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OFIS®
Document
Designer

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**Office Publishing
User's Guide**

Softkey Interface

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About This Guide

The *CTOS® OFIS® Document Designer / OFIS®Document Writer: Office Publishing User's Guide* explains the advanced features of OFIS Document Designer and OFIS Document Writer. These features turn an already powerful word processing tool into a full-fledged office publishing system. In this guide, you will learn how to do the following:

- Format text in columns
- Integrate objects into text
- Draw boxes and rules around text and objects
- Create automatically numbering outlines
- Automatically generate a table of contents
- Automatically generate an index
- Create cross-references
- Create footnotes
- Use form processing
- Use list processing
- Use redlining to track revisions of a document
- Use macros to automate repetitive tasks
- Calculate math formulas
- Record and playback voice annotations

Note: *This manual is intended for users of OFIS Document Designer and OFIS Document Writer. Both programs function identically, and only differ in how certain elements are displayed on the screen. As a result, from hereon both programs will be referred to as OFIS Document Designer, unless indicated otherwise. This means that when you read "OFIS Document Designer," read it as "OFIS Document Designer or OFIS Document Writer."*

Who Should Use This Guide

The audience for this guide is anyone who wants to learn how to use the office publishing features of OFIS Document Designer. To use this guide effectively, however, you need to know the basics of word processing. If you don't, read the *Word Processing* volume of the OFIS Document Designer set of books before proceeding with this volume. Once you are familiar with OFIS Document Designer, the office publishing features will be easy to learn, and you will be familiar with the way instructions are set up in this guide. For example, you will know what "press **CODE-SHIFT-U**" and "mark the document" mean, and so on.

There is something for everyone in this guide. And, once you learn the office publishing features, you'll wonder how you got along without them.

Note: *OFIS Document Designer and OFIS Document Writer can be used with two different interfaces, the Softkey interface and the Menu interface. This manual describes the Softkey interface. If you have the Menu interface, you should use the Menu interface manual.*

How This Guide Is Organized

The sections in this guide are organized to function independently of each other. You can go through the sections in any order, depending on the task you want to learn.

Section 1. Using Columns

This section describes how to use synchronized, serpentine, and tabbed columns.

Section 2. Integrating Objects

This section describes how to integrate graphics and spreadsheets in your documents.

Section 3. Using Box and Rule

This section describes how to draw lines and boxes around paragraphs, column area, pages, and objects.

Section 4. Using Outline Processing

This section describes how to create automatically numbered outlines and lists.

Section 5. Creating a Table of Contents Automatically

This section describes how to automatically generate a table of contents from your documents, including automatically updated section and page numbers.

Section 6. Using Cross-references

This section describes how to use automatically numbered and updated cross-references.

Section 7. Using Footnotes

This section describes how to use automatically numbered and updated footnotes. You can print footnotes on each page, and you can collect footnotes at the end of the document.

Section 8. Using Form Processing

This section describes how to create predefined forms that other users can copy and customize. It also describes how to fill in forms.

Section 9. Using List Processing

This section describes how to create form letters, mailing lists, and other tasks that require customized versions of a document.

Section 10. Creating Indexes Automatically

This section describes two methods of creating indexes. You can create indexes using the indexing feature, or by using cross-references.

Section 11. Using Redlining

This section describes how to use redlining to track changes to a document. You can compare different versions of the same document, to review changes. You can also print documents with changes called out in underlines and struckout text, or called out by change bars.

Section 12. Using Macros

This section describes how to use macros to handle repetitive tasks. It describes how to create macros with keystrokes and with special macro commands.

Section 13. Calculating Values

This section describes how to create and implement mathematical equations in your document.

Section 14. Using Voice Annotation

This section describes how to insert voice annotations into your document, and how to play them back.

What's New In Office Publishing

There have been quite a few changes to OFIS Document Designer since the last reference manual was published. The major changes documented in this volume are listed below.

- There are two completely new features: redlining and box and rule.

  - With redlining, you can compare different versions of the same document, view revisions made by a specific author, and restore deletions.

  - With box and rule, you can draw boxes and rules around text and objects.

- You can generate a table of contents with the Print menu and with the Review menu. Previously, you could only use the Review menu to generate a table of contents.

- You can now create cross-references with paragraph numbers.

- There are two new paragraph numbering formats: square brackets and curly brackets.

- Paragraph numbers in table of contents headings are updated when you change the pagination, even if you don't regenerate the table of contents.

- You can force the paragraph numbers on outline and table of contents headings.

- There is a new menu called Document Attributes. This menu includes the option of printing footnotes on each page. This takes the place of the *Leave room for footnotes* field in the Review menu and the *Print footnotes* field in the Print menu. This new field is automatically set to *No* when you collect footnotes at the end of the document.

- The pagination of footnotes has been enhanced, as follows:

  - Footnotes support leading, widow control, and Keep Together.

  - Footnotes support box and rule.

  - If there is no room on the page for footnotes, footnotes may not start printing until the next page after the footnote reference.

  - Footnotes in columns are numbered according to their order in the column, not according to how they are placed on a page.

- Serpentine and synchronized columns support keep together and widow control. In other words, when you select *Eliminate Widows* in the Document Attributes menu, you won't have the last line of a paragraph bumped to the next column.

- Integrated objects float to the edge of a column and to the edge of a page. This means you can place an object in the middle of the page with text all around it, provided the object is in a column.

- You can create single keystroke macros. This type of macro provides a shortcut for recalling a macro. For example, instead of using the Recall Macro command to start a macro, you can simply press **CODE-X** to start it.

- The List Processing procedure for merging to a document has been enhanced. If you are merging to a document and you need to save in the middle of the procedure, you can come back to the procedure and specify which records to skip, that is, which records have already been processed.

Where To Go For More Information

The documents listed below provide additional information related to this guide.

Introductory

CTOS Getting Started with Your Workstation

This tutorial is an introduction to CTOS workstations. It explains very basic Executive commands, installing software, using the Context Manager, and using the Mouse.

CTOS OFIS Document Designer/OFIS Document Writer: Getting Started

This tutorial is an introduction to the basic OFIS Document Designer/OFIS Document Writer features used to enter, edit, and format text. It also introduces advanced features, such as using fonts, integrating objects, using box and rule, and using style control.

Getting Started: Drawings

This tutorial introduces the basic features of Art Designer, a CTOS graphics program. Graphics created with Art Designer can be integrated into OFIS Document Designer or OFIS Document Writer documents.

Getting Started: Charts

This tutorial introduces the procedures for creating charts in Art Designer, a CTOS graphics program. Charts created with Art Designer can be integrated into OFIS Document Designer or OFIS Document Writer documents.

Getting Started: Extended Multiplan

This tutorial introduces Extended Multiplan, a CTOS spreadsheet application. Spreadsheets created with Extended Multiplan can be integrated into OFIS Document Designer or OFIS Document Writer documents.

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CTOS Executive User's Guide

This guide introduces the most commonly used Executive utilities and features. It provides step-by-step procedures for performing tasks such as copying files, backing up disks, and creating macros. This user's guide also includes detailed information about the CTOS file system.

CTOS Generic Print System Using the Print Manager

This manual introduces the Print Manager, which you use to track and monitor printers and print jobs.

Office Applications

Art Designer: Charts and Drawings

This manual describes all features of Art Designer, a CTOS graphics program.

BTOS II OFIS Graphics Operations Guide

This guide contains terminology, training, procedural, and reference information for OFIS Graphics operations.

Extended Multiplan User's Guide

This guide describes all features of Extended Multiplan, a CTOS spreadsheet program.

CTOS OFIS Spreadsheet User's Guide

This guide describes all features of OFIS Spreadsheet, a CTOS spreadsheet program.

CTOS OFIS Spreadsheet Reference Guide

This guide provides a reference to all features of OFIS Spreadsheet, a CTOS spreadsheet program.

CTOS Generic Print System Administration Manual

This manual contains user and reference information on the Generic Print System product. It provides detailed procedures for installing devices (printers and plotters) on workstations using the Print Manager installation commands. It also provides comprehensive information on device drivers that are included in the basic GPS product package.

CTOS Executive Reference Manual

This manual lists and describes how to use all the Executive commands.

CTOS Status Codes Reference Manual

This manual lists, in numerical order, all current CTOS status codes. When an application returns an error code, you look up its meaning in this manual.

OFIS Document Designer

CTOS OFIS Document Designer / OFIS Document Writer: Office Publishing is part of a three volume set. The other two volumes and the topics covered in them are listed below.

Volume	Topics Covered
Word Processing	Opening and closing documents
	Moving the cursor
	Entering and editing text
	Working with blocks of text
	Working in more than one window
	Formatting characters
	Formatting paragraphs
	Formatting pages
	Using fonts and variable line spacing
	Reviewing and printing documents
	Using the spelling checker and the thesaurus
	Using the Search and Replace commands
	Using headers and footers
	Using phrases
	Using style control
System Administration	Setting Up OFIS Document Designer
	Customizing OFIS Document Designer
	Maintaining OFIS Document Designer
	Exchanging documents
	Troubleshooting

Conventions

This guide uses the following conventions:

- New terms and menu fields are indicated by *italics*.

- The hand symbol (☞) indicates additional information, hints, and shortcuts regarding a procedure.

- Keys you press or text you type are shown in boldface type, for example,

  Press **RETURN**

  Type **doc.bat**

- Sometimes you hold down one key while you press another to issue a command; this sequence is shown as follows:

  CODE-F4

- Sometimes you hold down two keys while you press a third key to issue a command; this sequence is shown as follows:

  CODE-SHIFT-D

- Sometimes you press a function key and then press a letter or character to select a command or option; this sequence is shown as follows:

  F4 C

- Softkeys are called out by their name and the associated function key you press:

  Press **Home (F1)**

Section 1
Using Columns

About This Section

Sometimes information looks better, or is easier to understand, in a column format. In this section you will learn how to use three types of columns:

- Tabbed columns

- Synchronized column

- Serpentine columns

Each type of column is best suited for a particular type of task. The examples on the next few pages give you an idea about which type of information is best presented in each of the three kinds of columns.

Example: Tabbed Columns

Tabbed columns work well for tables and forms. This type of column uses tab stops to define the columns. Below is a typical example of information presented in tabbed columns.

	Group A	Group B	Group C	Group D
		SALES IN UNITS		
1988	776	357	8	58,004
1989	1,803	358	4	7
1990	5,740	359	1	1,230,325
1991	567,201	356	3	87

You can display text in tabbed columns as long as only one column includes wraparound text. Each row in a table is a line of text, and you can only wrap around a line of text once. If you have more than one column that wraps around, use synchronized columns. The example below shows how wraparound text looks in a tabbed column format. (Wraparound text in a tabbed column format works best when it is in the last column to the right.)

	Group A	Group B	Comments
1990	776	357	This is the text that is wrapping around in this column. It wraps around because there is an other line indent. You can only have one other line indent in a paragraph.
1991	1,803	358	This is another line of text that wraps around.

Example: Synchronized Columns

When you use synchronized columns, text is kept side-by-side in two or more columns across the page. Text in synchronized columns is meant to be read horizontally across the page, as shown in the example below.

Group A   Group A once again set   Overall
                   record-breaking sales records.   Rating:
                   The trend is continually upward   **10**
                   for this group.

Group B   Group B is back to their 1983   Overall
                   levels.   Rating:
                                                       5

Group C   Group C continues to struggle.   Overall
                                                       Rating:
                                                       0

Group D   Group D turns in an impressive, if Overall
                   erratic, performance.   Rating:
                                                       8

Synchronized column are independent from each other. You can add text to one column and not affect the others. When you start a new column, you automatically start a new paragraph.

Example: Serpentine Columns

With serpentine columns, text flows on from one column to the next, as shown in Figure 1–1. The columns are equal in width. You read serpentine columns vertically, that is, you read to the bottom of the first column before going to the top of the second column, and so on. Therefore, serpentine columns are good for indexes and newsletters.
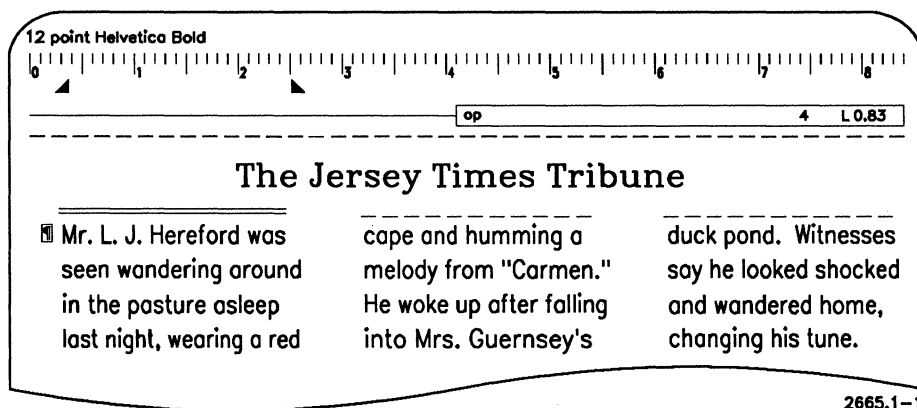
Figure 1–1. Sample of Serpentine Columns

Serpentine columns are *not* independent of each other. For example, if you add text to the first column, it affects all the following columns. Therefore, if you want to align paragraphs across a page, it is best to use tabbed or synchronized columns.

Mixing Columns

You can include all three types of column on the same page. You can even include tabbed columns inside serpentine or synchronized columns. You can't, however, place serpentine columns inside synchronized columns, or vice versa.

Using Tabbed Columns

When working with tabs and tabbed columns, make sure you are in full-visible mode so you can see the tab symbols. Press **CODE-V** to change visibility modes.

Setting up tabbed columns is similar to setting tabs on a typewriter. With OFIS Document Designer, however, it is easier to measure and position the tab stops. In addition, you also have several different kinds of tabs you can use (left-aligned, centered, and so forth).

Figure 1–2 shows how tabbed columns look on the screen. Notice that the columns are aligned according to the tab stops on the ruler display.
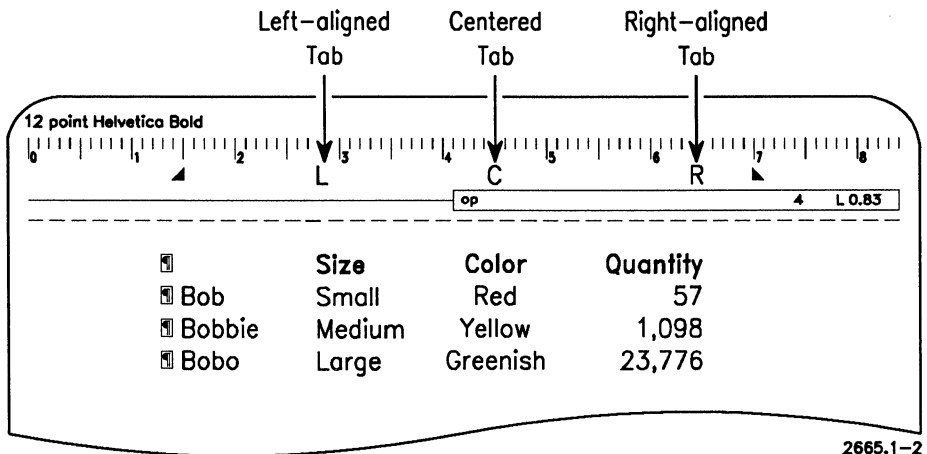
Figure 1–2. Tabbed Columns

Creating the Tabbed Column Format

To create a tabbed column format,

1. Press **RETURN** to begin a new paragraph.

2. Determine the number of columns you want and the width of each one.

3. From the Base softkey strip, press **Tabs (F3)** to display the Tabs softkey strip.

4. Using the shadow cursor and the ruler display to guide you, move the cursor to where you want the first tab stop. If you have a WYSIWYG monitor, remember that cursor movement changes when you display the Tabs softkey strip, and that using the shadow cursor is essential. (See the *Word Processing* volume for more information.)

5. Press the appropriate key for the type of tab stop you want. If you are entering numbers in a table, right-aligned decimal tabs work best.

Left	**(F3)**	Left-aligned tab
Right	**(F4)**	Right-aligned tab
Center	**(F2)**	Centered tab
Decimal	**(F1)**	Decimal tab
Even	**(F5)**	Evenly spaced, left-aligned tabs
Dots	**(F6)**	Leader dot tabs

    The **VerRule (F10)** option is not a tab stop; it places a vertical line in the paragraph. For more information, see Section 3, "Using Box and Rule."

6. Move the cursor to the next column location and set the tab stop. When all the tab stops are in place, you're ready to enter information into the table.

☞ If you are going to consistently use a particular layout of tabs, consider creating a paragraph style out of the paragraph. That way, whenever you want a paragraph with those tab stops, you can simply apply the style. (For more information on style control, see the *Word Processing* volume.)

Similarly, you can also create a phrase out of a tabbed paragraph. Then, when you need to use those tab stops again, you simply recall the phrase. (For more information on phrases, see the *Word Processing* volume.)

Entering Text Into Tabbed Columns

To enter text into tabbed columns,

1. Enter text into the first column at the left margin.

2. Press **TAB**. The cursor moves to the next tab stop to the right.

3. Enter text into the second column. Press **TAB**.

4. Repeat these steps until you have entered text at the last tab stop.

5. When you have finished entering text in the last column, press either **RETURN** or **SHIFT-RETURN**, depending on the kind of spacing you want between rows. Begin entering text again.

Note: *Be careful not to enter text beyond the column width. If you do, the text runs past the next tab stop and skips a column. If you find you made a column too narrow, change the tab stop or move the entire column. (See "Marking, Moving, and Copying Tabbed Columns," later in this section.)*

When you've finished entering text in tabbed columns, press **RETURN** to start a new paragraph. To clear the tab stops in this new paragraph, from the Base softkey strip, press **Tab (F3), ClrAll (F9)**.

Using Other Line Indents

If you want the text in one column to wrap around, use the *Others* option on the Indent softkey strip. (If you want the text to wrap around to the left margin, you don't need to set an indent; any text automatically wraps around to that point.) The example below shows wraparound text created by an other line indent.

1990	776	The text here is going to wrap around right about now. There is an other line indent at the last tab stop. 1984 was a reasonably good year for a start-up operation.
1991	1,803	A large percentage increase over the previous year, but still nothing to scream about.

Note: *Using an Other Line indent works best when the column that wraps around is the last column to the right.*

To set an other line indent,

1. From the Base softkey strip, press **Paragph (F4)**, then press **Indent (F3)** to display the Indent softkey strip.

2. Move the cursor to where you want the indent, and press **Others (F4)**. If you set the other line indent at the wrong place, just reset it at the correct location.

Formatting Tabbed Columns

You can format columns just as you can any other block of text. When you format a column, you can apply many of the standard formatting commands to it, for example:

*   You can move or copy the column (see "Moving and Copying Tabbed Columns," below).

*   You can delete the column (see "Deleting Tabbed Columns," later in this section).

*   You can change the font of the column. (For information on fonts, see the *Word Processing* volume.)

*   You can create a phrase from the column. (For information on phrases, see the *Word Processing* volume.)

*   You can use the Total command to add a column of numbers. (For information on the Total command, see Section 13, "Calculating Values.")

Moving and Copying Tabbed Columns

You can mark, move, and copy columns just as you can with any other block of text. There are, however, a few cases when you cannot mark a column:

- If the first column is held in place by the left margin, it can't be marked as a column because it is not held in place by tabs.

- If there are other line indents in the column format, you cannot mark a column.

- If you changed the tab stops in one or more paragraphs within a column format, you can't mark the entire column.

The example below shows how you can move columns in a table. Let's say that in the sample table below, you want to switch the placement of the third and fourth columns. You can do this by moving the entire column, including the tab stop.

Here is what the table looks like at first:

1984	776	357	8	58,004
1985	1,803	358	4	7
1986	5,740	359	1	1,230,325
1987	567,201	356	3	87

After moving the column, the table looks like this:

1984	776	8 357	58,004
1985	1,803	4 358	7
1986	5,740	1 359	1,230,325
1987	567,201	3 356	87

The third and fourth columns are now switched, but they are too close together. You can reposition the new fourth column by either changing the tab stop or by moving the column. It's easiest to move the column. The finished table now looks like this:

1984	776	8	357	58,004
1985	1,803	4	358	7
1986	5,740	1	359	1,230,325
1987	567,201	3	356	87

To move or copy a column,

1. Press **MOVE** or **COPY**.

2. Press **COL (F6)** to mark the column you want to move or copy.

3. Move the cursor to the location where you want the column moved. If necessary, use the **CODE-SHIFT**-Arrow keys to move the shadow cursor in small increments.

4. Press **GO** to move or copy the column. Notice that the tab stop moves along with the text.

5. You may see this message:

    Cursor must be in a table.

   If so, it means you can't move the column to that location because it's not within a table. The requirements for a "table" are simple; a paragraph with at least one tab stop.

Deleting Tabbed Columns

There are two ways to delete a tabbed column:

• You can delete an entire column, including the tab stops and tab symbols.

• You can delete only the text, and leave the tab stop.

To delete a tabbed column, including the tab stops and tab symbols,

1. Press **DELETE**.

2. Mark the column.

3. Press **GO** to delete the column and the tab stop.

To delete the text in a tabbed column but leave the tab stops and tab symbols in place,

1. Press **DELETE**.

2. Mark the column.

3. Press **CODE-DELETE** to delete the column while leaving the tab stop intact.

Using Synchronized Columns

Text in synchronized columns is aligned (synchronized) across the page. (For a sample of text in synchronized columns, see "Example: Synchronized Columns," earlier in this section.)

Creating the Synchronized Column Format

To create the synchronized column format,

1. Move the cursor to the place where you want to begin the synchronized columns.

2. From the Base softkey strip, press **Page (F5)**.

3. Press **SyncCol (F8)** to display the Synchronized Columns menu, as shown in Figure 1–3.

   Initially this menu only displays enough fields to create five columns. You can see the entire menu by placing the cursor in the menu and pressing **SCROLL-UP**.

SYNCHRONIZED COLUMNS _____

   (Press GO to execute, NEXT for next item, CANCEL to dismiss)

   Currently   (Enter inches or characters)

Number of columns:
Width of column 1:
   (Margin between 1-2):
Width of column 2:
   (Margin between 2-3):
Width of column 3:
   (Margin between 3-4):
Width of column 4:
   (Margin between 4-5):
Width of column 5:

_____

Figure 1–3. Synchronized Column Menu

You may instead see this message:

   Please select synchronized text

If so, it means that you have text marked somewhere in your document. Press **CODE-MARK** to unmark that text.

4. In the *Number of columns* field, enter the number of columns you want. You can have up to 10 columns.

5. Fill in the remaining fields as needed. You can fill in only the width of the columns, only the width of the margins between columns, the width of only some of the columns, and so forth. What you don't fill in is filled in for you automatically.

    Note that the width of the columns and margins can't exceed the text width. For example, if your text width is six inches, you can't have two columns that are each four inches wide.

6. Press **GO.**

    You may see this message:

    > Total width specified exceeds the available text width.
    > Available width = 6.0", Margin totals = 1.0", Column totals = 6.0"

    This message means you can't fit the columns, as specified, into the text width. Note that the numbers vary according to the text dimensions and the column measurements. In the sample message above, the margins and columns add up to seven inches, while the text width is only six inches.

    If the column measurements fit the page, a line, called a *synchronization mark*, is displayed in text to indicate the position and width of the first column. This line is only displayed when the screen is in half-visible or full-visible mode.

☞ There is a shortcut to display the Synchronized Columns menu: press **CODE-/.** The shortcut will be used throughout the rest of this guide.

☞ You can enter synchronized column format into the middle of an existing document. If you do, all the full-width text that falls after the point where you start the column format is reformatted into the first column. This can be quite alarming if you don't expect it, but you can correct it easily, either now or later. For information, see "Getting Out of Synchronized Columns," later in this section.

☞ If you end up with very narrow columns, you probably set up your column format in a paragraph with indented margins. In such cases, the indents are applied to each *column*, not to the text width as a whole. To correct this, change the indents. (See the discussion on indents in the *Word Processing* volume.)

☞ You can view column dimensions after you create the format. To do so, mark the synchronization mark and press **CODE-/**. The Synchronized Columns menu is displayed, with the current values filled in. To remove the menu, press **CANCEL**. Don't forget to unmark the synchronization mark.

☞ If you are going to consistently use a particular layout of synchronized columns, consider creating a page style out of the column mark, That way, whenever you want those columns, you can simply apply the style. (For more information, see the *Word Processing* volume.)

For a similar reason, you can also create a phrase out of a synchronized column mark. Then when you want to use those columns again, you simply recall the phrase. (For more information, see the *Word Processing* volume.)

Entering Text Into Synchronized Columns

To enter text into synchronized columns,

1. Enter text into the first column. The text wraps around in the column. When you press **RETURN**, new paragraphs remain in the column.

2. Press **CODE-NEXT** to begin the next column.

A new synchronization mark defines the second column. You can now enter text in this column. Press **CODE-NEXT** whenever you want to start to a new column. If you want to leave a column blank, just press **CODE-NEXT**. When you get to the last column, press **CODE-NEXT** to start the procedure over again.

☞ Remember that text in synchronized columns is meant to be read horizontally across the page, from one column to the next. If you find yourself creating very long columns that are read vertically, you might consider using serpentine columns instead. A common mistake is to treat synchronized columns like serpentine columns, that is, create new paragraphs until you get to the bottom of the page, and then create a new column. If you do so, your document will be difficult to paginate. Use serpentine columns instead.

☞ If you're using a WYSIWYG monitor and the screen is in half-visible or full-visible mode, very narrow margins between columns may not provide enough room for the paragraph symbols, and the columns may look out of place. Use normal-visible mode to see how the columns really look.

Getting Out of Synchronized Columns

To stop working in synchronized columns and return to full-text width,

1. Move the cursor to the line where you want the full-text width to resume.

2. Press **CODE-/** to display the Synchronized Columns menu.

3. Enter **1** in the *Number of columns* field.

4. Press **GO**.

    A full-width synchronization mark is displayed. Text entered below it is full width.

Using Keep Together With Synchronized Columns

When you work with synchronized columns that continue for more than one page, it's a good idea to use the Keep Together attribute. If you don't use Keep Together, your paragraphs might get broken in the middle by a page break, as shown in Figure 1–4.

This is a short column.
Very short.

This column is longer
than the other two.
Put the static page
break after this column.

This is another very
short column.

This is a short column.
Very short.

This column is longer
than the other two.
Notice how it gets

This is another very
short column.

split by the page break.

2665.1−4
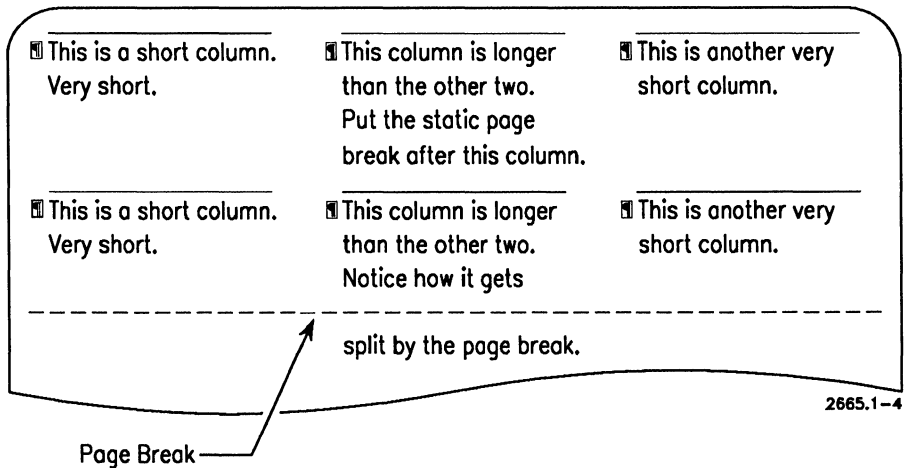
Page Break

Figure 1–4. Synchronized Column Page Break Problem

If Keep Together were applied to this example, the page would break as
shown in Figure 1–5. The page break would occur earlier, and the
paragraph would not be broken.

This is a short column.
Very short.

This column is longer
than the other two.
Put the static page
break after this column.

This is another very
short column.

This is a short column.
Very short.

This column is longer
than the other two.
Notice how it isn't split
anymore.

This is another very
short column.

2665.1−5

Page Break
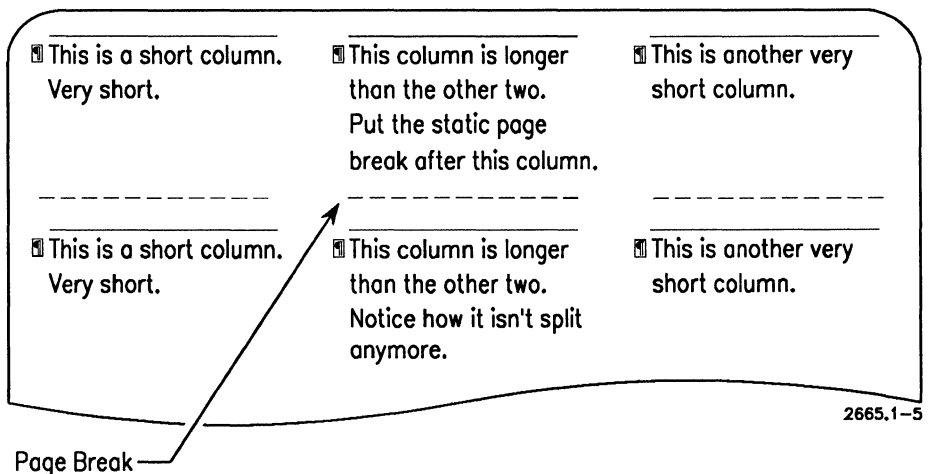
Figure 1–5.   Using Keep Together With Synchronized Columns

You can also use the Keep With Prior and Keep With Following attributes. For example, you could make sure that paragraphs in differents columns on a page stay together on that page. Remember that the Keep With Prior and Keep With Following attributes take priority over the Keep Together attribute. If there is a conflict, your paragraphs will be broken internally.

For information on the Keep Together attributes, see "Formatting Pages" in the *Word Processing* volume.

Changing Synchronized Column Widths

To change the widths of synchronized columns,

1. Mark the synchronization marks and the text you want to change. (If you mark only one synchronization mark, you will change the format in only one row of columns.)

2. Press **CODE-/** to display the Synchronized Columns menu.

3. Enter the new values in the Synchronized Columns menu. If you leave any fields blank, the values for those fields are calculated automatically.

4. Press **GO**. The text is reformatted to the new column widths.

Changing Columns Back to Full-Width Text

If you enter text in synchronized columns and then decide you don't want columns after all, mark the text (including the synchronization marks), press **CODE-/** to display the Synchronized Columns menu, and enter **1** in the *Number of columns* field.

When you change back to full text width, the paragraphs remain intact, and there are full-width synchronization marks between the paragraphs. You can delete these marks or leave them; they do not affect the line spacing in your document, even though they appear to on the screen.

Another method to return the text to full width is to delete the synchronized column marks. To do so, move the cursor to the synchronized column mark and press **DELETE**. If there is more than one column, you'll have to delete more than one column mark.

Editing Text in Synchronized Columns

You can edit text in synchronized columns the same way you edit normal text. In fact, you have something extra to work with: synchronization marks. These can be deleted, moved, and copied.

When you delete or move a synchronization mark, the text beneath it moves back to the column before it. If you delete or move the first synchronization mark, the text becomes full width.

When you copy or move a synchronization mark, it carries the entire column format along with it. Copying a synchronization mark is, therefore, a fast way to set up a synchronized column format.

Using Serpentine Columns

Text in serpentine columns flows from one column to the next across the page. For a sample of text in serpentine columns, see "Examples: Serpentine Columns," earlier in this section.

Creating a Serpentine Column Format

To create a serpentine column format,

1. Form the Base softkey strip, press **Page (F5)**.

2. Press **SerpCol (F1)** to display the Serpentine Columns menu, as shown in Figure 1–6.

SERPENTINE COLUMNS _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Currently   (Enter inches or characters)

Number of columns:
Margin between columns:

Figure 1–6. Serpentine Columns Menu

3. Enter the number of columns in the *Number of columns* field.

4. Enter the space between columns in the second field.

   For example, enter **.5** for 1/2 inch between columns, or enter **5c** for five characters between columns.

5. Press **GO**.

   The following message may be displayed:

   Total width specified exceeds to available text width.
   Available width = 6.0", Margin totals = 7.0", Column totals = 6.0"

   This message means you can't fit the columns as specified into the text width. (The numbers in this message vary according to the text dimensions and the column measurements.)

If the column measurements fit the page, two sets of double lines, called *serpentine column marks*, are displayed in your document. Text entered below the top mark is as long as the mark. Text entered below the second mark is full width. Serpentine column marks are only displayed in half-visible or full-visible mode.

☞ You can also create serpentine columns using the Page Attributes menu (From the Base softkey strip, press **Page (F5)**, **PgAttr (F10)** to display the Page Attributes menu). In the middle of the menu, there are two fields, *Number of columns* and *Margin between columns*. Fill in these fields as you would fill in the Serpentine Columns menu. When you use this method, there are no serpentine column marks. Using the Page Attributes menu to set up serpentine columns is a good idea if you want your entire document to be in a serpentine column format.

☞ There is a shortcut to display the Serpentine Columns menu: press **CODE-SHIFT-/**. The shortcut will be used throughout the rest of this guide.

☞ If you end up with very narrow columns, you probably set up your column format in a paragraph that is indented. In this case, the indents are applied to each *column*, not to the text width as a whole. To correct this, change the indents. (See the discussion on indents in the *Word Processing* volume.)

☞ You can reformat existing text into serpentine columns. To do so, mark the text and follow the procedure under "Creating a Serpentine Column Format" using either the Serpentine Columns menu or the Page Attributes menu.

☞ You can see the dimensions of your columns after you create the format. To do this, mark the top serpentine column mark and press **CODE-SHIFT-/**. The Serpentine Column menu is displayed with the current dimensions filled in. To remove the menu, press **CANCEL**. Don't forget to unmark the serpentine column mark.

☞ If you are going to consistently use a particular layout of serpentine columns, consider creating a page style out of the column mark. That way, whenever you want those columns, you can simply apply the style. (For more information, see the *Word Processing* volume.)

For a similar reason, you can also create a phrase out of a serpentine column mark. When you need to use those columns again, you simply recall the phrase. (For more information, see the *Word Processing* volume.)

Entering Text in Serpentine Columns

To enter text in serpentine columns,

1. Enter text in the first column. If you use the Serpentine Columns menu to create columns, the text doesn't flow to the next column until you review the document. If you use the Page Attributes menu, the text automatically flows to the next column when you come to the bottom of the page.

2. Review the document. The text is formatted in all the columns, and the columns are almost the same length. Continue entering text and reviewing the document. When you get to a new page, just continue typing; a page break is inserted automatically.

Getting Out of Serpentine Columns

To enter text in full-width format, move the cursor below the full-width double line and start typing.

Using Keep Together With Serpentine Columns

If you use serpentine columns in documents that have more than one page, you might want to use the Keep Together paragraph attributes. They work as follows:

• *Keep Together*. With full-width text, Keep Together prevents paragraphs from being broken by page breaks. With columns, it prevents paragraphs from being broken by page breaks *and* from being broken by column breaks.

• *Keep With Prior* and *Keep With Following*. With full-width text,
Keep With Prior and Keep With Following link paragraphs together
so they aren't separated by page breaks. With columns, Keep With
Prior and Keep With Following link paragraphs together so they
aren't separated by page breaks *or* by column breaks.

For information on the Keep Together paragraph attributes, see
"Formatting Pages" in the *Word Processing* volume.

Changing the Length of Serpentine Columns

If you don't use the Keep Together attributes, and you review or print a
document that uses serpentine columns, the columns are formatted to be
as equal in length as possible. To change the length of serpentine
columns, you can insert static column breaks. (For information on page
breaks, see the *Word Processing* volume.)

To insert a static column break, move the cursor to where you want a
new column to begin, and press **CODE-NEXT**. At this point, the
columns may not look right. You need to review the document; from the
Base softkey strip, press **Home (F1), Print (F2), Review (F3)** to
display the Review Document menu.

For example, you may want the first column to be shorter than the rest of
the columns. To do this, you must insert a static column break in the
first column. To do so,

1. Move the cursor to the point where you want to break the column.

2. Press **CODE-NEXT** to insert a static column break.

3. Review the document.

   The static column break appears at the top of the next column, and
   the first column is shorter than the others.

Figure 1–7 shows an example of how this works. Part A of the figure
shows the cursor location. Part B shows how the column breaks after
you review the document.

2665.1-7
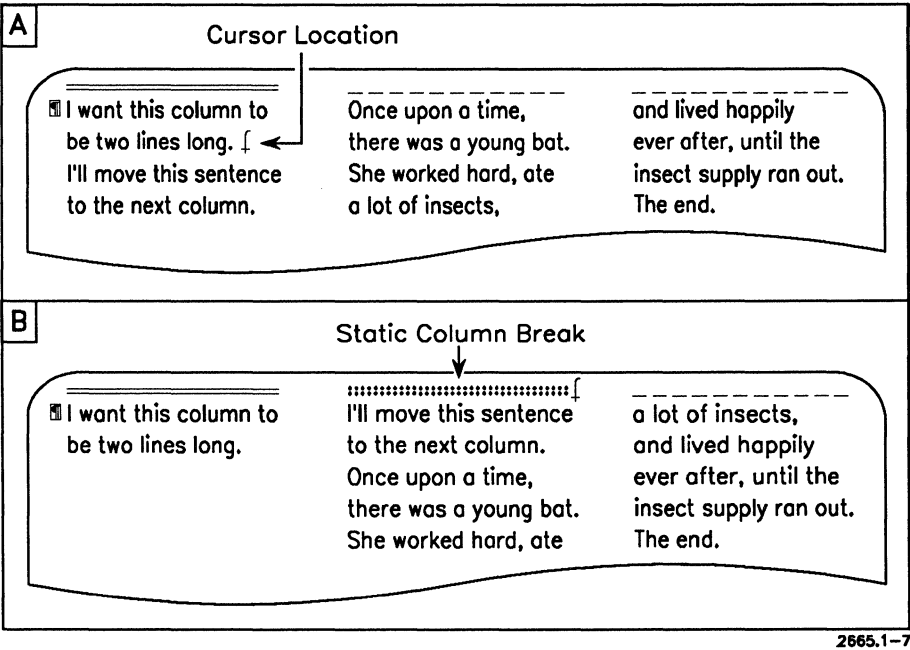
Figure 1-7. A Simple Column Break

Figure 1–8 shows another example, but this one is more complex. In this example, we need to add four lines of text to the first column. This means inserting two static column breaks.

Part A shows the cursor location for the first column break. Part B shows the column break in the last column. It also shows the cursor location for the second column break. Part C shows both column breaks. Notice how the first column break moved from the last column to the second column.
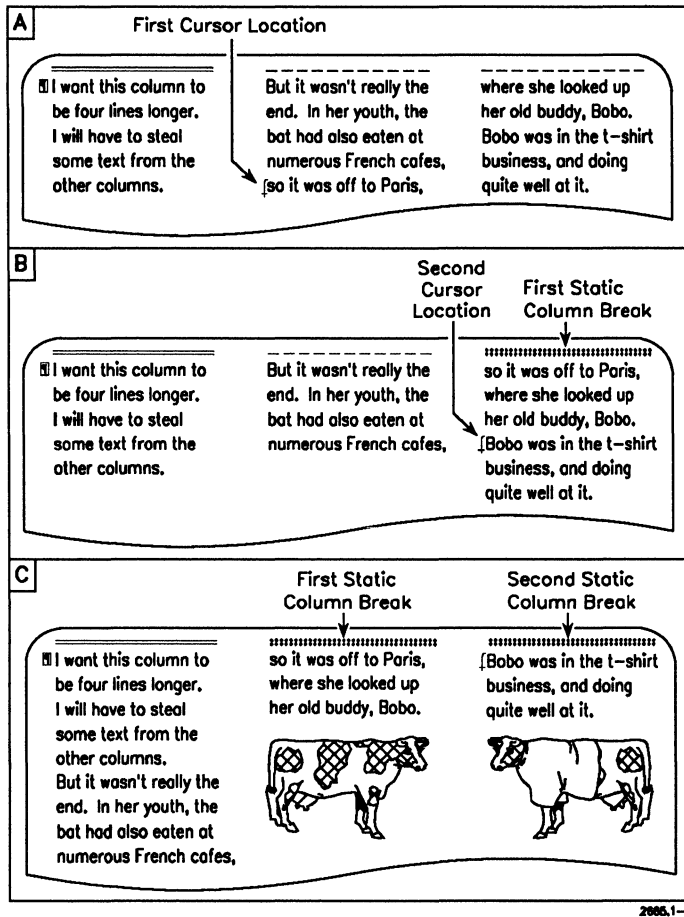
Figure 1–8. A Complex Column Break

If you have a situation similar to this example, remember that if there is one static column break, the longest column is always divided in half. Sometimes you may have to insert two static column breaks and sometimes you won't; it all depends on the length of the columns.

Note: *Too many column breaks in a page may result in lower performance of your workstation. If your screen scrolls very slowly, you may have to delete some column breaks. Remember that by using the Keep Together attributes, some column breaks might not be necessary.*

Changing the Serpentine Column Format

You can change the number of serpentine columns, their widths, and the margins between them. To do this,

1. Mark the serpentine column mark and all of the text in the column.

2. Press **CODE-SHIFT-/**.

3. Enter the new values in the appropriate fields.

4. Press **GO**.

Changing Serpentine Columns Back to Full-Width Text

If you want to change serpentine columns back to full-width text, follow the above procedure and enter 1 in the *Number of columns* field.

When you change back to full text width, full-width serpentine column marks appear and any static column breaks inserted in the serpentine columns appear as full-width static column breaks.

You can delete or ignore the remaining full-width serpentine column marks; they have no affect on the line spacing of your document even though they appear on the screen. The full-width static column breaks, however, function as static page breaks. Delete them unless you want page breaks where they appear.

Editing Text in Serpentine Columns

You can edit text in serpentine columns the same way you edit normal text. You also have the serpentine column mark to work with (only the first serpentine column mark, the short one.) Not only can you delete the column marks, but you can move and copy them. When you move or copy a serpentine column mark, it carries the column format with it. This is an easy way to set up a serpentine column format. Remember that if you move or delete the serpentine column mark, the text below it returns to full width.

If you find that you consistently use a particular column layout, you can create a phrase out of the column mark. That way, when you need to use the column format, you simply recall the phrase, and the column format is ready.

Section 2
Integrating Objects

About Integrating Objects

It's often been said that a picture is worth a thousand cows. Or something like that. Anyway, sometimes the best way to make a point is to use a picture. For example, how would you describe Figure 2-1?
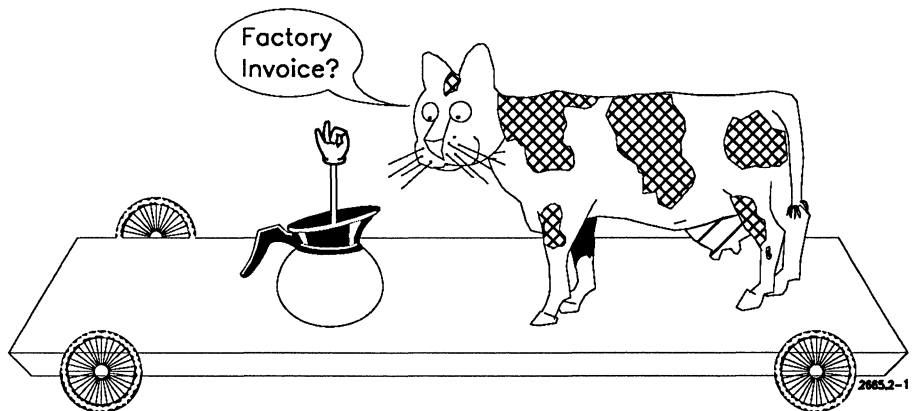
Figure 2-1. Sample Figure

On a more practical level, perhaps your outstanding profits from last quarter would make a spectacular bar graph. Or maybe you have a spreadsheet that would get your point across numerically. Or perhaps you have photographs that you want to add to your monthly newsletter.

Using the OFIS Document Designer object integration feature, you can add all these visual elements to your document. You can then move them, resize them, and edit them, all electronically.

Before You Begin

Before you go any further, remember the following points:

- You must have at least one of the following cooperating programs on your system or on the server workstation:
    - Art Designer
    - Extended Multiplan
    - Image Designer
    - OFIS Graphics
    - OFIS Imager
    - OFIS Paint
    - OFIS Spreadsheet

- Your software must be configured so that OFIS Document Designer and the cooperating programs can communicate with each other. See the *System Administration* volume if you have any problems working with cooperating programs.

How Object Integration Works

Anything that you create in another program and bring into a OFIS Document Designer document is called an *object*. There are graphic objects and text objects. Graphic objects are produced with programs such as Art Designer or Image Designer. Text objects are produced with programs such as Extended Multiplan or OFIS Spreadsheet.

To integrate an object, you first set an anchor character in the document. The *anchor* character determines the object's location. Then you go into the cooperating program to create or retrieve the object. When you return to OFIS Document Designer, you bring the object back to the document and place it at the anchor character. Once the object is in the document, you can move it or resize it.

Figure 2–2 shows how an integrated object looks on the screen. The anchor character in this case is a paragraph symbol. The object is anchored to that paragraph symbol, so if you move the paragraph symbol, the object moves with it.
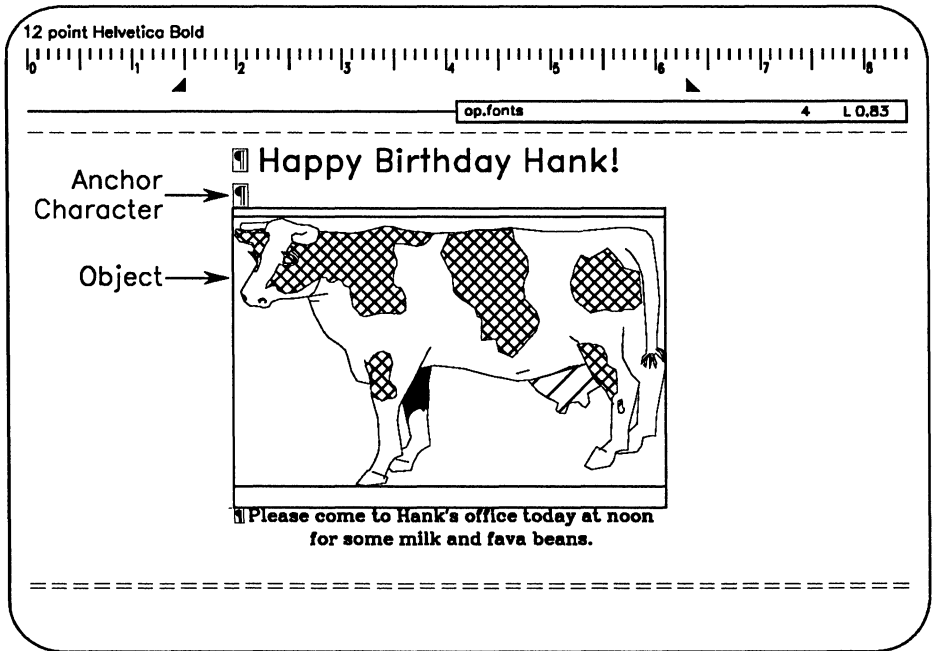
Figure 2–2. An Integrated Document

Procedure: Integrating an Object

To integrate an object,

1. Move the cursor to the place in your document where you want insert the object.

2. Select an anchor character and press **MARK**.

    The anchor character can be any letter, number, punctuation mark, paragraph symbol, tab symbol, and so forth. When choosing an anchor character, remember that an object is always positioned *below* it. You can move an object to the left or right or anywhere on the page below the anchor character, but never above it. For more information about anchor characters, see "More About Anchor Characters," later in this section.

3. From the Base softkey strip, press **Home (F1)**.

4. Press **Utility (F7)**.

5. Press **Object (F1)** to display the Object menu, as shown in Figure 2–3.

    There are six commands in this menu, but for now we are only interested in one of them, the Edit/Create An Object command.

