

Interleaf

Tutorial

Sun

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This manual was prepared using Interleaf Technical Publishing Software.
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About the Tutorial

The *Tutorial* is a step-by-step introduction to the basic features of the Interleaf Publishing Software. You learn these features by performing typical publishing tasks. The *Tutorial* assumes no previous experience with the publishing software or with your workstation.

The publishing software is available in a core version or with various options. For the most part, the *Tutorial* describes only features that are available in the core version. Some illustrations in the *Tutorial* may show optional features, however. In these cases, what you see illustrated in the *Tutorial* may not match what you see on your screen.

Also, if someone at your site has customized your copy of the publishing software, some descriptions and illustrations in the *Tutorial* may not match what you see on the screen. For example, the *Tutorial* assumes that documents you create are targeted (prepared) for a cx printer. If your system administrator has customized the publishing software, documents you create may be targeted for a different printer with different fonts. If this is the case, documents you create will have different fonts and different line breaks than the documents shown in the *Tutorial*.

Before you Begin

To use the *Tutorial*, you must have the publishing software installed on your workstation. If the publishing software is not installed, consult your system administrator or the *Installation* manual in the *System* set.

Contents of the Tutorial

The *Tutorial* contains twenty-one lessons in seven chapters:

- Chapter 1, *Desktop Fundamentals*, presents basic desktop skills for users who are new to the publishing software.
- Chapter 2, *Text Entry and Editing*, teaches you how to open an Interleaf document, enter text, and perform basic editing functions.
- Chapter 3, *Tabs, Autonumbers, and Autoreferences*, explains several features of the publishing software that can enhance documents, including tabs, autonumber streams, and autoreferences.
- Chapter 4, *Inline Components*, describes inline components and the various ways you can use them for structuring documents.

- Chapter 5, *Diagramming: Creating Graphics*, teaches you the fundamentals of the publishing software's diagramming system.
- Chapter 6, *Using Text in Diagramming*, presents two features of the publishing software, microdocuments and text strings.
- Chapter 7, *Document Assembly: Using and Modifying Templates*, simulates a typical publishing software application in which you paste text and graphics into a template and adjust the format and image placement.

How to Use the Tutorial

Each chapter in the *Tutorial* contains lessons organized around a single example or application. To work in a chapter, begin with the first lesson and complete each lesson in the chapter in order.

At the end of each lesson there are optional exercises. These exercises provide opportunities to explore features or commands related to those presented in the structured exercises. Complete these exercises only if you are interested in the additional features they cover; they are not required to complete later lessons.

For an introduction to the basic features of the publishing software, complete Chapters 1, 2, and 5. These chapters teach you how to work on the desktop, how to work in documents and edit text, and how to use basic diagramming features. Once you complete these chapters, you might want to begin working in the publishing software and return to the remaining chapters later.

Online Materials

Several chapters in the *Tutorial* make use of sample documents, which are stored online and supplied with the publishing software. These documents are available from the *System* cabinet on your desktop. Chapters that make use of online documents include instructions for copying the documents to your desktop.

Graphic Aids in the Tutorial

In the *Tutorial*, each step in an exercise is preceded by a symbol that represents the action required to accomplish that step. Most of these symbols represent actions you take with the mouse. These actions are: *point*, *click*, *drag*, and *hold*.

- *Point* means to move the cursor so that the tip touches a specified object or location.
- *Click* means to press a specified mouse button and release it quickly.

- *Drag* means to hold down a specified mouse button and move the mouse.
- *Execute* means to hold down the middle button (the **menu** button), choose a command from the menu that appears, and then release the button.

The following list explains the symbols you see in the lessons. You do not need to memorize each symbol's meaning; they are only aids to performing the exercises. As you progress in the *Tutorial*, you will find their meanings easy to understand in the context of the exercises.

Symbol	Action
☞☞☞	Move the mouse or point the cursor to a specified location.
☐☐☐	Click the left mouse button, called the select button.
☐☐☐	Click the middle mouse button, called the menu button.
☐☐☐	Click the right mouse button, called the extend button.
☞☐☐	Drag the select button.
☞☐☐	Drag the menu button.
☐☐☐	Hold down the menu button or execute a command.
☐☐☐	Release any mouse button you are holding down.
☐	Press a key or type a sequence of characters.
☐	Perform a task or series of tasks you already know.

Typographical Conventions

Commands that you execute on a menu are shown in bold letters with an initial capital letter, for example, **Create**.

When you are instructed to execute a command on a submenu or series of submenus, the menu path is illustrated with arrows; for example, **Create→ Document**, or **Fonts→ Size→ Larger**.

Keys that you press on the keyboard are shown in bold with all capital letters, for example, **RETURN**.

Also in the Tutorial Set

The *Tutorial* is one of two books in the *Tutorial* set. The other book, *Applications*, provides specific, detailed examples of how you can use the publishing software to accomplish realistic publishing tasks.

Related Publications

In addition to the *Tutorial* set, two other documentation sets are available for Release 4: The *Reference* set and the *System* set. The *Reference* set consists of seven manuals that together provide a comprehensive description of publishing software features. The *System* set consists of the *System Administration*, *Installation*, *File Formats*, and *File Transfer* manuals.

Your Comments

At the end of this manual we have included a Reader Comment form. If you have comments about the *Tutorial*, especially suggestions for improving it, please complete and send us this form.

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Desktop Fundamentals

Chapter 1 presents the fundamentals of using the Interleaf Technical Publishing Software. Study this chapter and follow the exercises it contains if you have no previous experience with the publishing software and want to learn the basic skills you need to work on the desktop.

There are two lessons in this chapter:

- Lesson 1, *Beginning Desktop Skills*, introduces you to the Interleaf desktop and the online help facility.
 - Lesson 2, *Organizing Your Desktop*, shows you how to group objects on the desktop in useful ways and how to discard objects from the desktop that you no longer need.
-

Lesson 1: Beginning Desktop Skills

Lesson 1 teaches the basic skills you need for working in the publishing software. In this lesson you learn how to

- open the desktop
- move the cursor
- use the mouse to point and select
- display and use desktop popup menus
- obtain online help
- create and name icons
- select and deselect icons
- close the desktop

The approximate time to complete Lesson 1 is 35 minutes.

Opening the Desktop

You start the publishing software by opening the Interleaf **desktop**. Interleaf uses the term *desktop* to refer to the area of the screen where you work with **icons**, the visual representations of documents and directories.

To log in to your workstation and open your Interleaf desktop:

- Hold down the CTRL key and press c.
- Type your login name and press RETURN.
- If you have a password, type your password and press RETURN.
- Type tps and press RETURN.

The Interleaf desktop appears, occupying the entire area of your workstation screen.

The first time you start the publishing software, it creates a desktop that looks similar to the one illustrated in Figure 1.

If your system administrator has customized the publishing software, the following description of the desktop may vary from what you see on your screen.

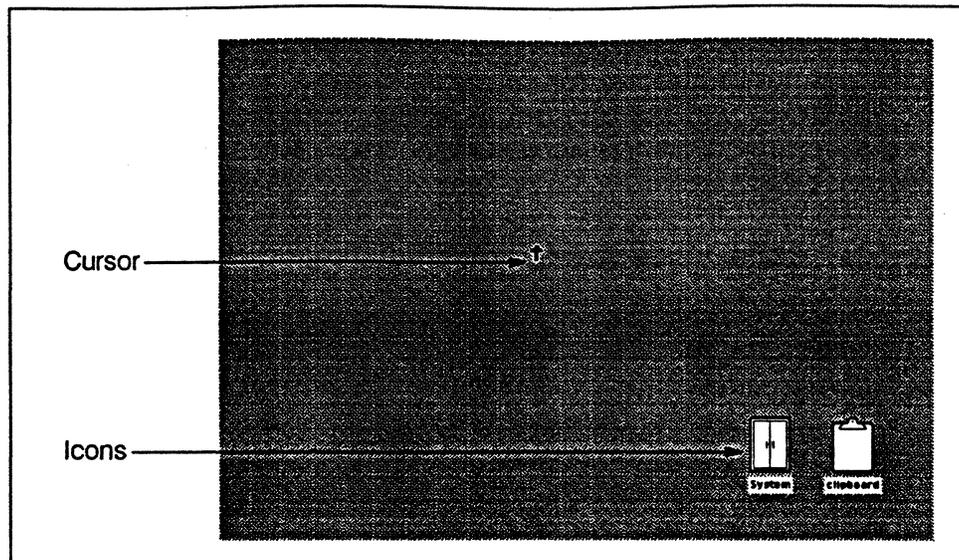


Figure 1. The desktop

When you open your desktop for the first time, you see a **cursor** in the shape of an arrow pointing upward (↑), and two icons. The cursor is a marker that moves on the desktop when you move the mouse. After a few seconds in one location, the cursor blinks so you can find it quickly.

When you first open the desktop, it contains icons named *System* and *clipboard* (Figure 2). *System* is a directory icon (in the shape of a cabinet) containing templates, text and graphics samples, and online documentation. The publishing software uses the *clipboard* to temporarily store material you have copied or cut. You will learn more about these icons later in the *Tutorial*.

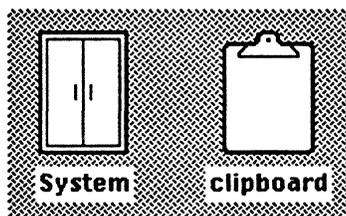


Figure 2. System cabinet and the clipboard

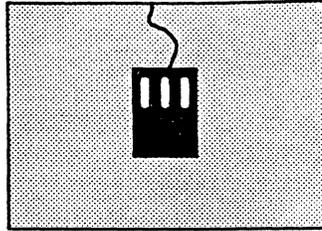
Using the Mouse

On the desktop, you can use the mouse to perform most activities, such as selecting icons and executing commands. The only activity for which you cannot use the mouse is text entry.

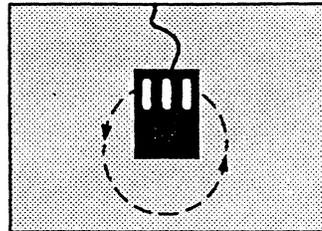
The cursor follows movements you make with the mouse. The following exercise will help you become accustomed to the relationship between the cursor and the mouse.

To move the cursor:

- Place the mouse on the mouse pad.

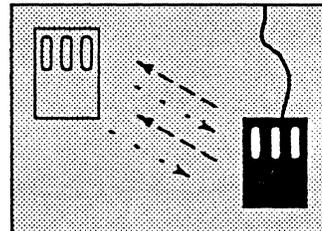


- ☞ Hold the mouse and, without lifting it, move it in a circular motion.
The cursor follows the movements you make with the mouse.



- ☞ Lift the mouse and move it in the air.
The cursor remains in the same position on the desktop.

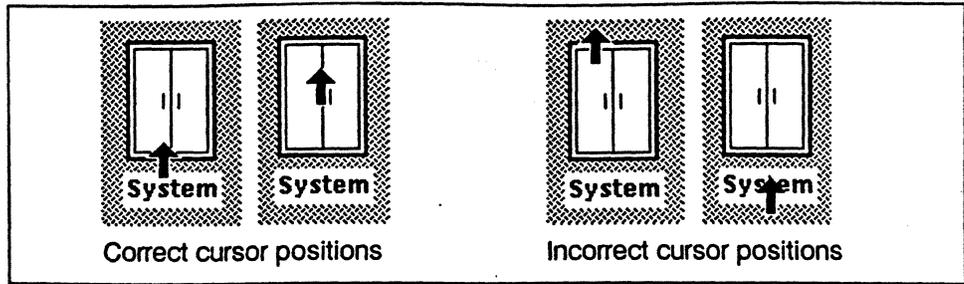
- ☞ Move the mouse so that the cursor moves to the far-left corner of the screen.
If the surface on which you are moving the mouse is too small, you can pick the mouse up, reposition it on the surface, and continue to move the cursor.



Two of the most important activities you perform with the mouse and cursor are **pointing** and **selecting**. Pointing is a way for you to single out an object on the desktop. Selecting is the way you tell the publishing software that you want to perform an action on the object to which you are pointing.

To point and select:

- ☞ Position the cursor so that either its tip or its entire shape overlaps the System cabinet icon. This is called **pointing**.
The cursor's tip must touch some part of the icon or you will be unable to select it, even if all but the tip overlaps the icon.



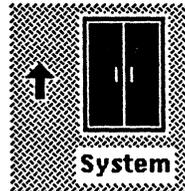
For the purpose of selecting an icon, the icon's label (for example, System) is not considered part of the icon.

- Press the left button on your mouse and quickly release it. This is called **clicking**.

The System cabinet icon is highlighted in reverse video.

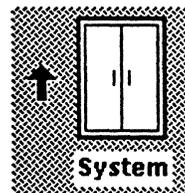


- Point the cursor to an empty part of the desktop.



- Click the left mouse button again.

The System cabinet icon returns to its normal appearance, indicating that it is no longer selected.



When an icon is shown in reverse video, it is selected. You can select objects on the desktop by pointing to them and clicking the left button on your mouse. This button is known as the **select button**. You can deselect objects by pointing away from them and clicking the select button again.

Using Menus and Accessing Help

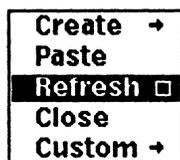
Commands in the publishing software are organized on **menus**. Most of these menus appear, or “pop up,” at the cursor location when you hold down the **menu button** (middle button) on your mouse. For this reason, these menus are called **popup menus**, or **popups**.

There are many different popups. The popup that appears when you hold down the menu button depends on the location of the cursor on the desktop and whether or not anything is selected. The publishing software always presents you with a menu of choices that are appropriate for the action you are about to perform.

The Tutorial uses popup menu names to clarify what menus you see during each exercise, and therefore what commands are available to you. It is not important to memorize the names of these menus. What you should remember is that different menus are available in different areas of the desktop.

To display a popup:

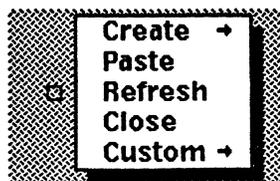
- ☐☐☐ Hold down the menu button on your mouse. Do not release the button. A popup, called the *Nothing Selected popup*, appears. The cursor appears on the menu as the outline of a box (☐). The command *Refresh* is highlighted.



When you first see a menu, one command is highlighted before you move the cursor. This command is called the **default command**, or just the **default**.

To drag the cursor off a menu:

- ☐☐☐ While holding down the menu button, move the cursor up and down. Each command is highlighted as the cursor passes over it.
- ☐☐☐ Continuing to hold down the menu button, move the cursor off the menu. No command is highlighted. The cursor still appears as a box (☐).



- ☐☐☐ Release the menu button. The menu disappears. The cursor changes back to an arrow.

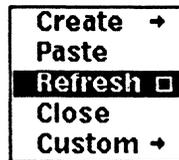
Moving the cursor while you are holding down a mouse button is called **dragging**. If you drag the cursor off a menu so that nothing is highlighted, the menu disappears when you release the menu button and no action is performed.

The publishing software contains an online help facility you can use to get assistance with menu commands. To see online help for a specific command, you first highlight that command and then click the right mouse button. The right mouse button is called the **extend button**.

To see a help screen for the Refresh command:

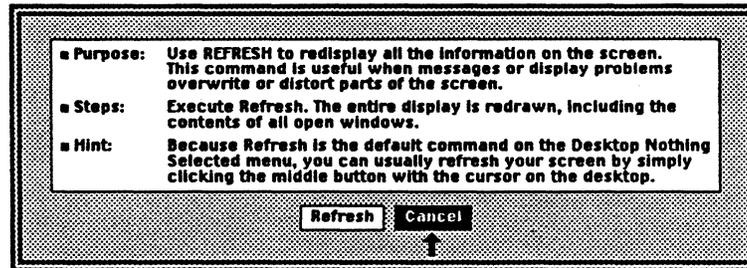
☐☐☐ Hold down the menu button.

The Nothing Selected popup appears.



☐☐☐ While holding down the menu button, click the extend button.

A screen of information, describing the Refresh command, appears. There are two choices at the bottom of this screen, Refresh and Cancel. The cursor points to Cancel, which is highlighted.



☐☐☐ When you are through reading the help screen, click the select button.

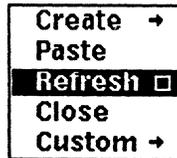
The help screen and the menu disappear from the desktop.

When a help screen is visible, you have a limited number of choices after you have finished reading that screen. Choosing **Cancel** makes both the help screen and the menu disappear without executing a command. A second choice is the name of the command. By pointing to the command name and clicking the select button, you tell the publishing software to execute that command. On the help screens for some commands, there is a third choice, **More Help**, which you can use to see additional screens describing that command.

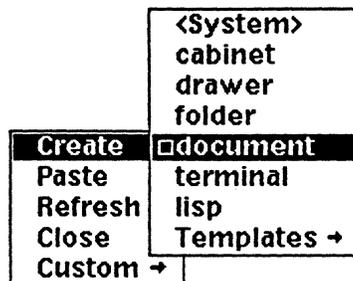
On the Nothing Selected popup, there are arrows to the right of the **Create** and **Custom** commands. An arrow indicates that a command has a submenu that extends or modifies the original menu choice. You can see the submenu for a command by dragging the cursor over the arrow to the right of that command.

To see a submenu and its related help screen:

- Hold down the menu button.
The Nothing Selected popup appears.

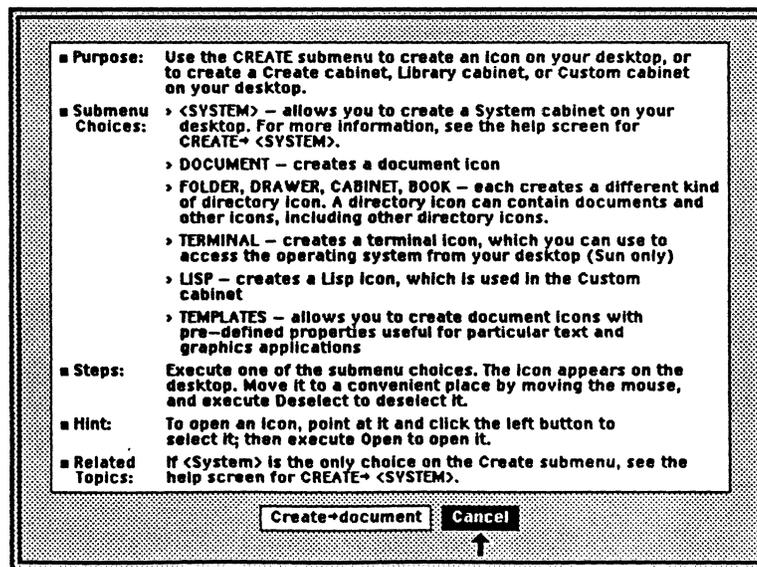


- Drag the cursor up to Create and over the arrow to the right.
The Create submenu appears. It contains a list of all the objects you can create on the desktop. The default is document.



If you have the optional Document Management package, you will see an additional submenu choice, book.

- Continue to hold down the menu button and click the extend button.
A help screen for the Create→ document command appears.



- When you are through reading the help screen, click the select button.
The help screen and menu disappear.

As you work with the publishing software, use the online Help facility to learn about commands or to supplement the information you find in the *Reference* set.

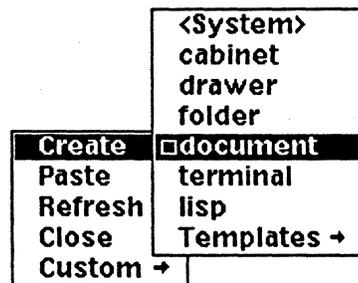
Creating and Naming Icons

The Create submenu contains a list of the icons you can create on your desktop. An icon represents a directory or file. You can create an icon by executing a command on the Create submenu. For example, in the next exercise you create a document icon.

To create a document:

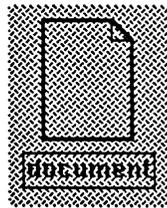
- ☰ With no icon selected, hold down the menu button, drag the cursor up to **Create** and to the right to see the submenu.

The Create submenu appears; document is the default.



- ☰ Release the menu button.

The menu and cursor disappear, and in their place, the outline of a document icon appears on the desktop.



When you first create an icon it appears as an outline. This means the icon is automatically selected and in **animation** state. In this state, you can move the icon anywhere on the desktop.

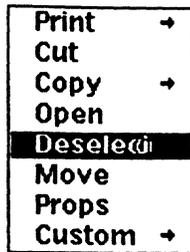
To move a newly created icon:

- ☰ With the newly created document icon still in animation state, move your mouse in a circular motion.

The icon's outline follows the movements you make with the mouse.

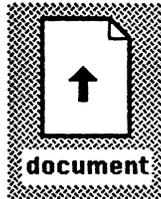
- ☰ ☰ Move the icon to any empty location on your desktop and hold down the menu button.

The Icon Selected popup appears. Deselect is the default.



- ☐☐☐ Release the menu button.

The cursor reappears and the document icon is filled with white, indicating that it is no longer selected.



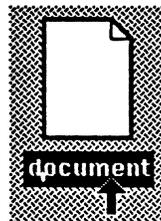
When you first create icons, they have generic names such as *document*. Even though you can have as many documents and directories with the same name as you like, you should give each a unique name to help you remember what it represents.

To change an icon's name:

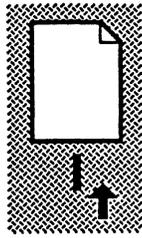
- ☐☐☐ Position the cursor so that its tip touches the label of the newly created document icon.



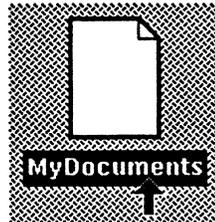
- ☐☐☐ Click the select button.
The icon label becomes highlighted.



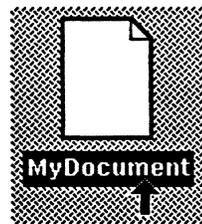
- ☐☐☐ Hold down the CTRL key and press **d**.
The generic document name is erased.



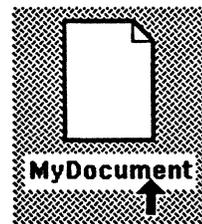
- ☐ Type *MyDocuments* as a new name for the document.
Each character you type causes the icon label to expand.



- ☐ Press the **DELETE** key.
The s at the end of MyDocuments disappears.



- ☐ Press **RETURN**.
The icon label is no longer highlighted.



You can rename any icon by selecting and editing its label. Pressing **CTRL-d** completely erases the old name; pressing the **DELETE** key erases one character at a time.

Selecting and Deselecting Icons

Selecting an icon, or any object, tells the publishing software that you want to do something with it. In an earlier exercise in this lesson you selected and deselected a single icon. On the desktop, when one icon is selected and you point to another and click the select button, the first icon is deselected.

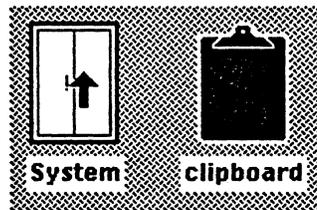
To select more than one icon at a time you must use different selection techniques.

To select more than one icon:

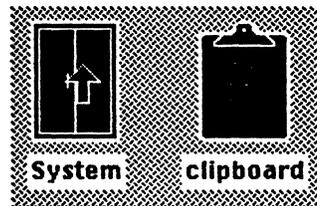
- ☞ ☞ Point to the *clipboard* icon and click the select button.
The clipboard icon is selected.



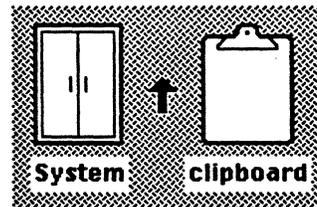
- ☞ ☞ With the *clipboard* icon selected, point to the *System* cabinet icon.



- ☞ ☞ Click the extend button.
Both the System cabinet icon and the clipboard icon are now selected.



- ☞ ☞ Point to an empty area of the desktop and click the select button.
Both icons are deselected.

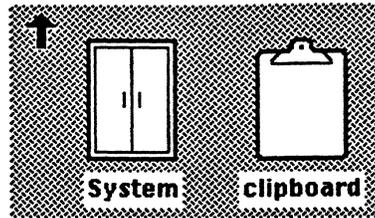


When you have multiple icons on your desktop, you can repeat this technique until you have selected all the icons you wish. This method is appropriate for selecting icons that are spaced widely apart, or for selecting nonadjacent icons on the desktop.

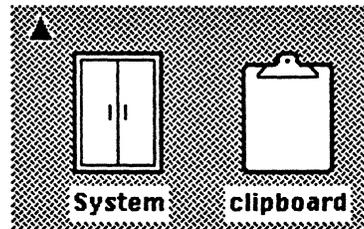
There is another technique you can use when you want to select icons that are next to each other.

To drag select icons:

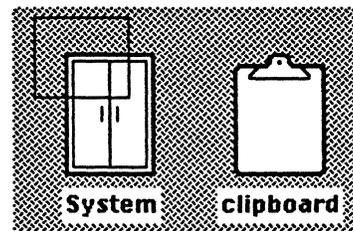
- ☰☰☰ Point to an empty area of the desktop, above and to the left of both the *System* cabinet icon and the *clipboard* icon.



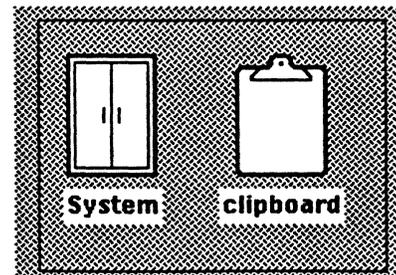
- ☰☰☰ Hold down the select button.
The cursor changes to a triangle.



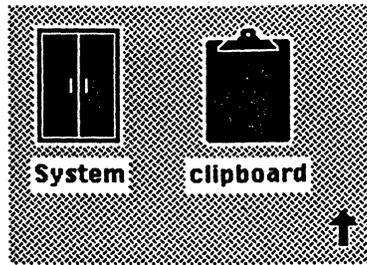
- ☰☰☰ Drag the mouse downward and to the right.
A bounding box replaces the cursor.



- ☰☰☰ Drag the bounding box until it completely surrounds the *System* cabinet and *clipboard* icons.



- ☰☰☰ Release the select button.
*The cursor reappears. Both the *System* cabinet icon and the *clipboard* icon are selected.*

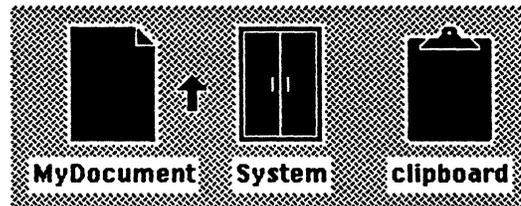


This technique is called **drag selecting**. As long as you hold down the select button, the bounding box expands and contracts according to the movements you make with the mouse. When you are drag selecting, make sure that objects are completely enclosed by the bounding box or they will not be selected.

You can also select all the icons on the desktop and then deselect individual icons.

To select all desktop icons:

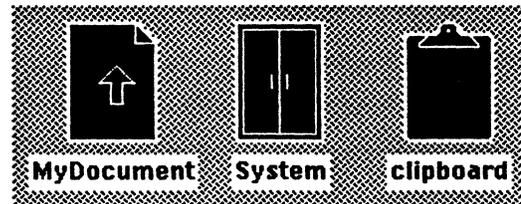
- First, deselect all desktop icons.
- ☐ Hold down the select button and click the extend button.
All icons on the desktop are now selected.



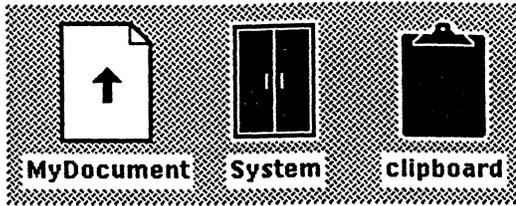
When you click the extend button while holding down the select button, it extends the selection to all icons on the desktop. You can also use the extend button to deselect one icon when more than one are selected.

To use the extend button to deselect an icon:

- ☐ Release the select button and point to the *MyDocument* document icon.



- ☐ Click the extend button.
The MyDocument icon is deselected, but all other icons on the desktop remain selected.



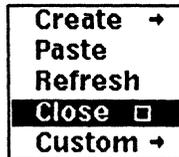
You can use the extend button to extend either a selection or a deselection. You can combine the techniques in the two previous exercises to quickly select all but one or two of the icons on the desktop.

Closing the Desktop

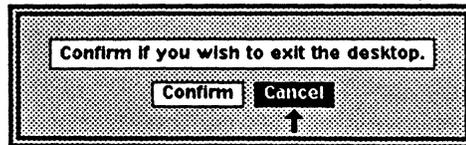
When you are finished using the publishing software you must close the desktop. Even if you are continuing to Lesson 2, use the following exercise to practice closing your desktop.

To close the desktop:

- Deselect any selected icons.
-  Hold down the menu button.
The Nothing Selected popup appears.
-  Drag the cursor down to **Close**.



-  Release the menu button.
The Close stickup appears.



-   Point to **Confirm** and click the select button.
The desktop closes.

A **stickup** is the publishing software's way of asking you for a response. When you perform an action that will have significant or possibly unintended consequences, a stickup appears, giving you the opportunity to confirm or cancel the action. A stickup also appears if the publishing software needs more information before it can complete a command, or if an error condition occurs.

Summary

- To start the publishing software you open the Interleaf **desktop**. The desktop is the area of the screen where you work with **icons**, the visual representations of files and directories.
- **Pointing** is a way for you to single out an object on the desktop. **Selecting** tells the publishing software that you want to perform an action on the object to which you are pointing.
- To select an icon, point to it and click the **select button** (the left mouse button). To deselect an icon, point away from it and click the select button again.
- Most commands in the publishing software are organized on menus that appear or “pop up” when you hold down the **menu button** (the middle mouse button.) The menu you see depends on the location of the cursor and on whether anything is selected.
- The command that the publishing software highlights when you first open a menu is called the **default command**, or just the **default**.
- An arrow to the right of a command on a menu indicates that the command has a **submenu** that extends or modifies the command.
- To access a help screen describing a command, first highlight that command and then click the **extend button** (the right mouse button).
- To create an icon, execute **Create** and one of the submenu choices on the Nothing Selected popup.
- To rename an icon, select the icon label, delete the current name, and type the new name. Press **RETURN** to confirm the name change.
- To select more than one object on the desktop, use either the extend button or the selection box.
- To close the desktop, execute **Close** on the Nothing Selected popup and select **Confirm** on the stickup that appears.

Further Exercise

The following optional exercise extends what you learned in Lesson 1 about the Interleaf desktop. The instructions in this exercise are briefer than those in the regular exercises. Although some of the commands will be new to you, all are related to commands you have already used. Before beginning the exercise, you must open the Interleaf desktop.

To toggle icon selection:

- Make sure that no icons are selected on the desktop.
- Hold down the select button, click the extend button, and then release the select button.

All icons are selected.

Lesson 2: Organizing Your Desktop

Lesson 2 describes how to create and use directories, organize the desktop, and cut and paste icons. In this lesson you learn how to

- create a directory icon
- open a directory window
- create icons inside a directory window
- open a directory window inside another directory window
- open an icon's Object property sheet and change the icon type
- cut an icon on the desktop and paste it into a directory window
- resize, scroll, and move a directory window
- open the clipboard and purge icons from it

The approximate time to complete Lesson 2 is 35 minutes.

Creating and Opening a Directory Icon

A **directory** is a container for documents, other directories, or other desktop objects. You create directories to group and classify your work.

A directory is represented by one of three icons: a folder, a drawer, or a cabinet (Figure 3).

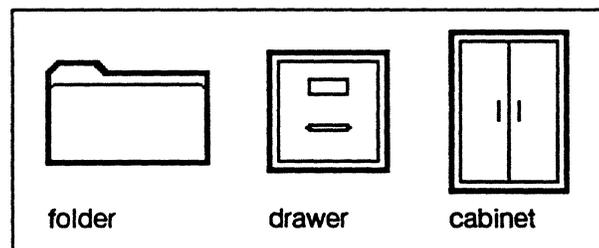


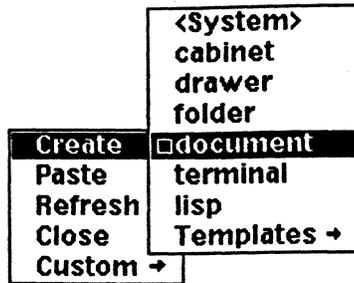
Figure 3. Directory icons

Although there is no functional difference between directories represented by folders, drawers and cabinets, having a choice makes it easier for you to organize your work. For example, to organize directories, you can store folders inside drawers, and drawers inside cabinets.

In the following exercise you create a folder icon. If you closed your desktop at the end of Lesson 1, open it again now.

To create a folder icon:

- Make sure there are no icons selected on the desktop.
-  Hold down the menu button; drag the cursor up to **Create** and to the right to see the submenu.

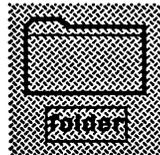


If you have the optional Document Management package, you will see an additional submenu choice, *book*.



Drag the cursor to **folder** and release the button.

A folder icon appears in outline form. Remember that the outline form indicates that the icon is in animation state.

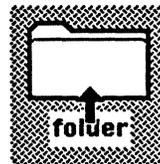


Move the folder to a convenient location on the desktop.



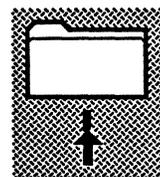
Execute Deselect.

The folder icon is filled with white, indicating that it is deselected.

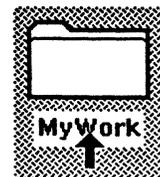


Select the icon label and press CTRL-d.

The generic folder label disappears.



Type *MyWork* and press RETURN.

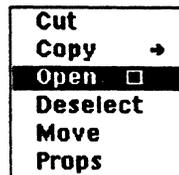


To open the folder icon:

- ☐☐☐ Select the *MyWork* folder.



- ☐☐☐ Hold down the menu button.
Open is the default on the Icon Selected popup.



- ☐☐☐ Release the menu button
A directory window appears on the screen (Figure 4). The cursor is in the upper-left corner of the window.

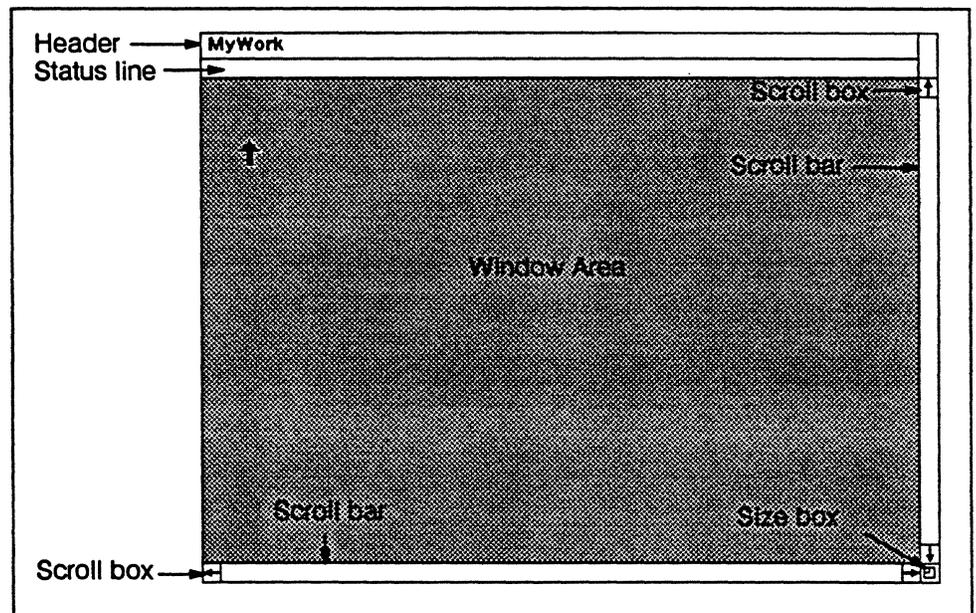


Figure 4. A directory window

When you open a directory icon, you see a directory window, which displays the contents of that directory. Since the *MyWork* directory is empty, it contains only the cursor.

A directory window has the following parts:

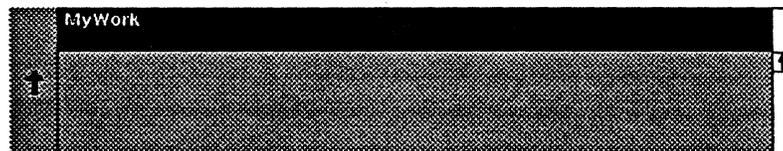
- The **header** is the area containing the name of the directory.
- The **status line** is the location where messages are displayed.

- The **window area** is the area where you can create, cut, paste, and move icons.
- The **scroll bars** are areas in which you click either the select button or the menu button to scroll the window's contents.
- The **scroll boxes** are boxes in which you click the select button to scroll the window's contents in small increments.
- The **size box** is a box in which you click the menu button and then move the cursor to change the window's size.

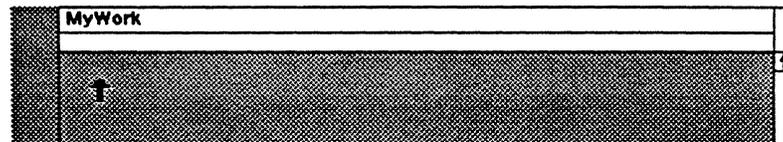
When the cursor is inside a directory window, that window is the **active window**. When a window is active, commands that you execute affect only that window or the contents of that window. The header of an active window appears in white to let you know that it is active.

To make the directory window inactive:

- ☰☰☰ Move the cursor outside the *MyWork* window and onto the desktop.
The window header becomes black.



- ☰☰☰ Move the cursor back inside the *MyWork* window.
The window header becomes white again.



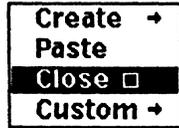
When you move the cursor outside an open window, that window becomes **inactive**, which means that commands you execute do not affect the contents of that window.

Creating Icons Within a Directory

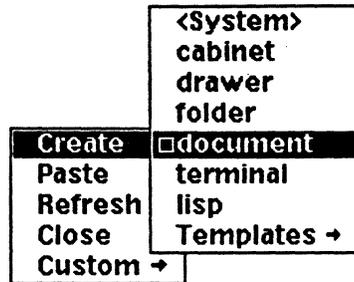
Most of the actions you can perform on the desktop can also be performed in a directory window. For example, you can create icons in a directory window.

To create a document within a directory:

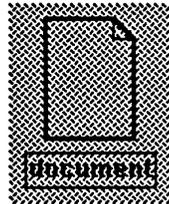
- ☐ In the window area of the *MyWork* directory, hold down the menu button.
The Nothing Selected popup appears.



- ☐ Drag the menu cursor to the Create submenu.
The Create submenu contains the names of all the icons you can create.



- ☐ Release the menu button.
The outline of a document icon appears in the directory window.

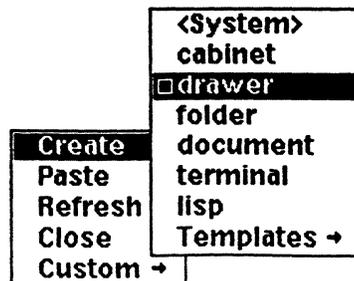


- ☐ Move the document icon to the upper-left corner of the window and deselect it.

There is no difference between documents you create within a directory and documents you create on the desktop.

To create a directory within a directory:

- ☐ Hold down the menu button and drag the menu cursor to **Create→ drawer**.

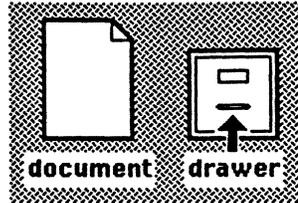


- ☐ Release the menu button.

The outline of a drawer icon appears in the directory window.

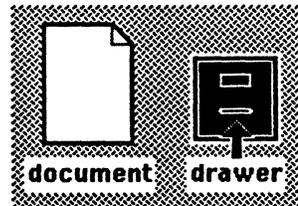


- When the drawer icon is next to the document icon you created in the last exercise, deselect it.



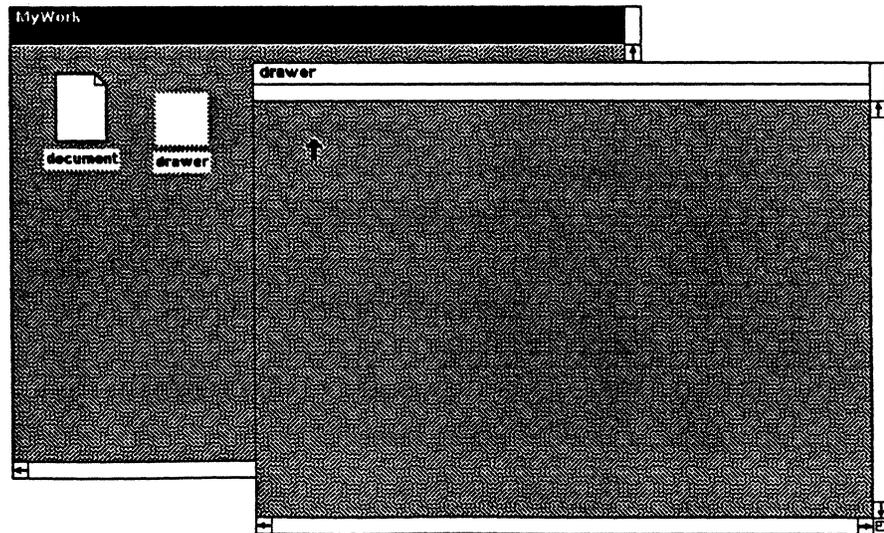
To open a directory within a directory:

- ☐☐ Select the drawer icon.



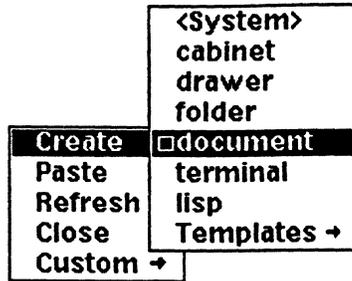
- ☐☐ Execute Open.

A window for drawer opens. The cursor appears in the new window and the MyWork window becomes inactive.



- ☐☐☐ With the cursor in the *drawer* window, hold down the menu button and drag the cursor to the Create submenu.

The Create submenu that appears in the drawer window is the same Create submenu that appears on the desktop and in the MyWork folder.



 Drag the cursor back to Close on the main popup and release the menu button.

The drawer window closes.

You can have up to sixteen windows open on the desktop. It does not matter how these windows are organized; they can be overlapping, *nested* (one icon contained by another), or in any combination that is useful for your work.

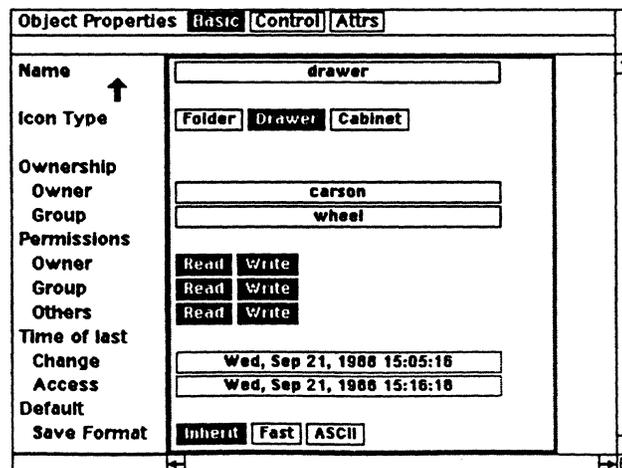
Changing Object Properties

Every icon, with the exception of the clipboard, has a **property sheet**. The property sheet is a window in which you can see and change the key characteristics, or **properties**, of an icon.

To open the Object property sheet:

 Select the drawer icon and execute Props.

The Object property sheet opens



If you have the optional Document Management package, you will see two additional icon types listed: Book and Binder.

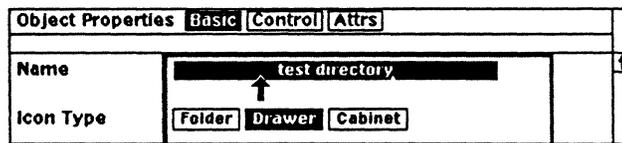
The Object property sheet contains the following properties:

Property	Description
<i>Name</i>	the name of the icon. If you change the icon name by selecting and editing the icon label, the name in this field changes also.
<i>Icon Type</i>	the icon type used to represent the directory
<i>Ownership</i>	who created or copied the icon on the desktop
<i>Permissions</i>	who has the ability to read and change files in that directory
<i>Time of last</i>	when the document was last opened or changed
<i>Default Save Format</i>	how the publishing software will save documents stored within that directory

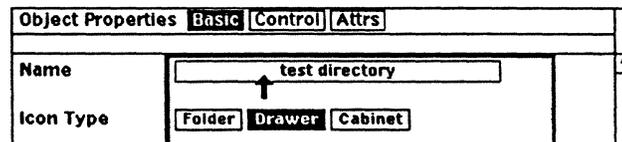
When the Object property sheet first appears, you see an inverted “v” in the *Name* field. This is the **property sheet caret**, and it indicates where you can make changes by typing. If you click the select or extend button when the cursor is pointing away from the *Name* field, the caret disappears. To bring the caret back, point to the *Name* field and click the select button.

To change the icon name on the property sheet:

- Make sure the property sheet caret is in the *Name* field.
- Type *test directory*
What you type replaces the default name, drawer.



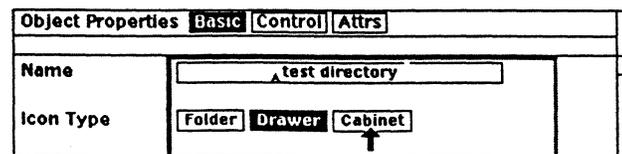
- Press RETURN.



You use a different method to change the icon type.

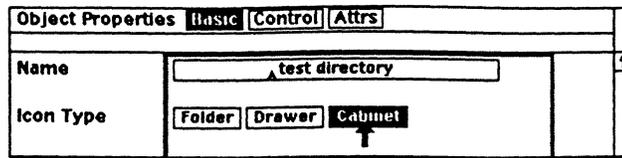
To change the icon type:

- Point to the Cabinet box to the right of *Icon Type*.



- Click the select button.

The Cabinet box is selected.

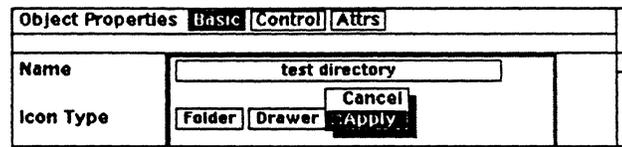


Even though you have made changes on the Object property sheet, those changes do not affect the icon until you apply them.

To apply a change on the Object property sheet:

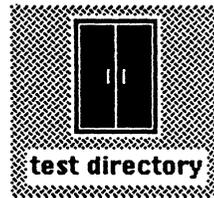
☐ Hold down the menu button.

A popup appears at the cursor location. Apply is the default.



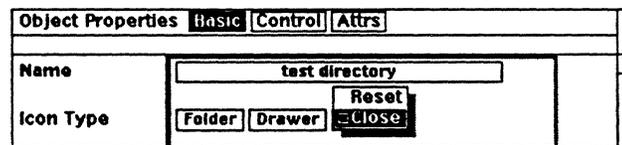
☐ Release the menu button.

The drawer icon changes to a cabinet and its name is now test directory.



☐ Hold down the menu button again.

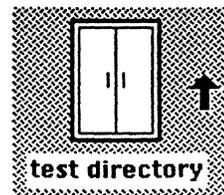
A popup appears at the cursor location. Close is the default.



☐ Release the menu button.

The property sheet closes.

☐ Either execute **Deselect** or move the cursor off the cabinet and click the select button.



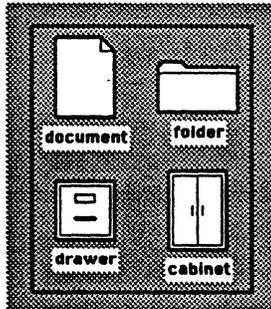
On each of the two popups that you used to apply changes and close the property sheet, an alternative choice is **Cancel**. Use **Cancel** to return the sheet to the properties it contained when you opened it or after the last time you executed **Apply** in that sheet.

Cutting and Pasting Icons

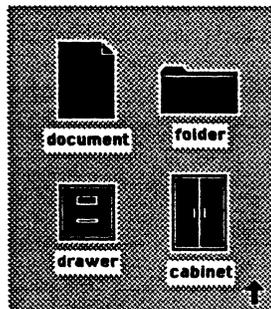
In organizing your desktop, you will frequently want to move an icon from one directory to another or from the desktop into a directory. In order to do so, you must first cut the icon from its old location and then paste it into its new location.

To cut icons from the desktop and paste them in a directory:

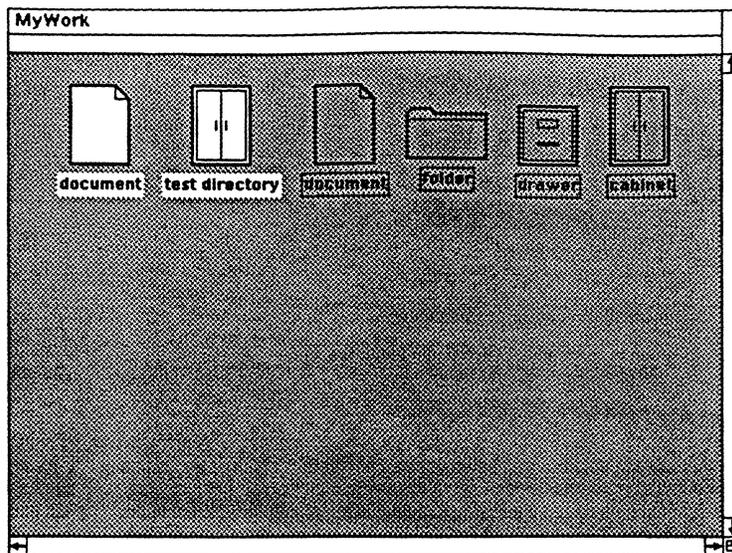
- ☰ Move the cursor to the desktop.
- Create a document, a folder, a drawer, and a cabinet on the desktop.
- ☰ Drag a selection box around the icons you just created.



- ☰ Release the select button.
The icons are selected.



- ☰ Execute **Cut**.
The icons disappear from the desktop.
- ☰ Move the cursor back into the open directory window.
- ☰ Execute **Paste**.



- ☐☐☐ Execute **Deselect**.
The documents are deselected.

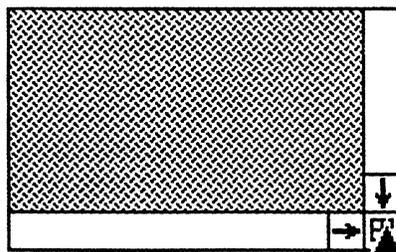
To create a copy of an icon instead of moving it, execute **Copy**→ **Normal** instead of **Cut** and then paste the copy into the new location.

Sizing, Scrolling, and Moving a Window

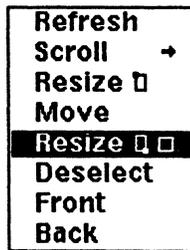
To effectively organize your desktop, you need techniques to change the size and location of windows. In addition, if all the contents of a window are not displayed, you must be able to display different areas of the window. This is called **scrolling**.

To resize a window:

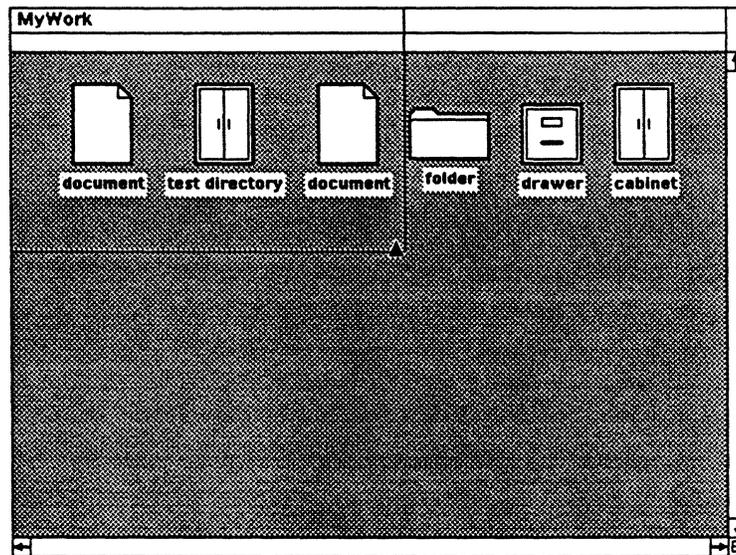
- ☐☐☐ Point to the size box in the lower-right corner of the window.
The cursor changes to a triangle.



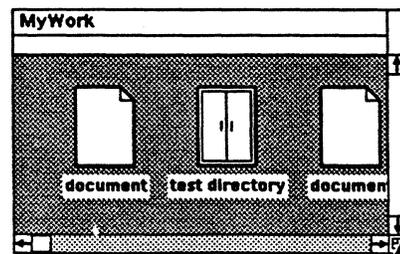
- ☐☐☐ Hold down the menu button.
*The Window popup appears. **Resize** ☐ is the default.*



- ☐☐☐ Release the menu button.
*The **Resize □** command is executed. There is no visual change in the window.*
- ☐☐☐ Move the cursor up and to the left.
An outline of the right and bottom edges of the window moves with the cursor.
- ☐☐☐ Position the window outline so that it includes the three left-most icons, but not the three right-most icons.



- ☐☐☐ Execute **Deselect**.
The window's size changes, as does the appearance of the bottom scroll bar.



By moving the cursor to the size box, you were able to access the Window popup that you used to change the window size. The cursor changed to a triangle to indicate that the Window popup was available to you. This is another example of how the publishing software uses the cursor location to determine what popup you see when you press the menu button.

When you resized the window, the bottom scroll bar became active (Figure 5a). An active scroll bar is gray and contains a box called an **elevator box**. An active scroll bar indicates that the full contents of the window in either a vertical or horizontal direction are not displayed. The location of the elevator box indicates the part of the window currently displayed. A scroll bar that is not shaded is **inactive** (Figure 5b).

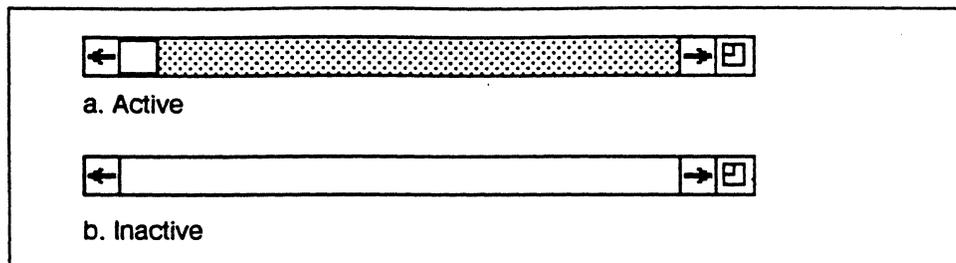


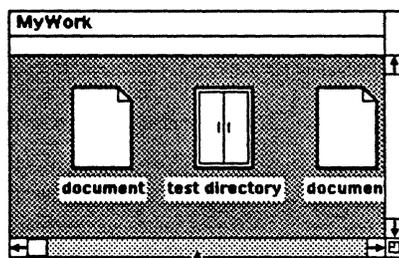
Figure 5. Active and inactive scroll bars

There are different ways you can use an active scroll bar to scroll a window.

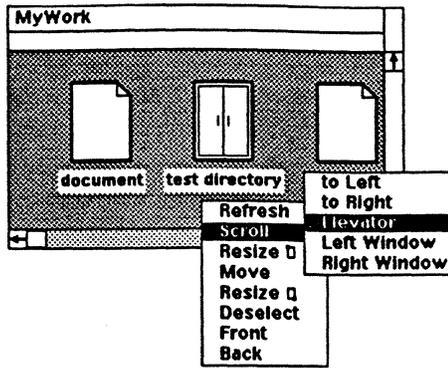
If your system administrator has customized the user interface, the scroll bars might not work in the manner described in these exercises.

To scroll the contents of a window using the elevator box:

- ☰ Point to the middle of the bottom scroll bar.

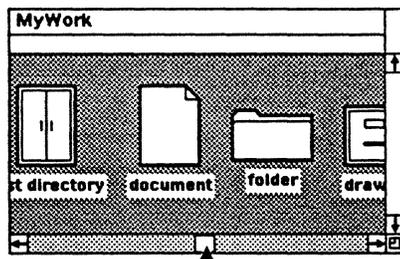


- ☐ Hold down the menu button.
The Window popup appears with Scroll as the default.
- ☰ Drag the cursor to the Scroll submenu.
Elevator is the default on the Scroll submenu.



☐☐☐ Release the menu button.

The elevator box moves to the cursor location and the contents of the window scroll horizontally in proportion to the movement of the elevator box.



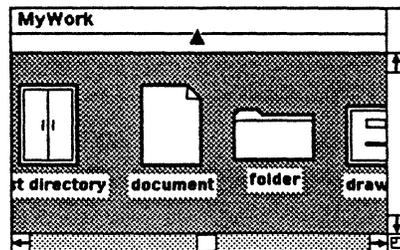
As the elevator box moves in the scroll bar, different parts of the window are displayed. Since **Scroll**→**Elevator** is the default on the Window popup when the cursor is in an active scroll bar, you can scroll a window by pointing to the scroll bar and clicking the menu button. The vertical scroll bar works in the same way as the horizontal scroll bar.

