      |                   |                                         |                      |
| Rotation - 90 degrees                                                                     |                   |                                         |                      |
| Rotation - 180 degrees                                                                    |                   |                                         |                      |
| Rotation - 270 degrees                                                                    |                   |                                         |                      |
| Special characters (such as: cent sign, one half, and section symbol)                     | X <sup>7</sup>    | X <sup>8</sup>                          | X <sup>8</sup>       |
| Subscript/<br>Superscript                                                                 |                   |                                         |                      |
| Symbols (Code Page 259) <sup>9</sup>                                                      | X                 | X                                       | X                    |
| Typestyle/font numbers 1-65 (10-pitch)<br>maximum characters per line                     | 132               | 80                                      | 132                  |
| Typestyle/font numbers 66-153 (12-pitch)<br>maximum characters per line                   | 158               | 96                                      | 158                  |
| Typestyle/font numbers 154-200 (proportional)                                             |                   |                                         |                      |
| Typestyle/font numbers 201-210 (13.3-pitch)<br>maximum characters per line                |                   |                                         |                      |
| Typestyle/font numbers 211-239 (15-pitch)<br>maximum characters per line                  | 198               | 120 <sup>10</sup>                       | 198 <sup>10</sup>    |
| Typestyle/font numbers 240-246 (5-pitch)<br>maximum characters per line                   | 66                | 40                                      | 66                   |
| Typestyle/font numbers 247-257 and<br>274-279 (17.1-pitch) maximum characters<br>per line | 220 <sup>11</sup> | 137                                     | 220                  |
| Typestyle/font numbers 258-259 (18-pitch)<br>maximum characters per line                  |                   |                                         |                      |
| Typestyle/font numbers 260-273 (8.55-pitch)<br>maximum characters per line                |                   |                                         |                      |
| Typestyle/font numbers 280-284 (20-pitch)<br>maximum characters per line                  |                   |                                         |                      |
| Typestyle/font numbers 285-289 (25-pitch)<br>maximum characters per line                  |                   |                                         |                      |
| Typestyle/font numbers 290-299 (27-pitch)<br>maximum characters per line                  |                   |                                         |                      |
| Typestyle/font numbers 300-65534<br>(typographical and user-defined fonts)                |                   |                                         |                      |

Figure A-11 (Page 3 of 3). 3477 InfoWindow 4214 Emulated Printer Function Chart

| Function                         | SCS Printer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3477 Work Station 4214 Emulated Printer |                      |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------|
|                                  | 4214                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2380<br>4201                            | 2381<br>4202<br>4226 |
| Zero index carrier return (ZICR) | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | X                                       | X                    |
| 1                                | The paper size dimensions are the actual printable area dimensions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                         |                      |
| 2                                | The automatic envelope feed support (drawers) is an optional feature.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |                      |
| 3                                | This function is not supported on the 4226 printer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                         |                      |
| 4                                | The automatic sheet feed support (drawers) is an optional feature.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                         |                      |
| 5                                | Unsupported print qualities for all of these printers will use draft quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                         |                      |
| 6                                | Letter quality actually signifies near-letter quality on these printers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                         |                      |
| 7                                | This printer has a limitation of 96 characters that it can print.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                         |                      |
| 8                                | The emulator should be configured for ASCII Code Page 437 (to match the printer). The 3477 InfoWindow will download new characters to these printers so that the characters will print like ASCII Code Page 850. Therefore, all 191 characters will print correctly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |                      |
| 9                                | Code Page 259 is not supported on these printers. However, 47 of the 191 symbols in Code Page 259 will be mapped to the supported code pages. The 47 symbols mapped are: space, required space, left bracket, less than sign, left parenthesis, right bracket, right parenthesis, diaeresis accent, circumflex accent, minus sign (hyphen), underscore, greater than sign, grave accent, plus or minus sign, degree symbol, acute accent, registered trademark symbol, beta small, upper left box corner, left middle box side, lower left box corner, center box bar vertical, mu small, middle box top, box intersection, middle box bottom, tilde accent, upper right box corner, right middle box side, lower right box corner, long dash/throughscore, pound sign, international currency symbol, yen sign, left brace, paragraph symbol, syllable hyphen, vertical line unbroken, right brace, double underscore, section symbol, overline, backslash, numeric space, logical not, two superscript, and three superscript. |                                         |                      |
| 10                               | The printer actually uses a 17.1-pitch font, but it is referred to as a 15-pitch font.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                         |                      |
| 11                               | The printer actually uses a 16.7-pitch font, but it is referred to as a 17.1-pitch font.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                         |                      |

## 3197 Work Station 4214 Emulated Printer Function Chart

The following chart shows the functions supported by ASCII printers emulating a 4214 printer when attached using the 3197 Work Station (3197). For more information on a particular printer, see the manual for that printer.

Figure A-12 (Page 1 of 5). 3197 Work Station 4214 Emulated Printer Function Chart

| Function                                     | SCS<br>Printer | 3197 Work Station 4214 Emulated Printer |              |                      |                      |              |                |                      |
|----------------------------------------------|----------------|-----------------------------------------|--------------|----------------------|----------------------|--------------|----------------|----------------------|
|                                              | 4214           | 4019<br>4029<br>(PPDS)                  | 2380<br>4201 | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208 | 4216<br>(PPDS) | 4072<br>5202<br>5204 |
| Bold                                         | X              |                                         | X            | X                    | X                    | X            |                | X                    |
| Change character set/code page ID            | X              |                                         | X            | X                    | X                    | X            | X              | X                    |
| Change font (type style)                     |                |                                         |              |                      |                      |              |                |                      |
| Color                                        |                |                                         |              |                      |                      |              |                |                      |
| Double-byte character set (DBCS) data        |                |                                         |              |                      |                      |              |                |                      |
| Double-sided printing                        |                |                                         |              |                      |                      |              |                |                      |
| Double-sided tumble printing                 |                |                                         |              |                      |                      |              |                |                      |
| Graphics                                     |                |                                         |              |                      |                      |              |                |                      |
| Image                                        |                |                                         |              |                      |                      |              |                |                      |
| Justification - Half (50%)                   | X              | X                                       | X            | X                    | X                    | X            | X              | X                    |
| Justification - Right (100%)                 | X              | X                                       | X            | X                    | X                    | X            | X              | X                    |
| Lines per inch (any value from 1.00-1440.00) |                |                                         |              |                      |                      |              |                |                      |
| Lines per inch (2.54)                        |                |                                         |              |                      |                      |              |                |                      |
| Lines per inch (4.0)                         | X              | X                                       | X            | X                    | X                    | X            | X              | X                    |
| Lines per inch (5.33)                        |                |                                         |              |                      |                      |              |                |                      |
| Lines per inch (6.0)                         | X              | X                                       | X            | X                    | X                    | X            | X              | X                    |
| Lines per inch (8.0)                         | X              | X                                       | X            | X                    | X                    | X            | X              | X                    |
| Lines per inch (9.0)                         | X              | X                                       | X            | X                    | X                    | X            | X              | X                    |

Figure A-12 (Page 2 of 5). 3197 Work Station 4214 Emulated Printer Function Chart

| Function                                           | SCS<br>Printer | 3197 Work Station 4214 Emulated Printer |                |                      |                      |                |                |                      |
|----------------------------------------------------|----------------|-----------------------------------------|----------------|----------------------|----------------------|----------------|----------------|----------------------|
|                                                    | 4214           | 4019<br>4029<br>(PPDS)                  | 2380<br>4201   | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208   | 4216<br>(PPDS) | 4072<br>5202<br>5204 |
| Lines per inch (9.6)                               |                |                                         |                |                      |                      |                |                |                      |
| Lines per inch (12.0)                              |                |                                         |                |                      |                      |                |                |                      |
| Lines per inch (24.0)                              |                |                                         |                |                      |                      |                |                |                      |
| Lines per inch (48.0)                              |                |                                         |                |                      |                      |                |                |                      |
| Line spacing (0.5)                                 |                |                                         |                |                      |                      |                |                |                      |
| Line spacing (1.0)                                 | X              | X                                       | X              | X                    | X                    | X              | X              | X                    |
| Line spacing (1.5)                                 |                |                                         |                |                      |                      |                |                |                      |
| Line spacing (2.0)                                 | X              | X                                       | X              | X                    | X                    | X              | X              | X                    |
| Line spacing (2.5)                                 |                |                                         |                |                      |                      |                |                |                      |
| Line spacing (3.0)                                 | X              | X                                       | X              | X                    | X                    | X              | X              | X                    |
| Paper size (maximum) in inches <sup>1</sup>        | 13.20 x 14.00  | 8.00 x 13.60                            | 8.00 x 14.00   | 13.20 x 14.00        | 8.00 x 14.00         | 13.20 x 14.00  | 8.00 x 14.00   | 13.20 x 14.00        |
| Paper size (maximum) in inches - rotated           |                |                                         |                |                      |                      |                |                |                      |
| Paper source - continuous feed                     | X              |                                         | X              | X                    | X                    | X              |                | X                    |
| Paper source - envelope feed                       | X <sup>2</sup> | X <sup>2</sup>                          |                |                      |                      |                | X <sup>2</sup> | X <sup>2</sup>       |
| Paper source - manual feed                         | X              | X                                       | X              | X <sup>3</sup>       | X                    | X              |                | X                    |
| Paper source - paper drawer (maximum) <sup>4</sup> | 3              | 2                                       | 1              | 1 <sup>3</sup>       | 1                    | 1              | 2              | 2                    |
| Print quality - draft <sup>5</sup>                 | X              |                                         | X              | X                    | X                    | X              |                | X                    |
| Print quality - letter <sup>5</sup>                | X <sup>6</sup> | X <sup>6</sup>                          | X <sup>6</sup> | X <sup>6</sup>       | X <sup>6</sup>       | X <sup>6</sup> | X <sup>6</sup> | X <sup>6</sup>       |
| Print quality - text <sup>5</sup>                  |                |                                         |                |                      |                      |                |                |                      |



Figure A-12 (Page 3 of 5). 3197 Work Station 4214 Emulated Printer Function Chart

| Function                                                                | SCS<br>Printer | 3197 Work Station 4214 Emulated Printer |                   |                      |                      |                   |                   |                      |
|-------------------------------------------------------------------------|----------------|-----------------------------------------|-------------------|----------------------|----------------------|-------------------|-------------------|----------------------|
|                                                                         | 4214           | 4019<br>4029<br>(PPDS)                  | 2380<br>4201      | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208      | 4216<br>(PPDS)    | 4072<br>5202<br>5204 |
| Rotation - automatic                                                    |                |                                         |                   |                      |                      |                   |                   |                      |
| Rotation - 90 degrees                                                   |                |                                         |                   |                      |                      |                   |                   |                      |
| Rotation - 180 degrees                                                  |                |                                         |                   |                      |                      |                   |                   |                      |
| Rotation - 270 degrees                                                  |                |                                         |                   |                      |                      |                   |                   |                      |
| Special characters (such as: cent sign, one half, and section symbol)   | X <sup>7</sup> | X <sup>8</sup>                          | X <sup>9</sup>    | X <sup>9</sup>       | X <sup>8</sup>       | X <sup>8</sup>    | X <sup>8</sup>    | X <sup>8</sup>       |
| Subscript/Superscript                                                   |                |                                         |                   |                      |                      |                   |                   |                      |
| Symbols (Code Page 259) <sup>10</sup>                                   | X              |                                         | X                 | X                    | X                    | X                 | X                 | X                    |
| Typestyle/font numbers 1-65 (10-pitch) maximum characters per line      | 132            | 80                                      | 80                | 132                  | 80                   | 132               | 80                | 132                  |
| Typestyle/font numbers 66-153 (12-pitch) maximum characters per line    | 158            | 96                                      | 96                | 158                  | 96                   | 158               | 96                | 158                  |
| Typestyle/font numbers 154-200 (proportional)                           |                |                                         |                   |                      |                      |                   |                   |                      |
| Typestyle/font numbers 201-210 (13.3-pitch) maximum characters per line |                |                                         |                   |                      |                      |                   |                   |                      |
| Typestyle/font numbers 211-239 (15-pitch) maximum characters per line   | 198            | 120                                     | 120 <sup>11</sup> | 198 <sup>11</sup>    | 120 <sup>11</sup>    | 198 <sup>11</sup> | 120 <sup>11</sup> | 198                  |

Figure A-12 (Page 4 of 5). 3197 Work Station 4214 Emulated Printer Function Chart

| Function                                                                            | SCS<br>Printer    | 3197 Work Station 4214 Emulated Printer |              |                      |                      |              |                |                      |
|-------------------------------------------------------------------------------------|-------------------|-----------------------------------------|--------------|----------------------|----------------------|--------------|----------------|----------------------|
|                                                                                     | 4214              | 4019<br>4029<br>(PPDS)                  | 2380<br>4201 | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208 | 4216<br>(PPDS) | 4072<br>5202<br>5204 |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                | 66                | 40                                      | 40           | 66                   | 40                   | 66           | 40             | 66                   |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line | 220 <sup>12</sup> | 136                                     | 137          | 220                  | 137                  | 220          | 137            | 220                  |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               |                   |                                         |              |                      |                      |              |                |                      |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             |                   |                                         |              |                      |                      |              |                |                      |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               |                   |                                         |              |                      |                      |              |                |                      |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line               |                   |                                         |              |                      |                      |              |                |                      |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line               |                   |                                         |              |                      |                      |              |                |                      |

Figure A-12 (Page 5 of 5). 3197 Work Station 4214 Emulated Printer Function Chart

| Function                                                                | SCS<br>Printer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3197 Work Station 4214 Emulated Printer |              |                      |                      |              |                |                      |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------|----------------------|----------------------|--------------|----------------|----------------------|
|                                                                         | 4214                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4019<br>4029<br>(PPDS)                  | 2380<br>4201 | 2381<br>4202<br>4226 | 2390<br>4207<br>4212 | 2391<br>4208 | 4216<br>(PPDS) | 4072<br>5202<br>5204 |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                         |              |                      |                      |              |                |                      |
| Zero index carrier return (ZICR)                                        | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | X                                       | X            | X                    | X                    | X            | X              | X                    |
| 1                                                                       | The paper size dimensions are the actual printable area dimensions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                         |              |                      |                      |              |                |                      |
| 2                                                                       | The automatic envelope feed support (drawers) is an optional feature. The automatic envelope feed support cannot be used without disabling the continuous forms support. The 4019 and 4029 printers will print envelopes from the manual sheet feeder if an automatic envelope feeder is not attached.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                         |              |                      |                      |              |                |                      |
| 3                                                                       | This function is not supported on the 4226 printer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                         |              |                      |                      |              |                |                      |
| 4                                                                       | The automatic sheet feed support (drawers) is an optional feature.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                         |              |                      |                      |              |                |                      |
| 5                                                                       | Unsupported print qualities for the 4019, 4029, and 4216 printers will use letter quality. Unsupported print qualities for all other printers will use draft quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |              |                      |                      |              |                |                      |
| 6                                                                       | Letter quality actually signifies near-letter quality on these printers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                         |              |                      |                      |              |                |                      |
| 7                                                                       | These printers have a limitation of 96 characters that it can print.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |              |                      |                      |              |                |                      |
| 8                                                                       | Both the printer and emulator need to be configured for ASCII Code Page 850 in order to print all 191 characters correctly. If either the printer or the emulator is configured for ASCII Code Page 437, many special characters will not print correctly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                         |              |                      |                      |              |                |                      |
| 9                                                                       | The emulator should be configured for ASCII Code Page 437 (to match the printer). The 3197 Work Station will download new characters to these printers so that the characters will print like ASCII Code Page 850. Therefore, all 191 characters will print correctly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                         |              |                      |                      |              |                |                      |
| 10                                                                      | Code Page 259 is not supported on these printers. However, 47 of the 191 symbols in Code Page 259 will be mapped to the supported code pages. The 47 symbols mapped are: space, required space, left bracket, less than sign, left parenthesis, right bracket, right parenthesis, diaeresis accent, circumflex accent, minus sign (hyphen), underscore, greater than sign, grave accent, plus or minus sign, degree symbol, acute accent, registered trademark symbol, beta small, upper left box corner, left middle box side, lower left box corner, center box bar vertical, mu small, middle box top, box intersection, middle box bottom, tilde accent, upper right box corner, right middle box side, lower right box corner, long dash/throughscore, pound sign, international currency symbol, yen sign, left brace, paragraph symbol, syllable hyphen, vertical line unbroken, right brace, double underscore, section symbol, overline, backslash, numeric space, logical not, two superscript, and three superscript. |                                         |              |                      |                      |              |                |                      |
| 11                                                                      | The printer actually uses a 17.1-pitch font, but it is referred to as a 15-pitch font.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                         |              |                      |                      |              |                |                      |
| 12                                                                      | The printer actually uses a 16.7-pitch font, but it is referred to as a 17.1-pitch font.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                         |              |                      |                      |              |                |                      |

## ASCII Work Station Controller (AWSC) Emulated Printer Functions

### AWSC 3812 Emulated Printer Function Chart

The following chart shows the functions supported by ASCII printers emulating a 3812 Printer when attached using the ASCII Work Station Controller (AWSC). For more information on a particular printer, see the manual for that printer.