OBJECT _____

(Press CANCEL to dismiss)

Press	E to	Edit (or create) an object
	B	Set box dimensions for object
	S	Search for next anchor character
	P	Place a waiting object
	O	Box object
	V	Change graphical object visibility (Code-Shift-V)

Figure 2–3. Object Menu

6. Press **E**.

    If you have more than one cooperating program, the Edit/Create Object menu is displayed, as shown in Figure 2–4. Note that the applications and the numbers applied to them may be different than those shown in the figure.

    If you have only one cooperating program, this menu does not appear, and the cooperating program is displayed.

EDIT/CREATE OBJECT _____

Press   1   for   Art Designer
          2   Extended Multiplan

Figure 2–4. Edit/Create Object Menu

7. If the Edit/Create Object menu is displayed, press the number that corresponds to the appropriate program. After a few seconds, the cooperating program is displayed.

8. Create, or retrieve from your files the object that you want to integrate. Go ahead and work on it as much as you want; you have all the time in the world.

    If you are using Art Designer or OFIS Graphics, it doesn't matter what size the object is when you integrate it; OFIS Document Designer will size the object. However, be aware that *every object* in the Art Designer or OFIS Graphics viewing area is transferred to OFIS Document Designer. For example, if your picture file contains a cow along with a balloon and you just want the cow, you must remove the balloon before you transfer the image.

    If you are using Image Designer, OFIS Imager, or OFIS Paint, you should size the object to the desired dimensions before placing it in your document. You could use OFIS Document Designer to size a scanned object, but you will lose some quality.

9. If you are creating a new file, you may want to save it in the
    cooperating program. Whether you save it or not, OFIS Document
    Designer will save it in the document's text file. If you save it in the
    cooperating program, you save the object twice, which seems
    redundant but is actually the safest way to work. It is much easier to
    keep track of a file if you save it in the cooperating program.

10. Press **FINISH**.

    At this point, the cooperating programs require different procedures.

    a. If you're working in Art Designer, OFIS Graphics, Image
        Designer, OFIS Imager, or OFIS Paint, this message is
        displayed:

        > Select **GO** to transfer image, **FINISH** to transfer nothing.

        Press **GO**.

        In Image Designer, you can move and resize the scan box to
        transfer only part of the image. (See the *Image Designer
        Manual* for more information.)

    b. If you're working in OFIS SpreadSheet, this message is
        displayed at the top of the screen:

        > Enter range for OFIS Designer image: a1

        You must specify the data range that you want to transfer. The
        range entered is the cell where the cursor is located, for
        example, a1. That means you would only enter one cell.

        To transfer the entire worksheet, press **BOUND**, then press
        CODE-UP ARROW. To transfer part of the worksheet, use the
        Arrow keys to move the highlight to the first cell that you want
        to include, enter a period, and use the Arrow keys to highlight
        the remaining cells that you want to transfer. The message at
        the top of the screen tells you the range that will be transferred,
        for example:

        > Enter range for OFIS Designer image: a1 d6

        Press **GO**.

c. If you're working in Extended Multiplan, the following message is displayed:

Select **GO** to quit. Press **CANCEL** to cancel command.

Press **GO**.

This message is displayed:

Image Area: R1:255

This means that rows 1 through 255 will be transferred. You can go ahead and do that; the blank rows do not appear in the document. However, you have the option of transferring only part of the worksheet. For example, if you want to transfer rows 3 through 8, you would enter **R3:8**. (The colon represents the word "through.") If you want to enter rows 3 through 8 and columns 1 through 7, you would enter **R3C1:R8C7**.

Press **GO**.

11. OFIS Document Designer returns to the screen and this message is displayed:

Press **GO** to confirm assigning object to marked anchor character, Press **CANCEL** to deny.

You have two choices:

• If you want to place the object in the document at the location of the anchor character, press **GO**. Note that if you have a WYSIWYG monitor and are in full or half-visible mode, the anchor character now appears outlined.

The object is placed, by default, one line below the anchor character and against the left margin. Later in this section you will learn how to change the placement of an object.

• If you want to place the object in waiting, press **CANCEL**. When an object is waiting, you can change the anchor character before bringing it into the document. You then use the Place a Waiting Object command to place the object. (See "Placing a Waiting Object," later in this section.)

☞ If you are using OFIS Document Writer, you will not see a graphic object. Instead, you will see a dotted box.

☞ If your anchor character is in a column, and the object is wider than the column, the object is placed at the bottom of the page.

☞ There may be text wrapped around an object when it is placed in your document. Later in this section you will learn how to deal with this too.

☞ The point size of text objects varies from 5 to 12 point. For large text objects, the point size may be too large, and not all of the text object is visible. You can make the point size smaller by using the Stretch Text-at-Bay Box command, described later in this section. For very large text objects, some of the object may not be displayed even at the smallest point size possible.

☞ On a non-WYSIWYG monitor, objects may appear out of proportion. Don't worry, the objects will print correctly.

☞ Some graphic objects may appear to be drawn with dashed lines. This occurs because they were drawn using one of the optional Art Designer line types, which appear as dashed lines. Again, don't be concerned; the objects will print correctly.

☞ You can move, copy, and delete an object. If you delete the anchor character, the object is deleted as well.

Placing a Waiting Object

Remember the procedure at the beginning of this section in which you created an object and had the option of placing the object in waiting? If you did place the object in waiting, one of the following messages was displayed at the upper left corner of the screen:

Text object waiting

Graphic object waiting

To place a waiting object (graphic or text),

1. Mark the anchor character. You can use a character that is already an anchor character, or you can create a new anchor character just by marking it.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Object (F1)** to display the Object menu.

5. Press **P**.

    The waiting object is placed at the anchor character. If you have a WYSIWYG monitor and you are working in full or half-visible mode, the anchor character now appears outlined.

You can have more than one object waiting. While an object is waiting, you can create another one. Later, when you return to OFIS Document Designer from the cooperating program, the new object is placed in waiting automatically.

When placing multiple objects in a document, you must place the first object first, before you can place any subsequent objects. If you have multiple objects waiting, they are placed in the order they were created.

Changing Graphic Object Display

If you are using OFIS Document Designer, you will notice that scrolling gets slower when graphic objects are displayed on the screen. (If you are using OFIS Document Writer, graphic objects are always displayed as dotted boxes, so scrolling is not affected.) You can speed up scrolling by changing the object visibility. The Change Graphical Object Visibility command changes the resolution of all the graphic objects in your document. It doesn't matter where you place the cursor in your document when you use this command.

To change the object visibility,

1. Press **CODE-SHIFT-V**.

    Dotted boxes replace the graphic objects. Now you can scroll faster. This visibility mode is called *dotted boxes*.

2. Press **CODE-SHIFT-V** again.

    The graphic objects are visible again, but the lines are somewhat coarse and jagged. You can see what the objects are and yet you are still able to scroll faster. This visibility mode is called *high-speed graphics*.

3. Press **CODE-SHIFT-V** again.

    The graphic objects are visible again in their highest resolution. This visibility mode is called *high-quality graphics*.

    You can tell which object visibility you are currently in by pressing displaying the Object menu. The last line on the Object menu shows the current object visibility.

    If you go through the **CODE-SHIFT-V** cycle again, any object that has been displayed in high-quality graphics will be displayed in either high-quality graphics or in dotted boxes.

The Text-at-Bay Box

When your screen is in half-visible or full-visible mode, you can see two boxes around an object, as shown in Figure 2–5. The inner box, the one that touches the object, is called the *object boundary*. The outer box is called the *text-at-bay box*. (If you have a non-WYSIWYG monitor, you can't see the text-at-bay box.)
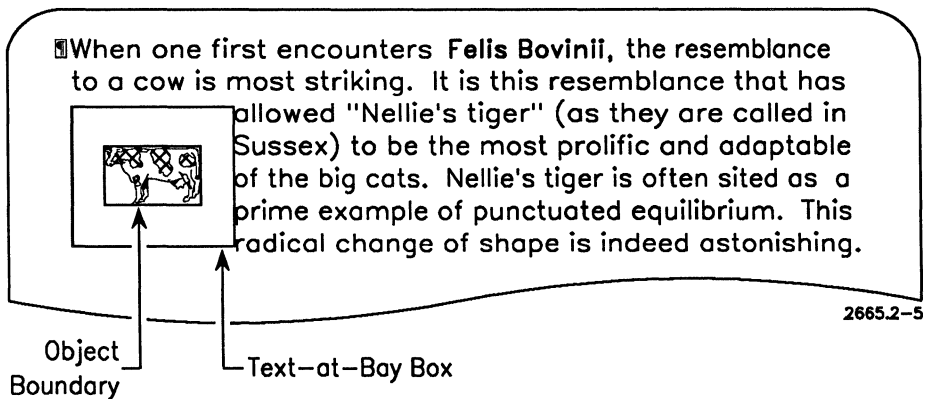
Figure 2–5. The Text-at-Bay Box and the Object Boundary

The function of a text-at-bay box is just what the name implies; it keeps text away from an object. You can move and resize a text-at-bay box to create the proper white space around an object.

☞ You can place an object in the middle of the page with text all around it. To do so, place the anchor character in a column. If you do so, the text-at-bay box must be flush with one side of a column; you can't have text within a column flow around both sides of an object.

Note, however, that if the text-at-bay box is wider than the column, the object is moved to the bottom of the page.

☞ An object cannot extend beyond a text-at-bay box. Also, you cannot have OFIS Document Designer text within a text-at-bay box.

☞ Use half-visible or full-visible mode to see the boxes around objects. When you want to see exactly how an object looks, use normal-visible mode.

Moving and Resizing an Object

Once you have placed an object in a document, you can move and resize both the object and its text-at-bay box. To do so, you use the options on the Box Boundaries menu.

1. Mark the object or its anchor character.

2. From the Base softkey strip, press **Home (F1), Utility (F7), Object (F1)** to display the Object menu.

3.   Press **B**. The Box Boundaries menu is displayed, as shown in Figure
     2–6.

BOX BOUNDARIES

(Press CANCEL to dismiss, Next Page to see more choices)

Cursor to desired position, then:
Press M to Move object
    R   Resize object (maintains aspect ratio)
    S   Stretch object (may alter aspect ratio)
    T   Stretch text–at–bay box

(Use Code–V to see boxes around objects)

2665.2–5

Figure 2–6. Box Boundaries Menu

4.   The first four commands on this menu require you to move the cursor
     to a specific location in relation to the object or text-at-bay box. The
     diagrams on the menu show where the cursor should be placed for
     each of those commands.

     Some of the commands on the Box Boundaries menu work best with
     only certain kinds of objects. For example, it's best not to resize
     scanned images because it lowers the quality of the image. Also, if
     you resize text objects, you may cover up part of the object.

The following is a brief description of each of the commands on the Box Boundaries menu. At the end of this procedure there are several examples illustrating how each command affects an object and/or its text-at-bay box.

M Moves an object. Use this command for any kind of object.

R Resizes an object while maintaining the same ratio of height to width (the aspect ratio). Use this command for Art Designer and OFIS Graphics objects.

S Resizes an object but may change the aspect ratio. Use this command for Art Designer objects and text objects.

T Resizes a text-at-bay box. Use this command with any kind of object, but be careful you don't shrink scanned images when you shrink the text-at-bay box. You can also use this command to shrink the point size of a text object.

For all of the above commands, you can use **CODE-SHIFT-LEFT ARROW** and **CODE-SHIFT-RIGHT ARROW** to move the cursor more precisely.

Press **NEXT PAGE** to get to the other four commands on the menu.

C Centers an object in the text-at-bay box. Use this command for any kind of object.

A Restores the original aspect ratio. Use this command when you have sized an object to the wrong proportions and you want to get it back to its correct proportions.

O Moves a text-at-bay box to the opposite side of the page. Use this command for any kind of object.

E Displays the Box Dimensions menu. (See "Using the Box Dimensions Menu," later in this section.) Use this command for any kind of object.

5. When the object is sized correctly and placed where you want it, press **CANCEL** to remove the Box Boundaries menu.

The examples on the next few pages show specifically how each command on the Box Boundaries menu functions. The "before" part of the figure shows the location of the cursor and the object before you issue the command. The "after" part of the figure shows the result of issuing the command.

Move Object Command: Example

To use the Move Object command, press **M** when the Box Boundaries menu is displayed. This moves the object within the text-at-bay box to a location directly below the cursor. If you move the object to a location outside the text-at-bay box, the text-at-bay box expands.

Figure 2–7 shows how to move an object to the upper left corner of the text-at-bay box.
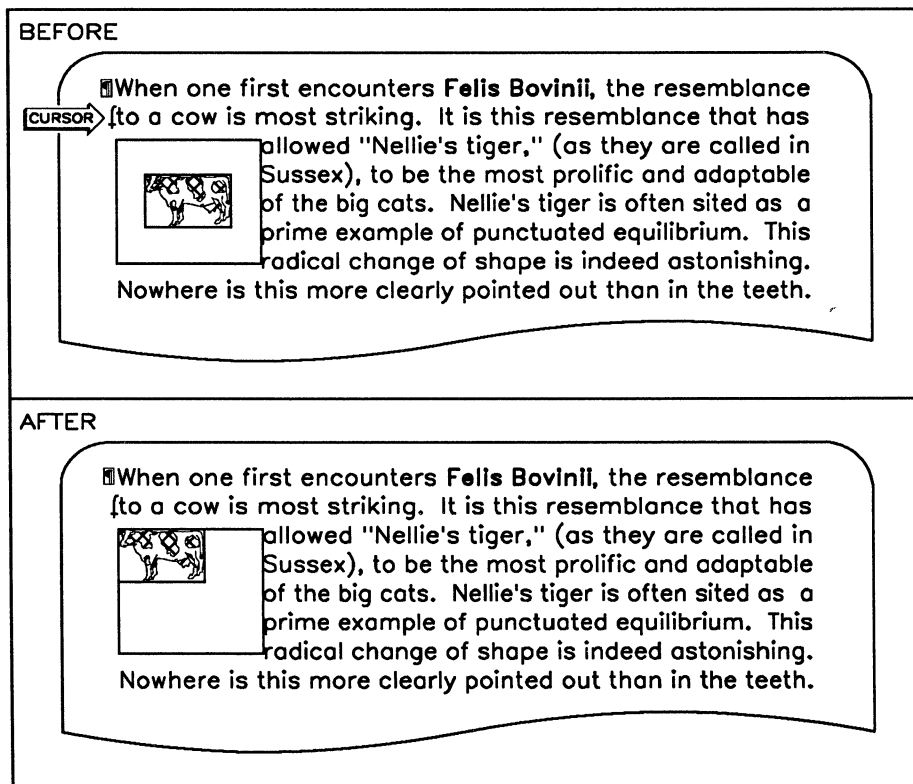
2665.2–7

Figure 2–7. Move Object Command

Resize Object Command: Examples

To use the Resize Object command, press **R** when the Box Boundaries menu is displayed. Use this command to resize graphic objects when you want the aspect ratio to stay the same, in other words, when you want the object to keep its proportions.

Figure 2–8 shows how to resize an object. In this example, the object is resized so that the lower right corner ends up at the cursor location. The text-at-bay box is resized along with the object.

BEFORE

◼When one first encounters **Felis Bovinii,** the resemblance to a cow is most striking. It is this resemblance that has allowed "Nellie's tiger," (as they are called in Sussex), to be the most prolific and adaptable of the big cats. Nellie's tiger is often sited as a prime example of punctuated equilibrium. This radical change of shape is indeed astonishing. Nowhere is this more clearly pointed out than in the teeth.

CURSOR⟩ƒ

AFTER

◼When one first encounters **Felis Bovinii,** the resemblance to a cow is most striking. It is this resemblance that has allowed "Nellie's tiger," (as they are called in Sussex), to be the most prolific and adaptable of the big cats. Nellie's tiger is often sited as a prime example of punk equestrianism. It has long teeth.

ƒ

2665.2–8

Figure 2–8. Resize Object Command (Example 1)

In Figure 2–9, the lower right corner of the object does not end up at the cursor location. If it did, the object would shrink considerably in an attempt to keep its proportions. Instead, the location of the cursor determined the height of the object, and the width naturally followed in proportion. You can also resize an object by defining its width. To do so, you would place the cursor near the top of the text-at-bay box. The general rule is that when an object is resized, the lower right corner of the object cannot always go to where the cursor is located and still maintain the correct proportions of the object. In those cases, the object is always resized larger, not smaller.

BEFORE

When one first encounters **Felis Bovinii**, the resemblance to a cow is most striking. It is this resemblance that has allowed "Nellie's tiger," (as they are called in Sussex), to be the most prolific and adaptable of the big cats. Nellie's tiger is often sited as a prime example of punctuated equilibrium. This radical change of shape is indeed astonishing. Nowhere is this more clearly pointed out than in the teeth.

CURSOR

AFTER

When one first encounters **Felis Bovinii**, the resemblance to a cow is most striking. It is this resemblance that has allowed "Nellie's tiger," (as they are called in Sussex), to be the most prolific and adaptable of the big cats. Nellie's tiger is often sited as a prime example of punk equestrianism. It has long teeth.

2665.2–9

Figure 2–9. Resize Object Command (Example 2)

The Stretch Object Command: Example

To use the Stretch Object command, press **S** when the Box Boundaries menu is displayed. The Stretch Object command resizes the object, but does not maintain proportions. Some objects look fine when you stretch them and some don't, as shown in Figure 2–10. If you want to restore the proportions, press **A**, as explained in the discussion of the Restore Aspect Ratio command, later in this section.

In Figure 2–10, the text-at-bay box now spans the full text width, so text can no longer wrap around the object.
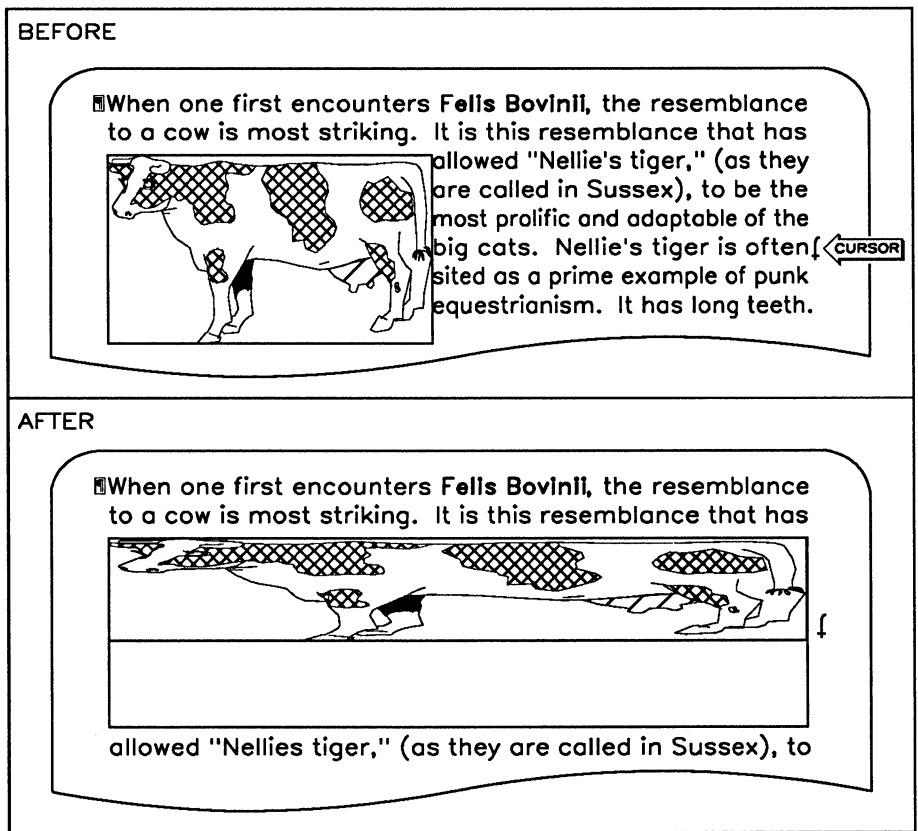
Figure 2–10. Stretch Object Command

The Stretch Text-at-Bay Box Command: Examples

To use the Stretch Text-at-Bay Box command, press **T** when the Box Boundaries menu is displayed. Use this command with all kinds of objects. With text objects, this command resizes the text object by shrinking the point size. (Remember that the point size you can use is limited by the capabilities of your printer.)

Figure 2–11 shows how the text-at-bay box is made smaller. Notice that both the text-at-bay box and the object are shrunk. Notice also that the aspect ratio of the object is maintained while the text-at-bay box changes proportions.
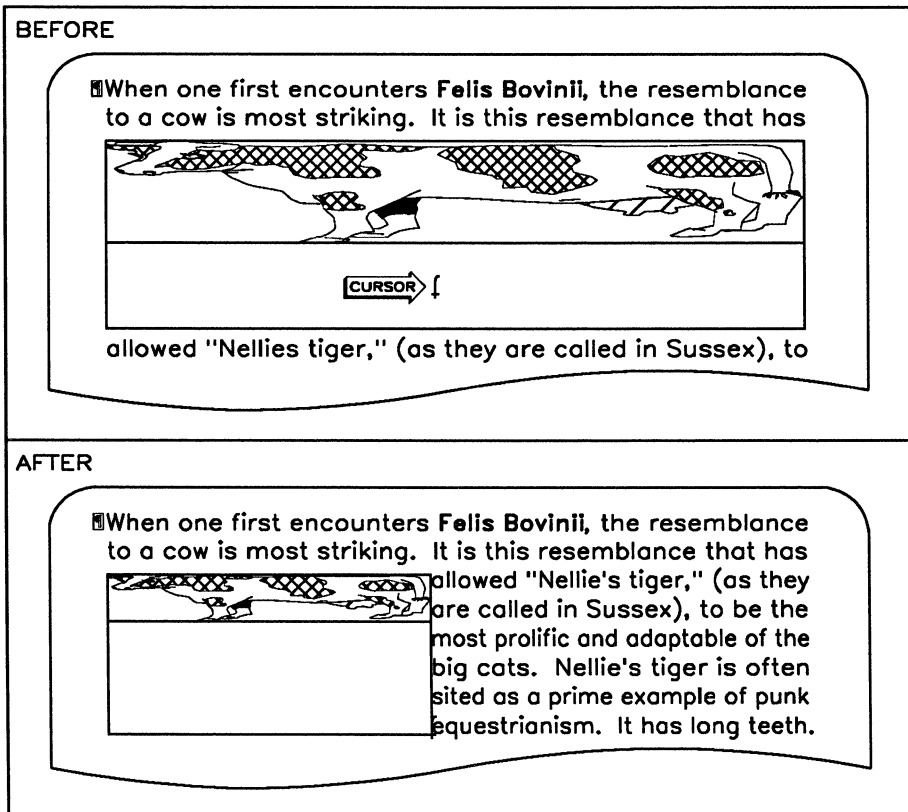
2665.2–11

Figure 2–11. Stretch Text-at-Bay Box Command (Example 1)

Figure 2–12 shows how to make the text-at-bay box larger. Notice that the object remains the same size.
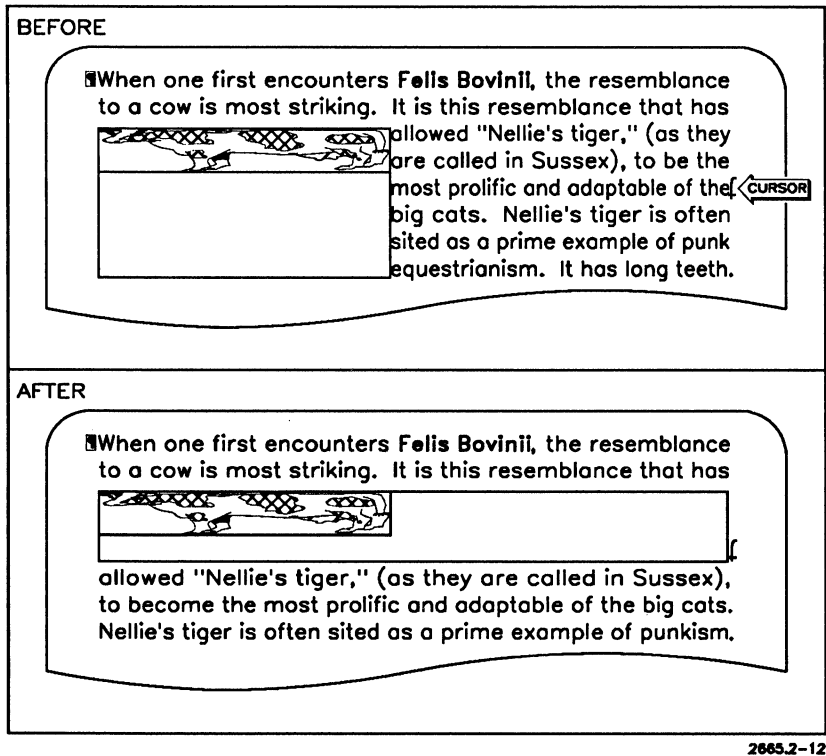
Figure 2–12. Stretch Text-at-Bay Box Command (Example 2)

The Center Object Command: Examples

To use the Center Object command, press **C** when the Box Boundaries menu is displayed.

The object is centered both vertically and horizontally in the text-at-bay box, as shown in Figure 2–13. If you want the object centered between the left and right text margins, the text-at-bay box must be exactly as wide as the margins.

BEFORE

■When one first encounters **Felis Bovinii**, the resemblance to a cow is most striking. It is this resemblance that has

allowed "Nellie's tiger," (as they are called in Sussex),

AFTER

■When one first encounters **Felis Bovinii**, the resemblance to a cow is most striking. It is this resemblance that has

allowed "Nellie's tiger," (as they are called in Sussex),
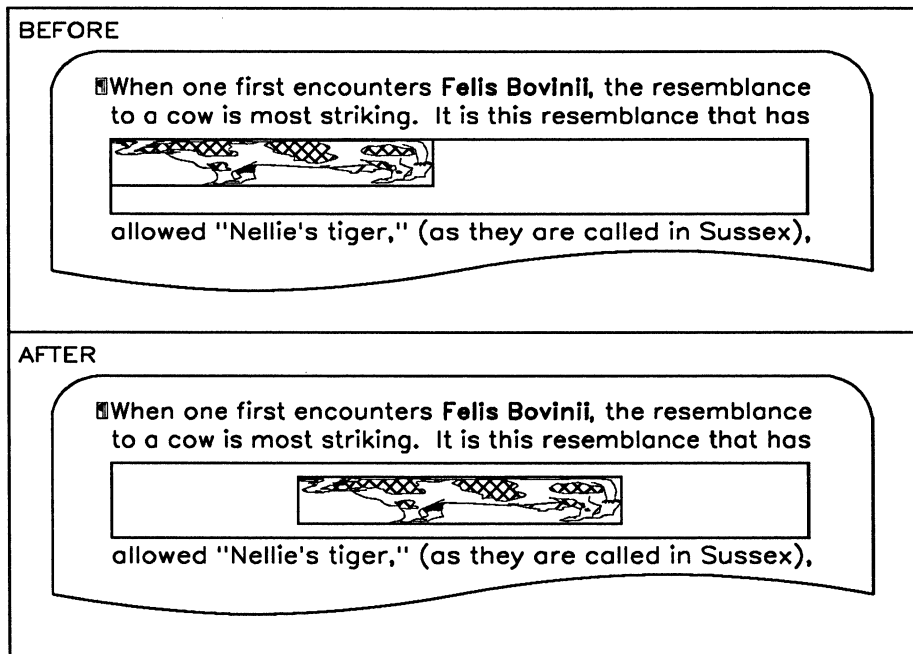
2665.2–13

Figure 2–13. Center Object Command

The Restore Aspect Ratio Command: Example

To use the Restore Aspect Ratio command, press **A** when the Box Boundaries menu is displayed. The object regains its original proportions, as shown in Figure 2–14.

When you give this command, the cursor can be anywhere on the screen.

BEFORE

When one first encounters **Felis Bovinii** , the resemblance to a cow is most striking. It is this resemblance that has

allowed "Nellie's tiger," (as they are called in Sussex),

AFTER

When one first encounters **Felis Bovinii** , the resemblance to a cow is most striking. It is this resemblance that has

allowed "Nellie's tiger," (as they are called in Sussex),
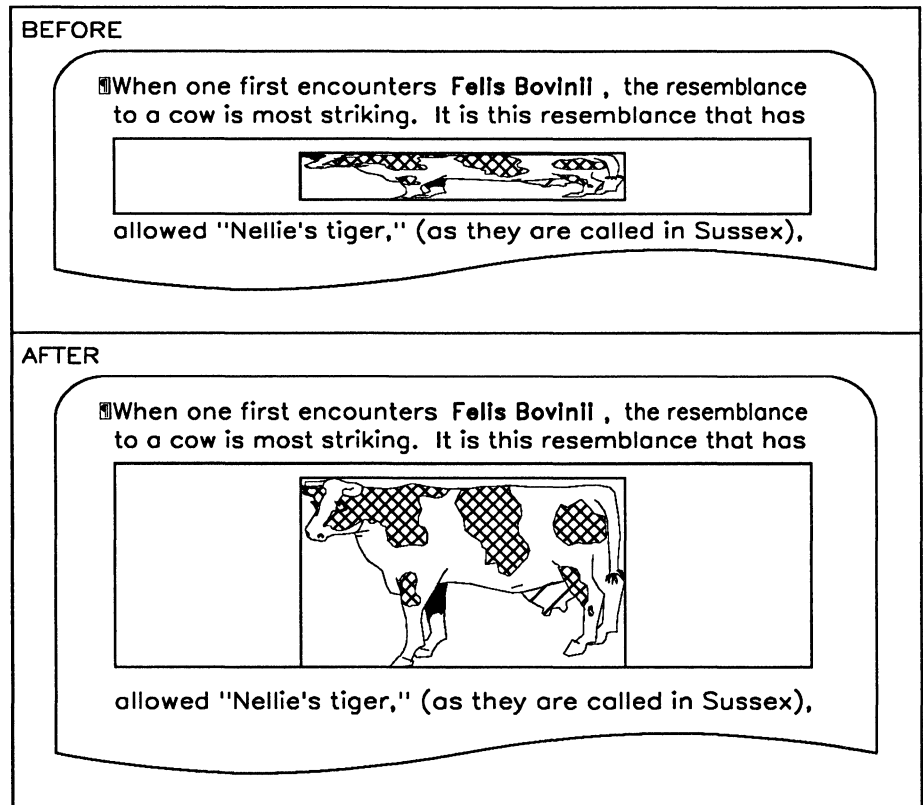
2665.2–14

Figure 2–14. Restore Aspect Ratio Command

The Change Left/Right Box Orientation Command: Example

To use the Change Left/Right Box Orientation command, press **O** when the Box Boundaries menu is displayed. The object is anchored to the opposite side of the page or column, as shown in Figure 2–15.

When you give this command, the cursor can be anywhere on the screen.

When the text-at-bay box is placed against the right margin, you can use the right-hand diagram on the *Box Boundaries* menu. It functions in the same way as the left-hand diagram, except the text-at-bay box stretches to the left instead of to the right.

BEFORE

When one first encounters **Felis Bovinii**, the resemblance to a cow is most striking. It is this resemblance that has allowed "Nellie's tiger," (as they are called in Sussex), to be the most prolific and adaptable of the big cats. Nellie's tiger is often sited as a prime example of punk equestrianism. It has long teeth.

AFTER

When one first encounters **Felis Bovinii**, the resemblance to a cow is most striking. It is this resemblance that has allowed "Nellie's tiger," (as they are called in Sussex), to be the most prolific and adaptable of the big cats. Nellie's tiger is often sited as a prime example of punk equestrianism. It has long teeth.

2665.2–15

Figure 2–15. Change Left/Right Box Orientation Command

Using the Box Dimensions Menu

You use the Box Dimensions menu to resize and move an object when you know the exact size you want the object to be and where you want to place it in your document. The options in this menu allow you to move and resize objects very precisely.

You can use this menu before or after integrating an object. To use the Box Dimensions menu,

1. If an object is already integrated in a document and the Box Boundaries menu is displayed, press **E** to display the Box Dimensions menu.

   If an object is already integrated and the Box Boundaries menu is not displayed,

   a. Mark the object.

   b. From the Base softkey strip, press **Home (F1), Utility (F7), Object (F1)** to display the Object menu.

   c. Press **E** to display the Box Dimensions menu.

   If an object is not yet integrated,

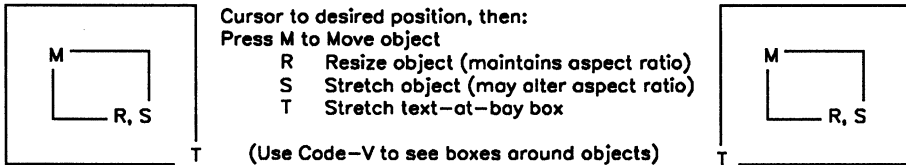   a. Mark an anchor character.

   b. From the Base softkey strip, press **Home (F1), Utility (F7), Object (F1)** to display the Object menu.

   c. Press **B** to display the Box Dimensions menu.

One way or another, the Box Dimensions menu is displayed, as shown in Figure 2–16.

BOX DIMENSIONS _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Currently   (Enter inches, lines or characters)

[Text-at-bay width]
[Text-at-bay height]
[Object width]
[Object height]
[Object left-offset]
[Object down-offset]

Orientation:	**Left**	Right	(Press L or R)
	Bottom	**Float**	(Press B or F)
Maintain aspect ratio?	**Yes**	No	(Press Y or N)

Reminder: All fields are optional. Fill in none, or one, or any number of fields.

Figure 2–16. Box Dimensions Menu

2.   Fill in the desired dimensions. Figure 2–17 illustrates the fields in the menu.
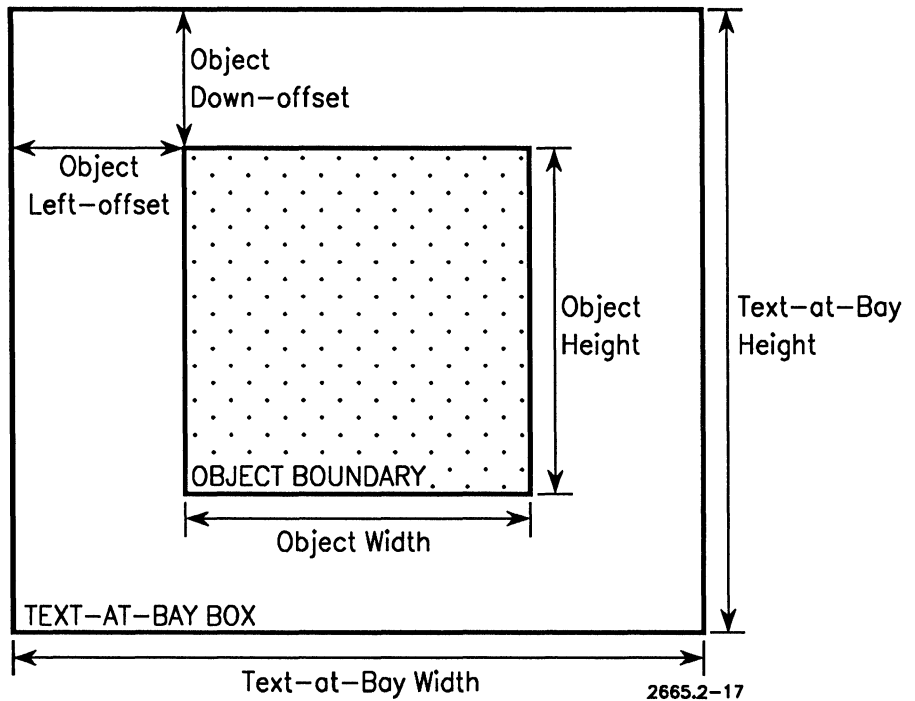
Figure 2–17. **Fields in the Box Dimensions Menu**

The fields in the Box Dimensions menu are explained below.

Text-at-bay width	Enter a value in inches or characters.
Text-at-bay height	Enter a value in inches or lines.
Object width	Enter a value in inches or characters. The object can't be wider than the text-at-bay box.
Object height	Enter a value in inches or lines. The object can't be taller than the text-at-bay box.

Object left-offset | The distance from the left side of the text-at-bay box to the left side of the object, as shown in Figure 2–17. Enter the value in inches or characters.

Object down-offset | The distance from the top of the text-at-bay box to the top of the object. Enter the value in inches or lines.

Orientation | Refers to the placement of the text-at-bay box in the text. You have four options:

Left: | Text-at-bay box is placed at the left side of the page or column.

Right: | Text-at-bay box is placed at the right side of the page or column.

Bottom: | Text-at-bay box is placed at the bottom of the page.

Float: | Text-at-bay box floats directly below the line of text containing the anchor character.

Maintain aspect ratio | Allows you to maintain or change the original aspect ratio. For example, if your object is 4 inches wide by 5 inches tall, you could adjust it to fit into a space only 4 inches by 4 inches. In such a case, you would change the aspect ratio, because the object would be shorter, but have the same width.

3. After you fill in the fields, press **GO**.

The new dimensions are now set. If the object is already integrated in your document, its size and position are changed according to the values specified in the Box Dimensions menu. If the object is not yet integrated, the screen displays empty boxes that will be filled in when you create the object. The size of the boxes may change when the object is created, especially if you have specified a value for only one dimension (height or width).

☞ You don't have to fill in all the fields in the Box Dimensions menu. For example, if you know you want your object to be 4 inches wide and you don't care how tall it is, just enter the width, and the height will be set along with it, at the proper aspect ratio.

☞ If you want the object and the text-at-bay box to have the same dimensions, you must set the offset fields to 0. For example, if you want both the object and the text-at-bay box to be 5 inches wide, but you set the left offset to 1 inch, the object will not fit. In this example, the largest the object can be is 4 inches, because it must be offset 1 inch to the left within the text-at-bay box.

Using the Box Dimensions Menu: An Example

Figure 2–18 shows a sample Box Dimensions menu with values specified in each field; above the menu is an example of an integrated object using the dimensions specified in the menu.
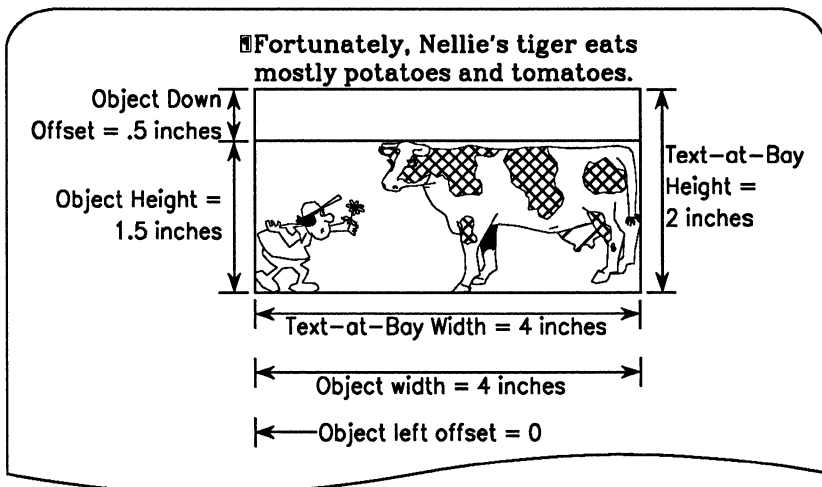
■Fortunately, Nellie's tiger eats
mostly potatoes and tomatoes.

Object Down
Offset = .5 inches

Object Height =
1.5 inches

Text–at–Bay
Height =
2 inches

Text–at–Bay Width = 4 inches

Object width = 4 inches

Object left offset = 0

BOX DIMENSIONS

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Currently   (Enter inches, lines, or characters)

[Text–at–bay width]   4 inches
[Text–at–bay height]   2 inches
[Object width]   4 inches
[Object height]   1.5 inches

[Object left–offset]   0
[Object down–offset]   .5 inches

Orientation: **Left**   Right   (Press L or R)
                    Bottom   **Float**   (Press B or F)
Maintain aspect ratio? **Yes**   No   (Press Y or N)

Reminder: All fields are optional. Fill in none, or one, or any number of fields.

2665.2–18

Figure 2–18. Sample Box Dimensions Menu

Searching for Anchor Characters

Once you have integrated objects in a document, you can quickly locate
them by searching for their anchor characters. To do this, use the Search
For Next Anchor Character command. Like the Search command, the
Search For Next Anchor Character command begins searching at the
location of the cursor.

To search for the next anchor character,

1. If necessary, move the cursor to the beginning of the document.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Object (F1)** to display the Object menu.

5. Press **S** to highlight the first anchor character located past the cursor
   position. If the cursor is at the very end of the document, you won't
   find any anchor characters.

Editing an Object

You may want to edit an object after it is integrated into a document.
For example, you might need to change a pie chart to reflect new data.

To edit an object,

1. Mark the object or its anchor character.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Object (F1)** to display the Object menu.

5. Press **E**.

The application where the object was created is started, and the object is displayed on the screen. You can edit the object any way you like. You can even discard it and retrieve or create something completely different. Just remember that the object may have only been saved in the OFIS Document Designer text file, and thus there may not be a file for it in its own program. If this is the case, when you edit the object or delete it, the old version is gone forever. This is another good reason to save an object in its own program. (Actually, the object still exists in the document's -old file. For more information on -old files, see the *System Administration* volume.)

Also, remember that if you stretched or resized the object in OFIS Document Designer, when you display the object in the cooperating program, it will return to the size and aspect ratio it had when it was created in the cooperating program.

6. When you are through editing the object, press **FINISH**. This message is displayed:

> Press **GO** to transfer image, **FINISH** to transfer nothing.

7. Press **GO** to transfer the object. OFIS Document Designer returns to the screen. If you press **FINISH**, OFIS Document Designer returns to the screen, and the object remains as it was before you began the procedure.

   Pressing either **GO** or **FINISH** returns you to OFIS Document Designer. You may, however, want to stay in the cooperating program. If so, press **CANCEL**.

8. Press **GO**. The edited object replaces the original object in the text.

More About Anchor Characters

As previously mentioned, you can use any character as an anchor character. However, you want to select an anchor character that gives you the correct placement of an object in text.

If you want a paragraph of text to wrap around an object, place the anchor character *inside* the paragraph.

If you want the object to be located between paragraphs, use a blank paragraph symbol as the anchor character, as shown in Figure 2–19.

There are certain advantages to this last method.

- If you change or move the text in the top paragraph, your object is not affected. Thus, there's less chance of deleting the anchor character and the object along with it.

- You can adjust the space before and after the object by using variable line spacing. Sometimes it's easier to do this than to use the text-at-bay box. (See the *Word Processing* volume for information on variable line spacing.)

- If you want to move the object, simply move the paragraph symbol. If you used a letter in the text as the anchor character, you would have to select a different anchor character and then move or copy the object.

2665.2–19
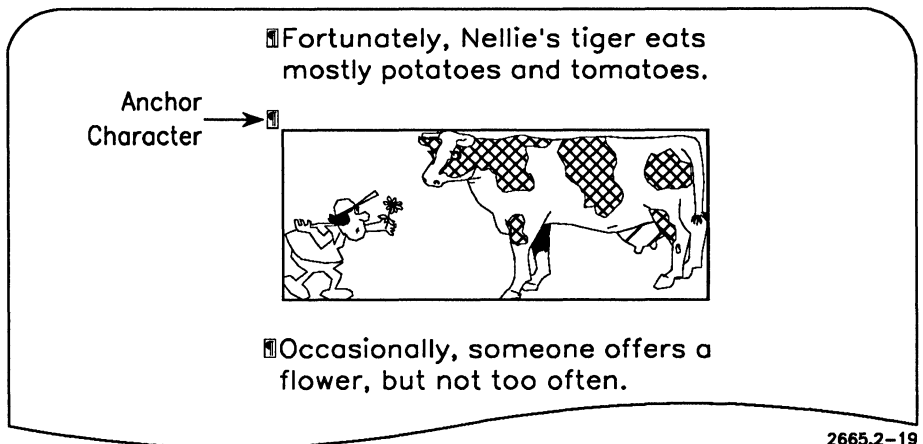
Figure 2–19. Using a Paragraph Symbol as an Anchor Character

Changing Anchor Characters

There may be times when you want to change the anchor character. For
example, perhaps you used a period at the end of a sentence as the
anchor character, and you want to change the period to an exclamation
mark. To do so, use the **OVERTYPE** key and overtype the period with
an exclamation point. The exclamation point is now the anchor
character. Note the use of the **OVERTYPE** key; if you first *deleted* the
period, you would delete the object as well.

Moving and Copying Objects

To move or copy an object, place the cursor inside the object and press
MARK. You can then use the **MOVE** or **COPY** key to move or copy the
object anywhere.

Section 3
Using Box and Rule

About This Section

With the OFIS Document Designer box and rule feature, you can draw boxes and vertical or horizontal lines, called *rules*, around text and graphics. You can also draw vertical rules between columns and inside paragraphs.

This section discusses the following topics:

- Working with box and rule
- The box and rule indicators in the format status line
- Applying box and rule to paragraphs
- Applying box and rule to columns
- Applying box and rule to pages
- Applying box and rule to objects

About Box and Rule

It's important to keep in mind that boxes and rules do not exist all by themselves; they are always applied to a page, column, paragraph, or object. Therefore, the size and location of a box is determined by the area it is applied to. For example, if you box an entire paragraph, the box grows and shrinks as the paragraph changes size. Also if you move the paragraph, the box moves along with it.

Figure 3–1 shows an example of how you can use box and rule.
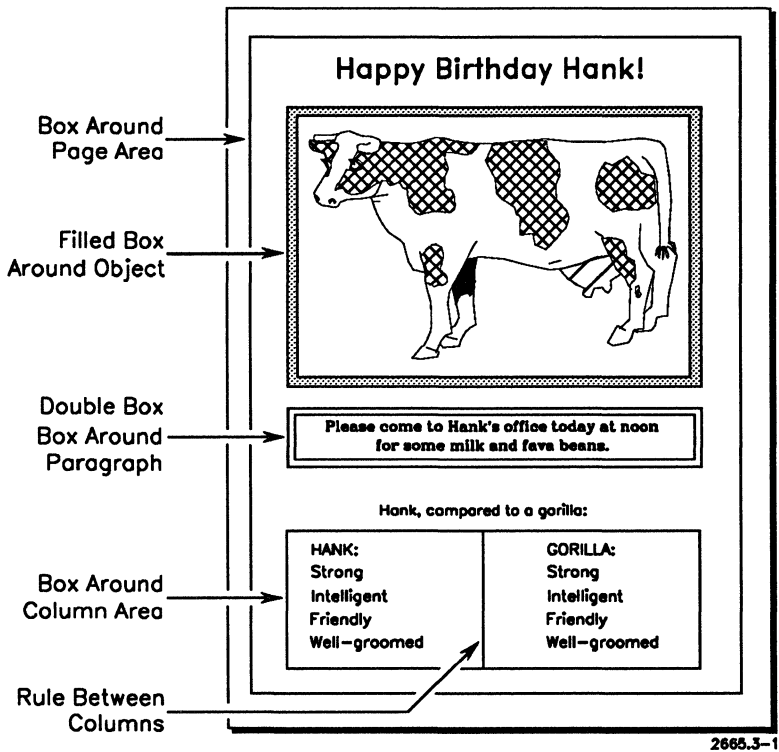
Figure 3–1. Sample Box and Rule

When using box and rule, you have four options to work with:

- *What to box.* You can apply box and rule to paragraphs, column areas, integrated objects, or pages. You can also use box and rule in headers and footers.

  To box all these different elements, you use three box and rule menus: Box Paragraph, Box Page or Column Area, and Box Object. These menus are very similar; the major difference is that the Box Page Area has two additional fields relating to columns and pages.

- *Type of rule.* You can specify single-lined rules, double-lined rules, or no rules at all. You have these options for all four sides of the boxed text or object, so you can apply a mix of rule types, for example double rules on top and single rules on the sides.

  When using double-lined rules, you can also specify how far apart the double lines will be.

- *Placement of rule.* You can specify the distance the rules should be from the text or object. For example, you can specify that rules be one inch from the top and bottom of the text, and one quarter inch from the sides.

  In addition, you can create rules between synchronized or serpentine columns.