In the next exercise you move the window to a different location on the desktop.

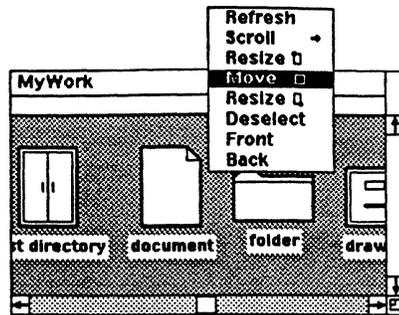
To move a window:

☐☐☐ Point to any location on the window header.

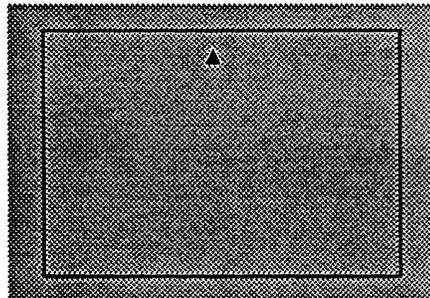
The cursor changes to a triangle.



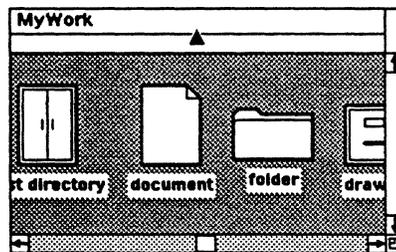
- Hold down the menu button.
The Window popup appears. Move is the default.



- Release the menu button.
There is no visible change
- Move the cursor around the desktop.
An outline of the window moves with the cursor.



- When the window is in a convenient location and does not obscure the clipboard, execute **Deselect**.
The window appears at the cursor location.



Move is the default on the Window popup when the cursor is in the window header, and **Deselect** is the default when the window is in animation state. This means that you can move the window by pointing to the header, clicking the menu button, moving the window, and then clicking the menu button again.

Purging the Clipboard

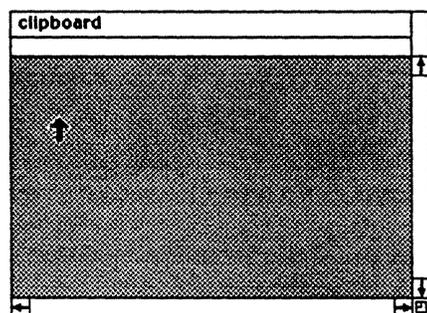
The **clipboard** is a container that serves as a temporary storage area for all objects, including directories and documents that you cut or copy. For example, when you cut four icons earlier in this lesson, the publishing software stored the icons in the clipboard until you pasted them into the open directory window. To save disk space, you should periodically open the clipboard and permanently remove any material you no longer want. This process is called **purging** the clipboard.

To open the clipboard:

- ☐☐☐ Select the clipboard.



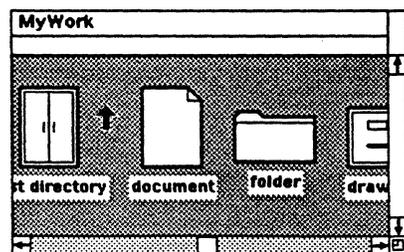
- ☐☐☐ Execute **Open**.
The clipboard window opens.



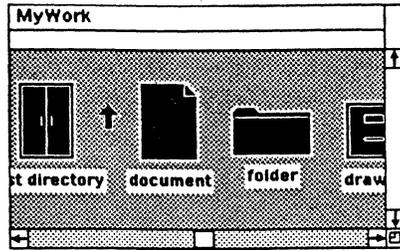
The clipboard is currently empty.

To place objects on the clipboard:

- ☐☐☐ Point to the *MyWork* window.

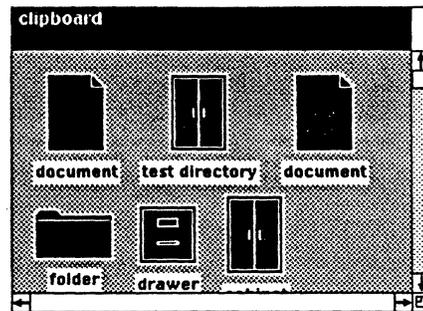


- ☐☐☐ Hold down the select button and click the extend button.
All the icons in the window are selected.



Execute Cut.

All the icons disappear from the window and reappear in selected state in the clipboard window.



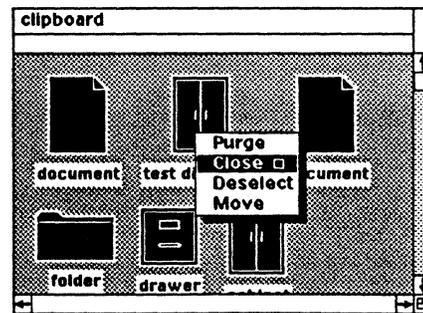
Once an icon appears in the clipboard, it remains there until you purge it (or until you paste it somewhere).

To purge objects from the clipboard:

Move the cursor to the clipboard window.

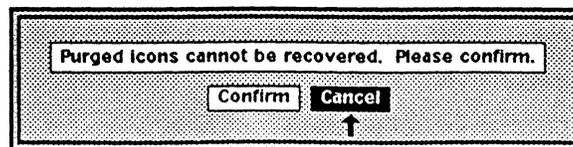
Hold down the menu button.

The Clipboard popup appears.



Drag the cursor up to Purge and release the menu button.

The Purge stickup appears.



☰ ☰ ☰ ☰ Point to **Confirm** and click the select button.
The stickup and the icons in the clipboard disappear.

- ☐ Close the clipboard.

When an icon first appears in the clipboard after you cut or copy it, it is in selected state, and any previously selected icons on the clipboard are deselected. Only selected objects can be pasted or purged. When you purge an object from the clipboard, there is no way to recover it. Be sure to purge only objects you are sure you have no use for.

This is the end of Chapter 1. You can close the desktop now, or you can continue to Chapter 2.

Summary

- To create a directory, execute **Create**→ and a choice from the Create submenu.
- To open a directory window, select the icon representing that directory and execute **Open**.
- You can create or paste any icon within an open directory window. After you have pasted an icon into a directory, the icon is in animation state, so you can move it around the directory window as you wish.
- Every icon (with the exception of the clipboard) has a **property sheet**. The property sheet is a window in which you can see and change the key characteristics, or **properties**, of that icon.
- To change a directory icon's type, open its Object property sheet, click on the new *Icon Type* box, and apply the change.
- To move an icon from the desktop to a directory, or from one directory to another, cut the icon from its old container and paste it in its new container.
- To resize a window, point to the size box, execute **Resize**, move the cursor until the outline of the window is the desired size, and execute **Deselect**.
- To scroll a window, use commands on the Scroll submenu of the Window popup, or point to the scroll box containing an arrow pointing in the direction you want to scroll and click the select button.
- To move an open window around the desktop, point to the window's header and execute **Move**. Use the mouse to move the window to the location you want and execute **Deselect**.
- To purge unneeded icons from the clipboard, open the clipboard, select the icons you want to purge, and execute **Purge**. When the Purge stick-up appears, point to **Confirm** and click the select button.

Further Exercise

This exercise provides more practice in scrolling a window. If you choose to perform this exercise, you must have the desktop and the *MyWork* folder open.

To scroll the contents of a window using a scroll box:

- Create enough icons in the *MyWork* window to make one of the scroll bars in the window active.

This example uses the bottom scroll bar.

☰☐☐ Point to the right-hand scroll box on the bottom scroll bar.

☐☐☐ Click the select button until the elevator box touches the right-hand scroll box.

The window scrolls to display the right-most icons in the window.

☰☐☐ Point to the left-hand scroll box on the bottom scroll bar.

☐☐☐ Click the select button until the elevator box touches the left-hand scroll box.

The window scrolls to display the left-most icons in the window.

The scroll boxes are an alternative to the Scroll submenu of the Window popup. Pointing to a scroll box in an active scroll bar and clicking the select button scrolls the window in the direction of the arrow. Clicking the extend button scrolls the window in the opposite direction from the arrow.

For More Information

If you are interested in learning more about the topics covered in these lessons, see the following chapters in the *Interleaf Basics* manual in the *Reference* set:

- Chapter 1, *Fundamentals*, provides an overview of the desktop and describes the different desktop icons.
- Chapter 3, *Basic Procedures*, covers the essential skills you need to work on the desktop, including how to use online help.
- Chapter 8, *Managing Desktop Objects*, describes how to organize documents and directories on the desktop.

2

Text Entry and Editing

In Chapter 2 you create the business letter shown in Figure 1. In doing so, you are introduced to the basic skills you need to create and modify a document.

There are three lessons in this chapter:

- Lesson 3, *Opening a Document and Entering Text*, shows you how to open a document, enter text, and save and close the document.
 - Lesson 4, *Defining New Components*, explains how to select components and change their properties, and how to create and update component master definitions in your documents.
 - Lesson 5, *Text Editing Operations*, details several text editing and formatting procedures and tells you how to print documents.
-

Letter	Printer	Page 1 of 1	
Swiss	18 BOLD Italic	(Default Text Props)	

heading

date

address

greeting

para

para

bullet

bullet

para

para

closing

mysignatu

The Intrastate Bank

▲ 81 Bank Place
Spokane, Washington 99214
(509) THE-BANK

January 2, 1989

Mr. Charles Ransome
13 Shady Way
Valley, Washington 99181

Dear Mr. Ransome:

Thank you for your interest in establishing an account at The Intrastate Bank. The Intrastate Bank has always provided patrons with the highest quality banking. We take pride in the many services that we offer.

We offer a wide variety of accounts, including

- Savings accounts, paying 6% interest
- N.O.W. Checking and Savings accounts, paying 5 1/4% interest
- 3 month, 1 year, and 2 1/2 year Term Certificates

All of us at The Intrastate Bank look forward to hearing from you soon. If you have any questions, do not hesitate to call me.

We hope you will enjoy banking with us.

Sincerely,

(Your Name)
Account Manager
The Intrastate Bank

Figure 1. Completed business letter

Lesson 3: Opening a Document and Entering Text

In this lesson you open a document, enter the text of a letter, and save the document. By completing these tasks, you learn

- how to open a document window
- the parts of a document window
- the parts of the default document
- how the cursor's behavior varies with its location
- how to enter text into a document
- how to create new paragraph components
- how to save and close a document

The approximate time to complete Lesson 3 is 25 minutes.

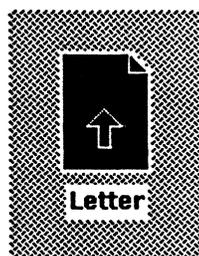
Document Windows

A **document window** is the basic tool for viewing a document. It provides a place for you to enter and edit text and graphics, and displays information about your document.

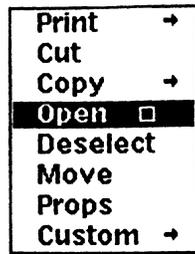
To open a document window:

- Create a document on your desktop and rename it *Letter*. If you need assistance, refer to Lesson 1.
- ☐☐☐ Point to the *Letter* document icon.
- ☐☐☐ Click the select button.

The icon appears in reverse video to show that it is selected.



- ☐☐☐ With the icon selected, hold down the menu button.
The Icon Selected popup appears at the cursor location.



☐ Release the menu button.
The document window opens (Figure 2).

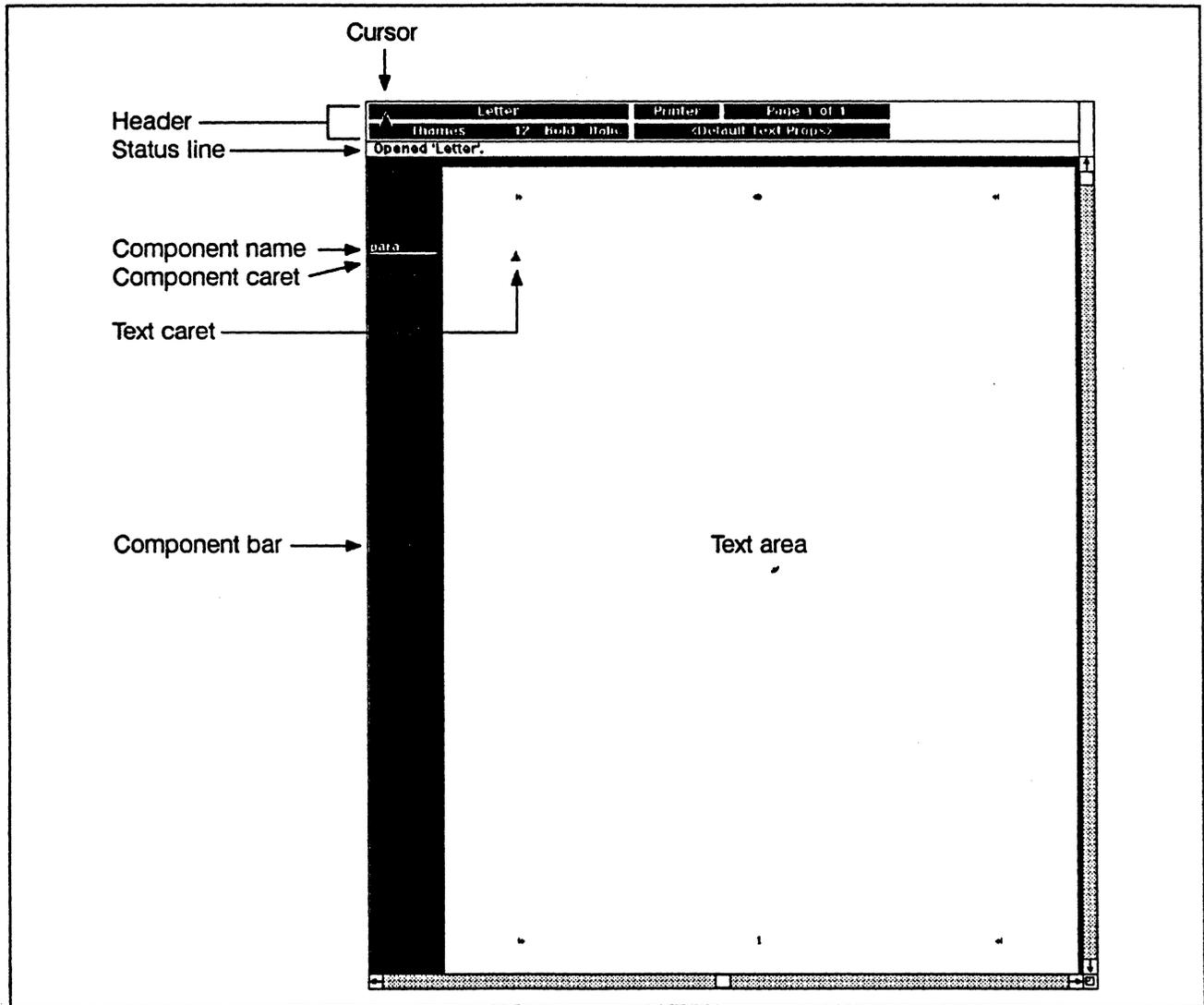


Figure 2. Document window

In addition to the parts of a window described in Lesson 2, a document window has the following parts:

- **Header:** an area that gives you information about the document. The header contains five boxes:
 - Name box:** shows the name of the document
 - Printer box:** gives you access to a menu you can use to print the document
 - Page box:** shows the current page number and the number of pages in the document
 - Font box:** displays font information for the text at the text caret location, including family name, point size, and bold and italic properties
 - Text Properties box:** shows which, if any, special properties are assigned to the text at the text caret location
- **Status line:** an area in which status and error messages are displayed. For example, in Figure 2 the status line displays the message: *Opened 'Letter.'*
- **Cursor:** a location indicator that moves on the desktop when you move the mouse
- **Text caret:** an indicator that marks the location where text appears when you type
- **Text area:** an area in which you can enter and edit text and graphics
- **Component bar:** a vertical black bar on the left side of a document window in which the names of components in that document are displayed. Also located in the component bar is the **component caret**, a horizontal white line that indicates which component contains the text caret.

Cursor Location and Appearance

As you move the cursor around the document window, it changes shape, depending on its location within the window. The cursor can take any of five different shapes while you are working in a document:

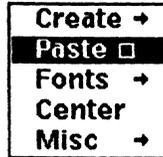
- ▲ a chevron when it is in the text area
- ◆ a diamond when it is in the component bar
- ▲ a triangle when it is in the header or in a scroll bar
- a small box when it is in a popup or pulldown menu
- ↑ an arrow when it is in the desktop area, in a property sheet, or in a stickup

In the following exercises you will move the cursor to the various parts of the document window to see the different cursor shapes and the menus associated with them.

To see the Text Location popup:

☰☰☰ Move the cursor to the text area.
The cursor changes to a chevron (▲).

☰☰☰ Hold down the menu button.
The Text Location popup appears. The cursor changes to a box (□).



☰☰☰ ☰☰☰ When you finish looking at the Text Location popup, drag the cursor off the menu and release the menu button.

The Text Location popup lists commands that can be applied at the current text caret location when no text is selected.

To see the Component Location popup:

☰☰☰ Move the cursor to the component bar.
The cursor changes to a diamond (◆).

☰☰☰ Hold down the menu button.
The Component Location popup appears. The cursor changes to a box (□).



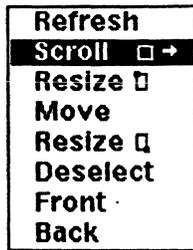
☰☰☰ ☰☰☰ When you finish looking at the Component Location popup, drag the cursor off the menu and release the menu button.

The Component Location popup lists commands that can be applied at the current component caret location when no component names are selected.

To see the Window popup:

☰☰☰ Move the cursor to either the vertical or the horizontal scroll bar.
The cursor changes to a triangle (▲).

☰☰☰ Hold down the menu button.
The Window popup appears.



When you finish looking at the Window popup, drag the cursor off the menu and release the menu button.

The Window popup lists commands that affect the window's appearance and location.

The Tutorial uses popup menu names to clarify what menus you see during each exercise, and therefore what commands are available to you. It is not important to memorize the names of these menus. What you should remember is that different menus are available in different areas of the desktop.

Active and Inactive Windows

A window is **active** when the cursor is located within its borders. In an active document window, each of the five boxes in the header is surrounded by a white border. When you move the cursor outside the borders of a window, the window becomes **inactive**. In an inactive document window, the header is black. You cannot work in an inactive document window or access any menus that affect it.

To see the headers of an active and an inactive document window:



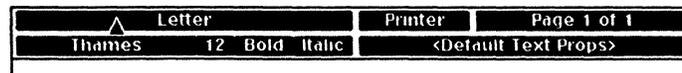
Move the cursor outside the window, onto the desktop.

The cursor changes to the desktop cursor and the header of the document window turns black, indicating that the window is inactive.



Move the cursor back into the document window.

The document window is once again the active window.



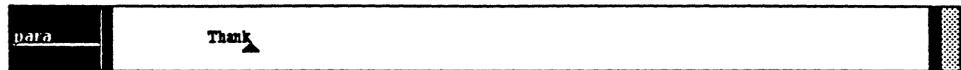
Entering Text in a Document

Text you enter in a document appears at the location of the **text caret**. The text caret (▲) is a place marker in text. Although you can move the cursor around the screen to perform various actions, the text caret always stays in the text area to remind you of your location in a document.

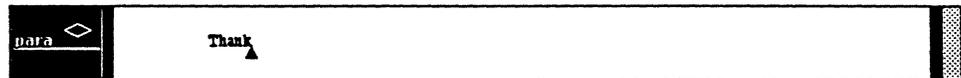
Do not worry about making typing mistakes as you perform the next exercises, as you will learn how to correct them later in this chapter. In fact, the more words you misspell at this stage, the more practice you will get later with the publishing software's spelling checker. If you do want to correct a mistake, use the arrow keys to move the text caret, and then use the DELETE key to erase characters to the left of the text caret.

To enter text in the document window:

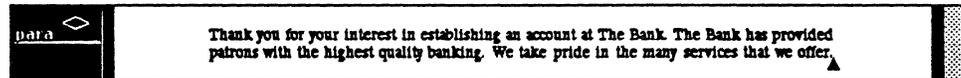
- Make sure that the cursor is within the text area of the document window.
- Type the first word of the sample letter: *Thank*
The cursor merges with the text caret and assumes a more squat shape (▲).



- Move the cursor into the component bar.
The cursor separates from the text caret, which returns to its original shape.



- Continue typing the following text: *Thank you for your interest in establishing an account at The Bank. The Bank has provided patrons with the highest quality banking. We take pride in the many services that we offer.*



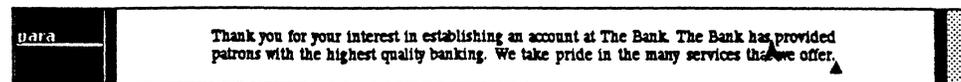
As you type, the publishing software automatically wraps the text to the beginning of the next line.

If the cursor is in the text area when you enter text, it merges with the text caret. This prevents the cursor from getting in the way of the text caret as you type and lets you know where the cursor is when you want to use it. If the cursor is in the component bar, header, or scroll bars when you enter text, the cursor and text caret stay separate. When you entered the text of the first paragraph, the cursor remained separate from the text caret because it was in the component bar.

In the next exercise you will add more text in the middle of the first sentence.

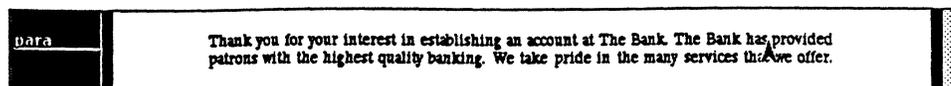
To move the text caret to a new location and insert text:

- Point the cursor to the right of the word *has* in the second sentence.

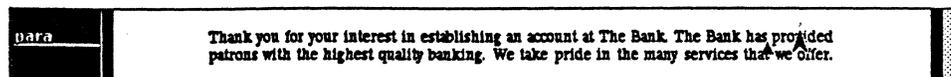


- Click the select button.

The text caret moves to the cursor location. You cannot see the text caret because it is covered by the cursor.



☰ Move the cursor to view the text caret.



☐ Press the space bar and type: *always* (You do not need to include a space after *always*.)

When you finish, the first paragraph should look like Figure 3.

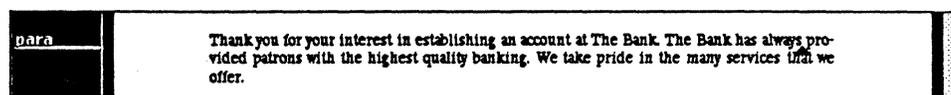


Figure 3. Finished paragraph

Whenever you insert text into an existing paragraph, or anywhere in a document, the publishing software reformats all existing text as you type.

You may have noticed that the word *provided* was automatically hyphenated by the publishing software. There may be times when you do not want a document hyphenated. Later in the chapter you will learn how to turn hyphenation off.

Adding Paragraphs as Components

At this point, all of the text in the letter is in one paragraph. This paragraph is an example of a **component**, the most basic part of a publishing software document. Each component has associated characteristics, such as margins and font, that determine its appearance and format. All empty documents contain a single example, or instance, of a *para* component.

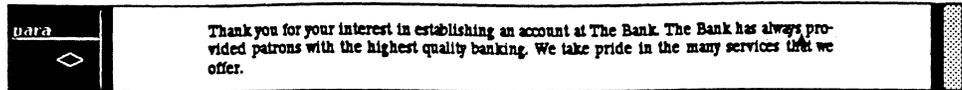
When you want to add new text to a document, such as a new paragraph, you create a new component. As you add components, their names appear in the component bar. There can be any number of components, with as many different names or with the same name, in a single document. Within a document, components with the same name can share characteristics such as typeface, margins, and text alignment.

In the next few exercises you will learn different methods of creating new *para* components for your letter.

To create a new para component using the Create submenu:

☰ Move the cursor to the component bar.

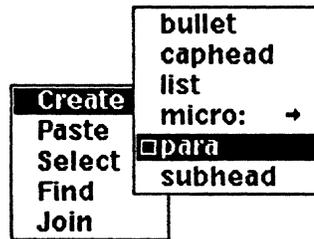
The cursor changes to a diamond.



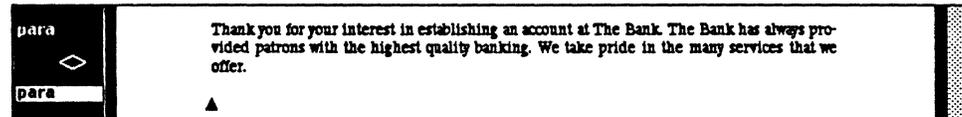
- ☐☐☐ Hold down the menu button.
The Component Location popup appears. Paste is the default.



- ☐☐☐ Drag the cursor up to Create and to the right to display the Create submenu.
The submenu lists the predefined components; para is the default.



- ☐☐☐ Release the menu button.
A second para component appears in the component bar below the original one. The text caret moves down in the text area so that it is opposite the new component name.



As you can see from the Create submenu, there are several predefined components. You can use these predefined components as the bases of any new components you need to create.

The default command on the Create submenu is determined by the location of the component caret. In this example, because the component caret was next to a *para* component, **para** was the default.

Notice that the new component name is highlighted. This indicates that the component is selected.

To add text to the new para component:

- ☐ Type the following text: *We offer a wide variety of accounts, including: Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5.25% interest; variable rate Individual Retirement Accounts; and 3 month, 1 year, and 2.5 year Term Certificates.*

para	Thank you for your interest in establishing an account at The Bank. The Bank has always provided patrons with the highest quality banking. We take pride in the many services that we offer.
para	We offer a wide variety of accounts, including: Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5.25% interest; variable rate Individual Retirement Accounts; and 3 month, 1 year, and 2.5 year Term Certificates.

When you begin to type, the highlight around the component name disappears and the component caret returns. The location of the caret directly above or below a component name indicates which component contains the text caret. The component containing the text caret is known as the **current component**.

To create a third para component using the keyboard:

- Make sure the text caret is somewhere in the second paragraph.
- Press LINEFEED.

A third para component appears below the second.

para	Thank you for your interest in establishing an account at The Bank. The Bank has always provided patrons with the highest quality banking. We take pride in the many services that we offer.
para	We offer a wide variety of accounts, including: Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5.25% interest; variable rate Individual Retirement Accounts; and 3 month, 1 year, and 2.5 year Term Certificates.
para	

When you use the keyboard to create a new component, you create a component with the same name and characteristics as the current component, just below it. The text caret does not have to be at the end of the text in the component in order for this technique to work.

- Type the following text: *If you have any questions, do not hesitate to call me.*

para	Thank you for your interest in establishing an account at The Bank. The Bank has always provided patrons with the highest quality banking. We take pride in the many services that we offer.
para	We offer a wide variety of accounts, including: Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5.25% interest; variable rate Individual Retirement Accounts; and 3 month, 1 year, and 2.5 year Term Certificates.
para	If you have any questions, do not hesitate to call me.

To create a fourth para component:

- Make sure the text caret is somewhere in the third paragraph.
- Press LINEFEED.

A fourth para component appears below the third.

- Type the following text: *All of us at The Bank look forward to hearing from you soon. We hope you will enjoy banking with us.*

para	Thank you for your interest in establishing an account at The Bank. The Bank has always provided patrons with the highest quality banking. We take pride in the many services that we offer.
para	We offer a wide variety of accounts, including: Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5.25% interest; variable rate Individual Retirement Accounts; and 3 month, 1 year, and 2.5 year Term Certificates.
para	If you have any questions, do not hesitate to call me.
para	All of us at The Bank look forward to hearing from you soon. We hope you will enjoy banking with us. ▲

Reviewing the paragraph you just typed, you decide that it is inappropriate to have both sentences in the same paragraph. To remedy this, you can split the component into two separate components of the same type, thereby creating two separate paragraphs.

To split one component into two separate components:



Point the cursor to the left of the word *We* at the beginning of the last sentence and click the select button.

para	All of us at The Bank look forward to hearing from you soon. We hope you will enjoy banking with us. ▲
------	--



Hold down the menu button.

The Text Location popup appears with the default command, Paste, highlighted.

Create	→
Paste	□
Fonts	→
Center	
Misc	→



Drag the cursor down to *Misc* and over to the *Misc* submenu. *Split* is the default on the *Misc* submenu.

Create	Tabs	→
Paste	Show	→
Fonts	Hyphen	→
Center	Shape	
Misc	Split	□
	Find	→
	Replace	→
	Spelling	



Release the menu button.

The publishing software splits the component into two components of the same type, as shown in the following illustration.

para	All of us at The Bank look forward to hearing from you soon.
para	We hope you will enjoy banking with us. ▲

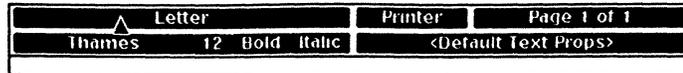
When you execute the *Split* command, the text before the text caret remains in the original component, and the text following the text caret becomes a new component of the same type.

Closing a Document

You have completed the main body of your letter and are ready to close the document window. You will return to this document in the next lesson.

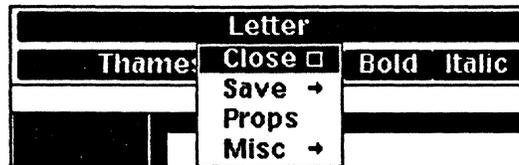
To see a pulldown menu:

☰☰☰ Point to the Name box in the document header.



☰☰☰ Hold down the menu button.

The Document Name pulldown menu is displayed with the default command, Close, highlighted.



☰☰☰ ☰☰☰ Drag the cursor off the menu and release the menu button.

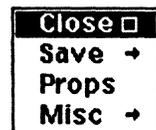
A **pulldown menu** is a list of commands that you “pull down” from the header boxes in a document window. Pulldown menus are like popup menus except that you can access a particular pulldown menu from one place only, the document header. Each header box has its own unique pulldown menu containing commands associated with the document function appearing in that box.

To close a document:

☰☰☰ Point to the Name box in the document header again.

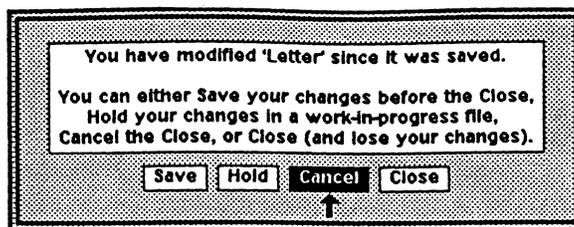
☰☰☰ Hold down the menu button.

The Document Name pulldown menu is displayed with the default command, Close, highlighted.

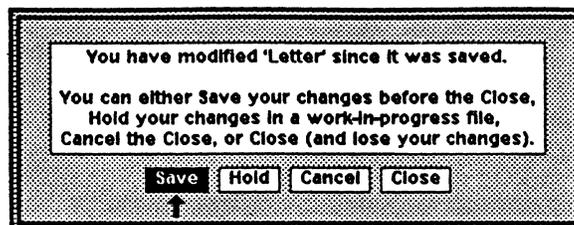


☰☰☰ Release the menu button.

The Close stickup appears.



- ☐☐☐ Move the cursor to the Save option.



- ☐☐☐ Click the select button.

After a short wait, the window closes and you see the unselected Letter icon on the desktop.

If you have modified a document since it was last opened, the publishing software automatically asks you if you would like to save the changes. When you choose **Save**, any changes that you have made to the document since you opened it are saved and the document closes.

Summary

- To open a document window, select the document icon and execute **Open**.
- A document window contains a **header**, a **status line**, a **component bar**, **scroll bars**, and a **text area**.
- The location of the cursor in the document window determines the cursor shape and the available popup menu.
- The **text caret** marks a location in text. When you type, text appears at the text caret.
- The publishing software automatically formats text as you type.
- To create a new **component**, move the cursor into the component bar and choose an option from the Create submenu of the Component Location popup.
- The component that contains the text caret is called the **current component**.
- To create a component with the same name and properties as the **current component**, press **LINEFEED**.

- To split a component into two components of the same name and characteristics, execute **Misc→ Split**.
- To save and close a modified document, execute **Close** from the Document Name pulldown menu and choose **Save** on the Close stickup.

Further Exercises

These exercises present more information about using the Close stickup. To perform the exercises, you must have the *Letter* document open on your desktop.

To close an unmodified document:

- ☐☐☐ ☐☐☐ Select the *Letter* document icon and execute **Open**.
The document window opens.
- ☐☐☐ Move the cursor and text caret around the document, but do not make any changes.
- ☐☐☐ Execute **Close** from the Name box in the document header.
The document closes without displaying the Close stickup.

Because you have not modified the document since it was last saved, the Close stickup does not appear and the document closes quickly.

To close a document without saving changes:

- ☐ Reopen the *Letter* document.
- ☐ Add some text to any part of the document.
- ☐☐☐ Execute **Close**.
The Close stickup appears.
- ☐☐☐ ☐☐☐ Point to **Close** on the stickup and click the select button.
The document closes without saving the changes.

When you close a document in which you have not made any changes, or in which you choose not to save your changes, the document closes much faster than when you save your changes.

Lesson 4: Defining New Components

In Lesson 3 you worked with the *para* component, which is one of the components supplied in a default document.

In this lesson you define new components for the business letter: a heading, date, address, greeting, closing, and signature, each of which requires a different format. In the process, you learn how to

- select a component and open its property sheet
- change and apply values on a property sheet
- create and update master definitions for components
- use the Component property Format, Page, and Custom sheets
- save a work-in-progress version of a document

The time to complete this lesson is approximately 40 minutes.

Preliminary Steps

Before you can begin this lesson, you must have the *Letter* document you saved at the end of Lesson 3 open on your desktop.

To open a document:

- Point to the *Letter* document icon and click the select button to select it.
The icon is highlighted in reverse video.
- ☐ Hold down the menu button and execute **Open**.
The document window opens.

Opening the Component Property Sheet

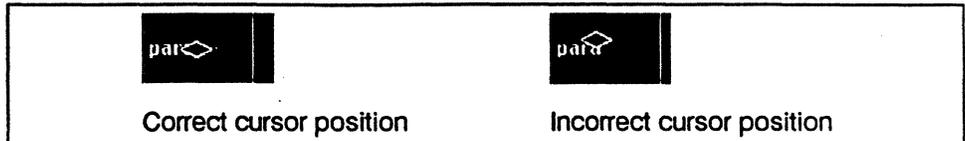
In the publishing software, the factors that control the appearance of text in a component are called **properties**. You can examine and change a component's properties by using a **Component property sheet**.

Changing a Component property sheet is a four-step process in which you

1. select the component
2. open the Component property sheet
3. change one or more properties
4. apply the changes and close the sheet

To select a component:

- ☰☰ Move the cursor so that it overlaps the name of any one of the *para* components.



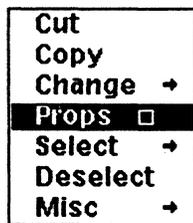
- ☰☰ Click the select button.
The component name is highlighted in reverse video, indicating that the component is selected.



You can deselect a component by moving the cursor off the component name in the component bar and clicking the select button, keeping the cursor on the component name and clicking the extend button, or executing **Deselect** on the Component Selected popup.

To open a Component property sheet:

- ☰☰ With the component selected, hold down the menu button.
The Component Selected popup appears. Props (Properties) is the default.



- ☰☰ Release the menu button to execute the **Props** command.
The Component property Format sheet for the para component opens (Figure 4).

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	para						
Margins							
Top	0.04						inches
Bottom	0.04						inches
Left	0						inches
Right	0						inches
Initial Indent	0						inches
Number	Default	1					lines
Line Spacing	1.16						lines
Alignment	<input checked="" type="radio"/> Flush Left <input type="radio"/> Centered <input type="radio"/> Flush Right						
Font	Times 12 Bold Italic						
Text Props	<Defaults>						

Figure 4. Component property Format sheet

Executing **Props** on the Component Selected popup gives you access to the Component property sheet. The Component property sheet actually consists of six separate sheets: **Format**, **Page**, **Custom**, **Tab**, **Profile**, and **Attrs** (Attributes). Only one sheet can be open at a time. The first time you execute **Props** after opening a document, the Format sheet appears. After that, the sheet that appears is the last sheet that was open on the desktop. The name of the open sheet is highlighted in the property sheet header.

The Profile sheet is available only if you have the Advanced Graphics option. The illustrations in the Tutorial show the Component property sheet with the Advanced Graphic option installed.

On the Format sheet you define the characteristics of a component, such as its name, margins, first indent, line spacing, alignment, and font. The properties on the Format sheet are described below.

- **Name:** the component name as it appears in the component bar
- **Margins:** the spacing around the component
- **Initial Indent:** the amount of space from the left margin to the beginning of text in the first line(s) of the component. *Number* specifies the number of lines affected by the *Initial Indent* setting.
- **Line Spacing:** the amount of space between lines (also called leading), specified as a multiple of the line height. This space cannot be less than one line.
- **Alignment:** the way text aligns to the right and left margins. In Figure 4, the alignment of **Flush Left** and **Flush Right** produces justified text.
- **Font:** the name of the font family, point size, and bold and italic properties of the text in the component
- **Text Props:** special text properties, for example, underlining and strike-through. If a text property is turned on, it is displayed in this box.

Changing Properties and Applying the Changes

There are three ways to change settings on a property sheet:

- Select one of several possible properties in a **list box**. The family and size *Font* boxes, and the *Text Properties* box are list boxes.
- Turn a **toggle box** on (black) or off (white). The *Alignment* box, bold and italic *Font* boxes, and the sheet selection boxes in the property sheet header are toggle boxes.
- Type information into, or edit a **field**. The *Name*, *Margins*, *Initial Indent*, and *Line Spacing* boxes are fields.

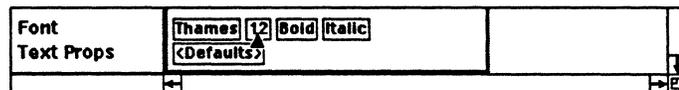
Components are not the only objects in the publishing software that have property sheets. What you learn in this lesson about opening the Component property sheet and changing properties applies to all property sheets in the publishing software.

In the next few exercises you experiment with the font size in the letter. To do this, you change the font characteristics of the *para* component.

To change values in a list box:

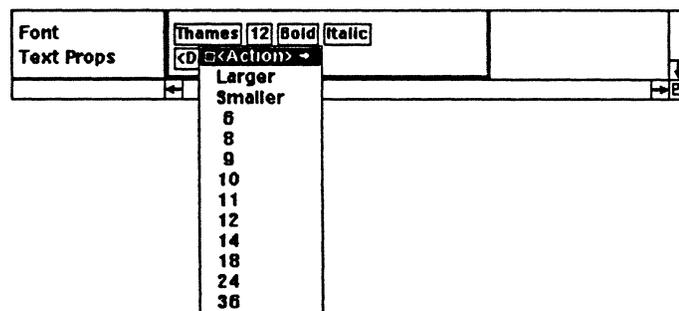
☞☞☞☞☞ Point to the font size box.

The cursor changes to a triangle, indicating that it is in a list box.



☞☞☞☞☞ Hold down the menu button.

An anchored popup appears.



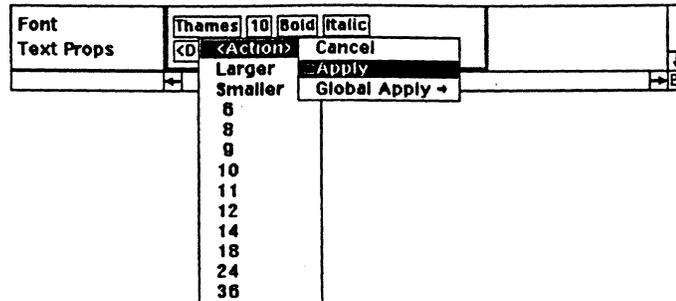
☞☞☞☞☞☞☞ Drag the cursor down to 10 and release the menu button.

The number in the size box changes from 12 to 10.

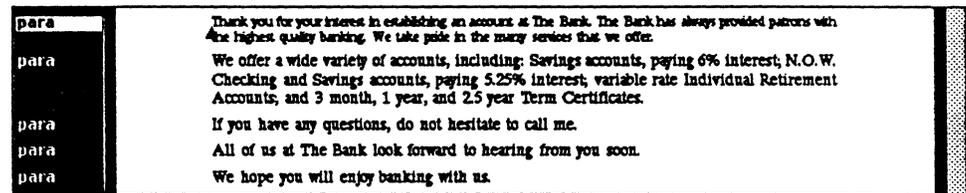
An **anchored popup** is a popup that is *anchored* to a particular location on a property sheet, and available at that location only. The anchored popup attached to the font size box shows all of the available point sizes for the current font family.

To apply a property sheet change from within a list box:

- ☐☐☐ Without moving the cursor, hold down the menu button again.
The anchored popup appears again.
- ☐☐☐ Drag the cursor to **<Action>** → **Apply**.



- ☐☐☐ Release the menu button.
The font size for the current paragraph changes to 10 point.



Although 12-point text looked too large for your letter, 10-point text looks too small. The solution is to change the font size to 11 point.

Applying a Property Change Globally

In the previous exercise you modified the text of the first *para* component, giving it a smaller type size than the text in the other *para* components. In doing so you created an exception to all of the other *para* components. In the next exercise you make further changes to the property sheet and then apply your changes to all of the *para* components simultaneously.

To quickly change values in a list box:

- ☐☐☐ Point to the font size box again.
- ☐☐☐ Click the select button.
The number in the size box increases to 11.

You can use the select and extend buttons in a list box. Clicking the select button in a list box advances you to the next setting (such as the next larger font size). Clicking the extend button in a list box brings you to the previous setting (such as the next smaller font size).

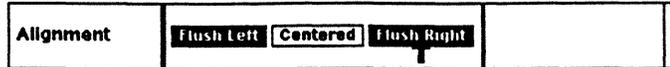
When the value in a list box gets to the last (or largest) available setting, clicking the select button starts the list over at the first (or smallest) setting. Similarly, when the value in the box gets to the first (or smallest) available

setting, clicking the extend button wraps the list to the last (or largest) setting.

The text in your letter is justified at both the left and right margins. To make the letter appear a little less formal, you can turn off the justification along the right margin, thereby creating a ragged right margin.

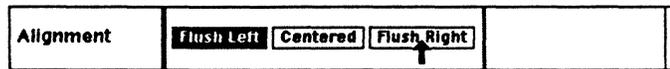
To change a toggle setting:

☰☐☐ Point to the **Flush Right** alignment box.



☐☐☐ Click the select button.

*The box is no longer highlighted, indicating that **Flush Right** is turned off.*



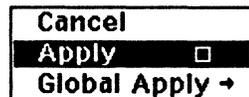
The *Alignment* settings change how the text is formatted at the margins. The default setting of **Flush Left** and **Flush Right** justifies the text at both the left and the right margins. To justify the text along the left margin only, you have to turn **Flush Right** off.

In the next exercise you will apply your font size and alignment changes to all of the *para* components in the document.

To globally apply property changes:

☐☐☐ Hold down the menu button.

The Apply popup appears. Apply is the default.



☰☐☐ Drag the cursor down to **Global Apply** and over to **Confirm**.



☐☐☐ Release the menu button.

The font size in the current para component increases from 10 point to 11 point, and the font size in the other four para components decreases from 12 point to 11 point. All of the paragraphs in the letter now have a ragged right margin.

para	Thank you for your interest in establishing an account at The Bank. The Bank has always provided patrons with the highest quality banking. We take pride in the many services that we offer.
para-	We offer a wide variety of accounts, including: Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5.25% interest; variable rate Individual Retirement Accounts; and 3 month, 1 year, and 2.5 year Term Certificates.
para	If you have any questions, do not hesitate to call me.
para-	All of us at The Bank look forward to hearing from you soon.
para	We hope you will enjoy banking with us.

- Hold down the menu button
The Close popup appears. Close is the default.

Reset
Close <input type="checkbox"/>
Unify →

- Release the menu button.
The property sheet closes.

Global Apply applies only those changes you have made since you last applied changes to the property sheet. Unlike **Apply**, it applies your changes not only to the selected component, but to all components of the same name in the document.

The **<Action>** submenu on an anchored popup is identical to the **Apply** popup you see when the cursor is not in a list box. This gives you greater flexibility when using the publishing software, since you can access the **Apply** and **Global Apply** commands from anywhere within a property sheet.

Master Definitions

In the process of globally applying property sheet changes, you might have noticed a message that appeared in the status line of the property sheet:
Updated the master definition for 'para'.

Component Properties	Format	Page	Custom	Tab	Profile	Attrs
Updated the master definition for 'para'.						
Name	para					↑

A **master definition**, or **master**, contains the properties for all components with a particular name. When you first opened the document window, the document already contained a component named *para*. As you created more *para* components, each one had the same properties as the *para* master.

When you changed the type size of the first *para* component, you created an exception to the *para* master. The selected *para* component contained 10-point type, while the *para* master had 12-point type. When you changed the font size to 11 point and executed **Global Apply**, you changed the type size in the master from 12 to 11 point, affecting not only all existing *para* components in the document, but also any *para* components you might create later.

Another way to update a master definition is by using the **Unify** command, located on the **Close** popup. When you execute the **Unify** command, the

publishing software applies the properties of the selected component to the master and to all components of the same name. Whereas the Global Apply command affects only those properties you have changed since you last applied changes to the property sheet, **Unify** affects all component properties, changing them to match those in the selected component. You will have an opportunity to learn more about **Unify** in later lessons.

Defining Components

In a typical business letter, you might have components for paragraphs, headings, titles, and other separate pieces of text. Each component name has its own master definition that defines the properties of that component.

Defining a new component with a unique name and properties is a three-step process in which you

1. create a component and open its Format property sheet
2. give the component a unique name and change any other properties you wish
3. apply the changes to create a new master, and close the property sheet

You are now going to define new components for your letter.

The Heading Component

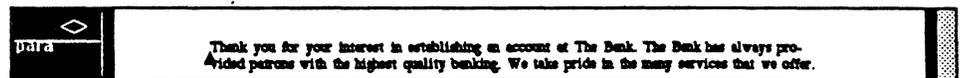
The first new component you will define is a *heading* component with centered text and an extended bottom margin.

To create a component and open its property sheet:

 In the component bar, point to the area just above the first *para* component.

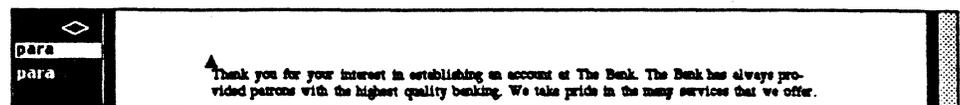
 Click the select button.

The component caret moves so that it is above the first para component.



 Execute **Create→ para**.

A new para component appears above the first. The highlight indicates that it is selected.



 With the cursor still in the component bar, execute **Props**.

The Format sheet for the selected component opens. Its properties match those of the para master that you updated in the last exercise.

Changing the component name on the Format sheet and applying the change causes the publishing software to create a new master.

To change the name of a component:

- Make sure the **property sheet caret**, an inverted “v”, is in the *Name* field. If it is not, point to the *Name* field and click the select button.
- Type: heading**
The field turns black as you start to type, and heading replaces para in reverse video.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	heading						

- Press RETURN.
The box turns white again to confirm your entry.

The appearance of the property sheet caret in a field indicates that you can type new information into that field or edit the current setting. To move the caret, point to a new field and click the select button.

When you start typing in a field, everything currently in the field is erased. To confirm your entry, you can either press RETURN or move the property sheet caret out of the field by selecting another field on the property sheet. To indicate that your entry has been confirmed, the field turns white again.

When you apply a name change to a component, the publishing software creates a new master for that component. If you make other changes before applying the name change, these changes are applied to the new master when you apply the name change.

The heading will look best if there is extra space between it and the component that follows it, so you are going to increase the *heading* component's bottom margin.

To change margin settings:

- Point to the bottom margin field and click the select button.
The property sheet caret appears at the beginning of the field.

- Type: .5**
The field turns black as you type, and .5 replaces the old value.

Margins			
Top	0.04	inches	
Bottom	.5	inches	
Left	0	inches	
Right	0	inches	

In order for the heading to appear at the center of the page, you need to turn on centered text alignment.

To change text alignment:

- Point to the **Centered** alignment box.



Click the select button.

The Centered box turns black to indicate that it is selected. The Flush Left and Flush Right boxes turn white to indicate that they are now deselected. The property sheet should now resemble Figure 5.

Figure 5. Completed Format sheet for the heading component

Since text cannot be flush with both margins and centered at the same time, both the **Flush Left** and **Flush Right** boxes were turned off automatically when you selected **Centered**.

When you selected a new box on the property sheet, the bottom margin field turned from black to white to confirm your change.

To apply your changes and close the property sheet:



Execute Apply.

The New Component Master stickup appears.



Point to **Confirm** and click the select button.

The master for heading is created, and the component name changes in the component bar.



Execute Close.

The property sheet closes.

A master can have content as well as properties. Because there was no text in the *heading* component when you defined it, the master definition for *heading* does not include any content. If the *heading* component had contained text, however, you would have had an opportunity to choose whether to include that text in the master.

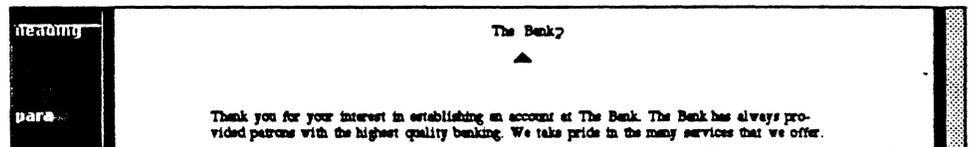
If a component master includes text or graphics, any component created from that master will have that content. This is useful when you want a word or phrase to appear each time you create a certain component; for example, when you want your company name and address to appear in every *heading* component you create.

You have already seen how defining properties in a master definition works. Later in this lesson you will define a master's content as well.

Because you gave the *heading* component a centered text alignment, the text caret automatically appears at the center of the first line of the component. You are now going to enter the text of the heading.

To add text to the heading component:

- Type the first line of the heading: *The Bank*
The text appears in the center of the line as you type, and remains centered as you add characters. The text caret moves to the right.
- Press RETURN.
The text caret moves to the center of the next line and a curved arrow (↵) appears at the end of the first line.



- Type the next three lines as shown in Figure 6. Be sure to press RETURN after typing the street and city address lines.

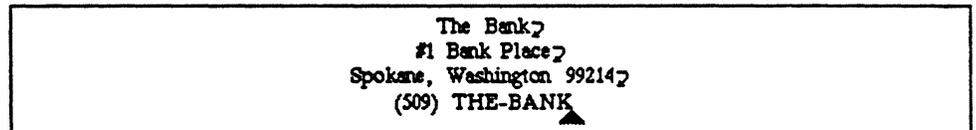


Figure 6. Completed heading component

Although you did not type enough text on each line to make the publishing software automatically wrap to the next line, pressing RETURN forced the software to do so. This is called a **hard return**. The publishing software indicates a hard return with a curved arrow. These arrows appear on your screen only; they will not appear in the printed document.

Creating Additional Component Masters

In the exercises that follow you create other components for your letter in the same way you created the *heading* component. For each component there are quick instructions, illustrations of the completed property sheets, and an illustration of the completed component.

The Date Component

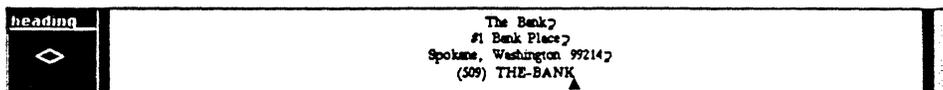
The date in the sample letter is right justified, is in italic type, and has a three-quarter-inch space below it.

To define a date component:



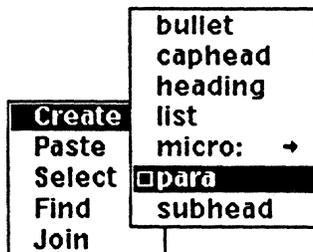
Point to the area in the component bar just below the *heading* component and click the select button.

The component caret moves so that it is below the heading component.



Hold down the menu button and drag the cursor over to *para* on the Create submenu.

The Create submenu now contains a component name for heading in addition to the predefined components.



Release the menu button.

The publishing software creates a para component below the heading component.



Execute Props.

The Format sheet opens.

Make the following changes to the Format sheet:

Name	date
<i>Bottom Margin</i>	.75
<i>Flush Right</i>	on
<i>Flush Left</i>	off
<i>Italic</i>	on

The Format sheet should resemble Figure 7.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	date						
Margins							
Top	0.04						inches
Bottom	0.75						inches
Left	0						inches
Right	0						inches
Initial Indent	0						inches
Number	Default	1					lines
Line Spacing	1.16						lines
Alignment	<input type="button" value="Flush Left"/> <input type="button" value="Centered"/> <input type="button" value="Flush Right"/>						
Font	<input type="button" value="Times"/> <input type="button" value="11"/> <input type="button" value="Bold"/> <input type="button" value="Italic"/>						
Text Props	<input type="button" value="<Defaults>"/>						

Figure 7. Completed Format sheet for the date component

- Execute **Apply** and select **Confirm** on the New Component Master stickup.
The publishing software creates an empty master for a date component.
- Execute **Close**.
The property sheet closes.
- Type today's date.
The text appears, starting at the right margin. (This tutorial uses January 2, 1989 in the sample letter.)

heading	The Bank #1 Bank Place Spokane, Washington 99214 (509) THE-BANK
date	January 2, 1989

The Address Component

In the next exercise, you create an address component that has a quarter-inch bottom margin.

To define an address component:

- Create a *para* component below the *date* component in the component bar.
- Execute **Props**.
The Format sheet opens.
- Make the following changes to the Format sheet:

Name address
Bottom Margin .25

The Format sheet should resemble Figure 8.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	address						
Margins							
Top	0.04						inches
Bottom	0.25						inches
Left	0						inches
Right	0						inches
Initial Indent	0						inches
Number	Default	1					lines
Line Spacing	1.16						lines
Alignment	Flush Left Centered Flush Right						
Font	Times 11 Bold Italic						
Text Props	<Defaults>						

Figure 8. Completed Format sheet for the address component

- Execute Apply and select Confirm.
The publishing software creates an empty master for an address component.
- Execute Close.
The property sheet closes.
- Type the text of the address as shown in Figure 9. Remember to insert hard returns as needed.

address	Mr. Charles Ransome 13 Shady Way Valley, Washington 99181
---------	---

Figure 9. Completed address component

The Greeting Component

The greeting component in the sample letter has the same properties as the *para* component. You could use a *para* component for the greeting, but it is a good idea to create a separate component. Separate components give you flexibility should you decide that you want to change the format of one type of component without affecting others.

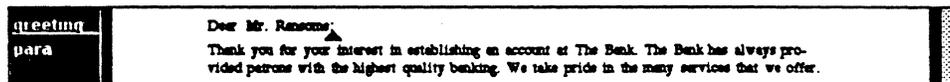
To define a greeting component:

- Create a *para* component below the *address* component in the component bar.
- Execute Props.
The Format sheet opens.
- Change the *Name* field to **greeting** and press RETURN.
The Format sheet should resemble Figure 10.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	greeting						
Margins							
Top	0.04						inches
Bottom	0.04						inches
Left	0						inches
Right	0						inches
Initial Indent	0						inches
Number	Default	1					lines
Line Spacing	1.16						lines
Alignment	<input checked="" type="button" value="Flush Left"/> <input type="button" value="Centered"/> <input type="button" value="Flush Right"/>						
Font	<input type="button" value="Times"/> <input type="button" value="11"/> <input type="button" value="Bold"/> <input type="button" value="Italic"/>						
Text Props	<input type="button" value="<Defaults>"/>						

Figure 10. Completed Format sheet for the greeting component

- Execute Apply and select Confirm.
The publishing software creates an empty master for a greeting component.
- Execute Close.
The property sheet closes.
- Type the greeting: *Dear Mr. Ransome:* (do not press RETURN).



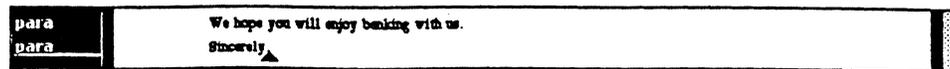
The Closing Component

In the next exercise you create an indented *closing* component. In addition, since the closing in a letter is never on a different page than the signature, you ensure that the publishing software will not break the page after the *closing* component.

Because the closings in letters usually contain the same text, you will copy the *closing* component's content into the master. One way to create a component with content is to enter the desired text into the component you are going to rename, and then define the new component. In the following exercises you are going to create another *para* component, enter the text of the closing, and then define the *closing* component, copying the contents of the component into the master.

To define a closing component:

- Create a *para* component below the last *para* component in the component bar.
- Type the closing: *Sincerely,* (do not press RETURN).



- Select the component name in the component bar.

- ☐ Execute Props.
The Format sheet opens.