*Figure A-13 (Page 1 of 3). AWSC 3812 Emulated Printer Function Chart*

| Function                                                 | SCS Printer  | AWSC 3812 Emulated Printer |              |
|----------------------------------------------------------|--------------|----------------------------|--------------|
|                                                          | 3812         | 4019                       | 4029         |
| Bold                                                     | X            | X                          | X            |
| Change character set/code page ID                        | X            | X                          | X            |
| Change font (type style)                                 | X            | X                          | X            |
| Color                                                    |              |                            |              |
| Double-byte character set (DBCS) data                    |              |                            |              |
| Double-sided printing                                    |              |                            |              |
| Double-sided tumble printing                             |              |                            |              |
| Graphics                                                 |              |                            |              |
| Image                                                    |              |                            |              |
| Justification - Half (50%)                               |              | X                          | X            |
| Justification - Right (100%)                             | X            | X                          | X            |
| Lines per inch (any value from 1.00-1440.00)             | X            |                            |              |
| Lines per inch (2.54)                                    | X            | X                          | X            |
| Lines per inch (4.0)                                     | X            | X                          | X            |
| Lines per inch (5.33)                                    | X            | X                          | X            |
| Lines per inch (6.0)                                     | X            | X                          | X            |
| Lines per inch (8.0)                                     | X            | X                          | X            |
| Lines per inch (9.0)                                     | X            | X                          | X            |
| Lines per inch (9.6)                                     | X            | X                          | X            |
| Lines per inch (12.0)                                    | X            | X                          | X            |
| Lines per inch (24.0)                                    | X            | X                          | X            |
| Lines per inch (48.0)                                    | X            | X                          | X            |
| Line spacing (0.5)                                       | X            | X                          | X            |
| Line spacing (1.0)                                       | X            | X                          | X            |
| Line spacing (1.5)                                       | X            | X                          | X            |
| Line spacing (2.0)                                       | X            | X                          | X            |
| Line spacing (2.5)                                       | X            | X                          | X            |
| Line spacing (3.0)                                       | X            | X                          | X            |
| Paper size (maximum) in inches <sup>1, 2</sup>           | 8.50 x 14.00 | 8.00 x 13.66               | 8.00 x 13.66 |
| Paper size (maximum) in inches - rotated <sup>1, 2</sup> | 14.00 x 8.50 | 13.66 x 8.00               | 13.66 x 8.00 |
| Paper source - continuous feed                           |              |                            |              |

Figure A-13 (Page 2 of 3). AWSC 3812 Emulated Printer Function Chart

| Function                                                                            | SCS Printer      | AWSC 3812 Emulated Printer |                  |
|-------------------------------------------------------------------------------------|------------------|----------------------------|------------------|
|                                                                                     | 3812             | 4019                       | 4029             |
| Paper source - envelope feed <sup>3</sup>                                           |                  | X                          | X                |
| Paper source - manual feed                                                          |                  | X                          | X                |
| Paper source - paper drawer (maximum) <sup>4</sup>                                  | 2                | 2                          | 2                |
| Print quality - draft <sup>5</sup>                                                  |                  |                            |                  |
| Print quality - letter <sup>5</sup>                                                 | X                | X                          | X                |
| Print quality - text <sup>5</sup>                                                   |                  |                            |                  |
| Rotation - automatic                                                                | X                | X                          | X                |
| Rotation - 90 degrees                                                               | X                |                            | X                |
| Rotation - 180 degrees                                                              | X                |                            | X                |
| Rotation - 270 degrees                                                              | X                | X                          | X                |
| Special characters (such as: cent sign, one half, and section symbol)               | X                | X <sup>6</sup>             | X <sup>6</sup>   |
| Subscript/Superscript                                                               | X                | X                          | X                |
| Symbols (Code Page 259)                                                             | X                | X <sup>7</sup>             | X <sup>7</sup>   |
| Typestyle/font numbers 1-65 (10-pitch) maximum characters per line                  | 140 <sup>8</sup> | 136 <sup>8</sup>           | 136 <sup>8</sup> |
| Typestyle/font numbers 66-153 (12-pitch) maximum characters per line                | 168 <sup>8</sup> | 164 <sup>8</sup>           | 164 <sup>8</sup> |
| Typestyle/font numbers 154-200 (proportional) <sup>9</sup>                          | X                | X                          | X                |
| Typestyle/font numbers 201-210 (13.3-pitch) maximum characters per line             | 186 <sup>8</sup> |                            |                  |
| Typestyle/font numbers 211-239 (15-pitch) maximum characters per line               | 210 <sup>8</sup> | 204 <sup>8</sup>           | 204 <sup>8</sup> |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                | 70 <sup>8</sup>  | 68 <sup>8</sup>            | 68 <sup>8</sup>  |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line | 240 <sup>8</sup> | 233 <sup>8</sup>           | 233 <sup>8</sup> |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               | 252 <sup>8</sup> |                            |                  |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             | 120 <sup>8</sup> |                            |                  |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               | 255 <sup>8</sup> | 255 <sup>8</sup>           | 255 <sup>8</sup> |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line               |                  |                            |                  |

| <i>Figure A-13 (Page 3 of 3). AWSC 3812 Emulated Printer Function Chart</i> |                                                                                                                                                                                                                                                                                                     |                            |                 |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------|
| Function                                                                    | SCS Printer                                                                                                                                                                                                                                                                                         | AWSC 3812 Emulated Printer |                 |
|                                                                             | 3812                                                                                                                                                                                                                                                                                                | 4019                       | 4029            |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line       | 255 <sup>8</sup>                                                                                                                                                                                                                                                                                    |                            |                 |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts)     | X <sup>10</sup>                                                                                                                                                                                                                                                                                     | X <sup>10</sup>            | X <sup>10</sup> |
| Zero index carrier return (ZICR)                                            | X                                                                                                                                                                                                                                                                                                   | X                          | X               |
| 1                                                                           | The paper size dimensions are the actual printable area dimensions                                                                                                                                                                                                                                  |                            |                 |
| 2                                                                           | An optional feature may be required on some printers to support larger (legal size) paper.                                                                                                                                                                                                          |                            |                 |
| 3                                                                           | The automatic envelope feed support (drawers) is an optional feature on some printers.                                                                                                                                                                                                              |                            |                 |
| 4                                                                           | The automatic sheet feed support (drawers) is an optional feature on some printers.                                                                                                                                                                                                                 |                            |                 |
| 5                                                                           | Unsupported print qualities for the 4019 and 4029 Printers will use letter quality.                                                                                                                                                                                                                 |                            |                 |
| 6                                                                           | Both the printer and emulator need to be configured for ASCII Code Page 850 in order to print all 191 characters correctly. If either the printer or the emulator is configured for ASCII Code Page 437, many special characters will not print correctly.                                          |                            |                 |
| 7                                                                           | When Code Page 259 or 899 is not available or configured on the printer, only those symbols available in the resident Code Pages will be printed correctly.                                                                                                                                         |                            |                 |
| 8                                                                           | Using 14-inch wide paper (rotated).                                                                                                                                                                                                                                                                 |                            |                 |
| 9                                                                           | Character widths for proportionally spaced fonts are approximate, therefore justification, overstrike, underline, and tabs may not appear as desired.                                                                                                                                               |                            |                 |
| 10                                                                          | Typographical and user-defined fonts are treated as if they are 12-pitch. This means that centering, line adjust, justification and tabs may not appear as desired. When using fonts that contain tall characters, you may wish to change your line spacing or lines per inch to avoid overlapping. |                            |                 |

## AWSC 5219 Emulated Printer Function Chart

The following chart shows the functions supported by ASCII printers emulating a 5219 Printer when attached using the ASCII Work Station Controller (AWSC). For more information on a particular printer, see the manual for that printer.

Figure A-14 (Page 1 of 3). AWSC 5219 Emulated Printer Function Chart

| Function                                     | SCS<br>Printer | AWSC 5219 Emulated Printer |              |               |                |               |               |
|----------------------------------------------|----------------|----------------------------|--------------|---------------|----------------|---------------|---------------|
|                                              | 5219           | 4019<br>4029               | 2390<br>4207 | 2391<br>4208  | 4216<br>(PPDS) | 4224          | 4072<br>5204  |
| Bold                                         | X              | X                          | X            | X             | X              | X             | X             |
| Change character set/code page ID            | X              | X                          | X            | X             | X              | X             | X             |
| Change font (type style)                     | X              | X                          |              |               |                |               | X             |
| Color                                        |                |                            |              |               |                |               |               |
| Double-byte character set (DBCS) data        |                |                            |              |               |                |               |               |
| Double-sided printing                        |                |                            |              |               |                |               |               |
| Double-sided tumble printing                 |                |                            |              |               |                |               |               |
| Graphics                                     |                |                            |              |               |                |               |               |
| Image                                        |                |                            |              |               |                |               |               |
| Justification - Half (50%)                   | X              | X                          | X            | X             | X              | X             | X             |
| Justification - Right (100%)                 | X              | X                          | X            | X             | X              | X             | X             |
| Lines per inch (any value from 1.00-1440.00) |                |                            |              |               |                |               |               |
| Lines per inch (2.54)                        | X              | X                          | X            | X             | X              | X             | X             |
| Lines per inch (4.0)                         | X              | X                          | X            | X             | X              | X             | X             |
| Lines per inch (5.33)                        | X              | X                          | X            | X             | X              | X             | X             |
| Lines per inch (6.0)                         | X              | X                          | X            | X             | X              | X             | X             |
| Lines per inch (8.0)                         | X              | X                          | X            | X             | X              | X             | X             |
| Lines per inch (9.0)                         |                |                            |              |               |                |               |               |
| Lines per inch (9.6)                         | X              | X                          | X            | X             | X              | X             | X             |
| Lines per inch (12.0)                        | X              | X                          | X            | X             | X              | X             | X             |
| Lines per inch (24.0)                        | X              | X                          | X            | X             | X              | X             | X             |
| Lines per inch (48.0)                        | X              | X                          | X            | X             | X              | X             | X             |
| Line spacing (0.5)                           |                |                            |              |               |                |               |               |
| Line spacing (1.0)                           | X              | X                          | X            | X             | X              | X             | X             |
| Line spacing (1.5)                           | X              | X                          | X            | X             | X              | X             | X             |
| Line spacing (2.0)                           | X              | X                          | X            | X             | X              | X             | X             |
| Line spacing (2.5)                           |                |                            |              |               |                |               |               |
| Line spacing (3.0)                           | X              | X                          | X            | X             | X              | X             | X             |
| Paper size (maximum) in inches <sup>1</sup>  | 13.20 x 22.75  | 8.00 x 13.66               | 8.00 x 22.75 | 13.20 x 22.75 | 8.00 x 13.66   | 13.20 x 22.75 | 13.20 x 22.75 |

Figure A-14 (Page 2 of 3). AWSC 5219 Emulated Printer Function Chart

| Function                                                                         | SCS<br>Printer | AWSC 5219 Emulated Printer |                   |                   |                   |                   |                |
|----------------------------------------------------------------------------------|----------------|----------------------------|-------------------|-------------------|-------------------|-------------------|----------------|
|                                                                                  | 5219           | 4019<br>4029               | 2390<br>4207      | 2391<br>4208      | 4216<br>(PPDS)    | 4224              | 4072<br>5204   |
| Paper size (maximum)<br>in inches - rotated                                      |                |                            |                   |                   |                   |                   |                |
| Paper source - continuous feed                                                   | X              |                            | X                 | X                 |                   | X                 | X              |
| Paper source - envelope feed <sup>2</sup>                                        | X              | X                          |                   |                   | X                 |                   | X              |
| Paper source - manual feed                                                       | X              | X                          | X                 | X                 | X                 | X                 | X              |
| Paper source - paper drawer (maximum) <sup>3</sup>                               | 2              | 2                          | 1                 | 1                 | 2                 | 3                 | 2              |
| Print quality - draft <sup>4</sup>                                               | X              |                            | X                 | X                 |                   | X                 | X              |
| Print quality - letter <sup>4</sup>                                              | X              | X                          | X                 | X                 | X                 | X                 | X              |
| Print quality - text <sup>4</sup>                                                |                |                            |                   |                   |                   |                   |                |
| Rotation - automatic                                                             |                |                            |                   |                   |                   |                   |                |
| Rotation - 90 degrees                                                            |                |                            |                   |                   |                   |                   |                |
| Rotation - 180 degrees                                                           |                |                            |                   |                   |                   |                   |                |
| Rotation - 270 degrees                                                           |                |                            |                   |                   |                   |                   |                |
| Special characters<br>(such as: cent sign,<br>one half, and section<br>symbol)   | X <sup>5</sup> | X <sup>6</sup>             | X <sup>6</sup>    | X <sup>6</sup>    | X <sup>6</sup>    | X <sup>6</sup>    | X <sup>6</sup> |
| Subscript/<br>Superscript                                                        | X              | X                          | X                 | X                 | X                 | X                 | X              |
| Symbols (Code Page<br>259)                                                       | X <sup>7</sup> | X <sup>8</sup>             |                   |                   |                   |                   | X <sup>8</sup> |
| Typestyle/font<br>numbers 1-65<br>(10-pitch) maximum<br>characters per line      | 132            | 80                         | 80                | 132               | 80                | 132               | 132            |
| Typestyle/font<br>numbers 66-153<br>(12-pitch) maximum<br>characters per line    | 158            | 96                         | 96                | 158               | 96                | 158               | 158            |
| Typestyle/font<br>numbers 154-200<br>(proportional) <sup>9</sup>                 | X              | X                          | X                 | X                 | X                 | X                 | X              |
| Typestyle/font<br>numbers 201-210<br>(13.3-pitch) maximum<br>characters per line |                |                            |                   |                   |                   |                   |                |
| Typestyle/font<br>numbers 211-239<br>(15-pitch) maximum<br>characters per line   | 198            | 120                        | 120 <sup>10</sup> | 198 <sup>10</sup> | 120 <sup>10</sup> | 198 <sup>10</sup> | 198            |
| Typestyle/font<br>numbers 240-246<br>(5-pitch) maximum<br>characters per line    |                |                            |                   |                   |                   |                   |                |



Figure A-14 (Page 3 of 3). AWSC 5219 Emulated Printer Function Chart

| Function                                                                            | SCS<br>Printer                                                                                                                                                                                                                                      | AWSC 5219 Emulated Printer |              |              |                |      |              |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------|--------------|----------------|------|--------------|
|                                                                                     | 5219                                                                                                                                                                                                                                                | 4019<br>4029               | 2390<br>4207 | 2391<br>4208 | 4216<br>(PPDS) | 4224 | 4072<br>5204 |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line |                                                                                                                                                                                                                                                     |                            |              |              |                |      |              |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               |                                                                                                                                                                                                                                                     |                            |              |              |                |      |              |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             |                                                                                                                                                                                                                                                     |                            |              |              |                |      |              |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               |                                                                                                                                                                                                                                                     |                            |              |              |                |      |              |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line               |                                                                                                                                                                                                                                                     |                            |              |              |                |      |              |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line               |                                                                                                                                                                                                                                                     |                            |              |              |                |      |              |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts)             |                                                                                                                                                                                                                                                     |                            |              |              |                |      |              |
| Zero index carrier return (ZICR)                                                    | X                                                                                                                                                                                                                                                   | X                          | X            | X            | X              | X    | X            |
| 1                                                                                   | The paper size dimensions is the actual printable area dimensions.                                                                                                                                                                                  |                            |              |              |                |      |              |
| 2                                                                                   | The automatic envelope feed support (drawers) is an optional feature. The 4019 and 4029 printers will print envelopes from the manual sheet feeder if an automatic envelope feeder is not attached.                                                 |                            |              |              |                |      |              |
| 3                                                                                   | The automatic sheet feed support (drawers) is an optional feature.                                                                                                                                                                                  |                            |              |              |                |      |              |
| 4                                                                                   | Unsupported print qualities for the 4019, 4029, and 4216 printers will use letter quality. Unsupported print qualities for all other printers will use draft quality.                                                                               |                            |              |              |                |      |              |
| 5                                                                                   | This printer has a limitation of 96 characters that it can print.                                                                                                                                                                                   |                            |              |              |                |      |              |
| 6                                                                                   | The printer needs to be configured for ASCII Code Page 850 in order to print all 191 characters correctly. If the printer is configured for ASCII Code Page 437, many special characters will not print correctly.                                  |                            |              |              |                |      |              |
| 7                                                                                   | Code Page 259 is supported on the 5219 Printer, but always uses Character Set 203. Therefore, not all symbols will print on a 5219 Printer.                                                                                                         |                            |              |              |                |      |              |
| 8                                                                                   | Symbols are supported on these printers, but requires using an ASCII Code Page 899 font. Refer to the Connecting IBM Personal Printers to IBM Systems manual (S544-4209) for a list of fonts that are provided on each font card or font cartridge. |                            |              |              |                |      |              |
| 9                                                                                   | Character widths for proportionally spaced fonts are approximate, thus justification, overstrike, underline, and tabs may not appear as desired.                                                                                                    |                            |              |              |                |      |              |
| 10                                                                                  | The printer actually uses a 17.1-pitch font, but it is referred to as a 15-pitch font.                                                                                                                                                              |                            |              |              |                |      |              |

## AWSC 5224 Emulated Printer Function Chart

The following chart shows the functions supported by ASCII printers emulating a 5224 Printer when attached using the ASCII Work Station Controller (AWSC). For more information on a particular printer, see the manual for that printer.