- *Filled areas.* You can fill boxed areas, and you can fill the space between double rules. You have three choices of fills:
  - Quarter-tone (light grey)
  - Half-tone (dark grey)
  - Solid black

  With color printers, you can print lines and fills in color. With some black and white laser printers, you can use colors to specify the density of half or quarter-tones. For example, an orange fill is a lighter grey than a blue fill.

Example: Boxing Two Paragraphs

Figure 3–2 shows how two partially boxed paragraphs are put together to create a complete box around both paragraphs. (The top part of the figure shows an "exploded view." The bottom part shows what the two paragraphs look like.)

The first paragraph has rules on the *top* and both sides, while the second paragraph has rules on the *bottom* and both sides. The side rules of both paragraphs overlap, closing the box around both paragraphs.

This is a simple example, but by using the principle outlined above, you can create complex box and rule structures.

Top Paragraph ——————▶ | Please come to Hank's office today at noon for some milk and fava beans. |

Bottom Paragraph ——————▶ | For those allergic to fava beans, we will be serving roasted rutabagas. |

Both Paragraphs Together ——————▶ | Please come to Hank's office today at noon for some milk and fava beans. / For those allergic to fava beans, we will be serving roasted rutabagas. |

2665.3–2
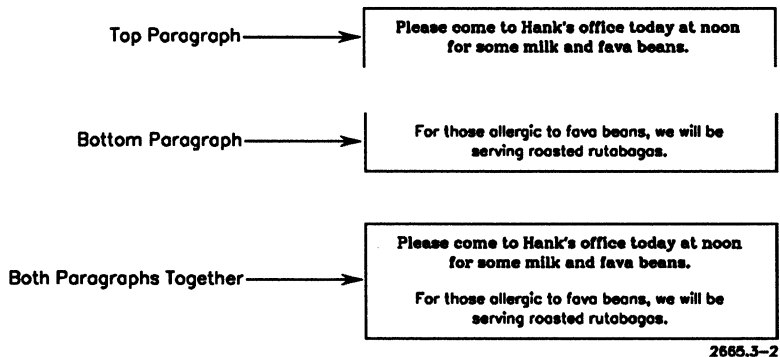
Figure 3–2. Two Boxed Paragraphs

Box and Rule Indicators in the Format Status Line

Box and rule is a powerful and flexible feature, but it has one limitation: you cannot see the rules on your monitor screen. However, there are indicators in the format status line that tell you a lot of information about how box and rule is being applied to your document. These indicators have the following characteristics:

* The indicators are displayed whenever the cursor is in a text area that has box and rule applied to it. (Boxed integrated objects, however, do not show indicators on the format status line.)

* The indicators for boxed paragraphs use thin line characters, and the indicators for boxed page areas use thick line characters. Also, the box paragraph indicator is an *empty* box character; the box page area indicator is a *filled* box.

* The placement of the indicators show the location of the vertical rules.

* Each of the two box indicators applies only to one side of the text or object. For example, the left box indicator tells you how the left side of the text or object is boxed, and the right indicator tells you about the right side of the text or object.

The box and rule indicators that are displayed in the format status line are defined as follows:

* A complete box on one side of the format status line indicates that that side of the box has a side rule and both top and bottom rules. A complete box on both sides of the format status line indicates a complete box around the text or object.

* A vertical line indicates a side rule with no top or bottom rule.

* A corner indicates a side rule and either a top rule or a bottom rule, but not both a top rule and a bottom rule.

- A "T" character indicates a top rule only. This indicator may appear with a corner indicator. If so, it means that one side of the text or object has a side rule and a top rule, and the other side has only a top rule.

- An upside down "T" character indicates a bottom rule only. This indicator may appear with a corner indicator. If so, it means that one side of the text or object has a side rule and a bottom rule, and the other side has only a bottom rule.

- A horizontal line indicates that that side of the text or object has *both* top and bottom rules, but no side rules. A horizontal line on both sides indicates that the text or object has no side rules, and both a top and bottom rule.

- A "V" character indicates a tabular rule.

- A thick vertical line indicates a rule between columns.

These indicators can be displayed in many combinations depending on the placement of a rule. Figure 3–3 shows some combinations of indicators and what they mean.
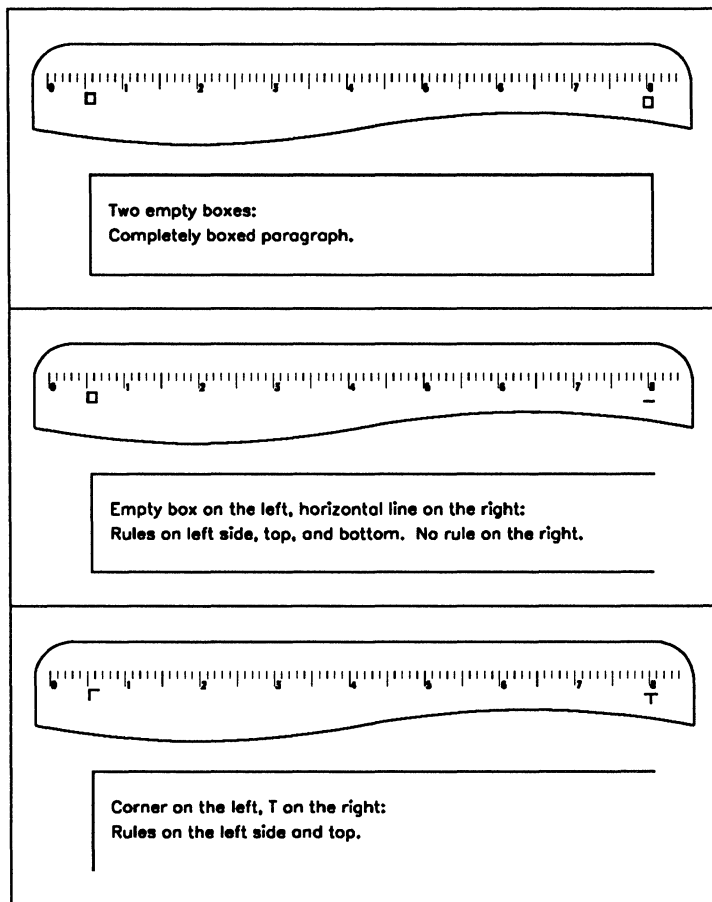
Figure 3–3. Box and Rule Indicators in the Format Status Line

Applying Box and Rule to Paragraphs

To box a paragraph,

1.   Move the cursor to the paragraph where you want box and rule applied.

2.   Form the Base softkey strip, press **Paragph (F4)**.

3.   If you want to apply box and rule to more than one paragraph, use **PARA (F10)** to mark the paragraphs. With just one paragraph, you don't need to mark anything.

4.   Press **Box (F8)** to display the Box Paragraph menu, as shown in Figure 3–4.

BOX PARAGRAPH _____

Left rule:	**None** Single Double	(Press N, S or D)
Right rule:	**None** Single Double	(Press N, S or D)
Top rule:	**None** Single Double	(Press N, S or D)
Bottom rule:	**None** Single Double	(Press N, S or D)
Left offset:	0.0" (0.0 chars)	
Right offset:	0.0" (0.0 chars)	
Top offset:	0.0" (0.0 lines)	
Bottom offset:	0.0" (0.0 lines)	
Rule separation:	3 points (0.2")	
Color:	**blacK** Red Green Blue Yellow Violet Orange	
	(Press K, R, G, B, Y, V, O)	
Shade box:	**None** Quarter–tone Half–tone Solid	(Press N, Q, H or S)
Fill dbl ruling:	**None** Quarter–tone Half–tone Solid	(Press N, Q, H or S)

Figure 3–4.   Box Paragraph Menu

5.   Fill in the fields in the menu as necessary:

Left rule   Use these fields to apply single or double rules to
Right rule   the left side, right side, top, and bottom of the
Top rule   paragraph, respectively. You can enter any
Bottom rule   combination of types of rules.

                       The default for all four fields is *None*.

Left offset   Use these fields to specify the distance of the
Right offset   rules from the sides, top, or bottom of the
Top Offset   paragraph. The offsets are measured from the
Bottom offset   top and bottom of the paragraph, and from the
                       left and right indents.

                       The standard defaults are .05" for the side rules
                       and .1" for the top and bottom rules, but these
                       might be different depending on the currently
                       selected style book. (For information on style
                       control, see the *Word Processing* volume.)

                       You can set all offsets in inches, or fractions of
                       inches. You can also set the top and bottom
                       offsets in lines, and the left and right offsets in
                       characters. For example, you can enter **2L** for
                       two lines, or **2C** for characters.

                       You can apply negative offsets to create a box
                       narrower or shorter than the paragraph.

Rule separation   If you apply double lines, use this field to specify
                       the space between lines. The standard default is
                       3.6 points.

                       Note: *Unlike the previous four fields, you*
                       should specify the values in the Rule
                       separation *field in points, not inches. For*
                       example, if you enter .1 (point one), the
                       rules will be separated by one tenth of a
                       point, not one tenth of an inch. *This*
                       would not separate the rules enough to
                       create a visible space between them.

Color	Use this field to specify a color for the rules and any fills. The default is black.
Shade box	Use this field to apply a fill to the boxed area. This can be no fill, (the default), quarter-tone, half-tone, or solid black. You can fill an area even if there are no rules. For more information, see "Using Filled Boxes," later in this section.
Fill dbl ruling	Use this field to specify a fill for double rules. This can be no fill (the default), quarter-tone, half-tone, or solid black.

6. When the fields are filled in as necessary, press **GO**.

7. If you need to adjust any of the offsets, move the cursor to the boxed paragraph and display the Box Paragraph menu. You can then reenter new values in any field.

☞ If you add lines to or delete lines from a paragraph, the box and rules around it grow or shrink, keeping their offsets intact.

☞ If the text margins change, the box and rules around it grow or shrink, keeping their offsets intact.

☞ If you apply box and rule to a paragraph, subsequent paragraphs created by pressing **RETURN** inherit the box and rule attributes.

☞ If a paragraph is broken by a page break, the bottom rule is left off the first page, and the top rule is left off the second page.

☞ When boxing more than one paragraph, you might have to adjust the left and right rules to make the side rules line up, if the paragraphs do not have the same indents. You might also have to adjust the top and bottom rules so that the side rules meet and overlap.

☞ To remove rules, repeat the procedure above, and set the values in the *Left Rule, Right rule, Top Rule,* and *Bottom Rule* fields to *None*.

Using the Box Paragraph Shortcut

There is a shortcut for creating boxes around one or more paragraphs. To use the shortcut,

1. Mark the paragraph or paragraphs.

2. Press **CODE-SHIFT-B**.

3. The paragraph, or paragraphs, are completely boxed with a single-lined rule.

   The defaults for this shortcut depend on the default paragraph style for the selected style book. The standard selected style book specifies that the left and right offsets are set to .05 inches, and the top and bottom offsets equal one half of the white space before and white space after the paragraphs. In other words, if the white space before a paragraph is set to two lines, the top offset is one line. (For more information on style books, see "Using Style Control," in the *Word Processing* volume.)

Applying Tabular Rules to Paragraphs

Tabular rules are vertical rules applied to paragraphs using the Tabs softkey strip. Even though they are applied with the Tabs softkey strip, tabular rules are not tab stops; when you press **TAB**, the cursor skips over tabular rules.

The length of tabular rules is determined by the top and bottom box and rule offsets. For example, if you want tabular rules to extend one inch below and above a paragraph, you would set the box and rule top and bottom offsets to one inch.

You can apply up to 40 tab stops or tabular rules in a single paragraph.

To apply a tabular rule,

1. Form the Base softkey strip, press **Tabs (F3)** to display the Tabs softkey strip.

2. Move the shadow cursor on the ruler display to the place where you want to insert a tabular rule.

3.   Press **VerRule (F10)** to insert a tabular rule.

4.   Press **CANCEL** to clear the Tabs softkey strip.

☞   You remove tabular rules like you do any other kind of tab. (From the Tabs softkey strip, press **ClrTab (F8)** to remove a rule at the cursor position or press **ClrAll (F9)** to remove all tabular rules.)

Applying Box and Rule to Columns

To box and rule serpentine or synchronized columns, you use the Box Page or Column Area menu. As mentioned earlier, a *column area* is an area on a page defined by synchronized or serpentine columns. A new column area begins whenever you begin a new *left hand* column. (Since tabbed columns are created with paragraphs, to apply box and rule to tabbed columns, you use the Box Paragraph menu.)

Shown below is an example of how this works:

Beginning of *first* column area.	End of *first* column area.

Beginning of *second* column area.	End of *second* column area.

To use box and rule with columns.

1.   Mark the column area where you want to apply columns. To do so, mark the first column mark, move the cursor to the last column mark in the area, and press **BOUND**. If you do not mark the last column mark, new column areas do not inherit the box and rule attributes.

2. From the Base softkey strip, press **Page (F5)**.

3. Press **Box (F3)** to display the Box Page Area menu, as shown in Figure 3–5.

BOX PAGE OR COLUMN AREA _____

Box:	Page	**Column Area**	(Press P or C)
Left rule:	**None**	Single Double	(Press N, S or D)
Right rule:	**None**	Single Double	(Press N, S or D)
Top rule:	**None**	Single Double	(Press N, S or D)
Bottom rule:	**None**	Single Double	(Press N, S or D)
Between columns:	**None**	Single Double	(Press N, S or D)
Left offset:	0.0"	(0.0 chars)	
Right offset:	0.0"	(0.0 chars)	
Top offset:	0.0"	(0.0 lines)	
Bottom offset:	0.0"	(0.0 lines)	
Rule separation:	3 points (0.2")		
Color:	**blacK** Red Green Blue Yellow Violet Orange		
			(Press K, R, G, B, Y, V, O)
Shade box:	**None** Quarter–tone Half–tone Solid		(Press N, Q, H or S)
Fill dbl ruling:	**None** Quarter–tone Half–tone Solid		(Press N, Q, H or S)

Figure 3–5. Box Page or Column Area Menu

4. In the _Box_ field, press **C** to apply box and rule to the column area, as opposed to the entire page area.

5. Fill in the rest of the fields in the menu as necessary:

Left rule _Right rule_ _Top rule_ _Bottom rule_	Use these fields to apply single or double rules to the left side, right side, top, and bottom of the column area, respectively. You can enter any combination of types of rules.
	The default for all four fields is _None_.
Between Columns	Use this field to specify which kind of rule you want between the columns. This rule is centered in the margin between columns.

Left offset *Right offset* *Top offset* *Bottom offset*	Use these fields to specify the distance of the rules from the sides, top, or bottom of the page to the rules. The offsets are measured from the column area borders.
	The standard defaults are .05" for the side rules and .1" for the top and bottom rules, but these might be different depending on the currently selected style book. (For information on style control, see the *Word Processing* volume.)
	You can set all offsets in inches, or fractions of inches. You can also set the top and bottom offsets in lines, and the left and right offsets in characters. For example, you can enter **2L** for two lines, or **2C** for characters.
	You can apply negative offsets to create a box narrower or shorter than the column area.
Rule separation	If you apply double lines, use this field to specify the space between lines. The default is 3.6 points.
	Note: *Unlike the previous four fields, you should specify the values in the* Rule separation *field in points, not inches. For example, if you enter .1 (point one), the rules will be separated by one tenth of a point,* not one tenth of an inch. *This would not separate the rules enough to create a visible space between them.*
Color	Use this field to specify a color for the rules and any fills. The default is black.

Shade box	Use this field to apply a fill to the boxed area. This can be no fill (the default), quarter-tone, half-tone, or solid black. You can fill an area even if there are no rules. For more information, see "Using Filled Boxes," later in this section.
Fill dbl ruling	Use this field to specify a fill for double rules. This can be no fill (the default), quarter-tone, half-tone, or solid black.

6. When the fields are filled in as necessary, press **GO**.

7. If you need to adjust any of the offsets, move the cursor to the boxed column area and display the Box Page Area menu. You can then reenter new values in any field.

☞ If you change column dimensions, or if you change the number of columns, the box and rules around it grow or shrink, keeping their offsets intact.

☞ A box and rule setting for a column area is kept when a column is broken by a page.

☞ You can specify whether to include vertical rules between specific columns in a box area. To do so, move the cursor to the column to the left of where you want to insert or remove a vertical rule. Then display the Box Page or Column Area menu and select the appropriate entry in the *Between columns* field.

☞ To remove rules, repeat the procedure above, and set the values in the *Left Rule, Right rule, Top Rule, Bottom Rule*, and *Between columns* fields to *None*.

☞ You cannot box columns individually within a page area using the Box Page or Column Area menu. To box columns individually, use the Box Paragraph menu. Figure 3–6 shows a boxed column area and a boxed paragraph inside column area.


```
2665.3-6
```
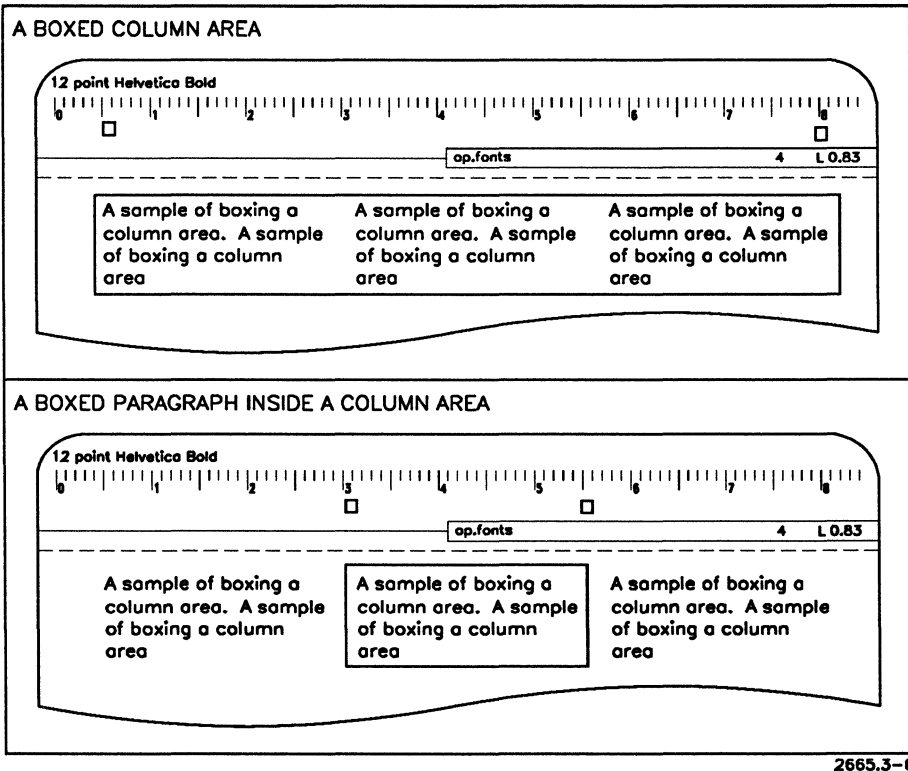
Figure 3–6. Box and Rule with Columns

Using Box and Rule with Pages

To use box and rule with pages,

1. Move the cursor to the page where you want to apply box and rule. If necessary, you can mark pages to apply box and rule to more than one page.

2. From the Base softkey strip, press **Page (F5)**.

3. Press **Box (F3)** to display the Box Page Area menu, as shown in Figure 3–7.

BOX PAGE OR COLUMN AREA _____

Box:	Page **Column Area**	(Press P or C)
Left rule:	**None** Single Double	(Press N, S or D)
Right rule:	**None** Single Double	(Press N, S or D)
Top rule:	**None** Single Double	(Press N, S or D)
Bottom rule:	**None** Single Double	(Press N, S or D)
Between columns:	**None** Single Double	(Press N, S or D)
Left offset:	0.0" (0.0 chars)	
Right offset:	0.0" (0.0 chars)	
Top offset:	0.0" (0.0 lines)	
Bottom offset:	0.0" (0.0 lines)	
Rule separation:	3 points (0.2")	
Color:	**blacK** Red Green Blue Yellow Violet Orange	
	(Press K, R, G, B, Y, V, O)	
Shade box:	**None** Quarter–tone Half–tone Solid	(Press N, Q, H or S)
Fill dbl ruling:	**None** Quarter–tone Half–tone Solid	(Press N, Q, H or S)

Figure 3–7. Box Page or Column Area Menu

4. In the *Box* field, enter **P** to apply box and rule to the page, as opposed to a column area.

5. Fill in the rest of the fields as necessary.

    Left rule   Use these fields to apply single or double rules
    Right rule   to the left side, right side, top, and bottom of
    Top rule   the page, respectively. You can enter any
    Bottom rule   combination of types of rules.

                          The default for all four fields is *None*.

    Left offset   Use these fields to specify the distance of the
    Right offset   rules from the sides, top, or bottom of the page
    Top offset   to the rules. The offsets are measured from
    Bottom offset   the page dimension borders.

                          The standard defaults are .05" for the side
                          rules and .1" for the top and bottom rules, but
                          these might be different depending on the
                          currently selected style book. (For
                          information on style control, see Section 16 in
                          the *Word Processing* volume.)

                          You can set all offsets in inches, or fractions of
                          inches. You can also set the top and bottom
                          offsets in lines, and the left and right offsets in
                          characters. For example, you can enter **2L** for
                          two lines, or **2C** for characters.

                          You can apply negative offsets to create a box
                          narrower or shorter than the page.

Rule separation   If you use double lines, use this field to specify the space between lines.

> ***Note:*** *Unlike the previous four fields, you should specify the values in the* Rule separation *field in points, not inches. For example, if you enter .1 (point one), the rules will be separated by one tenth of a point,* not one tenth of an inch. *This would not separate the rules enough to create a visible space between them.*

Color   Use this field to specify a color for the rules and any fills. The default is black.

Shade box   Use this field to apply a fill to the boxed area. This can be no fill (the default), quarter-tone, half-tone, or solid black. You can fill an area even if there are no rules. For more information, see "Using Filled Boxes," later in this section.

Fill dbl ruling   Use this field to specify a fill for double rules. This can be no fill (the default), quarter-tone, half-tone, or solid black.

6. When the fields are filled in as necessary, press **GO**.

7. If you need to adjust any of the offsets, move the cursor to the boxed page and display the Box Page Area menu. You can then reenter new values in any field.

☞ If you change page dimensions, the box and rules around it grow or shrink, keeping their offsets intact.

☞ A box and rule setting for a page is kept when a new page is generated.

☞ To remove rules, repeat the procedure above, and set the values in the *Left Rule, Right rule, Top Rule, Bottom Rule*, and *Between columns* fields to *None*.

Using Box and Rule with Objects

To use box and rule with objects,

1. Mark the object to which you want to apply box and rule.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Object (F1)** to display the Object menu.

5. Press **O** to display the Box Object menu, as shown in Figure 3–8.

BOX OBJECT _____

Left rule:	**None** Single Double	(Press N, S or D)
Right rule:	**None** Single Double	(Press N, S or D)
Top rule:	**None** Single Double	(Press N, S or D)
Bottom rule:	**None** Single Double	(Press N, S or D)
Left offset:	0.0" (0.0 chars)	
Right offset:	0.0" (0.0 chars)	
Top offset:	0.0" (0.0 lines)	
Bottom offset:	0.0" (0.0 lines)	
Rule separation:	3 points (0.2")	
Color:	**blacK** Red Green Blue Yellow Violet Orange	
	(Press K, R, G, B, Y, V, O)	
Shade box:	**None** Quarter–tone Half–tone Solid	(Press N, Q, H or S)
Fill dbl ruling:	**None** Quarter–tone Half–tone Solid	(Press N, Q, H or S)

Figure 3–8. Box Object Menu

6. Fill in the fields as necessary, as follows:

Left rule   Use these fields to apply single or double rules
Right rule   to the left side, right side, top, and bottom of
Top rule   the object.
Bottom rule
The default for all four fields is *None*.

Left offset
Right offset
Top offset
Bottom offset

Use these fields to specify the distance from the sides, top, or bottom of the object to the rules. The offsets are measured from the object boundaries, not from the text-at-bay boundaries.

You can enter any combination of types of rules. Remember that the offsets apply to the object itself, not to the text-at-bay box. Therefore, you can draw box and rule inside the text-at-bay box.

You can set all offsets in inches, or fractions of inches. You can also set the top and bottom offsets in lines, and the left and right offsets in characters.

You can apply negative offsets to create a box narrower or shorter than the object.

The default for all four fields is no offset. This means that the rules will be flush with the edge of the object.

Rule separation

If you use double lines, use this field to specify the space between lines. The standard default is 3.6 points.

Note: *Unlike the previous four fields, you should specify the values in the* Rule separation *field in points, not inches. For example, if you enter .1 (point one), the rules will be separated by one tenth of a point,* not one tenth of an inch. *This would not separate the rules enough to create a visible space between them.*

Color	Use this field to specify a color for rules and fills. The default is black.
Shade box	Use this field to apply a fill to the boxed area. This can be no fill (the default), quarter-tone, half-tone, or solid black. You can fill an area even if there are no rules. For more information, see "Using Filled Boxes," later in this section.
Fill dbl ruling	Use this field to specify a fill for double rules. This can be no fill (the default), quarter-tone, half-tone, or solid black.

7. When the fields are filled in as necessary, press **GO**.

8. If you need to adjust any of the offsets, move the cursor to the boxed object and display the Box Object menu. You can then reenter new values in any field.

☞ If you change object dimensions, the box and rules around it grow or shrink, keeping their offsets intact.

☞ You can apply negative offsets to rules.

☞ To remove rules, repeat the procedure above, and set the values in the *Left Rule, Right rule, Top Rule,* and *Bottom Rule* fields to *None*.

Using Filled Boxes

You can use any of the procedures described above to create filled boxes. When you do, remember the following tips:

☞ You can create a shaded box with no rules around it. To do so, set the appropriate offsets and specify the fill (quarter-tone or half-tone) and the color, but leave the rule specification on *None*.

☞ You can specify the density of the fill by specifying a particular color. Different types of printers may have different densities. On a LaserWriter NTX, the following colors represent a gradation from light to dark:

- Yellow
- Orange
- Green
- Red
- Blue
- Violet
- Black

☞ You can overlap filled boxes. Overlapping boxes are usually printed in the following order:

- Page boxes
- Column boxes
- Paragraph boxes
- Object boxes

For example, if you have a filled page area, the filled area of a paragraph prints on top of the page fill.

☞ You can create opaque white boxes. (An opaque white box blocks out anything printed underneath it.) To do so, specify a filled double ruling with any of the Box and Rule menus. If you want a single rule, remember that you can apply a double rule with no rule separation. It will look like a single rule, and it will cause your box to be filled with opaque white. Figure 3–9 shows how an opaque white box prints over a shaded area.
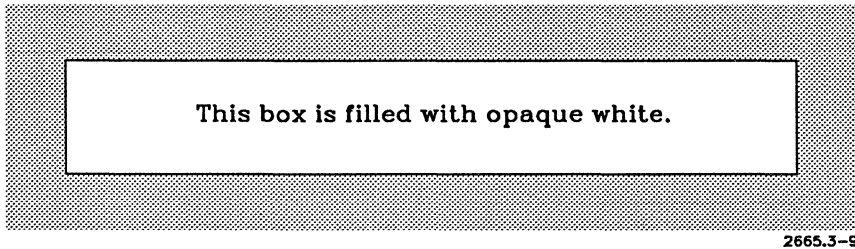
2665.3-9

Figure 3–9. Opaque White Box

Figure 3–9 was created with two paragraphs. The first one has no rules, but is filled with a quarter-tone. The second paragraph, the one with text in it, is set with double rules with no rule separation so that it looks like single rules. However, because double rules are applied in this second paragraph, the white space in the box is opaque.

Section 4
Using Outline Processing

About Outline Processing

The OFIS Document Designer outline feature provides an easy way to automatically create outlines. A typical outline is shown below:

I. How to Eat

    A. Figs

        1. Purple

        2. Yellow

You have several options for numbering outlines. For example, you can use concatenation, as shown below:

1. How to Eat

    1.1. Figs

        1.1.1. Purple

        1.1.2. Yellow

You can also use parentheses or brackets to set off the numbers from the text, as shown below:

(1) How to Eat

    (1.1) Figs

        (1.1.1) Purple

        (1.1.2) Yellow

Note: *Outline headings are not included in a table of contents. For information on creating a table of contents, see Section 5, "Creating a Table of Contents Automatically."*

Creating a Simple Numbered List

As shown in the previous examples, outline processing is vital when you want to create complex legal, scientific, or technical documents. However, it is also very useful for creating simple numbered lists, as shown below:

1. Grasp the fig firmly, yet gently.

2. Peel the fig from the stem.

3. Place the fig upside down in an egg cup.

To create a simple list like the one shown above,

1. Press **RETURN** to start a new paragraph.

2. Place the cursor in the new paragraph.

3. From the Base softkey strip, press **Functns (F2)**.

4. Press **Outline (F7)** to display the Outline softkey strip, as shown in Figure 4–1.

OUTLINE

Colapse	Expand	FullExp	Mark	Indnt	UnIndnt	TotalUn	Level

Figure 4–1. Outline Softkey Strip

5. Press **Level (F8)** to display the Heading Level menu, as shown in Figure 4–2.

HEADING LEVEL _____

(Press CANCEL to dismiss)

Current heading level: • Normal Text

Press	S for	Section Heading	Press	A for	Outline level 1
	1	Level 1 heading		B	Outline level 2
	2	Level 2 heading		C	Outline level 3
	3	Level 3 heading		D	Outline level 4
	4	Level 4 heading		E	Outline level 5
	5	Level 5 heading		F	Outline level 6
Press	N for	Normal text	Press	O for	Outline Body text

Figure 4–2. Heading Level Menu

6. Press **A** to create an outline level 1 heading. When you do so, the
    Paragraph Numbering menu is displayed, as shown in Figure 4–3.

PARAGRAPH NUMBERING _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Heading Level: Outline level1
[Forced paragraph number]   none

Numbering scheme:	**None** 1 iv VI a B	(Press N, 1, i, V or B)
Concatenation:	None X-# X.# X#	(Press N, -, . or X)
Numbering format:	# (#) #) #. #:, [#], {#}	(Press #, (,), ., :, [or {)

Figure 4–3. Paragraph Numbering Menu

7. You use the Paragraph Numbering menu to select the numbering
    scheme for your list. Move the cursor to the *Numbering scheme* field
    and press 1 (for Arabic numbers).

8. Move the cursor to the *Numbering format* field and press **.** (period).

9. Press **GO**. The paragraph now begins with a number 1 followed by a
    period (1.). The paragraph symbol changes to a half-bright outline
    paragraph symbol.

10. Press **RETURN**. The next paragraph begins with a 2.

To return to regular text, follow this procedure:

1. Press **RETURN** to begin a new paragraph.

2. Place the cursor in the new paragraph.

3. From the Base softkey strip, press **Functns (F2)**.

4. Press **Outline (F7)**.

4. Press **Level (F8)** to display the Heading Level menu.

5. Press **N** to turn the paragraph into normal text.

Creating an Outline

You create an outline in much the same way that you create a simple list. In an outline, however, you usually use multiple levels of headings, as shown below:

  I. How to Eat

       A. Figs

              1. Purple

              2. Yellow

To create an outline,

1. Press **RETURN** to start a new paragraph.

2. Place the cursor in the new paragraph.

3. From the Base softkey strip, press **Functns (F2)**.

4. Press **Outline (F7)** to display the Outline softkey strip, as shown in Figure 4–4.

OUTLINE

Colapse	Expand	FullExp	Mark	Indnt	UnIndnt	TotalUn	Level

Figure 4–4. Outline Softkey Strip

5. Press **Level (F8)** to display the Heading Level menu, as shown in Figure 4–5.

HEADING LEVEL _____

(Press CANCEL to dismiss)

Current heading level: • Normal Text

Press	S for	Section Heading	Press	A for	Outline level 1
	1	Level 1 heading		B	Outline level 2
	2	Level 2 heading		C	Outline level 3
	3	Level 3 heading		D	Outline level 4
	4	Level 4 heading		E	Outline level 5
	5	Level 5 heading		F	Outline level 6
Press	N for	Normal text	Press	O for	Outline Body text

Figure 4–5. Heading Level Menu

6. Press **A** to create an outline level 1 heading. When you do so, the Paragraph Numbering menu is displayed, as shown in Figure 4–6.

PARAGRAPH NUMBERING _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Heading Level: Outline level 1
[Forced paragraph number]
Numbering scheme: **None** 1 iv VI a B   (Press N, 1, i, V or B)
Concatenation: None X-# X.# X#   (Press N, -, . or X)
Numbering format: # (#) #) #. #:, [#], {#}   (Press #, (,), ., :, [or {)

Figure 4–6. Paragraph Numbering Menu

7. You use the Paragraph Numbering menu to select the numbering scheme for your outline. Move the cursor to the *Numbering scheme* field and press **V** (for uppercase roman numerals).

8. Move the cursor to the *Numbering format* field and press **.** (period).

9. Press **GO**. The paragraph now begins with a roman numeral I followed by a period (I.). You can enter as much text as you like before starting the next outline level.

10. Press **RETURN**. The next paragraph begins with a roman numeral II.

11. You can now create a second level for your outline. With the cursor in the new paragraph, press **CODE-TAB**. The paragraph symbol is indented to the right, and the Paragraph Numbering menu is displayed.

12. Move the cursor to the *Numbering scheme* field, press **B** (for uppercase letters), then press **GO**. The second level of the outline now has uppercase letters instead of roman numerals. You can enter as much text as you like before starting your next outline level.

13. To start the next level, press **RETURN** to start a new paragraph. At this point, the new paragraph begins with an uppercase letter. Press **CODE-TAB** to indent the paragraph and display the Paragraph Numbering menu.

14. To return to a previous outline level, press **RETURN** to start a new paragraph, and then press **CODE-SHIFT-TAB**. This moves the paragraph back to the left, and resets the numbering scheme for the outline level. You may need to press **CODE-SHIFT-TAB** several times to get back to the first level of the outline.

   As you change heading levels by pressing **CODE-TAB**, the Paragraph Numbering menu is only displayed if you are creating a new outline level.

To return to regular text, follow this procedure:

1. Press **RETURN** to begin a new paragraph.

2. Place the cursor in the new paragraph.

3. From the Base softkey strip, press **Functns (F2)**.

4. Press **Outline (F7)**.

5. Press **Level (F8)** to display the Heading Level menu.

6. Press **N** to turn the paragraph into normal text.

Using the Paragraph Numbering Menu

The Paragraph Numbering menu, shown in Figure 4–7, provides a variety of ways to number an outline. This menu is displayed whenever you create a new outline heading level.

PARAGRAPH NUMBERING _____

        (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Heading Level: Outline level 1
[Forced paragraph number]

Numbering scheme:	**None** 1 iv VI a B	(Press N, 1, i, V or B)
Concatenation:	None X-# X.# X#	(Press N, -, . or X)
Numbering format:	# (#) #) #. #:, [#], {#}	(Press #, (,), ., :, [or {)

Figure 4–7. Paragraph Numbering Menu

Use the fields in this menu as follows:

Forced paragraph number
Use this field to assign a specific number to a paragraph. This is useful when an outline is interrupted by normal text or by a table of contents heading level.

Numbering scheme
Use this field to specify which kind of numbering scheme to use in an outline heading, for example roman numeral, letters, and so forth.

Concatenation
Use this field to specify how you want concatenated numbers separated, for example, with dashes, periods, and so forth.

Numbering format
Use this field to determine how numbers should be set off from the text, for example, with a period, brackets, and so forth.

The following discussions explain how to use each of these fields.

Using Forced Paragraph Numbers

Sometimes you might want to insert normal text or table of contents headings into an outline. In that case, the numbering of the outline heading following the interruption would be reset and start over from the beginning.

In the following example, the table heading is a table of contents heading, which interrupts the outline. Therefore, the numbering after the table starts over.

1. Grasp the fig firmly, yet gently.

2. Peel the fig from the stem. See Table 47 for information on fig peeling procedures.

Table 47: Fig Peeling Procedures			
Start from:	Top	Bottom	Side
Diameter:			
.5	X		
1		X	
1.5		X	

1. Place the fig upside down in an egg cup.

If you want to continue the numbering at the point where the outline was interrupted, you must assign a forced paragraph number to the paragraph after the inserted normal text or table of contents headings.

Remember that you can force a paragraph number only on paragraphs that are already numbered. You can't force a paragraph number on a paragraph of normal text.

To assign a forced paragraph number to a paragraph,

1. Assign a heading level:

   a. Place the cursor in the paragraph.

   b. From the Base softkey strip, press **Functns (F2)**.

   c. Press **Outline (F7)**.

   d. Press **Level (F8)** to display the Heading Level menu.

    e.   Choose an outline heading level.

    f.   Press **GO** to assign the heading level and display the Paragraph Numbering menu.

2.   Enter the number you want to assign in the *Forced paragraph number* field. You can only enter numbers in this field. If your numbering scheme uses letters, you can still enter numbers. For example, if you want to force a letter B, you would enter **2**.

3.   Press **GO**.

Specifying a Numbering Scheme

You use the *Numbering scheme* field to select the type of number you want for your headings. For example, you may want to use uppercase roman numerals for level 1 headings and uppercase letters for level 2 headings, like the sample outline shown below:

I How to Eat

    A Figs

    B Bricks

To select a numbering scheme, assign a heading level. After the heading level is applied, the Paragraph Numbering menu is displayed. Move the cursor to the *Numbering scheme* field, and press the appropriate character, as shown below. (The *Numbering scheme* field is preset to *None*, which means no numbers are used.)

Press	To select	Example
1	Arabic numbers	1 How to Eat
I	Lowercase roman numerals	i How to Eat
V	Uppercase roman numerals	I How to Eat
A	Lowercase letters	a How to Eat
B	Uppercase letters	A How to Eat

Specifying Concatenation

Use the *Concatenation* field to select the concatenation for your outline
levels. For example, you may want to specify the type of headings shown
below:

1. How to Eat

    1-1. Figs

        1-1-1. Purple

        1-1-2. Yellow

This numbering scheme works the same as any other. When you create a
new paragraph and press **CODE-TAB**, the concatenated numbers are
inserted automatically.

To select a concatenation scheme, assign a heading level. After the
heading level is applied, the Paragraph Numbering menu is displayed.
Move the cursor to the *Concatenation* field, and press the appropriate
character, as shown below. (The *Concatenation* field is preset to *None*,
which means no concatenation schemes are used.)

Press	**To select**	**Example**
-	Hyphen	1-A Bricks
.	Period	1.A Bricks
X	No punctuation	1A Bricks

Specifying a Numbering Format

Use the *Numbering format* field to punctuate a heading. For example, you might want to use parentheses, as shown below:

I) How to Eat

      I-A) Figs

      I-B) Bricks

To select a numbering format, assign a heading level. After the heading level is applied, the Paragraph Numbering menu is displayed. Move the cursor to the *Numbering format* field, and press the appropriate character, as shown below. (The *Numbering format* field is preset to *None*, which means no numbering format is used.)

Press	To select	Example
#	No punctuation	1 How to Eat
(	Parentheses	(1) How to Eat
)	Right parenthesis mark	1) How to Eat
.	Period	1. How to Eat
:	Colon	1: How to Eat
[	Square bracket	[1] How to Eat
{	Curly bracket	{1} How to Eat

Editing and Renumbering an Outline

You can add or delete headings in an outline just as you can with regular text. You can also change the outline level by indenting or unindenting the headings. After you delete headings, review the document; this automatically renumbers the outline. (The *Renumber paragraphs* field on the Review Document menu is preset to *Yes*.)

You can change the numbering scheme for the headings in your outline. To do this, use the options in the Paragraph Numbering menu. (To display the Paragraph Numbering menu, you need to reassign the heading levels.)

Using Outline Body Text

You can add body text to an outline. When you do, the text, like the headings, is assigned an outline level. In this way, you can collapse and expand parts or all of an outline. (For information on how to collapse and expand an outline, see "Collapsing and Expanding an Outline," later in this section.)

Using outline body text also allows you to insert text into an outline without interrupting the numbering scheme.

Shown below is an example of an outline with body text in it.

   I. How to Eat

     This is outline body text. It has no outline number.

          A. Figs

             This is outline body text. Outline body text can go under any outline level.

To add body text to an outline,

1. Press **RETURN** to start a new paragraph.

2. Place the cursor in the new paragraph.

3. From the Base softkey strip, press **Functns (F2)**.

4. Press **Outline (F7)**.

5. Press **Level (F8)**.

6. Press **O**. The paragraph symbol turns into an outline paragraph symbol.

Now any text entered in this paragraph is called outline body text.

Collapsing and Expanding an Outline

Collapsing an outline lets you focus on a specific outline level while lower-level information is temporarily hidden. For example, you can collapse your outline to display only level 1 and 2 headings. This feature is useful if your outline is long and complicated. After collapsing part or all of your outline, when you want to see more of it, you can expand it back into view.

You can collapse part of an outline, or you can collapse the entire outline down to a particular outline level. You can also collapse table of contents headings. When you do so, normal text and outline headings are also collapsed.

Collapsing Part of an Outline

To collapse the subheadings of one heading in an outline,

1. Move the cursor to a heading.

2. From the Base softkey strip, press **Functns (F2)**.

3. Press **Outline (F7)** to display the Outline softkey strip.

4. Press **Colapse (F1)**.

   The subheadings and any outline body text below the heading occupied by the cursor are replaced by dots enclosed in parentheses (...). The document prints without the parentheses and dots. If some text did not collapse, check to see if the uncollapsed text is a table of contents heading or normal text.

   To expand the outline, see "Expanding an Outline," later in this section.

Collapsing Larger Portions of an Outline

You can collapse larger portions of your outline using the Mark Outline command. For example, you can collapse the subheadings and outline text under several level 1 headings at a time. To do so,

1. Move the cursor to a level 1 heading.

2. From the Base softkey strip, press **Functns (F2)**.

3. Press **Outline (F7)** to display the Outline softkey strip.

4. Press **Mark (F4)** to mark the level 1 heading and its subheadings.

5. Press **BOUND** to mark the next level 1 heading and its subheadings. Each time you press **BOUND**, another level 1 heading and its subheadings are marked.

   You may see this message:

   > Not an outline heading.

   If so, it means that you have reached some text that does not have an outline attribute applied to it, that is, normal text. You need to either unmark the normal text or turn it into outline body text.

6. Press **Colapse (F1)**. The subheadings and any outline body text below level 1 headings are replaced by dots enclosed in parentheses (...). The document prints without the parentheses and dots.

Expanding an Outline

After you collapse an outline, you can expand it one level at a time or all at once.

To expand the outline one level at a time,

1. Move the cursor to the level you want to expand.

2. From the Base softkey strip, press **Functns (F2)**.

3. Press **Outline (F7)** to display the Outline softkey strip.

4. Press **Expand (F2)**. The outline level is expanded.

To expand an entire outline,

1. From the Base softkey strip, press **Functns (F2)**.

2. Press **Outline (F7)** to display the Outline softkey strip.

3. Use **Mark (F4)** to mark the outline.

4. Press **FullExp (F3)**. The entire outline is expanded and all the sublevels are displayed, including outline body text.

Section 5
Creating a Table of Contents Automatically

About the Table of Contents Feature

With the OFIS Document Designer table of contents feature, you can create a table of contents automatically. If you later edit your document, the table of contents is updated automatically.

In most cases, a table of contents includes several heading levels, as shown in the example below:

1. Heading Level One 1–1

      Heading Level Two 1–2

            Heading Level Three 1–5

In a typical table of contents, different heading levels may be formatted differently. For example, level 1 headings may be bold, and level 2 headings may be indented, as in the above example. With the table of contents feature, you can apply this kind of formatting automatically.

You can also automatically create numbered headings in your table of contents, as shown in the example below:

1. Heading Level One 1–1

      1–1. Heading Level Two 1–2

            1–1–1. Heading Level Three 1–5

You can also use parentheses or brackets to set off the numbers from the text, as shown below:

(1.) Heading Level One 1–1

      (1–1.) Heading Level Two 1–2

            (1–1–1.) Heading Level Three 1–5

How the Table of Contents Feature Works

There are three steps required to create a table of contents:

1. Assign heading levels in a document. This instructs OFIS Document Designer which headings you want to include in the table of contents.

2. Create a table of contents template. When you create the template, you specify how to format the table of contents. For example, you can specify how the headings will be indented, which fonts are to be used, where the page numbers will be placed, and so forth.

3. Generate the table of contents. This step takes the heading levels from the text, copies them into the table of contents, and formats them according to the specifications in the template.

The table of contents can be in another document or anywhere in the document that it refers to.

Figure 5–1 illustrates these steps and shows a finished table of contents. Notice how the finished table of contents includes the headings in the document. Notice also how it is formatted according to the table of contents template.

1. Assign Heading Levels

☒HOW TO EAT
▊It is essential that we start with figs. Figs are basic.

☒HOW TO EAT FIGS
▊There are six kinds of figs. They are eaten differently.

☒SQUISHY FIGS
▊The first kind of fig is the squishy fig. The squishy fig
  can indeed be a challenge.

2. Create Template

TOC Template

▊Section Heading
    ▊Level one heading
        ▊Level two heading
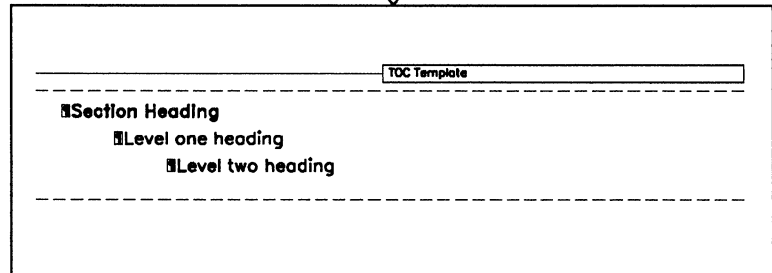
3. Generate Table of Contents

☒HOW TO EAT.. 1
    ☒HOW TO EAT FIGS... 1
        ☒SQUISHY FIGS 1
        ☒DRIED FIGS... 2
        ☒SANDY FIGS.. 6
        ☒JUICY FIGS.. 7
        ☒ELEGANT FIGS.. 8
        ☒PROLIFIC FIGS.. 9

2665.5-1

Figure 5–1. Creating a Table of Contents

Assigning Heading Levels

To include a heading from your document in a table of contents, you must first assign it a heading level. To assign heading levels,

1. Move the cursor to a heading that you want to be included in the table of contents.

2. From the Base softkey strip, press **Functns (F2)**.

3. Press **T O C (F9)** to display the Table of Contents softkey strip, as shown in Figure 5–2.

TABLE OF CONTENTS

HeadLvl Templat

Figure 5–2. Table of Contents Softkey Strip

4. Press **HeadLvl (F2)** to display the Heading Level menu, as shown in Figure 5–3.

HEADING LEVEL _____

(Press CANCEL to dismiss)

Current heading level: • Normal Text

Press	S for	Section Heading	Press	A for	Outline level 1
	1	Level 1 heading		B	Outline level 2
	2	Level 2 heading		C	Outline level 3
	3	Level 3 heading		D	Outline level 4
	4	Level 4 heading		E	Outline level 5
	5	Level 5 heading		F	Outline level 6
Press	N for	Normal text	Press	O for	Outline Body text

Figure 5–3. Heading Level Menu

Right now we're only concerned with the Table of Contents commands on the left side of the menu. (The Outline Level commands are on the right. See Section 4, "Using Outline Processing," for information on how to use these commands.)

5. Press the appropriate letter or number, for example, press **S** for a section heading, press **1** for a level 1 heading, and so forth.

   The Paragraph Numbering menu is displayed. Use this menu to add numbers to the headings in a table of contents, as explained fully in the next discussion, "Numbering a Table of Contents." If you use a numbering scheme for the headings in your document, they are entered in the table of contents as well.

6. If you don't want to add numbers to the headings, press **GO**.

   The paragraph symbol in front of the heading changes to indicate that the heading is assigned a table of contents heading level. Remember that the entire paragraph will be in the table of contents. You can't specify only part of a paragraph.

7. Repeat the steps above for each heading that you want to be included in your table of contents.

Numbering a Table of Contents

The *Paragraph Numbering* menu provides a variety of ways to number table of contents headings. This menu is displayed whenever you assign a table of contents heading.