- ☐ Make the following changes to the Format sheet:

Name closing
Top Margin .6
Left Margin 3.5

The Format sheet should resemble Figure 11.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	closing						
Margins							
Top	0.60						inches
Bottom	0.04						inches
Left	3.50						inches
Right	0						inches
Initial Indent	0						inches
Number	Default	1					lines
Line Spacing	1.16						lines
Alignment	<input checked="" type="radio"/> Flush Left <input type="radio"/> Centered <input type="radio"/> Flush Right						
Font	Times 11 Bold Italic						
Text Props	<Defaults>						

Figure 11. Completed Format sheet for the closing component

- ☐ Point to *Page* in the property sheet header.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs

- ☐ Click the select button.
The Page property sheet replaces the Format sheet.

- ☐ Turn on the No toggle box next to *Allow Break After*.
The Yes toggle box is turned off. The Page sheet should resemble Figure 12.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Begin New Page	<input checked="" type="radio"/> Yes	<input type="radio"/> No					
Begin New Column	<input checked="" type="radio"/> Yes	<input type="radio"/> No					
Straddle Columns	<input checked="" type="radio"/> Yes	<input type="radio"/> No					
Orphan Control	Default	2					lines
Widow Control	Default	2					lines
Allow Break Within	<input checked="" type="radio"/> Yes	<input type="radio"/> No					
Allow Break After	<input type="radio"/> Yes	<input checked="" type="radio"/> No					

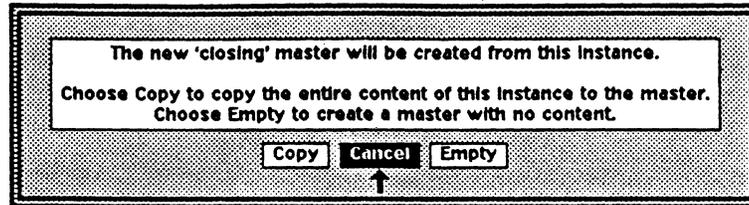
Figure 12. Completed Page sheet for the closing component

By selecting the No toggle box for the *Allow Break After* property, you told the publishing software to start a new page rather than allow a page break

between a *closing* component and the component that follows it. This ensures that the signature component you are going to create next will never be on a separate page from the *closing* component.

To create a component master with content:

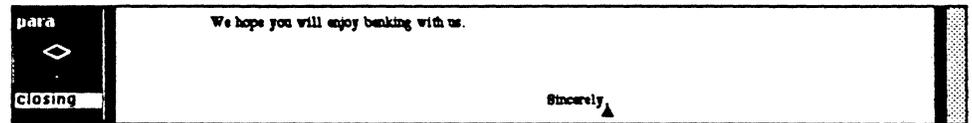
- ☐☐ Execute Apply.
The New Component Master stickup appears.



Because there is text in the component, the publishing software asks if you want to copy the content of the component into the master.

- ☐☐☐☐☐☐ Point to Copy and click the select button.
The publishing software creates a master with content for the closing component.

- ☐☐☐ Execute Close.
The property sheet closes.



Once you copy the contents of a component into the master, whenever you create an instance of that master, the contents you copied are automatically included in the instance. If you did not wish to copy the contents of the component into the master, but still wanted to define a new master, you would select **Empty** instead of **Copy** on the New Component Master stick-up.

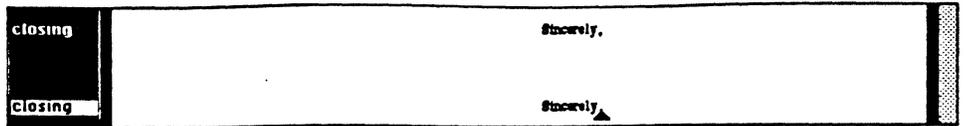
The Signature Component

The final component in the sample letter is the signature component. This component's left margin should match that of the *closing* component, and since the signature in a business letter usually includes a name and a title on two or more lines, you must make sure that the publishing software will not split the component between two pages.

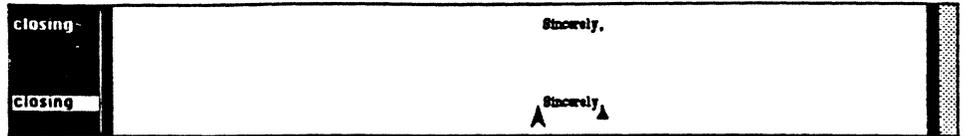
To create a component with content:

- ☐☐ With the text caret in the closing, press **LINEFEED**.
A second closing component appears below the first.





- ☐☐☐ Position the cursor before the word *Sincerely*, in the second *closing* component.



- ☐☐☐ Click the extend button.
The text between the text caret and the cursor is highlighted to indicate that it is selected.
- ☐☐☐ Execute Cut.
The selected text disappears

When you created the second *closing* component, it already contained the word "Sincerely." This is the content that you copied into the master in the previous exercise.

In order to cut the content of the second *closing* component, you selected the text. You will learn more about selecting text at the beginning of Chapter 3.

To define a signature component:

- ☐ Type the text of the signature component as shown in Figure 13. Use your name for the signature. Remember to insert hard returns as needed.

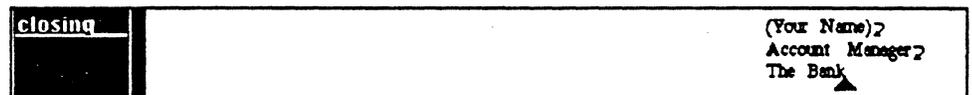


Figure 13. Completed signature component

- ☐ Select the component name in the component bar.
- ☐☐☐ Execute Props.
Because the Page sheet was the last property sheet you had open, it appears when you open the property sheet.
- ☐ Turn on the Yes toggle box next to *Allow Break After*.
- ☐ Turn on the No toggle box next to *Allow Break Within*.
The Page sheet should resemble Figure 14.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Begin New Page	Yes	No					
Begin New Column	Yes	No					
Straddle Columns	Yes	No					
Orphan Control	Default	2	lines				
Widow Control	Default	2	lines				
Allow Break Within	Yes	No					
Allow Break After	Yes	No					

Figure 14. Completed Page sheet for the signature component



Point to **Format** in the property sheet header and click the select button. *The Format property sheet replaces the Page sheet.*

- Change the *Name* field to **mysignature**. *The Format sheet should resemble Figure 15.*

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	mysignature						
Margins							
Top	0.60						inches
Bottom	0.04						inches
Left	3.50						inches
Right	0						inches
Initial Indent	0						inches
Number	Default	1					lines
Line Spacing	1.18						lines
Alignment	<input type="radio"/> Flush Left <input type="radio"/> Centered <input type="radio"/> Flush Right						
Font	Times 11 Bold Italic						
Text Props	<Defaults>						

Figure 15. Completed Format sheet for the mysignature component

- Execute **Apply** and select **Copy** on the New Component Master stickup. *The publishing software creates a master with your name and title as its contents.*
- Execute **Close**. *The property sheet closes.*

Because you started with the *closing* master, you did not have to change the margin settings.

The business letter should resemble Figure 16. In the next lesson you will make further formatting changes to the letter.

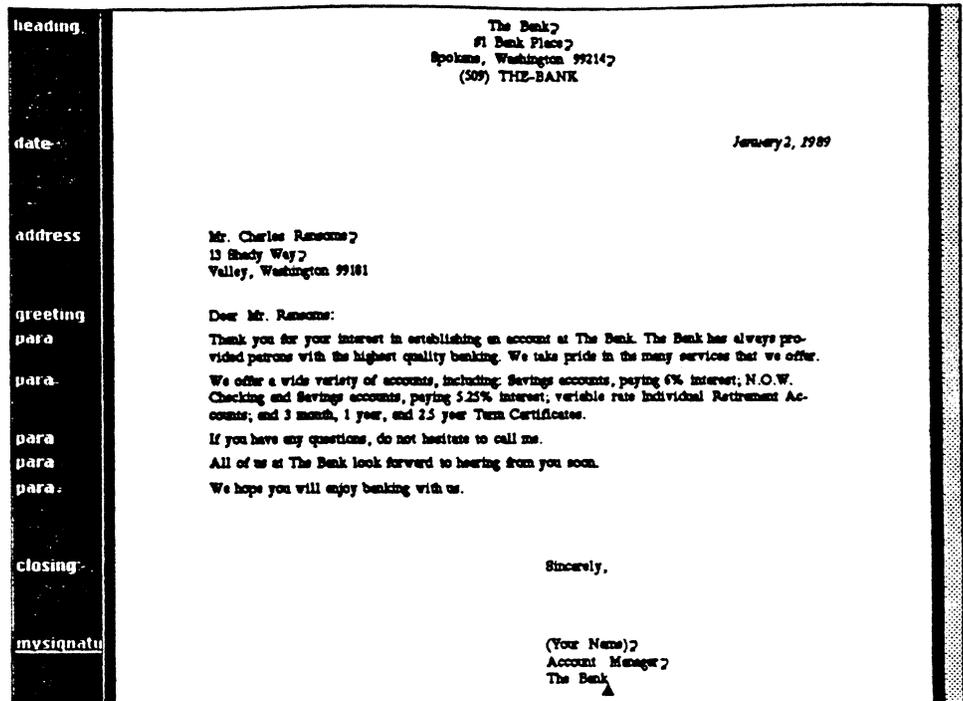


Figure 16. Completed text for the business letter

Saving a Work-in-Progress Version of a Document

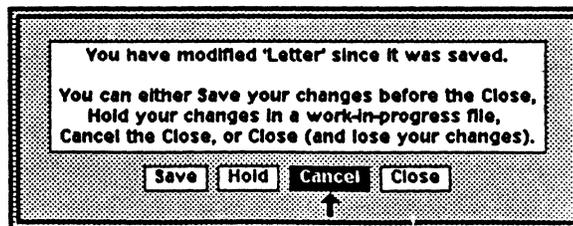
There may be times when you want to save a version of a document, but do not want to write over an earlier version. You can either give the most recent version of the document a new name, which can be cumbersome since it creates a separate document icon on your desktop, or you can create a work-in-progress file.

How to save your changes in a work-in-progress file:



Point to the Name box in the document header and execute **Close**.

The Close stickup appears.



Move the cursor to the **Hold** option and click the select button.

The document is saved, the window closes, and you are returned to the desktop.

Hold is the command you use to save your changes in a work-in-progress file. You will not see the work-in-progress file as a separate icon on your desktop.

When you save a work-in-progress version of a document, you are in essence creating two different versions of the document in the same file. When you reopen the document, the publishing software automatically opens the work-in-progress version of the document. If you want to go back to the older version, you can revert to the last saved version of the document.

If you are working in a work-in-progress version of a document, as soon as you save the current version, the work-in-progress version replaces the document version, and you can no longer access the previously saved version.

You have completed Lesson 4. When you open the document in the next lesson, the work-in-progress version of the document will open automatically.

Summary

- **Components** are the basic building blocks of a document. From the default components, you can create additional components, changing their properties to suit the needs of different elements in a document.
- Components have properties that define the way they appear and behave in a document. These properties are shown on **property sheets**.
- To open a Component property sheet, first select the component name, then execute **Props**.
- A Component property sheet consists of several different sheets, only one of which is displayed at a time. To see a different sheet, point to its name in the property sheet header and click the select button.
- There are three types of boxes on a property sheet: **field boxes**, into which you type new entries; **list boxes**, on which you click to view choices you can make; and **toggle boxes**, on which you click to turn the property on or off.
- An **anchored popup** is a menu, accessed from a list box on a property sheet, which displays the available choices for that field.
- To create a new **master definition**, or **master**, give a component a unique name and execute **Apply**. All new components you create from that master will have the same properties as the master, unless you specify an exception.
- Master definitions can include **property and content**. The properties defined by a component master include margin settings, text alignment, and font information. The content of a component master is the textual or graphic information you have copied into the master.

- If you have copied a component's contents into the master, whenever you create a new instance of that component, the stored content will automatically appear in the component.
- To update a component master, change any value except the component name on the Component property sheet and execute **Global Apply→ Confirm**.
- As you define new component masters, the publishing software adds their names to the Create submenu.
- To select text, position the text caret at one end of the desired range, move the cursor to the other end of the range, and click the extend button.
- To save your changes in a **work-in-progress** file, execute **Close** from the Name box in the document header and choose **Hold** on the Close stickup.

Further Exercises

These exercises show you other ways to use component masters that have content, and allow you to experiment with component properties. To complete the exercises, you need to have the *Letter* document open.

To create a new master that includes content:

- Select your name from the first line of the *mysignature* component.
- ☐☐ Execute **Cut**.
- Type: *Robert Trebor*
- Select the title from the second line of the *mysignature* component and execute **Cut**.
- Type: *President*
- Select the component name *mysignature* in the component bar.
- ☐☐ Execute **Props**.
The Format property sheet opens.
- Change the *Name* field to **bobsignature**.
- ☐☐ Execute **Apply**.
- Select **Copy** on the New Component Master stickup, and execute **Close**.
- Cut the new *bobsignature* component.
- Create a *mysignature* component in its place.
The format of the component remains the same, but the content changes from Bob's name and title to your name and title.

To create an instance of a master that includes content:

Cut the new *mysignature* component.

Create a *bobsignature* component in its place.

The format on the component remains the same, but the content changes from your name and title to Bob's name and title.

Lesson 5: Text Editing Operations

In this lesson you learn techniques for editing documents. Using the sample business letter, you learn how to

- select a range of text
- change the font family, point size, and typeface of selected text
- search for a specific text string and replace it with either another text string or different text properties
- cut and paste selected text
- join two components
- create a bulleted list using predefined components
- change the page margins
- turn off automatic word hyphenation
- delete the automatic page number from the footer region
- use the spelling checker
- print a document

The approximate time to complete Lesson 5 is 45 minutes.

Opening a Work-in-Progress File

You open a document that was saved as a work-in-progress file in exactly the same manner as you would open any document.

- Select the document icon and execute **Open**.

The document opens. A message appears in the status line reminding you that you have opened a work-in-progress file.



You are now going to change the appearance of the letter.

Selecting Text

In Lesson 4 you made changes to entire components by modifying their Component property sheets. You can also change specific text within components by selecting text and then executing commands from popup or pulldown menus.

A selected range of text must be connected, that is, not interrupted by unselected text, but it can extend across several components. When you select text, you are telling the publishing software that you want to perform an

action on that text. The publishing software highlights selected text by displaying it in reverse video.

To select text:



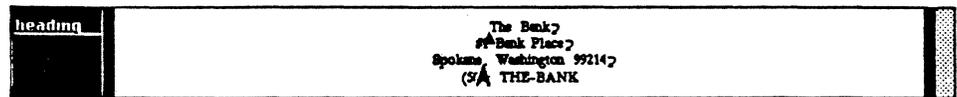
Point the cursor to the beginning of the first line in the heading and click the select button

The text caret moves to the left of the T in The Bank.



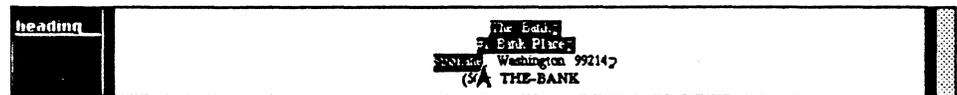
Point the cursor to the end of the word *Spokane* in the third line of the heading.

The text caret and the cursor define the range of text you want to select.



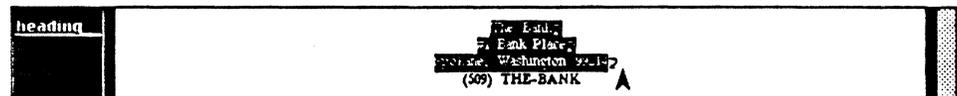
Click the extend button.

The highlight indicates that the range of text is selected.



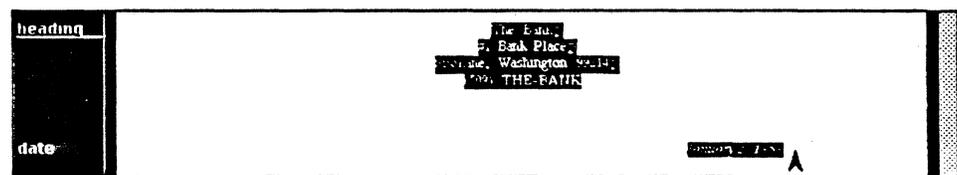
Without moving the cursor, hold down the extend button and drag the cursor to the end of the third line of the heading.

The range of selected text is expanded.



While still holding down the extend button, drag the cursor to the end of the date component.

The range of selected text is expanded into the date component.



To deselect part of the selected text:



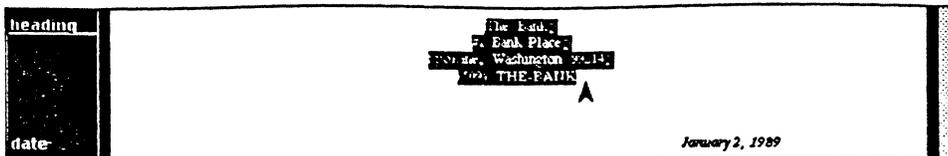
Point the cursor to the end of the last line of the heading.

The text caret and the cursor define the range of text you want to select.



Click the extend button.

The highlight indicates that the range of text is selected. The date is no longer highlighted.

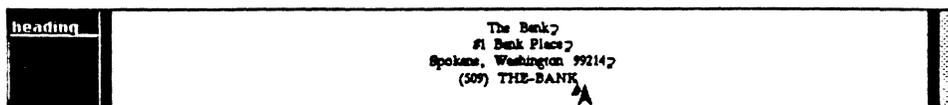


To deselect all text:



With the cursor in the text area, click the select button.

The text caret moves to the cursor location and the highlight disappears.



To deselect all text without changing the text caret location:



Select the text in the heading again.



Execute Deselect.

The highlight disappears, leaving the text caret in its original location.

The extend button allows you to select a range of text or change the amount of selected text. You can either reduce or add to a range of selected text by holding down the extend button and dragging the cursor or by changing the location of the cursor and clicking the extend button. Clicking the select button deselects any selected text by moving the text caret to the current cursor location. Executing Deselect deselects text without moving the text caret.

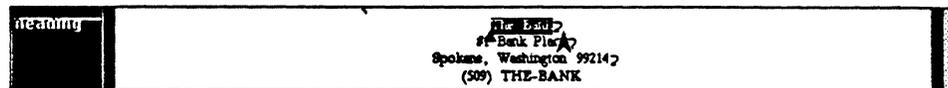
Changing Selected Text

You can use the publishing software to experiment with the visual aspects of your documents. You can make selections, then make changes to the selections until you see the results you want on the screen.

To change font characteristics:



In the letter, select the first line of the heading.



Hold down the menu button to display the Text Selected popup and drag the cursor to **Fonts→ Size→ 14**.

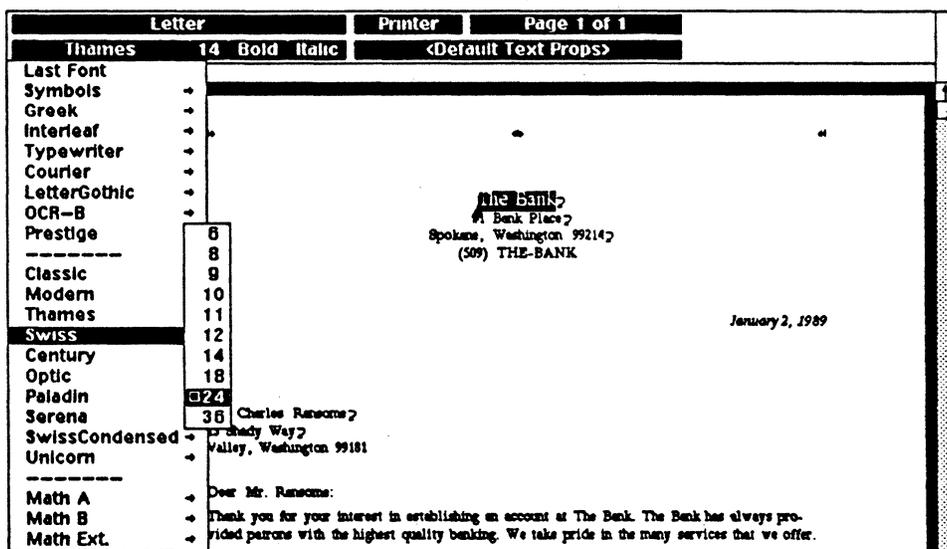
		Larger
		Smaller
	Current	6
	Last	8
	Pick Up	9
Cut	Family	10
Copy	Size	11
Fonts	Bold	12
Props	Italic	14
Deselect	Props	18
Misc		24
		36

☐☐☐ Release the menu button.
The selected text changes to 14 point.

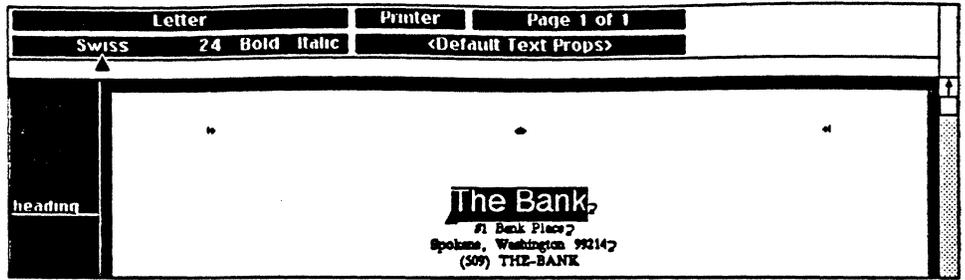
The 14-point text in the same font family does not stand out enough. You can change the font family and size simultaneously by using a pulldown menu in the document header.

To change the font family and size simultaneously:

☐☐☐ ☐☐☐ Point to the font name in the document header, hold down the menu button, and drag the cursor down to Swiss and over to 24.



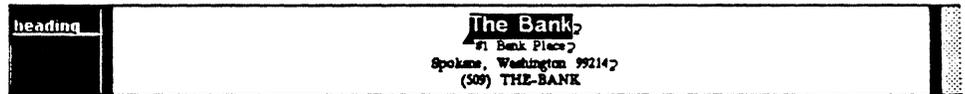
☐☐☐ Release the menu button.
The selected text is changed to 24-point Swiss. Notice that the font name and size in the document header change to Swiss and 24, respectively.



Now the heading is too large. You can use a keyboard command to reduce the size.

- With the first line of the header still selected, press F8 to make the font size smaller.

The text changes to 18 point.



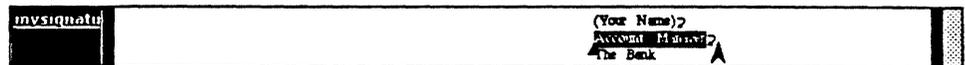
If you like, continue to press F8 or F9 to experiment further with different point sizes before you deselect the text. These keyboard commands are equivalent to the **Smaller** and **Larger** commands, respectively, on the Fonts Size submenu. Return the text to 18 point before you deselect it.

You can use keyboard commands to accomplish many of the actions you perform using commands on menus. For more information about alternatives to menu commands, see Chapter 5, *The Keyboard*, in the *Interleaf Basics* manual.

In the next exercise you select a specific range of text and change its typeface.

To change the typeface of selected text:

- Select the text *Account Manager* from the *mysignature* component.



- Press F5 or execute **Fonts**→ **Italic**→ **On**.

The selected text changes to italic.

In the next exercise you search for a string of text and then use various search and replace techniques to change instances of the string.

Searching for Text

In this exercise you use various search techniques to search for the bank name.

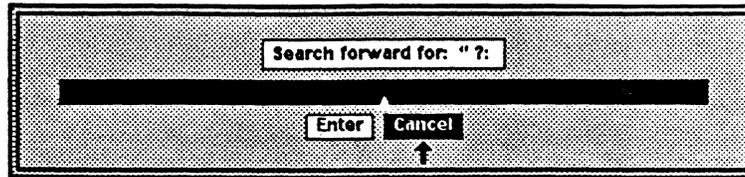
To search for specific text:

- Move the component caret so that it is above the *heading* component.



Move the cursor to the text area and execute **Misc→ Find→ Text→ Forward**.

The Forward Search stickup appears, asking for the text you want to find.



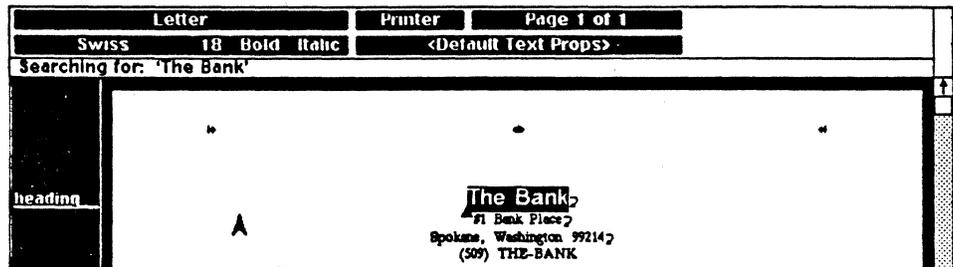
Type: *The Bank*

The text appears in the stickup



Point to **Enter** and click the select button.

The Bank is highlighted in the heading of the letter. The status line displays the message: Searching for: 'The Bank.'



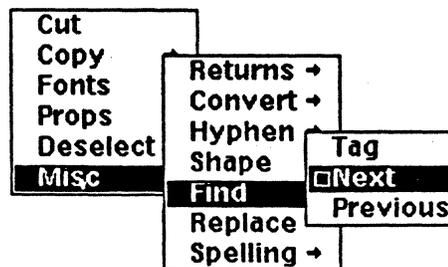
Using the **Misc→ Find** commands, you can search for instances of a text string—either any instance, regardless of its font and text properties, or only instances with specific font and text properties. You can also search for instances of specific font and text properties, independent of the text that has those properties. You can start a search from anywhere in a document, search forward or backwards, and switch the direction of the search at any time.

To search for the next instance of a text string:



Hold down the menu button.

The command Misc→ Find→ Next is the default.



Release the menu button.

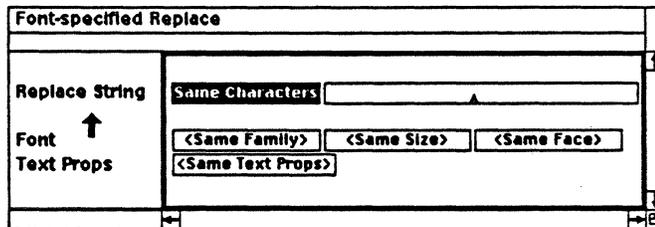
The next instance of The Bank, located at the end of the first sentence, is highlighted.

You can replace instances of the search string one at a time, all at once (globally), or from the current location of the text caret to the end of the document. When you perform a global replace, the publishing software finds each occurrence of the search string and replaces it with the replacement string.

It is also possible to replace specific text properties. To make the bank name stand out, you will search for the new bank name and change the typeface of all occurrences of the name to bold.

To change the typeface of all occurrences of a text string to bold:

- ☐ With nothing selected, execute Misc→ Find→ Text→ Forward.
- ☐ In the Forward Search stickup, type: *The Intrastate Bank*
- ☐ Press RETURN.
The first occurrence of The Intrastate Bank is highlighted.
- ☐ Execute Misc→ Replace→ Fonts.
The Font-specified Replace stickup appears.



The Font-specified Replace stickup has the following parts:

- *Replace String* specifies the string with which you want to replace the search string. If you select **Same Characters**, only the font and text properties of the search string will be changed.
- *Font* specifies the new font name, point size, and typeface for the replacement string.
- *Text Props* specifies the new text properties for the replacement string.

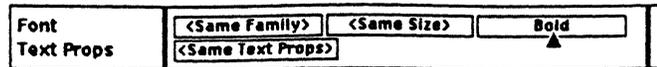
You want to change the typeface of the current search string, *The Intrastate Bank*, to bold.

- ☐ In the typeface box beside *Font* (currently set to *<Same Face>*), hold down the menu button and drag the cursor down to **Bold** on the anchored popup.



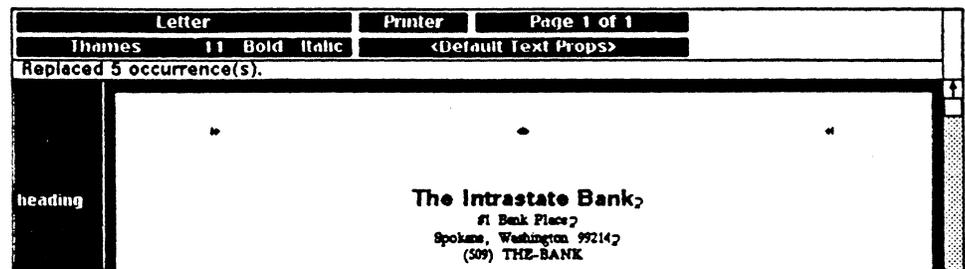
- ☐ Release the menu button.

The typeface box now contains the word **Bold** to indicate that the replacement string will be bold.



Move the cursor out of the typeface box, and execute the command **All→ Confirm**.

All occurrences of the default text string, *The Intrastate Bank*, are changed to a bold typeface. The message *Replaced 5 occurrence(s).* appears in the status line.



Using **Misc→ Replace→ Fonts** on the Text Selected menu, you can retain the text in the string for which you have searched and replace only the text properties of the string.

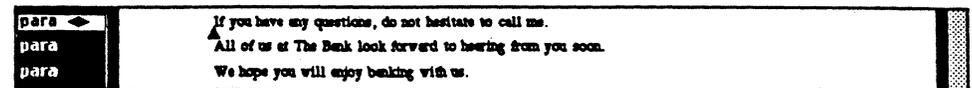
Cutting and Pasting

When editing a document, you often need to rearrange material. Sometimes you want to move entire paragraphs, and at other times you want to change only a few words within a paragraph. The next few exercises demonstrate ways to rearrange information at both the component level and the text level.

The information at the end of the letter would flow better if the third-to-last paragraph were made the second-to-last paragraph. You can move this paragraph by first cutting the entire component and then pasting it in the desired location.

To select and cut a component:

- Select the third from the last *para* component in the letter, the component that begins with the phrase *If you have any questions*, by selecting the component name in the component bar.



Execute **Cut** from the Component Selected popup.

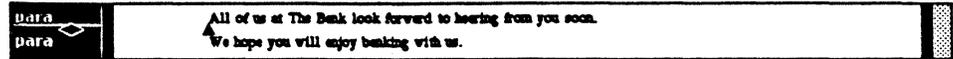
The selected component disappears.

When you cut or copy objects in the publishing software, they are placed in a temporary storage area on the desktop called the **clipboard**. Cutting an object, such as a component, removes it from its original location and places it on the clipboard.

You are now going to paste the component you just cut into its new location.

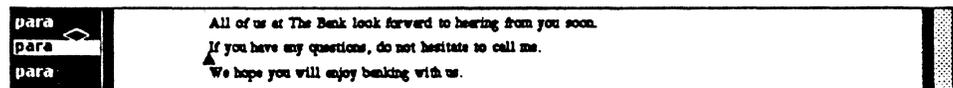
To paste a component:

- Move the component caret so that it is between the last two *para* components.



- Execute Paste from the Component Location popup.

The component you cut reappears at the location of the component caret.



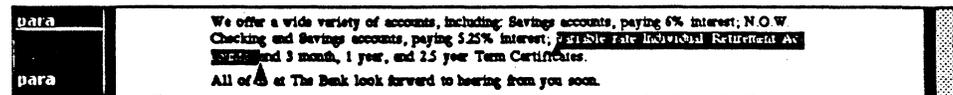
Executing Paste in the component bar places the object that was most recently stored on the clipboard in the document, at the location marked by the component caret.

You are now going to modify specific text within a component, first by cutting selected text, and then by deleting a portion of the text and entering new text.

You have been informed that Mr. Ransome is not interested in an Individual Retirement Account, so that information should be deleted from the letter.

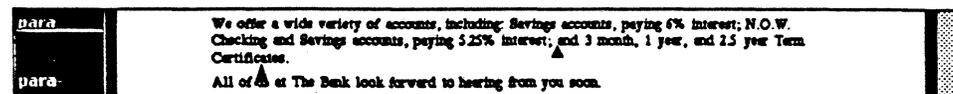
To cut selected text:

- Select the phrase *variable rate Individual Retirement Accounts*; in the second *para* component (be sure to include the semicolon and the space after the semicolon).



- Execute Cut.

The selected text disappears



In the second *para* component you used decimals to denote fractional quantities. In the next exercise you delete the decimals and insert fractions using special characters.

If your System Administrator has customized your Create cabinet so that the default output device is not *cx*, you should skip the next exercise, as the special characters you create are not defined for other output devices.

To delete and replace text:

- Position the text caret to the left of the percent sign after the number 5.25.

para	We offer a wide variety of accounts, including: Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5.25% interest; and 3 month, 1 year, and 2.5 year Term Certificates.
-------------	---

- Press the DELETE key three times to delete the decimal point and the two numerals that follow it.
- Press R1, and type the numbers 1 and 4 to obtain the fraction ¼.
- Repeat this process to change 2.5 in the same line to 2½. Press R1, and type the numbers 1 and 2 to obtain the fraction ½.

para	We offer a wide variety of accounts, including: Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5¼% interest; and 3 month, 1 year, and 2½ year Term Certificates.
-------------	--

The publishing software has three fractions built into its character set: ¼, ½, and ¾. These fractions can be obtained by pressing R1, and then typing the two numbers in the fraction. For example, to get ¾, press R1, then type 3 and 4. This function works only for the three fractions mentioned above; no other fractions are built into the character set.

Joining Two Components

In Lesson 3 you learned how to create a new component by splitting an existing component. You can also combine two components by using the **Join** command on the Component Location popup. In this exercise you will join the second-to-last and third-to-last *para* components.

To join two components:

- Position the component caret between the second-to-last and third-to-last *para* component names.

para	All of us at The Bank look forward to hearing from you soon. If you have any questions, do not hesitate to call me. We hope you will enjoy banking with us.
para	
para	

- Execute Join on the Component Location popup.
The two components are combined to form one para component.

para	All of us at The Bank look forward to hearing from you soon. If you have any questions, do not hesitate to call me. We hope you will enjoy banking with us.
para	

- If there is not a space between the two sentences, add a space after the first period.

You can use **Join** on two adjacent components only. If you want to join two components that are not adjacent, cut and paste the components so they are adjacent, and then join them. When you execute the **Join** command, it creates a single component with the properties of the first component.

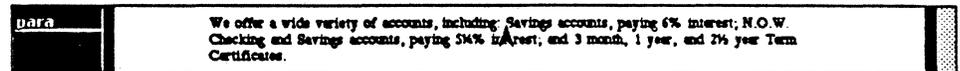
Creating a List

The second paragraph of the letter, which lists the various accounts offered by The Bank, would look better if it were in a list format. There are two predefined list types in a default document: a numbered list and a bulleted list.

In order to create a list, you must split the current paragraph and change each of the resulting *para* components to one of the defined list components.

To split components:

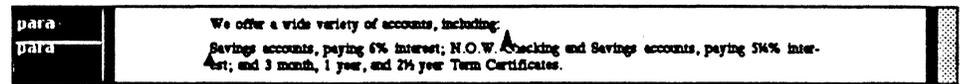
- Move the text caret to the beginning of the first type of account, right before the *S* in *Savings*, as shown below.



para We offer a wide variety of accounts, including: Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5 1/2% interest; and 3 month, 1 year, and 2 1/2 year Term Certificates.

- Execute **Misc** → **Split**.

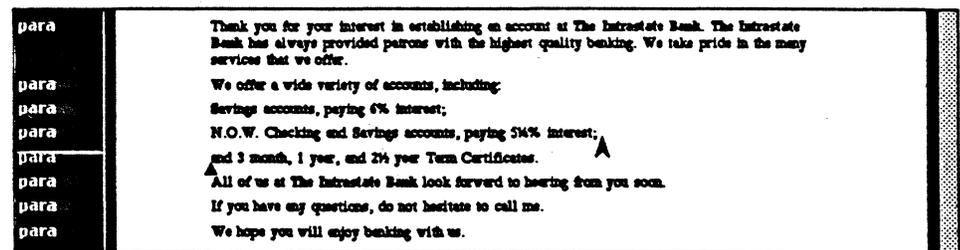
The publishing software splits the component into two separate para components.



para We offer a wide variety of accounts, including:
para Savings accounts, paying 6% interest; N.O.W. Checking and Savings accounts, paying 5 1/2% interest; and 3 month, 1 year, and 2 1/2 year Term Certificates.

- Repeat this procedure to isolate the other two types of accounts. For each, be sure to place the text caret after the semicolon and space before executing the **Split** command.

The main body of text should now look like Figure 17.



para Thank you for your interest in establishing an account at The Intrastate Bank. The Intrastate Bank has always provided patrons with the highest quality banking. We take pride in the many services that we offer.
para We offer a wide variety of accounts, including:
para Savings accounts, paying 6% interest;
para N.O.W. Checking and Savings accounts, paying 5 1/2% interest;
para and 3 month, 1 year, and 2 1/2 year Term Certificates.
para All of us at The Intrastate Bank look forward to hearing from you soon.
para If you have any questions, do not hesitate to call me.
para We hope you will enjoy banking with us.

Figure 17. Main body of the letter after splitting the *para* component

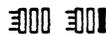
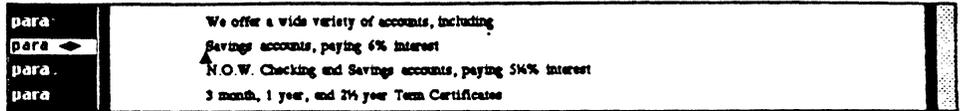
To cut unwanted text:

- Move the cursor to the end of the *para* component that begins with *We offer* and delete the colon.

- Move the cursor to the end of each of the three *para* components in the list and delete the semicolon from the first two and the period from the third.
- Delete the word *and* (and the space following it) from the beginning of the third *para* component in the list.

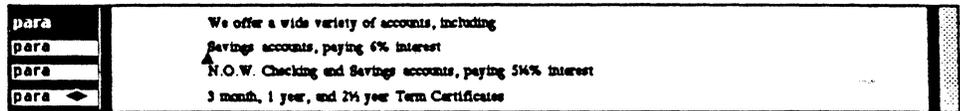
To change components to a different master:

- Move the cursor to the component bar and use the select button to select the name of the first component in the list (the paragraph that begins with *Savings accounts*).



Move the cursor down to the next component name, hold down the extend button, and drag the cursor so that the names of all three components in the list are selected.

All three para component names should now be highlighted in the component bar.

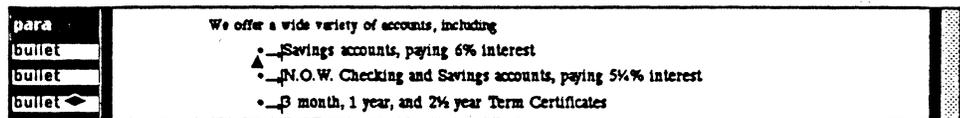


Release the extend button.



With all three component names selected, execute **Change**→ **bullet** on the Component Selected popup.

The three para components change to bullet components.



Each of the bullet components begins with a bullet character. This character is part of a **prefix**. If a prefix is defined for a component, it always appears at the beginning of that component's content. The prefix content is shared by all components of the same name; therefore, any change to the prefix content in one instance is automatically reflected in other instances.

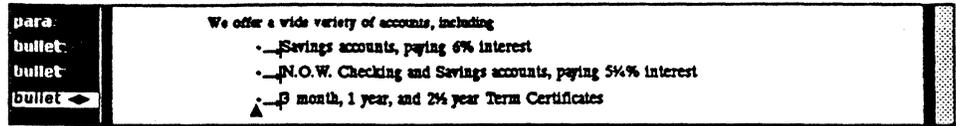
The prefix content of the *bullet* component is a bullet and a tab. Although you cannot see the tab itself, you can see the **tab marker**, the small arrow to the right of the bullet character. The vertical bar between the tab marker and the beginning of the text is a **prefix marker**. Everything to the left of a prefix marker is included in the prefix of all components of that name. You will learn more about how to create prefix components in Chapter 3.

Because the font size specified in the master definition for the *bullet* component is 12 point, the text in the list items is now in 12 point, even though it was 11 point in the *para* component. When you change a component from one master to another, the component's default properties change to

match those of the new master. In the next exercise you change the master definition for the *bullet* component so that it contains 11-point text.

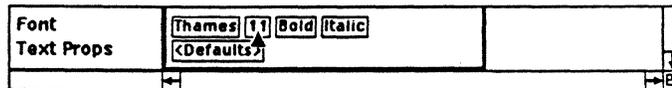
To change the font size of a component globally:

- Select the component name of one of the *bullet* components.
The other two bullet components are deselected.

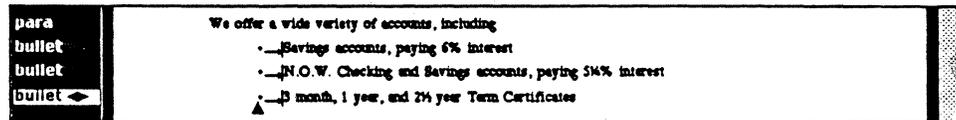


- ▣▣▣ Execute Props.
The property sheet for the bullet component opens.

- On the Format sheet, change the font size to 11.



- ▣▣▣ Execute Global Apply→ Confirm and close the property sheet.
The Font size in all three bullet components changes to 11 point and the property sheet closes.



Finishing Touches

You have finished modifying the text of the letter, but there are still some basic things you can do to clean up the document. These tasks include changing the page margins, turning off word hyphenation, removing the page number, and checking for spelling errors.

Changing the Page Margins

Up to this point, the left and right margins of the document were the default settings of 1 inch. In the next exercise, you make these margins wider.

To change page margins in a document:

- ▣▣▣▣▣ Point to the Page box in the document header and hold down the menu button.

The Page pull-down menu appears. Props is the default.

- Type: 1.5
The right margin field becomes highlighted and the value changes to 1.5.

- Execute Apply.
The left and right margins of the letter are increased.

The settings on the Basic sheet determine the overall appearance of a document, including page orientation and size, number of columns, page margins, page number properties, and the appearance of headers and footers.

Turning Off Word Hyphenation

Although hyphenation is useful for some documents, it is generally inappropriate in a business letter. The command you use to turn off hyphenation in a document is found on the Document Page property sheet, but on the Custom sheet rather than the Basic sheet.

- With the Document Page property sheet still open, point to Custom in the property sheet header and click the select button.

The Custom sheet opens.

- Point to the Off toggle box next to *Hyphenation* and click the select button.

The screenshot shows the 'Page Properties' dialog box with the 'Custom' sheet selected. The 'Hyphenation' section is expanded, showing the 'Off' toggle box selected. Other settings include: # Consecutive (Any), Units (inches, mm, picas, ciceross), Revision Bar Placement (Left, Right, Automatic), Gutter Width (Default, 0.33, inches), Balance Columns (On, Off), Vertical Justification (On, Off), Margin Stretch (200%), Margin Shrink (50%), Frame Margin Stretch (10%), Feathering, Maximum (On, Off, 8%), Vertical Just. Pages (On, Off), Depth, At Page Break (85%), Depth, No Page Break (90%), Freeze Auto# Streams (Yes, No), Override In/Out Margins (Yes, No), A-Page Properties (Maximum Page # (No limit, Fixed), Prefix, Style (Lowercase Alpha)), Turn Layout (Normal), and Begin With (Any Page).

- Execute Apply and Close.
Hyphenation is now turned off in the document and the property sheet closes.

Removing the Page Number

By default, the page number is placed at the center of the footer region. Because the letter is a one-page document, the page number is not necessary. In this lesson you will remove the default page number.

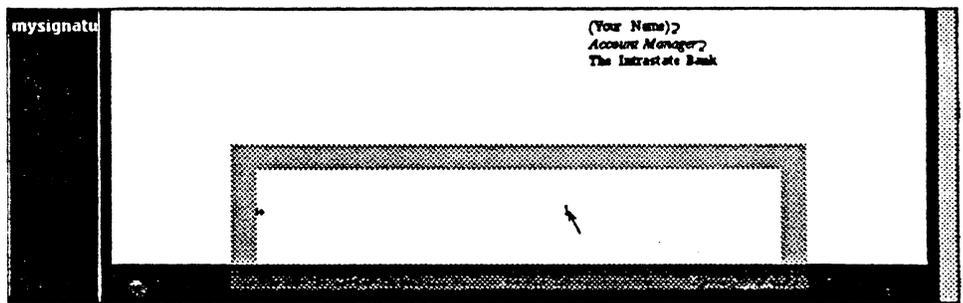
To open the footer, you need to place the cursor within the footer region and click the select button.

To remove the page number:



Point to the page number at the bottom of the page and click the select button.

The footer region jumps to the middle of the screen and the border bounding the region becomes visible. The cursor changes to a thin, slanted arrow.



With the cursor still pointing to the page number, click the select button again.

The page number blinks, indicating that it is selected.



Press DELETE.

The page number is replaced by a centered text anchor.

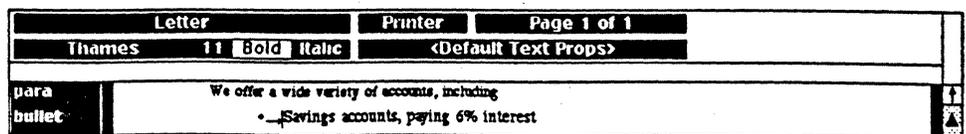


Move the cursor outside of the footer region and click the select button. *The border disappears and the cursor changes back to a chevron. The page number no longer appears at the bottom of the page.*

To scroll the window back to the top of the document:

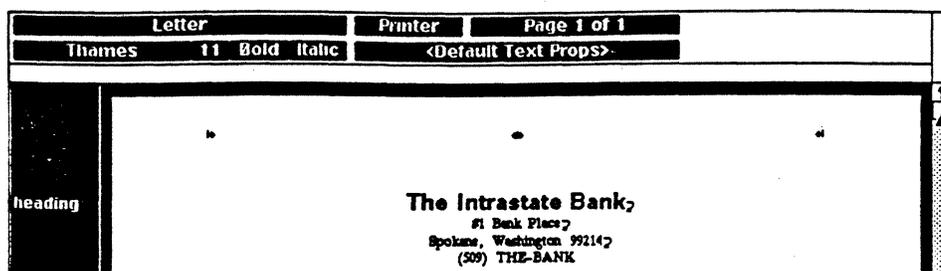


Move the cursor to the top of the vertical scroll bar.



Execute Scroll→ Elevator.

The elevator box moves to the cursor location in the scroll bar, and the top of the document appears at the top of the window.



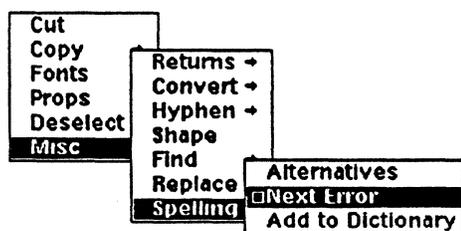
Using the Spelling Checker

While you were typing the text of the letter, you might have introduced typographical errors. In Lesson 3 you were encouraged to leave these errors in the document to provide practice in using the spelling checker. When you execute the **Spelling** command, the publishing software checks the text of your document against the **master dictionary**, an online dictionary provided by *Soft-Art, Inc.*

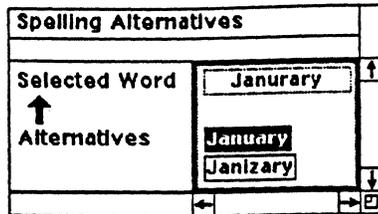
For the purpose of the next exercise, the word January in the date is incorrectly spelled *Janurary*. Follow the procedure in the next exercise to correct any errors in your version of the letter.

To correct a spelling error:

- Move the text caret to the beginning of the document.
- ☐☐☐ With nothing selected, execute **Misc**→ **Spelling**.
The spelling checker selects January as a suspect word.
- ☐☐☐ Hold down the menu button.
The Misc Spelling submenu appears. Next Error is the default.



- ☐☐☐ ☐☐☐ Drag the cursor up to **Alternatives** and release the menu button.
The Spelling Alternatives sheet appears with the suspect word at the top and boxes containing alternative spellings below that.



- ☐☐☐ Since the first suggested alternative is correct, hold down the menu button.
The Spelling Alternatives sheet popup appears. Replace is the default.



- ☐☐☐ Release the menu button.
The correctly spelled word replaces the misspelled word.

When the Spelling Alternatives sheet first appears, the first choice for a replacement of the suspect word is always highlighted. If the publishing software has other possible replacements, they are listed below the first word. To replace the misspelled word with an alternative other than the first one, click the select button on the desired word so that it becomes the highlighted choice and execute **Replace**.

If none of the alternatives is correct, execute **Cancel** on the Spelling Alternatives sheet popup, cut the misspelled word from the document, and enter the new word.

Continue to execute the **Misc→ Spelling→ Next Error** command. The publishing software might not recognize some proper names, such as *Ransome* and your name, as they are not stored in the master dictionary.

In the next exercise you tell the publishing software to recognize words that are spelled correctly, but are not in the master dictionary, by adding them to your **desktop dictionary**, a personal dictionary that is stored on your desktop. Once you add a word to your desktop dictionary, the publishing software will recognize that word not only in the current document, but in any document you open in the future.

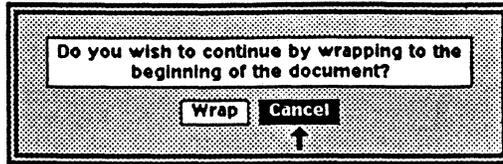
To add a word to your desktop dictionary:

- ☐☐☐ Execute **Misc→ Spelling** again.
The spelling checker highlights Ransome as a suspect word.
- ☐☐☐ Execute **Misc→ Spelling→ Add to Dictionary**.
The status line of the header displays the message: 'Ransome' entered in user dictionary.
- ☐☐☐ Execute **Misc→ Spelling** again.

Notice that the spelling checker skips over the second occurrence of the name *Ransome*, since it now recognizes that word. The spelling checker highlights any other misspelled words it encounters. If it does not recognize

your name in the *mysignature* component, it will stop and highlight it, otherwise it will continue to end of the document.

- Continue to correct spelling errors, either by asking for alternatives or by adding unknown words to the desktop dictionary. When the spelling program gets to the end of the document, the following stickup appears:

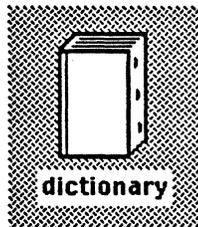


- ☰ Click the select button to select Cancel.

Because you started checking from the beginning of the document, it is unnecessary to wrap to the beginning of the document to continue checking for spelling errors.

The desktop dictionary is a personal word list that the publishing software checks whenever you use the spelling checker. You can include in this list frequently used proper names, technical terms, and jargon that are not in the master dictionary. Each desktop can have its own dictionary of up to 4,000 words.

When you close the document window at the end of this lesson, a new icon, named *dictionary*, will appear on your desktop. This icon represents the word list that you created by adding words to the desktop dictionary.



You can open, examine, and edit your desktop dictionary to remove unwanted words, just as you would a document.

Printing a Document

You have now finished the letter and are ready to print it. The first time you print a document, you should take time to familiarize yourself with the different options that the publishing software makes available to control the printing process.

To print a document:

- ☰ Point to the Printer box in the document header.



☰☐ Hold down the menu button and drag the cursor to the appropriate printer name.

☐☐ Release the menu button.

After displaying a series of messages informing you of its progress in composing the document, the publishing software sends the document to the printer.

The Print submenu contains choices you can make about the number of copies and the specific range of pages you print. Selecting **Document** prints a single copy of the entire document.

This is the end of Chapter 2. At this point, you should close and save your document to return to the desktop.

Summary

- To select text, use the text caret and the cursor to define the range of text you want to select, and click the extend button.
- To deselect text, either click the select button while the cursor is in the text area or execute **Deselect**.
- To change the font properties of selected text, such as font family, size, and typeface, execute choices from pulldown menus in the document header or popup menus in the text area, or use keyboard equivalents.
- To search for a string of text, execute **Misc→ Find→ Text**, or use the keyboard equivalent **CTRL-s**.
- You can use a **Misc→ Replace** command to replace a text string with another text string or replace it with the same characters having different text properties.
- To cut and paste selected text or components, execute commands from the **Text Selected** and **Text Location** popups or the **Component Selected** and **Component Location** popups.
- Use the **Join** command on the **Component Location** popup to join two components.
- Use the **Change** command on the **Component Selected** popup to change selected components to another component type but retain their text.
- You change the properties that control a document's page design on the **Document Page** property sheet.
- To remove the page number, select the number in the footer region and press **DELETE**.
- Use the spelling checker to locate words that do not appear in the **master** or **desktop** dictionaries.
- To print a document, execute **Printer→ printername** from the **Printer** pulldown menu.

Further Exercises

These exercises provide practice with altering Page properties, resizing the document window, and using the **Revert** command. Before you begin these exercises, you must have the *Letter* document open on your desktop.

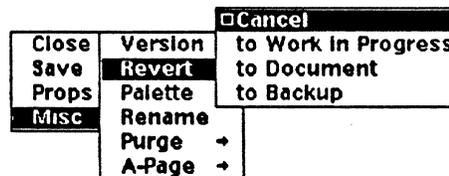
To change page properties:

- ☰ ☰ ☰ Point to the Page box in the document header and execute **Props**.
The Page property Custom sheet opens.
- ☰ ☰ ☰ In the property sheet header, point to **Basic** and click the select button.
 - Make the following changes to the Basic sheet:

<i>Orientation</i>	Landscape
<i>Left Margin</i>	2.5
<i>Right Margin</i>	1.75
 - Execute **Apply** and **Close**.
The format of the page changes to conform to the new properties. Since you changed the orientation, however, you can no longer see the entire page.
 - Point to the size box and resize the document window so that you can see the entire page.

To revert to the last saved version of a document:

- ☰ ☰ ☰ Point to the Name box in the document header and hold down the menu button.
The Document Name pulldown menu appears.
- ☰ ☰ ☰ Drag the cursor down to **Misc**, over to **Revert**, and to the **Revert** submenu.
*The default is **Cancel**. Notice that the publishing software distinguishes between a *Work-in-Progress* version and a *Document* version.*



- ☰ ☰ ☰ Drag the cursor down to **Document** and release the menu button.
After a short wait, the version of the document that you saved at the end of Lesson 3 is opened in the document window.

For More Information

If you are interested in learning more about master definitions, keyboard commands, and how documents are stored, see the following chapters in the *Interleaf Basics* manual in the *Reference* set:

- Chapter 2, *Masters*, introduces the basics of master definitions.
- Chapter 5, *The Keyboard*, describes the various functions of keyboard commands.
- Chapter 7, *How Documents are Stored*, explains the different ways you can store your documents.

If you are interested in learning more about components, editing documents, and the search and replace feature, see the following chapters in the *Text Processing and Page Makeup* manual in the *Reference* set:

- Chapter 10, *Text Processing*, provides detailed information on working with components, editing text, and cutting, copying, and pasting.
- Chapter 13, *Search and Replace*, explains the various ways you can search for and replace text.



3

Tabs, Autonumbers, and Autoreferences

Chapter 3 introduces you to three features you can use to enhance your documents: tabs, autonumbers, and autoreferences.

There are three lessons in this chapter:

- Lesson 6, *Using Tabs to Create Tables*, explains the use of tabs and teaches you how to make tables formatted with tabs.
- Lesson 7, *Using Autonumbers*, teaches you how to format a document with numbered paragraphs.
- Lesson 8, *Using Autoreferences*, teaches you how to create cross-references.

You begin this chapter by using tabs to create two tables. The tables will be used in a document provided to a company's employees by the Accounting department, explaining expense reimbursement policies. As the lessons progress, you modify the structure of the document, using autonumbers to create a numbered outline format. Finally, you use autoreferences to cross-reference within the document, and you import into the document the tables you created in the first lesson.

Lesson 6: Using Tabs to Create Tables

In this lesson you use tabs to create two tables, and in doing so you learn how to

- set tab locations
- remove tab locations
- change tab locations and alignments
- make tab markers visible and invisible on your screen
- change the appearance of a tab leader

The approximate time to complete Lesson 6 is 30 minutes.

Defining the Component for a Table

Tabs are locations on a line to which you can automatically send the text caret by pressing the **TAB** key. Tabs also control the alignment of text you enter at the tab location. Because you can use tabs to keep columns of text or numbers in proper vertical alignment, tabs are useful when working with tables.

You do not need to have the Tables package in order to create the tables in this lesson. Even if you do have the Tables package, use this lesson to learn more about how to use tabs.

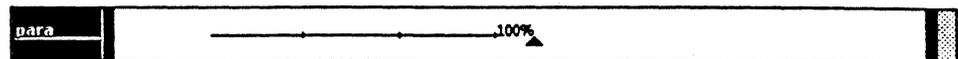
You can insert tabs in any component that has either flush-left, or flush-left and flush-right alignment. It is not possible to insert a tab in a component that has centered or flush-right alignment.

In this exercise you use tabs to format information on tuition reimbursement as it relates to course performance.