*Figure A-15 (Page 1 of 5). AWSC 5224 Emulated Printer Function Chart*

| Function                                     | SCS Printer | AWSC 5224 Emulated Printer |                      |              |
|----------------------------------------------|-------------|----------------------------|----------------------|--------------|
|                                              | 5224        | 2380<br>4201               | 2381<br>4202<br>4226 | 4234<br>6252 |
| Bold                                         | X           | X                          | X                    | X            |
| Change character set/code page ID            | X           | X                          | X                    | X            |
| Change font (type style)                     |             |                            |                      |              |
| Color                                        |             |                            |                      |              |
| Double-byte character set (DBCS) data        |             |                            |                      |              |
| Double-sided printing                        |             |                            |                      |              |
| Double-sided tumble printing                 |             |                            |                      |              |
| Graphics                                     |             |                            |                      |              |
| Image                                        |             |                            |                      |              |
| Justification - Half (50%)                   | X           | X                          | X                    | X            |
| Justification - Right (100%)                 | X           | X                          | X                    | X            |
| Lines per inch (any value from 1.00-1440.00) |             |                            |                      |              |
| Lines per inch (2.54)                        |             |                            |                      |              |
| Lines per inch (4.0)                         | X           | X                          | X                    | X            |
| Lines per inch (5.33)                        |             |                            |                      |              |
| Lines per inch (6.0)                         | X           | X                          | X                    | X            |
| Lines per inch (8.0)                         | X           | X                          | X                    | X            |
| Lines per inch (9.0)                         | X           | X                          | X                    | X            |
| Lines per inch (9.6)                         |             |                            |                      |              |

Figure A-15 (Page 2 of 5). AWSC 5224 Emulated Printer Function Chart

| Function                                          | SCS Printer   | AWSC 5224 Emulated Printer |                      |               |
|---------------------------------------------------|---------------|----------------------------|----------------------|---------------|
|                                                   | 5224          | 2380<br>4201               | 2381<br>4202<br>4226 | 4234<br>6252  |
| Lines per inch<br>(12.0)                          | X             | X                          | X                    | X             |
| Lines per inch<br>(24.0)                          | X             | X                          | X                    | X             |
| Lines per inch<br>(48.0)                          |               |                            |                      |               |
| Line spacing<br>(0.5)                             |               |                            |                      |               |
| Line spacing<br>(1.0)                             | X             | X                          | X                    | X             |
| Line spacing<br>(1.5)                             |               |                            |                      |               |
| Line spacing<br>(2.0)                             | X             | X                          | X                    | X             |
| Line spacing<br>(2.5)                             |               |                            |                      |               |
| Line spacing<br>(3.0)                             | X             | X                          | X                    | X             |
| Paper size<br>(maximum) in<br>inches <sup>1</sup> | 13.20 x 14.17 | 8.00 x 14.17               | 13.20 x 14.17        | 13.20 x 14.17 |
| Paper size<br>(maximum) in<br>inches - rotated    |               |                            |                      |               |
| Paper source -<br>continuous<br>feed              | X             | X                          | X                    | X             |
| Paper source -<br>envelope feed                   |               |                            |                      |               |
| Paper source -<br>manual feed                     |               |                            |                      |               |
| Paper source -<br>paper drawer<br>(maximum)       |               |                            |                      |               |
| Print quality -<br>draft <sup>2</sup>             | X             | X                          | X                    | X             |
| Print quality -<br>letter <sup>2</sup>            |               |                            |                      |               |
| Print quality -<br>text <sup>2</sup>              |               |                            |                      |               |
| Rotation - auto-<br>matic                         |               |                            |                      |               |

Figure A-15 (Page 3 of 5). AWSC 5224 Emulated Printer Function Chart

| Function                                                                | SCS Printer    | AWSC 5224 Emulated Printer |                      |                  |
|-------------------------------------------------------------------------|----------------|----------------------------|----------------------|------------------|
|                                                                         | 5224           | 2380<br>4201               | 2381<br>4202<br>4226 | 4234<br>6252     |
| Rotation - 90 degrees                                                   |                |                            |                      |                  |
| Rotation - 180 degrees                                                  |                |                            |                      |                  |
| Rotation - 270 degrees                                                  |                |                            |                      |                  |
| Special characters (such as: cent sign, one half, and section symbol)   | X <sup>3</sup> | X <sup>4</sup>             | X <sup>4</sup>       | X <sup>4</sup>   |
| Subscript/Superscript                                                   |                |                            |                      |                  |
| Symbols (Code Page 259) <sup>5</sup>                                    | X              | X                          | X                    | X                |
| Typestyle/font numbers 1-65 (10-pitch) maximum characters per line      | 132            | 80                         | 132                  | 132              |
| Typestyle/font numbers 66-153 (12-pitch) maximum characters per line    |                |                            |                      |                  |
| Typestyle/font numbers 154-200 (proportional)                           |                |                            |                      |                  |
| Typestyle/font numbers 201-210 (13.3-pitch) maximum characters per line |                |                            |                      |                  |
| Typestyle/font numbers 211-239 (15-pitch) maximum characters per line   | 198            | 120 <sup>6</sup>           | 198 <sup>6</sup>     | 198 <sup>6</sup> |

Figure A-15 (Page 4 of 5). AWSC 5224 Emulated Printer Function Chart

| Function                                                                            | SCS Printer | AWSC 5224 Emulated Printer |                      |              |
|-------------------------------------------------------------------------------------|-------------|----------------------------|----------------------|--------------|
|                                                                                     | 5224        | 2380<br>4201               | 2381<br>4202<br>4226 | 4234<br>6252 |
| Typestyle/font numbers 240-246 (5-pitch) maximum characters per line                |             |                            |                      |              |
| Typestyle/font numbers 247-257 and 274-279 (17.1-pitch) maximum characters per line |             |                            |                      |              |
| Typestyle/font numbers 258-259 (18-pitch) maximum characters per line               |             |                            |                      |              |
| Typestyle/font numbers 260-273 (8.55-pitch) maximum characters per line             |             |                            |                      |              |
| Typestyle/font numbers 280-284 (20-pitch) maximum characters per line               |             |                            |                      |              |
| Typestyle/font numbers 285-289 (25-pitch) maximum characters per line               |             |                            |                      |              |
| Typestyle/font numbers 290-299 (27-pitch) maximum characters per line               |             |                            |                      |              |
| Typestyle/font numbers 300-65534 (typographical and user-defined fonts)             |             |                            |                      |              |

Figure A-15 (Page 5 of 5). AWSC 5224 Emulated Printer Function Chart

| Function                         | SCS Printer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AWSC 5224 Emulated Printer |                      |              |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------|--------------|
|                                  | 5224                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2380<br>4201               | 2381<br>4202<br>4226 | 4234<br>6252 |
| Zero index carrier return (ZICR) | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | X                          | X                    | X            |
| 1                                | The paper size dimensions are the actual printable area dimensions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |                      |              |
| 2                                | Unsupported print qualities for all of these printers will use draft quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                      |              |
| 3                                | This printer has a limitation of 96 characters that it can print.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                      |              |
| 4                                | The printer needs to be configured for ASCII Code Page 850 in order to print all 191 characters correctly. If the printer is configured for ASCII Code Page 437, many special characters will not print correctly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |                      |              |
| 5                                | Code Page 259 is not supported on these printers. However, 47 of the 191 symbols in Code Page 259 will be mapped to the supported code pages. The 47 symbols mapped are: space, required space, left bracket, less than sign, left parenthesis, right bracket, right parenthesis, diaeresis accent, circumflex accent, minus sign (hyphen), underscore, greater than sign, grave accent, plus or minus sign, degree symbol, acute accent, registered trademark symbol, beta small, upper left box corner, left middle box side, lower left box corner, center box bar vertical, mu small, middle box top, box intersection, middle box bottom, tilde accent, upper right box corner, right middle box side, lower right box corner, long dash/throughscore, pound sign, international currency symbol, yen sign, left brace, paragraph symbol, syllable hyphen, vertical line unbroken, right brace, double underscore, section symbol, overline, backslash, numeric space, logical not, two superscript, and three superscript. |                            |                      |              |
| 6                                | The printer actually uses a 17.1-pitch font, but it is referred to as a 15-pitch font.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                            |                      |              |

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## Appendix B. Understanding Session Profiles

The session profile is automatically used and updated each time you use the word processing function. The session profile determines the way the word processing function works based on choices you make during each edit session. For example, if you specify to highlight text before it is deleted, the text is always highlighted until you change this value. Each time you change this prompt, the system automatically remembers this choice and uses it each time.

You do not need to perform any special action to have your session profile updated or saved. The system automatically updates your session profile with your last choice. This improves your productivity because you do not have to either remember the choices you made, or specify an often-used choice each time you use the word processing function.

The choices saved in the session profile are:

- On the Work with Documents in Folders display:
  - Document name
  - Folder name
  - List format (show comments or show names only)
- On the Create Document Description display:
  - Author
  - Change format/options
  - Project
- On the Get Options display:
  - Document name
  - Folder name
  - File name
  - Library name
  - Member name
  - Get option (Get to split display or get to document)
- On the Search/Replace display:
  - Kind of search
  - Find upper/lower case
  - Kind of replace
  - Replace upper/lower case
- On the Spell Options display:
  - Display aid boxes when locating errors
  - Dictionary for adding words
  - Library
  - Language of dictionary
  - File for adding words
  - Library
  - Member
- On the User Dictionary display:
  - User dictionary for adding words
  - Library

- Include user dictionary for spell functions
- On the Select Assistance Level display:
  - Assistance Level
- On the Change Editing Options display:
  - Display Required Carrier Returns
  - Roll value (half or full screen)
  - Number of lines for split screen display
  - Display function key template
  - Adjust text when editing
  - Shift text when press Tab key
  - Find character on display only or throughout document
  - Use metric measurements
  - Display size
  - Highlight text to be deleted
  - Display mail reference (yes/no)
  - Auto window and roll (yes/no)
- On the Select Print/View Options display:
  - Print/view option
- On the various Instruction displays:
  - Begin overstrike: overstrike character
  - Begin overstrike: overstrike blanks
  - Change font: font ID
  - Date: date format
  - Date: month format
  - Date: separator characters
  - Time: time format
  - Time: separator character
  - Time: morning and afternoon suffixes
  - Summary math: calculation
  - Summary math: decimal positions
  - Numbered list: positions to reserve
  - Numbered list: alignment
  - Numbered list: trailing character
  - Include: document
  - Include: folder
  - All character editing options
  - Index entry: major entry
  - Index entry: special character (yes/no)
  - Index entry: print outline heading level (yes/no)
  - Data field: folder/library name
  - Data field: data field type (letters/lists)
  - Data field: query/library name/member name
  - Data field: file/library name/member name
- On the Select Adjust/Paginate Option display:
  - Adjust/paginate option
- On the Work with Documents to be Printed display:
  - List format
- On the Get Graphic display:



Document name  
Graphic name  
Folder name  
Graphic data file name  
Library name  
Member name

- On the Define Multiple Text Columns display:

Number of columns  
Number of spaces between columns  
Type of columns

- On the Change Form Options display:

Confirm refresh of form  
Display status lines  
Display function keys  
Roll up/roll down  
Size of display

- On the Print Form display:

Display options  
Refresh form

- On the Options pull-down menu (when using the basic assistance level):

Show full or short menus



---

## **Appendix C. Control Characters That Define Word, Line, and Paragraph Boundaries**

Control characters define the beginning and ending of words, lines, and paragraphs. Words, lines, and paragraphs are sometimes adjusted incorrectly because of a control character that is incorrect or one that has been inserted in the wrong place.

You may need to know which control characters to look for when you have words, lines, or paragraphs that are not adjusted properly. For example, if you have typed a line and then added another line, the first line may look like a paragraph, and the next line may be in the next paragraph. This means you have an incorrect control character placed between your lines.

Use the following lists of control characters to find out what has caused the word, line, or paragraph to be adjusted incorrectly.

---

### **Control Characters That Define Words**

- Space
- Tab
- Required Tab
- Carrier Return
- Required Carrier Return
- Page End
- Start New Page instruction
- Comment instruction
- Help Tag instruction
- Running Heading instructions
- Skip instruction
- Zero Index Carrier Return instruction
- Table of Contents instruction
- Index instruction
- Graphic instruction
- Table instruction

---

### **Control Characters That Define Lines**

- Carrier Return
- Page End
- Zero Index Carrier Return
- Required Carrier Return
- Start New Page instruction
- Skip instruction
- Skip to Line instruction
- Table of Contents instruction
- Index instruction
- Graphic instruction
- Table instruction
- Running Heading instructions

---

## Control Characters That Define Paragraphs

Carrier Return, Carrier Return  
Carrier Return, Tab  
Carrier Return, Required Tab  
Carrier Return, Space  
Carrier Return, Required Space  
Carrier Return, Required Backspace  
Carrier Return, Zero Index Carrier Return  
Carrier Return, Required Carrier Return  
Carrier Return, End of Document  
Required Carrier Return  
Start New Page instruction  
Line Format Change  
Page Format Change  
Text Column Format Change  
Skip instruction  
Skip to Line instruction  
Table of Contents instruction  
Index instruction  
Graphic instruction  
Table instruction  
Running Headings instructions  
Page End, Carrier Return  
Page End, Tab  
Page End, Required Tab  
Page End, Space  
Page End, Required Space  
Page End, Required Backspace  
Page End, Zero Index Carrier Return  
Page End, Required Carrier Return  
End of Document

---

## Appendix D. Using the Parameters in a Printer File

A printer file contains the values that determine how your document is printed on a particular printer. If you do not want to use the preset values in the system printer file, you can create one. You can also override the preset values in the system printer file. If you need more information about how printer files are used, see the manual *Guide to Programming for Printing*.

---

### Creating a Printer File

To create a printer file:

1. Type the following on the command line: **CRTPRTF (file name)**
2. Press F4 (Prompt) and you are prompted for the parameters.
3. After you have finished creating the printer file, you can specify this name on Page 1 of the Print Options display for the *Printer file* prompt.

---

### Overriding the Values in the Printer File

If you do not want to use the preset values in your printer file, you can override the values in the printer file.

One of the things you might want to change is the character set or graphic character set code page (CHRID). You can use a different CHRID than specified in the printer file by doing one of the following:

- Specify the CHRID for the *Graphic character set* prompt on page 4 of the Print Options display. For example, if you are using a 5219 printer and you want to use a different print wheel, you could specify the character set for just that print wheel. Your document will be printed using that print wheel.

You may want to change the CHRID if you wanted to print a document in a language that is not fully supported by OfficeVision/400. For example, if you want to print your document using code page 905 (Turkey), you would specify the character set and the code page (965-905).

- Override the printer file by using the Override Printer File (OVRPRTF) command.

To change the CHRID value in the printer file using the Print Options display:

1. Go to page 4 of the Print Options display.
2. Specify a character set or graphic character set for the *Graphic character set* prompt. The document is printed using the character set or graphic character set you specify.

For example, if you specify 101-037 for the *Graphic character set* prompt, the document is printed using the character set or graphic character set 101 and code page 037.

If you do *not* specify a character set or graphic character set for the *Graphic character set* prompt, the character set or graphic character set specified in the printer file is used. See the chart in this chapter to find out what values are specified in your printer file.

To override the values in the printer file:

1. Type the following on the command line: **OVRPRTF (file name)**
2. Press F4 (Prompt) and you are prompted for the parameters.

---

## How Parameters in the Printer File Relate to the Word Processing Function

The following chart describes how the parameters in the printer file specified on the Print Options display relate to the values you specify in your document. For example, the parameter **ALIGN** aligns forms and the value that is used is taken from the system printer file.

| Parameter | Description                          | Value Used                                                                                                                                                               |
|-----------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALIGN     | Align forms                          | Printer file.                                                                                                                                                            |
| CHLVAL    | Channel numbers                      | Printer file.                                                                                                                                                            |
| CHRID     | Character set + code page            | Character set ID from the Print Options display. However, if this prompt is left blank on the Print Options display, the value in the printer file is used. <sup>1</sup> |
| COPIES    | Number of copies                     | Print options. <sup>1</sup>                                                                                                                                              |
| CPI       | Characters per inch                  | Value from document format.                                                                                                                                              |
| CTLCHAR   | Allow control characters             | Printer file.                                                                                                                                                            |
| DEV       | Name of printer                      | Value on the Print Options display. <sup>1</sup>                                                                                                                         |
| DEVTYPE   | Printer device type                  | Printer file. <sup>2</sup>                                                                                                                                               |
| DRAWER    | Paper drawer                         | Paper source from document format.                                                                                                                                       |
| DUPLEX    | Print on both sides                  | Print options. <sup>1</sup>                                                                                                                                              |
| FILESEP   | Separator pages                      | Printer file (this is not the same as the separator pages specified on the Print Options display).                                                                       |
| FOLD      | Handle lines greater than form width | Printer file (this causes page endings to be different).                                                                                                                 |
| FONT      | Font                                 | Font from document format.                                                                                                                                               |
| FORMFEED  | Form feed                            | Paper source from document format.                                                                                                                                       |
| PAGESIZE  | Size of forms                        | Paper length and paper width in the document format.                                                                                                                     |
| FORMTYPE  | Form type                            | Print options. <sup>1</sup>                                                                                                                                              |
| HOLD      | Hold output                          | Delay printing to group output on the Print Options display. <sup>1</sup>                                                                                                |
| JUSTIFY   | Line justification                   | Value from document format.                                                                                                                                              |
| LPI       | Lines per inch                       | Value from document format.                                                                                                                                              |
| LVLCHK    | Check level IDs                      | Printer file.                                                                                                                                                            |
| MAXRCDS   | Maximum records in the file          | Printer file.                                                                                                                                                            |
| OUTPTY    | Output priority                      | Printer file.                                                                                                                                                            |
| OUTQ      | Output queue                         | Print options. <sup>1</sup>                                                                                                                                              |
| OVRFW     | Overflow line                        | Last typing line in document format.                                                                                                                                     |
| PAGERANGE | Beginning and ending pages to print  | Print options. <sup>1</sup>                                                                                                                                              |

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| Parameter | Description                         | Value Used                             |
|-----------|-------------------------------------|----------------------------------------|
| PAGRTT    | Degree of rotation                  | Value for Rotate from document format. |
| PRTTXT    | Print text                          | Value for Footer from document format. |
| PRTQLTY   | Printer quality                     | Print options. <sup>1</sup>            |
| RPLUNPRT  | Replace unprintable characters      | Always print as blank.                 |
| SAVE      | Save print file                     | Printer file.                          |
| SCHEDULE  | When to print                       | Printer file.                          |
| SHARE     | Share data path                     | Printer file.                          |
| SPOOL     | Spool or no spool                   | Printer file. <sup>3</sup>             |
| TEXT      | Description of file                 | Printer file.                          |
| USRDTA    | User data                           | Printer file.                          |
| WAITFILE  | How long to wait for file resources | Printer file.                          |

<sup>1</sup> If the Print Document (PRTDOC) command specifies to use the options from a printer file (OPTIONS (\*PRTFILE)), this value is taken from the printer file instead of the document print options.

<sup>2</sup> The printer device type (DEVTYPE) parameter value in the printer file should always be \*SCS. Specifying a device type other than \*SCS produces a document spooled file that cannot be printed.