Table of contents heading numbers, like outline heading numbers, are created and updated automatically. Be aware, however, of the following points:

- Unlike outline heading numbers, the table of contents heading attributes are *not* inherited when you create a new paragraph. Therefore, each time you create a new table of contents heading, you must either use the Heading Level Menu to apply the heading attribute, or you need to copy the heading. In either case, the numbers are updated when you review the document.

- If you want spaces between the numbers and the headings, you must insert them manually. The best method is to use tabs.

Figure 5–4 shows the Paragraph Numbering menu. You use the fields in this menu as follows:

- You use the *Forced paragraph number* field to assign a specific number to a heading.

- You use the *Numbering scheme* field to specify which kind of numbering scheme to use in a table of contents heading, for example, roman numeral, letters, and so forth.

- You use the *Concatenation* field to specify how you want concatenated numbers separated, for example, with dashes, periods, and so forth.

- You use the *Numbering format* field to determine how numbers should be set off from the text, for example, with a period, brackets, and so forth.

The following discussions explain how to use each of these fields.

PARAGRAPH NUMBERING _____

        (Press GO to execute, NEXT for next item, CANCEL to dismiss)

```
Heading Level:  Outline level 1
[Forced paragraph number]
Numbering scheme:      None  1  iv  VI  a  B          (Press N, 1, i, V or B)
Concatenation:         None  X-#  X.#  X#             (Press N, -, . or X)
Numbering format:      #  (#)  #)  #.  #:,  [#],  {#}  (Press #, (, ), ., :, [ or { )
```

Figure 5–4. Paragraph Numbering Menu

Specifying a Numbering Scheme

You use the *Numbering scheme* field to select the type of number you want for your table of contents headings. For example, you may want to use uppercase roman numerals for level 1 headings and uppercase letters for level 2 headings, as shown in the example below:

I. Heading Level One 1–1

    A. Heading Level Two 1–2

        1. Heading Level Three 1–5

To select a numbering scheme, assign a heading level. After the heading level is applied, the Paragraph Numbering menu is displayed. Move the cursor to the *Numbering Scheme* field, and press the appropriate character, as shown below. (The *Numbering scheme* field is preset to *None*, which means no numbers are used.)

Press	To select	Example
1	Arabic numbers	1 How to Eat
I	Lowercase roman numerals	i How to Eat
V	Uppercase roman numerals	I How to Eat
A	Lowercase letters	a How to Eat
B	Uppercase letters	A How to Eat

Specifying Concatenation

Use the *Concatenation* field to select the concatenation for your headings, as shown in the example below:

1. Heading Level One 1–1

    1–1. Heading Level Two 1–2

        1–1–1. Heading Level Three 1–5

To select a concatenation scheme, assign a heading level. After the heading level is applied, the Paragraph Numbering menu is displayed. Move the cursor to the *Concatenation* field, and press the appropriate character, as shown below. (The *Concatenation* field is preset to *None*, which means no concatenation scheme is used.)

Press	To select	Example
-	Hyphen	1-A Bricks
.	Period	1.A Bricks
X	No punctuation	1A Bricks

Specifying a Numbering Format

Use the *Numbering format* field to punctuate a heading. For example, you might want to use parentheses, as shown below:

(1.) Heading Level One 1–1

(1–1.) Heading Level Two: 1–2

(1–1–1.) Heading Level Three 1–5

To select a numbering format, assign a heading level. After the heading level is applied, the Paragraph Numbering menu is displayed. Move the cursor to the *Numbering format* field, and press the appropriate character, as shown below. (The *Numbering format* field is preset to *None*, which means no numbering format is used.)

Press	To select	Example
#	No punctuation	1 How to Eat
(	Parentheses	(1) How to Eat
)	Right parenthesis mark	1) How to Eat
.	Period	1. How to Eat
:	Colon	1: How to Eat
[	Square bracket	[1] How to Eat
{	Curly bracket	{1} How to Eat

Using Forced Paragraph Numbers

Very long documents are sometimes best handled by dividing them into several smaller files. If you want to create a table of contents for a document that is made up of several files, you can use forced paragraph numbering to keep your numbering scheme intact from one file to the next.

For example, if you use a numbered section heading level at the beginning of each document, you can force the number of that section heading to the correct number. In other words, if it's section 5, you can specify that the section heading say 5.

To assign a forced paragraph number to a heading,

1. Assign a heading level:

    a. Place the cursor in the paragraph.

    b. From the Base softkey strip, press **Functns (F2)**.

    c. Press **T O C (F9)**.

    d. Press **HeadLvl (F2)** to display the Heading Level menu.

    e. Choose a table of contents heading level.

    f. Press **GO** to assign the heading level and display the Paragraph Numbering menu.

2. Enter the number you want to assign in the *Forced paragraph number* field.

3. Press **GO**.

Creating the Table of Contents

Once you have assigned table of contents heading attributes, the second step in creating a table of contents is to create the table of contents template. The template defines how the headings in the finished table of contents will be formatted. To create the template,

1. Move the cursor to where you want to insert the table of contents, usually at the beginning of the document.

2. From the Base softkey strip, press **Functns (F2)**.

3. Press **T O C (F9)**.

4. Press **Templat (F3)**.

    The table of contents template window is displayed at the bottom of the screen, as shown in Figure 5–5.

2665.5–4
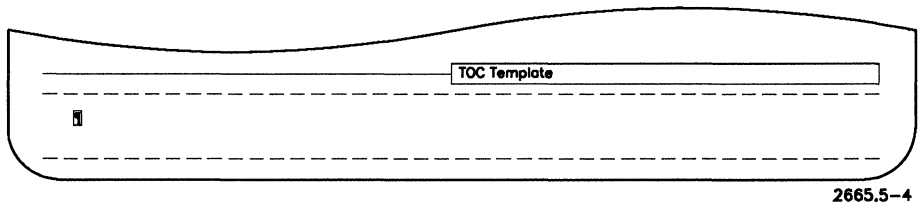
Figure 5–5. Table of Contents Template

5. Enter one paragraph symbol for each table of contents heading level that your document uses. For example, if you have three levels of headings, make sure you have three paragraph symbols in the template. The first paragraph symbol corresponds to the section headings, the second to the level 1 headings, and so on.

    If you do not have as many paragraph symbols in the template as you do heading levels in your document, the lowest heading levels appear in the table of contents formatted the way the last paragraph in the template is formatted.

    Since there are six levels of headings possible, you can have up to six paragraph symbols in your template. Figure 5–6 shows a template with three headings.

6. To make things easier, label the heading levels in the template (as shown in Figure 5–6). Text entered in the template does *not* appear in the finished table of contents.

2665.5–5
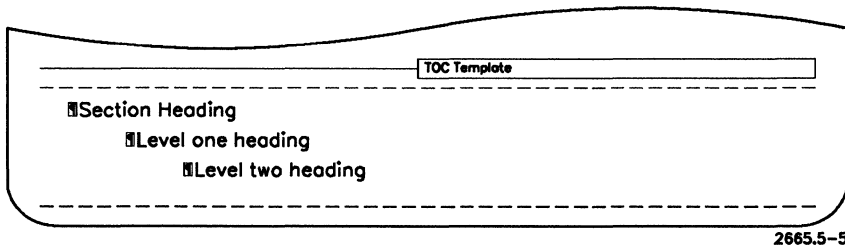
Figure 5–6. Sample Table of Contents Template

The text you enter takes on the font attributes of the text where the cursor is located. You can, however, change that, as described next.

7. Format each line in the template to reflect the style and appearance that you want for each entry in your table of contents. Your have the following options:

- No formatting at all

- Tabs

- Indents

- Bold type, underlined, and so forth

- Special line spacing

Each of these options is explained in depth in the following discussion, "Formatting the Table of Contents Template."

8. When the template is completed, press **GO**.

This message is displayed:

> Press **GO** to insert table of contents at cursor position.
> **CANCEL** to cancel command.

9. If the cursor is where you want to insert the table of contents, press **GO** to generate the table of contents. Otherwise, press **CANCEL** and move the cursor to the place where you want to insert the table of contents, then press **GO**.

The table of contents occupies its own page in a document. If you place the table of contents at the beginning of the document, it becomes page 1. The first page of text in the document, therefore, becomes page 2 (or higher if the table of contents is more than one page long). To start the document at page 1, assign a forced page number 1 to the first page of text. (Forced page numbers are covered in the *Word Processing* volume.)

Notes:

1. *When you generate a table of contents, a static page break is inserted at the beginning of the table of contents. It may look like an extra page break, but it isn't:* **don't delete it**. *If you do, you'll delete the table of contents template, and you won't be able to regenerate the table of contents.*

2. *Outline headings are not included in a table of contents. For information on outlining, see Section 4, "Using Outline Processing."*

Formatting the Table of Contents Template

By formatting the table of contents template, you automatically format the table of contents when it is generated. You have many options for formatting the table of contents template, as explained below.

No Formatting At All

You can leave the table of contents template alone and still generate a table of contents. In this case, it will not have any indents, and the page numbers will be next to the headings, as shown below:

How to Eat 1
How to Eat Figs 1
Squishy Figs 1
Dried Figs 2
Sandy Figs 6
How to Eat Bricks 11
Squishy Bricks 11

Tabs

You can align your page numbers at the right margin, as shown below.

How to Eat	1
How to Eat Figs	1
Squishy Figs	1
Dried Figs	2
Sandy Figs	6

To do this, set a right-aligned tab at the right margin in the table of contents template, as shown in Figure 5–7. If you want to use leader dots, make this tab a leader dot right-aligned tab.

OFIS Document Designer inserts a tab character along with the page number, so the number moves automatically to the tab stop. (See the *Word Processing* volume for information on tabs.)

Right—aligned Tab

12 point Helvetica Bold

op.fonts   4   L 0.83

TOC Template

■Section Heading   {
■Level one heading
■Level two heading

2665.5–6
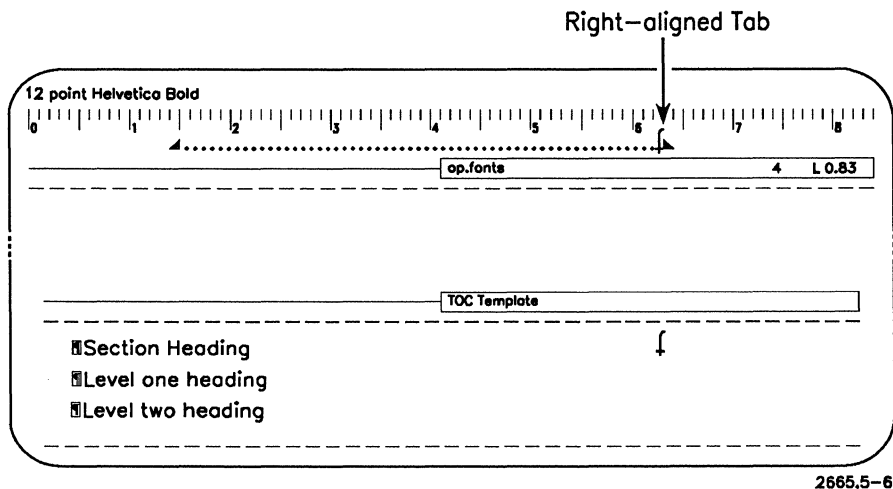
Figure 5–7. Using Tabs in the Table of Contents Template

If you want to have space between the end of a leader dot and the page number, insert a tab character at the end of the heading *in the text*, as shown in Figure 5–8.

Tab Character

2665.5–7
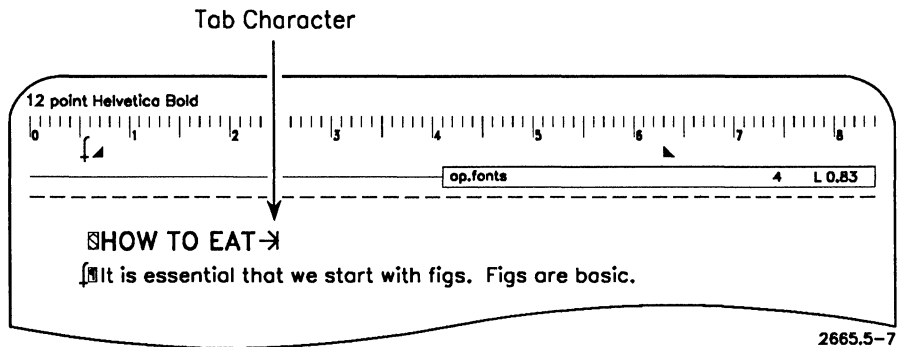
Figure 5–8. Inserting a Tab for Leader Dots

Except when working with leader dots, it is not a good idea to use tabs in the headings in your text. If you do, however, make sure that each heading at a given level has the same number of tabs. Also, make sure that the template has the same number of tab stops as the level heading in your text (plus one if you want indented page numbers). Remember that unexpected errors in the table of contents often can be traced to a problem with tabs.

Indents

You can indent each heading level in the table of contents, as shown in the example below.

```
How to Eat . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
      How to Eat Figs . . . . . . . . . . . . . . . . . . . . . . . 1
            Squishy Figs . . . . . . . . . . . . . . . . . . . . . 1
            Dried Figs  . . . . . . . . . . . . . . . . . . . . . . 2
            Sandy Figs . . . . . . . . . . . . . . . . . . . . . . 6
```

To do this, indent the heading levels in the table of contents template, as shown in Figure 5–9. (See the *Word Processing* volume for information on indents.)

2665.5–8
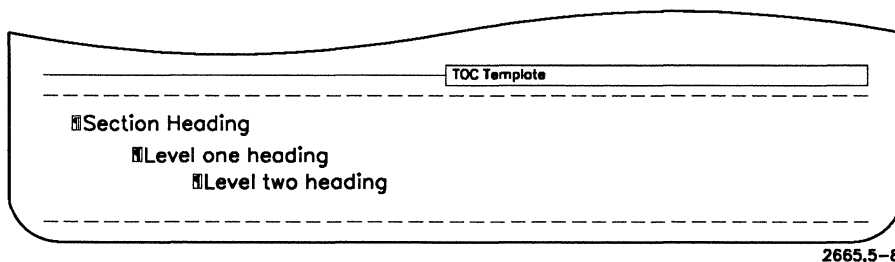
Figure 5–9. Using Indents in the Table of Contents Template

Character Formatting (Bold Type, Underlined Type, and So Forth)

You can assign different character attributes (boldface, underlining, different fonts, and so forth) to entries in the table of contents, as shown below.

How to Eat 1
    How to Eat Figs 1
        Squishy Figs 1
        Dried Figs 2
        Sandy Figs 6

If your headings in text are already formatted the way you want them to be in the table of contents, leave the paragraphs in the template blank.

If you want the headings in the table of contents to be formatted differently from the headings in the text, type one or more characters next to the paragraph symbol in the template. Apply the formatting attributes that you want that heading to have in the table of contents, as shown in Figure 5–10.
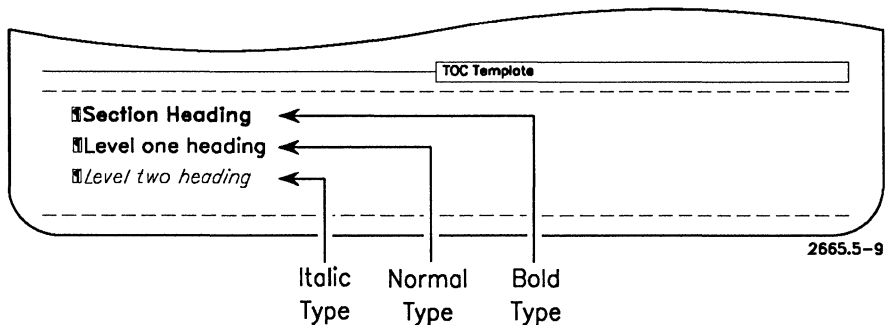
Figure 5–10. Applying Formatting Attributes in the Table of Contents Template

You can create a table of contents that uses multiple fonts in the heading. For example, you can create a table of contents that looks like this:

James Joyce *Ulysses* 3

Lord Bickley *The Way of All Worms, the Fate of All Fish* 45

Janice Stewart *How to Eat*............................... 78

To do so, make sure that the first character in the heading in text is formatted exactly the same as the first character in the entry in the table of contents heading. Text that follows the first character of the heading, and is formatted differently, retains its formatting in the table of contents.

Line Spacing

You can vary the line spacing in the table of contents. In the example below, the section headings have more space around them to set them off from the other headings. To add space between level headings in your template, use the Line Spacing menu. (See the *Word Processing* volume for information on variable line spacing.)

How to Eat 1

How to Eat Figs 1

Squishy Figs 1
Dried Figs 2
Sandy Figs 6

Updating the Table of Contents

When you change your document, you can update the table of contents automatically. You can do this when you print the document or by reviewing it.

If you add or delete text in your document, but leave the headings intact, just review or print the document. (Make sure the *Update page references* field in the Review Document menu is set to *Yes.*) The table of contents page numbers are updated automatically.

If you change, add, or delete *headings* in your document, use one of the following procedures to regenerate the table of contents.

To regenerate the table of contents when reviewing a document:

1. Assign heading levels to any new headings.

2. From the Base softkey strip, press **Home (F1), Print (F2), Review (F3)** to display the Review Document menu.

3. Move the cursor to the *Regenerate table of contents* field and select *Yes.* (This field is preset to *No.*)

4. Press **GO.**

    The table of contents is regenerated; the new heading levels are included and the page numbers are updated.

To regenerate the table of contents when printing a document:

1. Assign heading levels to any new headings.

2. From the Base softkey strip, press **Home (F1), Print (F2), Documnt (F2)** to display the Print menu.

3. Make sure the *Paginate* field is set to *Yes.*

4. Move the cursor to the *Regenerate table of contents* field and select *Yes.* (This field is preset to *No.*)

5. Press **GO.**

    The table of contents is regenerated; the new heading levels are included and the page numbers are updated.

Editing the Table of Contents

You can move and copy a table of contents just like any other block of text. When you mark the table of contents to move it, however, you must also mark the static page break at the top of the page. For this reason, it's probably best to use the Mark Page command.

To change the table of contents template, repeat the procedure for creating the template (see "Creating the Table of Contents Template," earlier in this section).

You can also change the way the table of contents looks. Open the document, and then open the table of contents template. Change the formatting of the paragraphs in the template to reflect the way you want the headings in the table of contents to change. Press **GO**; the table of contents is regenerated with the new attributes.

Note: *If you change the formatting of the table of contents template, the table of contents will be regenerated. If the table of contents includes headings from several documents, you'll have to regenerate the table of contents again using the Review Document menu. Make sure to enter the names of all the documents in the* Document name(s) *field.*

After you finish generating a table of contents, you can also edit it manually. For example, you may want to add text to the headings in the table of contents that does not appear in the headings in the text. If you edit the headings in the table of contents without editing the headings in your text, *don't regenerate the table of contents.* To make this happen, make sure the *Regenerate table of contents* field in the Review Document menu is set to *No.* If this field is set to *Yes,* you will lose your edits. Therefore, it is best to wait until all of the headings in the text are final before you work with the table of contents.

Remember that when you print or review without regenerating the table of contents, you page numbers are still automatically updated.

Creating a Table of Contents With Multiple Documents

You can create a table of contents from several documents. This is useful if you have a large document that you have divided into several smaller documents.

To create a table of contents from several documents,

1. Assign heading levels in each document.

2. Create a table of contents template for the first document.

3. Review the first document. The name of the document that contains the table of contents is displayed in the *Document name(s)* field.

4. Enter the names of the other documents that you want to include in the table of contents in the *Document name(s)* field. Make sure you enter the names in the correct order and separate each name with a comma. For example,

    Doc1,Doc2,Doc3

5. Select *Yes* in the *Regenerate table of contents* field.

6. Enter **1** in the *Start page numbering at* field.

7. Make sure the *Number documents separately* field is set to *No*.

8. Press **GO**.

    This message is displayed:

    > Press **GO** to insert table of contents at cursor position. **CANCEL** to cancel command.

9. Press **GO**.

    The new table of contents is generated and inserted at the cursor location.

Note: *When working with multiple documents that refer to a single table of contents, you should regenerate the table of contents whenever you review or print. That way, the page numbers in the table of contents will be updated for all the documents.*

When you update this type of table of contents, you can't update just part of it; you must regenerate the complete table of contents. For example, if you have six documents and you make changes in only one of them, you must enter the names of *all* the documents in the *Document name(s)* field in the Review Document menu.

Collapsing a Document

You can collapse a document that uses table of contents headings. When you do so, you hide all text between headings, including normal text and outline text. For information on collapsing a document, see "Collapsing and Expanding an Outline" in Section 4, "Using Outline Processing."

Section 6
Using Cross-References

About Cross-References

With the cross-referencing feature, you can create page cross-references and paragraph cross-references.

Here is a sample page cross-reference:

See page 7 for information on igloos.

A page cross-reference consists of two parts: a page reference and a target reference. The *page reference* points to the page number where the information is located (for example, "See page 7"). The *target reference* is the information being pointed to (in this example, "igloos").

Here is a sample paragraph cross-reference:

See paragraph 1.1 for information on igloos.

A paragraph cross-reference also consists of two parts: a paragraph reference and a target reference. The *paragraph reference* points to the paragraph number where the information is located (for example, "See paragraph 1.1"). The *target reference* is the information being pointed to (in this example, "igloos").

Note: *Paragraph references can only be created for paragraphs that are already numbered. For information on paragraph numbering, see Section 4, "Using Outline Processing."*

You can insert a page reference and a paragraph reference that use the same target, for example:

See page 7, paragraph 1.1 for information on igloos.

With the OFIS Document Designer cross-referencing feature, you can insert cross-references automatically. Later, if you edit your document, the cross-references are updated so they always refer to the correct page number.

Inserting a Cross-Reference

To insert a cross-reference,

1. Mark the text you want to reference. Remember, this is called the
    target reference.

    You can mark a single character, a word, entire paragraphs, and so
    forth. You can't, however, use a character that is already a reference
    for something else, such as an anchor character, a footnote reference,
    a page reference, or a paragraph reference.

2. Move the cursor to the place where you want to insert the page
    number or paragraph number. Remember, these are called page
    references or paragraph references.

Note: *The target and the reference must be in the same document. You*
cannot use cross-references across documents.

3. From the Base softkey strip, press **Edit (F6)**.

4. Press **X-Ref (F5)** to display the Cross-Reference menu, as shown in
    Figure 6–1.

CROSS–REFERENCE _____

(Press CANCEL to dismiss)

Anywhere in document:			From current cross-reference:		
Press	I	to insert a page reference	Press	G to	Go to its target
	P	insert a Paragraph ref.		F	Go to its First reference
	T	Go to next Target		N	Go to its Next reference
	R	Go to next Reference			

Figure 6–1. Cross-Reference Menu

5. Press **I** to insert a page reference, or press **P** to insert a paragraph reference. The number of the page or paragraph that contains the target reference is inserted at the location of the cursor.

Note: *Paragraph references can only be created for paragraphs that are already numbered. If you try to insert a paragraph reference for a paragraph that is not numbered, this message is displayed:*

> Target paragraph must be numbered.

For information on paragraph numbering, see Section 4, "Using Outline Processing."

The target reference is still marked. If you want to insert more than one reference, repeat steps 2 through 5.

6. Press **CODE-MARK** to unmark the target reference.

☞ When your screen is in half-visible or full-visible mode, cross-reference numbers and targets are displayed as half-bright.

☞ Page references and paragraph references are just numbers. It's up to you to supply the information about it (for example, "See page...," "Refer to paragraph...," and so forth).

☞ Page references automatically take on the attributes of the page numbering scheme of the target reference. For example, if the target reference is on a page that is numbered with roman numerals, the page reference will be a roman numeral. Page references also display section numbers. (For more information on numbering schemes, see the *Word Processing* volume.)

☞ Paragraph references automatically take on the attributes of the page numbering scheme of the target reference. For example, if the target reference is on a paragraph that is numbered with roman numerals, the paragraph reference will be a roman numeral.

☞ Page references and paragraph references are automatically updated even when pages or numbered paragraphs are added or deleted. In either case, when you review or print the document, make sure the *Paginate* field is set to *Yes* in order to update page or paragraph numbers.

☞ If you delete a target reference, the page or paragraph reference remains; you have to delete it separately. Note that the page reference is displayed like normal text when the target reference is deleted. If you delete a page reference, however, the target reference remains displayed as a target reference.

☞ If you define a target reference by marking a block of text, the first character in the block of text is designated as the target reference. For example, if you mark the word *igloo*, the *i* is the target reference. (The only exception is if the first character is already an anchor character, voice annotation, or other type of reference, in which case the next available character is used.)

Moving the Cursor to Cross-References

You can use the Cross-Reference menu to move the cursor back and forth between page and paragraph references and target references. To do so,

1. From the Base softkey strip, press **Edit (F6)**.

2. Press **X-Ref (F5)** to display the Cross-Reference menu.

3. Press the appropriate letter:

    T *Go to next target.* The cursor jumps from wherever it is in a document to the next target reference. (If the cursor is at the end of a document, you won't find any target references.)

    R *Go to next reference.* The cursor jumps from wherever it is in a document to the next page or paragraph reference. (If the cursor is at the end of the document, you won't find any references.)

    G *Go to its target.* The cursor jumps from a page or paragraph reference to its target reference.

    F *Go to its first reference.* The cursor jumps from a target reference to its first page or paragraph reference in the document, regardless of the location of the cursor.

N   *Go to its next reference.* The cursor jumps from a target
reference, page reference, or paragraph reference to the next
related page or paragraph reference in the document. (If the
cursor is at the end of the document, you won't find any page
references.)

☞ If you see this message,

Cursor must be on a cross-reference

it means that the cursor must be on a cross-reference to carry out
the command. This condition applies to the last three commands on
the Cross-Reference menu (**G**, **F**, and **N**).

☞ If you see this message,

Reference not found

it means that there were no references found after the location of the
cursor. If you know there are more references, move the cursor to
the beginning of the document and issue the command again.

☞ The page numbers in an automatically generated table of contents
function as cross-references to the headings the document. Using
the Cross-Reference menu, you can move directly from a page
number in the table of contents to the heading in the document.
(This is only true if you use the OFIS Document Designer table of
contents feature.)

Moving and Copying References

You can move page references, paragraph references, and target
references the same way you move normal text. You can move references
anywhere within the same document, but if you move them to another
document, you must move both the cross-reference and its target. You
cannot use cross-references across documents.

You can copy page and paragraph references the same way you copy
normal text. You cannot, however, copy target references.

If you move a target reference to a different page in your document, the
page or paragraph reference number is automatically updated when you
review the document.

Page 1 of X

You can use cross-references to do the following type of page numbering: "Page 1 of 22... Page 2 of 22... Page 3 of 22..." To use this feature, you need to know about headers or footers, and about automatic page numbering. (For information, see the *Word Processing* volume.)

To set up a "page 1 of x" numbering scheme, follow the steps below,

1. Open up a header or footer window and create a header or footer using the format shown below:

   Page # of

2. The # symbol is an automatic numbering symbol (press **CODE-SHIFT-#**).

3. Mark the very last character in the document, or at least a character that will always be on the last page.

4. In the header or footer window, move the cursor to where the second page number in the header of footer will be and insert a page reference. (From the Base softkey strip, press **Edit (F6)**, **X-Ref (F5)**, then press **I**.)

5. The page reference is inserted in the header or footer, as shown below:

   Page # of 43

6. Press **GO** twice to apply the header or footer to the document.

The number inserted in the header or footer will always be the number of the last page in the document, even if you add or delete pages. Just make sure that the target reference is always on the last page of the document.

Section 7
Using Footnotes

About Footnotes

Footnotes are often used in documents to provide explanatory or supplemental information to the discussion in the text. They are also used to reference sources of information.

With the OFIS Document Designer footnote feature, you can place footnotes on the same page as the text, or you can collect them at the end of a document. You can also select how much of a page footnotes occupy, how they are formatted, and how they are numbered. When you add or delete footnotes, the numbers are automatically updated.

You can create footnotes any time. Keep in mind that footnotes can alter the pagination of your document. Therefore, it may be easier to keep track of pagination if you create the footnotes as you enter text.

Creating Footnotes

To create a footnote,

1. Move the cursor to the place where you want to enter the footnote reference.

2. From the Base softkey strip, press **Edit (F6)**.

3. Press **FootNte (F8)** to display the Footnote softkey strip, as shown in Figure 7–1.

FOOTNOTE

SrchFor	Insert	CtFootN

Figure 7–1. Footnote Softkey Strip

4. Press **Insert (F2)**.

A footnote window is displayed at the bottom of the screen, as shown in Figure 7–2. The cursor is in the window. Next to the cursor is a zero, the footnote number, followed by a space. The footnote number is updated when you review the document.

(If you decide not to enter a footnote after all, press **CODE-C** to remove the footnote window.)

2665.7–1
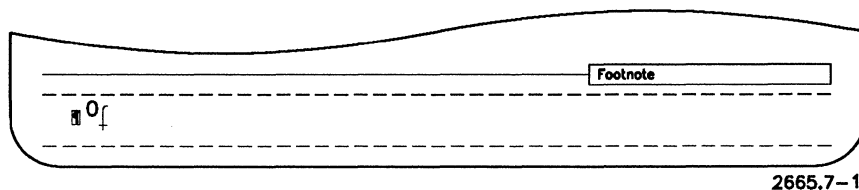
Figure 7–2. Footnote Window

5. Enter the footnote text.

Footnotes can be as long as you want. If they get very long, they are continued on the next page, or pages. If there is no room on the page for footnotes, the footnote starts on the next page. You can limit the amount of space footnotes take up on a page by specifying a footnote height. (See "Footnote Height," later in this section.)

Text entered in the footnote window automatically takes on the formatting of the text at the location where the footnote is inserted. If you want to change the format of a footnote (for example, assign it a different font), this is the best time to do it. You can format footnotes with any of the formatting commands, or with style control. (For more information on style control, see the *Word Processing* volume.)

6. When you have finished entering the footnote, press **GO** to remove the footnote window.

Your document now contains a zero followed by a space where you want the footnote reference to be.

The footnote number is automatically formatted to the font of the surrounding text. With large fonts, this can look cumbersome. You can change the font of the footnote reference by using either the Font menu or style control.

Note: *When you create a footnote, it is not displayed on the screen. To see it, put the cursor on the footnote reference number and press* **CODE-F**; *the footnote is displayed at the bottom of the screen.*

7. To number the footnote, review the document. As you add or delete footnotes, the numbers are updated every time you review the document.

Numbering Footnotes in More Than One Document

You can number footnotes sequentially in several different documents. This is helpful if you have a long document that you have divided into several smaller documents. (For instance, each section of this book is a separate document.)

To number footnotes in more than one document, review all the documents, entering the names of the all the documents in the *Document name(s)* field in the Review Document menu. Make sure that the document names are entered in the correct order, and that each one is separated by a comma, like this:

Doc1,Doc2,Doc3

There is a field in the Review Document menu called *Number documents separately.* It is preset to *No*, which is what you want in this case.

Remember that if you add or delete footnotes in any of the documents, to update the footnote numbering, you must enter the names of *all* the documents in the first field of the Review Document menu when you review them.

Collecting Footnotes

When you collect footnotes, they are copied, in order, to a separate page at the end of the document where they are referenced. You can also collect footnotes at the end of a different document. When collecting footnotes, it is important to remember that they are *copied*, not moved, so the footnotes remain on the pages with the text. Later you will learn how to format and print your document so that footnotes do not print twice (in the text and at the end of the document).

Collecting Footnotes in the Same Document

To collect footnotes in the same document,

1. If necessary, review the document to number the footnotes.

2. From the Base softkey strip, press **Edit (F6)**.

3. Press **FootNte (F8)** to display the Footnote softkey strip.

4. Press **CtFootN (F3)**.

   The Collect Footnotes menu is displayed, as shown in Figure 7–3. Leave it blank.

COLLECT FOOTNOTES _____

                     (Press GO to execute, CANCEL to dismiss)

(Append to document)

Print footnotes on each page?   Yes   <u>**No**</u>   **(Press Y or N)**

Figure 7–3. Collect Footnotes Menu

5. Press **GO**.

   The footnotes are collected at the end of the document. They are entered on a new page created just for them.

When you collect footnotes, the *Print Footnotes on each page* field is automatically set to *No*. That way, footnotes are not printed at the bottom of each page. This means that footnotes will no longer be renumbered when you review or print your document, since they must be re-collected any time you add, delete or edit them, as explained next.

Re-collecting Footnotes

When you add, delete, or edit footnotes, you have to re-collect them. When you re-collect footnotes, the old collected footnotes are *not* overwritten; the new ones are added to the end of the document. Therefore, you must delete the old collected footnotes. You delete collected footnotes the same way you delete any text.

Collecting Footnotes in Another Document

You can collect footnotes for several documents at the end of the last document, or you can create a separate document just for footnotes. This last method is helpful, for example, if you have a long document that is divided into separate, smaller files.

To collect footnotes at the end of another document,

1. Number the footnotes sequentially. (See "Numbering Footnotes in More Than One Document," earlier in this section.)

2. Open the first document.

3. From the Base softkey strip, press **Edit (F6)**, **FootNte (F8)** to display the Footnote softkey strip.

4. Press **CtFootN (F3)**.

The Collect Footnotes menu is displayed, as shown in Figure 7–4.

COLLECT FOOTNOTES _____

(Press GO to execute, CANCEL to dismiss)

(Append to document)

Print footnotes on each page?   Yes   **No**   **(Press Y or N)**

Figure 7–4. Collect Footnotes Menu

5. In the _Append to document_ field, enter the name of the document where you want the footnotes to be collected.

6. Press **GO**.

If you are creating a new document to collect your footnotes in, the following message is displayed:

> Press **GO** to create document (name), press **CANCEL** to cancel command.

7. Press **GO**.

The footnotes are collected and placed in the specified document.

8. Open the next document and repeat this procedure. It is important to collect the footnotes of each document in the correct order.

Renumbering Footnotes

If you add or delete footnotes, you need to renumber them. The procedure for renumbering footnotes is different depending on whether or not you collected footnotes.

- If you didn't collect footnotes, just review the document. There is a field on the Review Document menu called _Renumber footnotes_; it is preset to _Yes_. Your footnotes are also renumbered when you print the document with the _Paginate_ field set to _Yes_.

- If you collected footnotes, and you don't want them to print on each page (which is most likely the case), follow this procedure to renumber footnotes:

  1. After you have added or deleted footnotes, press **Home (F1)** from the Base softkey strip.

  2. Press **Print (F2)**.

  3. Press **DocAttr (F6)** to display the Document Attributes menu.

  4. Select *Yes* in the *Print footnotes on each page* field. This step is necessary so that the footnotes will be renumbered. Later in this procedure you'll repaginate your document with this field set to *No* so the footnotes won't print at the bottom of each page.

  5. Press **GO**.

  6. From the Base softkey strip, press **Home (F1), Print (F2), Review (F3)** to display the Review Document menu. Make sure the *Renumber footnotes* field is set to *Yes*.

  7. Press **GO**.

     The footnotes are renumbered. However, since you left room on each page for footnotes, your pagination has now changed.

  8. Delete the collected footnotes at the end of the document.

  9. From the Base softkey strip, press **Edit (F6), FootNte (F8), CtFootN (F3)** again to re-collect footnotes, this time setting the *Print footnotes on each page* field to *No*.

  10. Review the document.

      The footnotes are now renumbered and re-collected at the end of your document.

☞ If you collect footnotes, and you want the footnotes to still print on the page *and* at the end of the document, reviewing and printing the document automatically renumbers the footnotes, as explained above. Make sure, however, that when you collect footnotes, you specify to print footnotes on each page. The default is to print them only at the end of the document.

Finding Footnote References

Once you have entered footnotes, you may want to view them and/or edit
them, but first you have to find them. The easiest way to find a footnote
reference is to use the Search for Next Footnote command.

1. Move the cursor to the beginning of the document.

2. From the Base softkey strip, press **Edit (F6)**.

3. Press **FootNte (F8)**.

4. Press **SrchFor (F1)**.

   The cursor moves to the first footnote reference. You have two
   choices at this point:

   • If you want to edit this footnote, press **I**. The Footnote window is
   displayed at the bottom of the screen.

   • If you want to search for the next footnote reference, press **S**.

Editing Footnotes

To edit a footnote,

1. Move the cursor to the footnote reference. (See "Finding Footnote
   References," above.)

2. Press **CODE-F** to display the footnote window.

3. Edit the text.

4. Press **GO**.

5. If you have collected footnotes, re-collect them. (See "Collecting
   Footnotes" and "Re-collecting Footnotes," earlier in this section.)

Remember that footnotes in text and collected footnotes are completely
separate entities. What you do to one has no effect on the other. The
best way to deal with this situation is to edit the footnotes *in your text*
and then re-collect them. This way, you only have to make the changes
once, and yet you have an updated version of the footnotes in both places.

Editing Collected Footnotes

You can edit collected footnotes the same way you do regular text. It is
not recommended, however, unless you are *absolutely* sure that you will
not be adding or deleting any footnotes because when you edit collected
footnotes you are not editing the footnote at its source. Thus, when you
re-collect the footnotes, you may end up re-collecting unedited ones.

Deleting Footnotes

To delete a footnote,

1. Move the cursor to the footnote reference.

2. Press **DELETE** or **DELETE CHAR**. The footnote reference *and* the
    footnote are deleted.

3. Review the document to update the footnote numbering.

Remember that this procedure does not delete collected footnotes. You
must delete those separately, as needed. Also remember that deleting a
collected footnote does not delete the footnote reference in the text or the
footnote that appears at the bottom of a page.

Footnote Height

The footnote height feature lets you specify the maximum amount of
space that footnotes can occupy on a page. To set the footnote height,

1. Mark the pages on which you want to specify footnote height.

2. From the Base softkey strip, press **Page (F5)**.

3. Press **Format (F5)** to display the Page Dimensions menu.

4. Enter a value, in inches or lines, in the *Footnote height* field. The
    value must be at least 4 lines. The value you enter is the maximum
    height for footnotes. For example, if you enter **4 inches**, footnotes
    are not printed higher than 4 inches from the bottom of the page,
    with certain exceptions (see below). If the footnote doesn't fit in the
    specified height, it continues on the next page(s).

5.   Press **GO**.

☞ You can also define footnote height by inserting static page breaks
     into a footnote. To do so, open the footnote window and insert the
     page break just as you would into any document window. The
     footnote text that falls after the page break is printed on the
     following page. (For more information on page breaks, see the *Word
     Processing* volume.)

☞ The default setting in the *Footnote height* field on the Page
     Dimensions menu is *None*. This means that there is no maximum
     footnote height specified, and footnotes can take up almost an entire
     page. (If there is any regular text on a page, OFIS Document
     Designer always leaves room for at least one line of it.)

☞ When you specify footnote height, OFIS Document Designer may
     override the specification to make the best use of the space available
     on the page, as described below.

     •   For example, if you set the footnote height to 4 inches and the
         footnote is only one line long, that one line will not print 4
         inches from the bottom of the page, thus leaving a lot of white
         space below it. Remember that footnote height is the *maximum*
         height, not the *required* height.

     •   If there is enough space on a page for a footnote to print higher
         than the maximum height specified, it will do so. For example,
         if the footnote height is set to 4 inches and yet there is only one
         line of *regular text* on a page, the footnote will take up as much
         space as needed, regardless of the 4-inch limit.

     •   OFIS Document Designer may also override your choice for a
         specified footnote height when there are two or more footnotes
         on a page. Since a footnote should begin on the same page as
         its reference, a very long footnote can override the footnote
         height specification so that the next footnote can be placed on
         the same page as its reference.

         In some cases, however, a footnote will be placed on the next
         page, for example, when there are two very long footnotes
         referenced in the same line of text.

Section 8
Using Form Processing

About This Section

This section describes how you can create predefined forms that other users can copy and customize according to their needs. It also explains how you fill in the forms. You'll learn how to do the following:

- Create the form structure
- Edit the form
- Store the form and customize it
- Use the form

Creating a Form

Suppose you worked for the Stuffed Shirt Company and needed to create a form that could be used to process orders for shirts. With OFIS Document Designer, you can create a *form document*, which contains text and specific areas to be filled in. For example, in processing shirt orders, you may want to have a form that prompts you for information concerning the customer's name and address, and the style, color, size, and price of the desired shirt.

In general, there are two steps required to create a form:

1. Enter the structure of the form.
2. Insert stop codes. (See "Inserting Stop Codes," later in this section.)

After these tasks are completed, you can recall, fill in, and store the form.

To enter text into a form,

Open a document and enter the text you want in the form. For processing shirt orders, your form might look like this:

Name:
Address:
Phone:

Style:
Color:
Size:
Price:

☞ You can insert reserved keywords into your form, which display the current date and time. For information on reserved keywords, see the *Word Processing* volume.

☞ You can make text uneditable (that is "read only") so future users cannot accidentally change the text contained in the form. From the Base softkey strip, press **Attribt (F10), More (F1), NonEdit (F3)** to access the Non–Editable softkey strip.

☞ You can ensure that a paragraph stays on a specific line by setting a vertical tab. For example, you may want a certain field in a form to always be four inches from the bottom of the page even if text is added or deleted above. To set a vertical tab,

1.   Move the cursor to the paragraph where you want to insert the vertical tab.

2.   From the Base softkey strip, press **Paragph (F4)**.

3.   Press **LinSpac (F2)**.

4.   Press **Other (F5)** to display the Line Spacing menu.

5.   Move the cursor to the *Vertical tab* field and enter a value. (You can enter the value in points, lines, or inches.)

6.   If desired, move the cursor to the *Align vertical tab with* field and press **B** to highlight *base*. (*Top* is the preset value.)

7.   The *Align vertical tab with* field determines how the paragraph is to be positioned: *Base* is the distance measured from the top of the paper to the baseline of the first line of the paragraph. *Top* is the distance measured from the top of the paper to the top of the first line of the paragraph.

8.   Press **GO** to fix the position of the paragraph.

Inserting Stop Codes

When you create a form, you must insert symbols known as *stop codes*. Stop codes are used to prompt you, or another user, for the information you need to enter. They are displayed on the screen as bullets (•) or diamonds.

There are two types of stop codes: *single prompt stop codes* and *multichoice stop codes*, both of which are explained below. Stop codes can be moved, copied, and deleted. When you move, copy, or delete the stop code, you also move, copy, and delete the respective choices.

Note: *Stop codes are not displayed when the screen is in normal mode; therefore, your screen should be in half-visible or full-visible mode when you enter stop codes.*

Entering Single Prompt Stop Codes

Use single prompt stop codes when the user is prompted to make only one reply, such as entering a name or an address.

To enter a single prompt stop code,

1.   Move the cursor to the location in the form where the stop code is to be inserted. For example, in a form for processing shirt orders, place the cursor by the *Name* field.

     This is the place where the response will be displayed when a user is filling in the form. Therefore, you'll enter the necessary tab stops, colons, and other punctuation in front of the stop code.

2.   From the Base softkey strip, press **Home (F1)**.

3.   Press **Utility (F7)**.

4. Press **Forms (F10)** to display the Form Processing menu, as shown in Figure 8–1.

FORM PROCESSING _____

(Press CANCEL to dismiss)

Press F   Form fill
         E   Expand phrases
         K   Expand phrases and reserved keywords
         I   Insert stop code
         C   Insert multichoice stop code

Figure 8–1. Form Processing Menu

5. Press **I** to display the stop code prompt window.

6. In the stop code prompt window, enter a description of the information that should be inserted into the form, for example,

    Type customer name

7. Press **GO**. The stop code symbol (bullet [•] or diamond) is displayed at the cursor location. It indicates where the user's response will be inserted when the form is eventually filled.

    When the cursor is on the stop code, the format status line displays the words *Stop Code*, as shown in Figure 8–2.

2665.8–2

Figure 8–2. Stop Codes and the Format Status Line

8. Repeat the preceding procedure for each place in the form where a single response is to be made.

Entering Multichoice Stop Codes

Use multichoice stop codes when there are several choices available to the user and when the text for each choice is predefined. For example, if the question concerns shirt style (long sleeve, short sleeve, muscle shirt, sweatshirt, tank top), you can display five choices. The user then selects a letter or number that corresponds to the desired choice.

To enter a multichoice stop code,

1. Move the cursor to the location in the form where the stop code is to be inserted. For example, in a form for processing shirt orders, place the cursor by the *Style* field.

2. From the Base softkey strip, press **Home (F1), Utility (F7)**. Press **Forms (F10)** to display the Form Processing menu.

3. Press **C** to display the stop code choice prompt window.

4. In the stop code choice prompt window, enter the text that describes the type of information required to answer the prompt. For example,

    Select style number

5. Press **GO**.

    The stop code prompt window is removed from the screen, and the Form Fill Choices menu is displayed in its place, as shown in Figure 8–3. (Note that the Form Fill Choices menu shown below is filled in for the sake of example only.)

FORM FILL CHOICES _____

(Press GO to execute, CANCEL to dismiss)

Choice 1 mnemonic:	1
Choice 1 text:	Long sleeve
Choice 2 mnemonic:	2
Choice 2 text:	Short sleeve
Choice 3 mnemonic:	
Choice 3 text:	
Choice 4 mnemonic:	
Choice 4 text:	
Choice 5 mnemonic:	
Choice 5 text:	

Figure 8–3. Form Fill Choices Menu

You can enter the following two types of information into this menu:

- Mnemonics, which are single letters or numbers that are used to identify the text

- Text, which describes the choice indicated by the respective mnemonic

  For example, if the user is selecting a style number, you might type 1 for *Choice 1 mnemonic* and **Long sleeve** for *Choice 1 text*; 2 for *Choice 2 mnemonic* and **Short sleeve** for *Choice 2 text*, and so on.

  Note that the text that you insert in the text fields is the text that is inserted in the form when the user makes the choice.

6. Enter the desired mnemonics and text for the stop code.

    If you don't enter a mnemonic, OFIS Document Designer uses the first letter of the text that describes the choice, such as **L** for long sleeve, **S** for short sleeve. You can enter up to ten choices in a multichoice stop code.

7. Enter other mnemonics and text as required.

8. Press **GO**. The stop code symbol (bullet [•] or diamond) is displayed at the cursor location. It indicates where the user's response will be inserted when the form is eventually completed.

    Note that when the cursor is on the stop code, the format status line displays the words *Stop Code*.

Editing a Form

A completed form consists of three parts:

- Standard text, which is the structure of the form (the parts of the form that don't change)

- Stop code text, which consists of the prompts that are displayed when you fill in the form

- Response text, which is the text that a user types in response to the stop code prompts

You edit standard text and response text in the same way you edit regular OFIS Document Designer text. To edit stop code choices or prompts, follow the procedure below. You can also use this procedure to change a single-character mnemonic.

Editing Stop Code Text

To edit stop code text,

1. Move the cursor to the stop code.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Forms (F10)** to display the Form Processing menu.

5. Press the letter that corresponds to the stop code:

   I   for stop code

   C   for multichoice stop code

   The stop code text is displayed in the stop code window at the bottom of the screen.

6. Edit the text.

7. Press **GO**.

   The stop code window is removed from the screen. When the form document is filled in, the prompts will contain the new stop code text.

Storing a Form

You can store your form after you enter the text and stop codes. Other users can then copy the form and modify it to suit their needs.

Forms are usually stored as their own documents, although they can also be stored as phrases. (For more information on phrases, see the *Word Processing* volume.)

Storing a Form in a Document

If you created the form in a separate document, the document then becomes the master form document. (Remember, you can make the text in the master form document uneditable so that future users will not accidentally change it: From the Base softkey strip, press **Attribt (F10)**, **More (F1)**, **NonEdit (F3)** to access the Non–Editable softkey strip.)

You can copy the master form document and rename it according to specific information that you or others enter when the form is filled in. For example, the form document named *Order.shirts* could be copied and renamed *Cohen.shirts* if the shirt order was for a customer named Arthur Cohen. Or, *Form.letter* could be copied and renamed *Noble.letter* if it were sent to Alison Noble.

To copy a form into a new document and fill it with information specific to a client or order,

1. From the Base softkey strip, press **Home (F1)**, then press **Open (F3)** to display the Open Document menu.

2. Enter the name of the new document.

   Choose a name that is related to the form, such as *Order.shirts* or *Form.letter*.