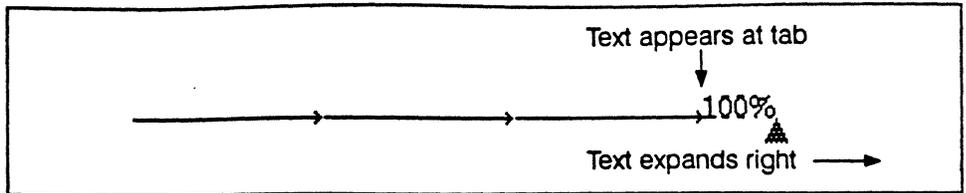
To see tab settings:

- Create a document icon on your desktop, name it *tables*, and open it.
- Press **TAB** three times and type: *100%*

You see a series of arrowheads pointing to the right and connected by solid lines.



The default tab type, **Left**, is indicated by the right-facing arrowhead. When you type text at a left tab location, the first character appears after the arrowhead and with each character you add, the text expands to the right.



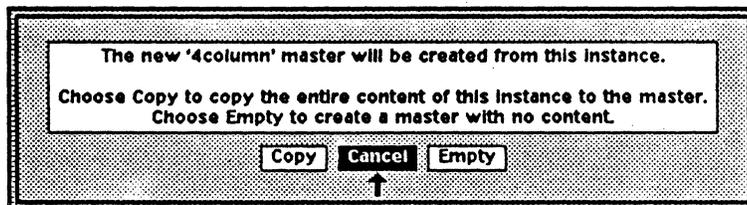
The arrowheads and connecting lines are **tab markers**. The arrowheads represent both the locations and alignments of tabs, and the solid lines help you connect the tabs in a line visually. Each time you press the **TAB** key, the text caret moves to the next tab location, starting at the left margin of the component. Tab markers appear on your screen only; they will not appear in your printed document.

To change text properties in the table:

- Select the *para* component and execute **Props**.
The Format sheet opens.
- Make the following changes to the Format sheet:

<i>Name</i>	4column
<i>Font family</i>	Swiss
<i>Font size</i>	11

- Execute **Apply**.
The New Component Master stickup appears.



- Select **Empty** and execute **Close**.
The publishing software creates a master without copying the current contents of the 4column component into the master. The text within the component changes to reflect the changes you made on the property sheet.

You set the locations and alignments of tabs in a component on the Component property Tab sheet.

To open the tab sheet:

- Point to **Tab** in the property sheet header and click the select button.
A Tab sheet like the one shown in Figure 1 appears on your screen.

- Text at a Dec, tab behaves the same way as it does at a Dec . tab, but it is aligned with a comma (,) instead of a decimal point.
- A Remove setting removes the tab location.

Next you make changes on the Tab sheet to see how they affect the tabs in your document.

Changing Tab Settings

The first table that you create in this lesson, a tuition reimbursement table, has four columns. Because the first column starts at the left margin, you have to define only three tab settings: for the second, third; and fourth columns. The first column indicates the level of achievement, the second and third columns indicate the grade point average range for that level, and the fourth column indicates the percent of the course tuition that is reimbursed to employees upon completion of the course.

In order to correctly align the columns, you must change the default tab settings.

To change a tab location:

- Move the property sheet caret to the first *Location* field, type 2.4, and press RETURN.

2.40 appears in the first Location field.

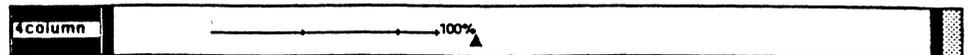
Component Properties								Format	Page	Custom	Tab	Profile	Attrs
Location		Tab Type											
2.40	inches	Left	Center	Right	Dec .	Dec ,	Remove						
1	inches	Left	Center	Right	Dec .	Dec ,	Remove						
2	inches	Left	Center	Right	Dec .	Dec ,	Remove						
3	inches	Left	Center	Right	Dec .	Dec ,	Remove						
0	inches	Left	Center	Right	Dec .	Dec ,	Remove						

- ☐ Execute Apply.

The tab locations are reorganized on the Tab sheet so that they are in numerical order.

Component Properties								Format	Page	Custom	Tab	Profile	Attrs
Location		Tab Type											
1	inches	Left	Center	Right	Dec .	Dec ,	Remove						
2	inches	Left	Center	Right	Dec .	Dec ,	Remove						
2.40	inches	Left	Center	Right	Dec .	Dec ,	Remove						
3	inches	Left	Center	Right	Dec .	Dec ,	Remove						
0	inches	Left	Center	Right	Dec .	Dec ,	Remove						

Because the third tab location is now 2.4 inches, the tab marker in your document that was at 3 inches shifts to 2.4 inches.



To inform you that the tabs shifted, the publishing software displays the message: *3 tabs changed position* after you execute Apply.

To format the table, you will also need tab settings at 2.8 inches and 4.2 inches.

To change additional tab locations:

- Move the property sheet caret to the first *Location* field (that has a value of 1) and type 2.8.
- Move the property sheet caret to the second *Location* field (that has a value of 2) and type 4.2.
- Execute Apply.

The tab locations are reorganized on the tab sheet so that they are in numerical order.

Component Properties								
Format Page Custom Tab Profile Attrs								
Location		Tab Type						
2.40	Inches	Left	Center	Right	Dec.	Dec.	Remove	
2.80	Inches	Left	Center	Right	Dec.	Dec.	Remove	
3	Inches	Left	Center	Right	Dec.	Dec.	Remove	
4.20	Inches	Left	Center	Right	Dec.	Dec.	Remove	
0	Inches	Left	Center	Right	Dec.	Dec.	Remove	

You do not need the tab that is located at 3 inches, so you should remove it.

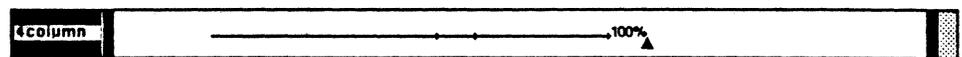
To remove a tab:

- Point the cursor to the **Remove** box for the tab located at 3 inches and click the select button.

Component Properties								
Format Page Custom Tab Profile Attrs								
Location		Tab Type						
2.40	Inches	Left	Center	Right	Dec.	Dec.	Remove	
2.80	Inches	Left	Center	Right	Dec.	Dec.	Remove	
3	Inches	Left	Center	Right	Dec.	Dec.	Remove	
4.20	Inches	Left	Center	Right	Dec.	Dec.	Remove	
0	Inches	Left	Center	Right	Dec.	Dec.	Remove	

- Execute Apply.

The tab marker that was 3 inches from the left margin disappears. Tab markers now appear at 2.4, 2.8, and 4.2 inches.



In order to properly format the table, you must also change the alignment of the tabs you have just defined.

To change a tab to a right tab:

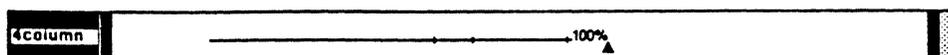
- Point the cursor to the **Right** box for the tab located at 4.2 inches and click the select button.

*The **Right** box turns black to indicate that it is selected.*

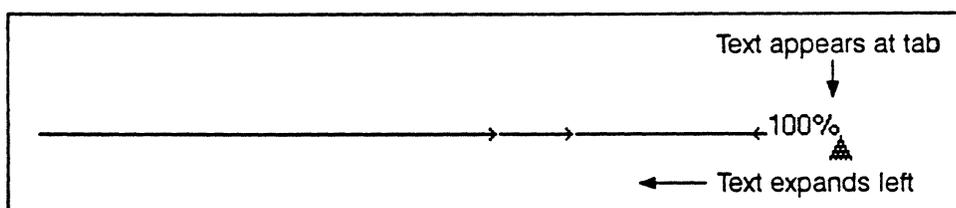
Component Properties								Format	Page	Custom	Tab	Profile	Attrs
Location		Tab Type											
2.40	inches	Left	Center	Right	Dec .	Dec ,	Remove						
2.80	inches	Left	Center	Right	Dec .	Dec ,	Remove						
4.20	inches	Left	Center	Right	Dec .	Dec ,	Remove						
0	inches	Left	Center	Right	Dec .	Dec ,	Remove						
0	inches	Left	Center	Right	Dec .	Dec ,	Remove						

Execute Apply.

The arrowhead of the tab marker located at 4.2 inches now points to the left.



The left-pointing arrow indicates a **Right** tab setting. When you type text at a right tab location, the text begins before the arrowhead at the tab location and expands to the left.



To change a tab to a decimal tab:

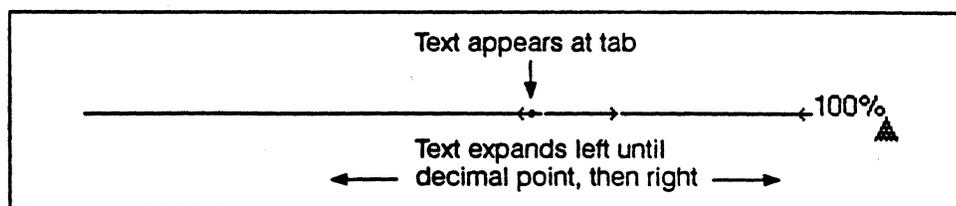
Execute Apply.

Point the cursor to the **Dec ,** box for the tab located at 2.4 inches and click the select button.

Component Properties								Format	Page	Custom	Tab	Profile	Attrs
Location		Tab Type											
2.40	inches	Left	Center	Right	Dec .	Dec ,	Remove						
2.80	inches	Left	Center	Right	Dec .	Dec ,	Remove						
4.20	inches	Left	Center	Right	Dec .	Dec ,	Remove						
0	inches	Left	Center	Right	Dec .	Dec ,	Remove						
0	inches	Left	Center	Right	Dec .	Dec ,	Remove						

Execute Apply.

The arrowhead of the tab marker located at 2.4 inches continues to point to the left and a decimal point appears directly to its right.



The **Dec ,** tab type is exactly the same as the **Dec .** tab type, except that it aligns text and numbers with a comma rather than a decimal point. The tab markers for **Dec ,** and **Dec .** tabs look exactly the same on the screen.

The tab located at 2.8 inches should also be a **Dec .** tab.

To create a second decimal tab:

 Point the cursor to the **Dec .** box for the tab located at 2.8 inches and click the select button.

 Execute **Apply**.

The left tab marker located at 2.8 inches changes to a decimal tab marker.

Since you have created an exception to the *4column* master definition, you need to update the master so that all *4column* components you create in the future have these properties.

To update the master definition using the Unify command:

 Execute **Unify→ All→ Props**.

The master definition for the 4column component is updated to incorporate all of the changes you have applied. The status line displays the message: Updated the master definition for '4column.'

 Execute **Close**.

The Tab sheet closes.

Although both **Global Apply** and **Unify** update the master definition, you must use **Unify** in this case. You might recall from Lesson 4 that **Global Apply** updates only those properties that you have changed since you last applied changes to the property sheet. When you execute **Unify→ All→ Props**, all the properties of the current component are copied to the master for that component, including those that were applied previously. Since you have applied several changes since you opened the property sheet, you must execute **Unify→ All→ Props** to ensure that all of your changes are copied to the master.

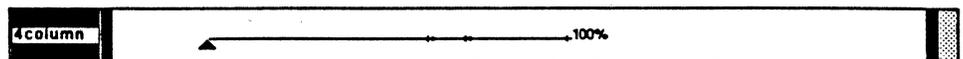
Entering Text Using Tabs

Now that you have formatted the component you will use for the rows of the table, you are ready to enter data in the table.

To enter text with tabs:

 Hold down the **CTRL** key and press **a**.

The text caret moves to the beginning of the 4column component.



 Type: *High distinction*

 Press the right arrow key and type: *3.5 -*

 Press the right arrow key and type: *4.0*

The first line of the table is formatted.

4column	High distinction _____↔3.5 -↔4.0 _____↔100%
---------	---

You can use the keyboard command CTRL-a and the right arrow key to move the text caret. CTRL-a moves the text caret to the beginning of the current line. Pressing the right arrow key moves the text caret forward one character at a time. For a complete listing of the available keyboard commands, refer to Chapter 5, *The Keyboard*, in the *Interleaf Basics* manual.

To enter more rows of the table:

- Press LINEFEED to create a new *4column* component.
- Type: *Distinction*
- Press TAB key and type: 2.5 -
- Press TAB key and type: 3.49
- Press TAB key and type: 80%
- Press LINEFEED to create a new *4column* component and type the next three lines of the table as shown in Figure 2. Be sure to press LINEFEED after each line to place each line in a separate component.

4column	High distinction _____↔3.5 -↔4.0 _____↔100%
4column	Distinction _____↔2.5 -↔3.49 _____↔80%
4column	Satisfactory _____↔1.5 -↔2.49 _____↔45%
4column	Passing, but Unsatisfactory _____↔0.5 -↔1.49 _____↔0%
4column	Failing _____↔0.0 -↔0.49 _____↔0%

Figure 2. Main body of the tuition reimbursement table

By using a decimal tab for the grade point averages and a right tab for the percentages, you ensure that all the numbers and percent signs are aligned correctly. The grade point averages are aligned to the decimal points, while the percentages are right aligned.

Now that the correct information is entered, you need to add a heading to identify the table.

To define a header line for the table:

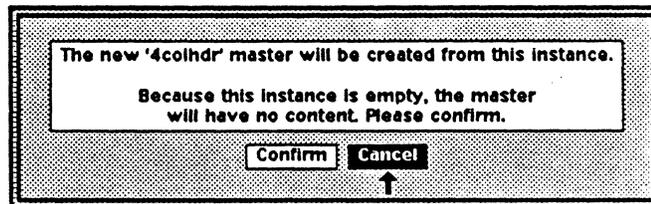
- Position the component caret above the first *4column* component.
- Execute Create→ *4column*.
An empty 4column component appears above the table.
- Execute Props.
The Tab sheet opens.
- Change the first tab *Location* to 2.6 inches and the *Tab Type* to Center.
- Change the second tab *Location* to 4 inches and the *Tab Type* to Center.
- Remove the third tab.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	4colhdr						
Margins							
Top	0						inches
Bottom	0.10						inches
Left	0						inches
Right	0						inches
Initial Indent	0						inches
Number	Default	1					lines
Line Spacing	1						lines
Alignment	<input checked="" type="radio"/> Flush Left <input type="radio"/> Centered <input type="radio"/> Flush Right						
Font	<input checked="" type="checkbox"/> Swiss <input checked="" type="checkbox"/> 11 <input checked="" type="checkbox"/> Bold <input type="checkbox"/> Italic						
Text Props	<input checked="" type="checkbox"/> Under						

Figure 3. Format sheet for the 4colhdr component

Execute Apply.

The New Component Master stickup appears.



Select Confirm and execute Close.

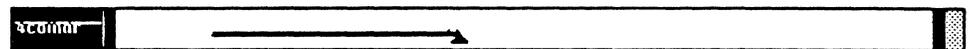
The publishing software creates a master for the 4colhdr component and the property sheet closes.

The header for this table consists of two lines.

To enter text in the table header:

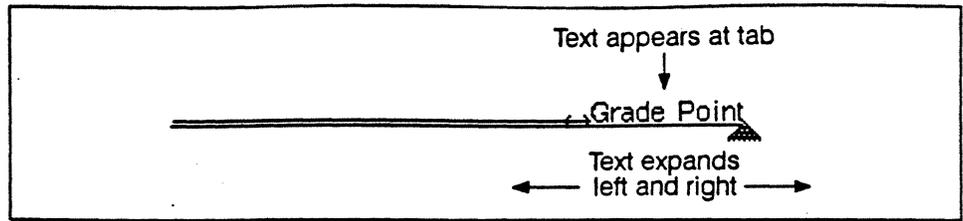
Press TAB.

The arrowhead of the tab marker points in both directions, indicating that it is a centered tab marker.



The double-headed arrow indicates a Center tab setting. Text at a center tab stays centered around that tab; as you type, the text expands equally to the right and left of the tab.

Type: *Grade Point*



- Press **TAB** and type: *Percent*
- Press **RETURN**.
The text caret moves to the beginning of the next line.
- Type: *Achievement*
- Press **TAB** and type: *Average Range*
- Press **TAB** and type: *Reimbursement*
The header should resemble Figure 4.

<u>Achievement</u>	<u>Grade Point</u>	<u>Percent?</u>
Achievement	Average Range	Reimbursement
High distinction	3.5 - 4.0	100%
Distinction	2.5 - 3.49	80%
Satisfactory	1.5 - 2.49	45%
Passing, but Unsatisfactory	0.5 - 1.49	0%
Failing	0.0 - 0.49	0%

Figure 4. Initial table header

Since the *4colhdr* component is formatted for single-line headers, you should remove the underline from the first line of the two-line header.

To remove the underline from the first header line:

- Select the first line of the *4colhdr* component.

<u>Achievement</u>	<u>Grade Point</u>	<u>Percent?</u>
Achievement	Average Range	Reimbursement
High distinction	3.5 - 4.0	100%
Distinction	2.5 - 3.49	80%
Satisfactory	1.5 - 2.49	45%
Passing, but Unsatisfactory	0.5 - 1.49	0%
Failing	0.0 - 0.49	0%

- Press **F6**.
The underline below the first line disappears.
- Execute **Deselect**.
The first line of the header is deselected.

F6 toggles underlining for selected text.

Although the tab markers are useful indicators of tabs locations, they can also be distracting. In the next exercise you make the tab markers invisible.

To make tab markers invisible:

- With the cursor in the text area, execute **Misc**→ **Show**→ **Tabs**.
The tab markers disappear.

	Achievement	Grade Point Average Range	Percent Reimbursement
4column:	High distinction	3.5 - 4.0	100%
4column:	Distinction	2.5 - 3.49	80%
4column:	Satisfactory	1.5 - 2.49	45%
4column:	Passing, but Unsatisfactory	0.5 - 1.49	0%
4column:	Failing	0.0 - 0.49	0%

Misc→ Show→ Tabs is a toggle command. Executing this command when tab markers are visible makes them invisible; executing it when tab markers are invisible makes them visible again.

Creating a Second Table

You have completed the first table and are ready to begin formatting the second table, which contains information on reimbursement rates for automobile travel. Even though this table has only two columns, one for the distance traveled and the second for the reimbursement rate, you can use the components you created for the four-column table as building blocks for the new table.

To define the header for a second table:

- Move the component caret so that it is below the last 4column component.
- With the cursor in the component bar, execute Create→ 4colhdr.
A 4colhdr component appears below the last row of the previous table.
- Execute Props.
The Format sheet opens.
- Change the Name field to 2colhdr.
- Point to Tab in the property sheet header and click the select button.
The Tab sheet replaces the Format sheet.
- Change the first tab Location to 2.65.
- Remove the second tab.

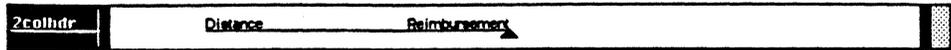
Component Properties								Format	Page	Custom	Tab	Profile	Attrs
Location		Tab Type											
2.65	Inches	Left	Center	Right	Dec.	Dec.	Remove						
4	Inches	Left	Center	Right	Dec.	Dec.	Remove						
0	Inches	Left	Center	Right	Dec.	Dec.	Remove						
0	Inches	Left	Center	Right	Dec.	Dec.	Remove						

- Execute Apply.
The publishing software creates an empty master for a 2colhdr component.
- Select Confirm on the New Component Master stickup and execute Close.
The property sheet closes.

There is no need to change any of the formatting properties, since you want the table headers to look the same. The only difference between the tables is the number of columns in each table, and therefore the number of tabs that need to be defined.

To enter text in the second table header:

- Type: *Distance*
- Press TAB and type: *Reimbursement*



To define the component for the main body of the second table:

- Move the component caret so that it is below the *2colhdr* component.
- With the cursor in the component bar, execute **Create→ 4column**.
A 4column component appears below the 2colhdr component.
- Execute **Props**.
The Tab sheet opens.
- Change the first tab *Location* to *2.3* and the *Tab Type* to *Left*.
- Remove the second and third tabs.

Component Properties								Format	Page	Custom	Tab	Profile	Attrs
Location		Tab Type											
2.30	inches	Left	Center	Right	Dec.	Dec.	Remove						
2.60	inches	Left	Center	Right	Dec.	Dec.	Remove						
4.20	inches	Left	Center	Right	Dec.	Dec.	Remove						
0	inches	Left	Center	Right	Dec.	Dec.	Remove						
0	inches	Left	Center	Right	Dec.	Dec.	Remove						

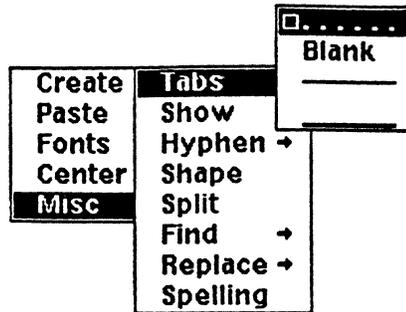
- Point to **Format** in the property sheet header and click the select button.
The Format sheet replaces the Tab sheet.
- Change the *Name* field to *2column*.
- Execute **Apply**.
The publishing software creates an empty master for a 2column component.
- Select **Confirm** on the New Component Master stickup and execute **Close**.
The property sheet closes.

By default, the space between the point where you insert a TAB character and the start of the text at the tab location is blank, but there are three other styles you can choose to fill the space before tabs: a dotted line, a solid line, and an underline.

To change the tab style:

- Type: *First 500 Miles*

- Hold down the menu button and drag the cursor down to Misc, over to Tabs, and up to the dotted line.



- Release the menu button.
The default tab style is now a dotted line.

- Press TAB.
A dotted line appears between the end of the text you have typed and the next tab location.

2colhdr 2column	Distance	Reimbursement
	First 500Miles	

- Continue entering text into the table as shown in Figure 5. Remember to create a new 2column component for each line of the table.

2colhdr 2column	Distance	Reimbursement
	First 500Miles	\$0.20/mile
	Next 300Miles	\$0.14/mile
	After 800Miles	\$0.08/mile

Figure 5. Completed travel reimbursement table

If you want to use a style other than blank tabs, you must choose the style you want *before* you press the TAB key. To change the appearance of a tab style, you must delete the old tab, choose another option on the Misc Tabs submenu, and then press the TAB key again. Choosing any option on the Misc Tabs submenu other than **Blank** causes tabs to appear in the printed document.

This is the end of Lesson 6. At this point, you should close and save the *tables* document.

Summary

- A **Tab** is a location on a line to which you can move the text caret by pressing the TAB key. Tabs control the alignment of characters you enter at the tab location.

- Tabs can be used only in components that have a left alignment (either flush left only, or both flush left and flush right). You cannot insert tabs in components with centered or flush-right-only alignments.
- To change a tab location, open the component's Tab property sheet, enter a new value in the *Location* field for the tab you want to change, and apply the change.
- To remove a tab location, point to the **Remove** box for the tab you want to remove and click the select button.
- There are four different tab types: left, center, right, and decimal. Decimal tabs can be aligned either to a period (Dec .) or to a comma (Dec ,).
- To change a tab type, open the component's Tab property sheet and click the select button on one of the *Tab Type* boxes for the tab you want to change.
- Execute **Unify→ All→ Props** to apply all of the selected component's properties to the master and all existing instances of the master.
- To make tab markers visible or invisible, execute **Misc→ Show→ Tabs** on the Text Location popup.
- There are four different settings for tab styles: blank, dotted line, solid line, and underline. To change the appearance of the tab, execute **Misc→ Tabs→** and one of the four styles.

Further Exercise

This exercise teaches you how to reset values in a property sheet. Before you begin this exercise, you must have the *tables* document open on your desktop.

To reset values in a property sheet:

- ☐☐☐ ☐☐☐ With the cursor in the component bar, select one of the *4column* components and execute **Props**.
The Format sheet opens.
- ☐☐☐ ☐☐☐ Point to **Tab** in the property sheet header and click the select button.
The Tab sheet replaces the Format sheet.
- ☐ Change the *Tab Type* setting of the first tab to **Dec ,**.
- ☐ Change the *Tab Type* setting of the third tab to **Center**.
- ☐☐☐ Execute **Global Apply→ Confirm**.
The table is reformatted. Because there are no commas in the first column of the table, the Dec , tab acts as a flush-right tab. The second column has centered alignment.
- ☐☐☐ With the cursor in the Tab sheet, execute **Reset**.

The values for Tab Type return to the state they were in when you opened the Tab sheet.

- Execute Global Apply→ Confirm and then Close.**
- Close the document window without saving the changes.**

Executing the **Reset** command on the Close popup causes all values on a property sheet to revert to what they were when you opened the property sheet. This feature is useful when you are experimenting with different property values.

The message: *Please apply or global apply to reset* appears in the property sheet's status line after you execute **Reset** to remind you that you must apply the change; otherwise, the **Reset** command will not take effect.

Lesson 7: Using Autonumbers

In Lesson 7 you learn about autonumbering, a feature that you can use to number items in your document automatically. In doing so, you learn how to

- page through a multipage document
- define an outline component
- insert an autonumber token in a prefix
- change components to another master
- reorder an autonumber stream
- change properties in the Autonumber property sheet

The approximate time to complete Lesson 7 is 40 minutes.

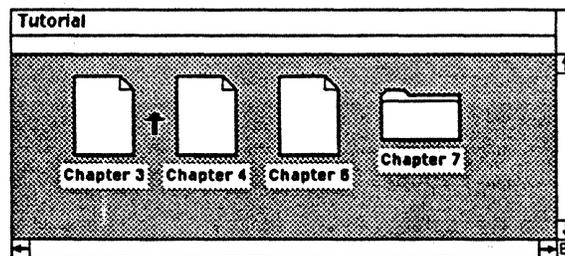
Preliminary Steps

In this lesson you modify an existing document that describes a company's expense reimbursement policies. After copying the document to your desktop and examining it, you define new components, with prefixes, for the sections and paragraphs, and then automatically number the paragraphs using a special feature of the publishing software.

To retrieve the sample document:

- Open the *System* cabinet, the *Library* cabinet, the *Documentation* drawer, and the *Tutorial* folder.

The Tutorial folder contains three documents, named Chapter 3, Chapter 4, and Chapter 6, and a folder named Chapter 7.



- ☐☐☐☐ Select the *Chapter 3* document icon and execute **Copy**→**Normal**.
- Close the *Tutorial* folder, the *Documentation* drawer, the *Library* cabinet, and the *System* cabinet and paste the copy of *Chapter 3* onto the desktop or into a convenient container.
- Rename the document *Expenses*.
- Open *Expenses*.

Expenses is a three-page document describing guidelines for employee expense reimbursement. The first page of the Expenses document is shown in Figure 5.

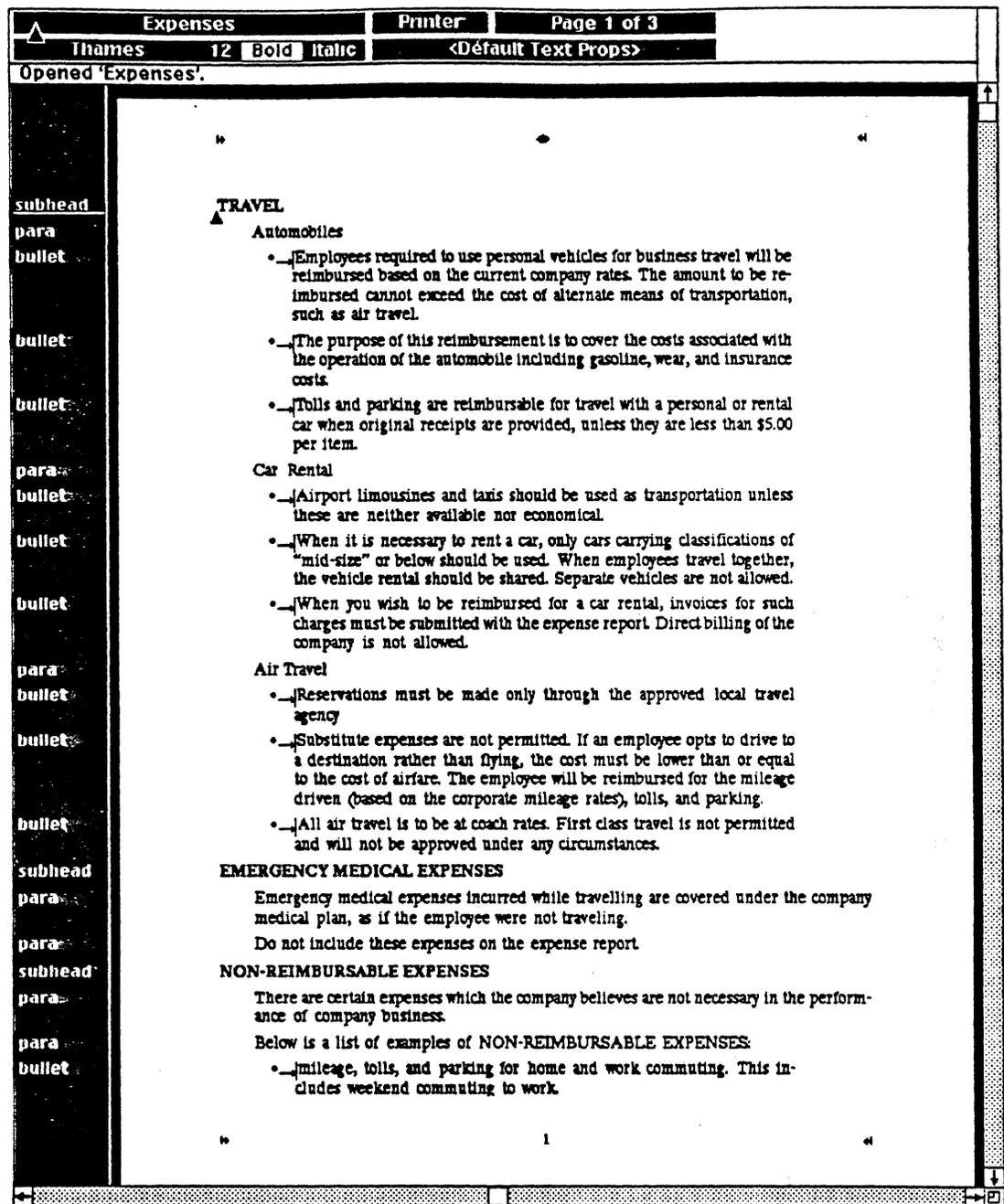


Figure 5. The Expenses document (first page)

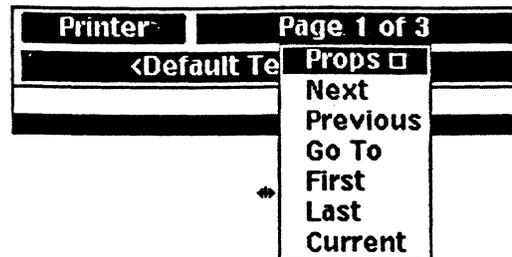
The document is currently three pages long. Since this may be the first time you have used the publishing software in a multipage document, the next few exercises will show you commands you can use to move from page to page. These commands are found on the Page pulldown menu in the document header.

To see the Page pulldown menu:



Point to the Page box in the document header and hold down the menu button.

The Page pulldown menu appears.



The following commands are accessible from the Page pulldown menu:

- Props gives you access to the Page property sheet.
- Next displays the next page.
- Previous displays the previous page.
- Go To prompts you with a stickup into which you type the number of the page you want to display.
- First displays the first page of the document.
- Last displays the last page of the document.
- Current moves the top of the current page to the top of the window.

To display the next page:



Drag the cursor down to Next and release the menu button.

The second page of the document is now visible on your screen.

There are keyboard equivalents for many of the commands found on the Page pulldown menu. Refer to Chapter 5, *The Keyboard*, in the *Interleaf Basics* manual for a complete list of these keyboard equivalents.

To display the next page:



Press the R15 key.

The third page of the document is now visible on your screen.

To return to previous pages:



Press the R13 key.

The second page of the document is again visible on your screen.



Press R13 again.

The first page of the document is again visible on your screen.

The R15 and R13 commands are keyboard equivalents for the Next and Previous commands on the Page pulldown menu.

Creating a Prefix Component

The *Expenses* document is currently organized with headers, paragraphs, and bullets. You are going to restructure the document, converting it to an outline format with automatically numbered sections and subsections.

To define a section component:

- Select the first *subhead* component name in the component bar.

Execute Props.

The Format sheet appears.

- Make the following changes to the Format sheet:

<i>Name</i>	section
<i>Top Margin</i>	.2
<i>Left Margin</i>	.5
<i>Initial Indent</i>	-.5
<i>Font size</i>	14

The Format sheet should resemble Figure 6.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	section						
Margins							
Top	0.20						inches
Bottom	0.05						inches
Left	0.50						inches
Right	0						inches
Initial Indent	-0.50						inches
Number	Default	1					lines
Line Spacing	1.16						lines
Alignment	Flush Left Centered Flush Right						
Font	Times 14 Bold Italic						
Text Props	<Defaults>						

Figure 6. Completed Format sheet for the section component

- Point to **Tab** in the property sheet header and click the select button.

The Tab sheet replaces the Format sheet.

- Change the first tab location to **-.1** and the tab type to **Right**.

- Change the second tab location to **0**.

- Remove the third and fourth tabs.

The Tab sheet should resemble Figure 7.

Component Properties								Format	Page	Custom	Tab	Profile	Attrs
Location		Tab Type											
-0.10	inches	Left	Center	Right	Dec .	Dec .	Remove						
0	inches	Left	Center	Right	Dec .	Dec .	Remove						
2	inches	Left	Center	Right	Dec .	Dec .	Remove						
3	inches	Left	Center	Right	Dec .	Dec .	Remove						
0	inches	Left	Center	Right	Dec .	Dec .	Remove						

Figure 7. Completed Tab sheet for the section component

By using a negative value for *Initial Indent* on the Format sheet, you told the publishing software to begin the first line of the component to the left of the component's left margin. You can use the resulting hanging indent to include a number in the first line that will appear to the left of the text.

The tab set at -0.1 inches will enable you to align the numbers that begin each section. The tab set at 0 inches will enable you to correctly align the text in the first line of the component with subsequent lines.

The next step is to define a prefix for the *section* component. Later in this lesson you will insert the section numbers in the prefix.

To create a prefix:



Point to **Custom** in the property sheet header and click the select button.

The Custom sheet replaces the Tab sheet.



Change the *Prefix* setting at the bottom of the sheet to **Yes**.

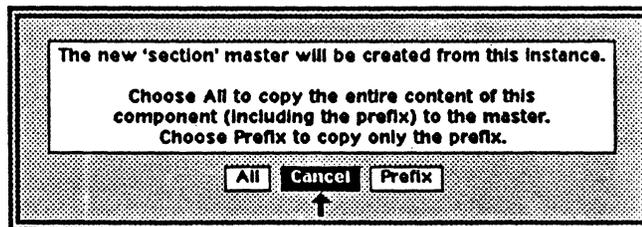
The Yes box is selected and the No box is deselected.

Content	Yes	No
Prefix	Yes	No
Shared		



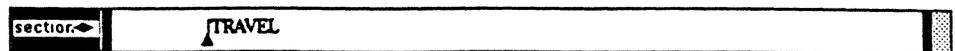
Execute **Apply**.

The New Component Master stickup appears.



Select **Prefix** and Execute **Close**.

The property sheet closes.



The New Component Master stickup you see when you define a component that has a prefix is different from the stickup you see when you define a component that does not have a prefix (refer to Lesson 6 for an example of that stickup).

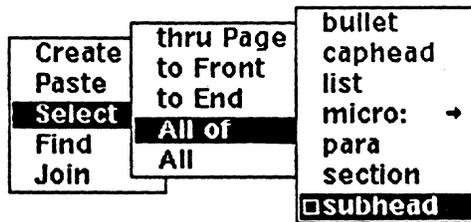
When a prefix is defined, it always appears at the beginning of a component. The prefix content is shared by all components of the same name; therefore, any change to the prefix content in one instance is automatically reflected in other instances.

There is a small vertical bar at the beginning of the component. This is a **prefix marker**. All text located to the left of the prefix marker is included in the prefix. Like many other special characters, the prefix marker appears only on the screen, and will not appear in the printed document.

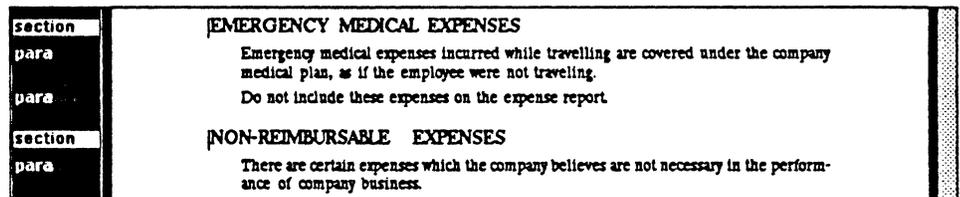
To change all subhead components to section components:

≡≡≡ ≡≡ Move the cursor to the component bar and execute Deselect.
All components are deselected.

≡≡ Execute Select→ All of→ subhead.
All of the subhead components are selected.



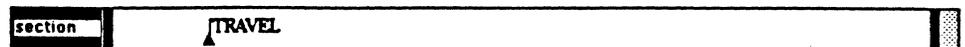
≡≡ Execute Change→ section
All subhead components change to section components.



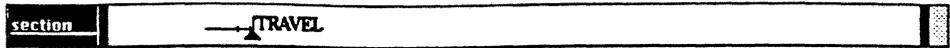
Text in a prefix is shared among all components of the same name. If you change a prefix in any of the components, that change will be reflected in all of the components of that name. This property is demonstrated in the exercises that follow.

To insert text in a prefix:

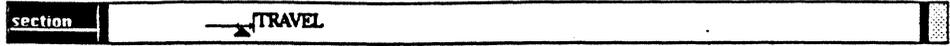
- Make sure that the text caret is to the left of the prefix marker in any one of the *section* components.



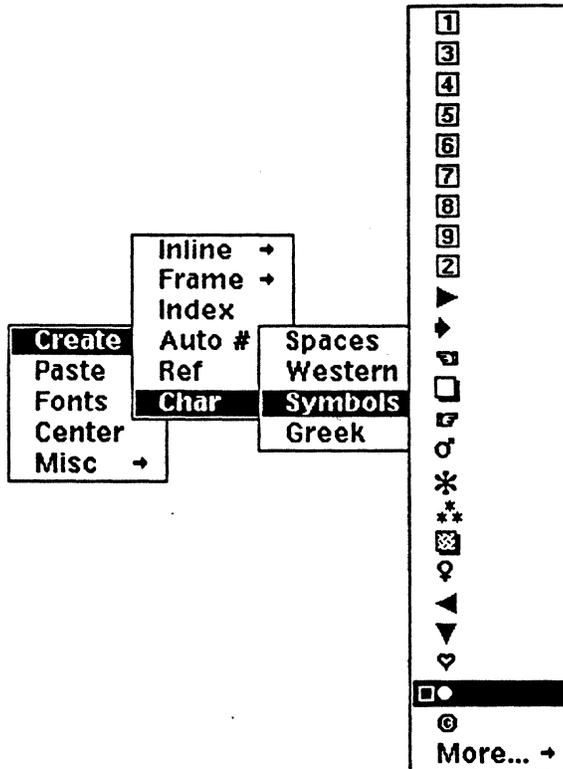
- Press TAB twice.
The two tabs you defined earlier in this lesson (a right tab at -0.1 inches and a left tab at 0 inches) are inserted in the prefixes of all section components.



- Press CTRL-b to move backward one character.
The text caret is now located at the first tab marker.



- ☰ Hold down the menu button and drag the cursor to Create→ Char→ Symbols→ ●.



- ☰ Release the menu button.
A bullet character now appears in all of the section components.



The **Create→ Char→ Symbols** command is an easy way to create characters from the Symbols font. Instead of having to change the font family to Symbols and determine which keyboard character corresponds to the symbol you want to create, you can simply choose a symbol from the submenu.

You can use the keyboard command **CTRL-b** to move the text caret backward one character at a time. For a complete listing of the available keyboard commands, refer to Chapter 5, *The Keyboard*, in the *Interleaf Basics* manual.

Now that you have seen how prefixes work, you are going to number the document sections, using the automatic numbering feature of the publishing software within the prefixes.

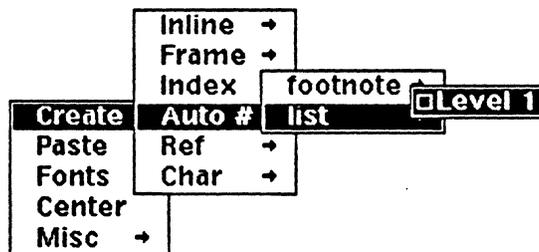
Inserting Autonumber Tokens

Using the publishing software you can create **autonumbers**, numbers that are part of an automatic numbering system that lets you number a series of objects in a list. To insert autonumbers in a document you must create autonumber tokens. An **autonumber token** looks like any other number, but its value is assigned by the publishing software according to its order of appearance in the document. A sequence of autonumbers is called an **autonumber stream**, or **stream**.

The default document contains the definition for an autonumber stream named *list*. In the next exercise you will create an autonumber token from the *list* stream for use in the section components. Later you will define a new autonumber stream.

To insert an autonumber token:

- Select the bullet character in the prefix of one of the *section* components.
- ☐☐ Execute Cut.
The bullet disappears from the prefix in all of the section components.
- ☐☐ Execute Create → Auto # → list → Level 1.
The number 1 followed by a period appears in the prefix of the first section component. All subsequent section components are numbered sequentially.



Because you inserted the token in a prefix, and the contents of a prefix are shared, the prefix of each *section* component now contains a *list* autonumber token. The value of each token depends on its order of appearance in the document. If you were to add, remove, or rearrange any of the *section* components, the values of the tokens would be updated to maintain a sequential listing.

Changing the Properties of Autonumber Tokens and Streams

Like components, autonumber streams have master definitions. Autonumber stream masters control the appearance of the tokens within the stream. To see or change the properties of an autonumber token or stream, you must open the stream property sheet.

To change the properties of an autonumber stream:

- Select the number and the period in the first *section* component prefix.

Execute Props.

The Autonumber property Token sheet opens (Figure 8).

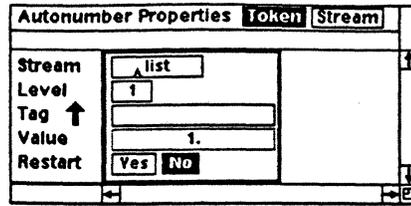


Figure 8. Autonumber property Token sheet

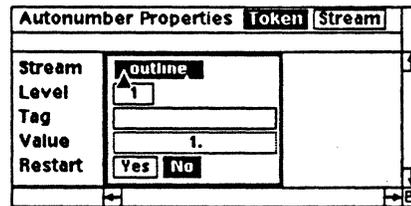
The Token sheet contains the following properties:

- *Stream*: the name of the stream. You can define a new stream master by typing a different name in this field and applying the change.
- *Level*: the unique level of the selected autonumber
- *Tag*: the tag used to identify the autonumber token
- *Value*: the value of the selected autonumber
- *Restart*: whether the publishing software restarts the numbering sequence of the autonumber stream beginning at the selected token

In the next two exercises you rename the autonumber stream to create a new stream master, and then change the master's properties.

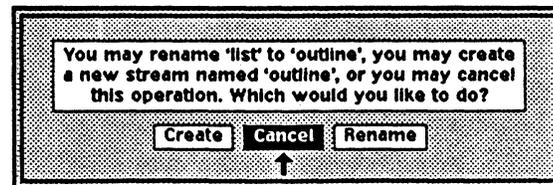
To create a new autonumber stream:

- Make sure the property sheet caret is in the *Stream* field, and type *outline*.



Execute Apply.

The Autonumber Stream Rename stickup appears.



- Select **Create** and execute **Close**.

The master definition for the outline stream is created. The publishing software displays the message: Created the master definition for 'outline'.

To change the appearance of an autonumber token, you modify properties on the *Stream* property sheet.

To open the Stream property sheet:



Point to **Stream** in the property sheet header and click the select button.

The Stream sheet appears (Figure 9).

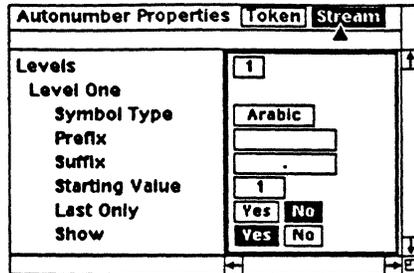


Figure 9. Autonumber property Stream sheet

The Stream sheet contains the following properties:

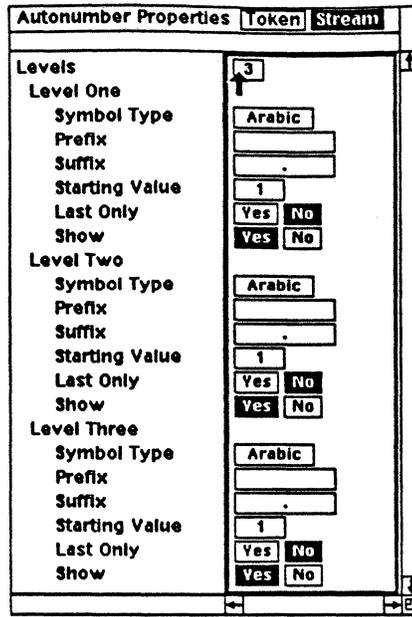
- **Levels:** the number of levels contained in the stream. You can specify up to eight levels for a stream.
- **Symbol Type:** the numbering style for a particular level. There are five styles from which you can choose: **Arabic**, **Lowercase Roman**, **Uppercase Roman**, **Lowercase Alpha**, and **Uppercase Alpha**.
- **Prefix/Suffix:** optional characters you can specify that appear either before or after the autonumber in the document
- **Starting Value:** the value of the first number in the stream
- **Last Only:** whether or not the tokens from preceding levels are displayed at the current level
- **Show:** whether or not the autonumber token is visible in the text of a document. Uses for invisible autonumber tokens are described in Chapter 15, *Autonumbers and Autoreferences*, in the *Text Processing and page Makeup* manual.

The *outline* stream currently has one level. In the next exercise you change the number of levels to three. Later, you will create tokens at each level for your document.

To change the number of levels in a stream:

- Move the property sheet caret to the *Levels* field.
- Type **3** and press RETURN.

The Stream sheet automatically expands to accommodate the new levels. The two new levels have the same properties as the first level.



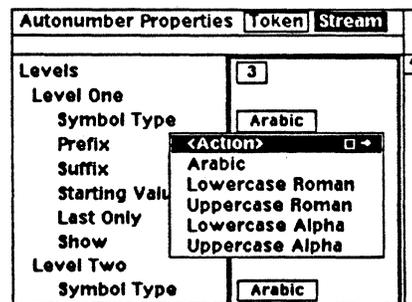
While the property sheet is open, you are going to change the properties of the second and third levels of the stream.

To change the symbol type of an autonumber level:



Point to the *Symbol Type* box for the first level, and hold down the menu button.

An anchored popup appears, listing the available choices.



Drag the cursor down to **Uppercase Alpha** and release the menu button.

To change the properties of a stream:

- Move the property sheet caret to the *Suffix* field for the second level.
- Press **CTRL-d** to delete the character to the right of the caret.

The field turns black and the period disappears.

Level Two	
Symbol Type	Arabic
Prefix	
Suffix	
Starting Value	↑
Last Only	Yes No
Show	Yes No

- Change the *Symbol Type* setting for the third level to *Lowercase Alpha*.
- Move the property sheet caret to the *Prefix* field for the third level.
- Type a period (.).
The field turns black and a period appears in the field.
- Press CTRL-d to delete the period from the *Suffix* field for the third level and press RETURN.
The Stream sheet should resemble Figure 10.

Autonumber Properties		Token	Stream
Levels		3	
Level One			
Symbol Type	Uppercase Alpha		
Prefix			
Suffix			
Starting Value	1		
Last Only	Yes No		
Show	Yes No		
Level Two			
Symbol Type	Arabic		
Prefix			
Suffix			
Starting Value	1		
Last Only	Yes No		
Show	Yes No		
Level Three			
Symbol Type	Lowercase Alpha		
Prefix	.		
Suffix			
Starting Value	↑		
Last Only	Yes No		
Show	Yes No		

Figure 10. Completed Stream sheet

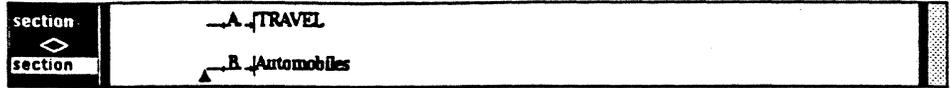
- Execute Apply.
The autonumbers in the section components change from Arabic numerals to upper-case letters.
- Execute Close.
The property sheet closes.

On the Autonumber property Stream sheet, you define the number of levels in a stream and the format of each level.

In the next exercise you create a component for the second level of your outline.

To define a paragraph component for the second level of the outline:

- Move the cursor to the component bar and select the first *para* component.
- ☐☐☐ Execute Change→ section.
The para component changes to a section component.



The new *section* component contains a first-level autonumber token from the *outline* stream. The tokens below it are automatically renumbered to accommodate the new token.

- ☐☐☐ Execute Props.
The property sheet opens.
- ☐☐☐ Open the Format sheet.
- Make the following changes to the Format sheet:

<i>Name</i>	paragraph
<i>Top Margin</i>	.1
<i>Bottom Margin</i>	.1
<i>Left Margin</i>	.85
<i>Initial Indent</i>	-.85
<i>Font size</i>	12
<i>Bold</i>	off

The Format sheet should resemble Figure 11.

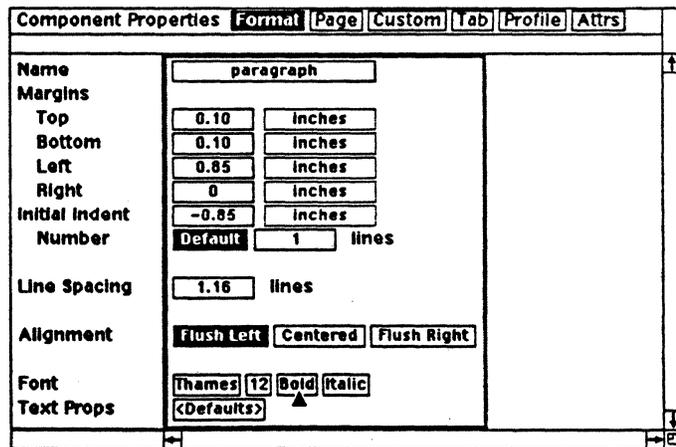
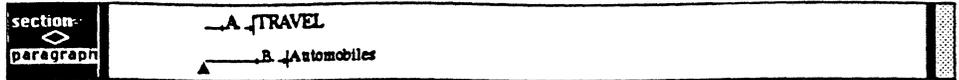


Figure 11. Completed Format sheet for the paragraph component

- ☐☐☐ Execute Apply.
- Select **Prefix** on the New Component Master stickup and execute **Close**.
The property sheet closes.



You want the *paragraph* component to be the second level of your outline, but the prefix still has a first-level autonumber token. This is because the autonumber properties are independent of the component properties. To change the *paragraph* component's prefix content, you must change the level of the autonumber token in the prefix.

To change the prefix content of a component:

- Select the autonumber token in the *paragraph* component.

Execute Props.

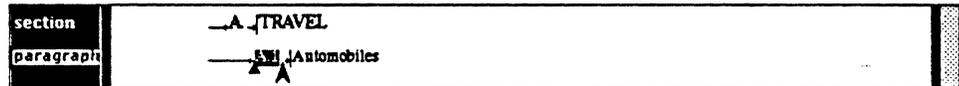
The Stream sheet opens.

- Open the Token sheet and change the *Level* setting to 2.

Autonumber Properties		Token	Stream
Stream	outline		
Level	2		
Tag			
Value	B.		
Restart	Yes No		

Execute Apply.

The prefix of the paragraph component now contains a second-level token from the outline stream. The autonumbers in all subsequent section components return to their original values.



Execute Close.

The property sheet closes.

Now you need to change all of the unnumbered *para* components to *paragraph* components.

To change para components to paragraph components:

- Execute Deselect.

The paragraph component is deselected.

Execute Select → All of → para.

All of the para components in the document are selected.

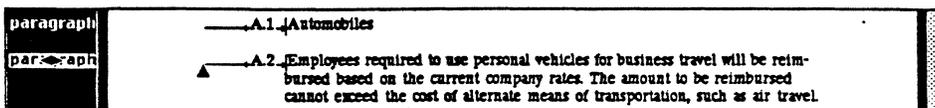
Execute Change → paragraph.

All of the para components change to paragraph components and are numbered appropriately by the publishing software.

In the next series of exercises you define a component named *subpara*, associate the third level of the *outline* autonumber stream with this component, and change all of the *bullet* components to *subpara* components.

To define a component for the third level of the outline:

- Move the cursor to the component bar and select the first *bullet* component.
- ☐☐☐ Execute Change→ paragraph.
The bullet component changes to a paragraph component.



- ☐☐☐ Execute Props.
The property sheet opens.
- Make the following changes to the Format sheet:

<i>Name</i>	subpara
<i>Top Margin</i>	.05
<i>Bottom Margin</i>	.05
<i>Left Margin</i>	1.3
<i>Initial Indent</i>	-1.3

The Format sheet should resemble Figure 12.

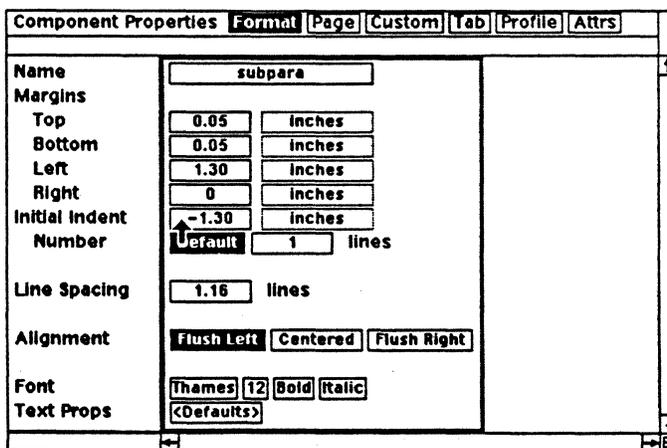
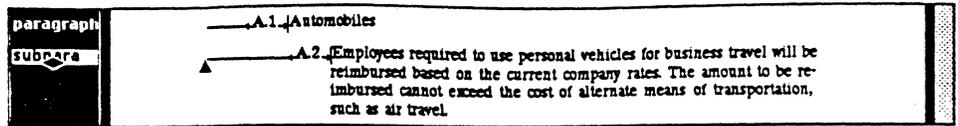


Figure 12. Completed Format sheet for the subpara component

- ☐☐☐ Execute Apply.
- Select Prefix on the New Component Master stickup and execute Close.
The property sheet closes.



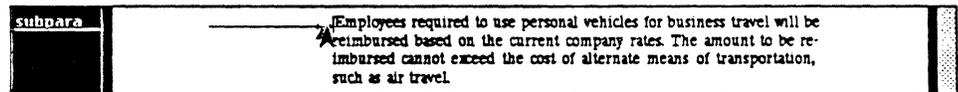
The *subpara* component still contains a second-level autonumber token. In the last exercise you changed the level of the token itself (on the Token sheet). In this exercise you delete the second-level token and use a menu command to insert a third-level token into the prefix.

To replace one autonumber stream level with another:

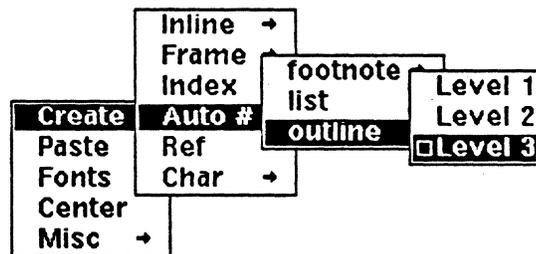
- Select the autonumber token in the *subpara* component.

Execute Cut.

The autonumber token disappears. The autonumbers in all subsequent paragraph components return to their original values.

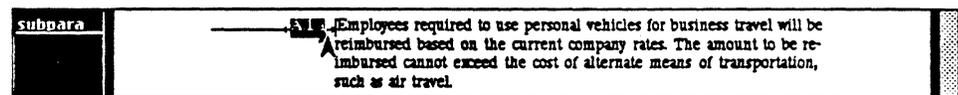


Hold down the menu button and drag the cursor to Create→ Auto #→ outline→ Level 3.



Release the menu button.

The publishing software inserts a third-level autonumber token in the prefix of the subpara component.



You have now defined the third level of the outline, but you still need to change all of the *bullet* components to *subpara* components.

To change bullet components to subpara components:

Execute Select→ All of→ bullet.

All of the bullet components in the document are selected.

Execute Change→ subpara.

All of the bullet components change to subpara components. The document is reformatted to accommodate the changes.

If you want to examine the other pages of the document, use commands on the Page pulldown menu or their keyboard equivalents to do so now. Return to the top of the first page when you are finished.

Modifying the Outline

One of the benefits of using autonumbers to structure an outline is the ease with which you can manipulate the information. Since the numbering is handled automatically by the publishing software, adding or removing information causes the document to be renumbered accordingly.

The tab markers were useful in the creation of the prefixes, but now that the prefixes have been defined they are no longer necessary.

To make the tab markers invisible:

- ☐☐☐ Execute Misc→ Show→ Tabs.
The tab markers disappear.