<sup>3</sup> You should not specify \*N0 for the SPOOL parameter to print OfficeVision/400 documents directly to an IPDS printer. Printing OfficeVision/400 documents directly to an IPDS printer may result in unexpected output.





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## Appendix E. Differences between OfficeVision/400 Word Processing and DisplayWrite/36

This appendix describes the differences between the word processing functions of OfficeVision/400 and DisplayWrite/36. The descriptions in this appendix are limited to the differences that may cause you some inconvenience if you do not know about them before working with OfficeVision/400. This appendix defines these differences as:

- Conceptual
- Operational
- Command

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### Conceptual Differences

The following list identifies the concepts that are different on the AS/400 system along with an explanation of the differences as they apply to the listed concept.

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Enrollment</b>     | On System/36, a DisplayWrite/36 user did not have to be enrolled to use DisplayWrite/36. On the AS/400 system, OfficeVision/400 word processing users must be enrolled in office before they can use the OfficeVision/400 word processing functions. For more information, see the <i>Planning For and Setting Up OfficeVision/400*</i> manual.                                                                                                                   |
| <b>Folder names</b>   | On System/36, folder names were 8 characters long. The user could press a command key to specify any subdirectories. On the AS/400 system, folders can be stored within folders, which are identified by a folder path. A folder path can be up to 63 characters long. The name of each individual folder specified in the folder path can be 1 to 12 characters long, including an optional extension. Each part of the folder path is separated by a slash (/). |
| <b>Folders</b>        | On System/36, folders were not contained in another unit of storage. On the AS/400 system, folders are stored in the document library. On System/36, documents had to be stored in a folder. On the AS/400 system, you can have documents that are not stored in folders.                                                                                                                                                                                         |
| <b>Print options</b>  | The Print Options displays on the AS/400 system support output queues and printer files. For more information, see the <i>Planning For and Setting Up OfficeVision/400*</i> manual.                                                                                                                                                                                                                                                                               |
| <b>Roll keys</b>      | On System/36, you specified the direction (up or down) of the roll keys using the ROLLKEYS procedure. On the AS/400 system, you can specify the direction of the roll keys in the user profile.                                                                                                                                                                                                                                                                   |
| <b>Subdirectories</b> | On System/36, you could create subdirectories within a folder to store your documents. On the AS/400 system, you can create folders within folders, which are similar to subdirectories.                                                                                                                                                                                                                                                                          |

**Virtual disks**

Virtual disks are not supported on the AS/400 system. You must convert your virtual disks to folders.

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## Operational Differences

The following list identifies the operations that are different on the AS/400 system, along with an explanation of the differences as they apply to the listed operation.

|                           |                                                                                                                                                                                                                                                                            |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Deleting documents</b> | On System/36, if you had authority to a folder, you could delete anything in that folder. On the AS/400 system, if you have authority to a folder, you can delete only the documents you own or have *ALL authority to in that folder.                                     |
| <b>Disk file output</b>   | When printing to a disk file, the output is slightly different on the AS/400 system. The <i>CL Reference</i> manual contains detailed information about printing to a disk file.                                                                                           |
| <b>Folder size</b>        | On System/36, you could specify the users who can create folders and the number of extents for a folder. On the AS/400 system, each user profile has a maximum storage limit, which can limit the size of documents and folders (and other objects) that a user can have.  |
| <b>Large print</b>        | On System/36, you used the Advanced Print Facility (APF) to print documents with large print to SCS printers and you used the graphics capabilities of IPDS to print to IPDS printers (called IPDS large print). On the AS/400 system, only IPDS large print is supported. |
| <b>Security</b>           | On System/36, you could set up security for a folder before you created it. On the AS/400 system, you must create the folder first.                                                                                                                                        |
| <b>Spell checking</b>     | On System/36, you could check the spelling in tables and footnotes at the same time you checked the spelling in the document. On the AS/400 system, you must check the spelling in tables and footnotes as you create or revise them.                                      |
| <b>TEXTDOC MERGE</b>      | If you used the TEXTDOC MERGE procedure to create Include instructions on System/36, you will need to change these Include instructions in the files on the AS/400 system since the syntax of the Include instruction is different on the AS/400 system.                   |
| <b>TEXTREL procedure</b>  | On System/36, you used the TEXTREL procedure to release output held at the job queue. On the AS/400 system, you use the Work with Documents to Be Printed display to work with the job queue.                                                                              |
| <b>6580 Displaywriter</b> | On System/36, you could use the 6580 Displaywriter as a printer for DisplayWrite/36 documents. On the AS/400 system, you cannot print OfficeVision/400 documents on the 6580 Displaywriter.                                                                                |

## 6670 Printer

On System/36, you could use the 6670 Printer for DisplayWrite/36 documents. On the AS/400 system, you cannot print OfficeVision/400 documents on the 6670 Printer.

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## Command Differences

The following list shows the System/36 procedure and the equivalent AS/400 command (if there is one) used by the OfficeVision/400 word processing function.

| <b>System/36 Procedure</b> | <b>AS/400 Command</b>  |
|----------------------------|------------------------|
| ARCHIVE                    | SAVDLO                 |
| READINFO                   | DSPHLPDOC              |
| RESTFLDR                   | RSTDLO                 |
| RETRIEVE                   | RSTDLO                 |
| SAVEFLDR                   | SAVDLO                 |
| TEXT                       | STRWP                  |
| TEXTDOC                    | WRKDOC                 |
| TEXTDOC COPY               | CPYDOC                 |
| TEXTDOC CREATE             | CRTDOC                 |
| TEXTDOC DELETE             | DLTDLO                 |
| TEXTDOC MERGE              | MRGDOC                 |
| TEXTDOC PAGINATE           | PAGDOC                 |
| TEXTDOC PRINT              | PRTDOC                 |
| TEXTDOC RENAME             | RNMDLO                 |
| TEXTDOC REVISE             | EDTDOC                 |
| TEXTDOC SPELL              | CHKDOC                 |
| TEXTDOC VIEW               | DSPDOC                 |
| TEXTFLDR                   | WRKFLR                 |
| TEXTOBJ                    | WRKDOC DOC(*NONTXTDTA) |
| TEXTPROF                   | WRKTXTPRF              |
| TEXTPRTQ                   | WRKDOCPTQ              |
| TEXTREL                    | Not Supported          |



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## Appendix F. Differences between OfficeVision/400 Word Processing and System/38 Text Management

This appendix describes the differences between the word processing function of OfficeVision/400 and System/38 text management. The descriptions in this appendix are limited to the differences that may cause you some inconvenience if you do not know about them before working with OfficeVision/400. This appendix defines these differences as:

- Conceptual
- Operational
- Command

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### Conceptual Differences

The following list identifies the concepts that are different on the AS/400 system, along with an explanation of the differences as they apply to the listed concept.

|                     |                                                                                                                                                                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Folders</b>      | On System/38, all documents were stored in the document library or in database files for the text editor. On the AS/400 system, all documents are still stored in the document library, but you can now use folders to manage and organize the documents. |
| <b>Printer used</b> | On System/38, you specified the type of printer (such as *5219). On the AS/400 system, you specify the actual device name (such as P2).                                                                                                                   |

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### Operational Differences

The following list identifies the operations that are different on the AS/400 system along with an explanation of the differences as they apply to the listed operation.

|                               |                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Blank line required</b>    | OfficeVision/400 has no equivalent to the <i>Blank line required</i> prompt in System/38 text management. The blank line is already within the existing text (as a Required Carrier Return) so the document prints correctly. When updating an AS/400 document, any blank lines you want must be inserted manually. |
| <b>Dictionary search list</b> | System/38 text management supported a list of nine dictionaries, that you could search. OfficeVision/400 supports a maximum of six dictionaries for a dictionary search list. The last three dictionaries in the dictionary search list cannot be added to the AS/400 document's dictionary search list.            |
| <b>Headers and footers</b>    | In headers and footers, OfficeVision/400 does not support data/text merge, the Field Name instruction, the Numbered List instruction, and the Skip instruction.                                                                                                                                                     |
| <b>Headings</b>               | In Office/38, you could display headings only. In OfficeVision/400, heading numbers can be displayed or not displayed in text, but the heading numbers are always displayed in the table of contents.                                                                                                               |

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Indentation</b>       | OfficeVision/400 does not support negative indentation. The existing text should print correctly because the correct number of spaces exist in the System/38 document. Any new text added to this document will have to be spaced correctly. A Required Tab should be used to define a temporary left margin until the end of the paragraph, or a tab can be used to indent the first line of the paragraph.                                                                                                                                                                                                                                                      |
| <b>Line ends</b>         | <p>In OfficeVision/400, all lines except the last line within a paragraph end with a Carrier Return or a syllable hyphen if hyphenation is active. The last line of a paragraph ends with a Required Carrier Return. A Carrier Return allows text to be readjusted between lines. A Required Carrier Return does not allow text on the following line to be added to the end of the line.</p> <p>Unadjusted lines end with a Required Carrier Return unless a Skip text instruction (with skip value 0) follows. Lines followed by a Skip text instruction (with skip value 0) end with a Zero Index Carrier Return text instruction.</p>                         |
| <b>Line numbering</b>    | In Office/38, line numbering used the xx.yyyy format (where xx is the page number and yyyy is the line number). In the OfficeVision/400 word processing function, line numbering uses the yyyy format.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Margins</b>           | System/38 text management allowed text in the right margin. OfficeVision/400 does not allow text to exist in the right margin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Pages</b>             | <p>System/38 text management documents were one logical page of up to 999,999 lines. The maximum number of lines on any page of a OfficeVision/400 document is 9,999. The OfficeVision/400 document is divided into pages, and the number of lines per page is determined by the values you specify in the <i>First print line</i>, <i>Last print line</i>, and <i>Line spacing</i> prompts.</p> <p>The OfficeVision/400 print options are set to request pagination of the document at print time, which should adjust many of the page break differences between the printed version of the System/38 document and the revisable OfficeVision/400 document.</p> |
| <b>Paragraph formats</b> | <p>System/38 paragraph formats are converted into OfficeVision/400 formats. Only those formats that are actually used within a given document remain once the document is paginated on the OfficeVision/400 system.</p> <p>The OfficeVision/400 concept of changing formats does not allow the user to select a format with a number, which is the way you selected formats on the System/38. Instead, you simply request to change formats. The current format is copied and you are allowed to change any information you want. These changes create a new format, which becomes the active format.</p>                                                         |

OfficeVision/400 has two special formats: the document format and the alternate format. When System/38 text management documents are converted to OfficeVision/400 documents, the document format is created and used for formatting unadjusted text lines. The alternate format is created only if certain things need to be changed on the second page of the document (like headers and/or footers that are printed on the first page only, a new paper drawer, or a new rotate value).

#### **Source documents**

Source documents in System/38 text management contain data to be merged into another document. All System/38 text management documents are treated as source documents until one of the following conditions is not met:

- If there are comment commands, they must occur before any field name commands.
- If correct field name commands are found, then only field name commands can exist on subsequent lines as long as no text is found.
- If text is found, no other field name commands follow.
- No text definition lines (form fields) exist.

When one of the previous conditions is not met, the document is treated as a nonsource document.

System/38 text management supported multiple field-name lines with multiple field-name commands on each line. OfficeVision/400 supports only single-row or single-column fill-in documents. If the multiple line entry can fit on one line (with the margins changed to 1 and up to 255 if needed), then the multiple line entries are changed to single line entries. If the data is too long to fit on one 255-character line, single column entries are created with page ends between records.

#### **Tabs**

System/38 text management tabs inserted spaces into the document to align columns of data. OfficeVision/400 does not use spaces to align columns; it uses Tab controls. OfficeVision/400 supports all tab types that System/38 text management supported: center, right alignment, decimal alignment, comma alignment, colon alignment, and left alignment.

#### **Translation**

If the character set and code page of a System/38 text management document is not the same as the OfficeVision/400 code page, the system tries to translate from the document code page to the OfficeVision/400 code page. If the document cannot be translated, then it remains in its original code page.

|                           |                                                                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>User programs</b>      | System/38 stored documents in database source files, which allowed user programs to use the documents. On the AS/400 system, documents in folders cannot be used by user programs, although you can use the Retrieve Document (RTVDOC) command and the File Document (FILDOC) command to put documents into database files. |
| <b>6580 Displaywriter</b> | On System/38, you could use the 6580 Displaywriter as a printer for Office/38 documents. On the AS/400 system, you cannot print OfficeVision/400 documents on the 6580 Displaywriter.                                                                                                                                       |
| <b>6670 Printer</b>       | On System/38, you could use the 6670 Printer for Office/38 documents. On the AS/400 system, you cannot print OfficeVision/400 documents on the 6670 Printer.                                                                                                                                                                |

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## Command Differences

The OfficeVision/400 word processing function uses the Work with Documents (WRKDOC) command as equivalent to the System/38 Edit Text (EDTTXT) command.

The Edit a Document (EDTDOC) and Print a Document (PRTDOC) commands used with System/38 text management have the same command names on the AS/400 system, but these commands may have different functions and parameters. For more information on these commands, see the online information for each command.



## Appendix G. SAA Support for Type Styles

The following chart shows which type styles are supported by which printers and printer emulations.

To use the chart, you need to know the following:

- For the attributes column:
  - M = Monospace
  - P = Proportional
  - T = Typographic
  - b = Bold
  - i = Italic
  - s = Second strike
  - w = Double wide
- The point size column is blank for monospace and proportional fonts.
- The font width is expressed in 1440ths of an inch.
- The printers and printer emulations columns:
  - Contain an X if the type style is supported
  - Contain an alternate font identifier if the type style is not supported
    - Positive number if alternate font is same pitch
    - Negative number if alternate font is different pitch

**Note:** For printer emulation information, see Appendix A, "Printers and the Functions They Support."

| Type Style | Attributes | Point Size | Font Width | Font Name      | Printers and Printer Emulations |      |             |              |      |                 |
|------------|------------|------------|------------|----------------|---------------------------------|------|-------------|--------------|------|-----------------|
|            |            |            |            |                | 4224<br>4230                    | 4234 | 3812<br>SCS | 3812<br>IPDS | 5219 | 4028            |
| 2          | M          |            | 144        | Delegate       | 11                              | 11   | 11          | 11           | 11   | 11 <sup>1</sup> |
| 3          | M          |            | 144        | OCR-B          | X                               | X    | X           | X            | 11   | X               |
| 5          | M          |            | 144        | Rhetoric       | 11                              | 26   | X           | X            | X    | 11 <sup>1</sup> |
| 8          | M          |            | 144        | Symbol         | 11                              | 11   | 11          | 11           | 11   | 11              |
| 10         | M          |            | 144        | Cyrillic 22    | 11                              | 11   | 11          | 11           | 11   | 11              |
| 11         | M          |            | 144        | Courier        | X                               | X    | X           | X            | X    | X               |
| 12         | M          |            | 144        | Prestige       | 11                              | 26   | X           | X            | X    | X               |
| 13         | M          |            | 144        | Artisian       | 11                              | 11   | X           | X            | X    | 11              |
| 18         | Mi         |            | 144        | Courier Italic | 11                              | 26   | X           | X            | 11   | X               |
| 19         | M          |            | 144        | OCR-A          | X                               | X    | X           | X            | 11   | X               |
| 20         | M          |            | 144        | Pica           | 11                              | 26   | X           | X            | X    | 11              |
| 21         | M          |            | 144        | Katakana       | 11                              | 11   | 11          | 11           | 11   | 11              |
| 25         | M          |            | 144        | Presentor      | 11                              | 11   | 11          | 11           | 11   | 11              |
| 26         | M          |            | 144        | Matrix Gothic  | X                               | X    | X           | X            | X    | 11              |
| 30         | M          |            | 144        | Symbol         | 11                              | 11   | X           | X            | 11   | 11              |
| 31         | M          |            | 144        | Aviv           | 26                              | 26   | 26          | X            | 26   | 11              |
| 36         | M          |            | 144        | Letter Gothic  | 11                              | 11   | 11          | 11           | 11   | 11 <sup>1</sup> |
| 38         | Mb         |            | 144        | Orator Bold    | 11                              | 26   | X           | X            | 11   | 46              |