3. Move the cursor to the *Copy from document* field, and enter the name of the document that contains the form.

4. Press **GO**.

   The new document is displayed on the screen. To fill in the newly created form, issue the Form Fill command (described in "Using a Form," later in this section).

Storing a Form in a Phrase

You can also store a form in a phrase, especially if it represents only a portion of a larger document. When you recall the phrase, OFIS Document Designer automatically searches for the first stop code and prompts you for a response.

To store a form in a phrase,

1. Mark the form, including the stop codes.

2. From the Base softkey strip, press **Phrases (F7)**.

3. Press **Store (F6)**.

4. Type a name that describes the phrase.

5. Press **GO**.

To recall the form, use the Recall Phrase command. When the form is recalled, OFIS Document Designer automatically prompts you for responses when it locates stop codes. For more information on phrases, see the *Word Processing* volume.

Using a Form

Using a form simply involves opening it and filling it in. OFIS Document Designer locates the stop codes, displays the prompts required to fill in the form, and stores your responses in the document.

To fill in a form when it is stored in another document,

1. Display a copy of the form document on the screen. (If you haven't made a copy of the form document, see "Storing a Form in a Document," earlier in this section.)

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Forms (F10)** to display the Form Processing menu.

5. Press **F** (Fill Form).

    OFIS Document Designer enters form fill mode and searches the document for the the first stop code prompt. Then, either a single prompt, or a list of several choices, is displayed at the bottom of the screen. Figure 8–4 displays a stop code prompt. Figure 8–5 displays a multichoice stop code prompt.

6. Respond to the prompt, and then press **GO**.

    OFIS Document Designer searches for the next stop code and displays another prompt.

7. Continue to respond to the prompts until the form is complete and the following message is displayed:

    Form fill complete.

After you have filled in the form, you can print it or store it for use at another time. You can also customize it by using different fonts and type sizes. (For information on fonts and type sizes, see the *Word Processing* volume.)

Figure 8–4. Single Stop Code Prompt

```
10 point Times
|'|'''|''''|''''|''''|''''|''''|''''|''''|''''|''''|''''|''''|''''|''''|''''|'''
|0      1      2      3      4      5      6      7      8
       ▲      [

──────────────────────────────────────────┬─────────────────────────
                                           │ Forms          1    L 1.00"
─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─

        ¶Name: ●
        ¶Address: ●
        ¶Phone: ●

        ¶Style: ● [
        ¶Color: ●
        ¶Size: ●
        ¶Price: ●

─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─


┌─────────────────────┐
│ MULTI─CHOICE FORM FILL ├──────────────────────────────────────────
└─────────────────────┘
              (Press CANCEL to dismiss, GO to skip)
                                                          Multichoice
              ┌──────────────────────┐                    Stop Code
              │ Select style number:  │◄─────────────────  Prompt
              └──────────────────────┘

     Press  1   for   Long sleeve
            2         Short sleeve
            3         Muscle shirt
            4         Sweatshirt
            5         Tank top
```

2665.8−5

Figure 8–5. Multichoice Stop Code Prompt

Section 9
Using List Processing

About This Section

This section describes how you can produce customized versions of a document without typing each document individually. You'll learn how to do the following:

- Set up a file containing a list of entries (names, addresses, and so on)

- Create a document containing the letter or text you want to send

- Merge the entries into the letter or text

- Sort entries in a particular order

- Select specific entries

- Place the selected entries in a particular order

- Create mailing labels

About List Processing

List processing allows you to create a series of documents that are identical, except for certain entries. This is useful if you're creating form letters, reports, contracts, mailing labels, and so on.

For example, suppose you have to send the same letter to a number of people informing them of a late payment. With list processing, you can produce copies of the basic letter but make each copy appear to be personalized, as shown in Figure 9–1. You do this by merging a file with names, addresses, and/or other particular information with a file containing your letter.

In Figure 9–1, the personalized information that has been inserted into the letter is shown in boldface type.

February 9, 1992

Mrs. Alice Werm
3456 Fish Hook Road
Mountain View, CA 95043

Dear **Mrs. Werm,**

I hope you've enjoyed our service, but please understand that it's not free. Our records indicate that you've not paid your garbage pickup bill. The amount due is **$23.56.** If your bill is not paid by **February 12,** your garbage will be left on the street. Please **Mrs. Werm,** don't let this happen. Think of your neighbors and the rest of the community.

Yours truly,

The National Can-Can Garbage Company

February 9, 1992

Mr. Nick Moose
1290 Woods Lane
Santa Clara, CA 95050

Dear **Mr. Moose**

I hope you've enjoyed our service, but please understand that it's not free. Our records indicate that you've not paid your garbage pickup bill. The amount due is **$1.66.** If your bill is not paid by **February 20,** your garbage will be left on the street. Please **Mr. Moose,** don't let this happen. Think of your neighbors and the rest of the community.

Yours truly,

The National Can-Can Garbage Company

Figure 9–1. Sample Form Letters

How List Processing Works

List processing involves three basic tasks:

- Creating a *records file*, which contains the various entries that you'll insert into a document.

  In the figure above, the records file would list the names and addresses of the people who are to receive late notice letters, along with the amounts they owe and the date the payment is due.

- Creating a *form document*, which contains the text into which you'll insert the entries from the records file.

  The text of the form document remains the same in each copy. In the figure above, the form document would be the basic letter, *without* the personalized information. There would be special placeholders indicating where the personalized information entries would be placed.

- Merging the entries from the records file into the form document, thereby producing a personalized printed letter.

List processing also allows you to *sort* and *select*: sorting rearranges your entries in the records file sequentially, such as alphabetically by last name; selecting separates certain entries from the file, such as customers in California. After entries have been sorted and/or selected, they can be merged into the form document.

The Records File

As mentioned above, you start the list processing operation by creating a records file. The records file consists of records and a template record, both of which are explained below.

The Records

Each set of entries (names, addresses, and other information) in the records file is known as a *record*. Each record is divided into *field*s. In the example below, one record is displayed, which contains nine fields. Each field represents a specific item, such as a person's last name, an address, a state, and so on. In the following example, the fields are underlined for readability only.

> Mrs. Alice Werm
> 3456 Fish Hook Road
> Mountain View, CA 95043
> $23.56
> February 12

When you set up your records file, you must identify each new record with a *record start character*. You must identify each new field with a *field start character*. These characters can be inserted from the Utility softkey strip, or you can use whatever character you want *except* the paragraph symbol, the page break symbol, and a blank space.

Inserting them from the softkey strip is faster, but you can only use these characters:

- The record start character is a registered trade mark symbol (®).

- The field start character is an inverted exclamation point. (¡). (On some monitors, this character may be displayed as a small vertical line instead.)

In the two records below, the record start character is placed in front of each record. The field start character separates one field from another.

```
®¡Mrs. ¡Alice ¡Werm
¡3456 Fish Hook Road
¡Mountain View,¡CA¡95043
¡$23.56
¡February 12

®¡Mr. ¡Nick ¡Moose
¡1290 Woods Lane
¡Santa Clara,¡CA ¡95050
¡$1.66
¡February 20
```

Note: *You must repeat the record start character to begin each new record and the field start character to begin each new field. Also, within a document, you can only use one type of record start character and one type of field start character. For example, if you use a registered trademark symbol for the first record start character, you must use it for all the record start characters in that records file. Similarly, if you use the inverted exclamation mark for the first field start character, you must use it for all the field start characters in that records file.*

The Template Record

Your records file must start with a *template record*. The template record defines the record start and field start characters you'll be using in a particular records file. It also defines the *keywords*, which are the words you've chosen to represent the field names in your records. For example, you could use the keyword *Title* to represent fields with actual titles, such as *Mr.*, *Mrs.*, and *Ms.* Later, you'll see how keywords match areas in your form document to indicate where information from the records file will appear.

The following is an example of a template record:

```
®¡Title¡FirstName¡LastName
¡Address
¡City¡State¡#Zip
¡Amount
¡MyDate
```

Notes:

1. *If you want to print various dates in your document, use a keyword other than the word* Date *in your template record. The word* Date *is a special keyword known as a* reserved keyword. *It always indicates the current date. You don't have to define* Date *in your template record; you can just type it in your form document, as shown in Figure 9–2. For more information on reserved keywords, see "Using Reserved Keywords," later in this section.*

2. *To sort a field numerically, the keyword must appear in the template record of the records file preceded by a number sign (#). For example,* ®City¡State¡#Zip. *The number sign indicates to OFIS Document Designer that the entries for this field in the record will contain only numbers. When you specify the keyword in the Sort/Select menu, however, the number sign must* not *be included.*

3. *You cannot specify how the form will be formatted in the records file, that is, you cannot specify line spacing or fonts. How the form is formatted is determined by the form document.*

Creating a Records File

Suppose you want to produce the personalized letters shown at the beginning of this section. First you would create a records file like the one shown in Figure 9–2.

(If you're not familiar with the concepts or terminology presented here, refer to "How List Processing Works," earlier in this section.)

® i Title i FirstName i LastName
i Address
i City i State i #Zip   } Template Record
i Amount
i MyDate

® i Mrs. i Alice i Werm
i 3456 Fish Hook Road
i Mountain View. i CA i 95043
i $23.56
i February 12

® i Mr. i Nick i Moose
i 1290 Woods Lane
i Berkeley, i CA i 95055   } Records
i $1.66
i February 20

® i Dr. i Bobby i Dahl
i 709 Cabbage Patch Way
i Birmingham. i AL i 67783
i $10.23
i February 2   2665.9-2

Figure 9–2. Sample Records File

To create a records file,

1. Open a new document.

    Use a document name that identifies it as a records file, such as *Merge.records*.

2. If you want to insert the record start character and field start character from the Utility softkey strip, display the Base softkey strip and, press **Home (F1)**, then press **Utility (F7)** to display the Utility softkey strip.

3. Enter the template record, which, for this example, is the first paragraph in Figure 9–2, above. (Press **SHIFT-RETURN** to begin new lines within each record.)

    Be sure to include the record start character, the field start characters, and the field names. Assign keywords that are easily recognizable, such as *Title* and *LastName*. Note that keywords have to be single words.

    To enter a record start character, press **RecDLim (F5)**.

    To enter a field start character, press **FldDLim (F4)**.

4. Enter the records.

    Leave one blank line between the record template and each record. Enter each record in a separate paragraph. (Remember to press **SHIFT-RETURN** to begin new lines within each record.)

    Also, remember to enter the record start and field start characters defined in your template record. The record start character is the first entry in each record; the field start characters are inserted before each field.

5. Press **CODE-S** to save the records file.

The records file is complete. You're now ready to create a form document, the document that will contain the letter or text that you want to send.

The Form Document

The form document is a normal word-processed document, which you create like any other OFIS Document Designer document. It contains the structure into which records are entered from the record file. It also contains the keywords that you specified in the template record of the records file (see Figure 9–3). When you merge the form document with the records file, these keywords will be replaced with the entries in the fields from the records file.

When you create the form document, you must apply the Keyword attribute to each keyword you enter (see "Creating a Form Document," later in this section). Also, keywords must not exceed 30 characters, and cannot include blank spaces, commas, line break symbols, paragraph symbols, forced page symbols, or forced column symbols.

Using Reserved Keywords

Reserved keywords are special keywords that automatically display the current date and time when you merge the form document with the records file. You insert reserved keywords into your form document as you would any other keyword. You can also insert them into your headers and footers. They *don't* have to be defined in your template record. The reserved keywords are as follows:

- *Date*, which displays the date, for example, September 11, 1991.

- *Sdate*, which displays an abbreviated date, for example, 9/11/91.

- *Ldate*, which displays the full date, for example, Wednesday, September 11, 1991.

- *Time*, which displays the current time, for example, 1:22pm.

- *Sequence*, which displays the number of the most recent successfully merged record. For example, you might have a records file containing 48 records. Each successfully merged record is sequentially numbered from 1. If you specify the Keyword sequence in the form document that is merged with the records file, the sequence number of each successfully merged record appears in the printed document. For more information on reserved keywords, see the *Word Processing* volume.

Creating a Form Document

Figure 9–3 shows how a typical form document appears before it's merged with a records file. For the sake of readability, each keyword is shown in boldface type.

Date

Title FirstName LastName
Address
City, State Zip

Dear **Title LastName:**

I hope you've enjoyed our service, but please understand that it's not free. Our records indicate that you've not paid your garbage pickup bill. The amount due is **Amount**. If your bill is not paid by **MyDate**, your garbage will be left on the street. Please **Title LastName**, don't let this happen. Think of your neighbors and the rest of the community.

Yours truly,

The National Can-Can Garbage Company

Figure 9–3. Sample Form Document

To create a form document,

1. Open a new document.

   Use a document name that identifies it as a form document, such as *Merge.form*.

2. Enter text and insert the keywords you want.

3. Mark the first keyword

4. From the Base softkey strip, press **Attribt (F10)**.

5. Press **More (F1)**.

6. Press **Keyword (F1)** to display the Merge Keyword softkey strip, as shown in Figure 9–4.

MERGE KEYWORD

WORD	SENT	PARA	PAGE	LINE	COL		On	Off

<p align="center">**Figure 9–4. Merge Keyword Softkey Strip**</p>

7. Press **WORD (F1)** to mark the keyword.

8. Press **On (F9)** to assign the Keyword attribute.

    When the Keyword attribute is assigned, the keyword text appears half-bright. Notice that *Keyword* is displayed at the top of the screen when the cursor is positioned on the word.

9. Apply the Keyword attribute to each keyword in the form.

    Note that any keywords in headers and footers are *not* expanded unless they are reserved keywords.

10. Press **CODE-S** to save the form document.

☞ If you want to remove the Keyword attribute from a keyword, mark the keyword, display the Merge Keyword softkey strip, mark the word, and press **Off (F10)**.

☞ You can insert reserved keywords into your form document just as you would any other keyword. Reserved keywords display the current date and time when they are expanded. (For more information on reserved keywords, see the *Word Processing* volume.) Note that reserved keywords *do not* have to be indicated in a records file.

When *both* the form document and the records files are complete, you can merge the two documents. You have the choice of merging them into another document or directly to a printer.

Merging Records Files With Form Documents

List processing occurs when you merge the records in the records file with the form contained in the form document. Most often, you'll merge documents to create customized form letters. A completed letter is created each time a record from the records file is processed with the form document, as illustrated in Figure 9–5 below. The entries in the fields in your records file have replaced all the keywords specified in your form document. (For readability, the fields in Figure 9–5 appear in boldface type.)

January 23, 1992

Ms. Rose Bush
34 Hummingbird Way
Bar Harbor, MN 04133

Dear **Ms. Bush:**

I hope you've enjoyed our service, but please understand that it's not free. Our records indicate that you've not paid your garbage pickup bill. The amount due is **$16.30**. If your bill is not paid by **March 1**, your garbage will be left on the street. Please **Ms. Bush**, don't let this happen. Think of your neighbors and the rest of the community.

Yours truly,

The National Can-Can Garbage Company

Figure 9–5. Sample Merge Letter

You can choose either of the following two procedures when you merge a records file with a form document:

- You can merge the two documents and send the resulting document directly to a printer.

- You can merge the two documents into a third document.

These procedures use the Merge to Printer command and Merge to a Document command, respectively.

Note: *When you merge to a printer, no online version of the combined information is saved.*

Merging Records and Forms to a Printer

To merge the records with the form and send it to a printer,

1. Open the form document.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Merge (F8)** to display the Merge menu. The Merge menu is displayed, as shown in Figure 9–6.

    The *Form name* field should contain the name of the form document. If it doesn't, type in the name. (Type one form name only.)

    The menu shown below has been filled in for the sake of example only.

MERGE _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Form name:	Merge.form		
Record file(s):	Merge.records		
[Number of records to skip]			
[Start numbering at]			
Number forms separately?	**Yes**	No	(Press Y or N)
Paper feed:	**Cont**	Manual	(Press C or M)
Printer name:	Imagen		
for example: HPLaserJet, Diablo,			
[Priority (0-9)]			
Inform when formatting done?	Yes	**No**	(Press Y or N)
Print statistics?	**Yes**	No	(Press Y or N)

Figure 9–6. Merge Menu

5. In the *Record file(s)* field, type the name of the record file(s) that contains the record(s) you want to merge with the form. If you enter more than one record file, use a comma to separate each name.

6. In the *Printer name* field, type the name of the printer on which you want to print the merged form(s).

    This field usually contains the name of the default printer. Alternate printer names are listed below this field.

7. Change the remaining fields as required.

    (Refer to Table 9–1 for a description of the fields in the Merge menu.)

8. Press **GO**.

    The Merge menu is removed from the screen and the merging process begins.

☞ The printer automatically advances one page before it prints the next merged letter.

☞ The last page of your printed document will contain statistics about the merge, such as the number of successfully merged forms.

Table 9–1.   Merge Menu Fields

Field	Description
Form name	Enter the name of the document that contains the forms into which records from the record file will be merged.
Record file(s)	Enter the name(s) of the record file(s) that contains the record(s) you want to merge with the form. If you enter more than one record file, use a comma to separate each name.
Number of records to skip	Enter the number of records to be skipped. For example, if you enter **10** in this field, OFIS Document Designer skips the first ten records. Leave this field blank if you don't want to skip any records.
Start numbering at	Preset to assign page number 1 to the first page in the document. To specify otherwise, enter a value. The form must already contain an automatic page number symbol. For information on inserting page number symbols, see "Formatting Pages," in the *Word Processing* volume.
Number forms separately?	Preset to *Yes*, which means that each merged form is numbered separately, usually from page 1. To assign consecutive page numbers to the merged forms, press **N**.
Paper feed	Preset to *Continuous*. If this field is set to *Manual*, you must insert each sheet of paper into the printer before each page is printed.
Printer name	Enter the name of the printer on which to print the merged form(s). The name of the default printer is usually displayed in this field. Alternative printers are listed below this field.
Priority	Specifies the urgency of the print command. 0 is the highest priority; 9 is the lowest. The default setting is 5.
Inform when formatting done?	Preset to *No*, which means that you are not notified when formatting is completed. When set to *Yes*, the message *Formatting done* is displayed at the top left of the screen when formatting is complete.
Print statistics	Preset to *Yes*, which means that OFIS Document Designer prints information about the merge on the last page that is printed. This includes the number of successfully merged forms, the number of rejected forms, and the number of records that were skipped.

Merging Records and Forms to a Document

You use the Merge to a Document command to merge the records in the record file with the form in the form document and then create a third document that is saved on disk. You can edit the saved document, reorganize it, and print it.

To merge to a document,

1. Open the form document.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **MergDoc (F9)**.

   The Merge to a Document menu is displayed, as shown in Figure 9–7. The *Form name* field should contain the name of the form document. If it doesn't, type in the name. (Type one form name only.)

   The Merge to a Document menu below has been filled in for the sake of example only.

MERGE TO A DOCUMENT _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Form name:	Merge.form		
Record file(s):	Merge.records		
Document to merge to:	Letter.doc		
[Number of records to skip]			
[Start numbering at]			
Number forms separately?	**Yes**	No	(Press Y or N)
Inform when formatting done?	Yes	**No**	(Press Y or N)
Attach statistics?	**Yes**	No	(Press Y or N)

Figure 9–7. Merge to a Document Menu

5. In the *Record file(s)* field, type the name of the record file(s) that contains the record(s) you want to merge with the form. If you enter more than one record file, use a comma to separate each name.

6. In the *Document to merge to* field, type the name of the new document that is to contain the merged records and forms.

7. Respond to the remaining fields as required. For example, if you want to be notified when the merge is complete, select **Y** for *Inform when formatting done?*

    Refer to Table 9–2 for a description of the fields on the Merge to a Document menu.

8. Press **GO**.

    The Merge to a Document menu is removed from the screen and the merging process begins. To see the results of the merge, wait several moments, and then open the document you specified in the *Document to merge to* field.

    You may see a message telling you to save. If so, the message will tell you the record number at which the command stopped. You need to save before reissuing the command. When you do, enter the record number in the *Number of records to skip* field.

☞ The last page of your document will contain statistics about the merge, such as the number of successfully merged forms.

Table 9-2.   Merge To a Document Menu Fields

Field	Description
Form name	Enter the name of the document that contains the forms into which records from the record file will be merged.
Record file(s)	Enter the name(s) of the record file(s) that contains the record(s) you want to merge with the form. If you enter more than one record file, use a comma to separate each name.
Document to merge to	Enter the name of the document that will contain the merged records and forms.
Number of records to skip	Enter the number of records to be skipped. For example, if you enter **10** in this field, OFIS Document Designer skips the first ten records. Leave this field blank if you don't want to skip any records.
Start numbering at	Preset to assign page number 1 to the first page in the document. To specify otherwise, enter a value. The form must already contain an automatic page number symbol. For information on inserting page number symbols, see "Formatting Pages," in the *Word Processing* volume.
Number forms separately?	Preset to *Yes*, which means that each merged form is numbered separately, usually from page 1. To assign consecutive page numbers to the merged forms, press **N**.
Inform when formatting done?	Preset to *No*, which means that you are not notified when formatting is completed. When set to *Yes*, the message *Formatting done* is displayed at the top left of the screen when formatting is complete.
Attach statistics?	Preset to *Yes*, which means that OFIS Document Designer displays information about the merge on the last page of the document. This includes the number of successfully merged forms, the number of rejected forms, and the number of records that were skipped.

Sorting Records

Before you merge a records file with a form document, you may want to put the records in a specific order. For example, you may want to sort the records alphabetically by last name or numerically by zip code. If you're sending out late payment notices to your customers, you may want to sort by amount owed, with the highest amount at the top. OFIS Document Designer sorts the records according to the criteria you specify. Then, only the sorted records are merged. (You can also select particular records to be sorted and merged. For more information on selecting records, see "Selecting Records," later in this section.)

OFIS Document Designer sorts records according to the keyword(s) you enter in the Sort/Select menu, shown below. (These are the same keywords you specified in the template record of your records file.) More than one keyword can be sorted at the same time. For example, you can sort alphabetically according to state, by zip code within each state, and then by last name within each zip code.

You can choose to sort in alphabetical and/or numerical order. You can also specify that your sort be in ascending (A-Z or 1-10) or descending (Z-A or 10-1) order.

Note: *To sort a field numerically, the keyword must appear in the template record of the records file preceded by a number sign (#). For example, ®City¡State¡#Zip. The number sign indicates to OFIS Document Designer that the entries for this field in the record will contain only numbers. When you specify the keyword in the Sort/Select menu, however, the number sign must not be included.*

To sort records contained in a records file,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **SortSel (F7)** to display the Sort/Select menu, as shown in Figure 9–8. In the menu shown below, certain fields are filled in for the sake of example only. This form was used to produce the sorted records in Figure 9–9, at the end of this procedure.

   (For a description of the Sort/Select menu fields, see Table 9–3, later in this section.)

SORT/SELECT _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Records from file(s):	Merge.records
Records to file:	Sort.doc

Selection test 1:
[Select on field:]
[Field value(s):]
Keep/discard these records:　　　　**Keep**　　　Discard　　　(Press K or D)

Selection test 2:
[Select on field:]
[Field value(s):]
Keep/discard these records:　　　　**Keep**　　　Discard　　　(Press K or D)

Selection test 3:
[Select on field:]
[Field value(s):]
Keep/discard these records:　　　　**Keep**　　　Discard　　　(Press K or D)

[Primary sort field:]　　　State
Sort type:　　　　　　　　**Ascending**　　　Descending　　　(Press A or D)

[Secondary sort field:]　　LastName
Sort type:　　　　　　　　**Ascending**　　　Descending　　　(Press A or D)

[Tertiary sort field:]　　　Amount
Sort type:　　　　　　　　**Ascending**　　　Descending　　　(Press A or D)

Figure 9–8. Sort/Select Menu

4.　In the _Records from file(s)_ field, enter the name of the records file you
want sorted. If necessary, enter other documents you want included
in the sort. Separate each document with a comma.

When your records file is sorted, the sorted records are written to
another file. However, no records are removed from the original file.
It remains intact and may be used for other list processing
operations.

5. In the *Records to file* field, enter the name of the document where you want the sorted record to be written.

    You can enter the name of an existing document, or you can enter the name of a new document. OFIS Document Designer creates a new document when it doesn't recognize the name you enter. If you enter the name of the records file, or any other existing document, the sorted records overwrite those in the original document.

6. Skip the fields relating to selections and move the cursor to the *Primary sort* field.

    (For information on how to select records, see "Selecting Records," later in this section.)

7. Type the keyword representing the most important field by which you want OFIS Document Designer to sort.

    For example, if you want to sort by state first, type **State** in the *Primary sort* field. (Remember, only use the keywords in the template record of your records file. Do not include the record or field start characters.)

8. In the *Sort type* field, press **D** if you want records sorted in descending order (from Z-A or 10-1). Otherwise, OFIS Document Designer automatically sorts in ascending order (from A-Z or 1-10).

9. If necessary, fill in the *Secondary sort* field and *Tertiary sort* fields.

    For example, you might type **LastName** in the *Secondary sort* field and **Amount** in the *Tertiary sort* field. This means that after your records are sorted alphabetically be state (assuming you've typed **State** in the *Primary sort* field), they'll be sorted by last name, and then by amount owed.

10. Press **GO**.

    The following message is displayed:

    > Press **GO** to create document *name*, **CANCEL** to cancel command

    If you typed the name of an existing document in the *Records to file* field, this message is displayed:

    > Press **GO** to overwrite document *name*, **CANCEL** to cancel command

11. Press **GO**.

The sorting process is complete when the Sort/Select menu is removed from the screen. To see the sorted records, open the document whose name you entered in the *Records to file* field. Figure 9–9, below, is an example of a sorted record file.

If you want, you can merge your sorted file with a form document. For information on merging, see "Merging Records Files With Form Documents," earlier in this section.

```
® i Title i FirstName i LastName  ⎫
i Address                          ⎪
i City i State i #Zip              ⎬  Template Record
i Amount                           ⎪
i MyDate                           ⎭

® i Dr. i Bobby i Dahl            ⎫
i 709 Cabbage Patch Way           ⎪
i Birmingham, i AL i 67783        ⎪
i $10.23                          ⎪
i February 2                      ⎪
                                  ⎪
® i Mrs. i Alice i Werm           ⎪
i 3456 Fish Hook Road             ⎪
i Mountain View. i CA i 95043     ⎬  Records
i $23.56                          ⎪
i February 12                     ⎪
                                  ⎪
® i Mr. i Nick i Moose            ⎪
i 1290 Woods Lane                 ⎪
i Berkeley, i CA i 95055          ⎪
i $1.66                           ⎪
i February 20                     ⎭
                                     2665.9–9
```

Figure 9–9. Sample Sorted Records

Selecting Records

You can select particular records from your records file and merge this selection with your form document. For example, if you're sending out late payment letters, you may want to select only those customers who live in California and/or those who should be billed in February. You could also select only those customers who live at addresses in a certain zip code.

Note that you can sort selections. For example, if you've selected customers who should be billed in February, you can then sort them alphabetically by last name. For more information on sorting and selecting, see "Sorting and Selecting Records at the Same Time," later in this section.

To select records contained in a records file,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **SortSel (F7)** to display the Sort/Select menu, as shown in Figure 9–10. In this menu, certain fields are filled in for the sake of example only. The selections in this menu were used to produce the selected records in Figure 9–11, at the end of this procedure.

    (For a description of the Sort/Select menu fields, see Table 9–3, later in this section.)

SORT/SELECT _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Records from file(s):	Merge.records
Records to file:	Select.doc

Selection test 1:
[Select on field:]   State
[Field value(s):]   CA
Keep/discard these records: **Keep**   Discard   (Press K or D)

Selection test 2:
[Select on field:]   LastName
[Field value(s):]   P-
Keep/discard these records: **Keep**   Discard   (Press K or D)

Selection test 3:
[Select on field:]   Zip
[Field value(s):]   95045-95090
Keep/discard these records: **Keep**   Discard   (Press K or D)

[Primary sort field:]
Sort type: **Ascending**   Descending   (Press A or D)

[Secondary sort field:]
Sort type: **Ascending**   Descending   (Press A or D)

[Tertiary sort field:]
Sort type: **Ascending**   Descending   (Press A or D)

_____

Figure 9–10. Sort/Select Menu

4.   In the *Records from file(s)* field, enter the name of the records file
     from which you want to make a selection. If necessary, enter other
     documents you want included in the selection process; separate each
     document with a comma.

     When your records file go through the selection process, the selected
     records are written to another file. However, no records are removed
     from the original file; it remains intact and may be used for other
     list processing operations.

5. In the *Records to file* field, enter the name of the document where you want the selected record to be written.

   You can enter the name of an existing document, or you can enter the name of a new document. OFIS Document Designer creates a new document when it doesn't recognize the name you enter. If you enter the name of the records file, or any other existing document, the selected records *overwrite* those in the original document.

6. In the *Select on* field (under *Selection test 1*), enter the keyword you want to use as a criterion for selection.

   For example, if you want to select customers in a particular state, type **State** in the *Select on* field. (Remember, only use the keywords in the template record of your records file. Do not include the record or field start characters.)

7. In the *Field value(s)* field, enter the value or range of values that you want to use as criteria for selecting records.

   Perhaps you want to select only customers from California. If you type **CA** (for California) in the *Field value*(s) field, every record that has CA in its *state* field will be selected.

   If you want to select customers within an alphabetical range of states, you must give the values, separated by a hyphen. For example, if you entered **CA-NY**, this would include all state abbreviations that fall alphabetically within the range CA and NY including NC, NE, and so forth. If you entered **CA-N**, you would only get states abbreviated "N."

   You could also enter **NY-**, which would include all state abbreviations that fall alphabetically after NY, including NY. If for some reason you had entered **ZZZZ** for a state abbreviation in a record, that record would be selected as well. Every abbreviation for a state falling within the range you've specified will be selected. If you want to select records for *both* CA and NY, separate the field values with a comma, for example, **CA, NY**

For a numeric field (zip code, amount, and so on), you must supply a numeric range that includes the numbers you want selected, for example, 94000-95999 or 900-. Be aware that numerical ranges can sometimes produce a deceiving selection. For example, if you typed the value **11-** in the *Field value* field, a record with a value of 12 for that field would be selected, but a record with a value of 10,000 for that field would not because the first two digits of 10,000 come before 11 numerically.

If you have a mix of numbers and letters, you can select only letters by entering **A-ZZZZ**

8. In the *Keep/discard these records* field, choose **d** (*Discard*) if you want to discard the selected records from the document whose name you entered in the *Records to file* field. Otherwise, the selected records are automatically written to the new records file.

9. If you want the records defined in step 5 to be further reduced by another set of selection criteria, enter those values in the *Selection test 2* fields. The *Selection test 3* fields may be used to continue to reduce the set of selected records.

   For example, you can use the *Selection test 2* fields to select customers whose last names fall within a specified alphabetical range, such as A-J or P-. Remember, these will be customers in California, if you selected California in the *Selection 1 test* fields. You can use the *Selection test 3* fields to further select addresses (of customers P-, for example, in California) within a specified zip code, such as 94045-94090.

10. Press **GO**.

    The following message is displayed:

    > Press GO to create document x, CANCEL to cancel command

    If you typed the name of an existing document in the *Records to file* field, this message is displayed:

    > Press GO to overwrite document x, CANCEL to cancel command

11. Press **GO**.

    The selection process is complete when the Sort/Select menu is removed from the screen. To see the selected records, open the document whose name you entered in the *Records to file* field. Figure 9–11 shows an example of a selected record file.

    If you want, you can merge your sorted file with a form document. For information on merging, see "Merging Records Files with Form Documents," earlier in this section.

```
®¡Title¡FirstName¡LastName
¡Address
¡City¡State¡Zip                    Template Record
¡Amount
¡MyDate

®¡Dr.¡Wharton¡Wolfe
¡1 Sheperds Path
¡Santa Clara,¡CA¡95050
¡$93.07
¡February 20
```

Figure 9–11. Sample Selected Record

Sorting and Selecting Records at the Same Time

You can sort and select records at the same time by completing the *Selection test* fields and *Sort* fields in the Sort/Select menu.

The selection is performed first. Then records are sorted and written to the specified new records file. If you want, you can then merge this file with a form document.

Note: *To sort a field numerically, the keyword must appear in the template record of the records file preceded by a number sign (#), for example, ®City¡State¡#Zip. The number sign indicates to OFIS Document Designer that the entries for this field in the record will contain only numbers. When you specify the keyword in the* Sort/Select *menu, however, the number sign* must not *be included.*

You can perform a sort and select on the same records file. For example, suppose your records file contains names and addresses in Alabama, California, Georgia, and Maine. You want to send form letters only to people living in California, and you want the list of their addresses in alphabetical order by city. In this case, you would complete the Sort/Select menu as shown in Figure 9-12.

SORT/SELECT _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Records from file(s):   Merge.records
Records to file: SortSelect.doc

Selection test 1:
[Select on field:]   State
[Field value(s):]   CA
Keep/discard these records: **Keep**   Discard   (Press K or D)

Selection test 2:
[Select on field:]
[Field value(s):]
Keep/discard these records: **Keep**   Discard   (Press K or D)

Selection test 3:
[Select on field:]
[Field value(s):]
Keep/discard these records: **Keep**   Discard   (Press K or D)

[Primary sort field:]   City
Sort type: **Ascending**   Descending   (Press A or D)

[Secondary sort field:]
Sort type: **Ascending**   Descending   (Press A or D)

[Tertiary sort field:]
Sort type: **Ascending**   Descending   (Press A or D)

Figure 9–12. Completed Sort/Select Menu

The resulting records file contains a list of only California addresses, listed in order from A through Z by city.

Table 9–3.   Sort/Select Menu Fields

Field	Description
Records from file	Enter the name(s) of the records file from which you want to sort/and or select records.
Records to file	Enter the name of the document where the sorted or selected records are to be stored. It can be an existing document, or you can create a new one.
Selection tests 1,2,3	Identifies the fields you want to select. To select records from one field, fill in *Selection test 1*. To select records from two fields, fill in *Selection test 1* and *Selection test 2*. To select records from three fields, fill in all three Selection test fields. Select on field Enter the keyword for the field you want selected. Do not include the record or field start characters. Field value(s) Enter the values you want selected. You can enter a single value or a range of values. For example: *35-45 A-J K- 1010- CA, NY* Keep/discard these records Preset to *Keep* so that records are kept in the file you specified in the *Records to file* field. To discard the selected records from the *Records to* file, press **D**.
Primary sort field	Enter the keyword for the most important field you want OFIS Document Designer to use when it sorts the records. Sort type Specify how you want your records sorted. This field is preset to *Ascending* (A-Z or 1-10). To sort records in descending order (Z-A or 10-1), press **D**. **Note:** *This field is also contained in the* Secondary sort *and* Tertiary sort *fields.*
Secondary sort field	Enter the keyword for the second important field you want OFIS Document Designer to use when it sorts the records.
Tertiary sort field	Enter the keyword for the third important field you want OFIS Document Designer to use when it sorts the records.

Creating Mailing Labels

In addition to producing personalized form letters, you can use list processing for creating mail labels. By merging a records file of names and addresses with a form document, you can create single or multicolumn label sheets.

The following procedure suggests a way of printing three-column label sheets that are 8.5 inches-by-11 inches (the default values). If your label sheets are a different size, you'll need to adjust your page dimensions using the Page Dimensions menu.

The process of creating multiple column mailing labels includes two steps:

1. Using the Merge To A Document command to merge a list of names into a specific format.

2. Printing the resulting file to the printer.

To create three-column label sheets,

1. Create a records file containing the names and addresses of the people on your mailing list, as shown below. Remember to create the template record at the top of your list.

    ®¡Title¡FirstName¡LastName
    ¡Address
    ¡City¡State¡Zip

    ®¡Mrs.¡Alice¡Werm
    ¡3456 Fish Hook Road
    ¡Los Altos,¡CA ¡95043

    ®¡Mr.¡Nick¡Moose
    ¡1290 Woods Lane
    ¡Berkeley,¡CA¡95055

    ®¡Dr.¡Bobby¡Dahl
    ¡709 Cabbage Patch Way
    ¡Birmingham,¡AL¡67783

    ®¡Mr.¡Wharton¡Wolfe
    ¡1 Brick Street
    ¡Santa Clara,¡CA¡95050

    ®¡Prof.¡Owen¡Lunar
    ¡666 Nut Tree Drive
    ¡Cedar,¡GA¡87765

    ®¡Ms.¡Rose¡Bush
    ¡34 Hummingbird Way
    ¡Bar Harbor,¡MN¡04133

2. Create a form document containing the keywords shown below.

    Title FirstName LastName
    Address
    City State Zip

3. It's a good idea to use the Keep Together paragraph attribute for this type of form. To do so, make sure the keywords above are all in the same paragraph (use **SHIFT-RETURNS**). Then mark the paragraph and apply the Keep Within paragraph attribute. This way, your labels will not be split by page or column breaks.

4. Use the Keyword softkey strip to apply the Keyword attribute to each keyword in the form document. To display the Keyword softkey strip, press **Attribt (F10)** from the Base softkey strip, then press **More (F1)**, and then **Keyword (F1)**.

5. Format the form document in serpentine columns, as described below:

Note: *Don't use the* **CODE-SHIFT-/** *command to insert a serpentine column break at the beginning of the form document. This will result in forced serpentine column marks in the merged document, which doesn't give the desired result. When setting up serpentine columns in the form document, use the procedure below.*

    a. From the Base softkey strip, press **Page (F5)**, **Format (F5)** to display the Page Attributes menu.

    b. In the *Number of columns* field, type **3**.

    c. In the *Margin between columns* field, specify the appropriate space between columns, for example, .2 inches. (You may have to adjust the space a few times so that the label text will print in the correct position.)

    d. Press **GO**. (Don't worry if the three serpentine columns are not displayed. They'll appear in the document that contains the merged records and forms.)

6. From the Base softkey strip, press **Home (F1)**, **Utility (F7)**, **MergDoc (F9)** to display the Merge to a Document menu. Complete the form as follows:

    a. The *Form name* field should contain the name of the form document. If it doesn't, type in the name. (Type one form name only.)

    b. In the *Record file(s)* field, type the name of the record file(s) that contains the record(s) you want to merge with the form.

    c.   In the *Document to merge to* field, type the name of the
document that is to contain the merged records and forms.

    d.   Respond to the remaining fields as required. For example, if
you want to be notified when the merge is complete, select **Y** for
Inform when formatting done?

    (Refer to Table 9–2, earlier in this section, for a description of
the fields in the Merge to a Document menu.)

7.   Press **GO**.

    The Merge to a Document menu is removed from the screen and the
merging process begins. To see the results of the merge, wait
several moments, and then open the document you specified in the
Document to merge to field.

The resulting file will have all the records on individual pages. Review
the document; the records will now be formatted in the three serpentine
columns that you set up in the form document, as shown below. After
the review, make sure all column and page breaks are in the desired
places. They should be if you used the Keep Together paragraph
attribute.

Mrs. Alice Werm 3456 Fish Hook Road Mountain View, CA 95043	Dr. Bobby Dahl 709 Cabbage Patch Way Birmingham, AL 67783	Prof. Owen Lunar 666 Nut Tree Drive Cedar, GA 87765
Mr. Nick Moose 1290 Woods Lane Berkeley, CA 95055	Mr. Wharton Wolfe 1 Brick Street Santa Clara, CA 95050	Ms. Rose Bush 34 Hummingbird Way Bar Harbor, MN 04133

You can now print the document to the printer where the labels are
loaded. As a suggestion, print to regular paper first. Then, take this
sheet and lay it over the sheet of labels to make sure the label text
printed in the right place. If it didn't, make the necessary adjustments
to the left and right margins and to the space between columns.

Section 10
Creating Indexes Automatically

Indexes are handy. It's nice to flip to the back of a book, look up a subject you want to know more about and find out where that subject is discussed. Unfortunately, indexes can be difficult and time-consuming to create. Searching through a document looking for every significant mention of a specific term can be tedious.

OFIS Document Designer provides you with two methods to help make creating indexes easier,

• The OFIS Document Designer index-building feature

• The cross-reference and list processing features

Using the indexing feature, you can create simple indexes. Using the cross-reference and list processing features, you can create more complex and sophisticated indexes. With both methods, you can create indexes for more than one document

The index-building feature is much faster than the conventional indexing method. Simple indexes are basically word lists that consist mostly of single-word main entries and their page references. Subentries and terms that don't appear verbatim in the document you're indexing do not appear in a simple index. Below is an example of a simple index, for a rutabaga cookbook, that was created with the index-building feature:

```
festive rutabaga nog, 94-95
marinara sauce with a touch of rutabaga, 98
mongolian rutabagas, 40
old-fashioned rutabaga ice cream, 6
refried rutabagas, 111
rutabaga ale, 100
rutabaga ambrosia, 94
rutabaga and Belgian endive couissants, 57
```

Complex indexes can include several levels of entries and terms that don't appear verbatim in your document. However, they take more steps to create than simple indexes. Below is an example of an index for the same rutabaga cookbook created with the OFIS Document Designer cross-reference and list processing features:

```
Breads
  rutabaga rum bread, 15
  rye rutabaga bread, 13
Breakfast foods
  Western rutabaga flapjacks, 93
Finger foods
  deep fried capsicum spiced rutabaga sticks, 92
  rutabaga knishes, 62
  stuffed rutabagas, 52
Oriental recipes
  mongolian rutabagas, 40
  rutabaga and escarole sukiyaki, 60
  rutabaga chow mein, 35
  rutabaga foo yong, 34
  rutabaga tempura, 48
```

How the Index-Building Feature Works

Building an index with the OFIS Document Designer index-building feature is a two step process.

1. Building an Index Term List

   The *index term list* is a list of words and terms copied from a document you want to index. You first use the Build Index Term List command to create the list of words and terms. You can then edit the list by adding or deleting words.

2. Creating a Final Index

   After you have built a complete index term list, you use the Process Index Term List command to create a final index. The index document that is created contains each term in the index term list in alphabetic order. In addition, each term includes the page number (or numbers) for every occurrence of that term in the document you're indexing.

   After you create the final index, you can then format it by deleting irrelevant entries, changing fonts, changing the format of the page references, and so forth.

Building an Index Term List

As mentioned earlier, the index term list is a list of the words and terms that you want to appear in your index. You select these words and terms from the document, or documents, that you want to create an index for.

To build an index term list,

1. Open the document you want to select terms from.

2. From the Base softkey strip, press **Functns (F2)**.

3. Press **DocIndx (F5)** to display the Indexing softkey strip, as shown in Figure 10–1.

INDEXING

Load	Unload		BldList	BldIndx

Figure 10–1. Indexing Softkey Strip

4. Press **BldList (F4)** to display the Build Index Term List menu, as shown in Figure 10–2. The menu has several fields, but you're only going to work with the first two for now. (For an explanation of all the fields in the Build Index Term List menu, see Table 10–1, later in this section.)

BUILD INDEX TERM LIST _____

(Press CANCEL to dismiss)

Against document:
Index term list file:
Password:
Scanrate = 0/.1/.2/.3/.4 sec?   0 1 **2** 3 4   (Press 0, 1, 2, 3, 4)
Fixed or variable pause?   **Fix**   Var   (Press F or V)
Check caps during compare?   **Yes**   No   (Press Y or N)

Figure 10–2. Build Index Term List Menu

5. By default, the *Against Document* field contains the name of the document you just opened. (This field cannot be changed.) Type a name for the index term list in the *Index term list file* field. It is recommended that you add a suffix to the name, such as ".ind," to uniquely identify the file created as a term list.

_____ **CAUTION** _____

Do not enter the name of an existing document in the *Index term list file* field. If you do so and follow through with the index term list building process, all formatting in your document will be lost.

_____

6. Press **GO**. The Modify Index List menu is displayed, as shown in Figure 10–3.

MODIFY INDEX LIST_____

(Press CANCEL to dismiss)

Press A	–	start Auto search	Press I	–	Index marked item
C	–	Cancel find and/or select	M	–	Mark item
D	–	Delete selected term	N	–	find Next item
F	–	Forward/backward toggle	R	–	scan Rate step: 0/.1/.2/.3/.4
G	–	Goto top of text	S	–	Stop list build and unload

_____

Figure 10–3. Modify Index List Menu

7. Scroll through your document until you come to the first word you want to include in the index term list. Place the cursor in the word and press **M** (for *Mark item*). Press **M** repeatedly to extend the marked term one word at a time. Press **C** to unmark a marked word or group of words.

Note that you cannot use the other standard marking commands to mark a term or unmark a term (**MARK, BOUND, WORD**, and so forth).

8. Press **I** to add the marked term to the index term list. When you do so, the term is unmarked.

   Notice that the Modify Index List menu remains on your screen after you add the term to the index term list. The menu will remain on your screen until you have finished building your list.

9. Repeat steps 7 and 8 for each term in the document that you want to include in the index term list.

   • If you want to delete a term from the index term list, select the term in the document again (press **M**) and then press **D**.

   • You cannot display or view the contents of an index term list while you are building it. You can, however, use the Start Auto Search command in the Modify Index List menu to see the terms in your index term list. For more information on the Start Auto Search command, see Table 10–2, later in this section.

10. When you have finished selecting terms from your document, press **S**. The Modify Index List menu is removed from the screen, the cursor moves to the beginning of the document you were selecting terms from, and the following message is displayed:

    Press GO to overwrite document XXX, CANCEL to cancel command

    where *XXX* is the name of your index term list.

11. Press **GO** to create your index term list.

    The index term list is "unloaded," in other words, it is displayed on your screen.

The index term list contains all the terms you selected from your document sorted in alphabetical order. For example, the index term list for the rutabaga cookbook index at the beginning of this section would look like this:

```
festive rutabaga nog
marinara sauce with a touch of rutabaga
mongolian rutabagas
old-fashioned rutabaga ice cream
refried rutabagas
rutabaga ale
rutabaga ambrosia
rutabaga and Belgian endive croissants
rutabaga and chickpea flambe
rutabaga and escarole sukiyaki
```

Index term lists are saved automatically. Like normal documents, you can have many different index term lists saved on your system as long as you give each of them a different name.

Table 10–1. Build Index Term List Menu Fields

Fields	Description
Against document	Automatically displays the name of the document you placed the cursor in when you issued the *Build Index Term List* command. This field is uneditable.
Index term list file	Type in the name of the index term list you want to create or edit.
Password	Enter a password, if necessary. (For more information about passwords, see the *OFIS Document Designer/Document Writer Word Processing* volume and the *CTOS Executive User's Guide.*)
Scanrate	Preset to *2*, which means that the system pauses two seconds at each indexed term while scanning through the document you chose terms from (see the description of the *start Auto search* command in Table 10–2). Select *0, 1, 3* or *4* to set the pause time to a different value.
Fixed or variable pause?	Preset to *Fix*, which means that the system pauses for the amount of time selected in the *Scanrate* field when doing an Auto Search (see the description of the *start Auto search* command in Table 10–2). Select *Var* if you want the system to pause longer when long terms are highlighted and shorter when short terms are highlighted.
Check caps during compare?	Preset to *Yes*, which means that only the exact terms you choose from a document are highlighted during a *start Auto search* or *find Next item* command (see the descriptions of the *start Auto search* and *find Next item* commands in Table 10–2). For example, if you chose the word "For" at the beginning of this sentence to include it in an index term list, a scan would not highlight occurrences of the word "for." To scan all occurrences of terms, regardless of capitalization, choose *No*.

Table 10–2. Modify Index List Menu Fields

Fields	Description
start Auto search	Scans a document and highlights each instance of the terms that appear in the index term list. After the scan is done, a message in the Modify Index List menu appears showing you how many terms have been added to the index term list since it was created or last loaded.
	This field is used in conjunction with the *Scanrate, Cancel find and/or select* and *Forward/backward toggle* fields. This field is also used in conjunction with the *Check caps during compare?* field of the Build Index Term List menu. (See Table 10–1.)
Cancel find and/or select	Stops a scan initiated by a *start Auto search* or *find Next item* command. Also used to unmark any words that have been marked with the *Mark item* command.
Delete selected term	Deletes term marked with the *Mark Item, start Auto search* or *find Next item* command from the index term list. Note that this option does not delete marked terms from the document you are searching or picking terms from.
Forward/backward toggle	Preset to *Forward*, which means the *start Auto search* and *find Next item* commands scan a document from beginning to end. To set the scan direction to backward, press F. To return the scan direction to forward, press F again.
Goto top of text	Moves the cursor to the beginning of the document.
Index marked item	Enters a term that has been marked with the *Mark item* command into the index term list.
Mark item	Used to mark terms in a document that are to be added to the index term list. Pressing M once marks the word the cursor is before or in. Pressing M again extends the marked area one word.

continued

Table 10-2. Modify Index List Menu Fields (cont.)