To change the characteristics of an autonumber token:

- ☐ Select any of the autonumber tokens.
- ☐☐☐ Execute Props.
The Token sheet appears.
- ☐ Open the Stream sheet.
- ☐ Change the *Symbol Type* setting to Arabic in the first and third levels.

Autonumber Properties		Token	Stream
Levels		3	
Level One			
Symbol Type		Arabic	
Prefix			
Suffix		.	
Starting Value		1	
Last Only		Yes No	
Show		Yes No	
Level Two			
Symbol Type		Arabic	
Prefix			
Suffix			
Starting Value		1	
Last Only		Yes No	
Show		Yes No	
Level Three			
Symbol Type		Arabic	
Prefix			
Suffix			
Starting Value		1	
Last Only		Yes No	
Show		Yes No	

- ☐ Execute Apply and then execute Close.
All sections of the outline are now numbered with Arabic numerals.

To add a new paragraph:

- Move the component caret so that it is after the *subpara* component for paragraph 1.1.2.

section-	1. TRAVEL
paragraph	1.1 Automobiles
subpara	1.1.1 Employees required to use personal vehicles for business travel will be reimbursed based on the current company rates. The amount to be reimbursed cannot exceed the cost of alternate means of transportation, such as air travel.
subpara	1.1.2 The purpose of this reimbursement is to cover the costs associated with the operation of the automobile including gasoline, wear, and insurance costs.
subpara	1.1.3 Tolls and parking are reimbursable for travel with a personal or rental car when original receipts are provided, unless they are less than \$5.00 per item.
paragraph	1.2 Car Rental
subpara	1.2.1 Airport limousines and taxis should be used as transportation unless these are neither available nor economical.

- ☐☐☐ Execute Create→ paragraph.

A paragraph component with the appropriate autonumber in its prefix is created. All subsequent autonumbers are automatically renumbered to accommodate the new instance.

section	1. TRAVEL
paragraph	1.1 Automobiles
subpara	1.1.1 Employees required to use personal vehicles for business travel will be reimbursed based on the current company rates. The amount to be reimbursed cannot exceed the cost of alternate means of transportation, such as air travel.
subpara	1.1.2 The purpose of this reimbursement is to cover the costs associated with the operation of the automobile including gasoline, wear, and insurance costs.
paragraph	1.2
subpara	1.2.1 Tolls and parking are reimbursable for travel with a personal or rental car when original receipts are provided, unless they are less than \$5.00 per item.
paragraph	1.3 Car Rental
subpara	1.3.1 Airport limousines and taxis should be used as transportation unless these are neither available nor economical.

- ☐ Type: *Tolls and Parking*

Because you defined autonumbers as part of the prefixes of all components in your outline, whenever you create a component, an autonumber token of the appropriate level is also created. The publishing software automatically inserts the correct autonumber token and renumbers subsequent components.

To move a section:

- Move the component caret so that it is before the *section* component for section 3 on the second page.
- ☐☐☐ Hold down the extend button and drag the cursor down to select all of the components up to and including paragraph 3.2.8.

section	▲ 3. NON-REIMBURSABLE EXPENSES
paragraph	3.1 There are certain expenses which the company believes are not necessary in the performance of company business.
paragraph	3.2 Below is a list of examples of NON-REIMBURSABLE EXPENSES:
subpara	3.2.1 mileage, tolls, and parking for home and work commuting. This includes weekend commuting to work.
subpara	3.2.2 fines for traffic violations or parking tickets
subpara	3.2.3 medical expenses
subpara	3.2.4 flowers for any purpose other than allowed in the section on Flowers, below
subpara	3.2.5 uniforms, equipment, or miscellaneous supplies for non-company sponsored events
subpara	3.2.6 individual charitable contributions
subpara	3.2.7 any credit card membership fee over the minimum cost required to obtain the credit card (i.e., American Express green card only)
subpara	3.2.8 damage to or loss of an employee's personal clothing or belongings

☐☐☐ Release the extend button.

All of the components in section 3 are selected.

☐☐☐ Execute Cut.

All of the selected components disappear. The components that followed section 3 are automatically renumbered.

☐ Move the component caret so that it is after paragraph 5.2 and execute Paste.

The section you cut is inserted at the end of the document and numbered appropriately.

When you cut and paste autonumber tokens, the publishing software automatically renumbers the remaining tokens.

This is the end of Lesson 7. You can close and save the document if you like, or you can leave the document open and proceed directly to Lesson 8.

Summary

- To page through a document, use the commands on the Page pulldown menu, or use either the R15 or R13 key to move to the next page or previous page, respectively.
- When a prefix is defined for a component, it appears at the beginning of the component. The contents of the prefix are shared by all components of the same name.
- You can use autonumbers to automatically keep track of numbered items in a document.
- You insert autonumber tokens at locations in your document where you want the publishing software to display an autonumber. Each autonumber is part of a numbering sequence called an autonumber stream.

- Autonumber streams, like components, have property sheets on which you change the properties of the stream.
- To change the properties of an existing autonumber stream, select a token from the stream and modify the Stream property sheet.
- By inserting autonumbers in prefixes, you can associate an autonumber stream with components that you use repeatedly in numbered lists or outlines. The publishing software then creates an autonumber automatically when you create those components.
- To replace an autonumber token with a token from a different level in the stream, either change the value in the *Level* field on the Token property sheet, or cut the token and create a token from the appropriate level by executing **Create→ Auto #→ stream name→ level**.
- When you add, delete, cut, and paste tokens in an autonumber stream, and the publishing software maintains the correct number sequence.

Further Exercises

These exercises provide more practice with the Autonumber property sheet. Before you begin these exercises, you must have the *Expenses* document open on your desktop.

To change the properties of an autonumber stream:

- Select any of the autonumber tokens.
- ☐☐☐ Execute **Props**.
The Stream sheet appears.
- Turn on the Yes box for the *Last Only* property in the second and third levels.
- Add a period (.) to the suffix in the second and third levels.
- Remove the period from the prefix in the third level (remember to use **CTRL-d** to delete the character to the right of the property sheet caret).
- Change the symbol type in the first level to **Uppercase Roman**.
- Change the symbol type in the second level to **Uppercase Alpha**.
- Execute **Apply and Close**.
The numbering scheme of the outline changes, and only the last value for each level is visible.

When you turn on the *Last Only* property for a stream level, tokens from preceding levels of the stream are not displayed with tokens from that level. It is unnecessary to turn on *Last Only* for the first level, as there are no previous levels to display.

To restart the numbering of an autonumber stream:

- Select the autonumber token in the prefix of the first *section* component.
- ☐☐☐ Execute **Props**.
The Stream sheet appears.
- Change the starting value of the first level to a number other than 1.
- Execute **Apply** and **Close**.
The numbers in the first section now start with the value you entered.
- Select the autonumber token in the prefix of the second *section* component.
- ☐☐☐ Execute **Props**.
 - Open the Token sheet.
 - Turn on the Yes toggle box for the *Restart* property.
 - Execute **Apply** and **Close**.
The second section component restarts the autonumber stream at the Starting Value assigned on the Stream sheet.
- ☐☐☐ Execute **Misc**→ **Revert**→ **to Document** from the Name box in the document header to revert to the last version of the document that you saved.

You can restart an autonumber token only if it is a first-level token, but you can change the starting value for any level.

Lesson 8: Using Autoreferences

In Lesson 8 you learn about autoreferencing, a feature that enables you to create references to autonumber tokens and page numbers in your document. In doing so, you learn how to

- copy an autonumber token as a reference to another location in a document
- copy text from one document to another
- create a new autonumber stream
- save an autonumber token as content in a master definition
- copy an existing autoreference to a second location

The approximate time to complete Lesson 8 is 30 minutes.

Creating Autoreferences

An **autoreference** is a token whose value is linked either to the current value of an autonumber token or to the number of the page on which the autonumber token appears. If the value of an autonumber token changes, any autoreferences to that token also change.

There are several areas in the *Expenses* document you created in the previous lesson that you might want to cross-reference. You can do this by using autoreferences to refer to autonumber tokens representing sections or paragraphs in the document.

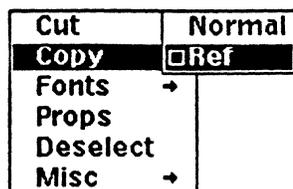
To create a reference to an autonumber:

- Open the *Expenses* document if you closed it at the end of the last lesson.
- Select the autonumber token for section 2.



- Execute Copy→ Ref.

A reference to the autonumber token is created and the token is deselected. The message: The Ref. has been created on the clipboard appears in the status line.



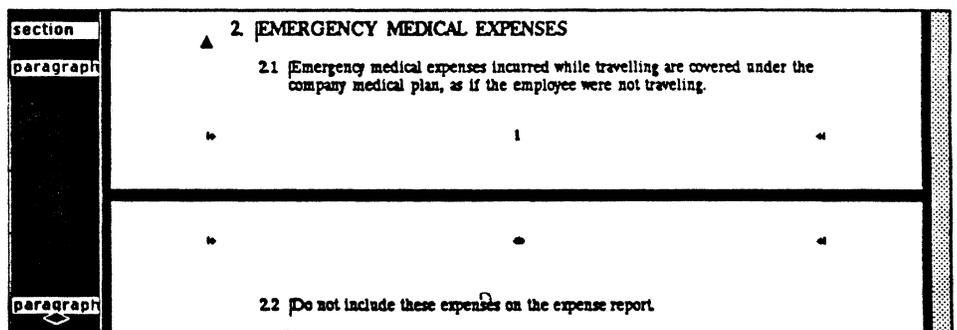
- Move the text caret to the end of paragraph 6.2.3.

- Press the space bar and type: *(except those described in Section*
- Press the space bar again.
- Execute Paste.
The reference to section 2 is pasted into the document.

- Type:)
When you create a reference, it has the same content as the autonumber token to which it refers, including the token's prefix and suffix. The text properties of the autoreference, however, are the same as the text properties of the text into which you paste it.
You are now going to move a section. When the value of the autonumber token changes, the value of the autoreference changes as well.

To see an autoreference change automatically:

- Move the component caret so that it is above the *section* component for section 2.
- Hold down the extend button and drag the cursor down to the bottom of the screen.
The component names are selected and the document scrolls towards the bottom of the window so you can see the top of the second page.
- Continue to hold down the extend button and drag the cursor until all of the components in section 2 are selected.



- Release the extend button.
- Execute Cut.
All of the components in section 2 disappear. The components following section 2 are automatically renumbered.
- Move the component caret so that it is after paragraph 2.4 and execute Paste.
The section you cut is inserted after section 2 and numbered appropriately.

- Scroll to the last page of the document.

subpara 6.2.3 medical expenses (except those described in Section 3)

Paragraph 6.2.3 now references section 3 instead of section 2. When the autonumber token changed from 2 to 3, the value of the autoreference changed as well.

There are three other paragraphs that should be cross-referenced.

To create a second autoreference:

- Select the phrase *the section on Flowers, below* from paragraph 6.2.4.

subpara 6.2.4 flowers for any purpose other than allowed in the section on Flowers

- Execute Cut.

- Select the autonumber token for section 5 and execute Copy→ Ref.
- Move the text caret back to the end of paragraph 6.2.4.

subpara 6.2.4 flowers for any purpose other than allowed in

- Type: *Section*
- Press the space bar.

- Execute Paste.

The reference to section 5 is pasted into the document.

subpara 6.2.4 flowers for any purpose other than allowed in Section 5

To create a third autoreference:

- Select the autonumber token for section 5.2.
- Execute Copy→ Ref.
- Position the text caret at the end of paragraph 6.2.6.

subpara 6.2.6 individual charitable contributions

- Press the space bar and type: *(except those described in Section*
- Press the space bar again.

- Execute Paste.

The reference to section 5.2 is pasted into the document.

- Type:)

To create a fourth autoreference:

- Select the autonumber token for paragraph 6.2.7.
- Execute Copy→ Ref.
- Position the text caret before the period in the last sentence of paragraph 2.3.

- Press the space bar and type: *(see Section*
- Press the space bar again.
- Execute Paste.
The reference to paragraph 6.2.7 is pasted into the document.

- Type:)

Searching for NO TAG Autoreferences

An autoreference token always has the content of the autonumber token to which it refers. If you cut the autonumber token from the document, the autoreference no longer refers to a token and instead of displaying a value, it displays NO TAG.

In the next exercise you cut a section from the document, then search for the autoreference that remains.

To move a section:

- Select all of the components in section 2 of the document.
The selection begins on the first page and continues to the second.
- Execute Cut.
All of the selected components disappear. The components after section 2 are automatically renumbered. The autoreferences within the components are also renumbered.
- Move the component caret so that it is after paragraph 5.2.8 and execute Paste.
The section is inserted at the end of the document and numbered appropriately.

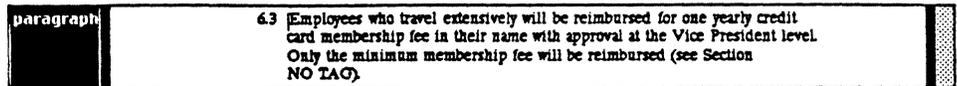
The autoreference at the end of paragraph 6.3, as well as those in section 5, have been renumbered to accommodate the changes you just made.

To search for a reference without an autonumber:

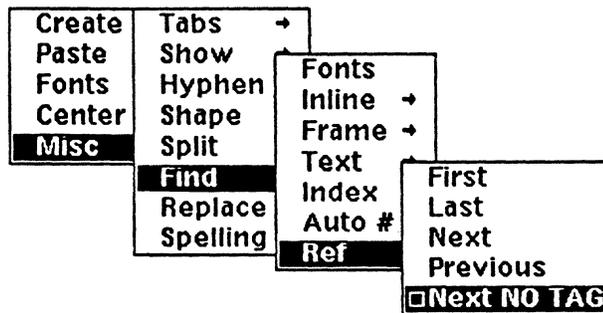
- In the component bar, select the *subpara* component for paragraph 5.2.7.

Execute Cut.

The component disappears. The autoreference in paragraph 6.3 is displayed as NO TAG.

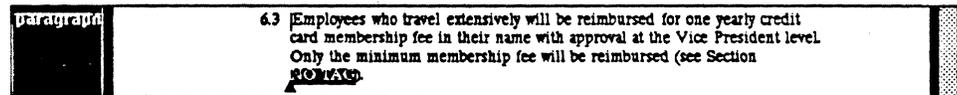


Hold down the menu button and drag the cursor to Misc→ Find→ Ref→ Next NO TAG.



Release the menu button.

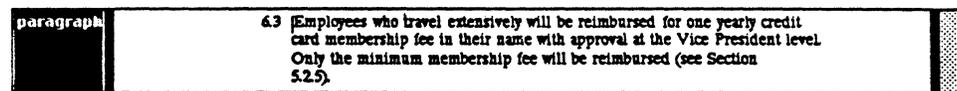
The NO TAG autoreference is highlighted.



- Move the component caret so that it is after paragraph 5.2.4.

Execute Paste.

The paragraph you cut is pasted back into the document, and the autoreference in paragraph 6.3 displays the appropriate autonumber token.



You can search for autoreferences that do not have tags to autonumber tokens using Misc→ Find→ Ref→ Next NO TAG. This command is especially useful when you are working in a large document. It ensures that you do not inadvertently leave references in the document to material you have cut.

Copying Text from Another Document

In the exercises that follow you copy the tables that you created and saved in the *tables* document in Lesson 6 to the appropriate locations in the *Expenses* document.

- With the *Expenses* document still open, open the *tables* document.
The tables document opens. Its window covers the Expenses document window.

————— If the document icon for *tables* is under the *Expenses* window, you may have to move or resize the window to access the *tables* icon. If you have to move or resize the window, you should change it back to its original position and size after opening the *tables* document.

In order to view both windows simultaneously, you need to move the *tables* window.

To move a document window:

- Move the cursor to the status line in the *tables* document window.
The cursor changes to a triangle.



Execute Move and move the mouse to the right.

An outline of the window follows the movements of the mouse. Use the outline as a guide for the final position of the window.



Move the outline of the window to the right edge of the screen and execute Deselect.

The window moves to the location you indicated.

You can now see both document windows, although the *tables* document window is still partially covering the *Expenses* document window.

To copy information between documents:

- In the component bar of the *tables* window, select the six component names that make up the header and rows of the first table.

Achievement	Grade Point Average Range	Percentage Reimbursement
High distinction	3.5 - 4.0	100%
Distinction	2.5 - 3.49	80%
Satisfactory	1.5 - 2.49	45%
Passing, but Unsatisfactory	0.5 - 1.49	0%
Failing	0.0 - 0.49	0%



Execute Copy.



Move the cursor to the status line of the *Expenses* window.
The Expenses window becomes the active document window.



Execute Front.

The Expenses window is now in front of the tables window.

- Move the component caret so that it is after paragraph 3.2.
- ☐ Execute Paste.
The table is pasted into the Expenses document after paragraph 3.2.

paragraph	3.2 Reimbursement will be made after successful completion of the course. The reimbursement schedule is related to course performance.		
4colhdr	Achievement	Grade Point Average Range	Percent Reimbursement
4column	High distinction	3.5 - 4.0	100%
4column	Distinction	2.5 - 3.49	80%
4column	Satisfactory	1.5 - 2.49	45%
4column	Passing, but Unsatisfactory	0.5 - 1.49	0%
4column	Failing	0.0 - 0.49	0%
paragraph	3.3 Non-graded courses will be reimbursed at 75% upon successful completion.		

The table is in the correct location, but the left margin has to be changed so that the table fits under the second level of the outline.

To align the table with the text:

- Move the cursor to the component bar of the *Expenses* window and select the *4colhdr* component.
- ☐ Execute Props.
The Format sheet appears.
- Change the left margin to 1.1.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	4colhdr						
Margins							
Top	0	inches					
Bottom	0.10	inches					
Left	1.10	inches					
Right	0	inches					

- ☐ Execute Global Apply→ Confirm.
The master definition is updated and the change is applied.

paragraph	3.2 Reimbursement will be made after successful completion of the course. The reimbursement schedule is related to course performance.		
4colhdr	Achievement	Grade Point Average Range	Percent Reimbursement

- ☐ Execute Close.
The property sheet closes.
- Select one of the *4column* components and execute Props.
The Format sheet appears.
- Change the left margin to 1.1.
- ☐ Execute Global Apply→ Confirm.
The master definition is updated and the change is applied to all instances of the 4column component.

Achievement	Grade Point Average Range	Percent Reimbursement
High distinction	3.5 - 4.0	100%
Distinction	2.5 - 3.49	80%
Satisfactory	1.5 - 2.49	45%
Passing, but Unsatisfactory	0.5 - 1.49	0%
Failing	0.0 - 0.49	0%

- Execute Close.
The property sheet closes.

Creating a Title Component for the Table

Next you will create a component for the table title. The title component should contain an autonumber token to keep track of the table number.

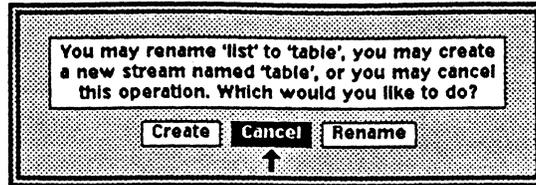
To define a new component containing an autonumber stream :

- Move the component caret so that it is above the *4colhdr* component.
- Execute Create→ para.
- Move the cursor to the text area and execute Create→ Auto #→ list.
An autonumber from the list stream is created.
- Execute Props.
The property sheet opens.
- On the Token sheet, change the stream name to table.

- Open the Stream sheet.
- Enter in the *Prefix* field the word *Table* followed by a space.
- Delete the period from the *Suffix* field by pressing CTRL-d.

Execute Apply.

The Autonumber Stream Rename stickup appears.



Select Create and execute Close.

The master definition is created. The publishing software displays the message: Created the master definition for 'table'. The property sheet closes.



Move the cursor to the component bar, select the para component and execute Props.

The Format sheet opens.

Make the following changes to the Format sheet:

Name	table2
Top Margin	.2
Bottom Margin	.15
Left Margin	1.1
Bold	on

The Format sheet should resemble Figure 13.

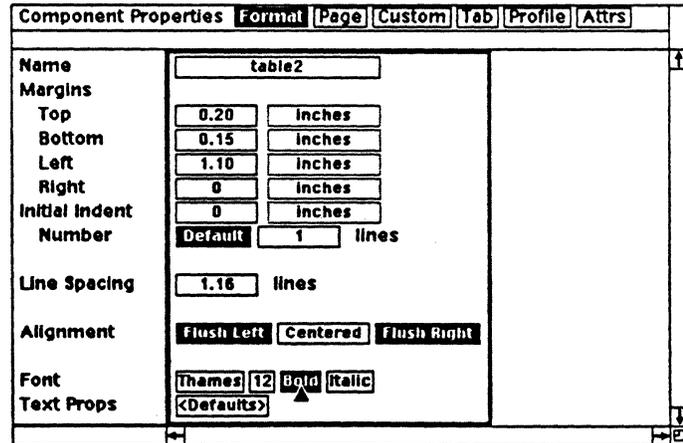
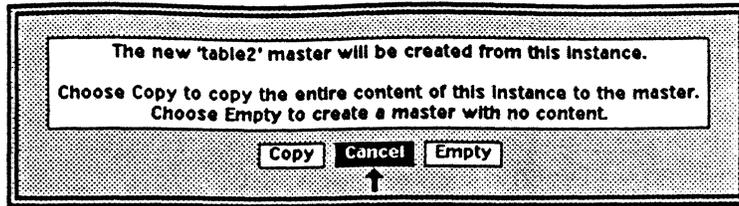


Figure 13. Completed Format sheet for the table2 component

Execute Apply.

The New Component Master stickup appears.



- Select Copy and execute Close.
The master definition is created and the property sheet closes.

Since you selected Copy from the stickup, the autonumber is stored in the master definition as the initial content of the component.

- Type a colon (:) and press the space bar.
- Type: *Tuition Reimbursement as it Relates to Course Performance*

paragraph	3.2 Reimbursement will be made after successful completion of the course. The reimbursement schedule is related to course performance.																		
table2	Table 1: Tuition Reimbursement as it Relates to Course Performance																		
4colhdr	<table border="1"> <thead> <tr> <th>Achievement</th> <th>Grade Point Average Range</th> <th>Percentage Reimbursement</th> </tr> </thead> <tbody> <tr> <td>High distinction</td> <td>3.5 - 4.0</td> <td>100%</td> </tr> <tr> <td>Distinction</td> <td>2.5 - 3.49</td> <td>80%</td> </tr> <tr> <td>Satisfactory</td> <td>1.5 - 2.49</td> <td>45%</td> </tr> <tr> <td>Passing, but Unsatisfactory</td> <td>0.5 - 1.49</td> <td>0%</td> </tr> <tr> <td>Failing</td> <td>0.0 - 0.49</td> <td>0%</td> </tr> </tbody> </table>	Achievement	Grade Point Average Range	Percentage Reimbursement	High distinction	3.5 - 4.0	100%	Distinction	2.5 - 3.49	80%	Satisfactory	1.5 - 2.49	45%	Passing, but Unsatisfactory	0.5 - 1.49	0%	Failing	0.0 - 0.49	0%
Achievement	Grade Point Average Range	Percentage Reimbursement																	
High distinction	3.5 - 4.0	100%																	
Distinction	2.5 - 3.49	80%																	
Satisfactory	1.5 - 2.49	45%																	
Passing, but Unsatisfactory	0.5 - 1.49	0%																	
Failing	0.0 - 0.49	0%																	
4column																			
4column																			
4column																			
4column																			
4column																			

You have completed formatting the table. In the process, you defined a *table2* component, which you can use as the basis for the titles of other tables located under *paragraph* components. It contains an autonumber stream stored as content in its master definition, so any tables you add will be numbered automatically.

Copying a Second Table

Now you will place the second table you created in Lesson 6 in the appropriate location in the *Expenses* document.

To copy the second table:

- Move the cursor to the status line of the *tables* window and execute Front.
The tables window is now in front of the Expenses window.
- In the component bar of the *tables* window, select the four component names that make up the header and rows of the second table.

2colhdr	Distance	Reimbursement
2column	First 500 Miles	\$0.20/mile
2column	Next 300 Miles	\$0.14/mile
2column	After 800 Miles	\$0.08/mile

- Execute Copy.

- Execute Close on the Document Name pulldown.
The tables document closes.
- Move the cursor to the *Expenses* window.
The Expenses window becomes the active document window.
- Move the component caret so that it is after paragraph 1.1.1.
- With the cursor in the component bar, execute Paste.
The table is pasted into the Expenses document after paragraph 1.1.1.

subpara	1.1.1 Employees required to use personal vehicles for business travel will be reimbursed based on the current company rates. The amount to be reimbursed cannot exceed the cost of alternate means of transportation, such as air travel.								
2colhdr	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; text-align: left;">Distance</td> <td style="width: 50%; text-align: right;">Reimbursement</td> </tr> <tr> <td>First 500 Miles</td> <td style="text-align: right;">\$0.20/mile</td> </tr> <tr> <td>Next 300 Miles</td> <td style="text-align: right;">\$0.14/mile</td> </tr> <tr> <td>After 800 Miles</td> <td style="text-align: right;">\$0.06/mile</td> </tr> </table>	Distance	Reimbursement	First 500 Miles	\$0.20/mile	Next 300 Miles	\$0.14/mile	After 800 Miles	\$0.06/mile
Distance	Reimbursement								
First 500 Miles	\$0.20/mile								
Next 300 Miles	\$0.14/mile								
After 800 Miles	\$0.06/mile								
2column									
2column									
2column									
subpara	1.1.2 The purpose of this reimbursement is to cover the costs associated with the operation of the automobile including gasoline, wear, and insurance costs.								

The table is in the correct location, but the left margin has to be changed so that the table fits under the third level of the outline.

To change the properties of a component:

- Move the cursor to the component bar and select the *2colhdr* component.
- Execute Props.
The Format sheet appears.
- Change the left margin to 1.55.
- Execute Global Apply→ Confirm and then execute Close.
The master definition is updated, the change is applied, and the property sheet closes.

subpara	1.1.1 Employees required to use personal vehicles for business travel will be reimbursed based on the current company rates. The amount to be reimbursed cannot exceed the cost of alternate means of transportation, such as air travel.		
2colhdr	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; text-align: left;">Distance</td> <td style="width: 50%; text-align: right;">Reimbursement</td> </tr> </table>	Distance	Reimbursement
Distance	Reimbursement		

- Select one of the *2column* components and execute Props.
The Format sheet appears.
- Change the left margin to 1.55.
- Execute Global Apply→ Confirm and then execute Close.
The master definition is updated, the change is applied to all instances of the 2column component, and the property sheet closes.

subpara:	1.1.1 Employees required to use personal vehicles for business travel will be reimbursed based on the current company rates. The amount to be reimbursed cannot exceed the cost of alternate means of transportation, such as air travel.								
2colhdr:	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 60%;">Distance</th> <th style="width: 40%;">Reimbursement</th> </tr> </thead> <tbody> <tr> <td>First 500 Miles</td> <td>\$0.20/mile</td> </tr> <tr> <td>Next 300 Miles</td> <td>\$0.14/mile</td> </tr> <tr> <td>After 800 Miles</td> <td>\$0.08/mile</td> </tr> </tbody> </table>	Distance	Reimbursement	First 500 Miles	\$0.20/mile	Next 300 Miles	\$0.14/mile	After 800 Miles	\$0.08/mile
Distance	Reimbursement								
First 500 Miles	\$0.20/mile								
Next 300 Miles	\$0.14/mile								
After 800 Miles	\$0.08/mile								
2column:									
2column:									
2column:									

To add a title component containing an autonumber:

- Move the component caret so that it is above the *2colhdr* component.
- Execute **Create**→ **table2**.

A table2 component with the content Table 1 is created.

table2	Table 1
---------------	----------------

The autonumber for this *table2* component is 1 because it is before the *table2* component you defined initially. As you will see later, the first *table2* component you defined was automatically renumbered to accommodate the new instance.

- Move the cursor to the component bar, select the *table2* component and execute **Props**.

The Format sheet opens.

- Make the following changes to the Format sheet:

Name	table3
Left Margin	1.55

Component Properties			Format	Page	Custom	Tab	Profile	Attrs
Name	table3							
Margins								
Top	0.20	inches						
Bottom	0.15	inches						
Left	1.55	inches						
Right	0	inches						

- Execute **Apply**.

The New Component Master stickup appears.

- Select **Copy** and then execute **Close**.
The master definition is created and the property sheet closes.
- Move the text caret so that it is after the autonumber token.
- Type a colon (:) and press the space bar.
- Type: *Reimbursement Rates for Automobile Travel*

subpara 1.1.1 Employees required to use personal vehicles for business travel will be reimbursed based on the current company rate. **SHOW IN REF** The amount to be reimbursed cannot exceed the cost of alternate means of transportation, such as air travel.

Execute Copy→ Normal.

- Position the text caret before the closing parenthesis in the last line of paragraph 1.4.2.

subpara 1.4.2 Substitute expenses are not permitted. If an employee opts to drive to a destination rather than flying, the cost must be lower than or equal to the cost of airfare. The employee will be reimbursed for the mileage driven (based on the corporate mileage rates), tolls, and parking.

Execute Paste.

The text, as well as the autoreference, are copied to the new location.

subpara 1.4.2 Substitute expenses are not permitted. If an employee opts to drive to a destination rather than flying, the cost must be lower than or equal to the cost of airfare. The employee will be reimbursed for the mileage driven (based on the corporate mileage rates **SHOW IN REF**), tolls,

When you want to make additional references to an autonumber, you can either select the autonumber token and execute Copy→ Ref or select the autoreference and execute Copy→ Normal.

You are now going to create a reference to the second table.

To create a reference to an autonumber:

- Move to the second page.
- Select the autonumber token for Table 2. (Be sure to include the word *Table* with the number, but not the colon after the number.)

table2 **TABLE 2** Tuition reimbursement as it relates to course performance

Execute Copy→ Ref.

A reference to the autonumber token is created and the token is deselected. The message: The Ref. has been created on the clipboard appears in the status line.

- Move the text caret so that it is before the period at the end of paragraph 3.2.

paragraph 3.2 Reimbursement will be made after successful completion of the course. The reimbursement schedule is related to course performance.

- Type a comma (,), press the space bar, and type: *as shown in*
- Press the space bar again.

Execute Paste.

The reference to Table 2 is pasted into the document.

You have completed all of the necessary changes in this document.

This is the end of Chapter 3. At this point, you should close and save the *Expenses* document.

Summary

- An **autoreference** is a token whose value is linked either to the current value of an autonumber token or to the number of the page on which the autonumber token appears.
- To create an autoreference, select an autonumber token, execute **Copy→Ref**, and paste the reference in the desired location.
- You can add, delete, cut, and paste tokens in an autonumber stream, and the publishing software will maintain the correct numbering sequence for both the stream and any references to that stream.
- If you cut an autonumber token that has an associated autoreference, the autoreference is displayed as **NO TAG**.
- You can search for autoreferences that do not have tags to autonumber tokens using the **Misc→Find→Ref→Next NO TAG** command.
- Copying components between documents is the same as copying them within documents.
- To associate an autonumber with a component, save the autonumber as content in the master definition by selecting **Copy** on the **New Component Master** stickup.
- To make additional references to an autonumber token, either select the autonumber token and execute **Copy→Ref** or select an existing autoreference to that token and execute **Copy→Normal**.

Further Exercises

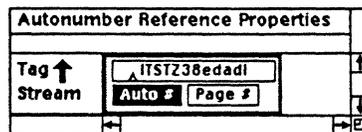
In these exercises, you learn how to create an autoreference token whose value is the number of the page on which an autonumber occurs. You must have the *Expenses* document open in order to perform these exercises.

To move a section:

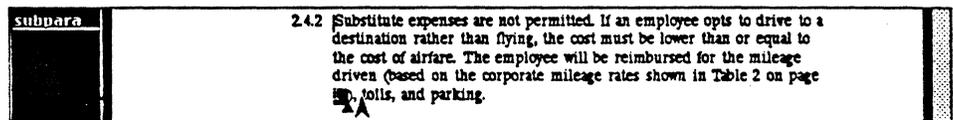
- Select all of the components in section 3 and cut them.
All of the selected components disappear. The components following section 3 are automatically renumbered.
- Move the component caret so that it is before section 1 and execute **Paste**.
The section you cut is inserted at the end of the document. The section and table numbers are renumbered appropriately.

To reference a page number:

- On the second page, select the reference to Table 2 in paragraph 2.4.2.
- ☐☐☐ Execute Copy→ Normal.
Since this is already an autoreference, you use the Copy→ Normal command to make another autoreference.
- Position the text caret after the autoreference.
- Press the space bar and type: *on page*
- Press the space bar again.
- ☐☐☐ Execute Paste.
A second copy of the reference appears at the text caret location.
- ☐☐☐ With the second autoreference still selected, execute Props.
The Autonumber Reference property sheet appears.



- Turn on the Page # toggle box for the *Stream* property.
- Execute Apply and then execute Close.
Your change is applied and the property sheet closes. The second autoreference now displays the page number on which the autonumber token appears.



- Close the document without saving the changes.

For More Information

If you are interested in learning more about tabs, autonumbers, and autoreferences, see the following chapters in the *Text Processing and Page Make-up* manual in the *Reference* set:

- Chapter 10, *Text Processing*, contains more information on tabs and on paging through a document.
- Chapter 15, *Autonumbers and Autoreferences*, explains how to use autonumbers and autoreferences.
- Chapter 24, *Masters' Properties and Content*, explains the Prefix property on the Component property Custom sheet.

4

Inline Components

An **inline component**, or **inline**, is a component that can appear within another component. An inline is defined in text by a set of gray angle brackets (**< >**), called **inline component markers** (or **inline markers**), which appear at the beginning and end of the inline. Inlines have masters and can share properties with other components in a document. This chapter refers to the standard Interleaf component as a *full component* to distinguish it from an inline component.

There are three lessons in Chapter 4:

- Lesson 9, *Creating Inline Components*, explains how to create an empty inline component and add text to it and how to select existing text and convert it to an inline.
- Lesson 10, *Inline Applications*, describes how to use inlines in various applications and how you can have an inline inherit its properties from the component containing it.
- Lesson 11, *Effectivity Control*, presents the basics of using effectivity control with both inline components and full components to automatically create different versions of a document.

Because the properties of an inline can be different from the properties of the component that contains it, you can use inlines to achieve various levels of control over the appearance and use of small units of text within components. In Chapter 4 you work with several different properties of inlines as you complete three versions of a document detailing the inspection of an aircraft after it has been struck by lightning.

Lesson 9: Creating Inline Components

You can create an empty inline component and add text to it, or you can create an inline from text that already exists. In this lesson you use both methods to create inlines, and in the process learn about

- creating an inline from the available component master definitions
- entering text into an inline
- opening inline property sheets
- defining new inline master definitions
- converting text to an inline
- globally applying changes to inlines

The approximate time to complete Lesson 9 is 30 minutes.

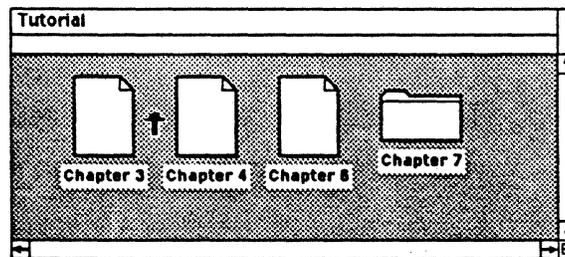
Preliminary Steps

To prepare for this lesson you must retrieve a sample document from the *System* cabinet.

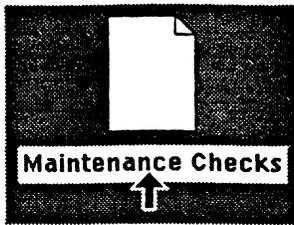
To retrieve the sample document:

- Open the *System* cabinet, the *Library* cabinet, the *Documentation* drawer, and the *Tutorial* folder.

The Tutorial folder contains three documents named Chapter 3, Chapter 4, and Chapter 6, and a folder named Chapter 7.



- Select the *Chapter 4* document and execute **Copy**→ **Normal**.
- Close the *Tutorial* folder, the *Documentation* drawer, the *Library* cabinet, and the *System* cabinet and paste the copy of *Chapter 4* onto the desktop or into a convenient container.
- Change the name of the *Chapter 4* document to *Maintenance Checks*.



- Open *Maintenance Checks*.
Maintenance Checks (Figure 1) contains a two-page document describing the inspection of an airplane after it has been struck by lightning.

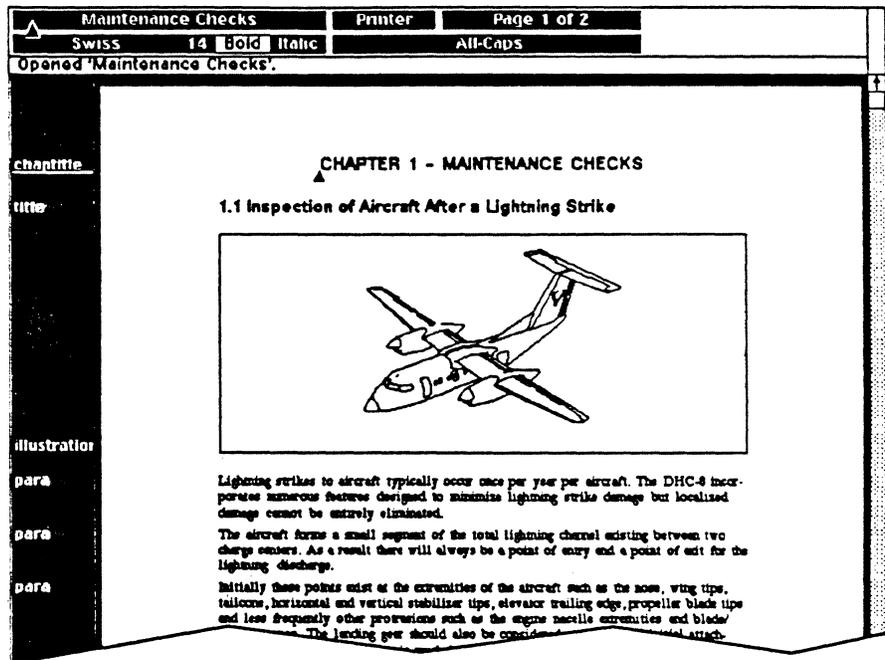


Figure 1. The open Maintenance Checks document

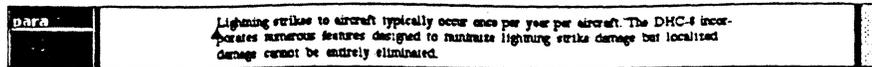
Creating an Inline Component

Because an inline is a component contained within another component, it can have different properties than the component containing it. This makes an inline a good choice for creating subheadings within text for emphasis. This type of subheading is called a *run-in side head*. By using inlines, you can make changes to the side heads later without affecting the text around them.

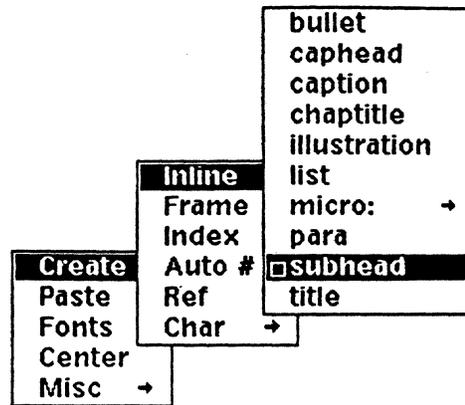
In the next exercises you create inline side heads to emphasize certain sections of the sample document.

To create an empty inline:

- Position the text caret at the beginning of the first paragraph on page 1.

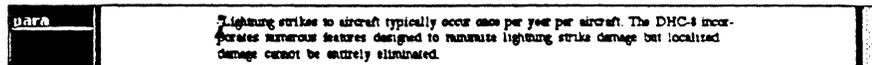


☰ With the cursor in the text area, hold down the menu button and drag the cursor to **Create**→**Inline**→**subhead**.



☰ Release the menu button.

Two markers appear at the text caret location. They are selected.



The names of all component masters in a document appear on the **Create** **Inline** submenu. You can choose any of these masters to create an inline at the text caret location, and that inline will share its properties with all other components (full as well as inline) of the same name.

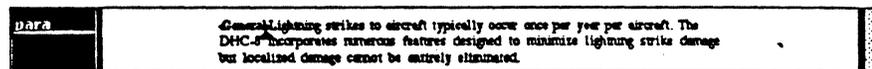
The inline markers (**<** **>**), which indicate the beginning and end of the inline, never appear when a document is printed.

To enter text into an inline:



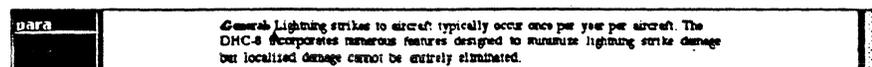
Without moving the text caret, type: *General*:

The inline markers are deselected and what you type appears in bold within the markers. The inline text has the same properties as the subhead component.



Press the right arrow key and then press the space bar.

The text caret moves outside the right inline marker, and a space appears between the inline and the text of the para component.



Because inline markers do not print, you must add a space between an inline and the text of the component that contains it in order for a space to appear in the printed document.

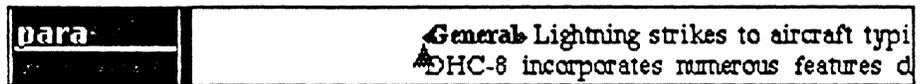
Defining Inline Masters

The *subhead* inline you just created has the same master as all instances of the *subhead* component. For example, if you changed the font of a full component named *subhead* to italic and globally applied that change, the inline *subhead* would change to italic too.

In order to control the properties of inlines independently from other components, you must give inlines unique names in your documents. Defining inline masters is similar to defining full component masters. First, you must select the inline and open its property sheet.

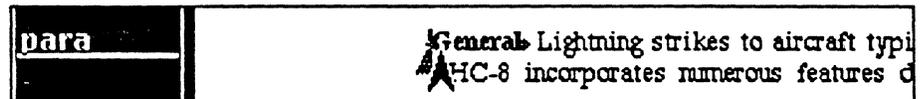
To select an inline:

- Position the text caret to the left of the left-hand inline marker.



- ☐☐☐ ☐☐ Move the cursor to the other side of the inline marker and click the extend button.

The marker is selected.



You can select an inline by selecting either its left or right marker, or by selecting the entire inline, including markers and text. How you select an inline determines what you can do with it. For example, if you want to open an inline's property sheet, you can just select one of its markers. If you want to cut an inline, you must select both the text and the markers.

To open the Inline Component property sheet:

- ☐☐☐ With the left inline marker selected, execute Props.

The Inline Basic sheet appears (Figure 2).

Inline Component Properties	
Basic Attrs	
Name	subhead
Font	Times 11 Bold Italic
Text Props	<Defaults>
Inherit	<None>
Allow Break Within	Yes No
TOC Doc Name	
Content	
Prefix	Yes No
Shared	Yes No

Figure 2. Inline Component property Basic sheet

Many of the properties applicable to full components, such as margins and alignment, have no meaning for inlines. For this reason, inlines, even those created from full component master definitions, have a limited number of properties and just two property sheets compared to the six property sheets of a full component.

Descriptions of the properties on the Inline Basic sheet follow. Descriptions of the properties on the Attrs (Attributes) sheet appear in Lesson 11.

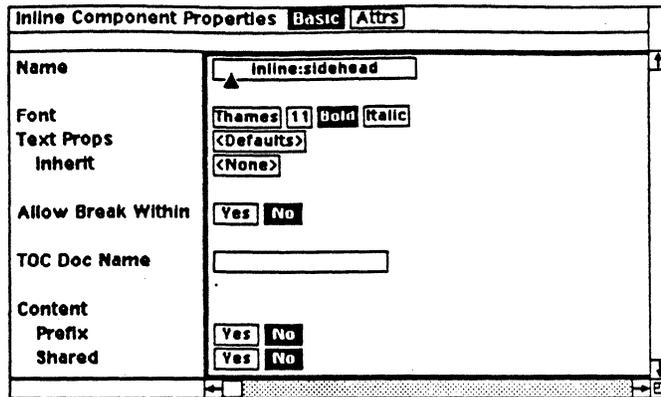
- *Name*: the name of the inline's master definition
- *Font*: the name of the font family, the point size, and the bold and italic properties of the text in the inline
- *Text Props*: text properties such as strikethrough, underline, superscripts and subscripts, kerning, and font mapping that you can apply to the text of the inline. Any of these properties can be inherited from text preceding the inline.
- *Allow Break Within*: the property that specifies whether or not the publishing software can put a page break (or column break in a multi-column document) in the middle of the inline
- *TOC Doc Name*: the name of the table of contents document. See Chapter 41, *Indexes and Tables of Contents*, in the *Document Management* manual for more information.
- *Content*: the property that specifies whether or not the inline contains a prefix or shares its content with other inlines created from the same master definition

You edit properties on the Inline Basic sheet in the same way that you edit properties on any other Component property sheet. Use the Basic sheet to define the characteristics of an inline and to create unique inline master definitions.

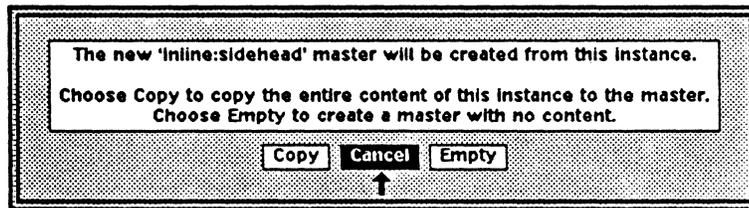
To create a unique inline master:

- Move the property sheet caret to the *Name* field if it is not already there.

- Type *inline:sidehead* (be sure to type the colon) and press RETURN. What you type appears in the Name field.



- ☐ Execute Apply. The New Inline Master stickup appears. You have the choice of copying the content of the selected inline or just its properties into the new master definition.



- Select Empty and then execute Close. The New Inline Master stickup disappears, the Basic sheet closes, and the cursor returns to the document.
- ☐ Click the select button. The inline is deselected.

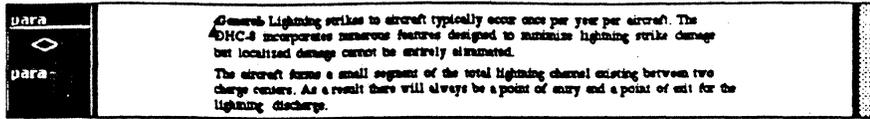
Just as for full components, when you define an empty inline master definition, any instance you create from that master appears without any text. If you had selected Copy from the New Inline Master stickup, then any text in the selected inline would appear every time you created an inline from that master.

Using the Inline Submenu

When you create an inline master, that master is also available for full components. This means that the master's name appears on both the Create submenu of the Component Location popup and the Create Inline submenu of the Text Location popup.

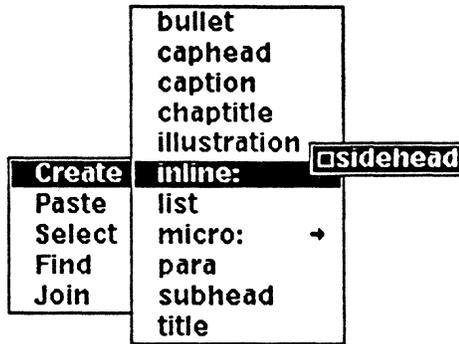
To view the Create submenus:

☰☰☰ Move the cursor to the component bar.



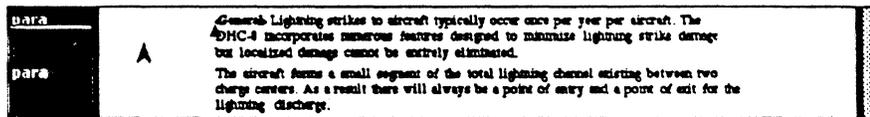
☰☰☰ Hold down the menu button and drag the cursor to Create→ inline:→ sidehead.

The inline master you created in the last exercise now exists in its own submenu on the Component Location popup.



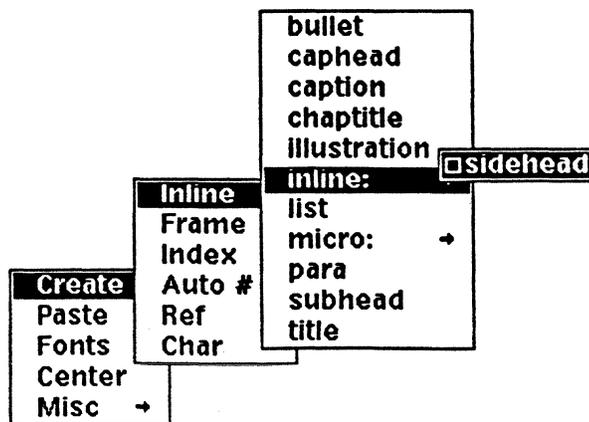
☰☰☰ ☰☰☰ Drag the cursor off the Component Location popup and release the menu button.

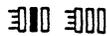
☰☰☰ Move the cursor to the text area.



☰☰☰ Hold down the menu button and drag the cursor to Create→ Inline→ inline:→ sidehead.

The new inline master exists in its own submenu on the Text Location popup as well.



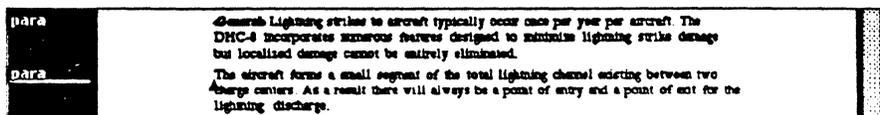


Drag the cursor off the popup and release the menu button.
The popup disappears.

Because the names of all available component masters appear on both the Create submenu and the Create Inline submenu, the publishing software gives you a technique for making a special submenu to group related masters, such as inlines. You do this by adding a colon (:) to the master's name. The text after the colon in the name will appear on a submenu to the right of the text before the colon.

To create more inlines:

- Move the text caret to the beginning of the second paragraph.



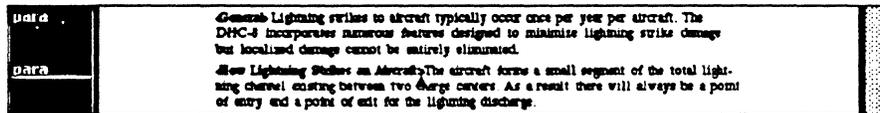
Execute Create → Inline → inline: → sidehead.

A set of inline markers appears at the text caret location.



Type: How Lightning Strikes an Aircraft:

The text appears in the default font (bold).



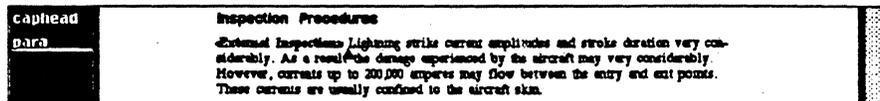
Move the text caret outside the inline markers and press the space bar.

A space appears between the side head and the text of the paragraph.

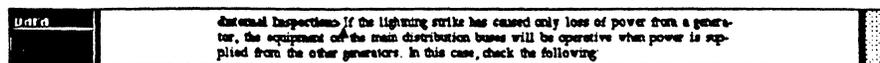


Create the following inline side heads in the document. (Remember to add a space after each inline.)

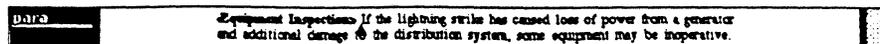
Type: External Inspection: at the beginning of the 6th para component.



Type: Internal Inspection: at the beginning of the 9th para component.



Type: Equipment Inspection: at the beginning of the 10th para component.



Type: Power Plant: at the beginning of the last para component.

DATA	Power Plants If an engine is involved in a lightning strike, inspect it in accordance with the Engine Maintenance Manual. If a propeller is involved in a lightning strike, inspect it in accordance with the Propeller Maintenance Manual.
-------------	---

Converting Text to an Inline

In addition to creating an empty inline and adding text, you can also select existing text and convert it to an inline.

To select and convert text:

- Move the text caret to the left of the word *Example* at the beginning of the 5th paragraph.

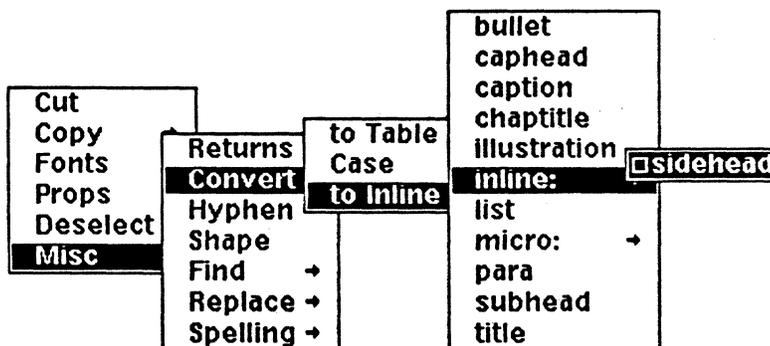
Example: The lightning discharge enters the aircraft at the outboard 1

- Select *Example* and the colon.

Example: The lightning discharge enters the aircraft at the outboard 1

- ☰ Hold down the menu button and drag the cursor to Misc → Convert → to Inline → inline: → sidehead.

The Convert to Inline submenu contains the same masters as the Create submenu and the Create Inline submenu.



- ☰ Release the menu button.

The selected text is converted to an inline:sidehead inline. The font of the new inline changes to bold.

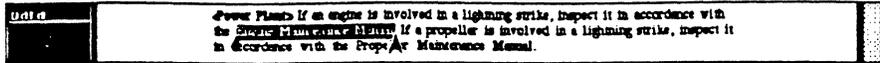
DATA	Example: The lightning discharge enters the aircraft at the outboard left hand elevator trailing edge, and leaves the aircraft through one of the propeller blades (tip) located on the #2 power plant. Since the aircraft is moving relative to the lightning channel, the
-------------	---

When you convert selected text to an inline, the selected text assumes the properties of the master to which you convert it.

In the next exercise you convert text to an inline using a predefined full component master and then use the property sheet of that master to define a new inline master.

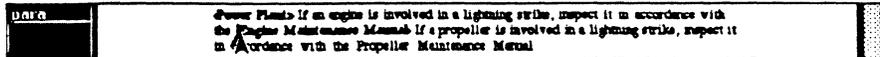
To create another inline master:

- ❑ Select the text: *Engine Maintenance Manual*, in the final paragraph of the document.



- ☐ Execute Misc→ Convert→ to Inline→ para.
Inline markers appear around the text.

- ❑ Select the *para* inline.



- ☐ Execute Props.
The para inline's Basic sheet opens.

- ❑ Make the following changes to the Basic sheet:

Name inline:italic
Italic on

The property sheet should resemble Figure 3.

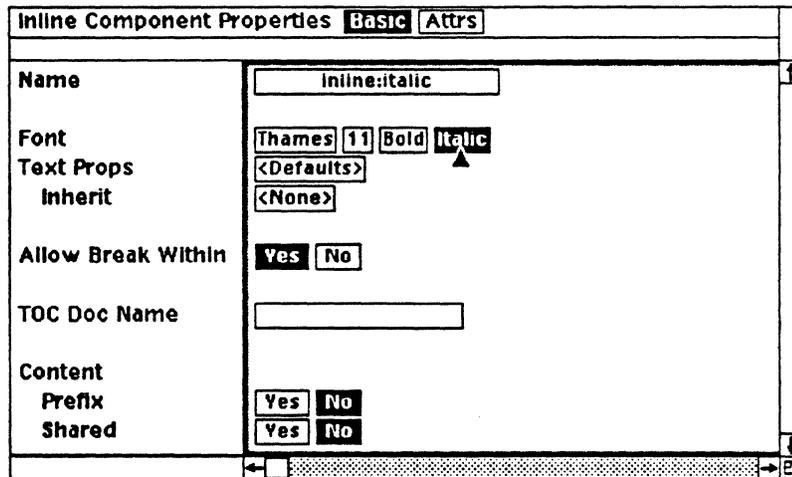
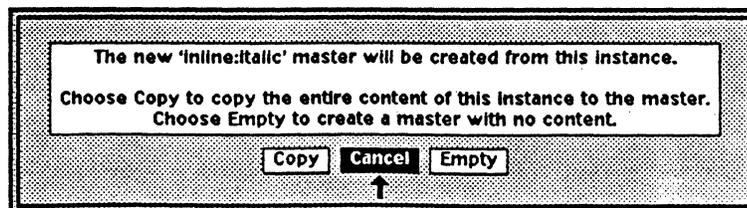


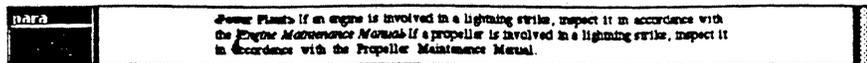
Figure 3. Completed Basic sheet for the inline:italic inline

- ☐ Execute Apply.
The New Inline Master stickup appears.

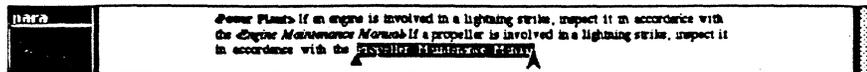


- ❑ Select *Empty* and then execute *Close*.