| Type Style | Attributes | Point Size | Font Width | Font Name            | Printers and Printer Emulations |      |             |              |      |                  |
|------------|------------|------------|------------|----------------------|---------------------------------|------|-------------|--------------|------|------------------|
|            |            |            |            |                      | 4224<br>4230                    | 4234 | 3812<br>SCS | 3812<br>IPDS | 5219 | 4028             |
| 39         | Mb         |            | 144        | Gothic Bold          | 26                              | 26   | X           | X            | 11   | 46               |
| 40         | M          |            | 144        | Gothic               | 26                              | 26   | X           | X            | 11   | 11               |
| 41         | M          |            | 144        | Roman Text           | 11                              | 26   | X           | X            | 11   | 11               |
| 42         | M          |            | 144        | Serif                | 11                              | 26   | X           | X            | 11   | 11               |
| 43         | Mi         |            | 144        | Serif Italic         | 11                              | 26   | X           | X            | 11   | 18               |
| 44         | M          |            | 144        | Katakana Gothic      | 11                              | 11   | X           | X            | 11   | 11               |
| 46         | Mb         |            | 144        | Courier Bold         | 11                              | 26   | X           | X            | 11   | X                |
| 49         | M          |            | 144        | Shalom               | 26                              | 26   | 26          | X            | 26   | 11               |
| 50         | Mb         |            | 144        | Shalom Bold          | 26                              | 26   | X           | X            | 26   | 46               |
| 51         | M          |            | 144        | Matrix Gothic        | 26                              | X    | X           | X            | 26   | 11               |
| 52         | M          |            | 144        | Courier              | 11                              | X    | X           | X            | 11   | 11               |
| 55         | Mb         |            | 144        | Aviv Bold            | 26                              | 26   | 26          | X            | 26   | 46               |
| 61         | M          |            | 144        | Nasseem              | 11                              | 11   | 11          | 11           | 11   | 11               |
| 62         | Mi         |            | 144        | Nasseem Italic       | 11                              | 11   | 11          | 11           | 11   | 18               |
| 63         | Mb         |            | 144        | Nasseem Bold         | 11                              | 11   | 11          | 11           | 11   | 46               |
| 64         | Mbi        |            | 144        | Nasseem Italic Bold  | 11                              | 11   | 11          | 11           | 11   | 46               |
| 66         | M          |            | 120        | Gothic               | 87                              | 87   | X           | X            | 87   | 85               |
| 68         | Mi         |            | 120        | Gothic Italic        | 87                              | 87   | X           | X            | 87   | 92               |
| 69         | Mb         |            | 120        | Gothic Bold          | 87                              | 87   | X           | X            | 87   | 111              |
| 70         | M          |            | 120        | Serif                | 87                              | 87   | X           | X            | 87   | 85               |
| 71         | Mi         |            | 120        | Serif Italic         | 87                              | 87   | X           | X            | 87   | 92               |
| 72         | Mb         |            | 120        | Serif Bold           | 87                              | 87   | X           | X            | 87   | 111              |
| 74         | M          |            | 120        | Matrix Gothic        | 87                              | X    | 87          | 87           | 87   | 85               |
| 75         | M          |            | 120        | Courier              | 85                              | X    | 85          | 85           | 85   | 85               |
| 76         | M          |            | 120        | APL                  | 85                              | 85   | 85          | 85           | 85   | X                |
| 78         | M          |            | 120        | Katakana             | 85                              | 85   | 85          | 85           | 85   | 85               |
| 80         | M          |            | 120        | Symbol               | 87                              | 87   | X           | X            | X    | 85               |
| 84         | M          |            | 120        | Script               | 87                              | 87   | X           | X            | X    | 85 <sup>1</sup>  |
| 85         | M          |            | 120        | Courier              | X                               | X    | X           | X            | X    | X                |
| 86         | M          |            | 120        | Prestige             | 87                              | 87   | X           | X            | X    | X                |
| 87         | M          |            | 120        | Letter Gothic        | X                               | X    | X           | X            | X    | 85 <sup>1</sup>  |
| 91         | Mi         |            | 120        | Light Italic         | 87                              | 87   | X           | X            | X    | 92 <sup>1</sup>  |
| 92         | Mi         |            | 120        | Courier Italic       | 85                              | 85   | 85          | 85           | 85   | X                |
| 95         | M          |            | 120        | Adjutant             | 85                              | 85   | 85          | 85           | 85   | 85 <sup>1</sup>  |
| 96         | M          |            | 120        | Olde World           | 85                              | 85   | 85          | 85           | 85   | 85 <sup>1</sup>  |
| 98         | M          |            | 120        | Shalom               | 87                              | 87   | 87          | X            | 87   | 85               |
| 99         | M          |            | 120        | Aviv                 | 87                              | 87   | 87          | X            | 87   | 85               |
| 101        | Mb         |            | 120        | Shalom Bold          | 87                              | 87   | 87          | X            | 87   | 111              |
| 102        | Mb         |            | 120        | Aviv Bold            | 87                              | 87   | 87          | X            | 87   | 111              |
| 103        | M          |            | 120        | Nasseem              | 85                              | 85   | 85          | 85           | 85   | 85               |
| 109        | Mi         |            | 120        | Letter Gothic Italic | 85                              | 85   | 85          | 85           | 85   | 92 <sup>1</sup>  |
| 110        | Mb         |            | 120        | Letter Gothic Bold   | 87                              | 87   | X           | X            | 87   | 111 <sup>1</sup> |

| Type Style | Attributes | Point Size | Font Width | Font Name               | Printers and Printer Emulations |      |             |              |      |                  |
|------------|------------|------------|------------|-------------------------|---------------------------------|------|-------------|--------------|------|------------------|
|            |            |            |            |                         | 4224<br>4230                    | 4234 | 3812<br>SCS | 3812<br>IPDS | 5219 | 4028             |
| 111        | Mb         |            | 120        | Prestige Bold           | 87                              | 87   | X           | X            | 86   | X                |
| 112        | Mi         |            | 120        | Prestige Italic         | 87                              | 87   | X           | X            | 86   | X                |
| 154        | P          |            | 120        | Essay                   | 85                              | X    | 160         | 160          | 160  | 164              |
| 155        | Pbi        |            | 120        | Boldface Italic         | 160                             | 160  | X           | X            | 160  | 159 <sup>1</sup> |
| 157        | P          |            | 120        | Title                   | 160                             | 160  | 160         | 160          | 160  | 164 <sup>1</sup> |
| 158        | P          |            | 120        | Modem                   | 160                             | 160  | X           | X            | X    | 164 <sup>1</sup> |
| 159        | Pb         |            | 120        | Boldface                | 160                             | 160  | X           | X            | X    | X                |
| 160        | P          |            | 120        | Essay                   | X                               | X    | X           | X            | X    | 164 <sup>1</sup> |
| 162        | Pi         |            | 120        | Essay Italic            | 160                             | 160  | X           | X            | X    | 164 <sup>1</sup> |
| 163        | Pb         |            | 120        | Essay Bold              | 160                             | 160  | X           | X            | 160  | 159              |
| 164        | P          |            | 120        | Prestige                | 160                             | 160  | 160         | 160          | 160  | X                |
| 167        | P          |            | 120        | Barak                   | 160                             | 160  | 160         | X            | 160  | 164              |
| 168        | Pb         |            | 120        | Barak Bold              | 160                             | 160  | 160         | X            | 160  | 159              |
| 173        | P          |            | 120        | Essay                   | 160                             | 160  | X           | X            | 160  | 164              |
| 174        | P          |            | 120        | Gothic                  | 160                             | 160  | 160         | 160          | 160  | 164              |
| 175        | P          |            | 120        | Document                | 160                             | 160  | X           | X            | 160  | 164              |
| 178        | P          |            | 80         | Barak                   | -400                            | -258 | -281        | X            | -222 | -281             |
| 179        | Pb         |            | 80         | Barak Bold              | -400                            | -258 | -281        | X            | -222 | -281             |
| 180        | P          |            | 96         | Barak                   | -222                            | -222 | -230        | X            | -222 | -223             |
| 181        | Pb         |            | 96         | Barak (8) Mixed Bold    | -222                            | -222 | -230        | X            | -222 | -223             |
| 182        | P          |            | 288        | Barak                   | -11                             | -11  | -244        | X            | -11  | -11              |
| 183        | Pb         |            | 288        | Barak Bold              | -11                             | -11  | -244        | X            | -11  | -46              |
| 186        | P          |            | 120        | Press Roman             | 160                             | 160  | 160         | 160          | 160  | 164 <sup>1</sup> |
| 187        | Pb         |            | 120        | Press Roman Bold        | 160                             | 160  | 160         | 160          | 160  | 159 <sup>1</sup> |
| 188        | Pi         |            | 120        | Press Roman Italic      | 160                             | 160  | 160         | 160          | 160  | 164 <sup>1</sup> |
| 189        | Pbi        |            | 120        | Press Roman Italic Bold | 160                             | 160  | 160         | 160          | 160  | 159 <sup>1</sup> |
| 190        | P          |            | 120        | Foundry                 | 160                             | 160  | 160         | 160          | 160  | 164 <sup>1</sup> |
| 191        | Pb         |            | 120        | Foundry Bold            | 160                             | 160  | 160         | 160          | 160  | 159 <sup>1</sup> |
| 194        | Pi         |            | 120        | Foundry Italic          | 160                             | 160  | 160         | 160          | 160  | 164 <sup>1</sup> |
| 195        | Pbi        |            | 120        | Foundry Italic Bold     | 160                             | 160  | 160         | 160          | 160  | 159 <sup>1</sup> |
| 204        | M          |            | 108        | Matrix Gothic           | -222                            | X    | X           | X            | -222 | -223             |
| 205        | M          |            | 108        | Matrix Gothic           | -222                            | X    | 204         | 204          | -222 | -223             |
| 211        | M          |            | 96         | Shalom                  | 222                             | 222  | 230         | X            | 222  | 223              |
| 212        | Mb         |            | 96         | Shalom Bold             | 222                             | 222  | 230         | X            | 222  | 223              |
| 221        | M          |            | 96         | Prestige                | 222                             | 222  | X           | X            | X    | X                |
| 222        | M          |            | 96         | Gothic                  | X                               | X    | 230         | 230          | X    | 223 <sup>1</sup> |
| 223        | M          |            | 96         | Courier                 | X                               | X    | X           | X            | X    | X                |
| 225        | M          |            | 96         | Symbol                  | 222                             | 222  | X           | X            | X    | 223              |
| 226        | M          |            | 96         | Shalom                  | 222                             | 222  | 230         | X            | 222  | 223              |

| Type Style | Attributes | Point Size | Font Width | Font Name                | Printers and Printer Emulations |      |             |              |      |                   |
|------------|------------|------------|------------|--------------------------|---------------------------------|------|-------------|--------------|------|-------------------|
|            |            |            |            |                          | 4224<br>4230                    | 4234 | 3812<br>SCS | 3812<br>IPDS | 5219 | 4028              |
| 229        | M          |            | 96         | Serif                    | 222                             | 222  | X           | X            | 222  | 223               |
| 230        | M          |            | 96         | Gothic                   | 222                             | 222  | X           | X            | 222  | 223               |
| 232        | M          |            | 96         | Matrix Gothic            | 222                             | X    | 230         | 230          | 222  | 223               |
| 233        | M          |            | 96         | Matrix Courier           | 223                             | X    | 230         | 230          | 223  | 223               |
| 234        | Mb         |            | 96         | Shalom Bold              | 222                             | 222  | 230         | X            | 222  | 223               |
| 244        | Mw         |            | 288        | Courier Double Wide      | -11                             | -26  | X           | X            | -11  | -11               |
| 245        | Mwb        |            | 288        | Courier Bold Double Wide | -11                             | -26  | X           | X            | -11  | -46               |
| 247        | Mb         |            | 84         | Shalom Bold              | -400                            | -258 | 252         | X            | -222 | 254               |
| 248        | M          |            | 84         | Shalom                   | -400                            | -258 | 252         | X            | -222 | 254               |
| 249        | M          |            | 84         | Katakana                 | -400                            | -258 | 252         | 252          | -222 | 254               |
| 252        | M          |            | 84         | Courier                  | -400                            | -258 | X           | X            | -222 | 254               |
| 253        | Mb         |            | 84         | Courier Bold             | -400                            | -258 | X           | X            | -222 | 254               |
| 254        | M          |            | 84         | Courier                  | -400                            | -258 | X           | X            | -222 | X                 |
| 255        | M          |            | 84         | Matrix Gothic            | -400                            | -258 | 252         | 252          | -222 | 254               |
| 256        | M          |            | 84         | Prestige                 | -400                            | -258 | 252         | 252          | -222 | X                 |
| 258        | M          |            | 80         | Matrix Gothic            | -400                            | X    | -281        | -281         | -222 | -281              |
| 259        | M          |            | 80         | Matrix Gothic            | -400                            | X    | -281        | -281         | -222 | -281              |
| 279        | M          |            | 84         | Nasseem                  | -400                            | -258 | 252         | 252          | -222 | 254               |
| 281        | M          |            | 72         | Gothic Text              | -400                            | -258 | X           | X            | -222 | X                 |
| 282        | M          |            | 72         | Aviv                     | -400                            | -258 | 281         | X            | -222 | 281               |
| 285        | M          |            | 58         | Letter Gothic            | -400                            | -258 | -290        | -290         | -222 | -281 <sup>1</sup> |
| 290        | M          |            | 53         | Gothic Text              | -400                            | -258 | X           | X            | -222 | -281              |
| 300        | M          |            | 86         | Gothic                   | 400                             | X    | -252        | -252         | -222 | -254              |
| 400        | M          |            | 86         | Gothic                   | X                               | X    | -252        | -252         | -222 | -254              |
| 434        | Mb         |            | 178        | Orator Bold              | -11                             | -11  | -11         | -11          | -11  | -46 <sup>1</sup>  |
| 435        | Mb         |            | 222        | Orator Bold              | -11                             | -11  | -11         | -11          | -11  | -46 <sup>1</sup>  |
| 751        | T          |            | 53         | Sonoran Serif            | -400                            | -258 | X           | X            | -222 | X                 |
| 752        | T          |            | 80         | Nasseem                  | -400                            | -258 | -281        | -281         | -222 | X                 |
| 753        | Tb         |            | 80         | Nasseem Bold             | -400                            | -258 | -281        | -281         | -222 | X                 |
| 754        | Tb         |            | 120        | Nasseem Bold             | -85                             | -85  | -85         | -85          | -85  | X                 |
| 755        | Tb         |            | 160        | Nasseem Bold             | -11                             | -11  | -11         | -11          | -11  | X                 |
| 756        | Ti         |            | 80         | Nasseem Italic           | -400                            | -258 | -281        | -281         | -222 | X                 |
| 757        | Tbi        |            | 80         | Nasseem Bold Italic      | -400                            | -258 | -281        | -281         | -222 | X                 |
| 758        | Tbi        |            | 120        | Nasseem Bold Italic      | -85                             | -85  | -85         | -85          | -85  | X                 |
| 759        | Tbi        |            | 160        | Nasseem Bold Italic      | -11                             | -11  | -11         | -11          | -11  | X                 |
| 760        | T          |            | 40         | Times Roman              | -400                            | -258 | -290        | -290         | -222 | X                 |
| 761        | Tb         |            | 80         | Times Roman Bold         | -400                            | -258 | -281        | -281         | -222 | X                 |
| 762        | Tb         |            | 93         | Times Roman Bold         | -222                            | -222 | -230        | -230         | -222 | X                 |

| Type Style | Attributes | Point Size | Font Width | Font Name               | Printers and Printer Emulations |      |             |              |      |                    |
|------------|------------|------------|------------|-------------------------|---------------------------------|------|-------------|--------------|------|--------------------|
|            |            |            |            |                         | 4224<br>4230                    | 4234 | 3812<br>SCS | 3812<br>IPDS | 5219 | 4028               |
| 763        | Ti         |            | 80         | Times Roman Italic      | -400                            | -258 | -281        | -281         | -222 | X                  |
| 764        | Tbi        |            | 67         | Times Roman Bold Italic | -400                            | -258 | -290        | -290         | -222 | X                  |
| 765        | Tbi        |            | 80         | Times Roman Bold Italic | -400                            | -258 | -281        | -281         | -222 | X                  |
| 1051       | T          |            | 67         | Sonoran Serif           | -400                            | -258 | X           | X            | -222 | X                  |
| 1053       | Tb         |            | 67         | Sonoran Serif Bold      | -400                            | -258 | X           | X            | -222 | X                  |
| 1056       | Ti         |            | 67         | Sonoran Serif Italic    | -400                            | -258 | X           | X            | -222 | X                  |
| 1351       | T          |            | 80         | Sonoran Serif           | -400                            | -258 | X           | X            | -222 | X                  |
| 1653       | Tb         |            | 107        | Sonoran Serif Bold      | -222                            | -222 | X           | X            | -222 | -254               |
| 1803       | Tb         |            | 120        | Sonoran Serif Bold      | -85                             | -85  | -85         | -85          | -85  | X                  |
| 2103       | Tb         |            | 160        | Sonoran Serif Bold      | -11                             | -11  | X           | X            | -11  | X                  |
| 4919       | T          | 6P         | 40         | Goudy                   | -400                            | -258 | -290        | -290         | -222 | -5687 <sup>1</sup> |
| 4919       | T          | 8P         | 53         | Goudy                   | -400                            | -258 | -751        | -751         | -222 | -5687 <sup>1</sup> |
| 4919       | T          | 10P        | 67         | Goudy                   | -400                            | -258 | -1051       | -1051        | -222 | -5687 <sup>1</sup> |
| 4919       | T          | 12P        | 80         | Goudy                   | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 4939       | Tb         | 10P        | 67         | Goudy Bold              | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 4939       | Tb         | 14P        | 93         | Goudy Bold              | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 4939       | Tb         | 18P        | 120        | Goudy Bold              | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 5047       | Ti         | 10P        | 67         | Goudy Italic            | -400                            | -258 | -1056       | -1056        | -222 | -5687 <sup>1</sup> |
| 5067       | Tbi        | 10P        | 67         | Goudy Bold Italic       | -400                            | -258 | -1053       | -1053        | -222 | X                  |
| 5687       | T          | 6P         | 40         | Times Roman             | -400                            | -258 | -290        | -290         | -222 | X                  |
| 5687       | T          | 8P         | 53         | Times Roman             | -400                            | -258 | -751        | -751         | -222 | X                  |
| 5687       | T          | 10P        | 67         | Times Roman             | -400                            | -258 | -1051       | -1051        | -222 | X                  |
| 5687       | T          | 12P        | 80         | Times Roman             | -400                            | -258 | -1351       | -1351        | -222 | X                  |
| 5707       | Tb         | 10P        | 67         | Times Roman Bold        | -400                            | -258 | -1053       | -1053        | -222 | X                  |
| 5707       | Tb         | 12P        | 80         | Times Roman Bold        | -400                            | -258 | -1351       | -1351        | -222 | X                  |
| 5707       | Tb         | 14P        | 93         | Times Roman Bold        | -222                            | -222 | -1351       | -1351        | -222 | X                  |
| 5707       | Tb         | 18P        | 120        | Times Roman Bold        | -85                             | -85  | -1653       | -1653        | -85  | X                  |
| 5707       | Tb         | 24P        | 120        | Times Roman Bold        | -11                             | -11  | -2103       | -2103        | -11  | X                  |
| 5815       | Ti         | 10P        | 67         | Times Roman Italic      | -400                            | -258 | -1056       | -1056        | -222 | X                  |
| 5815       | Ti         | 12P        | 80         | Times Roman Italic      | -400                            | -258 | -1351       | -1351        | -222 | X                  |
| 5835       | Tbi        | 10P        | 67         | Times Roman Italic Bold | -400                            | -258 | -1053       | -1053        | -222 | X                  |