Fields	Description
find Next item	Finds and highlights the next term in the document that matches a term listed in the currently loaded index term list. This field is used in conjunction with the *Forward/backward toggle* and *Cancel find and/or select* commands. This field is also used in conjunction with the *Check caps during compare* field of the Build Index Term List menu. (See Table 10-1.)
scan Rate step: 0/.1/.2/.3/.4	Preset to the value you chose for the *Scanrate* field in the Build Index Term List menu. Press **R** to increase the scan rate time of the *start Auto search* command to the next level. Note that if you press **R** when the scan rate is set to *4*, it will be set to *0*.
Stop list build & unload	Stops the process of picking terms from a document for the index term list and displays the index term list.

Once you have created and unloaded an index term list, you can edit it, as described below.

Adding New Terms to an Index Term List

Once you have built an index term list, you can display it at any time using the Unload command. You can then add or delete terms in the index term list. If you add terms, remember to enter only characters and **SHIFT-RETURNS**. Do not enter paragraph marks, tabs, objects, or columns. Also, note that it is *not* necessary to enter new terms in alphabetical order; the terms will be automatically resorted the next time you use the Unload command on the index term list.

To edit an index term list;

1. Press **CODE-SHIFT-CANCEL** to display the Base softkey strip. Then press **Functns (F2), DocIndex (F5)** to display the Indexing softkey strip.

2. Press **Load (F1)** to display the Load Index Term List menu, as shown in Figure 10–4.

LOAD INDEX TERM LIST_____

(Press GO to execute, CANCEL to dismiss)

From file:
Password:

Figure 10–4. Load Index Term List Menu

3. Type the name of the index term list you want to edit in the *From file* field.

4. Press **GO**. The menu is removed from the screen, and the index term list is loaded into memory.

5. Press **Unload (F2)** to display the Unload Index Term List menu, as shown in Figure 10–5.

UNLOAD INDEX TERM LIST_____

(Press GO to execute, CANCEL to dismiss)

Unload to file name:
Password:

Figure 10–5. Unload Index Term List Menu

6. The name of the index term list you loaded into memory is displayed
    in the *Unload to file name* field. Press **GO.** The following message is
    displayed:

    > Press GO to overwrite document XXX, CANCEL to cancel command

    where *XXX* is the name of the index term list.

7. Press **GO** again to display the index term list. You can now edit the
    list as needed. If you add terms, make sure to enter them exactly as
    they appear in the document you are indexing. Issue a Save
    command when you have finished editing the index term list.

Adding Terms From Another Document to the Index Term List

You can also add terms from other documents to an index term list. This
is useful when you want to create an index for a large document that has
been divided into several smaller files.

To add terms from another document to an index term list,

1. Open the document you want to select terms from and place the
    cursor in it.

2. Press **CODE-SHIFT-CANCEL** to display the Base softkey strip.
    Then press **Functns (F2), DocIndx (F5), Load (F1)** to display the
    Load Index Term List menu. Type the name of the index term list
    you want to edit in the *From file* field. Press **GO**.

    The Load Index Term List menu is removed from the screen, and the
    specified index term list is loaded into memory.

3. Press **BldList (F4)** to display the Build Index Term List menu. The *Against document* field contains the document name entered in step 1, and the *Index term list file* field should contain the name of the index term list.

4. Press **GO**. The following message is displayed:

    Press GO to overwrite document XXX, CANCEL to cancel command

    where *XXX* is the name of the index term list.

5. Press **GO** again to append the index term list. The Modify Index List menu is displayed.

6. You can now select new terms for the index term list using the mark commands described earlier in this section.

Repeat any of the procedures described above for adding new terms or editing the index term list until you have a complete index term list. Once you do, you are ready to use it to create the final index.

Creating a Final Index

Once you have a complete index term list, you use it to produce an index for up to ten documents at once, as described below.

To create the index,

1. Open the document you want to index. (If you're creating an index for multiple documents, open the first document you want to index.)

2. Press **CODE-SHIFT-CANCEL** to display the Base softkey strip. Then press **Functns (F2), DocIndx (F5), Load (F1)** to display the Load Index Term List menu.

3. Type the name of the index term list you want to use in the *From file* field and press **GO**.

    The Load Index Term List menu is removed from the screen, and the specified index term list in loaded into memory.

4. Press **BldIndx (F5)** to display the Process Index Term List menu, as shown in Figure 10–6.

PROCESS INDEX TERM LIST _____

                              (Press CANCEL to dismiss)

Against document(s):
Output file name:
Password:
Check caps during compare?   **Yes**   No   (Press Y or N)
(Count) of occurrences?   Yes   **No**   (Press Y or N)
_____

Figure 10–6. Process Index Term List Menu

The *Against document(s)* field contains the name of the document you opened in step 1.

If you're creating an index for multiple documents, enter the names of the documents, in order, in the *Against document(s)* field. Separate the names with commas (for example, **Rutcook1, Rutcook2,Rutcook3**). Remember that you can create an index for up to ten documents at once.

5. The *Output file name* field also contains the name of the document you opened in step 1 above, followed by the suffix "–Index." This will be the name of your final index document. If you want, you can type in a different name, with or without the "–Index" extension, in this field. For an explanation of the remaining fields in the Process Index Term List menu, see Table 10–3, later in this section.

6. Press **GO**. The following prompt is displayed at the top of the Process Index Term List menu:

     Building Document Index...(Press CANCEL to interrupt)

After a few seconds, the menu is removed from the screen, and the document containing the final index is displayed. A message appears at the bottom of your screen showing you how many entries were created in the index.

Table 10–3. Process Index Term List Menu Fields

Fields	Description
Against document(s)	Preset to contain the name of the currently open document. Type the name of the document or documents you want to build an index for. The maximum number of documents you can enter in this field is 10.
Output file name	Preset to contain the name of the currently open document followed by the extension "–Index." You can enter a different name in this field if you want.
Password	Enter a password, if necessary. (For more information about passwords, see the *Word Processing* volume or the *CTOS Executive User's Guide*.)
Check caps during compare?	Preset to *Yes,* which means that only those occurrences of terms in the document(s) that exactly match the capitalization of the terms in the index term list will be indexed. For example, if "Bob" appears in the index term list, occurrences of the word "bob" in the document(s) would not be indexed. To create an index that contains references for all occurrences of terms in the document(s), regardless of capitalization, choose *No.*
(Count) of occurrences?	Preset to *No,* which means that the index will only contain page references for each term. If you select *Yes,* the number of occurrences of each indexed term is recorded and dispayed in parentheses after each term in the index. For example, if "pie" appeared three times on page 1, and once each on pages 3, 4, and 5, the entry in the final index would be "pie (6), 1, 3–5". Note that if the phrase "pizza pie" appeared three times on page 1 and once on page 6, the entry in the index for "pie" would be "pie (10), 1, 3–6."

Rebuilding a Final Index

You may find cases in which you have created a final index and then discover that you left out several important terms or that you have to alter or repaginate the document(s) you indexed.

To update the final index,

1. Make the necessary changes to the document(s) you are indexing.

2. Press **CODE-SHIFT-CANCEL** to display the Base softkey strip. Then press **Functns (F2), DocIndx (F5), Load (F1)** to display the Load Index Term List menu.

3. Type the name of the index term list you want to use in the *From file* field and press **GO**. The index term list is loaded into memory.

4. Press **BldIndx (F5)** to display the Process Index Term List menu.

5. Type the name of the document or documents you want to produce an index for in the *Against document(s)* field.

6. Type the name of the final index you want to rebuild in the *Output file name* field.

7. When you are ready to rebuild the final index, press **GO**. The following message is displayed:

   Press GO to overwrite document XXX, CANCEL to cancel command

   where *XXX* is the name of the final index document.

8. Press **GO** again. The final index is rebuilt and displayed.

Editing the Final Index

The final index resembles an index term list. The entries appear in alphabetical order separated by **SHIFT-RETURNS**. Page references appear for each entry. If you set the *(Count) of occurrences* field to *Yes* in the Process Index Term List menu, the number of occurrences of each indexed term is displayed in parentheses after each term.

There are several steps you can take to improve the usefulness and appearance of a final index, as described below.

Changing the Page Numbering Scheme

The page references appear differently depending on whether you used section numbers in the document you indexed.

If you used section numbers, terms found on successive pages are separated by a slash (/) between the first and last pages where the terms are found. (For example, if the term "pie" appeared in Section 10 on pages 3, 4, 5, and 6 of your document, the index entry would be: pie, 10-3/6.)

If you did not use section numbers, the individual page numbers are separated by commas. If terms are found on successive pages in your document, however, page numbers in the index are separated by a hyphen. (For example, if the term "cake" appeared on pages 1, 3, 4, 5 and 8 of your document, the index entry would be: cake, 1, 3-5, 8).

You can change the page numbering scheme in your final index using the Replace command. For information on the Replace command, see the *Word Processing* volume.

Deleting Unreferenced Index Terms

To make your index useful, you'll want to delete all unreferenced terms that appear in it. Unreferenced terms are terms in the index term list that were not found in the documents you indexed. These entries appear in the final index with a page reference of "0". A quick way to find these entries is to use the Search command to search for "0"s. (For more information on the Search command, see the *Word Processing* volume.)

Formatting the Final Index

Once you have generated the final index, you can format it as you would any other OFIS Document Designer document; you can change the font of the entries and page references, alter the spacing between entries, and so forth. You can use any of the formatting commands and features, including style control. (For more information on the formatting features and style control, see the *Word Processing* volume.)

Note: *Each time you change the pagination or content of the documents you're indexing, you'll have to rebuild the index to ensure its accuracy. Therefore, it's best to format the index only after you have finished making all changes to the documents you are indexing. Otherwise, you will end up duplicating your work.*

Creating Indexes Using Cross-References and List Processing

The OFIS Document Designer index-building feature provides a fast way to create a simple index. But what if you want to create a more detailed index like the one shown below:

Desserts
  Rutabaga cake, 22–23
  Rutabaga donuts, 11
  Rutabaga puffs, 9–10
  Rutabaga pie, 20, 65, 73
Entrees, 6
  Rutabaga casserole, 52, 68–71, 99
  Rutabaga lasagna, 74, 76, 77
  Rutabaga tartar, 67

Or what if you want to create entries for an index that do not appear verbatim in your document? For example, a rutabaga cookbook may contain numerous facts about rutabagas (where they grow, how much water they need, what type of soil they like best), but the cookbook may not contain a term that encompasses all of this valuable information, like "rutabaga ecology."

You can use the cross-reference and list processing features to produce an index that includes both subentries and terms that don't appear verbatim in your document. An index built using this method can also be sorted and updated quickly.

When you use the OFIS Document Designer list processing and cross-reference features, you essentially create a records file of index terms. Then you use the cross-referencing feature to create page references for each index term. Specifying the page numbers in this way means that your index can be easily updated at a later time.

The cross-reference and list processing indexing method consists of four steps,

1. Creating the template record.

    You add a special template record to the end of each document you want to index.

2. Creating the index entries.

    Beneath the template record, you enter the terms you want in the index and create cross-references for them.

    You then copy the template record and the index entries from all the documents you're indexing into a separate index entry file.

3. Sorting the index entry file to create the final index.

    You use the list processing Sort/Select command to produce a final index in which your index entries are sorted in alphabetical order.

4. Editing the final index.

    You then delete all field start characters, record start characters, and duplicate entries from the final index, and apply any formatting to the index terms and page numbers.

Note: *Creating indexes using the processes outlined above assumes that you are familiar with the list processing and cross-referencing features of OFIS Document Designer. If you are not, see Section 9, "Using List Processing" and Section 6, "Using Cross-References" in the* Word Processing *volume before proceeding with this section.*

Creating the Template Record

As mentioned above, the first step in creating your index is creating a special template record for each of the documents you want to index. This template consists of a single record start character, followed by field start characters and keywords for each level of entry you want in your index.

The record start characters and field start characters can consist of any characters (#, !, ?, and so forth) *except* the paragraph symbol, the page break symbol, and a blank space. Also, the record start characters and field start characters must be unique; they cannot appear in any of the actual entries in your index. You can also use the standard "®" record start character and the standard "¡" field start character in your template. (Press **CODE-SHIFT-CANCEL** to display the Base softkey strip. Then press **Home (F1), Utility (F7), RecDLim (F5)** to display the Load Index Term List menu.)

For example, if you want an index to contain only main entries, you would add the following template record to the end of your document,

    ®¡Mainentry

If you want an index to contain both main entries and subentries, you would add the following template record to the end of your document,

    ®¡Mainentry
    ¡Subentry

In both examples shown above, the record start character is the standard record start character (®), the field start character is the standard field start character (¡), and **Mainentry** and **Subentry** are keywords.

To create the template record,

1. Open the document that you want to index.

2. Move the cursor to the end of the document and press
    CODE-NEXT PAGE to insert a static page break.

3. At the top of this new page, press **RETURN** to begin a new
    paragraph. Then enter the template record, which must include the
    record start character, field start character, and keywords for the
    number of levels you'll use in your index.

4. Press **RETURN** to create a blank line after the template record.

☞ If you're creating an index for a large document that has been divided
    into several smaller files, remember to use the same exact template
    record in each of the documents.

Creating the Index Entries

Once you have created the template record, you are ready to create the index entries.

To create the index entries,

1. Open the document that you want to index.

2. Press **CODE-D** to divide the document into two windows.

3. In the top window, move the cursor to the beginning of the document and find the first item you want to index. Mark a character anywhere within this item or near the item.

4. Position the cursor in the bottom window and press **CODE-E** to move to the template record at the end of the document

Note: *This method of creating indexes requires a lot of cursor movement within and between windows. You can use the shortcuts below to more quickly move the cursor. To move the cursor to the end of a document, press* **CODE-0** *or* **CODE-E**. *To move the cursor to the beginning of a document, press* **CODE-^** *or* **CODE-B**. *To move the cursor to the top of a window, press* **CODE-UP ARROW**. *To move the cursor to the bottom of a window, press* **CODE-DOWN ARROW**.

5. Position the cursor after the last character in the template record and press **RETURN** to create a new paragraph.

6. Type the appropriate record and field start characters, followed by the term you want to include in the index. For example, to include a main entry for "Entrees" for the rutabaga cookbook shown earlier in this section, you would enter

    ®¡**Entrees**

7. Move the cursor to the end of the entry; type a comma (,) and then add a space (press the **SPACEBAR** once).

    You're now ready to create a page reference for the term you just entered.

8. Press **CODE-SHIFT-CANCEL** to display the Base softkey strip. Then press **Edit (F6), X-Ref (F5)** to display the Cross-Reference menu, as shown in Figure 10–7.

CROSS-REFERENCE_____

(Press CANCEL to dismiss)

Anywhere in document:		From current cross-reference:	
Press I to	Insert a page reference	Press G to	Go to its target
P	insert a Paragraph ref.	F	go to its First reference
T	Go to next Target	N	go to its Next reference
R	Go to next Reference		

Figure 10–7. Cross-Reference Menu

9. Press **I** to insert a page reference. The number inserted is the page number of the character you marked in step 3 above. (Note that like all cross-references, the page numbers in your index [and the characters that you marked in your document that correspond to those references] appear half-bright when your screen is in half-visible or full-visible mode.)

    If you chose to have main entries and subentries in your index, the index page at the end of your document should now look something like this:

    ¶®¡Mainentry
    ¶¡Subentry
    ¶
    ¶®¡Entrees, 6

10. Work through your document as described in steps 3 through 9 above marking characters in terms that you want to index, creating entries (both main entries and subentries) for those terms, and inserting page references. As you do so, keep the following points in mind:

- Each subentry must be linked with a main entry, which must be located directly above it. In other words, for each subentry, first create a main entry and then the subentry. For example, to create the subentries "Rutabaga casserole" and "Rutabaga lasagna" under the main entry "Entrees," as shown in the Rutabaga cookbook earlier in this section, the entries on the index page would look something like this:

  ¶®¡Entrees, 6
  ¶¡Rutabaga casserole, 52, 68–71
  ¶®¡Entrees, 6
  ¶¡Rutabaga lasagna, 74, 76, 77

- Each entry can have more than one page reference. This is useful if a term you're indexing occurs in several different places in your document. (See the example for the subentry "Rutabaga casserole," above.)

- You can create index entries for multiple documents. However, you cannot create cross-references across documents. In other words, you can't create page references in one document for terms that are contained in another document.

- If you are creating a single index for multiple documents, you must create a separate index template at the end of each document. Remember to use the same template record and the same wording for the entries in each document.

- If you change the pagination of your document after you've created index entries and inserted page references, be sure to review the document so the page numbers for the index entries will be updated. [Press **CODE-SHIFT-CANCEL** to display the Base softkey strip. Then press **Home (F1), Print (F2), Review (F3)**].

- Do not manually correct or retype the page references on your index page. To change a page reference, delete the current reference and recreate it using the procedure in steps 8 and 9 above.

Compiling the Index Entries

Once you have created all the index entries in all the documents you want to index, you need to move the entries into a separate document so you can sort them alphabetically using the Sort/Select command.

To compile the index entries,

1. Create a new document. This document, called an *index entry* document, will eventually contain a copy of the template record as well as all the index entries from all the documents you want to create an index for.

2. Open the first document containing an index template and index entries.

3. Mark and copy the template record from this document to the beginning of your index entry document.

4. Press **RETURN** to create a blank paragraph after the template record.

5. Mark and copy all the index entries from the end of the document you're indexing into the index entry document. Make sure the entries are placed after the blank paragraph.

6. If you are creating a single index for multiple documents, repeat step 5 above for all the remaining documents. Remember that you want to copy only the index entries, *not the template record*, for these remaining documents.

7. When you have finished copying all the index entries into the index entry document, move the cursor to the end of that file and press **RETURN** to create a blank paragraph.

   Your completed list of index entries should look something like this:

   ¶®¡Mainentry
   ¶¡Subentry
   ¶
   ¶®¡Entrees, 6
   ¶¡Rutabaga casserole, 52, 68–71, 99
   ¶®¡Entrees, 6
   ¶¡Rutabaga lasagna, 74, 76, 77
   ¶

Sorting the Index Entries

The next step in creating your index is to use the Sort/Select command to sort the entries. To use the Sort/Select command, your index entry document must be set up correctly. So, before you issue the command, check through the document to make sure it conforms to the guidelines outlined below.

- There is a complete and accurate template record at the beginning of the document.

- There is a blank paragraph between the end of the template record and the beginning of the index entries.

- Each entry, whether a main entry or a subentry, begins with the appropriate record and/or field start characters.

- There are no spaces between the record and/or field start characters and the text of the index entries.

- There is a blank paragraph at the end of the document.

To sort the index file,

1. Make sure the document containing the template record and index entries is open.

2. Press **CODE-SHIFT-CANCEL** to display the Base softkey strip. Then press **Home (F1), Utility (F7), SortSel (F7)** to display the Sort/Select menu, as shown in Figure 10–8.

SORT/SELECT _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Records from file(s):	Ind.unsort			
Records to file:	Index.sort			
Selection test 1:				
[Select on field:]				
[Field value(s):]				
Keep/discard these records:		**Keep**	Discard	(Press K or D)
Selection test 2:				
[Select on field:]				
[Field value(s):]				
Keep/discard these records:		**Keep**	Discard	(Press K or D)
Selection test 3:				
[Select on field:]				
[Field value(s):]				
Keep/discard these records:		**Keep**	Discard	(Press K or D)
[Primary sort field:]	Mainentry			
Sort type:	**Ascending**		Descending	((Press A or D)
[Secondary sort field:]	Subentry			
Sort type:	**Ascending**		Descending	((Press A or D)
[Tertiary sort field:]				
Sort type:	**Ascending**		Descending	((Press A or D)

Figure 10–8. Sort/Select Menu

(The fields in Figure 10–8 are filled in for example only.)

The name of the index entry file is displayed in the *Records from file(s)* field.

3. Move the cursor to the *Records to file* field and type in a name for the index you're going to create.

When the index entry file is sorted, the sorted entries are written to this file. No entries are removed from the original file, however. It remains intact.

4. Move the cursor to the *Primary sort field* field and type in the
    keyword you used to designate a main entry in the template record
    (for example, **Mainentry**). Do *not* include the field start characters
    (for example, ® and ¡).

    If you created subentries, move the cursor to the *Secondary sort field*
    field and type in the keyword you used to designate the subentry in
    the template record (for example, **Subentry**).

5. Press **GO** twice.

    The sorting operation takes several seconds. During this time, the
    system displays the following message

    Generating Records File

    The sorting process is complete when the Sort/Select menu is
    removed from the screen. The index entry document, however,
    remains on your screen.

6. To see the sorted index, close the index entry document and open the
    document whose name you entered in the *Records to file* field field in
    step 3 above. Figure 10–9 below shows a sample of a sorted index
    from the Rutabaga cookbook.

    ```
    ®¡Mainentry
    ¡Subentry

    ®¡Desserts
    ¡Rutabaga cake, 22–23
    ®¡Desserts
    ¡Rutabaga cake, 22–23
    ®¡Desserts
    ¡Rutabaga donuts, 11
    ®¡Desserts
    ¡Rutabaga puffs, 9–10
    ®¡Desserts
    ¡Rutabaga pie, 20, 65, 73
    ®¡Entrees
    ¡Rutabaga casserole, 52, 68–71
    ¡Rutabaga casserole, 99
    ®¡Entrees
    ¡Rutabaga lasagna, 74, 76, 77
    ®¡Entrees
    ¡Rutabaga tartar, 67
    ```

Figure 10–9. Sample of Sorted Index

Editing the Final Index

Once the index entries are sorted, you are ready to clean up the
document and format the final index, as follows:

- Delete the template record.

- Delete the record start characters and field start characters. The
  easiest method is to use the Replace command, replacing these
  characters with nothing. (For more information on the Replace
  command, see the *Word Processing* volume.)

- Delete duplicate entries. For example, in the sorted entries shown
  below, you would delete the duplicate entries and move or
  consolidate the page references.

  ®¡Entrees, 6
  ¡Rutabaga casserole, 52, 68–71
  ®¡Entrees, 6
  ¡Rutabaga casserole, 99

  The resulting entries would then look like this:

  ®¡Entrees, 6
  ¡Rutabaga casserole, 52, 68–71, 99

- Check the alphabetization of the subentries.

- Apply any formatting to the final index. For example, you may want
  to indent subentries to set them off from main entries. You may
  want to make main entries bold; or change the spacing between
  main entries and subentries. The fastest way to format an index is
  to use style control. (For more information on formatting and style
  control, see the *Word Processing* volume.)

Section 11
Using Redlining

About Redlining

Redlining provides the ability to track changes made to a document from its creation through all its revisions. With redlining, you can do the following:

- Compare one version of a document with any previous version

- View the changes made by a specific author

- Print any version of the document, with revisions called out by text attributes or change bars

- Reinstate text that was deleted in a previous version of the document

- Undo any revisions made after a specific revision

- Undo any revisions made by a specific author

Here are a couple of examples of how redlining is used

Bosworth is writing the new zoning law for his community. This law must take into account a wide variety of constituents, so it is revised daily. Bosworth's boss, Beatrice, needs to see the daily revisions. Bosworth can use redlining to print the draft in its most up-to-date condition with the revisions called out with underscores and struckout text, so Beatrice can see exactly what has changed. When the document is complete, Bosworth can print the document in its finished state, showing none of the revisions.

Bosworth starts on another document, this one so long and complicated that he's going to need help. Two fellow employees, Stodgeview and Binney, work on the same document, writing new material and making revisions along the way. Bosworth can use redlining to keep track of the revisions made by each of his co-workers. He simply views the revisions, specifying to see only those revisions made by a particular author.

Overview of the Redlining Commands

You use the following commands with redlining. All of these commands are described in detail later in this section.

Enable redlining | When you enable redlining, you create a new version of a document. Therefore, you have two versions; original, and version 1. Version 1 includes all the revisions made from the time redlining was enabled until you use the Establish New Version command to create version 2.

Establish new version | Documents are created with redlining disabled. In order to use redlining, you must enable it.

Establishing a new version creates a checkpoint in the life of the document. In general, you create a new version after each significant edit of the document. For example, you might want to establish a new version after you enter changes suggested by those who review your drafts. Or, you may want to establish a new version every day, if you want to keep track of your work on a daily basis.

View revisions

You use View Revisions to compare one version of the document with another. For example, if the latest version is version 2, you can compare that with version 1. When you do so, the screen displays all the changes made to the document since version 1 was finished.

Reinstate deleted text

You use this feature to restore text that was deleted in previous versions.

Undo revisions

You use this command to restore a document to a previous state. For example, if you are working on version 12, and you decide that everything you have done to the document since version 5 is wrong, you can undo all revisions made since then, and restore version 5 intact.

Merge versions

You use this command to merge changes from one version to another. For example, if you are working on version 12 and you decide that you no longer need to view revisions 5 through 10, you can merge those version together. You usually need to use this command when the maximum number of versions (15) is reached.

Change description

You use this command to change the description of the latest version.

Disable redlining

Disable redlining turns redlining off. It also *deletes all records of past revisions*. You usually only do this when the document is completed.

Redlining and Text Formatting

Redlining only keeps track of text changes. It does not keep a history of formatting changes. For example, redlining does not keep a history of changes to fonts, or changes to tab settings or indents. Similarly, redlining does not keep a record of pagination changes, that is, page numbers, page breaks, paragraph numbers, footnote numbers, cross-references, or column marks.

Enabling Redlining

Documents are created with redlining disabled. In order to use redlining, you need to enable it.

When you enable redlining, you have the choice of tracking revisions by two different methods:

* *Tracking collectively*: When you track revisions collectively, you cannot view changes made by each author, but you can create more versions of a document. The maximum number of versions you can create when you track revisions collectively is 15.

* *Tracking by author*: When you track revisions by author, you can view revisions made by each author. However, the number of versions you can create depends on how many authors are involved in the revision process. For example, if you have 15 authors, you can only create one version of the document.

   Author names are assigned automatically from either the user's signon name, or from the *:DDAuthorName:* entry in the user file. (For more information on user file entries, see the *CTOS OFIS Document Designer/OFIS Document Writer: System Administration* volume.)

To enable redlining:

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Redline (F2)** to display the Redlining softkey strip, as shown in Figure 11–1.

REDLINING

Version   original   Date: 3/21/91 2:03 pm
Description:

| Enable | Disable | NewVer | ChgDesc | ViewRev | UndoRev | MergVer | Reinst |

Figure 11–1. Redlining Softkey Strip

The Redlining softkey strip shows which version of the document is opened. Since redlining is disabled, the *Version* field displays *original*.

4. Press **E** to enable redlining. The Enable Redlining menu is displayed, as shown in Figure 11–2.

ENABLE REDLINING _____

Version: 1   Date: 1/01/91 2:48PM
[Description]
Track changes: Collectively   by Author   (Press C or A)

Figure 11–2. Enable Redlining Menu

The *Version* field is automatically filled in with 1. This means you now have an original version *and* a version 1.

The *Date* field displays the current date and time.

The *Description* field describes the document. You can enter any description here.

The *Track changes* field specifies whether to track revisions collectively (the default), or by author.

When you track revisions by author, you can see changes made by each author, but this might limit the number of document versions that can be made. For example, if you have 15 authors, you could only track one version of the document, as revised by 15 different authors.

When you track revisions collectively, you can create more versions of a document, but you can't distinguish between authors.

5. Press **A** to track revisions by author, or **C** to track revisions collectively.

6. Press **GO** to enable redlining. You can now enter and edit text. There is nothing in the format status line to indicate that redlining is enabled. Instead, you can tell it's enabled by displaying the Redlining softkey strip. If the version number is 1 or more, redlining is enabled.

Note: *When you copy a redlined document, redlining is still enabled on the new document. However, all versions are merged, and the version number is set to 1.*

Establishing a New Version

It is up to you to decide when a new version should be established. In general, you establish a new version whenever you finish a significant edit of a document.

It is important to remember what changes are in which version:

Original version: This is the version established when you created the document.

Version 1: This is the version established when you enabled redlining. It includes all the changes made between the point when you enabled redlining and the point when you created version 2.

Version 2: This is the version you establish the first time you use the New Version command. It includes all the changes made after you created version 2 and before you created version 3.

To create a new version,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Redline (F2)** to display the Redlining softkey strip.

4. Press **NewVer (F4)** to display the New Version menu, as shown in Figure 11–3.

NEW VERSION _____

Version:	2		Date: 10/03/90 2:48PM
[Description]			
Track changes:	Collectively	by Author	(Press C or A)

Figure 11–3. New Version Menu

The *Version* field shows which version you are creating. The date and time are filled in for you automatically.

5. If necessary, enter a description in the *Description* field.

6. The *Track changes* field specifies whether to track revisions collectively (the default), or by author.

When you track revisions by author, you can see changes made by each author, but you may limit the number of document versions that can be made. For example, if you have 15 authors, you can only track one version of the document.

When you track revisions collectively, you can create more versions of a document, but you can't distinguish between authors.

Press **A** to track revisions by author, or **C** to track revisions collectively.

7. Press **GO** to establish a new version. You can now enter and edit text.

Viewing Revisions

When you view revisions, you compare any two versions of the document. For example, you can compare the latest version with the original and see all the changes made, or you can compare the fifth version with the third version, even if the latest version is version ten.

To view revisions,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Redline (F2)** to display the Redlining softkey strip.

4. Press **ViewRev (F6)** to display the View Revisions menu, as shown in Figure 11–4. Your menu probably looks different, depending on how many versions your document has.

VIEW REVISIONS _____

Version	Date	Description	(Authors)
1	10/01/90	SPM	(Bosworth, Binney)
2	01/15/91	RPM	(Bosworth)

	Currently
[Show revisions since version]	2
[Show revisions as of version]	2
[Show revisions for author]	all
[Omit revisions for author]	
Show as:	Redline Change bars (Press R or C)

Figure 11–4. View Revisions Menu

The *Version*, *Date*, and *Description* fields are filled in automatically in order to list all the versions of the document. If you specified to track a version by author, the *Description* field displays the author's name. Otherwise, it displays a description.

5. Enter a version number in the *Show revisions since version* field. For example, if you have two versions, version 1 and version 2, viewing the revisions since version 1 shows you all of the revisions made since ending version 1, that is, all the changes made in version 2.

You can also enter **original** in this field, to see changes made after the first version was established.

6. If necessary, enter a version number in the *Show revisions as of version* field. This number must be equal to or greater than the number in the *Show revisions since version* field.

By default, this field is filled in with the current version, You can enter a previous version in this field if you want to compare an earlier version with another earlier version, without seeing the changes made in the latest version. You can also view an earlier version without any changes visible by entering the same version number in the *Show revisions as of version* field as in the *Show revisions since version* field.

7. If necessary, enter one or more author's names in the *Show revisions for author* field. If you do so, you see only the revisions made by a specific author or authors.

8. If necessary, enter an author name in the *Omit revisions for author* field. If you do so, you see the revisions for all authors except the author specified in this field.

   Note: *You cannot use the* Show revisions for author *field and the* Omit revisions for author *field at the same time.*

9. The *Show as* field allows you to show revisions with either redlining (the default), or change bars.

Showing revisions with redlining displays the text as follows:

- Newly inserted text is called out on the screen. Depending on your monitor, and the current level of visibility, the newly inserted text will have certain attributes, for example, underlining or higlighting. When printed, it is double-underlined.

- Deleted text is displayed as struck through text and, depending on your monitor and the visibility mode, may also be orange or highlighted. In any case, deleted text prints as struck through text.

Showing revisions with change bars is commonly used when printing a document. By just showing change bars, you can point out where text was added, and leave the text uncluttered. Showing revisions with change bars displays the text as follows:

- Lines with newly inserted text are called out on the screen, unless you are in normal visible mode. (Depending on your monitor, the text may be highlighted or in orange.) When printed, it appears as normal text with change bars (vertical lines) printed in the margins to the right of the inserted text.

- Lines with deleted text are called out on the screen, unless you are in normal visible mode. (Depending on your monitor, the text may be highlighted or in orange.) When you print, the deleted text is not printed, and a change bar is printed on the side of the page.

Enter **R** to show revisions as redlining, or **C** to show revisions as change bars.

10. Press **GO**. You may see this message:

> [Show revisions since version] may not be greater than [Show revisions as of version].

If you see this message, change the version number in the *Show revisions as of version* field to a number equal to or greater than the version number in the *Show revisions since version* field.

When you compare versions, you can see the text that was added or deleted since the version specified in the *Show revisions since version* field.

In addition, the format status line displays the version number and the author name, if the revisions were tracked by author. If you are seeing the revisions made in several versions, you can tell which changes were made in which version by moving the cursor to the highlighted area and checking the version number in the format status line.

Once you have viewed revisions, you have the following options:

- You can return the document to the current version and continue to enter or edit text.

  To do so, repeat the above procedure, filling in the latest version number in both the *Show revisions since version* field and the *Show revisions as of version* field. That way, your text is entered or deleted with no highlighting, underscoring, or double scoring.

- You can enter or edit text in the current version with redlining visible. This method is popular enough to warrant its own discussion, as explained next.

☞ You cannot enter or edit text if the version number in the *Show revisions as of version* field is less than the latest version. You can't, in other words, go back in time and make changes to a version that is already complete. If you try to, you see this message:

  > Cannot modify document when current revisions are not visible. Use View Revisions to make current revisions visible.

  In that case, use View Revisions and enter the latest version of the document in the *Show revisions as of version* field.

☞ Just after enabling a new version, if you set the *Show versions since* version to the previous version, and the *Show versions as of* version to the new version, no changes will be visible, since you haven't made any yet. Edits will be visible when they are made.

Entering and Editing Text With Redlining Visible

To enter text with redlining visible, in the View Revisions menu enter the latest version number in the *Show revisions as of version* field, and specify an earlier version number in the *Show revisions since version* field.

When you enter or edit text with redlining visible, your changes are called out as you work. For example, when you enter new text, it is highlighted and underscored. Deletions are left in as struckout text. This is a good way to keep track of all the changes you make as you work.

When you work with redlining visible, you can still use many OFIS Document Designer commands, including search, replace, reviewing, printing, regenerating a table of contents, and style control commands. In some cases, using some of these commands may yield unexpected results. This is because even though text may be highlighted or struck out, the commands still can read it.

For example, let's you want to search for the word *philosophy*. Now let's say that in a previous version you made a typing error and entered the word *philosiphy* instead of *philosophy*. You later corrected that misspelling, but in the redlining visible mode, the word is displayed as *philosoiphy*, that is, the *i* is struck out, but still displayed. When you search for *philosophy*, the search will read the word as *philosoiphy*, and it won't be found.

Similar unexpected results may occur when using other commands, for example thesaurus, search, and the total commands. Just bear in mind that some commands treat struck out text and highlighted text just like regular text. To work around this, all you need to do is view revisions without redlining visible.

Note: *When you enter or edit text with redlining visible, the format status line displays the version level and/or author of the text being added or deleted. Since that information is displayed where the font information is usually displayed, you cannot see what font you are using.*

Undoing Revisions

You usually undo revisions only after drastic circumstances. For example, you may decide that everything you've done to a document is invalid since a particular version, or you may decide that everything done by a specific author is invalid. In any case, you use Undo Revisions to restore the state of a document to a previous version.

To undo revisions,

1. Use the options on the View Revisions menu to display your document in the state you want to return it to. For example:

    • Enter an earlier version number in the *Show revisions as of* field. Then, enter the same version, or an earlier version, in the *Show revisions since* field.

    • Use the fields that specify authors to show a version without specific authors.

2. Once you have the document displayed in the state that you want to preserve it in, display the Base softkey strip and press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Redline (F2)** to display the Redlining softkey strip.

5. Press **UndoRev (F7)** to undo revisions. Since the Undo command does not apply to the Undo Revisions command, this message is displayed:

    CAUTION: The changes made by Undo Revisions are permanent. Press **GO** to proceed, **CANCEL** to cancel the command.

6. Press **GO** to undo the revisions, or press **CANCEL** to cancel the command.

    When you undo revisions, versions of the document that are later than the version you chose to reinstate are removed. For example, if you used Undo Revisions to restore a document to version 5, version 6 will no longer exist.

Merging Revisions

You use the Merge Revisions command when you've reached the maximum number of versions or authors. When you have created 15 versions of a document, you will see one of these messages:

Too many versions.

Too many authors.

In that case, you need to merge revisions.

Merge versions does not remove any text. The revisions you made are still intact, you just can't see them according to individual versions. For example, if you merge versions 1 through 12, version 12 displays all the revisions formerly found in versions 1 through 12.

To merge revisions,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Redline (F2)** to display the Redlining softkey strip.

4. Press **MergVer (F8)** to display the Merge Revisions menu, as shown in Figure 11–5.

MERGE REVISIONS _____

Version	Date	Description	(Authors)
	1 10/01/90	SPM	(Bosworth, Binney)
	2 01/15/91	RPM	(Bosworth)
Merge from version:			
Merge to version:			
Merge author lists?		Yes No	(Press Y or N)

Figure 11–5. Merge Revisions Menu

The *Version*, *Date*, and *Description* fields list the versions. You need to decide which versions you no longer need to view specifically. For example, if versions 1 through 5 were created three years ago, you might not need to keep track of the changes made in those versions any more.

5. Enter a version number in the *Merge from version* field. This is the earliest version to merge.

6. Enter a version number in the *Merge to version* field. This is the version that other version or versions are merged into.

7. The *Merge author lists* field specifies whether to combine authors when versions are merged.

   The default, *Yes*, merges author lists. This means that the merged version will list all the authors that worked on all the versions collected in the merged version. If any of the versions specified collective tracking, the author name *anon.* is displayed.

   If you select *No*, author lists are not merged.

8. Press **GO** to merge revisions. Since the Undo command does not apply to the Merge Revisions command, this message is displayed:

   > CAUTION: The changes made by Merge Revisions are permanent.
   > Press **GO** to proceed, **CANCEL** to cancel command.

   Press **GO** or **CANCEL**.

   After merging revisions, you'll notice two things:

   • The version numbers for the merged versions are no longer listed when you use the Merge Revisions or View Revisions commands. For example, if you merged versions 1 through 12, the list will only show version 12. Since the revisions from all 12 versions of your document are now included in versions 12, versions 1 through 11 are no longer needed and are deleted from the list.

   • When you use the View Revisions command, the format status line at the top of your screen shows all revisions as belonging to the merged version. For example, after merging versions 1 through 12, all the merged versions are displayed in the format status line as follows:

   Inserted: 12

Reinstating Deleted Text

You can reinstate text that was deleted in any version.

To reinstate deleted text,

1. Make sure the latest version is displayed. You can view the revisions from previous versions to see where text has been deleted.

2. Mark the part of the document where the text was. For example, if you have three paragraphs and you deleted the middle one, mark the remaining two paragraphs.

3. From the Base softkey strip, press **Home (F1)**.

4. Press **Utility (F7)**.

5. Press **Redline (F2)** to display the Redlining softkey strip.

6. Press **Reinst (F9)** to reinstate deletions. All text within the selection that was deleted is restored to the latest version.

Changing a Description

You may need to change the description for the latest version. To do so,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Redline (F2)** to display the Redlining softkey strip.

4. Press **ChgDesc (F5)** to display the Change Version Description menu, as shown in Figure 11–6.

CHANGE VERSION DESCRIPTION _____

Version: 2   Date: 10/03/90 2:48PM
[Description]

Figure 11–6. Change Version Description Menu

5. The current description, if any, is displayed in the _Description_ field. If necessary, delete the old description. Enter the new description.

6. Press **GO**.

Disabling Redlining

You usually disable redlining only when a document is complete. At that point, you no longer need to view revisions, so you can delete them and save disk space. You can also disable redlining when you have reached the maximum number of revisions possible, although it is better to use the Merge Revisions command for that.

When you disable redlining, all past versions of the document are deleted. The version number reverts to *Original*. The next time you enable redlining, it will be as though redlining has never been enabled.

To disable redlining,

1. Open the document that has redlining enabled.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Redline (F2)** to display the Redlining softkey strip.

5. Press **Disable (F3)** to disable redlining. Since the Undo command does not apply to the Disable Redlining command, this message is displayed:

    > CAUTION: Disable Redlining will erase your document's revisions history. Press **GO** to proceed, **CANCEL** to cancel command.

6. Press **GO** or **CANCEL**.

    If you press **GO**, the following message is displayed:

    > Erasing revision history . . .

    You now have only one version of your document; all previous versions are erased.

Section 12
Using Macros

About This Section

This section describes what macros are and how to use them. Macros are useful for automating series of keystrokes that you perform exactly the same way on a regular basis. In this section you'll learn how to do the following:

- Create a macro
- Recall a macro
- List macros
- Delete macros
- Share macros
- Absorb macros
- Unload macros
- Load macros
- Create macros using macro commands

What Is a Macro?

Macros are used to make repetitive procedures easy. OFIS Document Designer can "memorize" a series of keystrokes that you then can replay whenever necessary. In this way, you can make OFIS Document Designer do the work for you.

Macros can be created in the following ways:

- Using keystrokes. You can create a macro by entering keystrokes that are "memorized" by the system and replayed when you request it.

- Using macro commands. This is similar to programming.

- Using keystrokes and macro commands. These combined macros can be very versatile.

- Using single keystroke macros. These macros are recalled by pressing a combination of keys, for example **CODE-X**. This is a shortcut for using the Recall Macro command.

You can use macros to automate almost all OFIS Document Designer commands. The following are some examples:

- Find a character or a string of characters and change the font. For example, you can search a file for bullets (•) and change the point size of all of them.

- Open a form and begin a form fill operation. For example, you can open a form in another directory and use stop codes to fill it out.

- Create shortcuts for starting commands. For example, you can create a macro to begin the spelling checker and fill in the menu with your favorite defaults.

Keystroke macros are the simplest to learn. If you already know how to use keystroke macros, see "Macro Commands," later in this section, for new and different ways to make macros work for you.

Overview of Macro Menus

The following menus are used when working with macros. All of these menus are accessed through the Macro softkey strip. Detailed procedures for using all of these menus are included later in this section.

- *Store Macro*. You use this menu to create macros from a series of keystrokes. You specify a macro name, and then set the starting point. All keystrokes are stored in the macro until you set the ending point.

- *Recall macro*. You use this menu to start a macro operation. You give the name of the macro, and it starts working. You can halt it at any time.

- *List macros*. You use this menu to see a list of macros. You can also see their contents.

- *Delete macro*. You use this menu to delete macros.

- *Unload macro*. You use this menu to copy the contents of a macro to a file. You can then edit the macro.

- *Load macro*. You use this menu to return the contents of a macro from a file into the macro itself, usually after you've edited the unloaded macro.

- *Absorb macro file*. You use this menu to copy macros from one user to another.

About Single Keystroke Macros

Single keystroke macros provide a valuable shortcut for recalling macros. Standard macros are recalled by opening the Recall Macro menu, entering the name of the macro, and pressing **GO**. (This procedure is explained fully later in this section.) Single keystroke macros are recalled by pressing the **CODE** key along with one or two other keys. For example, to recall a single keystroke macro named **CODE-Q**, you would simply press **CODE-Q** and the macro would begin.

Single keystroke macros, therefore, are similar to shortcuts you already know how to use. For example, to display the Open Document menu, you use the shortcut **CODE-O**. In fact, if you are too enthusiastic when creating single keystroke macros, you can overwrite shortcuts. For example, you could create a macro called **CODE-O**, but then you would no longer have that shortcut for opening a document. (When you try to overwrite a shortcut, you will be warned about it; but if you do overwrite it, you can always delete the macro to restore the shortcut.)

You can use single keystroke macros to create new shortcuts or to customize existing shortcuts. For example, to display the Recall Phrase menu, the shortcut is to press **CODE-P**. You can create a macro named **CODE-P** that would not only open the Recall Phrase menu, but also fill in the fields the way you want them to be filled in.

There are a few naming conventions for single keystroke macros that you should understand before you begin working with them, as described below:

- Single keystroke macros must start with **CODE**.

- You can use any key that normally prints a character, for example **CODE-A**, **CODE-;**, and so forth.

- When using alphabetic characters, you can use the **SHIFT** key, for example, **CODE-SHIFT-R**. With other characters, you don't use the **SHIFT** key. For example, instead of **CODE-SHIFT-^**, you would use **CODE-~**.

- You can't use any of the command keys, such as **MOVE, COPY, RETURN**, and so forth.

- Single keystroke macro names are case insensitive, that is, **CODE-SHIFT-T** is the same as **code-shift-t**, or **CODE-SHIFT-t**.

Creating Macros

The simplest way to create a macro is to use the Store Macro command. When you store a macro, you simply make a record of a series of keystrokes. Then when you run the macro, the keystrokes are repeated exactly as you entered them.

You can also use this procedure to add steps to the end of an existing macro.

To store a keystroke macro,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Macro (F3)** to display the Macro softkey strip, as shown in Figure 12–1.

MACRO

Load	Unload	Recall	Store	List	Delete		Absorb

Figure 12–1. Macro Softkey Strip

4.   Press **Store (F4)** to display the Store Macro menu, as shown in Figure 12–2.

STORE MACRO_____

      (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Macro name:				
Append:	Yes	**No**		(Press Y or N)
Confirmation from:	**User**	Macro	Default	(Press U, M, or D)

Figure 12–2. Store Macro Menu

5.   Fill in the *Macro name* field with the name of the macro you're creating.

If you are creating a single keystroke macro, enter the key combination name, for example, **CODE-X**. (When you recall this macro, all you have to do is press **CODE-X** and the macro will be recalled.) Remember that single keystroke macros always start with **CODE**.

6.   If you are adding steps to an existing macro, move the cursor to the *Append* field and press **Y**.

7.   The *Confirmation* field is used for commands that require input when running a macro. Use the *Confirmation* field as follows:

   •   *User* (**U**, the default). Specifies that the user supplies the input.

   •   *Macro* (**M**). Specifies that the macro itself supplies the input.

   •   *Default* (**D**). Specifies that the macro uses the defaults for input.

8.   Press **GO**. The following message is displayed at the top of your screen until you finish recording your macro.

      CODE-SHIFT-M to Finish Macro.

9. Proceed through the series of keystrokes you want to record.

Note: *Be careful when using the cursor movement keys while generating a keystroke macro. A macro records exactly what you type. So, if you move the cursor around within a file while you are recording a keystroke macro, when you later recall that macro, it will repeat exactly what you did. The macro may do something other than you expected because of the cursor movement commands you used.*

There are many ways to avoid this type of problem. For example, if you need to cursor to a word, use the Search command rather than the cursor keys to move the cursor to the word.

If you make an error when generating your macro, press **CODE-SHIFT-M** to finish the macro and begin again. If you use the same macro name in the *Macro name* field, you see the following message:

> There is already a macro named "_" Press GO to redefine, CANCEL to cancel command.

Press **GO** to redefine your macro, and then begin to record the keystrokes again. You can redefine your macro as many times as necessary.

10. When you have finished your series of keystrokes, press **CODE-SHIFT-M** to stop recording the keystrokes.

The message at the top of your the screen is removed, and the macro is stored automatically.

You have now created a keystroke macro. To run the macro, see "Recalling a Macro," below.

Recalling a Macro

A macro is executed from the current cursor location, so you may have to position your cursor at a particular place in a document before you recall a macro. (For example, when using the Search command, only the text *following* the cursor location in the document will be searched.)

The procedure for recalling a single keystroke macro is different from that for recalling a macro with the Recall Macro command. To recall a single keystroke macro, press the keys that you used to name the macro, for example, **CODE-X**. The macro begins and runs once.

You can also recall a single keystroke macro by using its name with the Recall Macro command. This is useful if you want the macro to run more than one time.

Note: *The* **LOCK** *key does not affect the recalled macro. That is, if the macro specifies to type "train," having the* **LOCK** *key turned on while the macro is running will not cause the macro to type* "TRAIN."