The Basic sheet closes and the inline's font changes to italic.

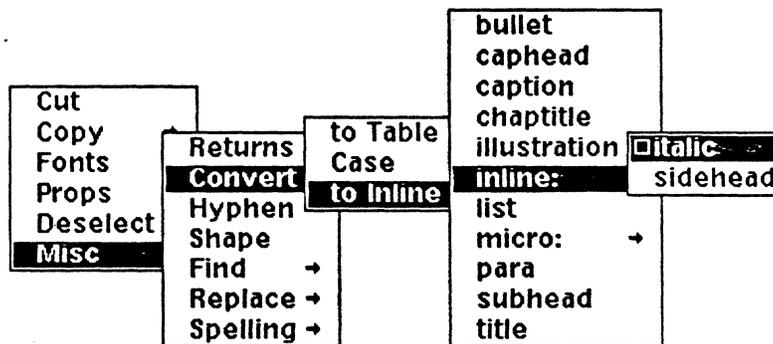


- Select the text: *Propeller Maintenance Manual* in the last paragraph.



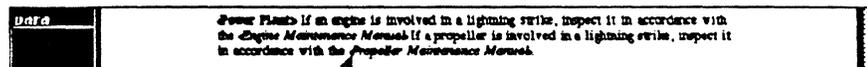
- ☰☰☰ Hold down the menu button and drag the cursor to Misc→ Convert→ to Inline→ inline:→ italic.

The inline: submenu now contains italic as well as sidehead.



- ☰☰☰ Release the menu button.

The selected text is converted to an inline:italic inline. The font changes to italic.

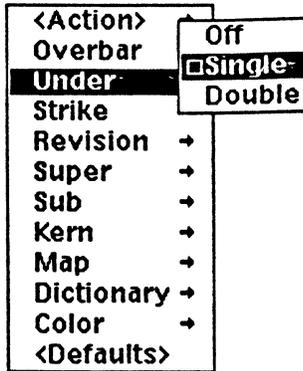


Globally Changing an Inline Master

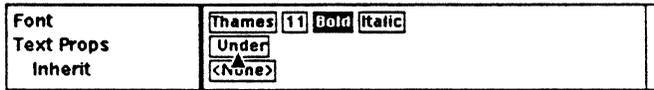
Once you have created inlines in a document, you can control their properties globally without affecting the properties of surrounding text.

To change an inline property:

- Select any of the *inline:sidehead* inlines.
- ☰☰☰ Execute Props.
The Basic sheet for the inline:sidehead appears.
- ☰☰☰ Point to the Text Props list box.
The cursor changes to a triangle.
- ☰☰☰ Hold down the menu button and drag the cursor to Under→ Single.



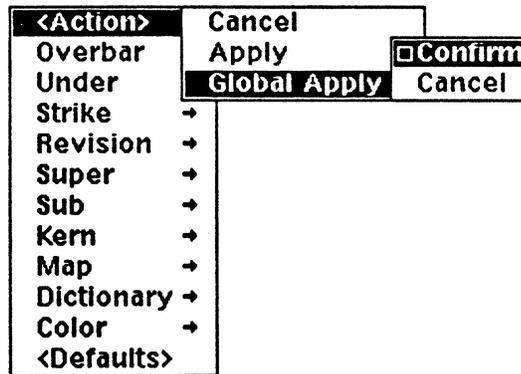
- ☐☐☐ Release the menu button.
Under appears in the Text Props box.



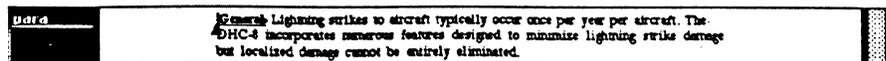
The anchored popup attached to the Text Props box contains commands that turn the various text attributes on and off in ways specific to that attribute. The **Under** property on the Basic sheet allows you to add a single or double underline to all the text in an inline.

To globally apply an inline property:

- ☐☐☐ Without moving the cursor, hold down the menu button.
The anchored popup appears again.
- ☐☐☐ Drag the cursor to **<Action> → Global Apply → Confirm**.



- ☐☐☐ Release the menu button.
All the inline:sidehead components now contain an underline, including the selected component.



- ☐ Close the Basic sheet and execute Save on the Document Name pulldown.

All anchored popups contain an <Action> submenu that you can use to apply, globally apply, or unify changes in a property sheet. The <Action> submenu is a duplicate of the popup you see when the cursor is located in an area of the property sheet other than a list box. This means that if you have changed a property, you see the Apply submenu, if you have not changed a property, you see the Unify submenu.

This is the end of Lesson 9. You can leave the *Maintenance Checks* document open and proceed directly to Lesson 10, or close the *Maintenance Checks* document and work on Lesson 10 later.

Summary

- An **inline component**, or **inline**, is a component that can appear within another component. A set of gray angle brackets (< >), called **inline component markers** (or **inline markers**) appear at the beginning and end of an inline.
- To create an inline, execute **Create→ Inline→** and a choice from the submenu that appears.
- Inlines can have the same masters as full components, although there is less possibility of confusion if you define unique masters for the inlines you create.
- To have the publishing software create a submenu off the Create submenus, place a colon (:) in the master's name. The text after the colon will appear in a submenu to the right of the text before the colon.
- To create an inline from existing text, select that text and execute **Misc→ Convert→ to Inline** and a choice from the submenu.
- If inline masters have unique names, you can globally apply property changes to inlines and not affect any other text in a document.

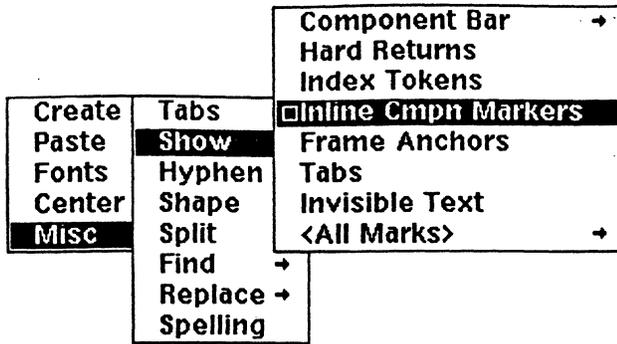
Further Exercise

This exercise teaches you how to change the appearance of inline markers. To complete this exercise, you should have the *Chapter 4* document open.

Hiding inline markers:

Because inline markers do not appear in the printed document, it can be useful to see how a document looks on the screen without the markers.

- ☐☐☐ With the cursor in the text area, execute **Misc→ Show→ Inline Cmpn Markers**.



The gray inline markers disappear. Although the spacing within a line containing inline markers changes on the screen when inline markers are made visible or invisible, line breaks and page breaks do not change.

Lesson 10: Inline Applications

Using inlines, you can globally manipulate small amounts of text within full components without having to change full component properties. For example, in Lesson 9 you globally applied a font change to the *inline:sidehead* master to create an underline in text everywhere that inline appeared. In this way, you created greater emphasis within the full components containing the inlines without having to select and change the individual text.

This lesson describes additional inline features that let you control text properties within full components and suggests ways that you can use these features. The particular skills you learn are

- creating shared-content inlines
- changing the content of a shared-content inline
- using inheritance in inlines
- creating nested inlines
- creating initial-content inlines and using them with inheritance

The approximate time to complete Lesson 10 is 20 minutes.

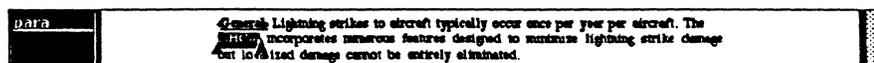
Creating a Shared-Content Inline

A shared-content component (either inline or full) shares its contents with its master and all other instances created from that master. This means that if you have text that will be repeated throughout a document, you can put it in a shared-content component and create additional instances of that component rather than typing the text over and over. Once you create instances of a shared-content component, you can change all of them at once by changing a single instance.

You can use a shared-content inline in the *Maintenance Checks* document for the aircraft name that appears in the first paragraph. Once you define a single instance of that inline, you can insert the inline in every location where you want to mention the aircraft name.

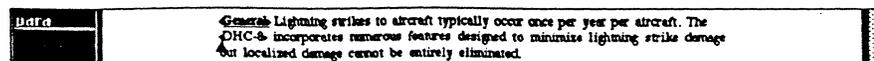
To create an inline from a full component master:

- Select the text *DHC-8* in the first *para* component.



- ☐☐ Execute Misc→ Convert→ to Inline→ *para*.

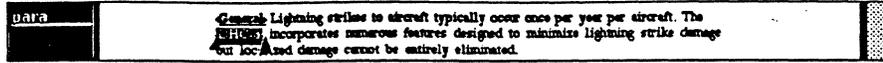
Markers appear around the selected text to show it has been converted to a *para inline*.



Because you created the inline from the same master as the full component containing it, the text properties do not change.

To define a shared-content inline:

- Select the entire *para* inline (including the markers).



- ☐☐ Execute Props.
The Basic sheet opens for the para inline.

- Make the following changes to the Basic sheet:

Name **inline:name**
Shared **Yes**

The Basic sheet should resemble Figure 4.

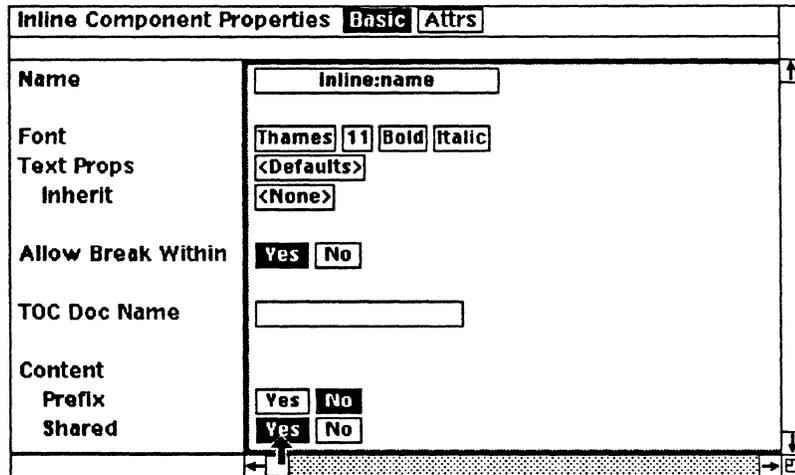
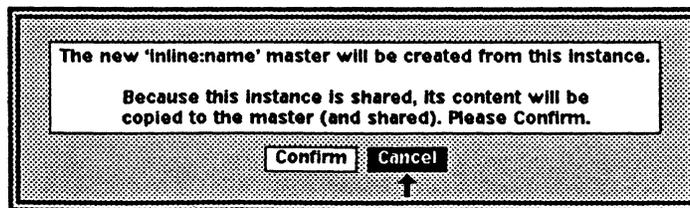


Figure 4. Completed Basic sheet for the inline:name inline

- ☐☐ Execute Apply.
The New Inline Master stickup appears.

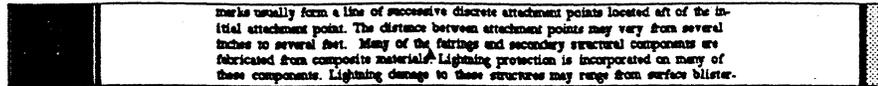


- Select **Confirm** and then execute **Close**.
The New Inline Master stickup disappears and the Basic sheet closes.

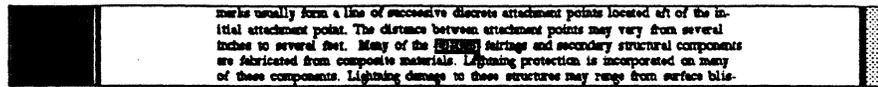
When you create a shared-content master definition, all the inlines that you create from that master have the same content. You can now create additional instances of the *inline:name* inline to add the aircraft name to other parts of the document.

To create additional shared-content inlines:

- Move the text caret to the right of the phrase, *Many of the...* in the ninth line of the first *para* component on the second page.



- Press the space bar and execute **Create→ Inline→ inline:→ name**.
The inline and its shared content appear at the text caret location.

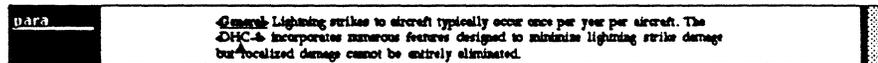


If you need to change the text of a shared-content inline after you have created several, you have to change only one instance to change them all. In the next exercise, assume that the aircraft name changes from *DHC-8* to *DJC-8*.

To change the content of a shared-content inline:

- Move the text caret between the *H* and *C* of either of the *inline:name* inlines.

The illustration shows the first inline:name inline.



- Press **DELETE** and type *J*.
The letter H is replaced by the letter J in both inline:name inlines (Figure 5).

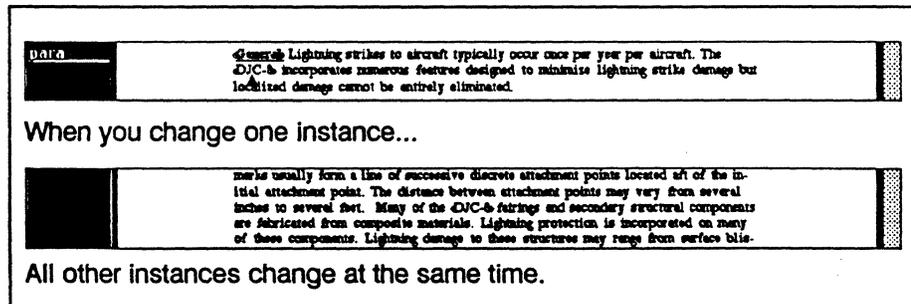


Figure 5. The relationship of shared-content components

When you change a shared-content component you change the content of that master as well as the content of all instances from that master.

Inline Inheritance

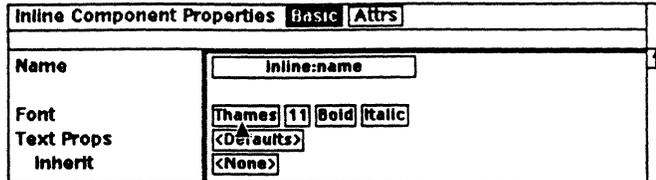
You can set each inline font and text property to inherit its value from the component in which the inline exists. For example, instances of inlines created from the same master can have different font properties depending

on the font properties of the full components in which they appear. This relationship is called **inheritance**.

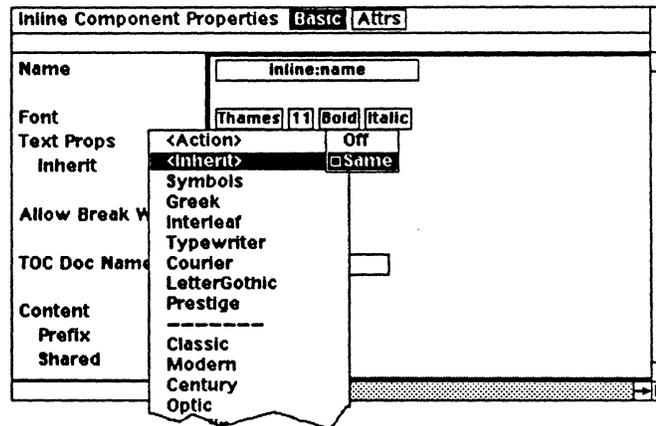
To set font family inheritance:

- Select one of the *inline:name* components and execute Props.
The Basic sheet opens.

- ☰ Point to the font name box.

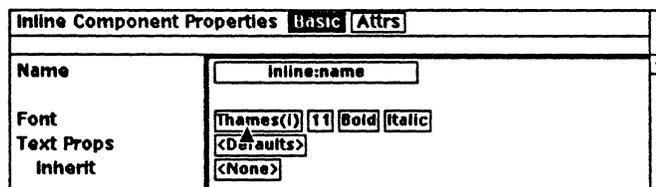


- ☰ Hold down the menu button and drag the cursor to **< Inherit >** → **Same**.



The appearance of your anchored popup will vary depending on what font families are available on your workstation.

- ☰ Release the menu button.
The letter (i) appears after the font name.



By setting the inheritance of the font family to **Same** you cause the font family of the inline to be the same as the font family of the text immediately preceding the inline; or, if the inline is at the beginning of a component, the default font family of the component in which the inline exists.

When you set inheritance for an inline property, an **inheritance code** appears within the box beside that property. Depending on the property and the type of inheritance you set, you will see one of the following codes:

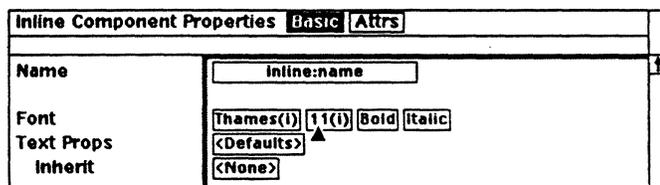
- (i) inherit same
- (~i) inherit opposite
- (i+) inherit larger, increase, or looser
- (i-) inherit smaller, decrease, or tighter

Each font or text property has its own inheritance submenu. If you want properties other than font family to inherit their values, you must set each in the same way you set font family inheritance.

To set font size inheritance and globally apply it:

- Point to the font size box and execute <Inherit> → Same.

An inherit same code appears in the font size box.



- In turn, point to the Bold box and the Italic box and execute <Inherit> → Same.

The Basic sheet should resemble Figure 6.

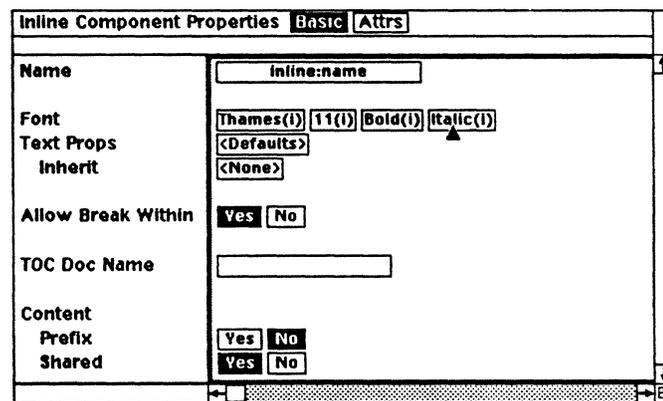


Figure 6. Completed Basic sheet for the inline:name inline

- Execute Global Apply → Confirm and then execute Close.

The master for inline:name is updated and the Basic sheet closes.

Globally applying the inheritance changes you made on the Basic sheet updated the master definition of *inline:name* and all instances of it. Now, each time you create an instance of *inline:name* it will inherit its font properties.

To create an inheriting inline:

- Move the text caret to just after the word *of* in the document title.

chapttitle:	CHAPTER 1 - MAINTENANCE CHECKS
title:	1.1 Inspection of Aircraft After a Lightning Strike

- Press the space bar and type *the*

chapttitle:	CHAPTER 1 - MAINTENANCE CHECKS
title:	1.1 Inspection of the Aircraft After a Lightning Strike

- Press the space bar again and execute **Create**→ **Inline**→ **inline:**→ **name**.
The inline appears in 14-point Swiss bold to match the font of the title.

chapttitle:	CHAPTER 1 - MAINTENANCE CHECKS
title:	1.1 Inspection of the inline: Aircraft After a Lightning Strike

- Execute **Props**.
The inline:name Basic sheet opens.

Inline Component Properties	
Basic Attrs	
Name	inline:name
Font	Swiss(i) 14(i) Bold(i) Italic(i)
Text Props	<Defaults>
Inherit	<None>
Allow Break Within	Yes No
TOC Doc Name	
Content	
Prefix	Yes No
Shared	Yes No

Even though this is an instance of the same inline whose master you updated in the previous exercise, the family, size and Bold font boxes contain different values than the previous instance. This is because a field containing an inherit code changes to reflect the property it inherits.

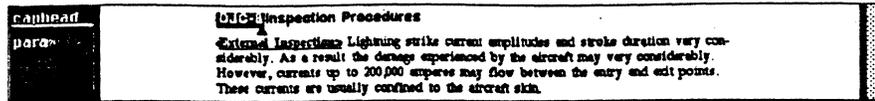
- Execute **Close**.
The inline:name property sheet closes.

To create additional inheriting inlines:

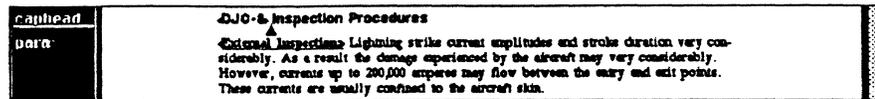
- Move the text caret to the beginning of the *caphead* component, *Inspection Procedures*.

caphead	Inspection Procedures
para	External Inspections Lightning strike current amplitudes and stroke duration vary considerably. As a result the damage experienced by the aircraft may vary considerably. However, currents up to 200,000 amperes may flow between the entry and exit points. These currents are usually confined to the aircraft skin.

- Execute Create→ Inline→ inline:→ name.
The inline appears in 12-point Swiss bold to match the font of the caphead.



- Press the right arrow key and then press the space bar.
A space appears between the inline and the text of the full component.

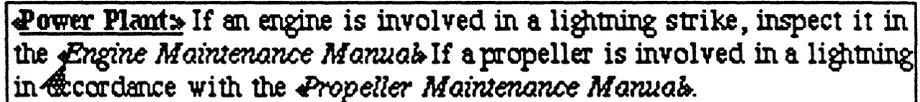


Nested Inlines

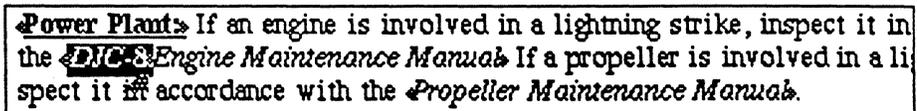
You can create inlines within any component, even within another inline. An inline within another inline is called a **nested inline**.

To create a nested inline:

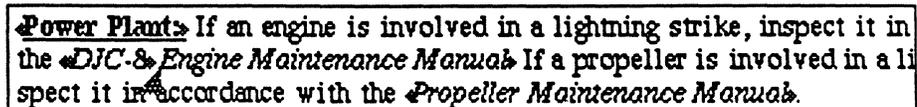
- Move the text caret to the beginning of the text in the first *inline:italic* inline in the last paragraph of the document.



- Execute Create→ Inline→ inline:→ name.
The inline appears in 11-point Thames italic to match the text in the inline:italic inline.



- Press the right arrow key and then press the space bar.
The text caret moves outside the inline:name inline and a space appears between the nested inline and the next word.



- Move the text caret to the beginning of the text in the second *inline:italic* inline in the last paragraph of the document.

Power Plant If an engine is involved in a lightning strike, inspect it in the *DJC-8 Engine Maintenance Manual*. If a propeller is involved in a lightning strike, inspect it in accordance with the *Propeller Maintenance Manual*.

- Execute **Create**→ **Inline**→ **inline:**→ name, press the right arrow key, and press the space bar.

The *inline* appears in 11-point *Times* italic to match the text in the *inline:italic inline* and a space appears between the nested *inline* and the next word.

Power Plant If an engine is involved in a lightning strike, inspect it in the *DJC-8 Engine Maintenance Manual*. If a propeller is involved in a lightning strike, inspect it in accordance with the *DJC-8 Propeller Maintenance Manual*.

If a nested *inline* has inheritance set for any properties, it inherits those properties from the *inline* containing it. In the exercise you just completed, for example, the *inline:name* *inline* inherited the italic font from the *inline:italic* *inline* even though the text immediately preceding the *inline:name* *inline* is Roman.

Combining Features in Inlines

You can combine *inline* features such as inheritance and initial content to produce different formats in documents without having to individually change specific components. This gives you the advantage of being able to change the *inlines* later without affecting the rest of the text.

As an example of how to make these features work for you, assume that you need to add part numbers to the names of the maintenance manuals in the last paragraph of the text. The part numbers have a prefix in common and this prefix is followed by a set of numbers that is unique for each part number. In addition, the part numbers must be in a different font and point size so they will stand out in the text.

To create an initial-content *inline* that inherits its properties:

- In the last paragraph, position the text caret after the first *inline:italic* *inline* and just before the period ending the sentence.

Power Plant If an engine is involved in a lightning strike, inspect it in the *DJC-8 Engine Maintenance Manual*. If a propeller is involved in a lightning strike, inspect it in accordance with the *DJC-8 Propeller Maintenance Manual*.

- Press the space bar and execute **Create**→ **Inline**→ **para**.
Inline markers appear at the text caret location.

Power Plant If an engine is involved in a lightning strike, inspect it in the *DJC-8 Engine Maintenance Manual*. If a propeller is involved in a lightning strike, inspect it in accordance with the *DJC-8 Propeller Maintenance Manual*.

- Type: (part # 43D3-)

Power Plant If an engine is involved in a lightning strike, inspect it in the *DJC-8 Engine Maintenance Manual* (part # 43D3-). If a propeller is involved in a lightning strike, inspect it in accordance with the *DJC-8 Propeller Maintenance Manual*.

- Select the *para* inline.

Power Plant If an engine is involved in a lightning strike, inspect it in the *DJC-8 Engine Maintenance Manual* (part # 43D3-). If a propeller is involved in a lightning strike, inspect it in accordance with the *DJC-8 Propeller Maintenance Manual*.

- ☐ Execute Props.

The Basic property sheet appears.

- Make the following changes to the Basic sheet:

Name inline:part#

Font family Swiss

- ☐ Point to the font size box and execute <Inherit> → Smaller from the anchored popup.

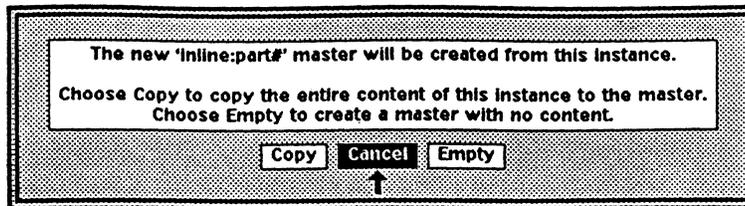
The property sheet should now resemble Figure 7.

Inline Component Properties	
Basic Attrs	
Name	inline:part#
Font	Swiss 10(i-) Bold Italic
Text Props	<Defaults>
Inherit	<None>
Allow Break Within	Yes No
TOC Doc Name	
Content	
Prefix	Yes No
Shared	Yes No

Figure 7. Completed Basic sheet for the inline:part# inline

- ☐ Execute Apply.

The New Inline Master stickup appears.



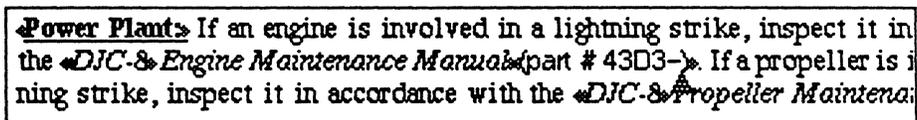
- Select Copy and then execute Close.

The stickup disappears and the text in the inline changes to 10-point Swiss. The property sheet closes.

The text in the new *inline:part#* inline is now part of the master definition. Any text you add to the *inline:part#* inline now will be unique to that instance and will not be part of the master's content.

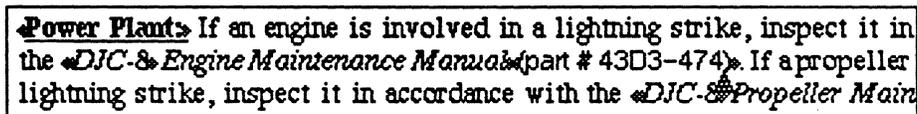
To add text to an initial-content inline:

- Position the text caret between the dash symbol and the closing parenthesis of the *inline:part#* component.



- Type: 474.

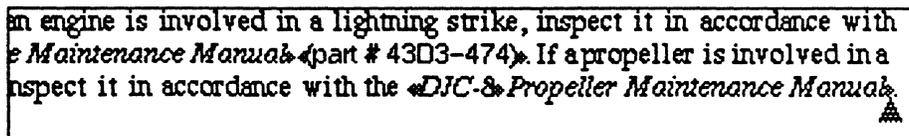
What you type appears in the default family (Swiss) and the smaller point size (10 point) inherited from the preceding text.



You can now create an *inline:part#* component and have the initial content appear in the component. For example, you can add a part number for the *Propeller Maintenance Manual*.

To create an additional initial-content inline:

- Position the text caret after the second *inline:italic* inline and just before the period ending the document.



- Press the space bar and execute Create→ Inline→ *inline:→ part#*.

«Power Plant» If an engine is involved in a lightning strike, inspect it in the «DJC-8 Engine Maintenance Manual» (part # 4303-474). If a propeller lightning strike, inspect it in accordance with the «DJC-8 Propeller Main» (part#4303-478).

- Press the left arrow key and then type: 478.
The text caret moves between the dash symbol and the close parentheses and the text appears in 10-point Swiss.

«Power Plant» If an engine is involved in a lightning strike, inspect it in the «DJC-8 Engine Maintenance Manual» (part # 4303-474). If a propeller lightning strike, inspect it in accordance with the «DJC-8 Propeller Main» (part#4303-478).

- Point to the Name box in the document header and execute Save.

This is the end of Lesson 10. You can leave the *Maintenance Checks* document open and proceed directly to Lesson 11, or close the *Maintenance Checks* document and work on Lesson 11 later.

Summary

- To create an inline component with the same properties as the full component containing it, use the full component's master to create the inline and then (if necessary) change the inline master's name.
- To create a shared-content inline, set the *Shared* property on the Basic sheet to **Yes** and execute **Apply** or **Global Apply**. The inline will then share its contents with its master and all instances from that master.
- An inline can **inherit** many of its properties from the component in which it exists. These properties include the same font properties, the opposite font properties, or larger and smaller font properties.
- A **nested inline** is an inline within another inline. If a nested inline is set to inherit properties, that inline inherits its properties from the inline that contains it.
- You can combine inline features, such as initial content and inheritance, to produce inlines that have a specific content and a specific stylistic relationship with their containing components.

Further Exercise

The further exercise for this chapter gives you additional practice with inline inheritance. To complete this exercise, you must have the *Maintenance Checks* document open on your desktop.

To set an inline for inherit opposite:

- Select one of the *inline:italic* components in the last paragraph of the *Maintenance Checks* document and open its property sheet.

  Point to the Italic font box and execute **<Inherit>** → **Opposite**.
The Italic font box now contains the symbol (~i).

Inline Component Properties	
Basic Attrs	
Name	inline:italic
Font	Times 11 Bold Italic (~i)
Text Props	<Defaults>
Inherit	<None>

 Execute **Global Apply** → **Confirm** and then execute **Close**.
The property sheet closes.

- Select the *para* component containing the *inline:italic* component and open its Format property sheet.

  Point to the Italic font box and click the select button.

 Execute **Apply** and then execute **Close**.

The text in the para component is now italic and the text in the inline:italic components is now Roman.

para
<i>⚠️ Warning: If an engine is involved in a lightning strike, inspect it in accordance with the ADJC-8 Engine Maintenance Manual-part # 4303-474. If a propeller is involved in a lightning strike, inspect it in accordance with the ADJC-8 Propeller Maintenance Manual part # 4303-476.</i>

- Close the *Maintenance Checks* document without saving it.

Lesson 11: Effectivity Control

Effectivity control is a feature of the publishing software that enables you to automatically create different versions of a document by specifying which elements of that document are visible, or *effective*, for a given version. In this lesson you learn the basics of using effectivity control for both inline components and full components. See Chapter 43, *Effectivity Control*, in the *Document Management* manual for an in-depth description of the features and applications of effectivity control.

Lesson 11 teaches you how to

- assign attribute names and values on a document's Control sheet
- tag an element on a component's Attrs (Attributes) sheet
- use control expressions to display different versions of a document
- limit the number of attribute values you can assign an element
- tag a component for use in multiple versions of a document
- print different versions of a document

The approximate time to complete Lesson 11 is 30 minutes.

In order to illustrate how effectivity control can work in a document, assume that you want use the *Maintenance Checks* document you have been working on to produce an inspection manual for three related models of aircraft, the *DJC-8*, the *DJC-10*, and the *DJC-12*. Although these aircraft are similar, each requires slightly different inspection techniques. You can use effectivity control to create a version of the document for each aircraft model without having to make three separate copies of the basic document and insert the required changes in each.

Assigning Attribute Names and Values

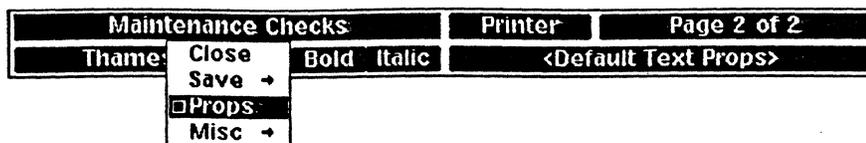
An **attribute name** is a label you use to define a category of information that will change in each version of a document. An **attribute value** specifies the name of one version of the document. To use effectivity control, you first define an attribute and then assign attribute values to describe the different versions of the document you want to create.

In the sample document you are creating in this lesson, the document versions are based on the different aircraft models that the document describes. For this reason, the attribute name *model* is appropriate. For the values of this attribute name, you can use the specific aircraft models, *DJC-8*, *DJC-10*, and *DJC-12*. In a more complex document, you might want to assign several attribute names, each with its own set of attribute values.

To open the Object property Control sheet:

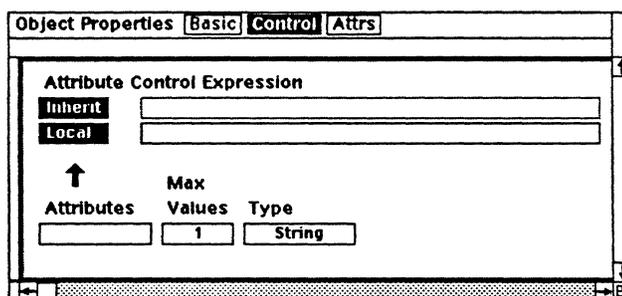
- If you closed the *Maintenance Checks* document at the end of Lesson 10, open it before beginning the exercises.

- Point to the Name box in the document header, hold down the menu button, and drag the cursor down to **Props**.



- ☐☐ Release the menu button.
The Object property Basic sheet appears.

- ☐☐☐☐☐☐ Point to **Control** in the property sheet header and click the select button.
The Control sheet contains blank fields for attribute control expressions and attributes.



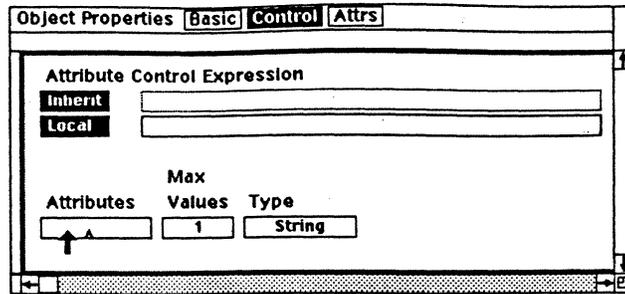
The properties on the Control property sheet are described below:

- **Inherit:** If this property is selected and there is a control expression in a book master, that expression appears in this field on the Control Sheets of all documents contained in that book.
- **Local:** the control expression you use to create different versions of the document
- **Attributes:** labels that define categories for the information that will change in each version of the document
- **Max Values:** the property that controls the number of values you can enter for a particular attribute on each Attrs sheet
- **Type:** the property that specifies whether or not the values for an attribute are Enumerated (restricted) or String (unrestricted)

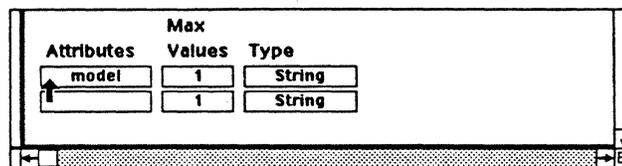
Using attribute names, you define categories of information that you will use to create different versions of a document. You then use these names to determine which elements in a document (for example, components) will appear in each version of the document you create when you turn on effectivity control.

To assign an attribute name:

- Move the property sheet caret to the *Attributes* field.



- ☐ Type *model*, and press RETURN.
The attribute name *model* appears in the field and a second attribute field appears below the first.



You can assign as many attribute names as you need to describe the different categories of information you want to control in a document. In this example, the information that is unique for each document version relates only to the model of the aircraft you are describing, so you need only one attribute name, *model*.

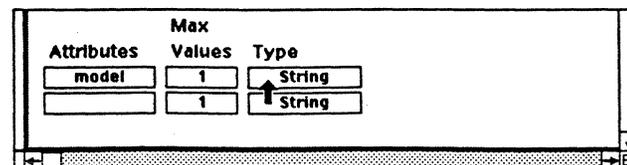
The procedure used in this chapter is the basis for using effectivity control in more complex documents. For example, in a document that is being revised frequently by different writers, you might want to assign two attribute names, *revision level* and *author*. In a letter going out to several customers at different times of the year and describing different models of a product, you might want to assign three attribute names, *customer*, *date*, and *model*.

The publishing software recognizes the difference between upper-case and lower-case letters in attribute names. You must consistently use the same case you used in the Control sheet for all situations in which you supply an attribute name.

The next step is to assign attribute values for the attribute name. To do this, you must change the attribute type.

To change the attribute type:

- ☐☐☐ Point to the *Type* field for the *model* attribute.



- ☐☐☐ Click the select button.

The Type field changes to *Enumerated* and a blank field containing the property sheet caret appears to the right.

		Max			
Attributes	Values	Type			
model	1	Enumerated	▲		
	1	String			

Enumerated limits the number of attribute values and allows you to specify those values on the Control sheet. **String** permits you to use any string (or group) of characters for an attribute value.

When you specified **Enumerated**, an empty box containing the property sheet caret appeared to the right. You use this box to assign attribute values. Only values you assign on this sheet can be used for the *model* attribute name.

To assign attribute values:

- ☐ With the property sheet caret in the empty box, type the first attribute value, *DJC-8*, and then press the right arrow key.

The attribute value appears in the box and another blank box containing the property sheet caret appears to the right.

		Max			
Attributes	Values	Type			
model	1	Enumerated	DJC-8	▲	
	1	String			

- ☐ Type the second attribute value, *DJC-10*, and press the right arrow key. The second value appears in the second box and a third blank box appears.

		Max			
Attributes	Values	Type			
model	1	Enumerated	DJC-8	DJC-10	▲
	1	String			

- ☐ Type the third attribute value, *DJC-12*, and press RETURN. The third attribute value appears and the caret remains in the third field.

		Max			
Attributes	Values	Type			
model	1	Enumerated	DJC-8	DJC-10	▲ DJC-12
	1	String			

- ☐ Execute **Apply** and then execute **Close**. The Object property sheet closes.

You can assign as many values to an attribute name as you want. As you enter each attribute value, space for an additional value appears on the right. If necessary, the window scrolls so that you can see the additional boxes.

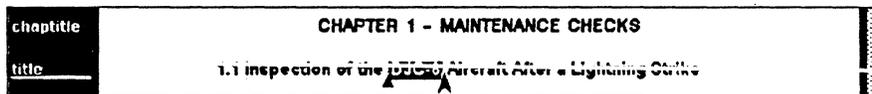
Tagging Elements

Once you have assigned attribute values, you tag the elements in the document that describe each aircraft model with these values. **Elements** are parts of the document that have masters, such as components, table rows, or frames. **Tagging** is the process of assigning an attribute value to an element so that the element appears only in the versions of the document that you specify. Because tagged elements can appear in some versions of a document but not in others, they are also called **conditional elements**.

In the *Maintenance Checks* document, you want to create and tag inline components that mention the aircraft model names. This will make them conditional elements. Since each tagged inline will describe a different aircraft name, you can avoid confusion by giving the inline masters unique names that describe their contents.

To define a new inline master:

- Select the *inline:name* inline in the title component on the first page of the document.

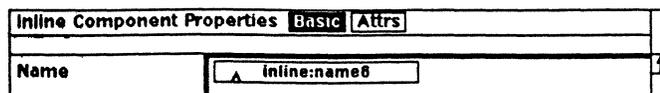


- Execute Props.
The Basic property sheet for the inline appears.

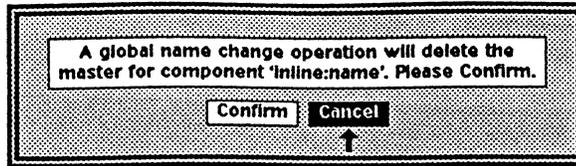
- Press CTRL-e.
The text caret in the Name field moves to the end of the field.



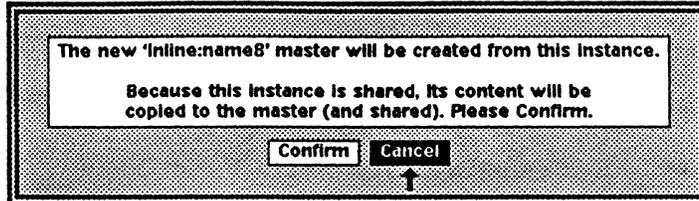
- Type 8 and press RETURN.
The Name field changes to inline:name8.



- Execute Global Apply→ Confirm.
The Global Inline Name Change stickup appears.



- Select Confirm.
The New Inline Master stickup appears.



- Select Confirm.
The stickup disappears and the publishing software deletes the old inline:name master and replaces it with the inline:name8 master.

CTRL-e moves the property sheet caret to the end of a field without deleting the current contents of that field. You can then edit the field's contents by typing to add characters or pressing DELETE to remove characters.

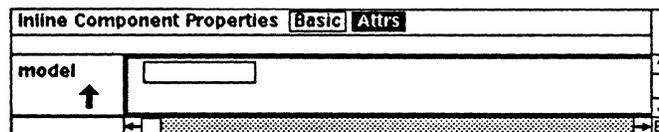
Now that you have created a unique master for the conditional element, you can tag it.

To tag an inline:

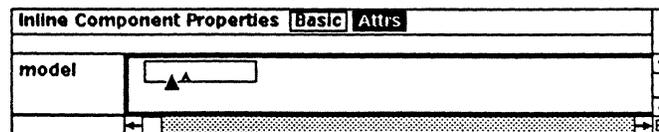


Point to Attrs on the *inline:name8* property sheet header and click the select button.

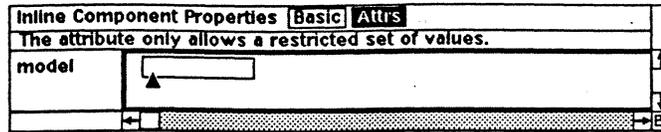
The Attrs sheet opens. There is an empty field to the right of the model attribute name.



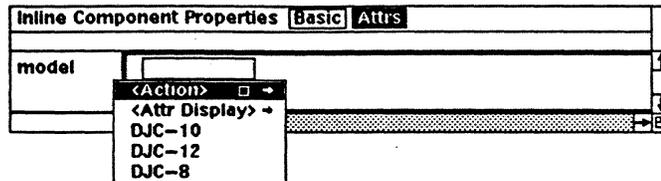
- Move the property sheet caret to the empty field.



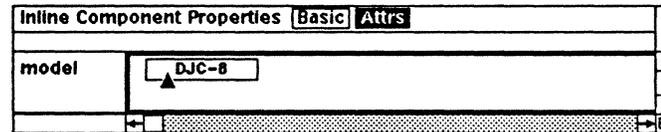
- Type: *DJC-9* and press RETURN.
The text appears and then disappears when you press RETURN. A message appears in the status line stating that only specific values are allowed in this field.



- ☐☐☐ Hold down the menu button.
An anchored popup appears. It contains the three values you assigned to the model attribute name on the document's Object property sheet.



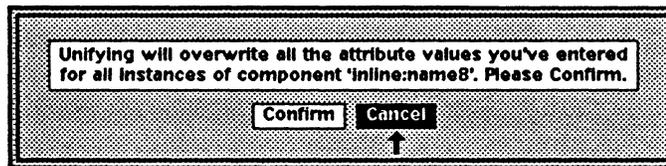
- ☐☐☐☐☐ Move the cursor to **DJC-8** and release the menu button.
The tag appears in the field.



When the attribute type for the document is **Enumerated**, you can enter on the inline's Attrs sheet only the specific values you have enumerated for that attribute on the document's Control sheet. These values appear on the anchored popups for each attribute field on the Attrs sheet.

To apply and unify an attribute tag:

- ☐☐☐ Execute **Apply** and then execute **Unify**→ **All**→ **Attrs**.
The attribute is applied to the selected instance and then the Unify All Attrs stickup appears.



- ☐ Select **Confirm**.
The attribute is applied to all instances of the inline and the publishing software updates the master definition.
- ☐☐☐ Execute **Close**.
The Inline Component property sheet closes.

You can use only the **Apply** command to apply changes you have made to the Attrs sheet. **Global Apply** is not allowed in this situation so that you cannot accidentally overwrite any values you have used to tag other instances

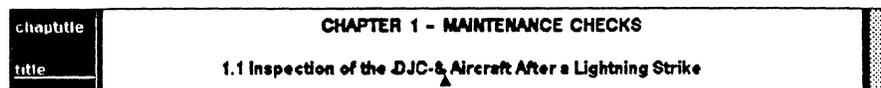
of the *inline:name8* component. If you want to apply a tag to all instances of a component, then you must specifically execute **Unify**→ **All**→ **Attrs**.

Creating New Tagged Elements

Now that you have tagged all the *inline:name8* inlines with the attribute value DJC-8, the next step is to create conditional elements for the values DJC-10 and DJC-12. These elements can also be shared-content inlines.

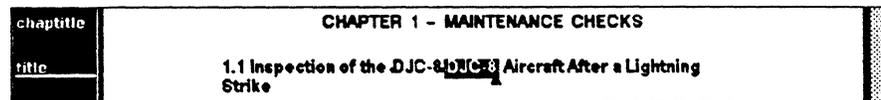
To create a second tagged inline:

- Move the text caret to just after the first *inline:name8* inline.



- Execute **Create**→ **Inline**→ **inline:**→ **name8**.

A duplicate inline:name8 component appears in the title.

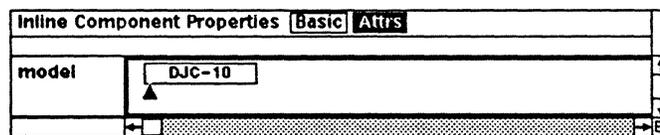


- Execute **Props**.

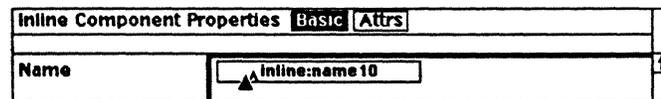
The Attrs sheet appears since it was the last inline property sheet you had open.

- Point to the attribute field, hold down the menu button, drag the cursor to **DJC-10**, and release the menu button.

DJC-10 replaces DJC-8 in the field as the tag for the inline.

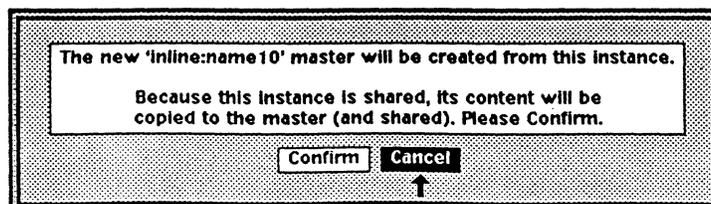


- Open the Basic sheet and change the *Name* field to **inline:name10**.

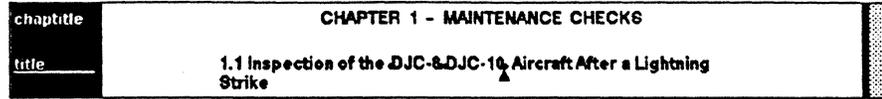


- Execute **Apply**.

The New Inline Master stickup appears.



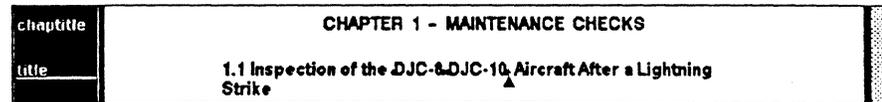
- Select **Confirm** and then execute **Close**.
The stickup disappears and the property sheet closes.
- Delete the *8* in the new *inline:name10* inline and type *10*.
The content of the inline:name10 inline, and the content of its master, changes.



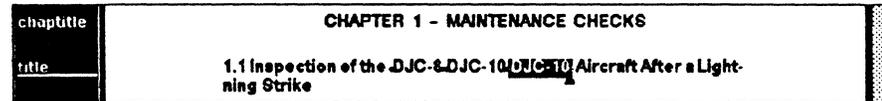
Because *inline:name10* is a shared-content inline, the change you make will be reflected in all instances you create. In the next exercise, you create a conditional element for the *DJC-12* attribute value.

To create a third tagged inline:

- Move the text caret outside the right inline marker of the *inline:name10* inline.

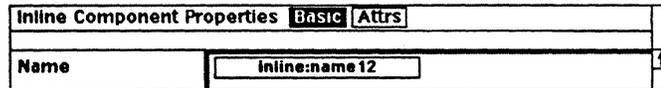


- Create a second *inline:name10* component.

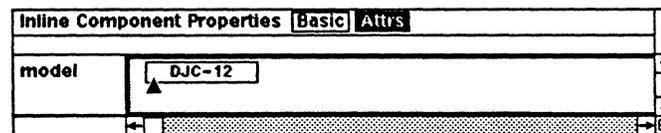


- Execute **Props**.
The Basic property sheet appears.

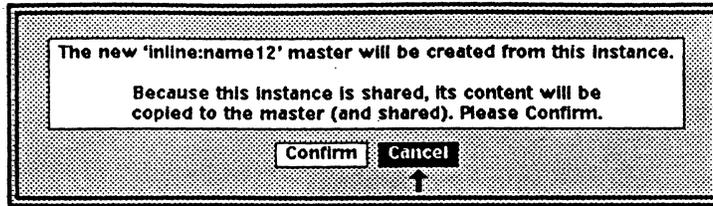
- Change the *Name* field to *inline:name12*.



- Open the *Attrs* sheet.
- Change the value in the *model* field to *DJC-12*.



- Execute **Apply**.
The New Inline Master stickup appears.



- Select Confirm and then execute Close.
The stickup disappears and the property sheet closes.
- Delete the 0 in the *inline:name12* inline and type 2.
The content of the inline:name12 inline, and the content of its master, changes.

chaptitle	CHAPTER 1 - MAINTENANCE CHECKS
title	1.1 Inspection of the DJC-8 DJC-10 DJC-12 Aircraft After a Lightning Strike

Now that you have created and tagged the inlines that will be conditional elements in your document, you want to create instances of them in the appropriate places.

To add conditional elements to the document:

- Create instances of the *inline:name10* and *inline:name12* inlines after each instance of the *inline:name8* inline in the document.
In the first para component:

~~General~~ Lightning strikes to aircraft typically occur once per year per aircraft. The ~~DJC-8~~~~DJC-10~~~~DJC-12~~ incorporates numerous features designed to minimize lightning strike damage but localized damage cannot be entirely eliminated.

In the caphead component:

~~DJC-8~~~~DJC-10~~~~DJC-12~~ **Inspection Procedures**
~~External Inspections~~ Lightning strike current amplitudes and stroke duration vary considerably. As a result the damage experienced by the aircraft may vary considerably.

In the first para component on the second page:

marks usually form a line of successive discrete attachment points located aft of the initial attachment point. The distance between attachment points may vary from several inches to several feet. Many of the ~~DJC-8~~~~DJC-10~~~~DJC-12~~ fairings and secondary structural components are fabricated from composite materials. Lightning protection is incorporated on many of these components. Lightning damage to these structures may range

At the beginning of the text in the two inline:italic inlines in the last para component in the document:

~~Power Plants~~ If an engine is involved in a lightning strike, inspect it in accordance with the ~~DJC-8~~~~DJC-10~~~~DJC-12~~ *Engine Maintenance Manual* (part # 4303-474). If a propeller is involved in a lightning strike, inspect it in accordance with the ~~DJC-8~~~~DJC-10~~~~DJC-12~~ *Propeller Maintenance Manual* (part # 4303-478).

You have now created examples of inlines tagged for the three different values of the attribute name *model*. Currently, all three are visible. In the next section, you learn how to make only the inline tagged for a certain value visible.

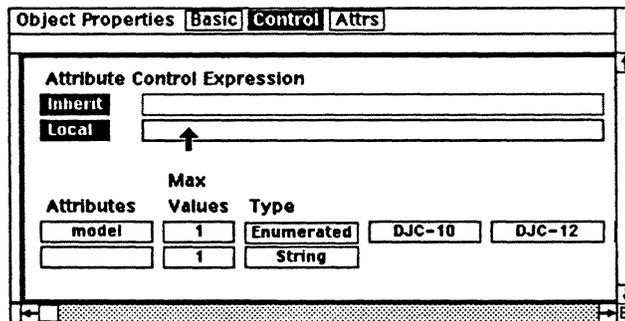
Viewing Different Versions of a Document

Now that you have established conditional elements in the sample document you can view its different versions by creating and applying a **control expression**. A control expression indicates to the publishing software which conditional elements should be visible, or **effective**, and which should be invisible, or **ineffective**. The elements in the document that are not tagged, (and thus are not conditional), remain visible at all times.

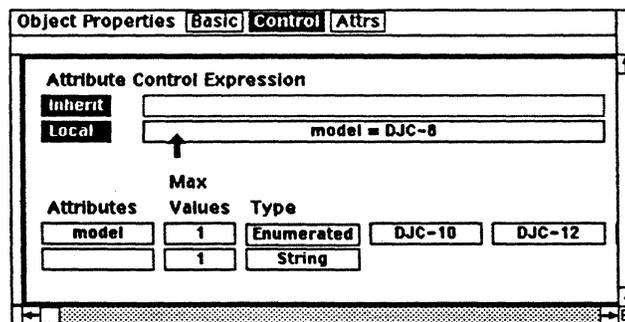
To create a control expression:

- Open the Object Property sheet for the document.

The Control sheet appears since it was the last Object property sheet you had open.



- Move the text caret to the *Local* field, type *model = DJC-8*, and press RETURN.

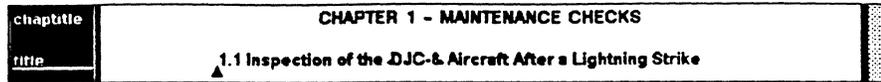


A control expression contains an **operator** and at least two **operands**. In the control expression you just created, the attribute name (*model*) and the attribute value (*DJC-8*) are the operands. The equal sign is the operator. This control expression tells the publishing software to display only those conditional elements that contain (are equal to) the tag *DJC-8*.

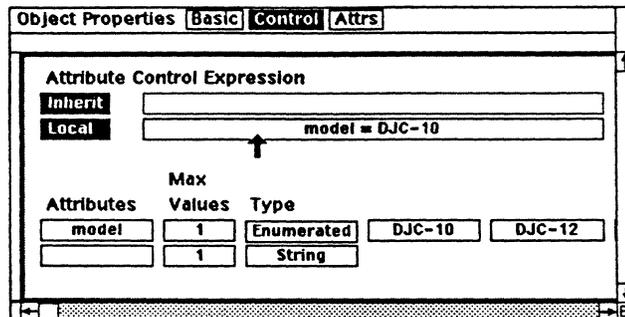
To apply a control expression:

Execute Apply.

Only the conditional elements tagged with DJC-8 appear in the document. The inline:name10 and inline:name12 inlines, which are tagged with a different value, are hidden. (The illustration shows the title component.)

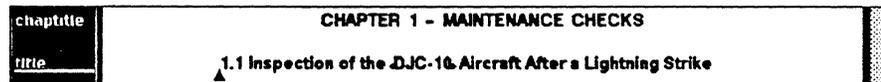


Change the text in the *Local* field to *model = DJC-10* and press RETURN.



Execute Apply.

The conditional elements tagged with DJC-10 replace the ones tagged with DJC-8. The inline:name8 and inline:name12 inlines are hidden. (The illustration shows the title component.)



The control expressions you just created are examples of the most basic type of expressions available in the publishing software. You can create more complex control expressions by using multiple operands and different operators. For more information on different ways to create control expressions, see Chapter 43, *Effectivity Control*, in the *Document Management* manual.

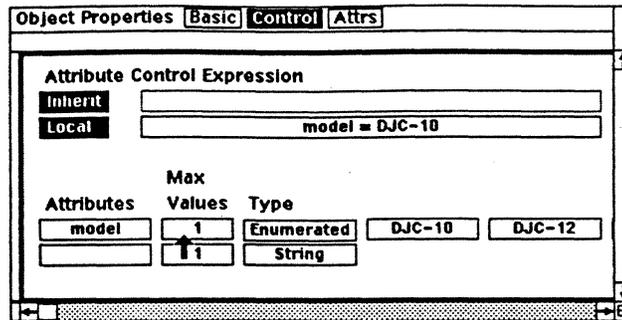
Making Elements Effective for More than One Value

A conditional element can be effective for more than one value. For example, you can tag an element in the sample document that is effective for two of the three aircraft models and ineffective for the third. To do this you must first tell the publishing software how many values conditional elements can be effective for.

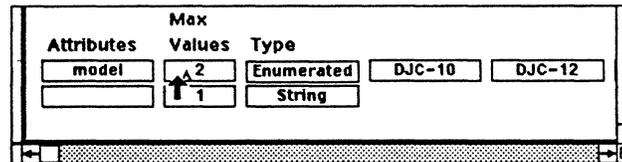
To set maximum values:

- Open the Object property Control sheet if you closed it at the end of the last exercise.