| Type Style | Attributes | Point Size | Font Width | Font Name                  | Printers and Printer Emulations |      |             |              |      |                    |
|------------|------------|------------|------------|----------------------------|---------------------------------|------|-------------|--------------|------|--------------------|
|            |            |            |            |                            | 4224<br>4230                    | 4234 | 3812<br>SCS | 3812<br>IPDS | 5219 | 4028               |
| 5835       | Tbi        | 12P        | 80         | Times Roman<br>Italic Bold | -400                            | -258 | -1351       | -1351        | -222 | X                  |
| 5943       | T          | 12P        | 80         | University                 | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 5943       | T          | 14P        | 93         | University                 | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 5943       | T          | 18P        | 120        | University                 | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 6199       | T          | 6P         | 40         | Palatino                   | -400                            | -258 | -290        | -290         | -222 | -5687 <sup>1</sup> |
| 6199       | T          | 8P         | 53         | Palatino                   | -400                            | -258 | -751        | -751         | -222 | -5687 <sup>1</sup> |
| 6199       | T          | 10P        | 67         | Palatino                   | -400                            | -258 | -1051       | -1051        | -222 | -5687 <sup>1</sup> |
| 6199       | T          | 12P        | 80         | Palatino                   | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 6219       | Tb         | 10P        | 67         | Palatino Bold              | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 6219       | Tb         | 14P        | 93         | Palatino Bold              | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 6219       | Tb         | 18P        | 120        | Palatino Bold              | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 6327       | Ti         | 10P        | 67         | Palatino Italic            | -400                            | -258 | -1056       | -1056        | -222 | -5687 <sup>1</sup> |
| 6347       | Tbi        | 10P        | 67         | Palatino Italic<br>Bold    | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 8503       | T          | 6P         | 40         | Baskerville                | -400                            | -258 | -290        | -290         | -222 | -5687 <sup>1</sup> |
| 8503       | T          | 8P         | 53         | Baskerville                | -400                            | -258 | -751        | -751         | -222 | -5687 <sup>1</sup> |
| 8503       | T          | 10P        | 67         | Baskerville                | -400                            | -258 | -1051       | -1051        | -222 | -5687 <sup>1</sup> |
| 8503       | T          | 12P        | 80         | Baskerville                | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 8523       | Tb         | 10P        | 67         | Baskerville Bold           | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 8523       | Tb         | 14P        | 93         | Baskerville Bold           | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 8523       | Tb         | 18P        | 120        | Baskerville Bold           | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 8631       | Ti         | 10P        | 67         | Baskerville Italic         | -400                            | -258 | -1056       | -1056        | -222 | -5687 <sup>1</sup> |
| 8651       | Tbi        | 10P        | 67         | Baskerville Italic<br>Bold | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 8759       | T          | 12P        | 80         | Nasseem                    | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 8779       | Tb         | 12P        | 80         | Nasseem Bold               | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 8779       | Tb         | 18P        | 120        | Nasseem Bold               | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 8779       | Tb         | 24P        | 160        | Nasseem Bold               | -11                             | -11  | -2103       | -2103        | -11  | -5707 <sup>1</sup> |
| 8887       | Ti         | 12P        | 80         | Nasseem Italic             | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 8907       | Tbi        | 12P        | 80         | Nasseem Italic<br>Bold     | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 8907       | Tbi        | 18P        | 120        | Nasseem Italic<br>Bold     | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 8907       | Tbi        | 24P        | 160        | Nasseem Italic<br>Bold     | -11                             | -11  | -2103       | -2103        | -11  | -5707 <sup>1</sup> |
| 12855      | T          | 8P         | 53         | Narkissim                  | -400                            | -258 | -751        | -751         | -222 | -5687 <sup>1</sup> |
| 12855      | T          | 10P        | 67         | Narkissim                  | -400                            | -258 | -1051       | -1051        | -222 | -5687 <sup>1</sup> |
| 12855      | T          | 18P        | 120        | Narkissim                  | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 12855      | T          | 24P        | 160        | Narkissim                  | -11                             | -11  | -2103       | -2103        | -11  | -5707 <sup>1</sup> |
| 12875      | Tb         | 8P         | 53         | Narkissim Bold             | -400                            | -258 | -751        | -751         | -222 | -5687 <sup>1</sup> |
| 12875      | Tb         | 10P        | 67         | Narkissim Bold             | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 12875      | Tb         | 12P        | 80         | Narkissim Bold             | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 16951      | T          | 6P         | 40         | Century<br>Schoolbook      | -400                            | -258 | -290        | -290         | -222 | -5687 <sup>1</sup> |

| Type Style | Attributes | Point Size | Font Width | Font Name                      | Printers and Printer Emulations |      |             |              |      |                    |
|------------|------------|------------|------------|--------------------------------|---------------------------------|------|-------------|--------------|------|--------------------|
|            |            |            |            |                                | 4224<br>4230                    | 4234 | 3812<br>SCS | 3812<br>IPDS | 5219 | 4028               |
| 16951      | T          | 8P         | 53         | Century Schoolbook             | -400                            | -258 | -751        | -751         | -222 | -5687 <sup>1</sup> |
| 16951      | T          | 10P        | 67         | Century Schoolbook             | -400                            | -258 | -1051       | -1051        | -222 | -5687 <sup>1</sup> |
| 16951      | T          | 12P        | 80         | Century Schoolbook             | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 16971      | Tb         | 10P        | 67         | Century Schoolbook Bold        | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 16971      | Tb         | 14P        | 93         | Century Schoolbook Bold        | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 16971      | Tb         | 18P        | 120        | Century Schoolbook Bold        | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 17079      | Ti         | 10P        | 67         | Century Schoolbook Italic      | -400                            | -258 | -1056       | -1056        | -222 | -5687 <sup>1</sup> |
| 17099      | Tbi        | 10P        | 67         | Century Schoolbook Bold Italic | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 33335      | T          | 6P         | 40         | Optima                         | -400                            | -258 | -290        | -290         | -222 | -5687 <sup>1</sup> |
| 33335      | T          | 8P         | 53         | Optima                         | -400                            | -258 | -751        | -751         | -222 | -5687 <sup>1</sup> |
| 33335      | T          | 10P        | 67         | Optima                         | -400                            | -258 | -1051       | -1051        | -222 | -5687 <sup>1</sup> |
| 33335      | T          | 12P        | 80         | Optima                         | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 33355      | Tb         | 10P        | 67         | Optima Bold                    | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 33355      | Tb         | 14P        | 93         | Optima Bold                    | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 33355      | Tb         | 18P        | 120        | Optima Bold                    | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 33463      | Ti         | 10P        | 67         | Optima Italic                  | -400                            | -258 | -1056       | -1056        | -222 | -5687 <sup>1</sup> |
| 33483      | Tbi        | 10P        | 67         | Optima Italic Bold             | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 33591      | T          | 6P         | 40         | Futura                         | -400                            | -258 | -290        | -290         | -222 | -5687 <sup>1</sup> |
| 33591      | T          | 8P         | 53         | Futura                         | -400                            | -258 | -751        | -751         | -222 | -5687 <sup>1</sup> |
| 33591      | T          | 10P        | 67         | Futura                         | -400                            | -258 | -1051       | -1051        | -222 | -5687 <sup>1</sup> |
| 33591      | T          | 12P        | 80         | Futura                         | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 33601      | Tb         | 10P        | 67         | Futura Bold                    | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 33601      | Tb         | 14P        | 93         | Futura Bold                    | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 33601      | Tb         | 18P        | 120        | Futura Bold                    | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 33719      | Ti         | 10P        | 67         | Futura Italic                  | -400                            | -258 | -1056       | -1056        | -222 | -5687 <sup>1</sup> |
| 33729      | Tbi        | 10P        | 67         | Futura Italic Bold             | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 34103      | T          | 6P         | 40         | Helvetica                      | -400                            | -258 | -290        | -290         | -222 | -5687 <sup>1</sup> |
| 34103      | T          | 8P         | 53         | Helvetica                      | -400                            | -258 | -751        | -751         | -222 | -5687 <sup>1</sup> |
| 34103      | T          | 10P        | 67         | Helvetica                      | -400                            | -258 | -1051       | -1051        | -222 | -5687 <sup>1</sup> |
| 34103      | T          | 12P        | 80         | Helvetica                      | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 34123      | Tb         | 10P        | 67         | Helvetica Bold                 | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 34123      | Tb         | 14P        | 93         | Helvetica Bold                 | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 34123      | Tb         | 18P        | 120        | Helvetica Bold                 | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 34231      | Ti         | 10P        | 67         | Helvetica Italic               | -400                            | -258 | -1056       | -1056        | -222 | -5687 <sup>1</sup> |
| 34251      | Tbi        | 10P        | 67         | Helvetica Italic Bold          | -400                            | -258 | -1053       | -1053        | -222 | -5687 <sup>1</sup> |
| 37431      | T          | 12P        | 80         | Old English                    | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |

| Type<br>Style                                                                                                                                                                                                                                                                                                                                         | Attri-<br>butes | Point<br>Size | Font<br>Width | Font Name               | Printers and Printer Emulations |      |             |              |      |                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|---------------|-------------------------|---------------------------------|------|-------------|--------------|------|--------------------|
|                                                                                                                                                                                                                                                                                                                                                       |                 |               |               |                         | 4224<br>4230                    | 4234 | 3812<br>SCS | 3812<br>IPDS | 5219 | 4028               |
| 37431                                                                                                                                                                                                                                                                                                                                                 | T               | 14P           | 93            | Old English             | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 37431                                                                                                                                                                                                                                                                                                                                                 | T               | 18P           | 120           | Old English             | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| 41783                                                                                                                                                                                                                                                                                                                                                 | T               | 12P           | 80            | Coronet Cursive         | -400                            | -258 | -1351       | -1351        | -222 | -5687 <sup>1</sup> |
| 41803                                                                                                                                                                                                                                                                                                                                                 | Tb              | 14P           | 93            | Coronet Cursive<br>Bold | -222                            | -222 | -1351       | -1351        | -222 | -5707 <sup>1</sup> |
| 41803                                                                                                                                                                                                                                                                                                                                                 | Tb              | 18P           | 120           | Coronet Cursive<br>Bold | -85                             | -85  | -1653       | -1653        | -85  | -5707 <sup>1</sup> |
| <sup>1</sup> The 4028 Printer performs the font substitution as shown unless a font card has been installed that contains that FGID.<br>For example, if a font card with an FGID of 2 is installed, the AS/400 system sends the FGID of 2 to the printer.<br>However, if the font card is not installed, the AS/400 system substitutes an FGID of 11. |                 |               |               |                         |                                 |      |             |              |      |                    |



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## Appendix H. OfficeVision/400 Word Processing Function with a 3477 Display Station

This appendix describes the differences a user sees when using the OfficeVision/400 word processing function with a 3477 display station. The 3477 display station has some capabilities and features to make the word processing function easier to use and to make the document text on the Edit display look similar to the printed output.

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### Text Attributes

Certain text control characters, called **text attributes**, do not take a space on the Edit display when used with a 3477 display station. These text attributes are hidden and include:

- Half index up
- Half index down
- Word underscore
- Begin underline
- Begin bold
- End active attribute
- Spell mark begin/end

The effect of these text attributes can be seen on the Edit display of the 3477 display station. The effect of half index up (superscript) and half index down (subscript) can be seen only when numeric data is on the display. All characters following the half index up or half index down text attributes print in a half up or down position.

If an entire word affected by a word underscore is not visible on the display, the word is not underscored on the display but is underscored when printed.

---

### Displaying Text Control Characters

You can display text control characters on the Edit display. The location of the Display Text Codes key is one of the following:

- On the 122-typewriter keyboard, the Display Text Codes key is the blank key to the right of the Dup key.
- On the IBM-Enhanced keyboard, press the Alt and Home keys for the Display Text Codes key.

For information about identifying type of keyboards, see *OfficeVision/400\* Common Tasks*.

On the 3477 display station, the Display Text Codes key shows text controls in these ways:

- The default is to show no text controls. The text on the display is similar to a printed copy of the text. A text control can be seen on the display only when the cursor is on it.

- Pressing the Display Text Codes key once shows all the text controls except the hidden ones listed in "Text Attributes." You can see line ending controls such as carrier returns, required carrier returns, page ends, tabs, and stop codes.
- Pressing the Display Text Codes key a second time shows the half index up, half index down, and word underscore text control characters.
- Pressing the Display Text Codes key a third time shows the begin underline, begin bold, end active attribute, and spell mark begin/end text control characters.
- Pressing the Display Text Codes key a fourth time returns the Edit display to the original state, which is to show no text controls.

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## Using Hidden Text Attributes

When a hidden text attribute from the list in "Text Attributes" on page H-1 is typed in a document, the cursor does not move a space to the right. Also, the text attribute does not take a space on the Edit display.

A hidden text attribute is always located in front of some visible text character (including a space) or control that is not hidden. To put your cursor on a hidden attribute, you must move the cursor to the left of this visible character. You can do this by pressing the Left Arrow key when the cursor is on the visible character or text control that follows the hidden attribute. Your cursor does not move, but the display attribute is shown at that display position.

The begin underline, begin bold, end active attribute, or spell mark begin/end text attribute, along with a visible text character or text control, can occupy the same location on the display. Regardless of the order typed, the half index up, half index down, and word underscore text attributes always precede the other attributes for the preceding list. To get two text attributes and a text character in one location, type one of the first three attributes and one of the last four attributes from the preceding list and a text character. The cursor does not move until the text character is typed.

The begin underline and begin bold attributes can be combined into a single hidden text attribute by entering them both at the same location on the Edit display. Once these attributes are combined, they cannot be separated.

It is not possible for two attributes to occupy display locations next to each other without a visible text character or text control between them. For example, a user wanting to enter a text instruction that should not be recognized by the word processing function (for example, .date) is able to do so on other display stations by typing a period, half index up, half index down, and the instruction text. This method cannot be used on the 3477 display station because no visible text character is typed between the half index up and half index down characters. Another method to use on the 3477 is to type a period, an end active attribute (Alt/Cmd J), and the text of the instruction. If some text attribute is active on the line where you want to type this instruction, use that same attribute instead of the end active attribute.

A copy or move operation that starts or ends on an attribute from the preceding list affects that attribute. Since any of the first three attributes from the preceding list

always precedes the rest of the attributes on the list, a copy or move operation that starts on one of the last four attributes on the list does not affect any of the first three attributes on the list.

If you want to delete a hidden attribute using the Backspace key, the cursor must be on the visible character that follows the hidden attribute. When you press the Backspace key, the cursor does not move and the hidden attribute is deleted.

If two hidden text attributes exist at the same location and you want to backspace to delete any of the first three attributes in the preceding list, the cursor must be on one of the last four attributes shown in the list when the Backspace key is pressed. This allows one of the first three attributes to be deleted while one of the last four attributes remains.

You can also delete a hidden attribute using the Delete key. To delete a hidden attribute, the cursor must be on the attribute. You can delete just an attribute, just the character following the attribute, or both together. To delete both the attribute and the following character, start with the cursor on the hidden attribute. Press the Cursor Right key until the cursor is on the text character, and press the Enter key to complete the deletion.

---

## Other Functional Differences

The auto window and roll option is always active on a 3477 display station. Therefore, the auto window and roll option on the Edit Options display is not available to 3477 display station users.

Because auto window and roll is always active on the 3477 display station, cursor movement between the upper and lower Edit displays created by doing a Get operation (F14) to a split display, viewing final form (F19), and using a mail reference document must be done using the New Line key.



# Glossary

This glossary includes terms and definitions from:

- The *American National Dictionary for Information Systems*, ANSI X3.172-1990, copyright 1990 by the American National Standards Institute (ANSI). Copies may be purchased from the American National Standards Institute, 1430 Broadway, New York, New York 10018. Definitions are identified by the symbol (A) after the definition.
- The *Information Technology Vocabulary*, developed by Subcommittee 1, Joint Technical Committee 1, of the International Organization for Standardization and the International Electrotechnical Committee (ISO/IEC JTC1/SC1). Definitions of published parts of this vocabulary are identified by the symbol (I) after the definition; definitions taken from draft international standards, committee drafts, and working papers being developed by ISO/IEC JTC1/SC1 are identified by the symbol (T) after the definition, indicating that final agreement has not yet been reached among the participating National Bodies of SC1.

**American National Standard Code for Information Interchange (ASCII).** The code developed by the American National Standards Institute for information exchange among data processing systems, data communications systems, and associated equipment. The ASCII character set consists of 7-bit control characters and symbolic characters, plus one parity bit.

**ascending sequence.** The arrangement of data in order from the lowest value to the highest value, according to the rules for comparing data. Contrast with *descending sequence*.

**ASCII.** See *American National Standard Code for Information Interchange (ASCII)*.

**assumed value.** A value supplied by the system when no value is specified by the user.

**audit window.** In the SAA OfficeVision/400 program, a field in the status line that displays the name of a text instruction or character when the cursor is positioned on that instruction or character.

**automatic line adjustment.** The function of SAA OfficeVision/400 that fits lines between the defined left and right margins automatically when text is inserted or deleted or when the left, right, or temporary left margin is changed.

**BGU.** See *IBM AS/400 Business Graphics Utility Version 2 (BGU)*.

**block.** In the SAA OfficeVision/400 program, a sequential string of text (defined using the cursor-movement keys or line commands) that is processed as a unit.

**block copy.** In the SAA OfficeVision/400 program, to copy a sequential string of text (defined using the cursor-movement keys) from one part of a document to another part.

**block delete.** In the SAA OfficeVision/400 program, to delete a sequential string of text (defined using the cursor-movement keys) in a document.

**block move.** In the SAA OfficeVision/400 program, to move sequential strings of text (defined using the cursor-movement keys) from one part of a document to another part.