However, the **OVERTYPE** *key does function when macros are running. If you have a macro that inserts type, turning on the* **OVERTYPE** *key will cause the characters to overwrite instead of being inserted.*

To recall a macro with the Recall Macro command,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Macro (F3)** to display the Macro softkey strip.

4. Press **Recall (F3)** to display the Recall Macro menu, as shown in Figure 12–3.

RECALL MACRO_____

> (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Macro name:
[Number of repetitions]
Single step mode: Yes   **No**   (Press Y or N)
_____

Figure 12–3. Recall Macro Menu

5. Enter the name of the macro you want to recall in the *Macro name* field.

6. Enter the number of times you want the macro repeated in the *Number of repetitions* field. If this is the first time you are running a macro, it's best to leave the field blank so the macro will run only once.

7. Enter **Y** or **N** in the *Single step mode* field. If you enter **Y**, the macro stops for input at every step. This is a useful option if you are running a very complicated macro for the first time, and you aren't sure how it will work.

8. Press **GO** to start the macro.

☞ You can also use the shortcut **CODE-M** to display the Recall Macro menu.

☞ You can also display the Recall Macro menu in the following way: From the Base softkey strip, press **Functns (F2)**, **MRecall (F3)**.

Listing Macros

You use the List Macros command to see a list of macros.

To list macros,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Macro (F3)** to display the Macro softkey strip.

4. Press **List (F5)** to display the List Macros menu, as shown in Figure 12–4.

LIST MACROS _____

       (Press GO to execute, NEXT for next item, CANCEL to dismiss)

[Pattern]

Details:	**Names** Expansions	Complete expansions	(Press N, E or C)
Sort by:	Names	**Unsorted**	(Press N or U)

Figure 12–4. List Macros Menu

5. If necessary, fill in the *Pattern* field to create a more specific list. You can use wild cards in this field. For example, to see a list of all macros beginning with the letter *a*, enter **A***.

6. Use the *Details* field to determine how much of the macro you want to see. If you want to see only the names of the macros, press **GO**. (The default is *Names*, so you don't need to change it.) If you select *Expansions*, the name and the beginning lines of each macro are displayed. If you select *Complete expansions*, the macro name and all lines of code in the macro are displayed.

7. If you want your macro names sorted alphabetically, press **N** in the *Sort by* field. Otherwise the macro names are not sorted. (The default is *Unsorted*, which is a little faster than displaying the sorted list.)

Deleting a Macro

To delete a macro,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Macro (F3)** to display the Macro softkey strip.

4. Press **Delete (F6)** to display the Delete Macro menu, as shown in Figure 12–5.

DELETE MACRO _____

(Press GO to execute, CANCEL to dismiss)

Macro name:

Figure 12–5. Delete Macro Menu

5. Enter the name of the macro you want to delete and press **GO**.

If you want to delete a macro but don't know the name of it,

1. List the macros using the List Macros menu.

2. Mark the macro that you want to delete.

3. Press **Delete (F6)** to display the Delete Macro menu.

   The name of the macro that you marked is displayed in the *Macro name* field.

4. Press **GO** to delete the macro.

Sharing Macros Among Users

Macro files can be shared by users that are clustered together. But first, the following two conditions must be met:

1. Each user must have an entry in his or her *.user* file that looks like this:

    :WPMacroFile:[!Sys]<Wp>shared.macros

2. The file specifications in each of those entries must be the same, with the *.macros* file located on the server so that everyone can access it.

For more information on *.user* files, see the *System Administration* volume of this set and the *CTOS Executive Reference Manual*.

If you share a macro file, you should be aware that to use a command that changes the macro file, such as Store Macro, you must have exclusive access to the file. No one else can use the file after you store the macro until you save. Similarly, you cannot store the macro until other users who have accessed the file (by storing, recalling, or listing) have also saved. However, you can have as many people as have access to the files all recalling the macro at the same time. You just can't have someone trying to change a particular macro while others are trying to recall it.

Absorbing Macro Files

Macros are stored in a file called a *macro file*. To use a macro created by someone else, you first need to absorb that macro into your macro file.

To absorb a macro file,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Macro (F3)** to display the Macro softkey strip.

4. Press **Absorb (F10)** to display the Absorb Macro File menu, as shown in Figure 12-6.

ABSORB MACRO FILE _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Macro file name:

Overwrite?	Yes	No	**Confirm**	(Press Y, N, or C)
Confirm each?	Yes	**No**		(Press Y or N)

Figure 12-6. Absorb Macro Menu

5. In the *Macro file name* field, enter the name of the macro file(s) that contains the macro you want to absorb into your macro file. Be sure to include the volume and directory names.

6. The *Overwrite* field is preset to *Confirm*. This means that the system stops at each file that has a corresponding file name to verify that you want to overwrite it. If you specify *No*, it does not overwrite any files with the same name. If you specify *Yes*, it automatically overwrites any files having the same name.

7. The *Confirm each* field is preset to *No*, which means that the macros are absorbed without your confirmation If you set this field to *Yes*, you can decide, on a case-by-case basis, whether you want each particular macro to be absorbed.

Unloading and Loading a Macro

Sometimes you need to edit a macro. For example, you may have misspelled a word while storing a macro. You could, in that case, correct the spelling without having to recreate the entire macro.

To edit a macro, you first need to unload it from the macro file. After editing it, you need to load it back into the macro file.

To unload and load a macro,

1. From the Base softkey strip, press **Home (F1)**.

2. Press **Utility (F7)**.

3. Press **Macro (F3)** to display the Macro softkey strip.

4. Press **Unload (F2)** to display the Unload Macro menu, as shown in Figure 12–7.

UNLOAD MACRO _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Macro name:
To document:

Figure 12–7. Unload Macro Menu

5. Enter the name of your macro in the *Macro name* field.

6. In the *To document* field enter the document where you want to unload the macro listing, for example, "test," or "mumblefoo." If you enter the name of an existing file in the *To document* field, the following prompt is displayed:

Press GO to overwrite document *name*, CANCEL to cancel command.

7. Press **GO** to unload the macro.

The macro is unloaded and displayed. A typical macro looks something like this:

DisplayReplaceMenu
MarkLine
Delete
Typing 'o'
Tab
Next
MarkLine
Delete
LiteralInsertion
Typing '•'
Tab
Replace

If you look at the unloaded macro closely, you'll see that it contains the keystrokes you entered when you stored the macro. For example, the first line in the example above shows that the Replace menu was displayed. The second line shows that a line was marked, and so forth.

8. When you are finished editing the macro, you need to load it. From the Base softkey strip, press **Home (F1)**.

9. Press **Utility (F7)**.

10. Press **Macro (F3)** to display the Macro softkey strip.

11. Press **Load (F1)** to display the Load Macro menu, as shown in Figure 12–8.

LOAD MACRO _____

(Press GO to execute, NEXT for next item, CANCEL to dismiss)

Macro name:

Figure 12–8. Load Macro Menu

12. Enter the name of the macro you want to load and press **GO**. This message may be displayed:

> There is already a macro named "name." Press GO to redefine, CANCEL to cancel command.

If you aren't sure about how the edits you made will work, you might want to load the macro to a different name, thus saving the original macro.

13. Press **GO** to load the macro.

Nesting Macros

A nested macro is a macro contained inside another macro. Nested macros allow you to make very large macros by using "modules"; the main macro calls numerous other macros that execute specific steps. If you write a lot of macros, using this modular approach allows you to build a "library" of common macros. Also, nested macros can be very powerful when combined with conditional macro commands, for example: IF A, THEN RecallMacro X, ELSE RecallMacro Y. (See Using "Macro Commands," later in this section, for more information.)

When you use nested macros, you may want to embed a Save command into the macro listing. It's always a good idea to save your work often, so you might as well have the macro do the Save itself, especially if the macro is very long. Once you have tested your macros to make sure they are functioning properly, put a Save command at the end of a few of the modules.

Using Macro Commands

Macro commands let you enhance keystroke macros, or generate macros without recording the actual keystrokes. By using macro commands you can have macros do more than just repeat a series of keystrokes once. You can have a macro repeat that series of keystrokes until a predetermined condition is met.

Figure 12–9 shows an example of a macro that uses macro commands. (The line numbers to the right are there for explanation only. They would not appear in a macro.)

This macro includes a conditional loop. The macro searches for a bullet (•). If the macro finds a bullet, it changes the point size and searches for another bullet, until no bullets are found, at which point the macro ends.

If a bullet is found by the search, line 7, *If Not Found end*, is ignored. When the macro reaches line 13 *Goto Start*, it begins again at line 1 *Label Start*, and searches again. If no bullet is found, line 7, *If Not Found end*, instructs the macro to go to the end of the loop, where it receives the command to cancel.

Label Start	1
DisplaySearchMenu	2
BackWord	3
LiteralInsertion	4
Typing '•'	5
Search	6
If Not Found end	7
Cancel	8
DisplayFontMenu	9
Next	10
Typing '10'	11
SetFont	12
Goto Start	13
Label end	14
Cancel	15

Figure 12–9. Sample Macro Commands

Macro Programming Commands

The following is a list of the basic macro programming commands available to you.

Single quotation marks are needed in only two places in macro commands: around the text in "Typing" commands and around labelnames when a space is embedded in the labelname.

Message *'message' NumberOfLinesForMessage* **beep** **"***a***"**

This syntax displays the message in the specified number of lines at the bottom of the screen, beeps, stops the macro until you enter "a", but allows no other operator input. The maximum number of lines on the screen is 31. If you do not want the workstation to beep, enter "Do not beep".

Example:

Message 'This macro searches for and italicizes the block of text specified' 3 beep c

AllowOperatorInput *'message' NumberOfLinesForMessage* **beep**

This command displays the message in the specified number of lines at the bottom of the screen, beeps, displays the "CODE-GO to Continue Macro" message, and suspends the recalling of the macro so that you can perform any OFIS Document Designer commands. The macro is resumed when you press **CODE-GO**.

The maximum number of lines on the screen is 31. (This may vary with different types of workstations.) If you do not want the workstation to beep, enter "Do not beep".

One good use for this command involves setting up a macro that uses stop codes and form fill operations. Using this macro command, you can let the users of the macro know what type of information they should supply. So when a form is displayed, you can tell the users how they are expected to complete it. You may have seen this when installing software. The system beeps, information is displayed on the screen, and a form to be completed is displayed.

Example:

AllowOperatorInput 'Type the information you want to include in the memo, then press CODE-GO to let the macro continue.' 3 beep

Goto *labelname*

Goto jumps to the specified label. You can use this command to make a macro repeat steps or branch out to perform other tasks. The macro finishes one series of keystrokes and then, using this command, it goes to another point in the macro. Note that a labelname may not contain embedded spaces unless you place single quotation marks around it.

Example:

Goto Findit

Label *labelname*

Label defines a label for all commands that jump to a label. When using other commands that send the program to another point, this command identifies that point.

Example:

Label Findit

If Found *labelname*

If the previous Search operation is successful, the macro jumps to the specified label. This command must only be used immediately after a Search or Replace command.

Example:

If Found Findit

If Not Found *labelname*

> If the previous Search or Replace operation is not successful, the macro jumps to the specified label. This command must only be used immediately after a Search or Replace command. This command instructs the program where to go to get the next set of instructions if what it was searching for could not be found. You may want the macro to do some other task, or just to stop.

> Example:

> If Not Found Endmacro

If This Character "a" *labelname*

> If the character under the cursor is the same as "a", the macro jumps to the specified label.

> Example:

> If This Character n Endmacro

If Not This Character "a" *labelname*

> If the character under the cursor is not "a", the macro jumps to the specified label.

> Example:

> If Not This Character n Findit

If At End Of Document *Labelname*

> If the macro is at the end of the document, the macro jumps to the specified label. Note that this does not mean the last character of the document, but a point past the last character.

> Example:

> If At End Of Document Endmacro

If Not At End Of Document *Labelname*

If the macro is not at the end of the document, the macro jumps to the specified label.

Example:

If Not At End Of Document Findit

If Operator Choice *a b 'message' NumberOfLinesForMessage labelname*

"a" and "b" must be different characters.

Displays the message in the specified number of lines at the bottom of the screen, stops the macro until you enter either "a" or "b", If "a" is entered, jumps to the specified label; if "b" is entered, continues to the next macro command without jumping.

Example:

If Operator Choice y n 'Do you want to italicize the selected text? If so, press Y, if not, press the letter N' 3 Italicizeit

Exitmacro

Exitmacro ends the recall of the current macro. Use this command with a condition to end a macro at a place other than the last macro command. With more complicated macros that loop around within themselves, you can use this so that a macro will not necessarily have to complete all the tasks within it if certain conditions are met.

Confirmation From User
Confirmation From Macro
Confirmation Use Default

Used to indicate where confirmation from commands requiring user confirmation will come from: the user, within the macro, or internal OFIS Document Designer default. Valid entries are "From User", "From Macro," and "Use Default". When storing your macro, you can specify one of these three options. The appropriate lines of code will then be included in the macro listing.

Whenever you use menus that normally require you to press **GO**, you have three options:

- The macro can get the information from the user (Confirmation From User); this is actually the default. It is not necessary to insert this option in a macro listing unless you have previously specified that the macro use one of the other two options. In this case, the user can press **GO** to apply that particular function; the macro will then function. (The user also has the option of pressing **CANCEL**.)

- With Confirmation from Macro, enter in the macro any defaults you want changed, and then type **GO** on the following line. This is the only time when **GO** will execute something from a macro.

A sample from a macro listing might look like this:

```
Confirmation From Macro
DisplaySKFooterMenu
DisplayOddFooter
Typing 'Why did Nellie the Tiger wear sneakers to bed?'
ApplyHeaderOrFooter
Go
```

Without the first and last lines, the macro will stop and wait for user input.

- The macro can use the defaults already set up by using the option Confirmation Use Default. Using this command means that the macro won't stop and wait for user input. It will use the defaults and continue.

OFIS Document Designer Commands

You can use all the OFIS Document Designer commands in a macro except Finish, Load Macro, Unload Macro, List Macros, and Remove Macro.

Use of macro commands reflects internal OFIS Document Designer execution. This means that sometimes you must use a macro command for a special circumstance. For example, the command Copy is used when you press **GO** to copy text since this is a use of the **GO** key for which OFIS Document Designer requires special information.

When you use a command to invoke a menu or softkey strip, one macro command brings up the menu, then an additional macro command indicates the choice. For example, to use boldface, you give the DisplaySKBold macro command, then the BoldOn macro command.

When you use a command that has a command form, a macro command brings up the form, and then you enter the necessary typing commands to complete the form; an additional command executes the command. **GO** does not appear explicitly as a macro command. In the case of the Confirmation From Macro example on the previous page, the command ApplyHeaderorFooter appeared where you had pressed **GO** when generating the keystroke macro.

In addition, if the menu is one like Page Dimensions, for which choices must be set, you use the SetChoice macro command, described in "Screen and Cursor Movement Commands," later in this section.

Note that those macro commands that display a menu with a selection of commands may be omitted from the macro. For example, the keystrokes to insert a cross-reference are **Edit (F6), X-Ref (F5), I**. The keystroke macro commands generated are:

    DisplaySKEdit
    DisplayReferenceMenu
    InsertReference

The macro will run faster if the first two commands are removed, since they are not necessary to the macro listing.

The following listing of OFIS Document Designer commands is organized alphabetically by command name. The keystrokes that each macro command represents are shown at the right edge of the page. When the macro command is the same as the command name, only the command name is listed.

Accumulative Total

EvaluateExpressionAccumulatively   **CODE-SHIFT-=**

Backspace

Backspace   **BACKSPACE**

Backspace, Word

BackWord   **CODE-BACKSPACE**

Base Softkey Strip

DisplaySKMain   **CODE-SHIFT-CANCEL**

    DisplaySKHome   **Home**
      (*See* Home Softkey Strip)

    DisplaySKFunctions   **Functns**
      (*See* Functions Softkey Strip)

    DisplaySKTabMenu   **Tabs**
      (*See* Tabs Softkey Strip)

    DisplaySKParagraph   **Paragph**
      (*See* Paragraph Softkey Strip)

Base Softkey Strip

DisplaySKMain *(cont.)*

DisplaySKPage (*See* Page Softkey Strip)	**Page**
DisplaySKEdit (*See* Edit Softkey Strip)	**Edit**
DisplaySKPhrases (*See* Phrase Softkey Strip)	**Phrases**
DisplayStyleMenu (*See* Style Control Enabled Softkey Strip *or* Style Control Disabled Softkey Strip)	**Style**
DisplaySKAttributes (*See* Character Attributes Softkey Strip)	**Attribt**

Boldface Softkey Strip

DisplaySKBold	**Base–Attribt–Bold**
DisplaySKBoldUnderline (*See* Boldface/Underline Softkey Strip)	**&UndrLn**
BoldOn	**On**
BoldOff	**Off**

Boldface/Underline Softkey Strip

DisplaySKBoldUnderline	**Base–Attribt–Bold–&UnderLn**
DisplaySKBoldNonBlankUnderline	**NonBlnk**
BoldNonBlankUnderlineOn	**On**
BoldNonBlankUnderlineOff	**Off**

Boldface/Underline Softkey Strip

DisplaySKBoldUnderline *(cont.)*

DisplayBoldDoubleUnderline	**Double**
DisplayBoldNonBlankDoubleUnderlineMenu	**NonBlnk**
BoldNonBlankDoubleUnderlineOn	**On**
BoldNonBlankDoubleUnderlineOff	**Off**
BoldDoubleUnderlineOn	**On**
BoldDoubleUnderlineOff	**Off**
BoldUnderlineOn	**On**
BoldUnderlineOff	**Off**

Bound

Bound	**BOUND**

Box Boundaries Menu

DisplayBoxBoundariesorDimension	**Base–Home–Utility–Object–B**
MoveObject	**M**
ResizeObject	**R**
StretchObject	**S**
StretchTextBay	**T**
DisplayMoreBoxMenu	**NEXT PAGE**
CenterObject	**C**
RestoreAspectRatio	**A**
LeftRightOrientBox	**O**
DisplayExplicitBoxMenu	**E**
ApplyBox	**GO**

Box Dimensions Menu

DisplayBoxBoundariesorDimension	**Base–Home–Utility–Object–B**
ApplyBox	**GO**

Box Object

DisplayBoxObjectMenu	**Base–Home–Utility–Object–O**
BoxObject	**GO**

Box Paragraph

BoxSelectedParagraphs	**CODE-SHIFT-B**

Cancel

Cancel	**CANCEL**

(*See also* Interrupt)

Character Attributes Softkey Strip

DisplaySKAttributes	**Base–Attribt**
DisplaySKMoreAttributes (*See* More Character Attributes Softkey Strip)	**More**
DisplaySKBold (*See* Boldface Softkey Strip)	**Bold**
DisplaySKUnderline (*See* Underline Softkey Strip)	**Underln**
DisplaySKItalic	**Italic**
ItalicOn	**On**
ItalicOff	**Off**
DisplaySKFormatMenu	**Current**

Character Attributes Softkey Strip

DisplaySKAttributes *(cont.)*

DisplayNonPrint	**NonPrnt**
NonPrintingOn	**On**
NonPrintingOff	**Off**
DisplaySKForceUpperCase	**Captlzd**
FormatUpperCase	**On**
FormatUpperCaseOff	**Off**
DisplaySKSubscript	**Sub**
SubscriptOn	**On**
SubscriptSuperscriptOff	**Off**
DisplaySKSuperscript	**Super**
SuperscriptOn	**On**
SubscriptSuperscriptOff	**Off**
DisplaySKAll	**All**
Normaltext	**Off**

Close Window

CloseWindow	**CODE-C**

Commands Softkey Strip

DisplaySKCommandsMenu	**Base–Home–Command**
DisplayOperatorStatistics	**Stats**

Copy

DisplayCopyMenu	**COPY**
Copy	**GO**

Cross-Reference Menu

DisplayReferenceMenu	**Base–Edit–X-Ref**
InsertReference	**I**
InsertParReference	**P**
GotoNextTarget	**T**
GotoNextPageReference	**R**
GotoTarget	**G**
GotoFirstReference	**F**
GotoNextReference	**N**

Date and Time

DisplayDateAndTime	**CODE-T**

DCA RFT Translation

DisplayDCAMenu	**Base–Home–Files–DCA**
DCA	**GO**

Delete

Delete	**DELETE**
Delete	**GO**

Delete Character

DeleteChar	**SHIFT-DELETE,** or **DELETE CHAR**

Discard Edits

    Discard   **Base–Home–Windows–Discard**

Divide Window

    DivideWindow   **CODE-D**

Document Attributes

    DisplayDocumentAttributes   **Base–Home–Print–DocAttr**
        ApplyDocumentAttributes   **GO**

Document Exchange

    DisplayDEFMenu   **Base–Home–Files–DocExch**
        DEF   **GO**

Edit Softkey Strip

    DisplaySKEdit   **Base–Edit**

        DisplaySKEvaluate   **Math**

            EvaluateExpression   **Total (or CODE-=)**

            EvaluateExpressionAccumatively   **AcTotal**
                                             (or CODE-SHIFT-=)

        InsertPageNumber   **Page#**

        InsertSectionNumber   **Sectn#**

        InsertPageNumberNext   **NextPg#**

        DisplayReferenceMenu   **X–Ref**
            (*See* Cross Reference Menu)

        Undo   **Undo (or CODE-SHIFT-U)**

        RedoInsertion   **ReType**

        DisplaySKFootnoteCommandsMenu   **FootNte**
            (*See* Footnote Softkey Strip)

        InsertTime   **InsTime**

        InsertDate   **InsDate**

Edit/Create Object Menu

DisplayEditObjectMenu	**Base–Home–Utility–Object–E**
EditObjectUsingChoice1	**1**
EditObjectUsingChoice2	**2**
EditObjectUsingChoice3	**3**
EditObjectUsingChoice4	**4**
EditObjectUsingChoice5	**5**
EditObjectUsingChoice6	**6**
EditObjectUsingChoice7	**7**
EditObjectUsingChoice8	**8**
EditObjectUsingChoice9	**9**
EditObjectUsingChoice10	**0**

Files Softkey Strip

DisplaySKFiles	**Base–Home–Files**
DisplayWorkAreaMenu	**Path**
WorkArea	**GO**
DisplayCopyDocumentMenu	**Copy**
CopyDocument	**GO**
DisplayListDocumentsMenu	**List**
ListDocuments	**GO**
DisplayDeleteDocumentMenu	**Delete**
DeleteDocument	**GO**
DisplayRenameDocumentMenu	**Rename**
RenameDocument	**GO**
DisplayDEFMenu	**DocExch**
DEF	**GO**
DisplayDCAMenu	**DCA**
DCA	**GO**

Find Anchor

    FindAnchor   **Base–Home–Utility–Object–S**

Font

    DisplayFontMenu   **Base–Home–Print–Font**

        DisplaySecondFontMenu   **NEXT PAGE**

        SetFont   **GO**

Footer Softkey Strip

    DisplaySKFooterMenu   **Base–Page–Footer**

      DisplayOddFooter   **Odd**

        ApplyHeaderorFooter   **GO**

      DisplayEvenFooter   **Even**

        ApplyHeaderorFooter   **GO**

      DisplayBothFooters   **Both**

        ApplyHeaderorFooter   **GO**

      SKDismissHeader   **Dismiss**

Footnote Softkey Strip

    DisplaySKFootnoteCommandsMenu   **Base–Edit–FootNte**

      FindFootnote   **SrchFor**

      DisplayFootnote   **Insert**

        ApplyFootnote   **GO**

      DisplayCollectFootnotesMenu   **CtFootN**

        CollectFootnotes   **GO**

Forced Page

    InsertForcedPage   **CODE-NEXT PAGE**

Form Processing Menu

DisplayFormCommandsMenu	**Base–Home–Utility–Forms**
FormFill	**F**
FormFillNext	**GO**
ExpandPhrases	**E**
ExpandPhrasesAndReservedKeywords	**K**
DisplayStopCodePrompt	**I**
ApplyStopCodePrompt	**GO**
DisplayStopCodeChoicePrompt	**C**
ApplyStopCodeChoicePrompt	**GO**
ApplyStopCodeChoiceInfo	**GO**

Functions Softkey Strip

DisplaySKFunctions	**Base–Functns**
DisplayReplaceMenu	**Replace**
Replace	**GO**
DisplaySearchMenu	**Search**
Search	**GO**
DisplayRecallMacroMenu	**MRecall** (or **CODE-M**)
RecallMacro	**GO**
DisplaySKSpellingChecker	**SpellCk**
(*See* Spelling Softkey Strip)	
DisplaySKDocIndexMenu	**DocIndx**
(*See* Indexing Softkey Strip)	
DisplaySKChgCase	**ChgCase**
ChangeToUpperCase	**Upper** (or **CODE-]**)
ChangeToLowerCase	**Lower** (or **CODE-[**)

Functions Softkey Strip

DisplaySKFunctions *(cont.)*

DisplaySKOutline	**Outline**
(*See* Outline Softkey Strip)	
DisplayCollectFootnotesMenu	**CtFootN**
CollectFootnotes	**GO**
DisplaySKToc	**T O C**
DisplayHeadingMenu	**HeadLvl**
(*See* Heading Level Menu)	
DisplayTOCTemplate	**Templat**
ApplyTOCTemplate	**GO**

Go

Note: The Go command can be recorded in a keystroke macro; it should not, however, be entered in a macro listing as a macro command, unless it is in conjunction with the Confirmation From Macro.

Header Softkey Strip

DisplaySKHeaderMenu	**Base–Page–Header**
DisplayOddHeader	**Odd**
ApplyHeaderorFooter	**GO**
DisplayEvenHeader	**Even**
ApplyHeaderorFooter	**GO**
DisplayBothHeaders	**Both**
ApplyHeaderorFooter	**GO**
SKDismissHeader	**Dismiss**

Heading Level Menu

DisplayHeadingMenu	**Base–Functns–Outline–Level** or **Base–Functns–T O C–HeadLvl**

SectionHeading	**S**
HeadingLevel1	**1**
HeadingLevel2	**2**
HeadingLevel3	**3**
HeadingLevel4	**4**
HeadingLevel5	**5**
HeadingOff	**N**
OutlineLevel1	**A**
OutlineLevel2	**B**
OutlineLevel3	**C**
OutlineLevel4	**D**
OutlineLevel5	**E**
OutlineLevel6	**F**
OutlineBodyText	**O**
DisplayAutoNumberingMenu	
ApplyAutoNumberingMenu	**GO**

Help

DisplaySKHelp	**HELP**
DIsplaySKKeyHelp	**HELP**
DisplaySKKeyHelp	**CODE-HELP**

Home Softkey Strip

DisplaySKHome	**Base–Home**
Save	**Save** (or **CODE-S**)
DisplaySKPrint (*See* Print Softkey Strip)	**Print**
DisplayOpenDocumentMenu	**Open**
OpenDocument	**GO**
CloseWindow	**Close** (or **CODE-C**)
DisplaySKFiles (*See* Files Softkey Strip)	**Files**
DisplaySKWindows (*See* Windows Softkey Strip)	**Windows**
DisplaySKUtility (*See* Utility Softkey Strip)	**Utility**
DisplaySKCommandsMenu (*See* Commands Softkey Strip)	**Command**
DisplaySKJump (*See* Jump Softkey Strip)	**Jump** (or **CODE-SHIFT-F1**)

Hyphen

Hyphen	**HYPHEN**
Non-breakingHyphen	**CODE-SHIFT-HYPHEN**
Non-requiredHyphen	**CODE-HYPHEN**

Indent Softkey Strip

DisplaySKIndent	**Base–Paragph–Indent**
SetFirstLineIndent	**FrstLin**
SetRightIndent	**Right**
SetLeftIndent	**Left**
SetOtherLineIndent	**Others**
Indent	**Outline**
Unindent	**UnIndnt**
TotalUnindent	**TotalUn**

Indexing Softkey Strip

DisplaySKDocIndexMenu	**Base–Functns–DocIndx**
DisplayLoadDocIndex	**Load**
LoadDocIndex	**GO**
DisplayUnloadDocIndex	**Unload**
UnloadDocIndex	**GO**
DisplayScanDocWithIndexList	**BldList**
ScanDocWithIndex	**GO**
DisplayBuildIndex	**BldIndx**
BuildDocIndex	**GO**

Insert Hexadecimal Menu

DisplayInsertHexadecimalMenu	**CODE-I**
InsertHexadecimal	**GO**

Interrupt

Note: *The Interrupt command is used to cancel a command while it is executing.*

Interrupt   **CANCEL**

Jump Commands

PreviousInsertionPoint   **CODE-SHIFT-E**

GoToSelection   **CODE-L**

ThumbTo0Percent   **CODE-^ or CODE-B**

Thumbto10percent   **CODE-1**

Thumbto20percent   **CODE-2**

Thumbto30percent   **CODE-3**

Thumbto40percent   **CODE-4**

Thumbto50percent   **CODE-5**

Thumbto60percent   **CODE-6**

Thumbto70percent   **CODE-7**

Thumbto80percent   **CODE-8**

Thumbto90percent   **CODE-9**

Thumbto100percent   **CODE-0 or CODE-E**

Jump Softkey Strip

DisplaySKJump	**Base–Home–Jump** (or **CODE-SHIFT-F1**)
JumpWord	**WORD**
JumpSentence	**SENT**
JumpPara	**PARA**
JumpPage	**PAGE**
JumpLine	**LINE**
JumpColumn	**COL**
DisplayGotoPageMenu	**ToPage#**
GoToPage	**GO**
Thumbto0percent	**Start** (or **CODE-^**)
Thumbto100percent	**End** (or **CODE–0**)
DisplayGotoLineMenu	**ToLine#**
GoToLine	**GO**
JumpWordReverse	**CODE-WORD**
JumpSentReverse	**CODE-SENT**
JumpParaReverse	**CODE-PARA**
JumpPageReverse	**CODE-PAGE**
JumpLineReverse	**CODE-LINE**
JumpColumnReverse	**CODE-COL**

Keep Together Softkey Strip

DisplaySKTogetherMenu	**Base–Paragph–Togethr**
DisplaySKKeepBeforeMenu	**Prior**
KeepPriorOn	**On**
KeepPriorOff	**Off**
DisplaySKKeepWithinMenu	**Within**
KeepTogetherOn	**On**
KeepTogetherOff	**Off**
DisplaySKKeepAfterMenu	**Follow**
KeepFollowingOn	**On**
KeepFollowingOff	**Off**

Keeping a Range of Text Together

KeepTogether	**CODE-K**

Leader Dots Softkey Strip

DisplaySKLeaderDotsMenu	**Base–Tabs–Dots**
SetDecimalTabwithLeaderDots	**Decimal**
SetCenteredTabwithLeaderDots	**Center**
SetLeftTabwithLeaderDots	**Left**
SetRightTabwithLeaderDots	**Right**
ClearOneTab	**ClrTab**
ClearAllTabs	**ClrAll**

Line Break

    NewLine   **SHIFT-RETURN**

Line Spacing Softkey Strip

    DisplaySKLineSpacing   **Base–Paragph–LinSpac**

        SingleSpacing   **1**

        DoubleSpacing   **2**

        OneandaHalfSpacing   **1 1/2**

        Single/DoubleSpacing   **1 & 2**

        DisplayOtherLineSpacingMenu   **Other**

            OtherLineSpacing   **GO**

Literal Keystrokes

    LiteralInsertion   **CODE-'**

Macro Softkey Strip

    DisplaySKMacroCommands   **Base–Home–Utility–Macro**

        DisplayLoadMacroMenu*   **Load**

        DisplayUnloadMacroMenu*   **Unload**

        DisplayRecallMacroMenu   **Recall (or CODE-M)**

            RecallMacro   **GO**

        DisplayStoreMacro   **Store**

            StoreMacro   **GO**

        DisplayListMacrosMenu*   **List**

        DisplayRemoveMacroMenu*   **Delete**

        DisplayAbsorbMacroMenu   **Absorb**

            AbsorbMacro   **GO**

*(You can display and fill in these menus with a macro but you cannot have a macro execute the OFIS Document Designer commands they represent.)

Mark Character

    MarkCharacter **MARK**

Mark Column

    MarkColumn **CODE-SHIFT-C**

Mark Document

    MarkDocument **CODE-SHIFT-D**

Note: *The Apply menu is displayed when you issue the Mark Page and Mark Document commands in conjunction with a Format Character command.*

Mark Format

    MarkRun **CODE-SHIFT-F**

Mark Outline

    MarkOutline **CODE-SHIFT-O**

Mark Page

    MarkPage **CODE-SHIFT-P**

Note: *The Apply menu is displayed when you issue the Mark Page and Mark Document commands in conjunction with a character formatting command.*

Mark Softkey Strip

    SelectText **CODE-SHIFT-F10**

        MarkWord **WORD**

        MarkSentence **SENT**

        MarkParagraph **PARA**

        MarkPage **PAGE**

        MarkLine **LINE**

        MarkColumn **COL**

Mark Softkey Strip

SelectText *(cont.)*

DisplayMarkNumberedPagesMenu	**nPages**
MarkNumberedPages	**GO**
MarkDocument	**Doc**
DisplaySKJump	**Jump**
(*See* Jump Softkey Strip)	
MarkWordReverse	**CODE-WORD**
MarkSentReverse	**CODE-SENT**
MarkParaReverse	**CODE-PARA**
MarkPageReverse	**CODE-PAGE**
MarkLineReverse	**CODE-LINE**
MarkColumnReverse	**CODE-COL**

More Character Attributes Softkey Strip

DisplaySKMoreAttributes	**Base–Attribt–More**
DisplaySKKeyword	**KeyWord**
KeyWordOn	**On**
KeyWordOff	**Off**
DisplaySKPhraseAttr	**Phrase**
PhraseOn	**On**
PhraseOff	**Off**

More Character Attributes Softkey Strip

DisplaySKMoreAttributes *(cont.)*	
DisplaySKNonEditable	**NonEdit**
NonEditableTextOn	**On**
NonEditableTextOff	**Off**
DisplaySKRibbonColor	**RbnColr**
AlternateRibbonOn	**On**
AlternateRibbonOff	**Off**
DisplaySKStruck	**Struck**
StrikeThroughOn	**On**
StrikeThroughOff	**Off**

Mark Style

BoundStyle	**CODE-BOUND**

Move

DisplayMoveMenu	**MOVE**
Move	**GO**

Next

Next	**NEXT**
(moves to next field in menu)	
NextTab	**NEXT**
(moves to next tab stop in document)	

Next Column

NextColumn	**CODE-NEXT**
(begins next synchronized or serpentine column)	

Object Menu

DisplayObjectMenu	**Base–Home–Utility–Object**
DisplayEditObjectMenu (*See* Edit/Create Object Menu)	**E**
DisplayBoxBoundaryOrDimension (*See* Box Boundaries Menu *or* Box Dimensions Menu)	**B**
FindAnchor	**S**
PlaceObject	**P**
DisplayBoxObjectMenu	**O**
BoxObject	**GO**
GraphicsVisible	**V**

Object Visibility

GraphicsVisible	**CODE-SHIFT-V**

Outline Softkey Strip

DisplaySKOutline	**Base–Functns–Outline**
CollapseOutline	**Colapse**
ExpandOutline	**Expand**
FullyExpandOutline	**FullExp**
MarkOutline	**Mark**
OutlineIndent	**Indnt** (or **CODE-TAB**)
OutlineUnindent	**UnIndnt** (or **CODE-SHIFT-TAB**)
TotalUnindent	**TotalUn** (or **CODE-SHIFT-RETURN**)
DisplayHeadingMenu (*See* Heading Level Menu)	**Level**

Page Break Softkey Strip

DisplaySKBreakType	**Base–Page–BrkTyp**
SetFloatingBreak	**Temp**
SetStaticPageBreak	**PermPg**
SetOddPageBreak	**OddPg**
SetEvenPageBreak	**EvenPg**
SetColumnPageBreak	**PermCol**
InsertForcedPage	**InsPg**
NextColumn	**InsCol**

Page Softkey Strip

DisplaySKPage	**Base–Page**
DisplaySerpColumnsMenu	**SerpCol**
SetSerpColumns	**GO**
DisplaySKBreakType	**BrkTyp**
(*See* Page Break Softkey Strip)	
DisplayBoxPageAreaMenu	**Box**
BoxPageArea	**GO**
InsertForcedPage	**PgBreak** (or **CODE-NEXT PAGE**)
DisplayPageDimensionMenu	**Format**
FormatPageDimensions	**GO**
DisplaySKHeaderMenu	**Header**
(*See* Header Softkey Strip)	

Page Softkey Strip

DisplaySKPage *(cont.)*

DisplaySKFooterMenu **Footer**
    (*See* Footer Softkey Strip)

DisplaySynchColumnsMenu **SynCol**
    SetSynchColumns **GO**

DisplayPaperSizeMenu **Paper**
    SetPaperSize **GO**

DisplayPageFormatMenu **PgAttr**
    SetPageFormat **GO**

Paragraph, New

NewParagraph **RETURN**

Paragraph Numbering

DisplayAutoNumberingMenu **Base–Functns–Outline–Level**

    ApplyAutoNumberingMenu **GO**

Paragraph Softkey Strip

DisplaySKParagraph **Base–Paragph**

    DisplaySKParagraphFormatMenu **Current**

    DisplaySKLineSpacing **LinSpac**
        (*See* Line Spacing Softkey Strip)

    DisplaySKIndent **Indent**
        (*See* Indent Softkey Strip)

    Center **Center**

    LeftFlush **FlushLf**

    RightFlush **FlushRt**

    Justify **Justify**

    DisplayBoxParagraphMenu **Box**
        BoxParagraph **GO**

    DisplaySKTogetherMenu **Togethr**
        (*See* Keep Together Softkey Strip)

Phrase Softkey Strip

DisplaySKPhrases	**Base–Phrases**
ExpandPhrases	**Expand**
DisplayRemovePhraseMenu	**Delete**
RemovePhrase	**GO**
DisplayListPhrasesMenu	**List**
ListPhrases	**GO**
DisplayStorePhraseMenu	**Store**
StorePhrase	**GO**
DisplayRecallPhraseMenu	**Recall** (or CODE-P)
RecallPhrase	**GO**
DisplaySelectPhraseFile	SelFile
SelectPhraseFile	**GO**
DisplayAbsorbPhraseMenu	**Absorb**
AbsorbPhrase	**GO**

Pitch Menu

DisplayPitchMenu	**Base–Home–Print–Pitch**
8Pitch	**8**
10Pitch	**0**
12Pitch	**2**
15Pitch	**5**
DefaultPitch	**D**

Place Object

PlaceObject	**Base–Home–Utility–Object–P**

Precise Indents and Tabs

DisplaySKIndent	**Base–Paragph–Indent**
SlowCursorLeft	**CODE-SHIFT-LEFT ARROW**
SlowCursorRight	**CODE-SHIFT-RIGHT ARROW**
DisplaySKTabsMenu	**Base–Tabs**
SlowCursorLeft	**CODE-SHIFT-LEFT ARROW**
SlowCursorRight	**CODE-SHIFT-RIGHT ARROW**

Print

DisplayPrintMenu	**Base–Home–Print–Documnt**
Print	**GO**

Print Softkey Strip

DisplaySKPrint	**Base–Home–Print**
DisplayPrinterStatusMenu (*See* Printer Status Menu)	**Status**
DisplayPrintMenu	**Documnt**
Print	**GO**
DisplayReviewMenu	**Review**
Review	**GO**
DisplayPitchMenu (*See* Pitch Menu)	**Pitch**
DisplayFontMenu	**Font**
DisplaySecondFontMenu	**NEXT PAGE**
SetFont	**GO**
DisplayDocumentAttributes	**DocAttr**
ApplyDocumentAttributes	**GO**

Printer Status Menu

DisplayPrinterStatusMenu	**Base–Home–Print–Status**
DisplaySelectPrinterMenu	**S**
SelectPrinter	**GO**
HaltPrinting	**H**
ResumePrinting	**R**
DisplayReprintFromPageMenu	**P**
Reprint	**GO**
DisplayCancelPrintingMenu	**C**
CancelPrinting	**GO**
PrintQueue	**Q**
BackgroundQueue	**B**
ListAvailablePrinters	**L**

Redlining Softkey Strip

DisplaySKRedlining	**Base–Home–Utility–Redline**
DisplayEnableRedliningMenu	**Enable**
EnableRedlining	**GO**
DisableRedlining	**Disable**
DisplayNewVersionMenu	**NewVer**
NewVersion	**GO**
DisplayChangeVersionDescMenu	**ChgDesc**
ChangeVersionDesc	**GO**
DisplayViewRevisionsMenu	**ViewRev**
ViewRevisions	**GO**
UndoRevisions	**UndoRev–GO**
DisplayMergeVersionsMenu	**MergVer**
MergeVersions	**GO**
ReinstateDeletion	**Reinst**

Redo

    Redo   **CODE-F7**

Remove Format

    RemoveFormat   **Base–Home–Windows–Rmv Fmt**

Replace

    DisplayReplaceMenu   **Base–Functns–Replace**

        Replace   **GO**

Retype

    RedoInsertion   **Base–Edit–ReType**

Reverse Video

    Palette   **CODE-SHIFT-Z**

Review Document

    DisplayReviewMenu   **Base–Home–Print–Review**

        Review   **GO**

Save work

    Save   **CODE-S**

Search

    DisplaySearchMenu   **Base–Functns–Search**

        Search   **GO**

Space

    Non-breakingSpace   **CODE-SHIFT-SPACEBAR**

    Non-requiredSpace   **CODE-SPACEBAR**

Spelling Softkey Strip

DisplaySKSpellingChecker	**Base–Functns–SpellCk**
DisplayLoadDictionaryMenu	**Load**
LoadDictionary	**GO**
DisplayUnLoadDictionaryMenu	**Unload**
UnLoadDictionary	**GO**
DisplayVerifySpellingMenu	**Check**
VerifySpelling (*See also* Word Not Found Menu)	**GO**
HyphenateWord	**Hyphen**
GetThesaurusInformation (*See also* Thesaurus Feature)	**Synonym**

Style Books Softkey Strip

DisplaySKStyleBookCommandsMenu	**Base–Style–StyleBk**
DisplayOpenStyleBookMenu	**Open**
OpenStyleBook	**GO**
ListStyleBooks	**List**
DisplayUseStyleBookMenu	**Use**
UseStyleBook	**GO**
DisplayStyleBookSelectMenu	**Select**
SelectStyleBook	**GO**
DisplayAbsorbStylesMenu	**Absorb**
AbsorbStyles	**GO**

Style Control Disabled Softkey Strip

DisplayStyleMenu	**Base–Style**
DisplayMergeStyles	**Merge**
MergeStyles	**GO**
ListStyles	**List**
EnableStyleControl	**Enable**
DisplaySKStyleBookCommandsMenu (*See* Style Books Softkey Strip)	**StyleBk**

Style Control Enabled Softkey Strip

DisplayStyleMenu	**Base–Style**
DisplayApplyStyle	**Apply**
ApplyStyle	**GO**
DisplayCreateStyle	**Create**
CreateStyle	**GO**
UpdateStyles	**Update**
DisplayMergeStyles	**Merge**
MergeStyles	**GO**
ListStyles	**List**
DisableStyleControl	**Disable**
DisplayReplaceStyle	**Replace**
ReplaceStyle	**GO**

Style Control Enabled Softkey Strip

DisplayStyleMenu *(cont.)*

DisplayFindStyleExceptions	**FindExcp**
FindStyleExceptions	**GO**
DisplayEraseExceptions	**ErsExcp**
ErasePageExceptions	**P**
EraseParagraphExceptions	**R**
EraseCharacterExceptions	**C**
DisplaySKStyleBookCommandsMenu (*See* Style Books Softkey Strip)	**StyleBk**

Tabs Softkey Strip

DisplaySKTabMenu	**Base–Tabs**
SetDecimalTab	**Decimal**
SetCenteredTab	**Center**
SetLeftTab	**Left**
SetRightTab	**Right**
SetEvenlySpacedTabs	**Even**
DisplaySKLeaderDotsMenu (*See* Leader Dots Softkey Strip)	**Dots**
FixTabs	**Reform**
ClearOneTab	**ClrTab**
ClearAllTabs	**ClrAll**
SetVerticalParagraphRuling	**VerRule**

Thesaurus Feature

GetThesaurusInformation	**Base–Functns–SpellCk–Synonym**	
UseSynonym1		**1**
UseSynonym2		**2**
UseSynonym3		**3**
UseSynonym4		**4**
UseSynonym5		**5**
UseSynonym6		**6**
UseSynonym7		**7**
MoreSynonyms		**M**
LessSynonyms		**S**
NextMeaning		**N**
PreviousMeaning		**P**
CancelThesaurus		**CANCEL**

Total

EvaluateExpression	**CODE-=**

Underline Softkey Strip

DisplaySKunderline	**Base–Attribt–Underln**
DisplaySKNonBlank	**NonBlnk**
WordUnderlineOn	**On**
WordUnderlineOff	**Off**
DisplaySKDouble	**Double**
DisplayNonBlankDoubleUnderlineMenu	**NonBlnk**
NonBlankDoubleUnderlineOn	**On**
NonBlankDoubleUnderlineOff	**Off**
DoubleUnderlineOn	**On**
DoubleUnderlineOff	**Off**
UnderlineOn	**On**
UnderlineOff	**Off**

Undo

    Undo   **CODE-SHIFT-U**

Unmark

    Unmark   **CODE-MARK**

Utility Softkey Strip

    DisplaySKUtility   **Base–Home–Utility**

        DisplayObjectMenu   **Object**
        (*See* Object Menu)

        DisplaySKRedlining   **Redline**
        (*See* Redlining Softkey Strip)

        DisplaySKMacroCommands   **Macro**
        (*See* Macro Softkey Strip)

        DelimitField   **FldDLim**

        DelimitRecord   **RecDLim**

        DisplayVoiceMenu   **Voice**
        (*See* Voice Menu)

        DisplaySortSelectMenu   **SortSel**

            SortSelect   **GO**

        DisplayMergeMenu   **Merge**

            Merge   **GO**

        DisplayMergeToADocumentMenu   **MergeDoc**

            Merge   **GO**

        DisplayFormCommandsMenu   **Forms**
        (*See* Form Processing Menu)

Visible

    Visible   **CODE-V**

Voice Menu

    DisplayVoiceMenu   **Base–Home–Utility–Voice**

        VoiceRecordSetup   **R**

          VoiceRecord   **GO**

        VoicePlay   **P**

        VoiceStop   **S**

        VoiceHangup   **H**

        VoiceContinuePlay   **C**

        VoiceFindPlay   **F**

        VoiceRemoveVoice   **M**

Windows Softkey Strip

    DisplaySKWindows   **Base–Home–Windows**

        SKExpandUp   **ExpndUp**

        SKExpndDn   **ExpndDn**

        SKLowerTop   **LowrTop**

        SKRaisBot   **RaisBot**

        DivideWindow   **Divide** (or **CODE-D**)

        Visible   **Visible** (or **CODE-V**)

        RemoveFormat   **Rmv Fmt**

        Discard   **Discard**

Word Not Found Menu

DisplayWordNotFoundMenu	**Base–Functns–SpellCk–Check–GO–**(misspelled word)
UseCorrection1	**1**
UseCorrection2	**2**
UseCorrection3	**3**
UseCorrection4	**4**
UseCorrection5	**5**
SkipWord	**P**
IgnoreWord	**I**
AddWordToUserDictionary	**E**
CorrectWord	**C**
CancelSpell	**CANCEL**
SetWordTraits	**GO**

Zoom Command

Zoom	**CODE-Z**

Screen and Cursor Movement Commands

The screen and cursor movement macro commands are used to indicate keystrokes that you regularly use to type, move the cursor, and move the screen display.

Note that when you are issuing keystrokes there is not always a one to one correspondence between keystrokes and lines of code in a macro listing. In other words, one keystroke doesn't necessarily generate one line of code in the macro. And conversely, four keystrokes may show up as one line of code. For example, if you want to move the cursor to the top of a window, you can do it three ways:

* You can cursor up with the **UP ARROW** key, which will generate approximately 30 lines in the macro listing of "CursorUp".

* You can use the **SHIFT** key in conjunction with the **UP ARROW** key, in which case you'll get approximately 10 lines of "FastCursorUp".

* Or, you can use the **CODE** key with the **UP ARROW** key, which will generate one line of code of "CursorToTopOfWindow". (This is the most efficient way.)