- Move the property sheet caret to the *Max Values* field for the *model* attribute.



- Type 2 and press RETURN.
2 replaces 1 in the Max Values box.



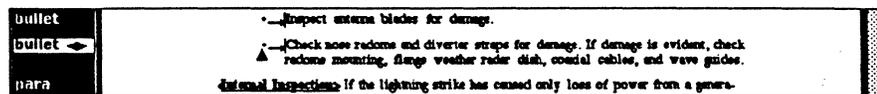
- Execute Apply and then execute Close.
The Object property sheet closes.

The *Max Values* setting controls the number of values you can enter for a particular attribute on each Attrs sheet. The default setting is 1, but you can enter any whole number up to and including 32767.

For the next exercise, assume that the last bullet component in the first series of inspection items describes an inspection technique that applies to the DJC-10 and DJC-12 aircraft models, but not to the DJC-8 model. You want to tag this component so it is effective for the *DJC-10* and *DJC-12* values but not for the *DJC-8* value.

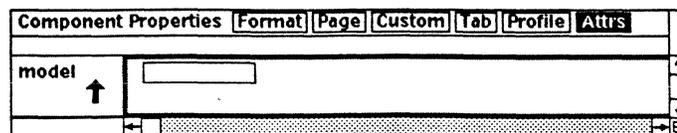
To tag a component with multiple values:

- Select the last *bullet* component in the first bulleted list on the second page.



- Execute Props.
The Component property sheet opens.

- Open the Attrs sheet.



- Point to the empty *model* field and enter the value DJC-10.

The tag appears in the field and a second, empty field appears to the right.

- Point to the second empty *model* field and enter the value DJC-12.
The tag appears in the second field.

- ☐☐☐ Execute Apply and then execute Close.
The property sheet closes.

The bullet component is now effective for the values *DJC-10* and *DJC-12*. Because you set *Max Values* to 2, a third box does not appear when you enter a second attribute value on the *Attrs* sheet.

Finally, you want to create a component that is effective only for the value *DJC-12*.

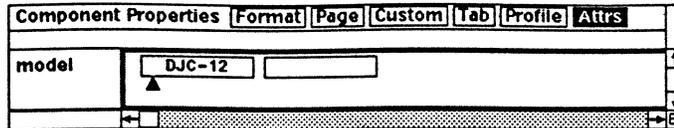
To tag a second component:

- Move the cursor to the component bar and execute Create→ bullet to create a *bullet* component below the one you just tagged.

- Enter the following text: *Check tail radome and mounting for damage.*

- Select the new *bullet* component and execute Props.
The *Attrs* sheet opens.

- Use the anchored popup to enter the tag *DJC-12* in the first empty *model* field.



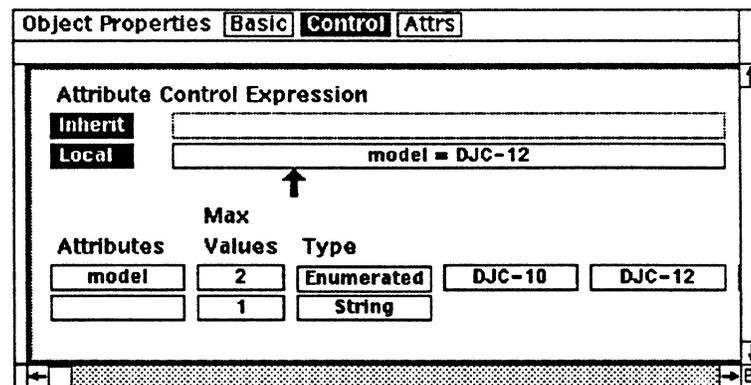
- ☐☐ Execute Apply and then execute Close.

As soon as you execute **Apply**, the component disappears. This is because the control expression *model = DJC-10* is still effective in the document and the component is not tagged for that value.

You can redisplay the component by changing the control expression.

To view the document with the value DJC-12 effective:

- ☐ Open the Object property Control sheet for the document.
- ☐ Enter the control expression: *model = DJC-12*.



- ☐☐ Execute Apply.

The *bullet* component tagged for *DJC-12* reappears.

To print the document:

- ☐ Make sure the document version you want to print is displayed on the screen.
- ☐ Point to the Print box in the document header and execute **Print** → <printer name> → **Document**.

A series of messages in the status line informs you of the publishing software's progress in formatting the document and sending it to the printer.

- ☐ Save the *Maintenance Checks* document and then close it.

To print an effective version of a document you apply a control expression for the document version you want to print, and then execute the print command from the document header or select the document icon on the desktop and execute the print command from the Object Selected popup.

Summary

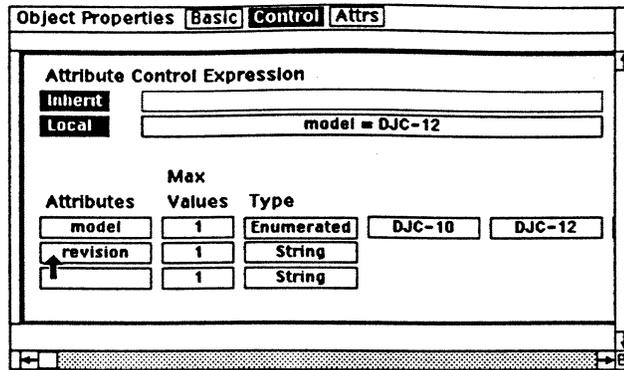
- **Effectivity control** is a feature of the publishing software that enables you to automatically create different versions of a document by specifying which elements of that document are visible, or *effective*.
- To use effectivity control, you must assign attribute names and attribute values to the document, tag the parts of the document you want to make visible or invisible, and then apply a control expression to the document.
- An **attribute name** defines a category of information that you want to make effective and **attribute values** specify the names of the different versions of the information that can exist for an attribute name.
- You can assign attribute names and values to a document on the Object property Control sheet.
- You tag elements in a document that you want to make visible or invisible through effectivity control. **Tagging** is the process of adding one or more attribute values to an element's Attrs sheet. An element is any object, such as a component, table row, or illustration that you can tag.
- A tagged element is known as a **conditional element**.
- The publishing software does not allow you to globally apply attribute values. This is to prevent you from accidentally overwriting any values you have used to tag other instances of that element from the same master. To apply an attribute tag to all instances of the same master, you must instead execute **Unify→ All→ Attrs**.
- To view or print different versions of a document using effectivity control, you create a **control expression** on the document's Control sheet. A control expression indicates to the publishing software which conditional elements should be visible.
- A control expression contains an **operator** and at least two **operands**. The operands are the attribute name and the attribute values. The operator is a logical symbol that indicates the relationships between the operands.

Further Exercises

The further exercises for this lesson give you more practice in adding attribute names and writing control expressions. To perform these exercises, you must have the *Maintenance Checks* document open on your desktop.

To add a revision attribute to the document:

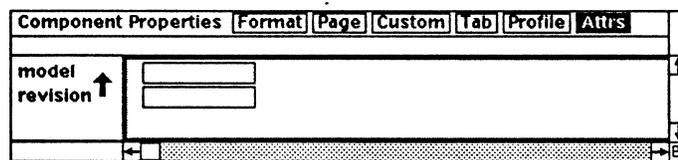
- Open the document's Control sheet and enter the attribute name *revision*.



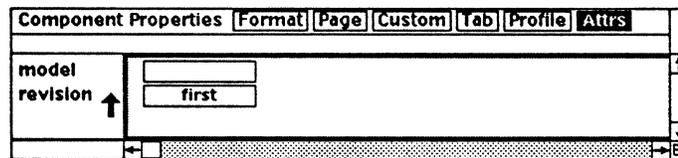
Execute Apply and then execute Close.

- Add a *para* component to the document at any location and enter some text in it.
- Open the *para* component's Attrs sheet.

The Attrs sheet now contains two attribute names: *revision* and *model*.

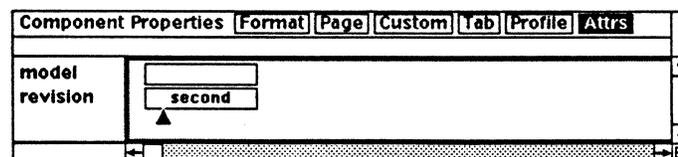


- Move the property sheet caret to the empty *revision* field and type: *first*



Execute Apply and then execute Close.

- Add a second *para* component to the document at any location and enter some text in it.
- Open the second *para* component's Attrs sheet.
- Move the property sheet caret to the empty *revision* field and type: *second*.

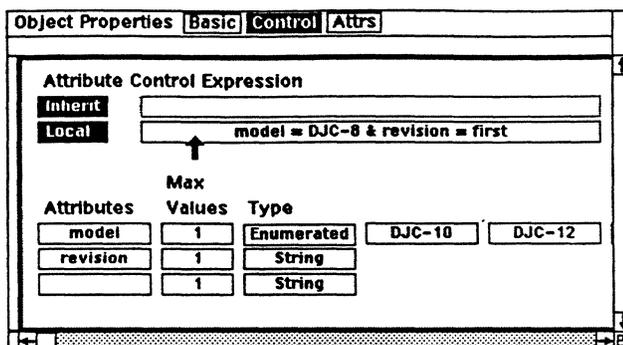


Execute Apply and then execute Close.

In this exercise you entered a second attribute name, *revision*, to the document and then created two *para* components, one tagged for a *revision* value of *first* and the other tagged for a *revision* value of *second*. Because the *revision* attribute name was a **String** type, you could tag the revision name with any value. To see how you can use this second attribute name in a control expression, continue to the next exercise.

To write a compound control expression:

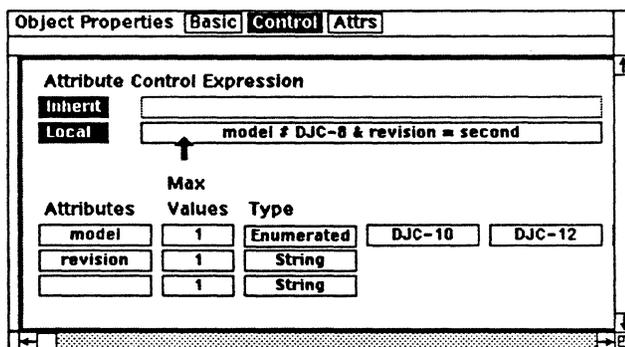
- Open the Control sheet for the *Maintenance Checks* document.
- Enter *model = DJC-8 & revision = first* as a Local control expression.



Execute Apply.

The components tagged for DJC-8 and the component tagged for first remain visible. All components tagged for other values become invisible.

- Edit the control expression to read *model # DJC-8 & revision = second*.



Execute Apply.

The components not tagged for DJC-8 and the component not tagged for first remain visible. The components tagged for DJC-8 and the component tagged for first become invisible.

A compound control expression contains more than one operator. Used with the *equal operator* (=), the *and operator* (&) adds the next value to those that are visible, and the *not equal to operator* (#) makes the next value invisible.

For More Information

If you are interested in learning more about inline components and their properties, see the following chapters in the *Text Processing and Page Make-up* manual in the *Reference* set:

- Chapter 12, *Inline Components*, contains more information on how to create, edit, and use inline components.

- Chapter 24, *Masters' Properties and Content*, explains the Shared and Prefix properties on the Inline Component property sheet.

If you are interested in learning more about effectivity control, see the following chapter in the *Document Management* manual in the *Reference* set:

- Chapter 43, *Effectivity Control*, provides a detailed explanation of effectivity control and how to write control expressions.

5

Diagramming: Creating Graphics

In the publishing software, diagramming is the process of creating and modifying graphics, from simple objects like boxes to complicated technical illustrations. Chapter 5 provides you with a basic understanding of this process. There are many ways to use the diagramming facility; the exercises in this chapter cover only a few of them. See the *Diagramming* manual for in-depth descriptions of all the available diagramming features.

There are three lessons in this chapter:

- Lesson 12, *Creating Diagramming Objects*, teaches you how to create and open a frame, how to create basic shapes (primitive objects), and how to group objects.
 - Lesson 13, *Modifying Diagramming Objects*, discusses animation commands and describes how the publishing software orders multiple objects in a frame.
 - Lesson 14, *Creating and Editing Arcs*, shows you how to create an object that appears three-dimensional from a collection of two-dimensional shapes and how you can use diagramming elements in a document.
-

Lesson 12: Creating Diagramming Objects

Lesson 12 teaches you how to

- create and open a frame
- turn on a grid and use it for proportioning objects in a frame
- create and size primitive objects
- use anchor points and control points
- create and edit a group of primitive objects

The approximate time to complete Lesson 12 is 25 minutes.

Creating a Frame

Frames are areas of the page in which you can create or modify graphic shapes. When you select a frame, it appears in reverse video (Figure 1a). When you open a frame, a gray border appears around it (Figure 1b). When you close and deselect a frame, you see only the objects in that frame (Figure 1c).

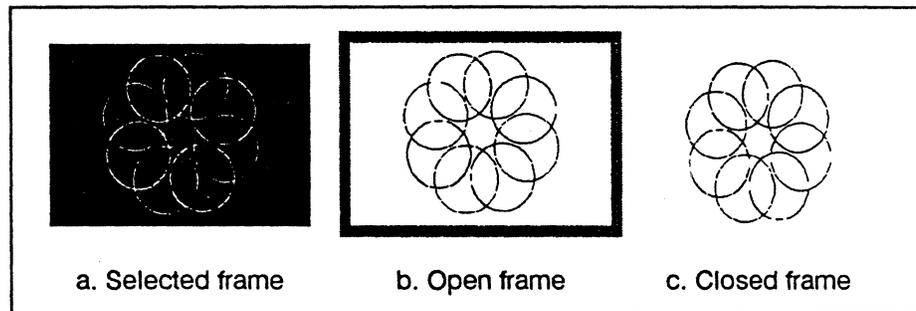


Figure 1. The three frame states

Like components, frames have names and properties stored in master definitions. Every frame (except special frames used for headers and footers) must be within a component. You can combine one or more frames with text in a component, or you can have a component that contains a single frame.

To see the default frame masters:

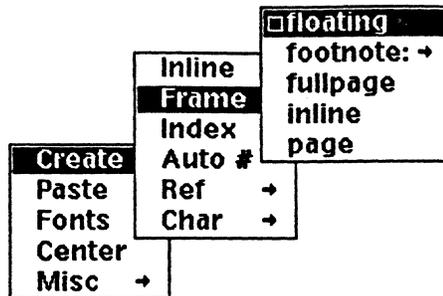
- Create a document icon on your desktop and name it *shapes*.



- Open shapes.
A blank document window appears. The default component is para.

- ☰ With the cursor in the text area, hold down the menu button and drag it to the Create Frame submenu.

The Create Frame submenu contains five choices.



- Drag the cursor off the menu and release the menu button.

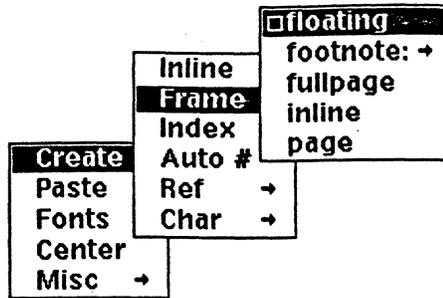
A default document contains five predefined frame masters. The frames you can create from these masters have different sizes and appear in different locations on the page. The purpose of these default frames is to give you an initial selection from which you can create additional frame masters as you need them. The five frame masters are described below.

- A **floating** frame is the width of the page (not including page margins) and one-third the height of the page.
- A **footnote** frame is located at the bottom of the page. A footnote frame is as wide as the page or column and as high as the contents of the frame.
- A **fullpage** frame is the same size as the page (including margins).
- An **inline** frame is the same height as the default font size of the component. The size of an inline frame makes it convenient for inserting small illustrations in text.
- A **page** frame is the size of the page, not including page margins.

As you define new frame masters their names appear on the Create Frame submenu. Later in this chapter you will open a frame's property sheet and change its master definition.

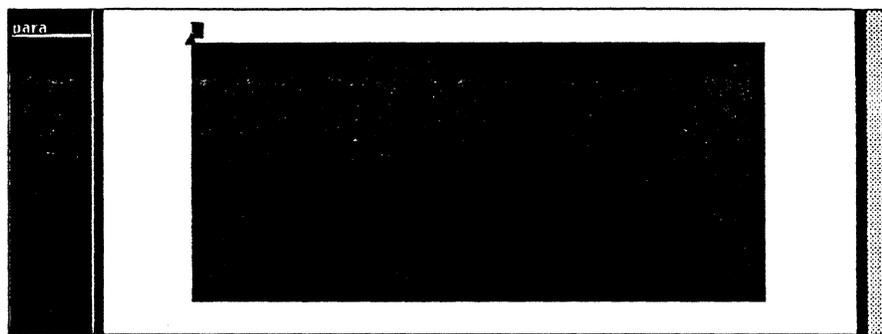
To create a frame:

- ☰ Hold down the menu button and drag the cursor to **Create→ Frame→ floating**.



☐☐☐ Release the menu button.

A highlighted double box character appears at the text caret location. A large, highlighted rectangle appears just below the text caret.



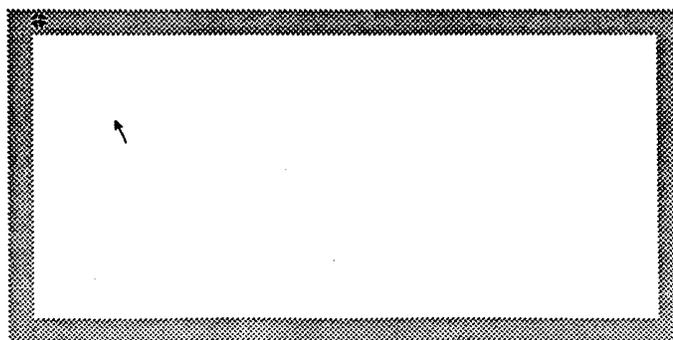
The character appearing at the text caret location is a **frame anchor** (☐). A frame anchor is a marker that serves as a frame's reference point to the component in which the anchor appears. For example, the default *floating* frame always appears on the line following its frame anchor. To change the location of a frame on the page, you change the relationship between the frame and its anchor on the Frame property sheet. You will do this in Lesson 14.

To open a frame:

☐☐☐ Point to the selected frame.

☐☐☐ Click the select button.

A gray border appears around the frame and covers the frame anchor. The cursor changes to a small arrow.



The arrow (\blacktriangledown) is the diagramming cursor. You can move this cursor outside the frame, either into the text area or into the component bar, and its shape will not change. Whenever you see the diagramming cursor, you have access to diagramming popup menus, even if the cursor is not inside the frame.

To close a frame, move the cursor outside the frame and click the select button, or execute **Close** on the **Nothing Selected** popup.

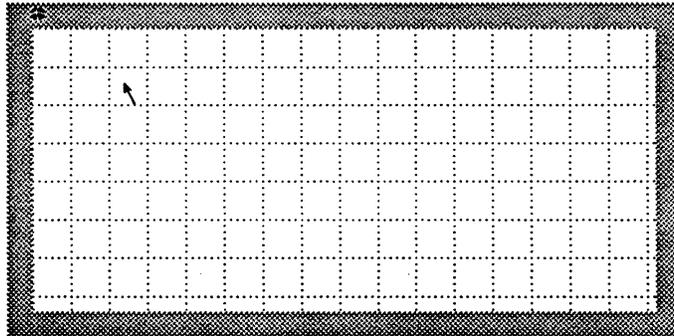
Creating Graphic Shapes

Basic shapes you create with a single command are called **primitives**. Lines, circles, and boxes are examples of primitives. A collection of primitives that can be selected as a single unit is called a **group**. Any graphic shape that the publishing software treats as a single unit, either primitive or group, is called an **object**.

To help you create uniformly shaped and spaced objects, the publishing software provides a **grid**, which you can turn on or off within each frame.

To turn the grid on:

- Make sure the diagramming cursor is visible (it can be outside the open frame).
- Execute **Misc**→ **Grid**→ **On/Off**.
A grid appears inside the frame.



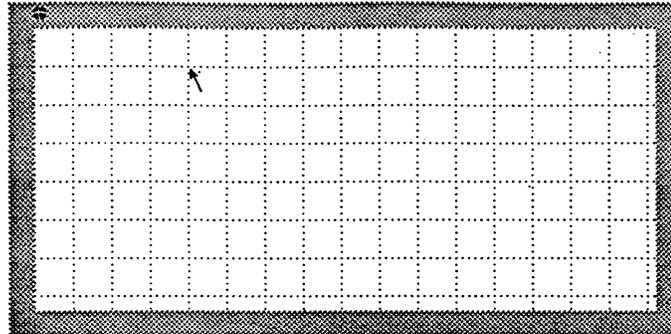
Like the lines on graph paper, the grid gives you a reference for lining up and proportioning objects. The grid helps you create objects that include parallel lines, perfect circles, and squares.

In addition, a feature called **GridAlign** attracts diagramming objects to the grid when you are moving or sizing them. Since **GridAlign** is useful for most diagramming work, the feature is turned on by default when you open a frame, even if the grid itself is not visible. The message: *GridAlign on* appears in the status line to remind you.

In the next exercise you begin by creating a line.

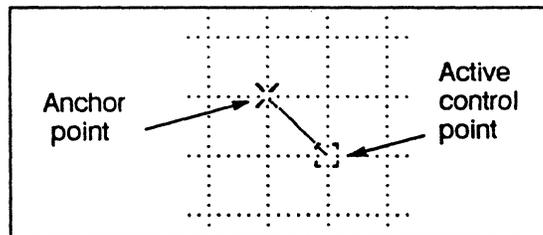
To create a line:

- ☰☰☰ Point to the intersection of two grid lines near the upper-left corner of the frame.



- ☰☰☰ Execute **Create**→ **Line**→ **All**.

A line and two markers, an anchor point and an active control point, appear on the screen.



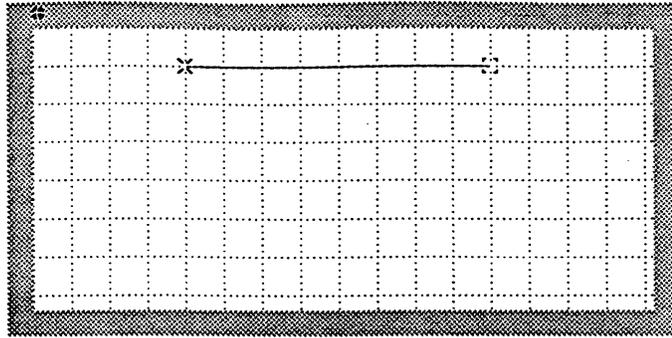
- ☰☰☰ Move the mouse in a circular motion.

The anchor point remains fixed and the control point moves in response to the mouse movement. The length and position of the line change to follow the control point.

The publishing software uses **anchor points** (x) and **control points** (□) to help you create and size objects. An anchor point marks the point on an object that is fixed when you size or rotate the object. Control points are invisible points that define the dimensions of the object. When you create, move, or size an object, the control point nearest the cursor becomes the **active control point** and is indicated by a marker.

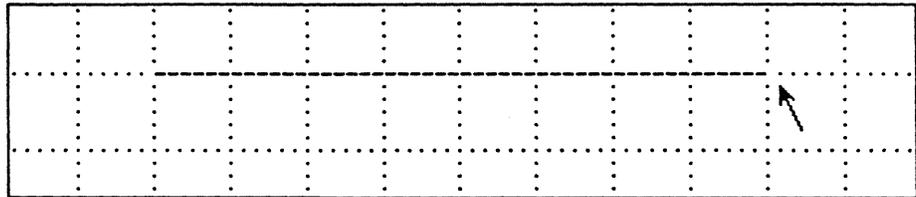
To size a line:

- ☰☰☰ Move the active control point to approximately the location indicated in the illustration.



Click the select button.

The anchor and active control points disappear. The cursor reappears at the active control point location.



The anchor point and active control point appear only when you have selected an object and are rotating it or changing its dimensions. When you create an object, it is automatically selected and you see the anchor and active control points. When you click the select button, you deselect the object and the two points disappear.

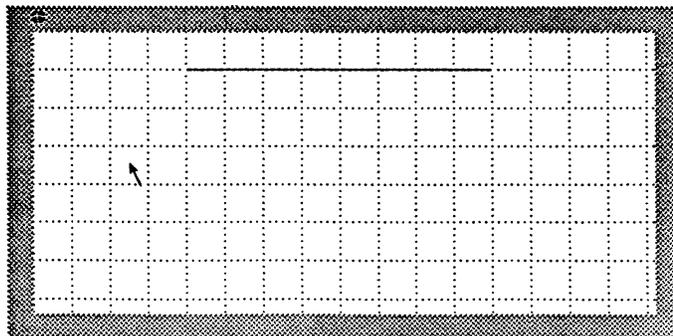
If, during the remainder of these exercises, you accidentally create an object you want to erase, select the object by pointing to it and clicking the select button (it will blink to show it is selected), then execute **Cut**.

Another primitive object you can create is an oval. In the next exercise you use the grid to create and size an oval that is a perfect circle.

To create and size a circle:

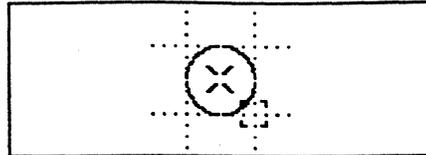


Point to the middle of a grid square on the left side of the frame.



Execute **Create**→ **Oval**.

A circle appears within the boundaries of the grid square. The anchor point appears in the center of the circle, and the active control point appears at the lower-right corner of the grid square, just outside the circle.



☰☰☰ Move the active control point around the frame.

Figure 2 shows the effect of moving the control point. Notice that the active control point cannot move outside the frame boundaries

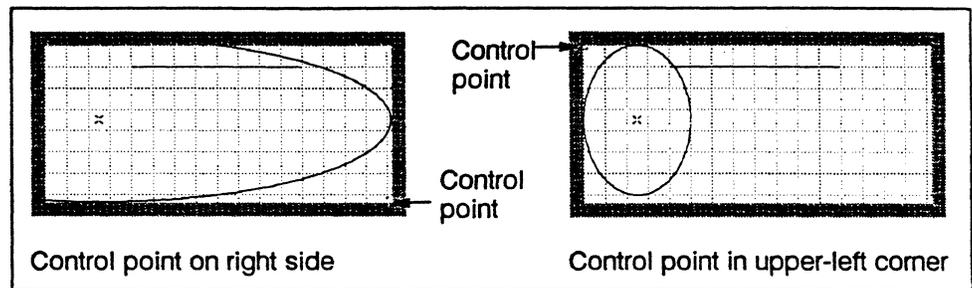
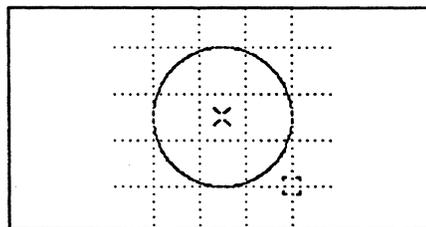


Figure 2. Effect of moving the control point on an oval

☰☰☰ Move the control point so that the oval forms a perfect circle, three grid units in diameter.

The oval forms a perfect circle when its top, bottom, and sides touch grid lines equidistant from the anchor point.



☰☰☰ Click the select button.

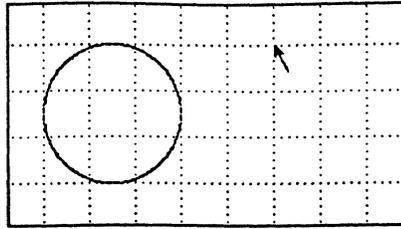
The oval is deselected.

When you create a primitive object, it appears in animation state so you can size it. The anchor and control points help you control and predict how the object will change shape and size as you move the mouse.

In the next exercise you create and size another primitive shape, a box.

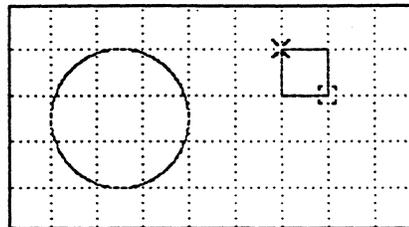
To create and size a box:

☰☰☰ Point to a grid intersection three grid squares to the right of the top of the circle.



Execute Create → Box.

An anchor point appears at the cursor location, and an active control point appears at the diagonal grid intersection one grid unit away. These two corners define a square box the same size as a grid unit.



Move the control point around the frame to experiment with different sizes and shapes for the box.

Figure 3 shows the effect of moving the control point.

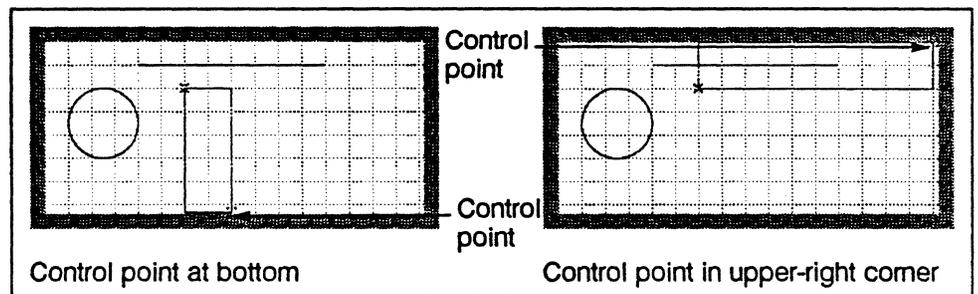
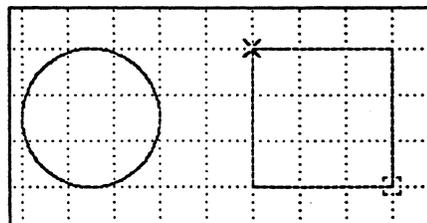


Figure 3. Effect of moving the control point on a box

Move the control point to create a square three grid units in height and width.



Click the select button.

The square is deselected. The cursor reappears and the anchor and active control points disappear.

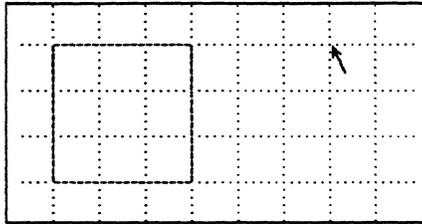
Creating Groups

It is often useful to treat a collection of primitives as a single unit. This process is called **grouping** and the result is called a **group**. You can group individual objects either before or after you create them.

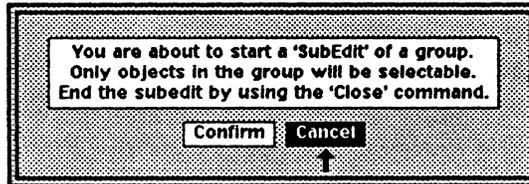
In the next exercise you create a triangle, a shape made up of three individual lines. Before you create the triangle, you enter a **subedit level** in which you can create only objects that are part of a group.

To enter a subedit level:

- ☐☐☐ Point the cursor to a grid intersection three grid units to the right of the top of the box.



- ☐☐☐ Execute **Create**→ **SubEdit**→ **Group**.
The SubEdit stickup appears.



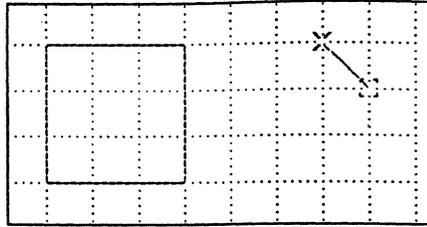
- ☐ Select **Confirm** on the stickup.
The stickup disappears. The status line displays the message: Level 1 SubEdit (Use 'Close' to exit).

After you execute a command on the SubEdit submenu, the publishing software considers subsequent objects you create as part of a single group. So that you do not enter a subedit level accidentally, the SubEdit stickup requires that you confirm your choice.

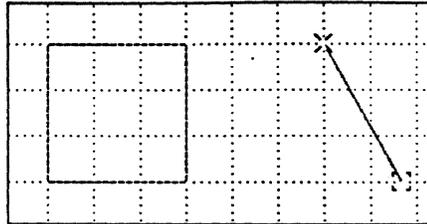
If your system administrator has customized the publishing software, the SubEdit stickup may not appear.

To create a grouped triangle:

- ☐☐☐ Execute **Create**→ **Line**→ **All**.
A line appears in the frame with an anchor at the grid intersection where the cursor was pointing.



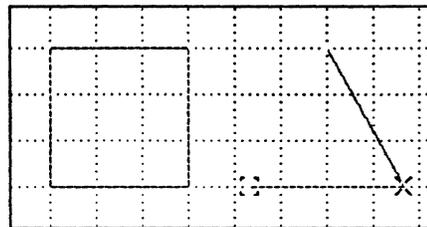
- ☰☰☰ Move the control point to the approximate location shown in the illustration.



- ☰☰☰ Execute **Deselect**.
The diagramming cursor returns.

- ☰☰☰ Without moving the cursor, execute **Create**→**Line**→**All**.
A second line appears with the anchor at the control point's former location.

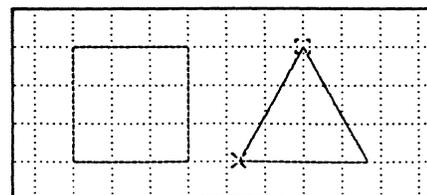
- ☰☰☰ Move the mouse so that the second line forms the base of the triangle and is equal in length to the first side.



- ☰☰☰ Execute **Deselect**.
The diagramming cursor returns.

- ☰☰☰ Again, without moving the cursor, execute **Create**→**Line**→**All**.
A third line appears from the end of the second.

- ☰☰☰ Move the mouse so the third line joins the first.

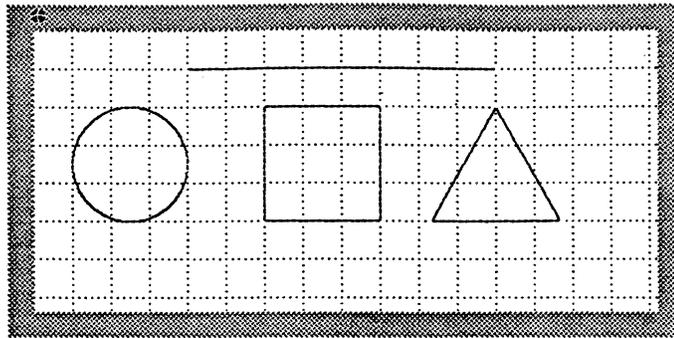


- ☰☰☰ Execute **Deselect**.
The diagramming cursor returns.



Execute Close.

The subedit level closes. The subedit message in the status line disappears.



When you have finished working in a subedit level, executing **Close** tells the publishing software to recognize the primitives you have created as a group.

This is the end of Lesson 12. You can close and save the document if you like, or you can leave the document open and proceed directly to Lesson 13. You do not need to close the frame in order to close the document.

Summary

- A **frame** is an area of the page in which you can create and modify diagramming objects.
- Like components, frames have master definitions. There are five pre-defined frame masters supplied with the default document. You can use a supplied frame master to create new frame masters.
- To create a frame, execute **Create**→**Frame**→ and a choice on the Create Frame submenu.
- To open a frame, point to the frame and click the select button once to select it, then click the select button again to open it.
- To close a frame, move the cursor outside the frame and click the select button, or execute **Close** on the Nothing Selected popup.
- To help you create uniformly shaped and spaced objects within a frame, you can make a **grid** visible.
- When you turn on **GridAlign**, objects are attracted to the lines on a grid.
- You can create two kinds of diagramming objects, **primitives**, which you create by executing only one command, and **groups**, which are collections of objects that the publishing software treats as one.
- **Control points** are invisible points that define the dimensions of an object. An **anchor point** marks the point on an object that is fixed when you size or rotate that object.

- The **active control point** is the control point nearest the cursor when you create or manipulate an object. The active control point cannot move outside the frame boundary.
- To create a grouped object, execute **Create→ SubEdit→ Group**, create the primitives you want to make up the group, and then execute **Close**.

Further Exercise

This exercise gives you more practice with primitive and grouped objects. To perform this exercise you must first save the *shapes* document and then have the document and the frame open.

To create an irregular, grouped object:

- Make sure the diagramming cursor is within the frame.
- ☐☐ Execute **Create→ Subedit→ Poly**.
The SubEdit stickup appears.
- Select **Confirm** on the stickup.
A line appears within the frame.
- ☐☐☐ Size the line any way you like.
- ☐☐ Click the menu button.
Another line appears with an anchor point at the end of the first line.
- ☐☐☐☐☐ Size the second line any way you like and then click the menu button.
- Continue to create lines until you have a many sided object. Be sure to connect the first and last lines (do not click the menu button after sizing the last line).
- ☐☐ Execute **Close**.
The subedit level closes.
- Continue to the next exercise or close the *shapes* document without saving it.

Lesson 13: Modifying Diagramming Objects

In this lesson you learn how to modify the diagramming objects you created in Lesson 12. Specifically, you learn how to

- select and move objects
- group previously created objects
- move, rotate, and size grouped objects
- undo changes you have made to an object
- ungroup and cut objects from a frame
- duplicate objects
- fill objects
- change the front-to-back order of objects

The approximate time to complete Lesson 13 is 25 minutes.

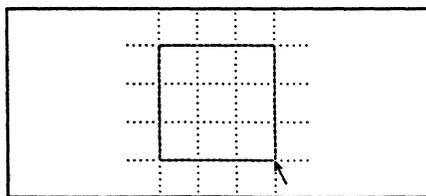
Moving Objects

There are a number of ways to move diagramming objects in a frame. In every case, the first step is to select the object and then execute a command from the Move submenu. Once the object is in the correct position, you deselect it. Commands that require selection, action, and then deselection are called **animation commands**.

To prepare for this lesson, open the *shapes* document if you closed it at the end of Lesson 12. If the frame is closed, point to the frame location and click the select button once to select the frame and a second time to open it.

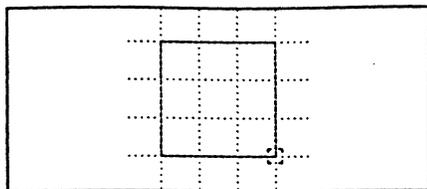
To select and move an object:

- ☐☐☐ Point the cursor to the lower-right corner of the box you created in Lesson 12.



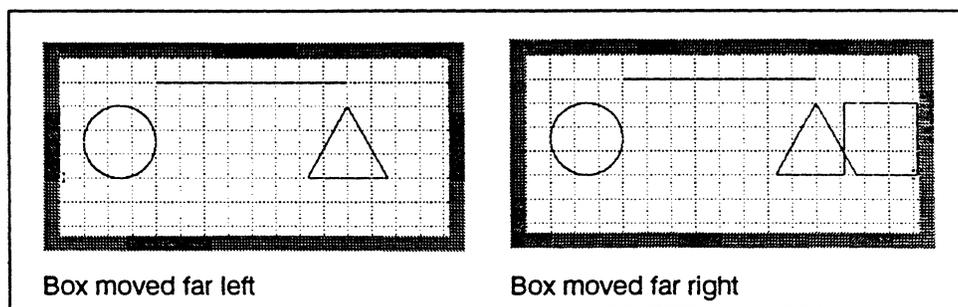
- ☐☐☐ Click the select button.
The box blinks to indicate it is selected.
- ☐☐☐ Execute Move→ Horizontal.

The control point nearest the cursor becomes active.



Move the mouse to the left and then to the right.

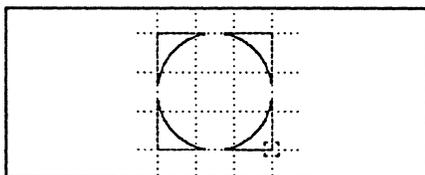
The box moves across the frame in a horizontal direction only. When it moves to the left, the box can move outside the frame; when it moves to the right, it cannot.



When you are moving an object, the publishing software keeps the active control point from moving outside the frame. This means that the box can disappear when you move it to the far left of the frame, but not when you move it to the far right.

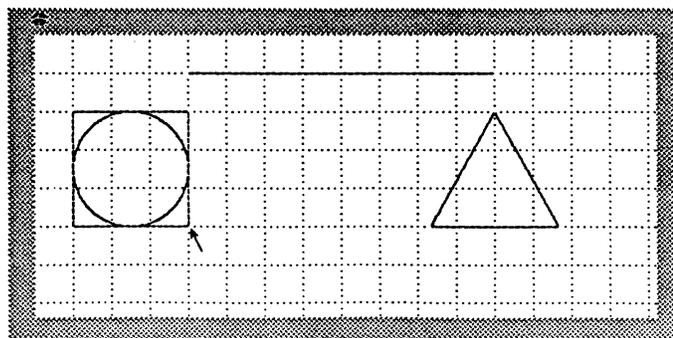


Position the box over the circle as shown in the illustration.



Click the select button.

The cursor reappears and the box remains positioned over the circle.

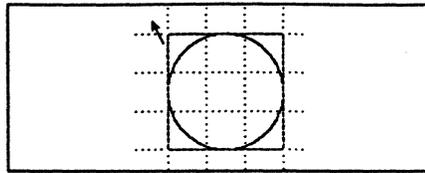


Grouping Objects

Even though the box and the circle touch, the publishing software considers them two separate objects. A command applied to one has no effect on the other. In the next exercise, you group these two objects.

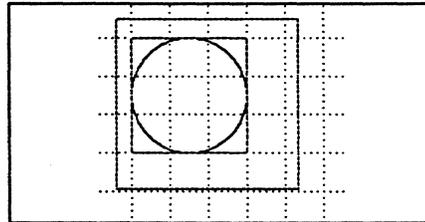
To group objects:

- ☰☰☰ Point to a location outside and above the upper-left corner of the box.



- ☰☰☰ Hold down the select button and drag to a point just outside and below the lower-right corner of the box.

A selection box appears and extends when you hold the select button and drag.



- ☰☰☰ Release the select button.
The box and circle blink to indicate that you have selected them both.

- ☰☰☰ Execute **Misc**→ **Group**.
The objects stop blinking.

The **selection box** selects all objects it completely encloses. Though no visible change takes place when you execute **Misc**→ **Group**, you can now modify the objects as though they were a single object. You can demonstrate this by animating them in different ways.

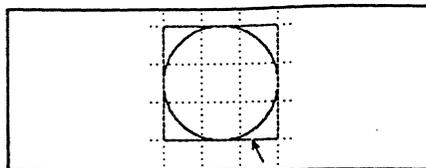
Misc→ **Group** is an example of a **deselection command**. When you execute a deselection command, the publishing software makes the change you specify and then automatically deselects the object(s).

Animating Grouped Objects

The following exercises demonstrate moving, rotating, and sizing grouped objects. Because the circle and box are grouped, if you select them and execute an animation command, they move together.

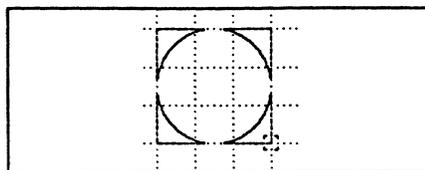
To move grouped objects:

- ☰☰☰ Point the cursor to the grouped object.



☐☐ Click the select button.
The circle and box start blinking.

☐☐ Execute **Move→ All**.
The control point nearest the cursor becomes active.



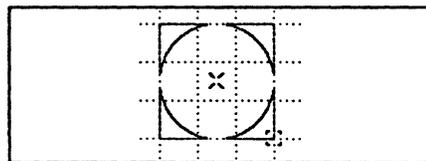
☐☐ Move the control point around the frame.
The circle and box move together with the control point.

☐☐☐☐ Move the object to approximately the center of the frame and click the select button.
The diagramming cursor reappears and the object is deselected.

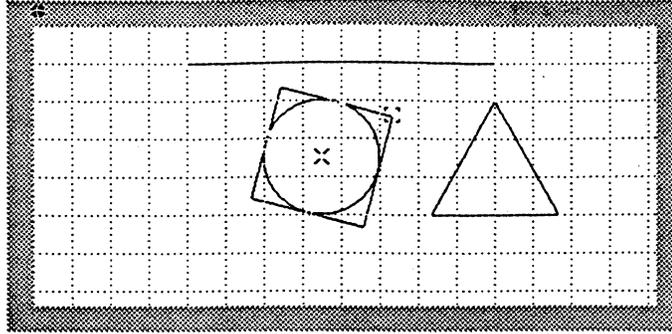
The **Move→ All** command allows selected objects to move in both vertical and horizontal directions.

To rotate grouped objects:

- ☐ Select the grouped objects and execute **Rotate→ Circular**.
An anchor point appears in the center of the object and a control point appears on the edge of the object nearest the cursor location.



☐☐ Move the mouse, first in a clockwise direction, then in a counterclockwise direction.
The object rotates around the anchor point in the direction you move the mouse.



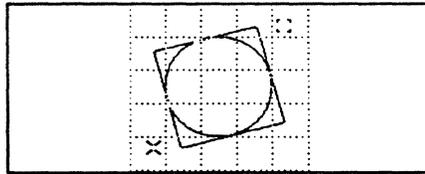
At this point do not deselect the object. Instead, continue to the next exercise.

To size grouped objects:



Execute **Size** → **All**.

The anchor point moves from the center of the object to the corner opposite the control point.



Move the control point around the frame to see how the **Size** command changes the group.

Figure 4 shows the effect of moving the control point.

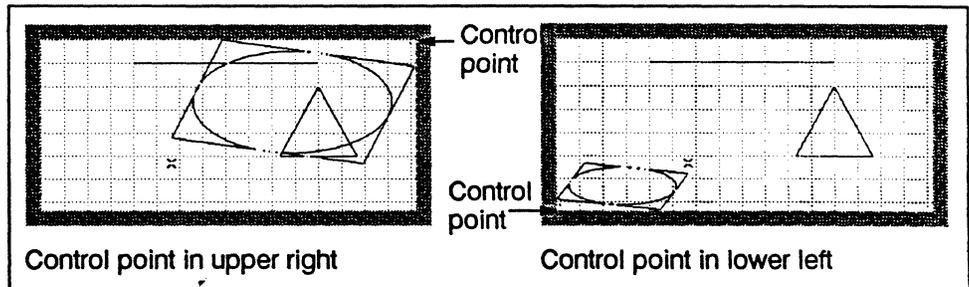


Figure 4. Effect on grouped objects of moving the control point



Click the select button when the group is greatly changed from the way it was when you began this exercise.

The object is deselected in that position.

The **Size** → **All** command changes both vertical and horizontal dimensions of selected objects.

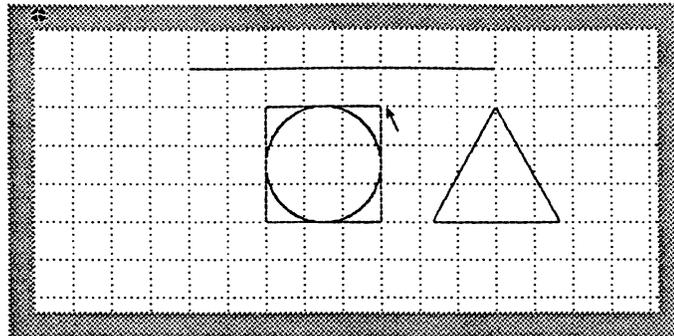
The next exercise demonstrates a diagramming feature you can use to reverse the most recent changes you made to an object.

To undo changes to objects:



Execute **Undo**.

The object returns to the size and position it was before you began the rotate exercise.



Once you have deselected an object, the **Undo** command reverses all the changes you made to it since it was last selected. The **Undo** command works only if you have not selected and changed another object.

Ungrouping and Cutting Objects

In the next exercises you work with the box only. To prepare for these exercises, ungroup the circle and box and cut all objects but the box from the frame.

To ungroup objects:



Select the grouped objects.



Execute **Misc**→ **Ungroup**.

Nothing visible changes, but the circle and box are now ungrouped.

You can now select either the circle or the box without selecting the other.

To cut objects:



Select the circle and execute **Cut**.

*The circle blinks when you select it and disappears when you execute **Cut**.*



Select the line.

The line blinks.



Point to the triangle and click the extend button.

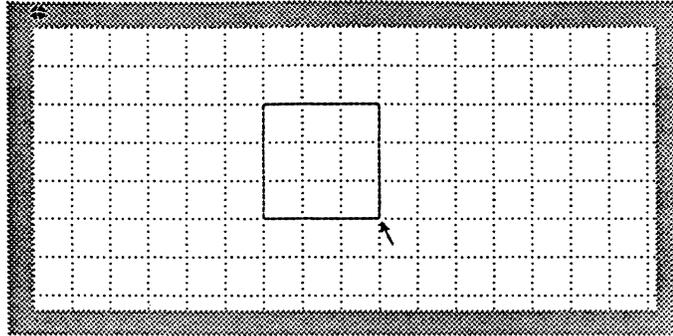
Both objects blink.

The extend button modifies the selection technique of pointing and clicking. When you click the extend button on an object, you add that object to

the current selection. If you click the select button on the object instead, previously selected objects are deselected and the new object is selected.

☐☐☐ **Execute Cut.**

Both the line and triangle disappear. The only object left in the frame is the box.



Whenever you cut an object, you can bring it back by executing **Paste**. The publishing software stores on the clipboard the most recently cut diagramming object.

Moving Objects Front and Back

Diagramming objects do not exist on the same plane. The publishing software layers them in the order in which you create them. Each object exists in front of any previously created objects. Although usually you do not notice that one object overlays another, there are times when the front-to-back order of objects is important. For example, when several objects are near each other and you try to select one, the publishing software always selects the one that is in front.

The next exercises demonstrate how the publishing software layers objects, and how you can move objects to the front or back of a frame. To prepare for these exercises, turn **GridAlign** and the grid pattern off, since they might interfere with the way you work with and see the front-to-back order of the objects you create.

To turn GridAlign off:

☐☐☐ **Execute Misc→ Grid→ Align on/off.**

The message in the status line changes from: GridAlign on to GridAlign off.

☐ **Select the box and move it around the frame.**

The object moves smoothly across the grid instead of jumping from one grid line to the next.

To turn the grid off:

☐☐☐ **Execute Misc→ Grid→ On/Off.**

The grid disappears.

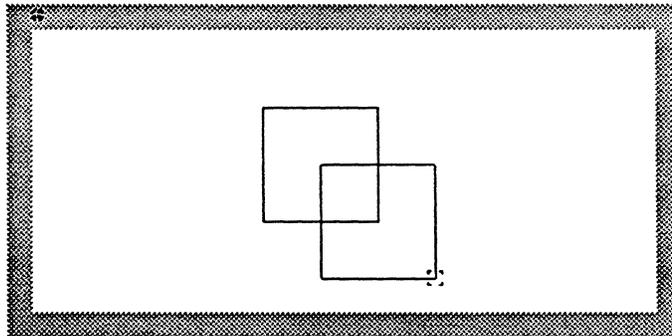
The next step is to create copies of the box so you can see how the publishing software layers each one.

To duplicate objects:

☰ ☐ ☐ Point to the lower-right corner of the box and click the select button.
The box begins to blink.

☐ ☐ Execute **Dup→ Move**.
A control point appears on the edge of the box. A second box overlays the first.

☰ ☐ Move the second box diagonally toward the lower-right corner of the frame so that its upper-left corner overlaps the first box.
The illustration shows the approximate relationship that the second box should have with the first.



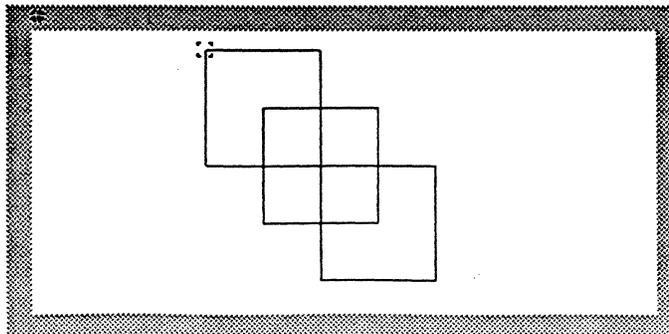
☐ ☐ Click the select button.
The second box is deselected.

☰ ☐ Point to the upper-left corner of the first box.

☐ ☐ Click the select button.
The box begins to blink.

☐ ☐ Execute **Dup→ Move**.
Another control point appears. A third box overlays the first.

☰ ☐ Move the third box toward the upper-left corner of the frame so that its lower-right corner overlaps the first box.



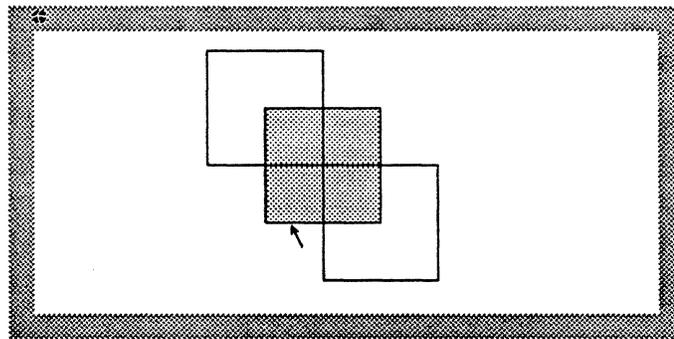
- ☐ Click the select button.
The third box is deselected.

Dup→ Move duplicates any selected objects and places them in animation state so you can immediately move them around the frame. If you execute **Dup→ Repeat**, that command becomes the default on the Object Selected popup so you can make additional copies of the selected object.

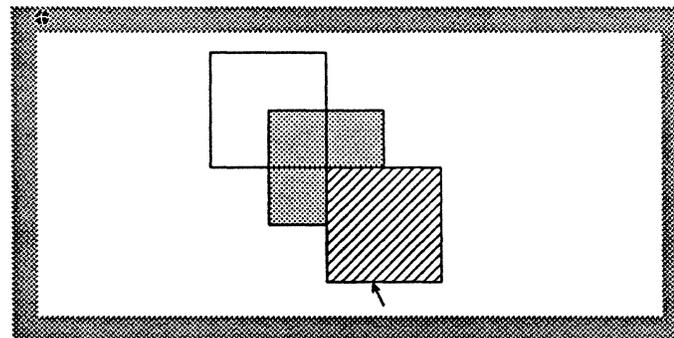
As long as the three overlapping boxes are in outline form, you cannot tell which box is in front. The clearest way to show the front-to-back order is to fill each box with a different pattern.

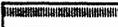
To fill objects:

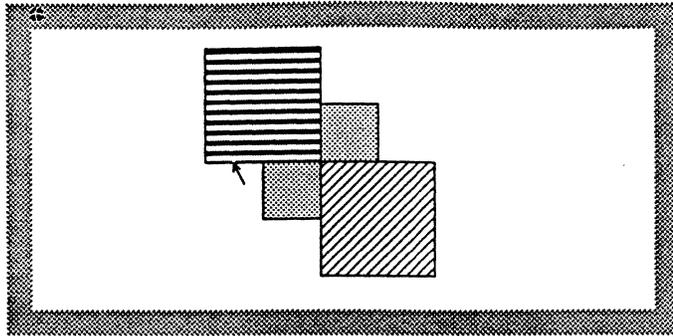
- ☐ Select the middle box and execute **Props→ Fill→ Color→**  .
The dotted pattern fills the middle box.



- ☐ Select the lower-right box and execute **Props→ Fill→ Pattern→**  .
Diagonal stripes fill the lower box, which covers a portion of the middle box.



- ☐ Select the upper-left box and execute **Props→ Fill→ Pattern→**  .
Horizontal stripes fill the upper box, which also covers part of the middle box.



An object's **fill color** is the shade of gray with which the object is filled. An object's **fill pattern** is the design of the color. By default, an object's fill is invisible. When you choose a fill color or pattern for an object, the fill automatically becomes visible.

If you want to change the current front-to-back order of objects in the frame, you can use the **Front** and **Back** commands on the Misc submenu of the Diagramming Object Selected popup.

To change the order of diagramming objects:



Point inside the middle box and click the select button.

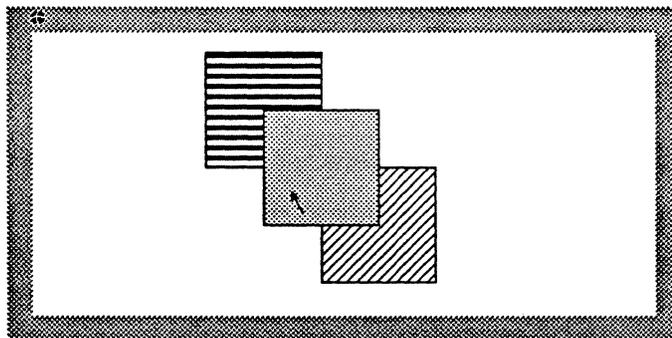
The middle box begins to blink.

Once you have filled an object, you can select it by pointing the cursor either to the interior of the object or to the outline of that object.



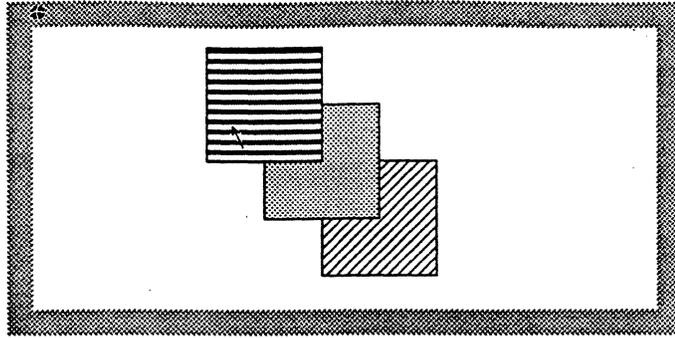
Execute **Misc**→ **Front**.