**Business Graphics Utility (BGU).** See *IBM AS/400 Business Graphics Utility Version 2 (BGU)*.

**carrier return.** In the SAA OfficeVision/400 program, a character that is automatically inserted at the end of a full line of text as you type information on the display. The character is not displayed in the audit window. See also *required carrier return*.

**center alignment.** In the SAA OfficeVision/400 program, a character (C) on the scale line of a display that marks the center of the document between the left and right margins.

**center alignment tab.** In the SAA OfficeVision/400 program, a tab that marks the midpoint where the text is to be centered.

**character codes.** In PC Support/400, the ASCII or EBCDIC values assigned to the symbols or functions that are used by a computer.

**character constant.** The actual character value (a symbol, quantity, or constant) in a source program that is itself data, instead of reference to a field that contains the data. Contrast with *numeric constant*.

**character field.** An area that is reserved for information that can contain any of the characters in the character set. Contrast with *numeric field*.

**character key.** A keyboard key that allows the user to type into the system the character shown on the key. See also *function key*.

**character set.** A group of characters used for a specific reason; for example, the set of characters the display station can display, the set of characters a

printer can print, or a particular set of graphic characters in a code page; for example, the 256 EBCDIC characters.

**character string.** A sequence of consecutive characters that are used as a value.

**character variable.** Character data whose value is assigned or changed while the program is running.

**characters per inch (cpi).** The number of characters printed horizontally within an inch across a page.

**code page.** A particular assignment of hexadecimal identifiers to graphic characters.

**code-page ID.** A 5-digit registered identifier used to specify a particular assignment of code points to graphic characters. The code-page ID is the second part of the QCHRID system value or the CHRID parameter value. See also *graphic character-set ID*.

**colon alignment tab.** In the SAA OfficeVision/400 program, a tab setting that aligns data on a colon.

| **column list merge.** In the SAA OfficeVision/400  
| program, a type of data/text merge that produces, in a  
| printed document, a column list containing items from  
| each data record selected. See also *direct merge* and  
| *multiple letters merge*.

**column mode.** In the SAA OfficeVision/400 program, a way of entering or changing text that allows you to move, copy, and delete blocks of tabular information (columns) without moving the entire line.

**comma alignment tab.** In the SAA OfficeVision/400 program, a tab setting that aligns data on a comma.

**command line.** The blank line on a display where commands, option numbers, or selections can be entered.

**conditional text.** In the SAA OfficeVision/400 program, text that is printed or not printed based on the result of the evaluation of a conditional expression.

**contextual search.** In the SAA OfficeVision/400 program, a type of search that allows the user to find smaller text strings that are part of larger search fields in filed documents or personal directories.

**continuation text.** In the SAA OfficeVision/400 program, text at the bottom of a page that shows that the current idea or topic is continued on another page.

**control character.** A character that starts, changes, or stops any operation that affects recording, processing, transmitting, or interpreting data (such as carriage return, font change, and end of transmission). Contrast with *graphic character*.

**cpi.** See *characters per inch (cpi)*.

**cursor.** A movable symbol, often a blinking or solid block of light, that tells the display station user where to type, or identifies a choice to select.

**data description specifications (DDS).** A description of the user's database or device files that is entered into the system in a fixed form. The description is then used to create files.

**data file.** A group of related data records organized in a specific order. A data file can be created by the specification of FILETYPE(\*DATA) on the create commands. Contrast with *source file*.

**data merge.** See *data/text merge*.

**data/text merge.** In SAA OfficeVision/400 and Query/400, the process of combining data from a file or another document (such as names and addresses) with the text of a document (such as a form letter).

**decimal position.** (1) The location of the decimal point in a series of numbers. (2) Numbers to the right of the decimal point. For example, 4.009 has three decimal positions.

**default.** A value that is automatically supplied or assumed by the system or program when no value is specified by the user.

**dependent query.** In SAA OfficeVision/400 and Query/400, a query with a dependent value that is used during record selection to refer to either a file or another query. It is used to coordinate the name; for example, in a form letter, with the list of records that belong to that name.

**dependent value.** In Query/400, a reference in a query to another query or to a file. A query with a dependent value is used only in a data field text instruction with column list specified in an SAA OfficeVision/400 document.

**descending sequence.** The arrangement of data in order from the highest value to the lowest value, according to the rules for comparing data. Contrast with *ascending sequence*.

| **direct merge.** In the SAA OfficeVision/400 program, a  
| type of data/text merge that allows the user to copy  
| data from a completed query report directly into a docu-  
| ment. See also *column list merge* and *multiple letters  
| merge*.

**display screen.** The part of the display device, which is similar to a television (TV) picture tube, used to display information entered or received at a display station.

**display station.** A device that includes a keyboard from which an operator can send information to the system and a display screen on which an operator can see the information sent to or the information received from the system.

**Displaywriter.** A programmable work station that uses the Electronic Document Distribution licensed program to communicate with other office products.

**document authority.** The definition of what actions a user can perform on a document.

**document class.** A user-defined character string, 1 through 16 characters long, that characterizes a document. It can be used to search for a filed document. For example, a document that is a memo could have a document class of MEMO; a document that is a report, REPORT.

**document description.** The 1- through 44-character description of a document, assigned by the user when creating or filing the document.

**document descriptor.** In the SAA OfficeVision/400 program, the internal description of the document supplied by the system, which contains the object name, user ID, and security associated with that user; and may also contain the document details, such as subject, author, document description, or other identifying information defined by the user for that document. See also *document description* and *document details*.

**document details.** Data that describes the characteristics of a document. For example, the details can include document type, subject, author, and date created.

**document format.** The selected arrangement of text for a specific document.

**document ID.** In the SAA OfficeVision/400 program, a text instruction that describes the document, such as document name and folder name.

**document library.** (1) The entire collection of documents and folders on a system. (2) The AS/400 system library named QDOC that contains all documents and folders.

**document list.** In the SAA OfficeVision/400 program, a list of filed documents that have common characteristics. The document list identifies those documents that satisfy a search pattern specified at the time the search is used. The document list is a document of type DOCLIST.

**document name.** The 1- through 12-character name for documents in folders, assigned by the user when creating the document. Contrast with *library-assigned document name* and *document object name*.

**document object name.** The 10-character name of a document assigned by the system when a user files the document. Contrast with *library-assigned document name* and *document name*.

**draft spacing.** In the SAA OfficeVision/400 program, a print option that doubles the line spacing value for printed documents.

**DW 3.** See *IBM DisplayWrite 3*.

**DW 4.** See *IBM DisplayWrite 4*.

**DW/36.** See *IBM DisplayWrite/36*.

**EBCDIC.** See *extended binary-coded decimal interchange code (EBCDIC)*.

**EBCDIC character.** Any one of the symbols included in the 8-bit EBCDIC set.

**edit.** (1) To interactively add, change, delete, or rearrange the data; for example, to insert or remove characters, sentences, or paragraphs, or to insert or remove characters in dates or decimal numbers. (2) To make changes to a document by adding, changing, or removing text. (3) To change a numeric field for output by suppressing zeros and inserting commas, periods, currency symbols, the sign status, or other constant information.

**emulation.** Imitation of one system or device by another.

**emulation program.** A control program that permits functions written for one system or device to be run on another system or device.

**error log.** A record of machine checks, device errors, and media statistics.

**even footer.** In the SAA OfficeVision/400 program, a footer that is printed only on even-numbered pages. Compare with *odd footer*.

**even header.** In the SAA OfficeVision/400 program, a header that is printed only on even-numbered pages. Compare with *odd header*.

**extended binary-coded decimal interchange code (EBCDIC).** A coded character set consisting of 8-bit coded characters.

**FFT.** See *final-form text (FFT)*.

**field.** A group of related bytes (such as name or amount) that is treated as a unit in a record.

**field definition.** In IDDU, information that describes the characteristics of data in a field, such as its name,

length, and data type. A field definition resides in a data dictionary. See also *file definition* and *record format definition*.

**file.** A generic term for the object type that refers to a database file, a device file, or a save file. The system-recognized identifier for the object type is \*FILE.

**file definition.** In IDDU, information that describes the contents and characteristics of a file. A file definition resides in a data dictionary. See also *field definition* and *record format definition*.

**file name.** The name used by a program to identify a file.

**filed document.** In the SAA OfficeVision/400 program, electronic mail or a document that is stored in the document library.

**fill pattern.** In AS/400 Business Graphics Utility, the shading used inside a bar and pie slice on a chart and below the lines of a chart.

**fill-in document.** In the SAA OfficeVision/400 program, a document that allows a user to merge data into documents without using Query/400.

**final-form text (FFT).** A data stream defined by document content architecture that is used to exchange resolved documents (which can be printed directly by most printers or displayed) between systems. Contrast with *revisable-form text (RFT)*.

**fixed currency symbol.** A currency symbol that appears in the far left position of an edited field. Contrast with *floating currency symbol*.

**floating currency symbol.** A currency symbol that appears immediately to the left of the far left position in an edited field. Contrast with *fixed currency symbol*.

**flush left.** In the SAA OfficeVision/400 program, text aligned at the left margin. See also *left-justify*.

**flush right.** In the SAA OfficeVision/400 program, text aligned at the right margin. See also *right-justify*.

**folder.** A directory for documents. A folder is used to group related documents and to find documents by name. The system-recognized identifier for the object type is \*FLR. Compare with *library*.

**folder path.** A folder name, followed by one or more additional folder names, where each preceding folder is found. For example, path A/B indicates that folder B is within folder A, and that folder A is not within any folder.

**font.** (1) An assortment of characters of a given size and type style. (2) A particular style of type (for

example, Bodini or Times Roman) that contains definitions of character sets, marker sets, and pattern sets.

**font ID.** A number that identifies the character style and size for certain printers.

**footer.** In the SAA OfficeVision/400 program, one or more lines of text that prints at the bottom of every page of a document, such as a page number, the date, an outline heading, or the document ID. Contrast with *header*.

**footnote reference number.** In the SAA OfficeVision/400 program, the number assigned to a word or phrase in the text of a document that refers to a footnote. Contrast with *reference number*.

**form type.** A 10-character identifier, assigned by the user, that identifies each type of form used for printed output.

**format.** (1) A defined arrangement of such things as characters, fields, and lines, usually used for displays, printouts, files, or documents. (2) The arrangement or layout of fields in a record. (3) The arrangement or layout of data on a storage medium, such as disk, tape, or diskette, by the system or specifically by the user. statement. (4) To arrange information on a page, in a file, or on a display screen.

**formatted document.** A document arranged in paragraphs and pages usually for viewing or printing.

**formatted text.** The footnote reference number and the associated text within the footnote that is resolved at the bottom of the page.

**function key.** A keyboard key that allows the user to select keyboard functions or programmer functions. Contrast with *character key*.

**GDF file.** See *graphics data format (GDF) file*.

**get function.** In the SAA OfficeVision/400 program, a function that inserts text from one document into another document.

**grade level.** Pertaining to the vocabulary understanding of a student of a particular grade.

**graphic character.** A character that can be displayed or printed. Contrast with *control character*.

**graphic character set.** A set of graphic characters in a code page.

**graphic character-set ID.** A 5-digit registered identifier used to specify a graphic character set. The graphic character-set ID is the first part of the QCHRID system value or the CHRID parameter value. See also *code-page ID*.



**graphics data format (GDF) file.** A picture definition in a coded order format used internally by GDDM and, optionally, providing the user with a lower-level programming interface than the GDDM application programming interface.

**half-index down.** In the SAA OfficeVision/400 program, pertaining to a control character that prints text one-half line down. See also *subscript*.

**half-index up.** In the SAA OfficeVision/400 program, pertaining to a control character that prints text one-half line up. See also *superscript*.

**half-justify.** In the SAA OfficeVision/400 program, to print text using half as many additional spaces as would be required if the line were right-justified. The right margin is less ragged than it would be if the line were only left-justified.

**hard-copy reference.** In the SAA OfficeVision/400 program, a description of printed mail that is kept on the system with electronic mail. This allows you to keep track of both types of mail using OfficeVision/400.

**header.** In the SAA OfficeVision/400 program, one or more lines of text that prints at the top of a document. For example, the header could be the subject of the document, the date, the page number, an outline heading, or the document ID. Contrast with *footer*.

**highlight.** To define text to be shown in contrast with other text by underlining, italics, bold-face; or on a display, high-intensity (brightness of characters), blinking, or reverse image. You can highlight words, parts of words, or information typed into a form using the text definition function of SAA OfficeVision/400.

**home position.** (1) In PC Support/400, the first position of the first input field on the display. (2) In the SAA OfficeVision/400 program, the row and column where the cursor was positioned when the display was last shown. (3) The first item in a list or the first line of help information.

**IBM AS/400 Business Graphics Utility Version 2 (BGU).** The IBM licensed program that can be used to design, plot, display, and print business charts.

**IBM DisplayWrite 3.** A text processing licensed program for the personal computer that allows a user to create, change, and print multiple-page letters, reports, and technical documents that include special symbols and statistical tables.

**IBM DisplayWrite 4.** A text processing licensed program for the personal computer with the functions of DisplayWrite 3, plus footnotes, merge capabilities, and some advanced editing functions. See also *IBM DisplayWrite 3*.

**IBM DisplayWrite/36.** A text processing licensed program for the System/36 with the functions of DisplayWrite 4 (except footnotes), plus more formatting instructions and merge capabilities, printing options, and support for the combined menu options. See also *IBM DisplayWrite 3* and *IBM DisplayWrite 4*.

**IBM Operating System/2 (OS/2).** Pertaining to the IBM licensed program that can be used as the operating system for personal computers. The OS/2 licensed program can perform multiple tasks at the same time.

**IBM Operating System/400 Version 2 (OS/400).** Pertaining to the IBM licensed program that can be used as the operating system for the AS/400 system.

**IBM PC Support/400 Version 2.** The IBM licensed program that provides system functions to an attached personal computer.

**IBM Query/400 Version 2.** The IBM licensed program used to select, format, and analyze information from data files to produce reports and other files.

**IBM SAA OfficeVision/400 Version 2.** The IBM licensed program that allows users to prepare, send, and receive mail; schedule items on calendars; maintain directories of names and addresses; file and retrieve documents; and create and maintain distribution lists. SAA OfficeVision/400 also provides word processing functions and the capability to work on behalf of other users.

**IDDU.** See *interactive data definition utility (IDDU)*.

**image.** An electronic representation of an original document recorded by a scanning device.

**include.** In the SAA OfficeVision/400 program, to insert text into a document when the document is printed.

**insert mode.** The typing operation where text to the right of the cursor is moved to the right instead of replaced.

**instruction character.** In the SAA OfficeVision/400 program, a control character that precedes a text instruction. This character is typed as a period, but changes to an asterisk with a line over it when you press the Enter key.

**intelligent printer data stream (IPDS).** (1) An all-points-addressable data stream that allows users to position text, images, and graphics at any defined point on a printed page. (2) In GDDM, a structured-field data stream for managing and controlling printer processes, allowing both data and controls to be sent to the printer.

**interactive data definition utility (IDDU).** A function of the operating system that can be used to externally

define the characteristics of data and the contents of files.

**IPDS.** See *intelligent printer data stream (IPDS)*.

**job description.** A system object that defines how a job is to be processed. The system-recognized identifier for the object type is \*JOBQ.

**job queue.** An object that contains a list of batch jobs waiting to be processed by the system. The system-recognized identifier for the object type is \*JOBQ.

**justify.** To adjust text so that line endings are even. See *left-justify* and *right-justify*.

**keyword.** (1) A name that identifies a parameter in a command. (2) In the SAA OfficeVision/400 program, a user-defined word used as one of the search values to identify a document during a search operation.

**leading zeros.** In the SAA OfficeVision/400 program, zeros that are place holders to the left of numbers that are aligned to the right and have fewer positions than the specified field length.

**left-justify.** In the SAA OfficeVision/400 program, to print text with an even left margin. The right margin is printed unevenly.

**library.** (1) A system object that serves as a directory to other objects. A library groups related objects, and allows the user to find objects by name. The system-recognized identifier for the object type is \*LIB. (2) The set of publications for a system.

**library list.** A list that indicates which libraries are to be searched and the order in which they are to be searched. The system-recognized identifier is \*LIBL.

**library-assigned document name (LADN).** A unique name, which includes a time stamp and a system name, that is assigned by a system in the office network to a document when it is filed in the document library. On the AS/400 system, the time-stamp part of the library-assigned document name is included in a 10-character name that becomes the document object name. See also *document name* and *document object name*.

**licensed program (LP).** A separately orderable program, supplied by IBM, that performs functions related to processing user data. Examples of licensed programs are PC Support/400, SAA COBOL/400, AS/400 Application Development Tools, SAA OfficeVision/400, and so on.

**line command.** An abbreviation used to request a function for a specific line or lines from the command area to the left of the line or lines affected. For example, C for Copy or M for Move.

**line format.** In the SAA OfficeVision/400 program, the defined arrangement of characters on a line. Compare with *page format*.

**line number.** The number that precedes a line of information in a printout or on a display. This number can be up to 5 digits long, from 00001 through 99999.

**lines per inch (lpi).** The number of characters that can be printed vertically within an inch.

**local.** Pertaining to a device or system that is connected directly to your system or a file that is read directly from your system, without the use of a communications line. Contrast with *remote*.

**local work station.** A work station that is connected directly to the system without a need for data transmission functions. Contrast with *remote work station*.

**logical file.** A description of how data is to be presented to or received from a program. This type of database file contains no data, but it defines record formats for one or more physical files. Contrast with *physical file*.

**lpi.** See *lines per inch (lpi)*.

**member.** Different sets of data, each with the same format, within one database file. See also *source member*.

**menu bar.** The area containing keywords at the top of the display that gives a user access to actions available for that display. After a user requests a choice in the menu bar, a pull-down menu is shown below the menu bar.

**merge.** To insert records throughout a single output file.

**multinational character set (MNCS).** A set of graphic characters that support the languages within a specific language group.

**multiple column editing.** In the SAA OfficeVision/400 program, a method of editing that allows the user, if using the PC text-assist function, to edit text displayed in more than one column.