Backspace   **BACKSPACE**

Moves the cursor back one space. In Overtype mode, does not delete the character.

ClearColumn   **CODE-DELETE**

Clears a column of tabbed text at the cursor location.

ClearMenuField   **CODE-DELETE**

Clears menu field cursor is in.

CursorDown   **DOWN ARROW**

Moves cursor down one space.

CursorLeft   **LEFT ARROW**

Moves cursor left one space.

CursorRight   RIGHT ARROW

    Moves cursor right one space.

CursorToBeginningOfLine   CODE-LEFT ARROW

    Moves cursor to the first character or format symbol on the line.

CursorToBottomOfWindow   CODE-DOWN ARROW

    Moves cursor to the bottom of the window.

CursorToEndOfLine   CODE-RIGHT ARROW

    Moves cursor to the point after the last character on the line.

CursorToTopOfWindow   CODE-UP ARROW

    Moves cursor to the top of the window.

CursorUp   UP ARROW

    Moves cursor up one space.

Delete   DELETE

DeleteChar   SHIFT-DELETE, or DELETE CHAR

Diacritical ˙·'

    Inserts a diacritical mark into text. This example shows the umlaut,
    but any other diacritical mark can be added. The mark should be
    followed by a Typing macro command to indicate the letter to which
    the diacritical mark is to be added.

FastCursorDown   SHIFT-DOWN ARROW

    Moves cursor down three spaces.

FastCursorLeft   SHIFT-LEFT ARROW

    Moves cursor left five spaces.

FastCursorRight   SHIFT-RIGHT ARROW

    Moves cursor right five spaces.

FastCursorUp   SHIFT-UP ARROW

    Moves cursor up three spaces.

FastScrollDown   **SHIFT-SCROLL DOWN**

Scrolls document displayed in window down four lines.

FastScrollUp   **SHIFT-SCROLL UP**

Scrolls document displayed in window up four lines.

NextPage   **NEXT PAGE**

Scrolls to next page break.

PrevPage   **PREVIOUS PAGE**

Scrolls to last page break.

Next   **NEXT**

When in a command for it, moves the cursor to the next field.

NextTab   **NEXT**

Moves the cursor to the next tab position.

NewLine   **SHIFT-RETURN**

Inserts a line break.

Overtype   **OVERTYPE**

Turns the **OVERTYPE** key on if it is off, and off if it is on.

ScrollScreenDown   **CODE-SCROLL DOWN**

When the cursor is on the window divider, scrolls the window down as far as it will go.

ScrollScreenUp   **CODE-SCROLL UP**

When the cursor is on the window divider, scrolls the window up as far as it will go.

ScrollDown   **SCROLL DOWN**

Scrolls down one line.

ScrollUp   **SCROLL UP**

Scrolls up one line.

SetChoice "Y"

Sets a menu choice. **Y** can be any character that is a menu choice. For example, in a menu there is usually a *Yes* or *No* (**Y** or **N**) choice. However, in the Paper and Forms menu, **L** (for *Landscape*) is a choice.

InsertSingleTab   **SHIFT-TAB**

Inserts only one tab symbol into text.

Tab   **TAB**

Inserts specified number of tab symbols and moves the cursor to the next tab stop.

Typing *'whatever you type'*

Used to indicate typing of any text in a macro, whether text in a document or typing that completes a command form.

Advanced Macro Programming Commands

There are several different types of advanced macro commands you can include in your macros:

• Literals

• Variables

• Operators

• Reserved Functions

• Meta Commands

• External Functions

These commands allow you to create expressions in your macros. An expression is a sequence of characters, variables, and commands that OFIS Document Designer evaluates to produce a result that is either a number or a string.

Literals

There are two types of literals: numeric and string. OFIS Document Designer interprets the number or string of characters that you enter in macros literally, hence the name. Examples of literals are presented below.

Numeric literals   345
                            573.50

String literals   "Here is a string"
                            "Strings can include 4567"
                            "They can also include ab67"

Note: *String literals must be surrounded by double quotation marks. When a number is included in a string variable, OFIS Document Designer does not regard it as a number, but rather as a string.*

Variables

There are three different types of variables you can use in your macros:

- Numeric Variables
- String Variables
- Reserved Variables

Numeric Variables

Numeric variables have the format *Variablename* where *Variablename* is a name no more than 12 characters long containing no special characters or spaces. For example: Cost. Numeric variables must contain numeric information only. Furthermore, numeric variables cannot be combined with literal strings or string variables without using the String command. Numeric variables are useful when you want to perform mathematical calculations in your macro. For example: Cost + Markup. Note that you must use the Assign command somewhere in your macro to set the value of each numeric variable.

Note: *Since* **x** *and* **mod** *are mathematical operators, you cannot use them as numeric variable names.*

String Variables

String variables have the format $Variablename where
Variablename is a name no more than 11 characters long containing
no special characters or spaces. For example: $Cost. String
variables can contain or consist of numbers as well as text, but
cannot be used with mathematical operators (+, –, *) without using
the Number command. String variables are useful when you want
your macro to display text on the screen. For example:
InsertAtCursor $Cost. Note that you must use the Assign command
somewhere in your macro to set the value of each string variable.

Reserved Variables

There are two reserved variables you can use in your macros:
CurrentSelection and **$CurrentSelection. CurrentSelection** is
a numeric variable with an assigned value equal to the selection
marked in a document at the time your macro uses
CurrentSelection (remember, only numeric information can be
assigned to numeric variables). **$CurrentSelection** is a string
variable with an assigned value equal to the selection marked in a
document at the time your macro uses **$CurrentSelection**.

Operators

There are four different types of operators you can use in your macros:

- Unary prefix
- Unary suffix
- Binary
- String Concatenation

The first three are used with numbers; the last one is used with strings.

Unary Prefix

Unary prefixes are placed in front of numbers, variables, or expressions to give them a value.

Unary Prefix	Example
+	+11 +Cost +Length($Cost)
–	–11 –Cost –Length($Cost)
$	$11 $Cost $Length($Cost)

Unary Suffixes

Unary suffixes are placed behind numbers, variables, or expressions to give them a value.

Unary Suffix	Example
+	11+ Cost+ Length($Cost)+
–	11– Cost– Length($Cost)–
¢	11¢ Cost¢ Length($Cost)¢
%	11% Cost% Length($Cost)%

Binary

Binary operators are used to evaluate the value of an expression.

Binary	Example
+(add)	11+12
–(subtract)	12–10
	Price–Cost
*(multiply)	6*7
	Length($Cost)*4
x(multiply)	6x7
/(divide)	6/7
	Length($Cost)/Cost
mod	10 mod 3

Note that when you want to perform a mathematical operation involving three or more values in your macros, you can use parentheses to choose the order in which the operations are done. Parentheses are optional when the normal order of mathematical operations will produce the value you want. For example:

4*(3+2)	Answer=20
(4*3)+2	
or	
4*3+2	Answer=14
where Cost=3	
2*(Cost+2)	Answer=10
where Cost=3	
(2*Cost)+2	
or	
2*Cost+2	Answer=8

String Concatenation

A string concatenation operator (| |) concatenates a string or string expression on one side of the operator with a string or string expression on the other side. For example,

"Hello" | | "There"

$Cost | | "on sale"

"The shoes cost" | | String(Cost) | | "on sale"

You create a string concatenation operator in a macro by pressing **SHIFT-7** (7 on the numeric keypad) twice.

Reserved Functions

There are four reserved functions you can use in your macros:

- Length
- String
- Number
- Substr

Note that these functions must be used with some other command. For example, you cannot simply enter **Length("ABC")** as a line in a macro.

Length

The Length function takes a string expression and returns a number equal to the length of that string. For example, the value of the expression below is the number 3:

Length("ABC")

String

The String function takes a numeric expression and returns a value equal to the string representation of that number. For example, the value of the expression below is "3":

String(2+1)

Number

The Number function takes a string expression and returns a value equal to the numeric representation of that string. For example, the value of the expression below is the number 51:

Number("10"| |"2/2")

Substr

The Substr function is used to extract a portion of a string. The Substr function has the following format:

Substr(*String,Start,End*)

where *String* equals the string variable you want to extract a portion from, *Start* equals the number of characters and/or spaces from the beginning of the string where you want the extracted string to start, and *End* equals the number of characters and/or spaces you want extracted.

For example, if you wanted to extract the letters "Dog" from the string "Hound Dog":

Substr("Hound Dog",7,3)

Note: *You cannot use the Substr function in conjunction with the Length function in one line of a macro.*

Meta Commands

There are three meta macro programming commands that you can use with many of the other commands described in this section:

• Assign

• InsertAtCursor

• If

Assign

You must use the Assign command to set the value of each variable in a macro. The Assign command has the following format:

Assign *Variablename Value*

where *Variablename* is the name of the numeric or string variable you are assigning a value to, and *Value* is the expression you want to assign to the variable. For example, the following Assign command assigns the value "Hello, how are you?" to the string variable $Greeting:

Assign $Greeting "Hello, how are you?"

The next example calculates the value of the numeric variable Price multiplied by the numeric variable Units and stores the result in the numeric variable called Cost:

Assign Cost Price*Units

The next example assigns the value which is the string "The cost is " concatenated with the string-converted, numeric variable Cost to the string variable $Cost:

Assign $Cost "The cost is " | | String(Cost)

InsertAtCursor

The InsertAtCursor command allows you to display the value of an expression after the cursor's current location on the screen. The InsertAtCursor command has the following format:

InsertAtCursor *Expression*

where *Expression* is the expression you want displayed on the screen after the cursor's current location. For example, to display the results of the mathematical operation numeric variable Cost added to the numeric variable Taxes, you would enter the following command in your macro:

InsertAtCursor Cost+Taxes

If

The If command allows you to define conditions in which your macro will jump to a particular label. The If command has the following format:

If *Expression1 RelOp Expression2 Labelname*

where *Expression1* is the first expression, *Expression2* is the second expression, *RelOp* is the relational operator used to compare the two expressions, and *Labelname* is the name of the label the macro will go to if the statement in the If command is true. If the statement in the If command is not true, then the macro will proceed to its next line. Note that *Expression1* and *Expression2* must have numeric values, not string values. The relational operators that can be used are:

Relational Operator	Meaning
<	less than
>	greater than
=	equal to
<=	less than or equal to
>=	greater than or equal to

For example, the following If command sends the macro to the label QuitJob if the value of the numeric variable CostOfLiving is greater than or equal to the value of the numeric variable Income:

If CostOfLiving>=Income QuitJob

The next example would send the macro to the label ThrowAParty if the value of the numeric variable Income is greater than or equal to two times the value of the numeric variable CostOfLiving added to the numeric variable CostOfParty:

If Income>=2*Cost of Living+CostOfParty ThrowAParty

External Functions

External functions are functions usually created by a user that are implemented by a program separate from OFIS Document Designer.

When OFIS Document Designer encounters an external function in a macro, it searches the Context Manager for the name of the external function and starts it in the appropriate context. Although control is transferred from OFIS Document Designer when an external function is running, OFIS Document Designer remains on the screen.

External functions have the same format as reserved functions. For example, the line

InsertAtCursor Reverse ($Text)

in a macro would cause OFIS Document Designer to path to the external function Reverse, at which point Reverse would be performed on the value of the variable $Text. OFIS Document Designer would then insert the result at the cursor's current position.

Two conditions must be met before you can use an external function in a macro.

- ICMS (Inter-Context Message Server) must be installed on your system.

- The external function must be set up as an application recognized by Context Manager.

  To set up an external function as an application recognized by Context Manager, use the Context Manager Configuration File Editor command to enter the name of the external function on its own line in the CmConfig.Sys file. (See the *System Administration* volume for more information.)

Also, an external function can only be used to return a string of up to 255 characters in length. For example, the following use of an external function is invalid and will generate an error:

InsertAtCursor Reverse(Text)

The following use of an external function, however, is valid:

InsertAtCursor Number(Reverse(Text))

Example: External Function "Reverse"

```
Reverse:
do;
declare ercOK  literally "0";
declare SdType literally "str (pb pointer, cb word)";
declare MsgDhExcFuncType literally "structure (type word, version word, erc
        word, cch word, rgch(100) byte)";

Main Program:
procedure public reentrant;
declare chParent word;
declare msgResult MsgDhExFuncType;
declare cch word;
declare erc word;
declare sdParam SdType, rgchOrig based sdParam.pb (1) byte;

msgResult.type = 08000h;
msgResult.erc = ercOK;
msgResult.version = 0;
msgResult.cch = 0;

msgResult.erc = RgParam(1, 0, @sdParam);
if msgResult.erc <> ercOK then
        go to ReturnMsg;

If sdParam.cb > 100 then
        sdParam.cb = 100;

cch = sdParam.cb;
msgResult.cch = cch;

do while cch > 0;
        msgResult.rgch(sdParam.cb − cch) = rgchOrig(cch − 1);
        cch = cch − 1;
end;

ReturnMsg:
erc = ICMSSend(chParent, @msgResult, SIZE (msgResult));
call ErrorExit(erc);
end MainProgram;

call MainProgram;

end Reverse;
```

Section 13
Calculating Values

About This Section

This section describes the ways you can perform mathematical operations (addition, subtraction, multiplication, and division) in your document. You'll learn how to do the following:

- Set up an equation

- Calculate sums

- Add the value of one equation to another

Setting Up An Equation

The first step required to calculate the value of an expression is to set up the equation in a document. You can do this in two ways: in tabbed columns or in text.

If you're entering equations in tabbed columns, they should look like this:

20.40	343.43
104.45	23.14
2.45	300.00
100.50	200.10

When you calculate the value of a tabbed column, addition is assumed.

When you insert numbers in columns, you usually use the decimal tab. Also, if your first column is not a tabbed column, that is, if your equation is held in place by the left margin, you won't be able to mark your numbers. (You need to mark your column of numbers before totaling them.) For information on setting up tabbed columns, see Section 1, "Using Columns."

You can also add numbers in rows if the numbers are held by tab stops. For example:

2   2   2   2   2

If you select that row of numbers and use the total command, you get the sum of the entire row of numbers.

If you mark only part of a row of numbers, you get the total of the numbers from the beginning of the marked area to the end of the row. For example, if you mark the first two numbers in a row, the entire row is totalled, even if the entire row isn't marked. If you mark the second and third numbers in a row, however, the first number is left out of the total.

This is important to keep in mind, especially when dealing with multiple rows of columns. For example, if you mark part of one row and part of the row above or below it, the same rule applies; you get the total of all numbers from the beginning of the selection until the end of the row that the selection ends in.

If you're entering equations into regular text, they should look like this:

(8*(5+4))/12

or

4+(5−(6/2))

When you type the equation into regular text, use the mathematical expressions recognized by OFIS Document Designer, as shown in Table 13–1. Also, use parentheses around expressions that are to be solved first.

Table 13–1. Valid Mathematical Expressions

Symbol	Function
+	Adds numbers
+	Denotes a positive number (+40)
+	Denotes a trailing unary plus (40+)
–	Subtract numbers
–	Denotes a negative number (-40)
–	Trailing unary minus (40-)
x	Multiplies numbers
*	Multiplies numbers (same as x)
/	Divides numbers
mod	Modulus
$	Denotes a dollar sign
¢	Denotes a cent sign
%	Denotes percent
1/2	One-half
	One-fourth
( )	Parentheses*
< >	Debit signs
.	Decimal point
,	Comma
	Space

*You can also use parentheses as debit signs.

Calculating The Sum Of Numbers

You calculate the value of an equation with the Total and Accumulative Total commands. The Total command calculates the sum of one equation. The Accumulative Total command adds the value of one equation to another, thus keeping a running or accumulative total.

Note: *The Undo (CODE-SHIFT-U) and Redo (CODE-F7) commands do not work with either of the two Total commands.*

When calculating the sum of numbers, there are two important facts to remember:

•   OFIS Document Designer presumes that the value of an entire expression enclosed in parentheses is a debit sign and therefore, interprets the results as a negative number.

•   The degree of precision included in the result depends on that specified for the most precise of the numbers. For example, if the most precise number in the equation contains four digits to the right of the decimal point, the result will contain four digits to the right of the decimal point.

Calculating Sums in Tabbed Columns

To calculate the sum of equations in tabbed columns,

1.   Move the cursor to the column you want to add. Make sure the cursor is on a character in the column.

2.   From the Base softkey strip, press **Edit (F6)**.

3.   Press **Math (F1)** to display the Math softkey strip, as shown in Figure 13–1.

MATH

WORD	SENT	PARA	PAGE	LINE	COL		Total	AcTotal

Figure 13–1. Math Softkey Strip

4. Press **COL (F6)** to mark the column.

5. Press **Total (F9)**.

    OFIS Document Designer calculates the value of the sum and displays it in the *Total* window at the bottom of the screen, as shown in Figure 13–2.

TOTAL _____

<div align="center">(Press CANCEL to dismiss)</div>

Result: (Press COPY to copy the selected result into a document)

<div align="center">

Figure 13–2. Total Window

</div>

6. If you want to insert the result, press **COPY**.

7. If you want to add the result to another equation, keep the *Total* window displayed on the screen, and follow the procedure under "Adding the Results of One Equation to Another," later in this section.

☞ As a shortcut, after you mark the expression to be evaluated, press **CODE =** to display the *Total* window with the calculated result.

Calculating Sums in Text

To calculate the sum of one equation within text,

1. From the Base softkey strip, press **Edit (F6)**.

2. Press **Math (F1)** to display the Math softkey strip.

4. Use the softkeys to mark the expression to be evaluated.

5. Press **Total (F9)**.

OFIS Document Designer calculates the value of the equation and displays it in the *Total* window at the bottom of the screen, as shown in Figure 13–3.

TOTAL _____

(Press CANCEL to dismiss)

Result: (Press COPY to copy the selected result into a document)

Figure 13–3. Total Window

6. If you want to insert the result into the document, press **COPY**.

Adding the Results of One Equation to Another

As mentioned earlier, you can calculate the value of an equation and add the result to the result of a previously calculated equation. You do this with the Accumulative Total command. This command works *only* when Accumulative Total command has just been executed.

To use Accumulative Total,

1. From the Base softkey strip, press **Edit (F6)**.

2. Press **Math (F1)** to display the Math softkey strip.

3. Use the marking keys to mark the text you want to total.

4. Press **AcTotal (F10)** to display the Accumulative Total softkey strip, as shown in Figure 13–4. The result of the total is displayed in the softkey strip.

ACCUMULATIVE TOTAL

> (Press CANCEL to dismiss)
Result: *N*   (Press COPY to copy the selected result into a document.)
> (or use MARK and presss GO to accumulate total)

WORD	LINE COL	

Figure 13–4. Accumulative Total Softkey Strip

5. Use the marking keys to mark more text.

6. Press **GO** to add the sum of the two operations.

Section 14
Using Voice Annotation

About Voice Annotation

You can use voice annotation to add voice messages to your documents. This feature works very well in a work group environment.

Here is an example. Fred is working on a letter that Myrtle wants to review before it is printed. She goes through the document and adds voice annotations to a couple of parts of the letter that she wants Fred to work on a bit more. Later, Fred listens to Myrtle's comments, and makes the changes that she noted.

Notice that Fred didn't need to print the letter to receive Myrtle's comments, and Myrtle didn't need to write a thing; all the communication took place online.

To use voice annotations, a Voice Processor module (or equivalent voice processing hardware) must be attached to your workstation. You also need Voice Services software installed on your system, and you need a telephone. A good singing voice is optional, but it helps for certain messages.

Recording a Message

To record a voice message,

1. Open a document.

2. Move the cursor to the place where you want to insert the message.

3. Mark a character. This is now the voice anchor character. It tells you where there is a voice annotation. It can be any character or symbol, and it can be marked, moved, copied, and deleted like any other character.

4. From the Base softkey strip, press **Home (F1)**.

5. Press **Utility (F7)**.

6. Press **Voice (F6)** to display the Voice menu, as shown in Figure 14–1.

VOICE_____

(Press CANCEL to dismiss)

Press R to   record   Press H to   Hang up (use to remove dial tone)
      P   Play   C   Continue playback (rewinds slightly)
      S   Stop (Code-h)   (Code-G)

Press F to   find next voice annotation and play (Code-a)
      M   Remove all voice annotations from selected text

Figure 14–1. Voice Menu

7. Press **R**. The Record Setup menu is displayed, as shown in Figure 14–2.

RECORD SETUP_____

Maximum message size in seconds (approx.):		**45**	
Disk utilization: High voice quality		**Save disk space**	(Press H or S)
Pause compression:	Yes	**No**	(Press Y or N)
Increase volume?	Yes	**No**	(Press Y or N)

Figure 14–2. Record Setup Menu

8. Fill in the menu as required. The fields in the menu are described below.

   Maximum Message Size

   Preset to 45 seconds for the maximum length of the message. You can change the length to any value you want, but use whole numbers only. Maximum message length depends on available disk space. If you see this message:

   Insufficient disk space

   enter a smaller value in the field, or delete some files on your disk to make room.

   Disk Utilization

   Preset to *Save disk space*. For higher quality recording (which uses more disk space), select *High voice quality*.

   Pause Compression

   Preset to *No*, which leaves pauses in place. Select *Yes* to eliminate pauses and save disk space.

   Increase Volume

   Preset to *No*. Select *Yes* to increase the volume of the playback.

9. Press **GO**.

10. Pick up the telephone receiver and dictate a message.

Note: *If you hear the dial tone, issue the Hangup command (see "Disconnecting the Outside Line," at the end of this section). Repeat step 8 after you disconnect the line.*

11. Press **GO** when you are through dictating.

   Your message is now associated with the anchor character.

12. Hang up the telephone.

13. Press **CANCEL** to remove the Voice menu.

Playing Back Messages

To play back messages, you must first find them. To find and play back a message,

1. Open the document.

2. Press **CODE-A**. The cursor moves to the first voice anchor character.

3. Pick up the receiver and listen to the message.

You have several options at this point:

*   To play the next message, press **CODE-A**. You don't need to wait for the first message to end.

*   To replay a message, display the Voice menu, and press **P**.

*   To stop a message as it is playing, press **CODE-H**.

*   To resume playback of a stopped message, press **CODE-G**.

If you want to play a message and the cursor is already at a voice anchor character, press display the Voice menu, press **P**, then pick up the receiver.

Removing All Voice Messages

Although you don't need to, you'll probably want to remove voice messages when you're done with them. To remove all voice messages,

1. Open the document that contains the voice message you want to remove.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Voice (F6)** to display the Voice menu.

5. Press **M**. The following message is displayed:

    > Press **GO** to confirm removing voice annotations from the entire document, **CANCEL** to cancel command.

6. Press **GO**. All the voice messages are removed and the voice anchor characters return to normal.

Disconnecting the Outside Line

If you hear a dial tone when you try to record or playback a message, use the Hangup command to disconnect the outside line. To do so,

1. Pick up the telephone receiver.

2. From the Base softkey strip, press **Home (F1)**.

3. Press **Utility (F7)**.

4. Press **Voice (F6)** to display the Voice menu.

5. Press **H**. The dial tone stops. If you decide you want to make a call, hang up the receiver and the dial tone resumes.

Glossary

<$> directories
> Directories that store temporary and scratch files during an OFIS Document Designer session. CTOS/VM provides enough <$> directories for your needs. On a multipartition CTOS system, you may have to create additional directories.

A

active document
> The document that contains the cursor.

anchor character
> The character or space in a document that identifies the location of an object or a voice annotation.

application
> Any program or service used directly by an end user, for example, Enhanced or Extended Multiplan.

application system
> Any application configured to run with OFIS Document Designer.

aspect ratio
> The relationship between the height and width of an integrated object. If one side of an object is made larger or smaller, the other side is also made larger or smaller to maintain the correct proportion.

attribute
> *See* format attribute.

B

background printing
>   When you print in background, your document is closed and you can do other work. *See also* foreground printing.

base-to-base spacing
>   The distance between the bottom of one line of text and the bottom of the next line of text.

box and rule
>   An OFIS Document Designer feature used to draw lines and boxes around paragraphs, column areas, pages, and objects.

BTOS
>   A workstation operating system. *See also* CTOS.

C

centered text
>   Text that is centered between the right and left margins.

chaining mode
>   A mode of operation that uses an OFIS Document Designer configuration file to pass objects back and forth between OFIS Document Designer and other applications. If OFIS Document Designer is not set up for multicontext mode, it automatically operates in chaining mode. In chaining mode, a Save operation is performed each time an object is transferred to or from OFIS Document Designer. *See also* multicontext mode.

change bars
>   Vertical lines printed at the right margin to indicate changes made to text. Change bars are available through the redlining feature.

character
>   Any number, letter, or symbol in your text. Any character can be used as an anchor character, voice annotation, record start, field start, or cross-reference target.

character string
>   A group of contiguous characters. Any characters that can appear on the screen can be included in the string.

column break
> A dashed line or a line of colons that indicates the beginning or end of a serpentine column. Column breaks may be floating (moved as necessary by OFIS Document Designer during pagination) or static (associated with that point in the text until you delete the column break).

command menu
> The menu that is displayed when OFIS Document Designer requires you to supply information before it executes a command. The menu is made up of fields for which you supply the requested information.

Context Manager
> A software product that works with the operating system to allow you to run several applications on your workstation at once. Using Context Manager, you can quickly switch from one application to another.

cooperating programs
> Application programs that have the ability to pass objects to and from other application programs.

cross-reference
> An entry made in a document to refer a reader to another page. *See also* page reference; target reference.

CTOS
> A workstation operating system. CTOS is also an umbrella term encompassing all varieties of the BTOS, CTOS, and CTOS/XE operating systems.

current document
> The document within which the cursor is positioned.

current paragraph
> The paragraph where the cursor is positioned.

current version
> In redlining, the latest version of a document.

current window
> The window that contains the cursor. Editing operations affect the document in the current window.

cursor
> A moveable, visual symbol displayed on the screen that indicates where the next operation will occur. *See also* ruler display cursor; shadow cursor.

D

daisy wheel printer

A character printer that uses interchangeable metal and plastic print wheels to print several types and sizes of characters. Daisy wheel printers usually produce letter quality printing.

DCA

See Document Content Architecture.

DEF

See Document Exchange Format.

default value

The value that is assumed when no other value is specified.

deinstallable server

A server program, such as a modem server, that is loaded into and out of memory as needed.

delimiter

A character that is used to separate and organize a string of data, but is never part of the string.

directory

A collection of related files on one volume. A volume is divided into one or more directories. *See also* volume; file.

disk

A magnetic storage unit for computer-readable information. Most workstations have a hard disk permanently installed that can store large amounts of data. You can also use floppy disks to store data.

Document Content Architecture (DCA)

A file translation utility that converts a native document (a document created in OFIS Document Designer or other word processing programs) into DCA format. DCA format allows these documents to be viewed and edited using Unisys PCs, OFIS Manager, and OFIS Link 1100.

Document Exchange Format (DEF)
> The program that allows OFIS Document Designer to exchange documents between itself and other systems. The DEF program translates a document or another application file into a format that can be used by OFIS Document Designer; or it translates OFIS Document Designer files into a format that can be used with other word processing systems.

document status line
> The line that divides the main text area of the screen and the ruler display. It displays the name of the document, the current page number, and the distance of the cursor from the top of the page.

dollar sign directories
> *See* <$> directories.

dotted box
> A grid of dots that represents a graphic object (or objects) in your document.

down-offset
> The distance between the top of an object and the top of the text-at-bay box.

E

embedded phrase
> A phrase name that has a special attribute assigned to it.

exceptions
> Text that has been formatted with style control and then formatted by means other than style control. For example, if you apply italics to a word that has been styled with nonitalic, the italic text is an exception. *See also* partially styled text.

Executive
> An application that serves two vital functions on a workstation: (1) It performs a variety of utilities, such as copying, deleting, and renaming files. (2) It is the CTOS command interpreter that passes parameter values to other utilities and applications.

F

facing page attribute
> An attribute that causes the margins on even pages to "mirror" the margins on odd pages.

field
> A specified area in a menu in which instructions can be given. A field is either a blank (to be filled in) or a choice of options.
>
> In list processing, each field represents a specific item in a record, such as a person's first name, last name, address, and so on.

field start character
> Identifies a field within a record. There can be any number of fields in a record. *See also* records; record start character.

file
> A set of related records treated as a unit. All the documents you create are stored on disk as files.

float
> The default position for newly-created text-at-bay boxes. The text-at-bay box is placed one line below its assigned anchor character.

floating page break
> Page breaks that are automatically inserted as you type at the end of a page or when you paginate (review or print) a document. *See also* static page break.

flush left
> *See* left-flush text.

flush right
> *See* right-flush text.

font
> Consists of all characters (uppercase and lowercase) of one size of one particular typeface. (For example, 12 point Times bold.)

Font Database
> A set of files that contain the information needed to format, display, or print documents in multiple fonts. *See also* Screen Font Database.

font family
>   The overall design of type, including all point sizes and type styles of that design.

footer
>   One or more lines of text that print at the bottom of each page of a document.

footnote
>   Used for the acknowledgment of borrowed material, for notifying the reader of the source of statements or quotations, for the presentation of explanatory or supplementary material not appropriate to the text, and for cross-references to other parts of a work.

footnote reference
>   A character inserted into a document to indicate the number and position of a footnote.

forced page number
>   A page attribute that specifies a number for a particular page. This number is the first in an automatic page numbering sequence for subsequent pages.

forced paragraph number
>   A specific number applied to an outline or table of contents heading.

foreground printing
>   When you print in foreground, your document stays open on the screen and you cannot perform any other tasks on your workstation. *See also* background printing.

form document
>   In form processing, the document that contains the text and stop codes required by the user to complete the form. *See also* form processing; stop codes.

>   In list processing, the form document contains the structure into which records are entered from the records file.

form processing
> An OFIS Document Designer feature that is used to create predefined forms. Other users can copy these forms and customize them according to their needs.

format attribute
> A characteristic that can be applied to a character, paragraph, or page of text that changes the shape or appearance of the text. For example, boldface text, fonts, paragraph indents, and page length are all format attributes.

Format Set file
> A format file that can set three default formats: one for text processing and two for programming formats.

format status line
> The status line at the top of the ruler display on the screen. It shows the current attributes, font style, and point size of the character at the cursor position.

format symbols
> Symbols that indicate paragraphs, tabs, spaces, line breaks, cross references, and voice annotations. You can see format symbols by changing the visibility mode of the screen. (Format symbols are not displayed in printed documents.)

full-visible mode
> One of the three modes of visibility on the screen. When the screen is in full-visible mode, you can see all the special characters and format symbols that are visible in half-visible mode *plus* tab stops, required backspaces, and other symbols. *See also* half-visible mode; normal-visible mode.

function key
> One of the ten keys, labeled **F1** to **F10**, in the top row of the typewriter pad of the keyboard.

function key display
> *See* softkey strip.

G

Generic Print System (GPS)
> A set of software programs that provide printing services for applications using the CTOS operating system. GPS manages all communications between your workstation and the printers attached to it.

graphic object
> An object created by a graphics-producing application, for example, a pie chart or picture.

H

half-bright
> A characteristic of screen display. When text appears in half-bright intensity it usually means that some format attribute has been applied to text that cannot be shown on the screen. Also, special characters, such as anchor characters and page and target references appear in half-bright intensity.

half-visible mode
> One of the three modes of visibility on the screen. When the screen is in half-visible mode, you can see certain special characters and format symbols, such as paragraph symbols, line feeds, anchor characters, and the dots that represent spaces in text. *See also* full-visible mode; normal-visible mode.

hanging indents
> A type of indentation where all lines are indented except for the first one. Hanging indents, which are also called other line indents, are handy if you want to set off text or create a list with numbers or special characters.

header
> One or more lines of text that can be printed at the top of each page of a document.

heading
> A word or phrase within a document that introduces a body of text below it. Also used to refer to a paragraph that has been assigned a heading level attribute.

heading level attribute
> A paragraph attribute assigned to a document heading. The table of contents template generates a completed table of contents based on the heading level attributes assigned to the headings in a document.

high-speed graphics
> A visibility mode where graphics are visible in medium resolution.

high-quality graphics
> A visibility mode where graphics are visible in their highest resolution.

highlight
> *See* selection.

I

ICMS
> *See* Inter-Context Message Server

indent
> The setting for the left, right, first line, or other line margin of each paragraph. Indentation is a paragraph format attribute. When you indent text, you make the paragraph margins narrower or wider; your actual page margins are still in the same position. Indents are not the same as margins and are stored by OFIS Document Designer internally.

Index Builder
> An OFIS Document Designer feature that is used to build an index automatically.

index term list
> The list of terms for which the Index Builder finds document occurrences and page numbers.

input statistics file
> A system-generated file that contains operator statistics.

insert mode
> The mode in which characters typed from the typewriter pad of the keyboard are inserted into a document. The characters are inserted just before the cursor. The cursor, and any characters on the line to the right of it, move to the right. OFIS Document Designer is in insert mode when the light on the **OVERTYPE** key is off. *See also* overtype mode.

integrated object
> *See* object.

Inter-Context Message Server
> The server that facilitates communication between application systems configured to run with OFIS Document Designer.

J

justified text
> Text that is aligned at both the right and left margins.

K

Keep Together
> A paragraph attribute that keeps text selections together during pagination to avoid bad page breaks.

keyword
> In list processing, the symbolic field name (defined in the template record of the records file) that represents the actual data to be merged into the form document. A keyword cannot have embedded spaces. A keyword used in a form document must also have the merge keyword format attribute applied to it.
>
> In a user file, the keyword is the name of a user file option.

L

landscape page
> A page that is wider than it is long.

laser printer
> A non-impact printer that produces high-resolution output.

leader dots
> A series of dots that precede text. Leader dots are generally used in tables of contents and are set from the Tabs softkey strip.

leading
> The white space between lines in a paragraph.

left-flush text
> Text is aligned at the left margin. (Left-flush text is also known as "ragged right.")

left-offset
> The distance between the left side of an object and the left side of the text-at-bay box.

lexicon file
> A dictionary file containing most standard entries provided with OFIS Document Designer software.

line spacing
> Determines the number of blank lines between and within paragraphs.

list processing
> An OFIS Document Designer feature that is used to perform merge and sort/select operations. With the merge operation, you can automatically merge personalized records, such as names and addresses for a mailing list, into a standard form letter. With the sort/select operation, you can select and/or sort records alphabetically or numerically.

literal keystroke
> An ASCII character that can be inserted into text in place of the key it represents. For more information, see the *CTOS Procedural Interface Reference Manual, Volume 4.*

loadable request files
> Files that come with a system service that must be installed for the system service to work with OFIS Document Designer.

locked
> Refers to the state of being "locked in" to OFIS Document Designer and denotes an application system that is started by OFIS Document Designer and put on hold until OFIS Document Designer returns to it.

M

macro
    A series of keystrokes that are stored for later recall.

macro commands
    Commands created specifically for use in macros.

macro file
    A machine-readable file that stores all macros.

margins
    The distance between the text and the edges of the paper.

mark
    When you mark a character or block or characters, it is highlighted in reverse video. Certain operations can be performed on marked text, such as formatting, moving, copying, and deleting.

menu
    A list of various command options, from which you can make a choice. When you select an option, OFIS Document Designer may display an additional form for you to complete, or it may execute the command immediately.

Menu interface
    An OFIS Document Designer interface in which commands are chosen from menus. The menus are displayed by pressing set key combinations.

merge document
    In list processing, the document into which data from a records file is merged during a merge operation. *See also* records file.

mnemonics
    In form processing, the single letters or numbers that are used to identify text when filling in the Form Fill Choices menu.

monospaced font
    A font in which all the characters (letters, numbers, punctuation, and so on) are the same width.

multichoice stop codes
    See stop codes.

multicontext mode
    A mode of operation that uses the Context Manager to pass objects back and forth between OFIS Document Designer and other applications. Transfers are made via a swap file or an enlarged memory partition. *See also* chaining mode.

N

Name.user file
    See User Configuration file.

nonbreaking hyphen
    A hyphen used to keep text that contains hyphens together on a line.

nonbreaking space
    A space used to keep words together on the same line or to keep spaces from changing when you align text.

normal-visible mode (also called normal mode)
    On of the three modes of visibility on the screen. When the screen is in normal-visible mode, no formatting attributes or format symbols are visible. The screen is always in normal mode when you begin each session. *See also* half-visible mode; full-visible mode.

O

object
    Anything created in another application and inserted into an OFIS Document Designer document. An object can be a spreadsheet, a graph, or a picture. *See also* graphic object; text object.

object boundary
    The box that touches an integrated object.

object number
A unique identifying number assigned to every type of object passed to and from OFIS Document Designer. Each application system set up in a configuration file has an object number associated with it. When a transfer between OFIS Document Designer and an application takes place, the object number informs OFIS Document Designer of the type of object to pass and the type of object to receive.

object type
See object number.

OEM dictionary
See optional shared dictionary.

OFIS Document Writer
A word processing application that is functionally equivalent to OFIS Document Designer in all respects except display. OFIS Document Writer cannot display graphical objects or WYSIWYG fonts.

operator statistics
Operator statistics is an optional OFIS Document Designer feature that records information about a user's activities during an OFIS Document Designer session.

optional hyphen
The hyphen used to hyphenate words at the end of a line. If at a later time text is edited and the break is no longer required at the end of the line, the optional hyphen doesn't appear.

optional shared dictionary
An optional dictionary (also known as an OEM dictionary) that is created by a user and shared by other users in the cluster. The optional shared dictionary contains words that do not appear in the standard OFIS Document Designer dictionary.

optional space
The space used at the end of a line to split words that normally wouldn't split, such as *and/or*. If at a later time text is edited and the space is no longer required at the end of the line, the optional space doesn't appear.

orientation
>   The position of a text-at-bay box on the left or right side of the page is referred to as its orientation.

other line indents
>   *See* hanging indents.

outline level attribute
>   A paragraph attribute assigned to a heading that is part of an outline. It is used in outline processing to collapse and expand outlines.

outline processing
>   An OFIS Document Designer feature that is used to automatically create outlines.

output statistics file
>   An optional editable file that contains the results of the Operator Statistics operation.

overtype mode
>   The mode in which characters typed from the typewriter pad of the keyboard replace (rather than insert) characters in a document. You can move the cursor and type characters exactly as you do in insert mode, but every character typed replaces the existing one (if any) at the cursor position. OFIS Document Designer is in overtype mode when the light on the **OVERTYPE** key is on. *See also* insert mode.

P

page break
>   A dashed or double dashed line displayed on the screen that indicates the end of a page when it is printed. Page breaks may be floating (moved as necessary by OFIS Document Designer during pagination) or static (associated with that point in the text until you delete the page break).

page number symbol
>   The symbol that is displayed as a half-bright number sign (#) on the screen; it is replaced with the appropriate page number when the document is printed.

page reference
> In cross-referencing, the place where the reference to related information is made. *See also* target reference.

paragraph
> Any group of characters after and including a paragraph symbol.

paragraph numbers
> Outline numbers applied to paragraphs with the Heading Level menu. *See also* forced paragraph number.

partially styled text
> Text that has been formatted with style control and then formatted by means other than style control. For example, if you apply italics to a word that has been styled with nonitalic, the italic text is partially styled text. *See also* exceptions.

partition
> A reserved portion of workstation memory. Context Manager creates a partition large enough to hold each application program when one application is passing objects to another.

pattern
> A combination of wild card characters that are used in certain command parameters of OFIS Document Designer to designate file specifications. OFIS Document Designer acts on all files that match the pattern. *See also* wild card character.

personal dictionary
> An optional dictionary that is created by a user. The personal dictionary contains words that do not appear in the standard OFIS Document Designer dictionary.

phrase
> A group of characters and the associated formatting that are stored together and that can be recalled later into other documents.

pitch
> The width of a character (in characters per inch) of a font.

point
> A measurement of 1/72 inch. The height of type is measured in points, for example, 10 point type.

portrait page
> A page that is longer than it is wide.

R

ragged right
> *See* left-flush text.

record start character
> The character that identifies a new record. Each record has one record start character.

records
> In list processing, a set of related entries (for example, names and addresses) that are divided into fields. Each new record is identified by a record start character. Each new field is identified with a field start character. *See also* field start character; record start character.

records file
> In list processing, a text document containing a list of records, each of which contains zero or more fields. The contents of a records file can be sorted and/or selected during sort/select operations, and are merged with a form document during a merge operation. *See also* form document.

recovery
> An operation that allows the replay of keystrokes from the session that preceded a system failure.

redlining
> An OFIS Document Designer feature used to track revisions to a document. You can compare one version of a document with another, or view revisions made by specific authors.

reserved keyword
> Words predefined by OFIS Document Designer for specific purposes.
> They must possess the Keyword attribute. The four reserved keywords,
> *date, ldate, sdate*, and *time*, when expanded, are replaced with the
> information they contain.

response text
> In form processing, text that a user enters in response to stop code
> prompts.

review
> An OFIS Document Designer operation that paginates a document,
> verifying and adjusting page breaks and page numbers. It also activates
> systems functions for hyphenation, footnote placement and numbering,
> and table of contents generation.

right-flush text
> Text that is aligned at the right margin.

ruler display
> The display that occupies the top two lines of the screen and is used for
> setting tabs, indents, and margins. It is divided into units that represent
> inches on the page. The ruler display may vary according to the pitch of
> the text displayed.

ruler display cursor
> *See* shadow cursor.

S

Scaling Font Service
> A set of files that has all the capabilities of the standard Font Service,
> but provides a wider selection of fonts and sizes. The Scaling Font
> Service is used in place of the standard Font Service. This means that
> only one of the two services can be installed on the same system.

Screen Font Database
> A font database that includes fonts for screen display. *See also* Font
> Database.

section number symbol
A half-bright symbol (§) that is placed in the text to mark a section number. OFIS Document Designer inserts a section number wherever it finds this symbol in the text.

selection
A contiguous block of characters highlighted in reverse video, on which certain operations can be performed (such as formatting, moving, copying, and deleting).

serpentine column
Text that flows from column to column across the page from the bottom of one column to the top of the next.

serpentine column mark
A half-bright line that identifies the width and position of serpentine columns.

server
Describes the workstation or shared resource processor that controls resources within a cluster. It replaces the term *master*, which was used in earlier documentation.

shadow cursor
The cursor in the ruler display that is used to set tabs and indents; it is also used to locate the exact position of the text cursor.

sheetfeeder
A device that feeds single sheets of paper into a printer.

sheetfeeder bin
Refers to a paper supply location on a sheetfeeder or a paper cassette on a laser printer.

single keystroke macro
A macro that can be recalled by pressing the **CODE** key in combination with another key, or another alphabetic key plus the **SHIFT** key. For example, **CODE-SHIFT-X**.

single prompt stop codes
See stop codes.

Softkey interface
> An OFIS Document interface in which menus and commands are pathed to by pressing various softkeys.

softkey strip
> A group of 10 boxes that show the current softkey name of each function key. The softkey strip is displayed at the bottom of the screen in the Softkey interface.

softkeys
> Function keys in the Softkey interface that change functionality depending on the order in which they are pressed. *See also* softkey strip.

sorting
> *See* list processing.

spooled printing
> Printing that uses a queue system to transmit the contents of a file to a printer. With spooled printing, workstations in a cluster can print to a locally attached printer or to printers attached to other workstations in the cluster system.

status message
> A message that appears at the bottom line of the screen to inform you of a particular occurrence within the system.

stop codes
> In form processing, the symbols that OFIS Document Designer uses to prompt the user for information. Single prompt stop codes display only one response; multichoice stop codes display several possible responses.

static page break
> Page breaks that you insert manually when you want to start a new page at a specified point. *See also* floating page break.

string
> *See* character string.

style
> A collection of formatting commands collected under a single name and applied with the Apply Style command.

style book
A collection of styles stored in the style library. The styles in a style book work together to create a particular type of document, for example, a newsletter.

style control
A method of applying text-formatting commands automatically.

style definition
The particular formatting commands contained in a style. The style definition is independent of the style name. For example, you could have two documents each using the same style names but with different style definitions.

style library
A directory, usually *[Sys]<Stylebooks>*, containing style books. A style book is a collection of styles that work together to create a particular type of document, such as a newsletter.

style name
The name of a character, paragraph, or page style. By applying a style name to text, you can apply several different formatting commands at once.

subscript
A character format attribute that specifies that characters be printed below the normal line of text.

superscript
A character format attribute that specifies that characters be printed above the normal line of text.

swap
To exchange application systems in memory. *See also* swap file.

swap file
A file set up through the Context Manager that allows OFIS Document Designer and an application to be "swapped" in memory (if the available memory is not large enough to hold both programs at once).

synchronized columns
Columns that are aligned with each other side by side on the page. Text is kept within the column, despite page breaks, until a new column is started. The new column is aligned with the beginning of the first column.

synchronization mark
A half-bright line that indicates the top and width of each synchronized column and is only visible when the screen is in half-visible or full-visible mode.

T

tab
A point in the ruler display that you set to hold text at a specified position on the page. You can format text into columns using tabs.

tabular rule
A vertical rule drawn in a paragraph. The tabular rule is applied through the Tabs menu.

target reference
In cross-referencing, the location in a document of related information. *See also* page reference.

template
In OFIS Document Designer, a model used to automatically generate a table of contents from your document. You enter into it the attributes, line spacing, margins, and indentation that you want inserted into the finished table of contents; the template generates a table of contents from the heading level attributes in your text.

template document
A file containing preset format attributes that you specify. These formatting attributes are used for all new documents you create.

template record
In list processing, the first record in a records file. It defines the record.

text cursor
See cursor.

text object
> An object created by a text-producing application system, such as a spreadsheet.

text-at-bay box
> The box that surrounds an integrated object and keeps the text away from the object.

thesaurus
> An OFIS Document Designer feature that finds synonyms for words in your document.

type style
> Refers to the appearance of a character. There are four type styles in the OFIS Document Designer: normal (often called roman), bold, italic, and bold italic.

typescript files
> Files created during an OFIS Document Designer session that contain a record of all changes made to a document during that session.

U

underlining
> A character attribute that affects words only or words and spaces; it can be a single line or a double line under selected text.

uneditable attribute
> An attribute that doesn't allow a specified range of text to be edited.

unprintable attribute
> An attribute that doesn't allow characters to be printed. Also, except for **SHIFT-RETURNS** and paragraph symbols, characters assigned the unprintable attribute do not take up space when printed.

unstyled text
> Text that has had no style applied to it.

User Configuration file
>A file used to uniquely identify each user to the system. It contains user-specific parameters used by application programs. The file is *[Sys]<Sys>UserName.user,* where *UserName* is a unique name to be used at signon. This file is also referred to as a user file, user profile file, or Name.user file.

user file
>*See* User Configuration file.

user profile file
>*See* User Configuration file.

V

variable function key
>*See* function key.

variable line spacing
>Line spacing that is given a specific value in lines, points, or inches when using the Font menu or the Line Spacing menu.

vertical tabs
>Tabs used to hold paragraphs to specific lines on a page.

voice annotation
>A voice file inserted into a document and linked to an anchor character. Voice annotations are often used to store messages, comments, and verbal corrections to a text. Voice annotations can be saved, replayed, moved, copied, and deleted.

volume
>A disk that has been formatted and initialized to store files. It may be a hard disk or a floppy disk.

W

WYSIWYG

Stands for "What You See Is What You Get" and is pronounced "wizzywig." A monitor with the WYSIWYG capability allows you to see how your document will look when it is printed. That is, the monitor displays fonts, point sizes, line spacing, and word spacing.

widow

A line of text that is separated from the rest of a paragraph because it cannot fit on the current page. They also occur when there is room for only the first line of a paragraph on the current page.

wild card character

A character entered into certain command parameters of OFIS Document Designer that instructs it to search for all file specifications that match the entry, except for the wild card character. Where a wild card character appears, all matches are considered valid. OFIS Document Designer recognizes two wild card characters: the asterisk (*), which specifies all matches of zero or more characters, and the question mark (?), which specifies a match of exactly one character.

window

An area of the screen in which one of several documents is displayed.

window tab

The highlighted strip that forms the top boundary of each secondary window. The window tab shows the number of the page being displayed and the distance of the cursor from the top of the page.

wordwrap

Refers to the automatic movement of the cursor to the next line when it reaches the right margin.

Index

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