**multiple letters merge.** In the SAA OfficeVision/400 program, a type of data/text merge that produces one document for each data record selected. See also *column list merge* and *direct merge*.

**multiple line report.** In the SAA OfficeVision/400 program, a type of data/text merge that produces one document containing several lines of information from each data record in the data file. Contrast with *column list merge* and *multiple letters merge*.

**multiple text columns.** In the SAA OfficeVision/400 program, an arrangement of text in a document that appears as more than one column across the page, similar to the columns in a newspaper.

**network.** A collection of data processing products connected by communications lines for exchanging information between stations.

**nontext document data.** In the SAA OfficeVision/400 program, data to be used for charts or illustrations stored in a document.

**notepad.** In the SAA OfficeVision/400 program, a storage area for commonly used text that is copied from a portion of an existing document or documents. The text from a notepad can be inserted into a document.

**null.** The name for an EBCDIC character that represents hexadecimal 00. See *null character*.

**null character.** The hexadecimal character 00 used to represent the absence of a displayed or printed character.

**numeric character.** Any one of the digits 0 through 9.

**numeric constant.** The actual numeric value to be used in processing, instead of the name of a field containing the data. A numeric constant can contain any of the numeric digits 0 through 9, a sign (plus or minus), and a decimal point. Contrast with *character constant*.

**numeric field.** An area that is reserved for a particular unit of information and that can contain only the digits 0 through 9. Contrast with *character field*.

**numeric variable.** The name of a numeric data item whose value is assigned or changed during program processing.

**odd footer.** In the SAA OfficeVision/400 program, a footer that is printed only on odd-numbered pages. Compare with *even footer*.

**odd header.** In the SAA OfficeVision/400 program, a header that is printed only on odd-numbered pages. Compare with *even header*.

**Office.** See *IBM SAA OfficeVision/400 Version 2*.

**offline.** Pertaining to the operation of a functional unit that is not under the continual control of the system. Contrast with *online*.

**offset.** In the SAA OfficeVision/400 program, the first page from a printed copy from the 6670 printer that sticks out from the remaining pages to separate one job from another.

**online.** Pertaining to the operation of a functional unit that is under the continual control of the system. Contrast with *offline*.

**online information.** Information on the display screen that explains displays, messages, and programs.

**operating system.** A collection of system programs that control the overall operation of a computer system.

**OS.** See *operating system*.

**OS/2.** See *IBM Operating System/2 (OS/2)*.

**OS/400.** See *IBM Operating System/400 Version 2 (OS/400)*.

**output queue.** An object that contains a list of spooled files to be written to an output device, such as a printer or a diskette. The system-recognized identifier for the object type is \*OUTQ.

**overlay.** To write over (and therefore destroy) an existing file.

**overstrike.** Pertaining to a character or symbol that occupies the same space as another character or symbol.

**page.** (1) One printer form. (2) To move information up or down on the display.

**page format.** In the SAA OfficeVision/400 program, the defined arrangement of lines on a page. Compare with *line format*.

**paginate.** In the SAA OfficeVision/400 program, to adjust text within margins and page boundaries.

**paragraphs document.** In the SAA OfficeVision/400 program, a document that contains a paragraph or paragraphs that can be combined to create other documents.

**parameter.** A value supplied to a command or program that is used either as input or to control the actions of the command or program.

**PC Support.** See *IBM PC Support/400 Version 2*.

**pending.** Pertaining to a request that was submitted and that is awaiting processing.

**pending operations window.** In the SAA OfficeVision/400 program, a field in the status line that displays the name of any operation that is not completed.

**physical file.** A description of how data is to be presented to or received from a program and how data is actually stored in the database. A physical file contains

one record format and one or more members. Contrast with *logical file*.

**physical file member.** A named subset of the data records in a physical file. See also *member*.

**pitch.** The number of characters printed per inch.

**print options.** Specifications for printing a document.

**printer file.** A device file that determines what attributes printed output will have. A particular printer may or may not support all of the attributes specified in a printer file.

**printer ID.** The identification code assigned to printers.

**processing.** The action of performing operations and calculations on data.

**profile.** Data that describes the characteristics of a user, program, device, or remote location.

**prompt.** A reminder or a displayed request for information or user action. The user must respond to allow the program to proceed.

**prompted aid box.** In the SAA OfficeVision/400 program, a list of words shown by the spell aid function, that contains possible spellings or synonyms to replace words in a document.

**query.** A request to select and copy from a file or files one or more records based on defined conditions. For example, a request for a list of all customers in a customer master file, whose balance is greater than \$1000.

**Query.** The shortened name for the Query/400 licensed program.

**query definition.** In Query/400, information about a query that is stored in the system. The system-recognized identifier for the object type is \*QRYDFN.

**queue.** A list of messages, jobs, files, or requests waiting to be read, processed, printed, or distributed in a predetermined order.

**record.** A group of related data, words, or fields treated as a unit, such as one name, address, and telephone number.

**record format definition.** In IDDU, information that describes the arrangement or layout of fields in a record. A record format definition resides in a data dictionary. See also *field definition* and *file definition*.

**reference area.** In the SAA OfficeVision/400 program, text shown above or beside a table column when the column is being changed or inserted.

**reference number.** In the SAA OfficeVision/400 program, a number assigned to an item on the calendar. Contrast with *footnote reference number*.

**remote.** Pertaining to a device, system, or file that is connected to another device, system, or file through a communications line. Contrast with *local*.

**remote work station.** A work station that is connected to the system by data communications. Contrast with *local work station*.

**required backspace.** In the SAA OfficeVision/400 program, a formatting control that moves the printer back a number of spaces before printing any text.

**required carrier return.** In the SAA OfficeVision/400 program, a manually entered carrier return used after a short line or at the end of a paragraph to ensure that no more text will be added to the line during automatic line adjustment.

**required hyphen.** In the SAA OfficeVision/400 program, a hyphen that is not removed when OfficeVision/400 adjusts lines. Contrast with *syllable hyphen*.

**required space.** In the SAA OfficeVision/400 program, a space or blank that is not removed when OfficeVision/400 adjusts lines (or paragraphs) of text.

**required tab.** In the SAA OfficeVision/400 program, a tab that marks a temporary left margin.

**resolve.** (1) In the SAA OfficeVision/400 program, to process the text instructions in a document while it is being printed. (2) In programming, to change a predefined, symbolic value to the actual value of the item being processed. For example, a symbolic value of \*LAST defined for the name of a file member is resolved to the name of the last member when the member is processed.

**restore.** To copy data from tape, diskette, or a save file to auxiliary storage. Contrast with *save*.

**result field.** In Query/400, a field that contains the results of calculations performed on numeric fields in a file.

**reverse image.** Text that appears on the display in the opposite color (for example, black on green instead of green on black).

**revisable-form text (RFT).** In the SAA OfficeVision/400 program, a data stream defined by document content architecture that is used to exchange unresolved documents (which cannot be directly printed or displayed) between systems. Contrast with *final-form text (FFT)*.

**revision symbol.** In the SAA OfficeVision/400 program, a character used in the left margin to indicate that a document line is changed.

**RFT.** See *revisable-form text*.

**right-justify.** To print text with an even right margin by adding extra space throughout a line.

**running heading.** In the SAA OfficeVision/400 program, a column heading that is repeated on following pages if the column continues on more than one page.

**save.** To copy specific objects, libraries, or data by transferring them from main storage or auxiliary storage to a media such as tape, diskette, or a save file. Contrast with *restore*.

**scale line.** In the SAA OfficeVision/400 program, a line on the display showing margins, tabs, and pitch.

**SCS.** See *SNA character string (SCS)*.

**separator line.** In the SAA OfficeVision/400 program, a line that separates footnote text from the other text on a page.

**SEU.** See *source entry utility (SEU)*.

**shell document.** In the SAA OfficeVision/400 program, a prearranged document (report, letter, memo, or note) where the user inserts variable information. An example of a shell document is a form letter, to which the user adds the receiver's name, address, and personal salutation.

**SNA character string (SCS).** In SNA, a data stream composed of EBCDIC controls, optionally intermixed with end-user data, that is carried within a request/response unit.

**source entry utility (SEU).** A function of the AS/400 Application Development Tools licensed program that is used to create and change source members.

**source file.** A file of programming code that is not compiled into machine language. A source file can be created by the specification of FILETYPE(\*SRC) on the Create command. A source file can contain source statements for such items as high-level language programs and data description specifications. Contrast with *data file*.

**source member.** A member of a database source file that contains source statements, such as AS/400 BASIC, AS/400 PL/I, SAA C/400, SAA COBOL/400, SAA FORTRAN/400, SAA RPG/400, or DDS statements. See also *member*.

**spell aid.** A document proofreading function that replaces a misspelled word when the correct spelling is chosen from a list of similarly spelled words provided by the system from one or more dictionaries.

**spelling dictionary.** In the SAA OfficeVision/400 program, a list of words used to verify word choices and to verify and correct spelling when the document spell-check function is used, and to provide hyphenation breaks for words when the automatic hyphenation function is used. Users may also create their own spelling dictionaries. The system-recognized identifier for the object type is \*SPADCT. See also *user dictionary*.

**split display.** In SAA OfficeVision/400 and SEU, a display that allows a user to see two members or documents at the same time, one at the top and one at the bottom of the display; a display that allows a user to look at records from one file at the top of the display and look at records from another file or from a spooled file at the bottom of the display; a display that allows the user to change records in the file being displayed at the top of the display and look at records from another file or spooled file at the bottom of the display.

**spool.** The system function of putting files or jobs into disk storage for later processing or printing.

**spooled file.** A file that holds output data waiting to be processed, such as information waiting to be printed. Also known as *spooled output file*.

**status line.** A line at the top of a display that contains information about a document and current operations, including an audit window, the document name, and page and line number.

**stop code.** In the SAA OfficeVision/400 program, a position marked in a document where you can insert variable information.

**subdirectory.** A user-defined directory on the personal computer.

**subscript.** A symbol, number, or letter written immediately below and to the right or left of another character. For example, the number 2 in the chemical formula for water, H<sub>2</sub>O, is a subscript.

**summary math.** In the SAA OfficeVision/400 program, text instructions that request calculations on columns or rows of numbers.

**superscript.** A symbol, number, or letter written immediately above and to the right or left of another character. For example, a footnote can be identified in text with a superscript number. Contrast with *subscript*.

**syllable hyphen.** In the SAA OfficeVision/400 program, a hyphen used to divide a word at the end of

a line; it may be removed when OfficeVision/400 adjusts lines. Contrast with *required hyphen*.

**synonym.** One of two or more words of the same language that have the same or nearly the same meaning.

**synonym aid.** A document proofreading function that replaces a given word with one having a similar meaning that the user chooses from a list of synonyms provided by a dictionary.

**syntax.** The rules for constructing a command or statement.

**system profile.** In the SAA OfficeVision/400 program, the text profile named SYSTEM that contains formatting and editing options to be used for creating documents.

**System/36 environment.** A function of the operating system that processes most of the System/36 operator control language (OCL) statements and procedure statements to run System/36 application programs and allows the user to process the control language (CL) commands. Contrast with *System/38 environment*.

**System/38 environment.** A function of the operating system that processes most of the System/38 control language (CL) statements and programs to run System/38 application programs. Contrast with *System/36 environment*.

**Systems Application Architecture (SAA).** Pertaining to an architecture defining a set of rules for designing a common user interface, programming interface, application programs, and communications support for strategic operating systems such as the OS/2, OS/400, VM/370, and MVS/370 operating systems.

**template.** A pattern to help the user identify the location of keys on a keyboard, functions assigned to keys on a keyboard, or switches and lights on a control panel.

**test condition.** A statement that, when taken as a whole, may be either true or false, depending on the circumstances existing at the time the expression is evaluated.

**text instruction.** In the SAA OfficeVision/400 program, an abbreviated command, preceded by an instruction character, that produces a specified arrangement such as a numbered list of information on a page, in a file, or on a display when the document is processed.

**text profile.** In the SAA OfficeVision/400 program, a description of formatting and editing options for creating a document.

**user default.** In the SAA OfficeVision/400 program, the user-defined values used for mail, calendars, and word processing if no value is specified.

**user dictionary.** In the SAA OfficeVision/400 program, a supplemental spelling dictionary created by a user. Each user can create as many user dictionaries as needed. See also *spelling dictionary*.

**user ID.** See *user identification (user ID)*.

**user ID/address.** The two-part network name used in the system distribution directory and in the office applications to uniquely identify a user and send electronic mail.

**user identification (user ID).** (1) The name used to associate the user profile with a user when a user signs on the system. See also *user profile name*.

**user profile.** An object with a unique name that contains the user's password, the list of special authorities assigned to a user, and the objects the user owns.

**user profile name.** The name or code that the system associates with a user when he or she signs on the system. Also known as user ID. See also *user identification (user ID)*.

**variable.** A name used to represent data whose value can be changed while the program is running by referring to the name of the variable.

**widow line.** A single first or last line of a paragraph or a heading separated from its related text and appearing on a different page.

**word wrap.** In the SAA OfficeVision/400 program, the function of a word processing program that automatically moves the last word on a displayed line of text down to the next line if the word runs beyond the right margin setting.

**zero index carrier return.** In the SAA OfficeVision/400 program, a formatting instruction that moves the printer back to the first printing position of the line currently printing instead of moving down to the next line.

**zone width.** The number of positions to the left of the right margin in which to end words.

**3180 display station.** A display station that uses the 5250 data stream.

**3270 display station.** Any display station, attached by coaxial cable, that uses 3270 data streams.

**3270 printer emulation.** The function of the operating system 3270 device emulation support that converts 3270, DSC, and SCS data streams intended for a 328X printer into data streams that can be recognized by a printer attached to the AS/400 system.

**5208 Link Protocol Converter.** A device that attaches asynchronous-attached work stations using ASCII encoding to the system as if they were 5250 work stations. Compare with *5209 Link Protocol Converter*.

**5209 Link Protocol Converter.** A device that attaches 327x work stations to the system as if they were 5250 work stations. Compare with *5208 Link Protocol Converter*.

**5250 display station.** Any display station, attached by twinaxial cable, that uses 5250 data streams.

**5250 emulation.** Any one of many licensed programs that allow a personal computer to perform like a 5250 display station or printer and to use the functions of an AS/400 system.





## Bibliography

The following AS/400 manuals contain information you may need. The manuals are listed with their full title and base order number. When these manuals are referred to in this manual, the short version of the title is used.

- *Publications Guide*, GC41-9678. This manual identifies and describes all of the information in the AS/400 library. In addition, this manual also provides guidance on how, when, and where to use the online and printed information.

**Short title:** *Publications Guide*.

- *Systems Application Architecture\* OfficeVision/400\*: Learning about OfficeVision/400*, SC41-9615. This manual provides office users with information to help them learn how to use the mail, calendar, and directory functions of OfficeVision/400. Examples are provided that can be used for practice or as a guide for actual office applications.

**Short title:** *Learning about OfficeVision/400\**.

- *Systems Application Architecture\* OfficeVision/400\*: Learning about OfficeVision/400 Word Processing*, SC41-9617. This manual provides office users with information to help them learn how to use the word processing functions of OfficeVision/400.

**Short title:** *Learning about OfficeVision/400\* Word Processing*.

- *Systems Application Architecture\* OfficeVision/400\*: OfficeVision/400 Common Tasks*, SX41-9868. This manual provides the experienced OfficeVision/400 user with quick information on common tasks and problems.

**Short title:** *OfficeVision/400\* Common Tasks*.

- *Systems Application Architecture\* OfficeVision/400\*: Using OfficeVision/400*, SC41-9616. This manual has detailed information for office users about using OfficeVision/400 and describes how to do additional OfficeVision/400 tasks not described in the manual *Learning about OfficeVision/400\**.

**Short title:** *Using OfficeVision/400\**.

- *Systems Application Architecture\* OfficeVision/400\*: Using OfficeVision/400 Adapted Word Processing Function*, SC41-9879 provides the OfficeVision/400 user with information on how to do word processing tasks with the adapted word processing function of OfficeVision/400.

**Short title:** *Using OfficeVision/400\* Adapted Word Processing Function*.

- *Programming: Control Language Reference*, SC41-0030. This manual provides the application programmer with a description of the AS/400 control

language (CL) and its commands. The manual is divided into five volumes.

**Short title:** *CL Reference*.

- *Office Services Concepts and Programmer's Guide*, SC41-9758. This manual provides the application programmer with information about writing applications that use OfficeVision/400 functions. It also introduces OfficeVision/400 application program interfaces (APIs).

**Short title:** *Office Services Concepts and Programmer's Guide*.

- *Business Graphics Utility User's Guide and Reference*, SC09-1408. The *BGU User's Guide/Reference* provides the application programmer, programmer, system administrator, or technical professional with information about using the AS/400 Business Graphics Utility (BGU) to create various types of charts.

**Short title:** *BGU User's Guide and Reference*.

- *Utilities: Interactive Data Definition Utility User's Guide*, SC41-9657. This manual contains detailed information for the administrative secretary, business professional, or programmer to use the interactive data definition utility (IDDU) to describe data dictionaries, files, and records to the system.

**Short title:** *IDDU User's Guide*.

- *Guide to Programming for Printing*, SC41-8194. This manual provides information to help you understand and control printing. It provides specific information on printing elements and concepts of the AS/400 system, printer file and print spooling support for printing operations, and printer connectivity. This manual also includes considerations for using personal computers, other printing functions, and examples of working with the AS/400 system printing elements. It also includes an appendix of control language (CL) commands used to manage printing workload.

**Short title:** *Guide to Programming for Printing*.

- *Operating System/400 Workstation Customization Function Programmer's Guide*, SC41-0056. This manual provides information on using the OS/400 customizing functions to create customized mapping tables and translation tables that are used by the work station controller to allow an ASCII or twinaxial work station to communicate with the AS/400 system. It also provides information on customizing ASCII printers that use the host print transform function.

**Short title:** *Workstation Customization Function Programmer's Guide*.



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