The middle box now covers parts of the other two.



Select the upper-left box and execute **Misc**→ **Front**.

The three boxes are now layered with the upper-left box on top and the lower-right box on the bottom.



The **Misc→ Back** command has the opposite effect of **Misc→ Front**. When you select an object and execute **Misc→ Back**, that object moves behind any other objects.

This is the end of Lesson 13. You can close and save the document, or you can leave it open and proceed directly to Lesson 14. You do not need to close the frame in order to close the document.

Summary

- To move an object, select it and execute one of the commands on the Move submenu.
- To group objects after they are created, select them and execute **Misc→ Group**.
- To change the size of an object, select it and execute one of the commands on the Size submenu.
- To reverse all the changes you have made to an object since you last selected it, execute **Undo**.
- To ungroup objects in a group, select the group and execute **Misc→ Ungroup**.
- To remove an object from a frame, select that object and execute **Cut**.
- To create duplicates of selected objects, execute **Dup** and one of the commands on the Dup submenu.
- To give a selected object a fill or to change the current fill property, execute **Props→ Fill** and choose a color and/or a pattern.
- The publishing software layers diagramming objects according to the order in which you create them. The first object you create is in the back and the last object you create is in the front.
- To change the front-to-back order of selected objects, execute **Misc→ Front** or **Misc→ Back**.

Further Exercises

These exercises give you more practice with changing the appearance of objects in a frame. To complete either of these exercises you must have the frame open in the *shapes* document. After you complete any of the following exercises, close the document without saving the changes.

To change the front-to-back order of objects and grids:

- Select the front box in the frame.
- ☐☐ Execute **Misc→ Back**.
The selected box moves to the back.
- Select different boxes and execute either **Misc→ Front** or **Misc→ Back**.
- ☐☐ Execute **Misc→ Grid→ On/Off**.
The grid appears over the boxes in the frame.
- ☐☐ Execute **Misc→ Grid→ Front/back**.
The grid moves behind the boxes in the frame.
- ☐☐ Execute **Misc→ Grid→ On/Off**.
The grid disappears.

To use the Shift command:

- ☐☐☐ Execute **Misc→ View→ Shift→ Left**.
All the objects in the frame move to the left margin of the document.
- ☐☐☐ Execute **Misc→ View→ Shift→ Down**.
All the objects in the frame move down in the frame.
- ☐☐☐ Click the menu button two or three times.
The objects move out of view.
- ☐☐☐ Execute **Misc→ View→ Reset**.
The objects return to their original positions in the frame.

Use the commands on the View submenu to change the locations or sizes of diagramming objects relative to the frame. If you experiment with these commands and want to restore the original appearances of the objects, use the **Reset** command.

Lesson 14: Creating and Editing Arcs

Lesson 14 shows you how to create and edit arcs, assemble them into complex objects, and use these objects in a document. In the course of this lesson you learn how to

- create an arc
- edit an arc's extent and shape
- duplicate an object
- use gravity to ensure that objects become attached to each other
- create a poly by filling a path
- change an object's properties
- size an object numerically
- change a frame's size and location on the page
- create a new frame master definition
- combine diagramming objects with text in a frame

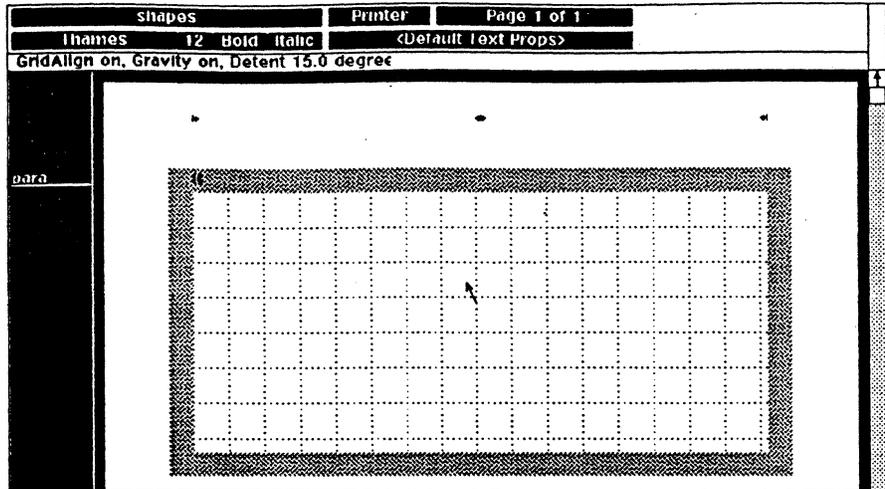
The approximate time to complete Lesson 14 is 40 minutes.

Preliminary Steps

Open the document named *shapes* if you closed it at the end of Lesson 13. If the frame in the document is closed, point to the frame location, and click the select button once to select it and a second time to open it.

To prepare to create an arc:

- ☐☐☐ Execute **Select→ All**.
All three boxes blink to show they are selected.
- ☐☐☐ Execute **Cut**.
The frame is now empty.
- ☐☐☐ Execute **Misc→ Grid→ On/Off** and then execute **Misc→ Grid→ Align on/off**.
The grid reappears and then the message in the status line changes from GridAlign off to GridAlign on.



When you execute **Select→ All**, every object in the frame is selected. You can also select all the objects in a frame by holding down the select button and clicking the extend button.

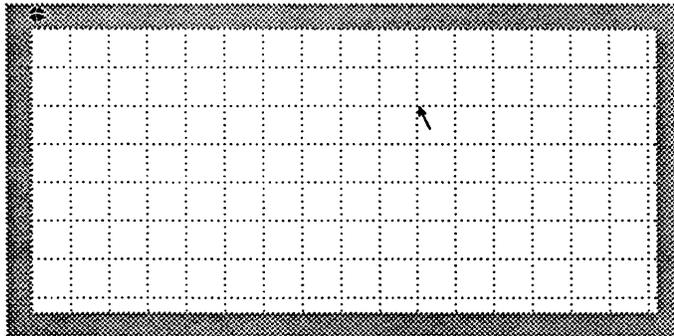
Creating an Arc

In the publishing software, an **arc** is a curved object you can create and manipulate in specific ways. For a technical definition of an arc see Chapter 29, *Arcs*, in the *Diagramming* manual. Arcs useful for creating complex shapes that include curved lines.

In the following exercises you create a single arc.

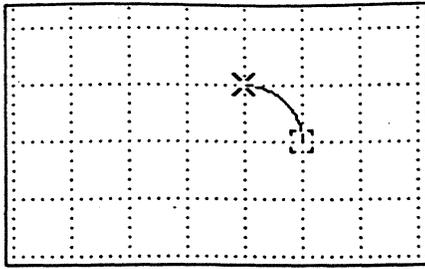
To create an arc:

- ☐☐☐ Point the diagramming cursor to the intersection of two grid lines, six columns from the right and two rows from the top.



- ☐☐☐ Execute **Create→ Arc→ Clockwise**.

An arc the size of one grid square appears. An anchor point is at one end of the arc and an active control point is at the other end.



Move the active control point around the frame.

Figure 5 shows the effect of moving the active control point.

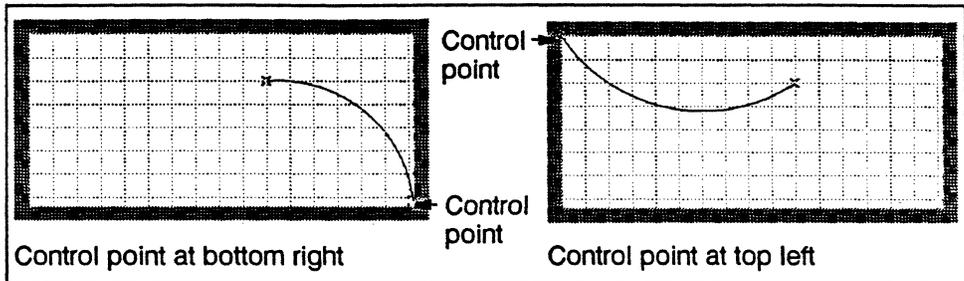
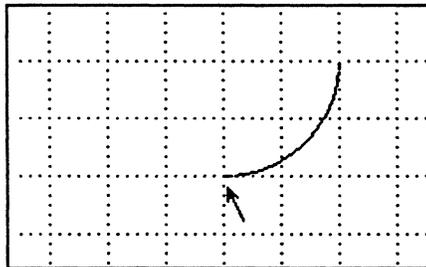


Figure 5. Effect of moving the control point on an arc



Move the active control point to the intersection of two grid lines, eight columns from the right and four rows from the top of the frame and execute **Deselect**.



A clockwise arc curves in a clockwise direction from the anchor point to the active control point. You can also create an arc that curves in a counterclockwise direction.

If you create an arc near a frame's edge, the arc may curve in the opposite direction from what you would expect. For example, clockwise arcs will curve in a counterclockwise direction.

Editing Arcs

A newly created arc is circular, that is, it is a section of a perfect circle. Once you create an arc, you can begin to change its **extent**—the amount of a full circle or oval that an arc covers (Figure 6a)—or its shape, also called **eccentricity** (Figure 6b).

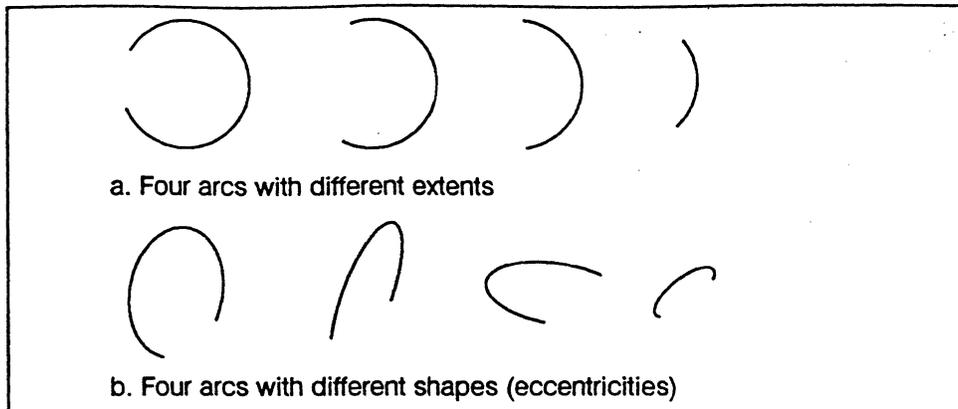


Figure 6. Examples of different extents and shapes

To change an arc's extent or shape, you must first select the arc. Once the arc is selected you then decide how you want to alter it.

To select an arc:



Point to the arc.



Click the select button.

The arc blinks on and off. When the arc blinks off, two dotted lines that extend from the ends of the arc are visible.

When an arc is selected, you have access to the control points that you use to change its extent or shape. Most arcs have five control points, two on either end of the arc (**endpoints**), one between the two endpoints (**midpoint**), and two at either end of the dotted lines that appear when the arc is selected (Figure 7). These dotted lines are called **tangent lines** and the control points are called **tangent control points**. Which control point you make active determines whether you can change the arc's extent or its shape.

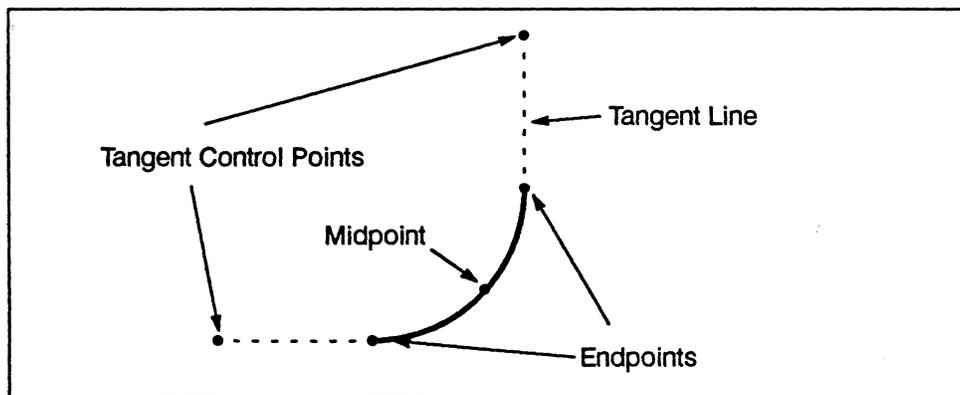


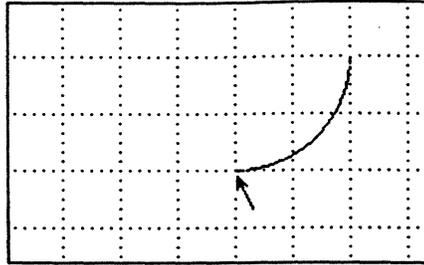
Figure 7. Control points on an arc

In the next exercise you change the arc's extent by moving the location of one of its endpoints.

To edit an arc's extent:

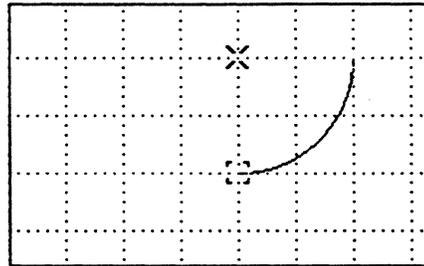


Point to the lower-left end of the selected arc.



Execute Props → Edit.

An active control point appears at the lower endpoint and an anchor point appears two grid rows above it.



Move the endpoint both clockwise and counterclockwise.

Figure 8 shows the effect of moving the endpoint.

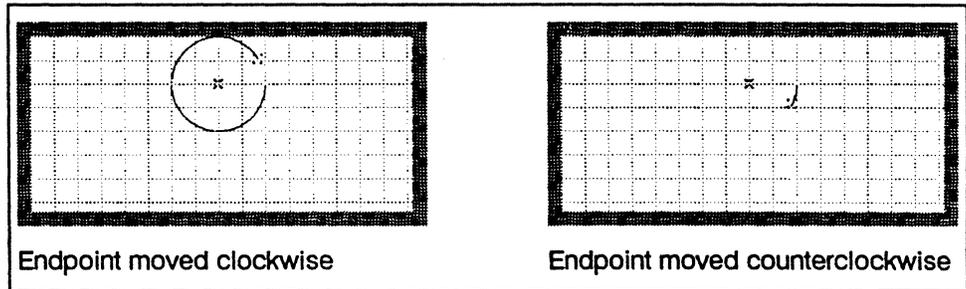
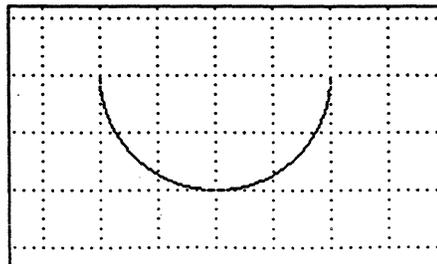


Figure 8. Effect of moving the endpoint while editing the end of an arc



Move the endpoint to the intersection of two grid columns to the left of the anchor point and execute Deselect.



Which of an arc's control points becomes active depends on which is nearest the cursor when you execute **Props**→ **Edit**. In the previous exercise the lower endpoint became active because you were pointing to it when you executed the command.

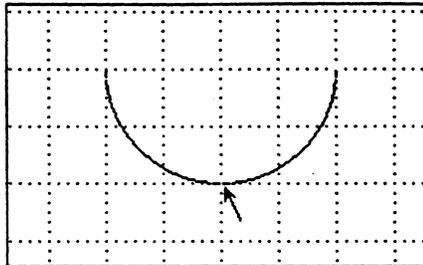
In the next exercise you change the arc's shape by moving the arc's midpoint.

To edit an arc's shape using the midpoint:



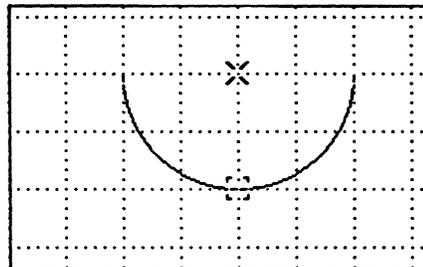
Point to the center of the arc and click the select button.

The arc blinks to show it is selected.



Execute **Props**→ **Edit**.

An active control point appears at the arc's midpoint and an anchor point appears two grid rows above it.



Move the control point to the top and then to the bottom of the frame.

Figure 9 shows the effect of moving the control point.

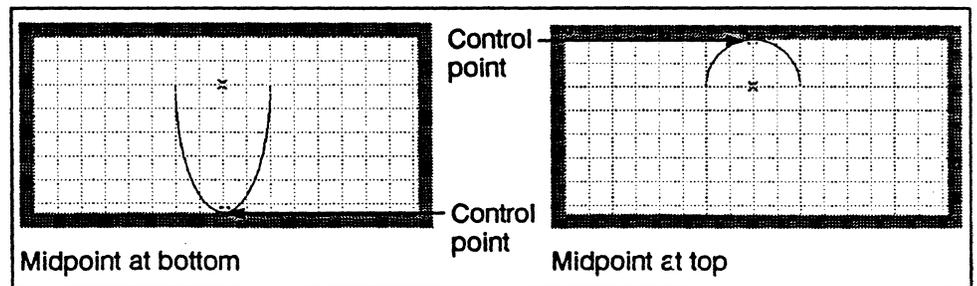
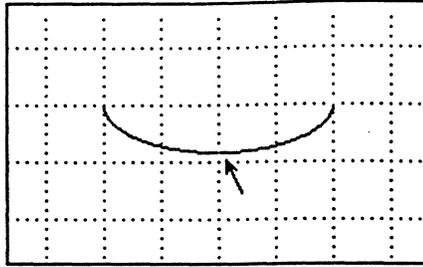


Figure 9. Effect of moving the midpoint while editing an arc



Move the midpoint to just above the third grid row from the top of the frame and execute **Deselect**.



By pointing to the center of the arc and then executing **Props→ Edit** you specified that you wanted to edit the arc's midpoint.

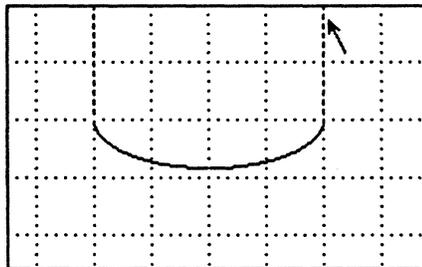
The midpoint of an arc is not always midway between the arc's ends as it was in this exercise. Several factors, including the arc's shape and the arc's extent can affect the location of this control point.

You can also change an arc's shape by moving its tangent control points. In the next exercise, you edit one of the arc's tangent control points and then return the arc to its original shape.

To edit an arc's shape using the tangent control point:

□ Select the arc.

☰☰☰ Point to the right tangent line.



☐☐☐ Execute **Props→ Edit**

An active control point appears at the top of the tangent line and an anchor point appears at the bottom of the tangent line.

☰☰☰ Move the active control point as much as you can around the frame.
Figure 10 shows the effect of moving the active control point.

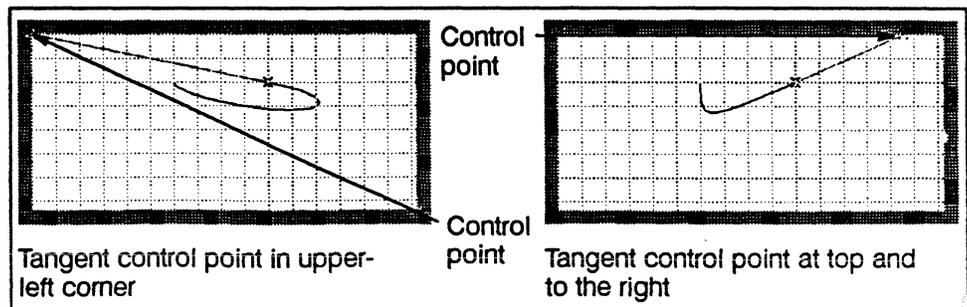


Figure 10. Effect of moving the tangent control point while editing an arc

- Execute **Deselect** and then execute **Undo**.
The arc returns to the shape it had before the exercise.

Because an arc has a limited ability to change shape, you cannot move the tangent control point to every corner of the frame. Also, you cannot edit the tangent points of an arc that has a great extent, that is, an arc that is almost closed.

Connecting Objects

To create complex objects from primitives you must connect two or more primitives so that they appear to be one object. This is not always easy, as objects that appear connected on the screen may not be connected when printed. When you move, size, or rotate an object, **gravity** causes the active control point on that object to snap together with another object when the two objects are close. This ensures that objects that look attached on the screen are actually attached in the printed document.

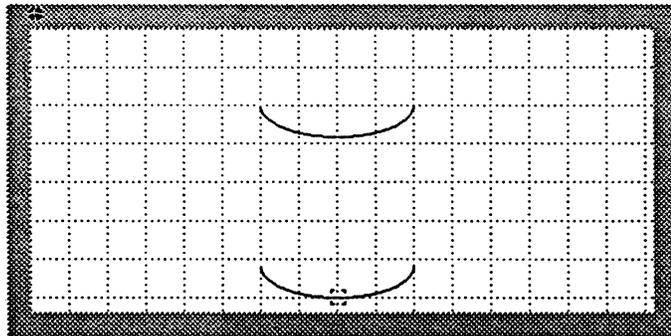
To have objects to attach in this exercise, you must first make a duplicate of the arc you have created.

To duplicate an object:

- Select the arc and execute **Dup→ Move** (be careful not to move the cursor after you execute the command).

A second arc is created. Since it is positioned directly over the first arc, the display of both arcs is canceled out and you see only an active control point.

- Execute **Move→ Vertical** and move the control point down until it touches the bottom grid row.

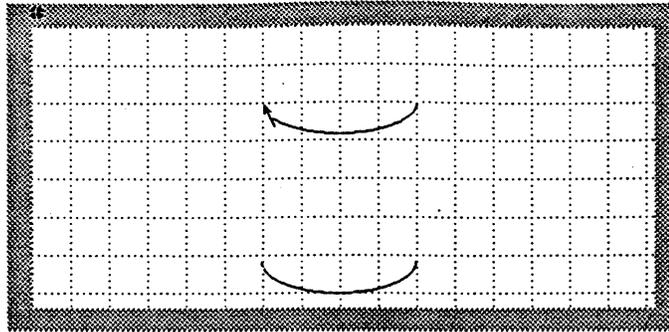


- Execute **Deselect**.
The bottom arc is deselected.

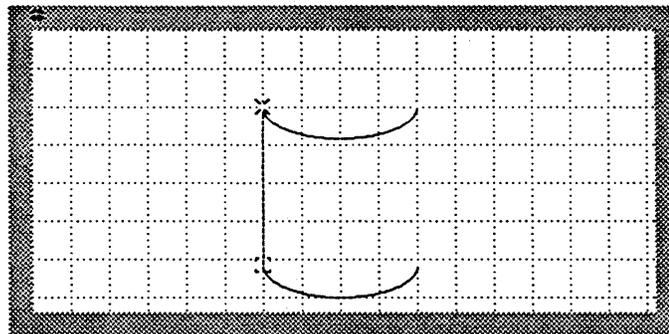
By using **Move→ Vertical**, you limit the movement of the selected arc to a vertical plane.

To connect two objects with a line:

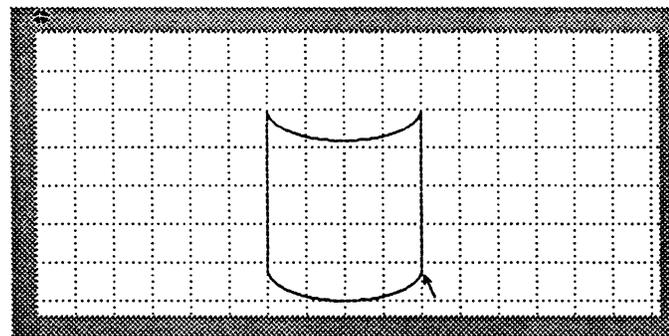
- Point to the left end of the top arc.



- ☐☐ ☐☐☐ Execute **Create**→ **Line**→ **Vertical** and move the active control point down until it snaps together with the left end of the lower arc.



- ☐☐☐ Execute **Deselect**.
A vertical line connects the left sides of the two arcs.
- ☐ Point to the right end of the top arc, execute **Create**→ **Line**→ **Vertical**, move the active control point down until it touches the left end of the lower arc, and then execute **Deselect**.



Because gravity is on in the frame, when you created a line near the arc the end point of the line was automatically attached to the arc. As you sized the line and the active control point approached the bottom arc, the control point snapped together with the arc.

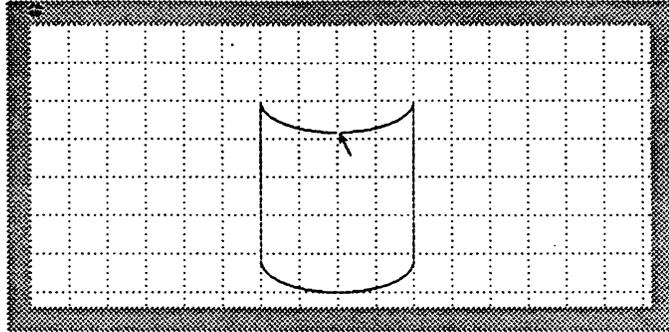
Gravity is on by default when you first create and open a frame. If you want to turn Gravity off in an open frame so you can move objects close but not have them snap together, execute **Misc**→ **Gravity**→ **On/Off**.

Creating an Oval from Two Arcs

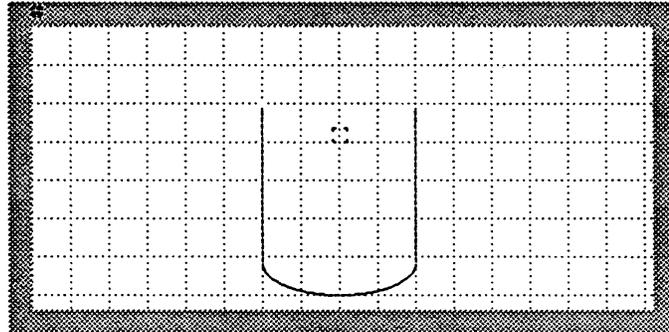
By carefully combining primitives, you can create the illusion of a solid object. In the following exercises, you create a top for the object you are working on so that it becomes cylinder.

To create a top for a cylinder:

- ☐☐☐ ☐☐☐ Point to the middle of the top arc and click the select button.
The top arc blinks to show it is selected.

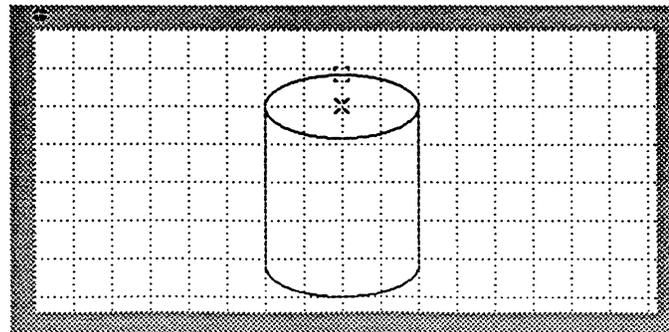


- ☐☐☐ Execute **Dup**→ **Move** (be careful not to move the cursor).



- ☐☐☐ Execute **Dup**→ **Move** a second time and then execute **Props**→ **Edit**.
An anchor point and an active control point appear.

- ☐☐☐☐☐ Move the active control point vertically until it is just below the first grid row from the top of the frame.



- ☐☐☐ Execute **Deselect**.

Creating a Poly by Filling a Path

You have now created two separate objects out of primitives; one is the top of the cylinder (Figure 11a), the other is its body (Figure 11b). The top is made up of two arcs and the body is made up of two arcs and two vertical lines. In each case the primitives making up the objects are attached at their end points. Each of these objects is a **path**, an object that partially or fully encloses an area that the publishing software can fill.

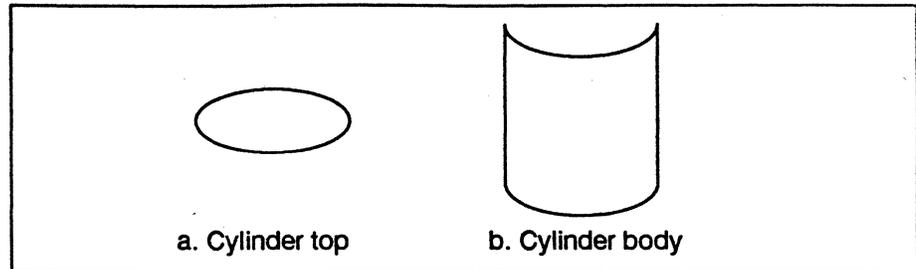


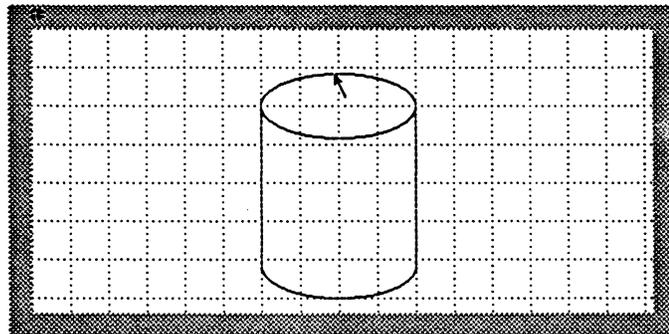
Figure 11. Two paths

In the next exercises you fill these two paths.

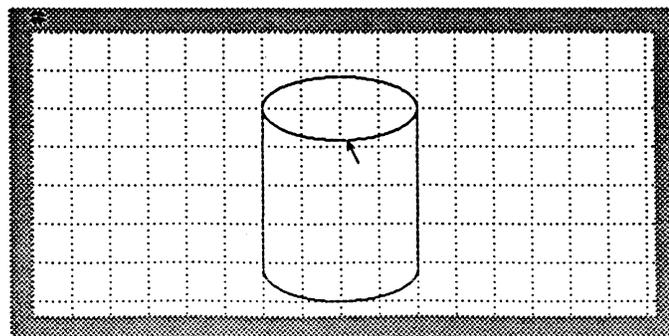
To fill a path:



Point to the top arc of the cylinder and click the select button.
The top arc blinks to show it is selected.

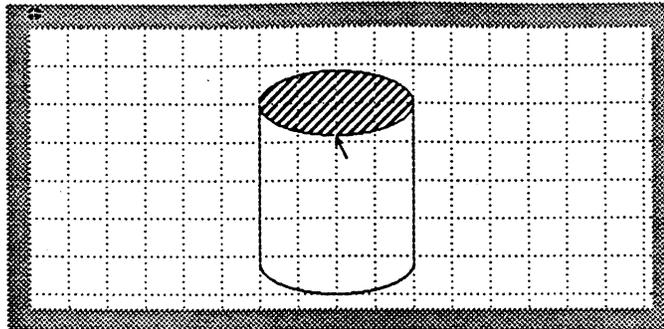


Point to the lower arc in the top part of the cylinder and click the extend button.
Both arcs in the cylinder top now blink to show they are selected.



Execute Props → Fill → Pattern → .

The cylinder top fills with diagonal stripes.



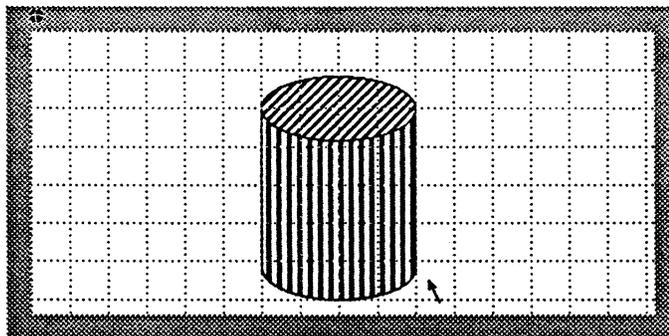
When you select a path and fill it, that path becomes a **poly**. A poly is one or more paths that share a common fill and can be selected and moved, sized, or rotated as a group. As long as a path contains a fill, you can select the fill or any individual part of the path and manipulate all of it. If there is no fill, you can select and manipulate the individual parts of the path.

To fill the second path:

■ ■ ■ Hold down the select button and click the extend button
All the objects in the frame are selected.

☰ ■ ■ ■ Point to the cylinder's top and click the extend button.
The cylinder's top becomes deselected, the path that represents the cylinder's body remains selected.

■ ■ ■ Execute **Props**→ **Fill**→ **Pattern**→ .
The cylinder body fills with vertical stripes.



Because you selected only the path that made up the cylinder body, the body became a second poly, separate from the cylinder top.

*If the cylinder top was still selected when you executed **Props**→ **Fill**→ **Pattern**→ , then both paths will be filled with vertical stripes. If this happens, select the cylinder, execute **Props**→ **Fill**→ **Visible**→ **No**, and start over with the cylinder top.*

Changing the Properties of an Object

Besides shape and size, diagramming objects have other specific properties that you can change to suit your requirements. You already experimented with some diagramming properties when you filled the two cylinder paths with different patterns. In the following exercises, you experiment with another property on the Props submenu, **Edge**, which controls the appearance of object borders.

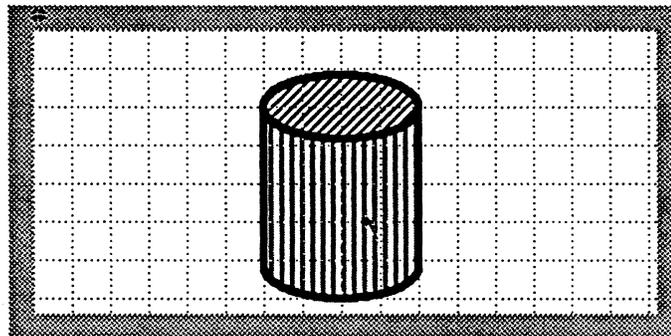
To make it easier to change the cylinder's properties, group the two polys that make up the cylinder.

To group the cylinder:

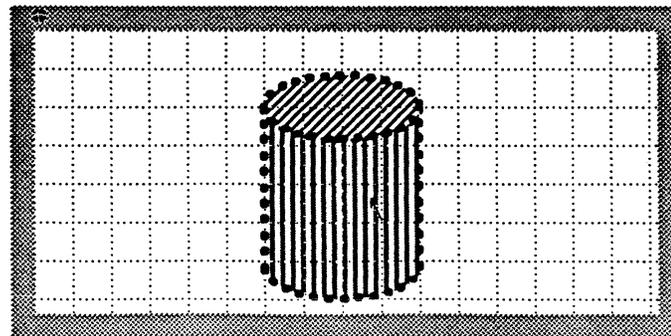
- ☐☐☐ Drag a selection box around the entire cylinder.
- ☐☐☐ Execute **Misc**→ **Group**.
The two polys that make up the cylinder are now grouped.

To change edge properties:

- ☐ Select the cylinder.
- ☐☐☐ Execute **Props**→ **Edge**→ **Weight**→ and the widest available black line.
The cylinder is outlined by thick black lines.



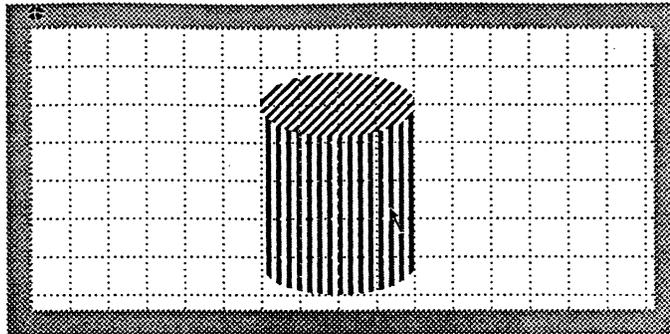
- ☐ Select the cylinder again.
- ☐☐☐ Execute **Props**→ **Edge**→ **Dashes**→ .
The cylinder is outlined by thick dotted lines.



- ☐ Select the cylinder a third time.

- ☐☐ Execute Props→ Edge→ Visible→ No.

There are no longer any lines defining the cylinder's edges.



By default, an object's edge properties are visible. Changing an object's Edge Visible property to No makes the edges of the object invisible, but does not affect the fill.

Creating a Logo

In the final series of exercises in this chapter, you create a logo for a company called *Cylindrical Associates, Inc.*, using the cylinder you just created. As a result, you learn about working with diagramming objects in documents.

Since the cylinder you created is too large to use in a logo, you must change its size.

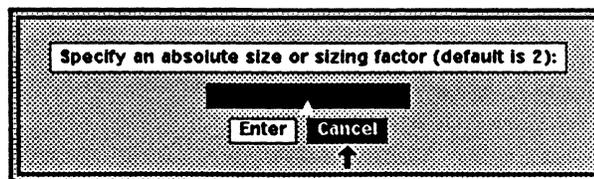
To size an object numerically:

- ☐ Select the cylinder.

The cylinder blinks to indicate that it is selected.

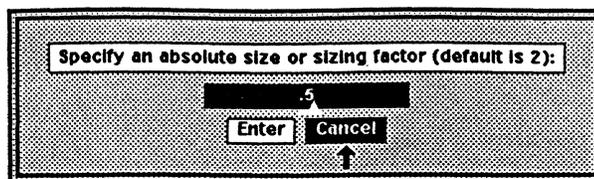
- ☐☐ Execute Size→ Numeric→ Diagonal.

The Size Numeric stickup appears, asking for a numeric value by which to change the object's size.



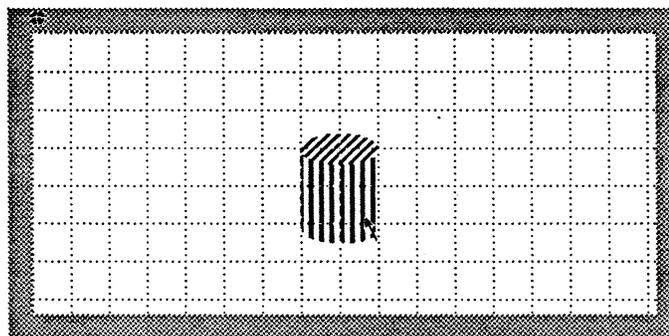
- ☐ Type .5.

The value .5 appears in the stickup field.



- Either press RETURN or point to Enter on the stickup and click the select button.

The horizontal and vertical dimensions of the cylinder are reduced by half.



When you size objects diagonally, they keep their original proportions. Sizing objects horizontally, vertically, or in all dimensions changes the shapes of objects as well as their sizes.

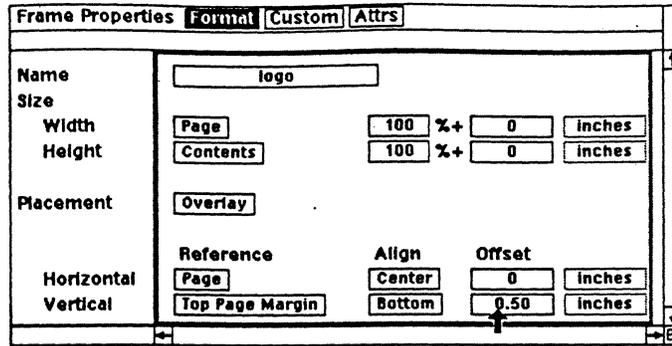
The initial default in the Size Numeric stickup is 2. When you type a new value and enter it, that value becomes the default. If you select Enter without typing a number, the selected object will be changed by the default value.

In the next exercise you modify some of the frame's properties to change the size of the frame and move it to the top of the page. In addition, since you are not going to have any other frames of this type in your letter, you give this frame a unique name. This way, later changes you make to this frame will not affect any other frames in the document, and vice versa.

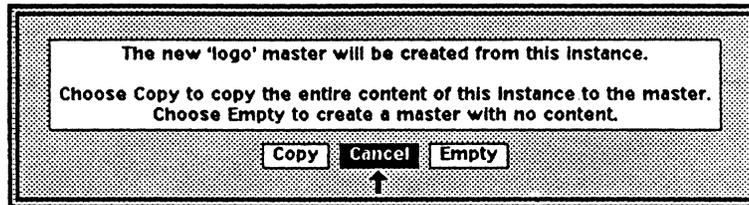
To create a new frame master:

- Execute Close.
The frame and cylinder appear in reverse video. This indicates that the frame is closed but still selected.
- Execute Props to open the Frame property sheet.
- Make the following changes to the Format sheet:

Name	logo
Height	Contents
Placement	Overlay
Vertical Reference	Top Page Margin
Vertical Offset	0.50 inches



- ☐☐☐ Execute Apply.
The New Frame Master stickup appears.



- ☐ Select Empty.
The publishing software creates an empty master definition for logo and the frame's shape and location change.
- ☐☐☐ Execute Close.
The Frame property sheet disappears.

The property sheet changes you made had the following effects on the frame:

- Naming the frame *logo* caused the publishing software to create a new frame master named *logo* and add *logo* to the Create Frame submenu.
- The **Contents** setting changed the height of the frame to that of its contents.
- The **Overlay** setting caused the *logo* frame to overlay the header frame when the *Vertical Margin* was set for the top of the page.
- The **Top Page Margin** setting placed the frame at the top of the page. A vertical offset of .5 inches moved the frame one-half inch from the top.

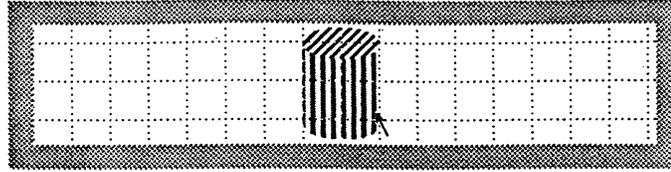
You will learn more about each of these properties in Chapter 7, when you practice placing illustrations within a document.

The publishing software maintains master definitions for frames just as it does for components. The next time you open the Create Frame submenu in this document, *logo* will be one of the choices. If you choose it, the publishing software will create a frame with all the properties you just defined in the Frame property sheet.

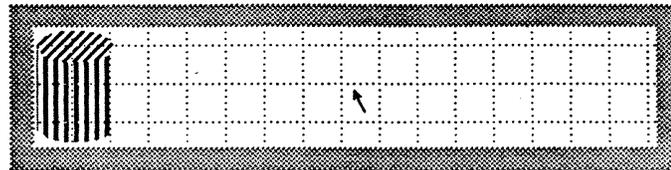
Next, align the cylinder to the left edge of the frame.

To align diagramming objects to their frame:

- Select the cylinder.

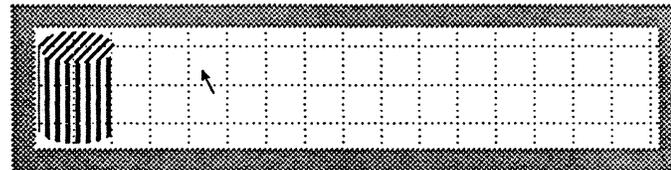


- ☐☐ Execute Misc→ Align→ to Frame→ Left.
The cylinder moves to the left border of the frame.

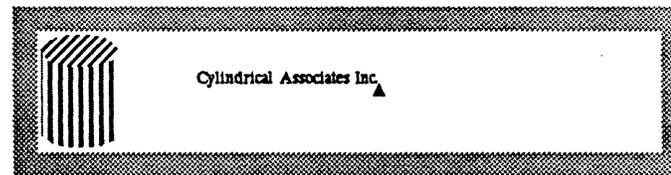


To add text to a frame:

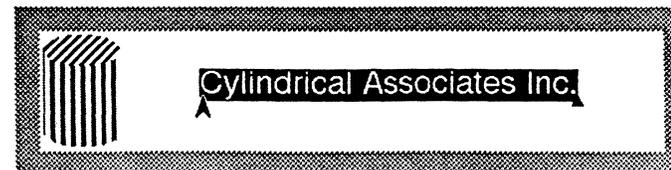
- ☐☐☐ Move the diagramming cursor to its approximate location in the illustration.



- ☐☐ Type: *Cylindrical Associates Inc.*
The text appears at the tip of the cursor. The cursor changes to a text caret.

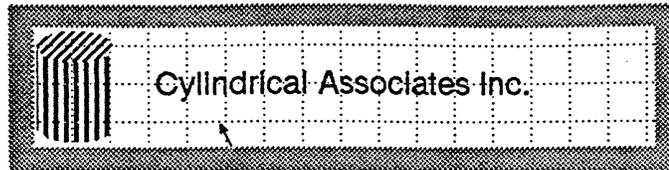


- Select the text and increase the font size to 24 point. Change the font family to Swiss. (Perform these operations as you would for any block of text. Be careful not to click the select button while the cursor is outside the box containing the text.)



- ☐☐☐ Execute Close.
This deselects the text. The diagramming cursor returns.

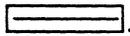
- Select the text and execute **Misc→Align→to Frame→Center**.
The text is now centered within the frame.



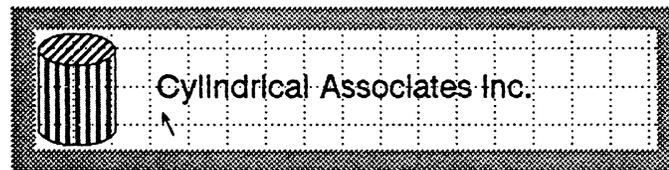
The text you entered is called a **microdocument**, which is one kind of text you can create in a frame. You can align a microdocument to a frame just as you can any other diagramming object.

To finish the logo, you make the cylinder's edge visible and add a line that underscores the company name.

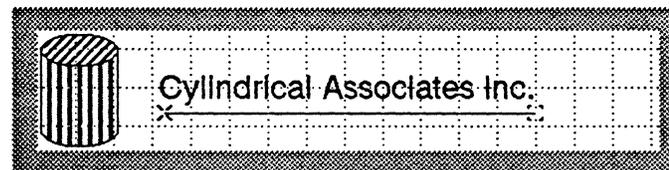
To finish the logo:

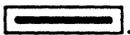
- Select the cylinder and execute **Props→Edge→Weight→** .
A thin black line outlines the cylinder.

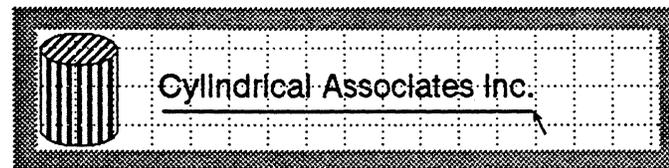
- ☞☞☞ Point to a location about one-quarter of an inch below the *C* in *Cylindrical*.



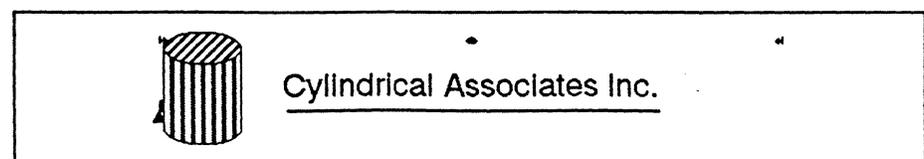
- ☞☞☞☞ Execute **Create→Line→Horizontal** and extend a line below the text as shown in the illustration.



- ☞☞ Before deselecting the line, execute **Props→Edge→Weight→** .



- Close the frame and deselect it.



When you close the *logo* frame, the grid disappears and the frame anchor and the text anchors in the header are visible through the frame. Grid patterns are visible only when a frame is open. In addition, the publishing software makes an open Overlay frame opaque so that you will not be distracted by anything beneath it.

You have completed the design of the logo. This is the end of Chapter 5. You can close and save the *shapes* document.

Summary

- An arc is a curved primitive object you can create and manipulate with the publishing software.
- You can alter an arc's extent and shape. **Extent** is the amount of a full ellipse that an arc covers, an arc's shape is its **eccentricity**.
- To edit an arc's extent, select the arc, point to one of the arc's end-points, and execute **Props→ Edit**.
- To edit an arc's shape, select the arc, point to the arc's midpoint or tangent lines, and execute **Props→ Edit**.
- **Gravity** is the attraction between diagramming objects when you move one close to another. To turn gravity off in a frame if it is on, execute **Misc→ Gravity→ On/Off**.
- To create a duplicate of an object, select it and execute **Dup→ Move**.
- To change a property of a selected diagramming object, such as edge weight, execute one of the options on the Props submenu.
- To size an object numerically, select it and execute **Size→ Numeric** and a choice from the Size Numeric submenu; then specify a value in the Size Numeric stickup.
- To create a frame master, enter a frame name on the Frame property sheet and execute **Apply**.
- To add text to an open frame, point to the location where you want the text to appear, and type.

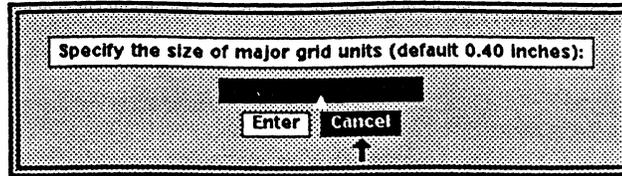
Further Exercises

These exercises present practice with creating a custom grid pattern and introduce the **locks** feature. To complete these exercises, you must have the frame open in the *shapes* document.

To change the spacing of a grid:

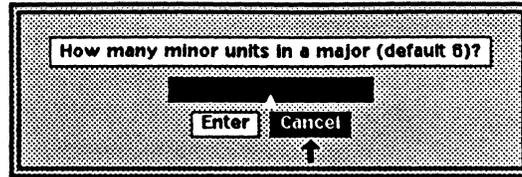
☐☐ Execute **Misc→ Grid→ Spacing→ Both**.

A stickup appears asking you to specify the size of major grid units.



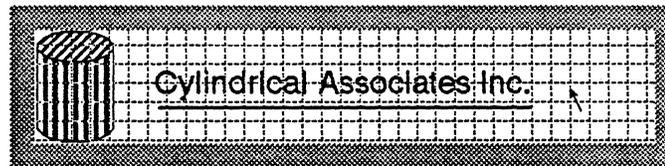
- Type .2 and select Enter.

A stickup appears asking you to specify the number of minor units in a major grid unit.



- Select Enter.

The grid now contains twice as many rows and columns as before.



You can use the Misc Grid Spacing submenu to create custom grids in any U.S. or Metric measurement. The major grid units are the rows and columns in a grid. The minor grid units are the dots that appear within a major unit. If GridAlign is turned on, objects align to a custom grid in the same way they align with the default grid.

To set and clear a lock on an object:

- Select the cylinder.
- ☐☐☐ Execute Props→ Locks→ Set→ position.
Nothing visible changes.
- Select the cylinder again.
- ☐☐☐ Execute Move→ All.
The cylinder appears in animation state and an active control point appears.
- ☐☐☐ Move the mouse in different directions.
The control point moves with the mouse, but the object does not move at all.
- ☐☐☐ Execute Props→ Locks→ Clear→ position.
Nothing visible changes.
- Select the cylinder again.

- ☐☐ Execute **Move→ All** and move the active control point.
The object moves with the control point.
- ☐☐ Execute **Deselect**.
The control point disappears and the object moves to a new location.
- ☐ Close the *shapes* document without saving it.

Setting locks prevents specific commands from changing a diagramming object. You can set locks for up to twenty different properties, including cutting, printing, fill, and rotation.

For More Information

If you are interested in learning more about the topics covered in these lessons, see the following chapters in the *Diagramming* manual in the *Reference* set:

- Chapter 26, *Introduction to Diagramming*, provides an overview of the diagramming features and describes basic diagramming procedures.
- Chapter 27, *Objects in Diagramming*, explains primitives and groups.
- Chapter 28, *Modifying Diagrams*, describes animating, sizing, duplicating, and aligning objects.
- Chapter 29, *Arcs*, describes how to create and edit an arc.
- Chapter 30, *Text as a Diagramming Object*, describes creating and using microdocuments.

6

Using Text in Diagramming

In Chapter 5 you learned how to use diagramming to create graphic objects in frames. You created a cylinder, modified its properties and used it as part of a logo. You also added text to the frame. When you did this, the publishing software created a **microdocument**.

In this chapter, you learn more about microdocuments and how to use them. You also learn about **text strings**, which are a different kind of text you can add to a frame.

There are four lessons in Chapter 6:

- Lesson 15, *Creating Microdocuments*, tells you how to create a microdocument by typing in a frame and how to move microdocuments and align them to each other.
- Lesson 16, *Editing Microdocuments*, tells you how to create a microdocument with commands from menus, how to size a microdocument, and how to work with microdocument components.
- Lesson 17, *Changing Microdocument Properties*, describes how to modify the appearance of a microdocument by changing its properties.
- Lesson 18, *Using Text Strings in Headers and Footers*, describes text strings, and tells you how they differ from microdocuments and how to use them in header and footer frames.

You learn to use microdocuments by adding annotations and other text to a map. You learn to use text strings by creating a header and footer for the document containing the map.

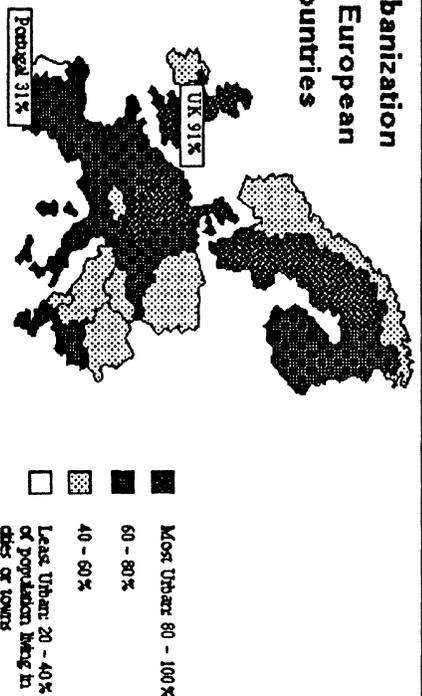
Rise Draft: Do Not Copy
January 2, 1989

Effects of Urbanization in Europe

In the forty years since World War II, most European countries have experienced increasing urbanization, that is, an increasing percentage of the population living in urban rather than rural areas. Economic reasons are usually cited for this increase: the increase generally in technical opportunities, the higher wage potential of these jobs, and the higher standard of living available to the urban worker relative to his rural

counterpart. If the causes have been economic, the implications have gone far beyond economics and have been felt as a challenge to traditional social structures. This paper attempts to make a brief survey of these socio-economic factors and draw conclusions about the future impact on various countries where urbanization has been great.

Urbanization in European Countries



The shading in each country represents the percentage of the population living in cities or towns. The data is taken from records of the United Kingdom for the period 1961-1971 and estimates for 1980. Of the

In developed countries, such as West Germany and the United Kingdom, towns and cities have grown very rapidly since World War II. This growth has been made possible by widespread improvements in public health and sanitation. In addition, the social infrastructure for delivering these improved services has undergone remarkable change.

A contributing factor to the overall pace of urbanization has been the changing face of agricultural work.

Agriculture in developed countries has changed as a result of greater mechanization and the availability of machines and vehicles that reduce the number of farm workers necessary to bring a crop to market.

The reduction in the number of agricultural jobs in rural areas has increased the number of people who must seek employment in urban areas. Whether these migrations result in a permanent shift in the distribution of population, i.e., permanent urbanization,

Article Name: Map

Page: 1

Figure 1. Completed Map document

Lesson 15: Creating Microdocuments

In Lesson 15 you learn how to

- create a variable-width microdocument
- enter text into the open microdocument
- close the microdocument
- convert a variable-width microdocument to a fixed-width microdocument
- align microdocuments with other diagramming objects

The approximate time to complete Lesson 15 is 25 minutes.

Using Microdocuments

A **microdocument** is a document you create within a frame. It has features in common with standard documents and diagramming objects. This chapter refers to a standard document as a *main document* to distinguish it from a microdocument.

Like the main document that contains it, a microdocument has page properties and is made up of components. You can use the same text editing features in a microdocument that you use in the main document. You cannot create a frame in a microdocument, however, or put a single microdocument on more than one page.

Like a diagramming object, you can move, size, fill, duplicate, and change the front-to-back order of a microdocument. You cannot, however, rotate a microdocument or change its font size with a command from the Size submenu.

In order for you to edit a microdocument, it must be open. An open microdocument contains the text caret.

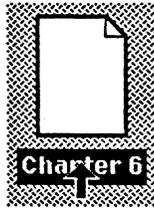
Preparing for the Microdocument Exercises

To complete the lessons in Chapter 6 you need to retrieve a sample document from the *Tutorials* folder. The sample document contains two pages of text and an illustration.

To copy the sample document from the System cabinet:

- Open the *System* cabinet, the *Library* cabinet, the *Documentation* drawer, and the *Tutorial* folder.
The Tutorial folder contains three documents named Chapter 3, Chapter 4, and Chapter 6, and a folder named Chapter 7.
- Select the document named *Chapter 6*.

- Execute Copy→ Normal.
- Move the cursor to a convenient place on your desktop and execute Paste. *The Chapter 6 document appears at the cursor location in animation state.*
- Deselect the icon and select the document label.



- Change the document label to *Map* and press RETURN.



- Close the *Tutorials, Documentation, Library, and System* windows.
- Select the *Map* document and execute Open. *The document opens. Your screen should look like Figure 2.*

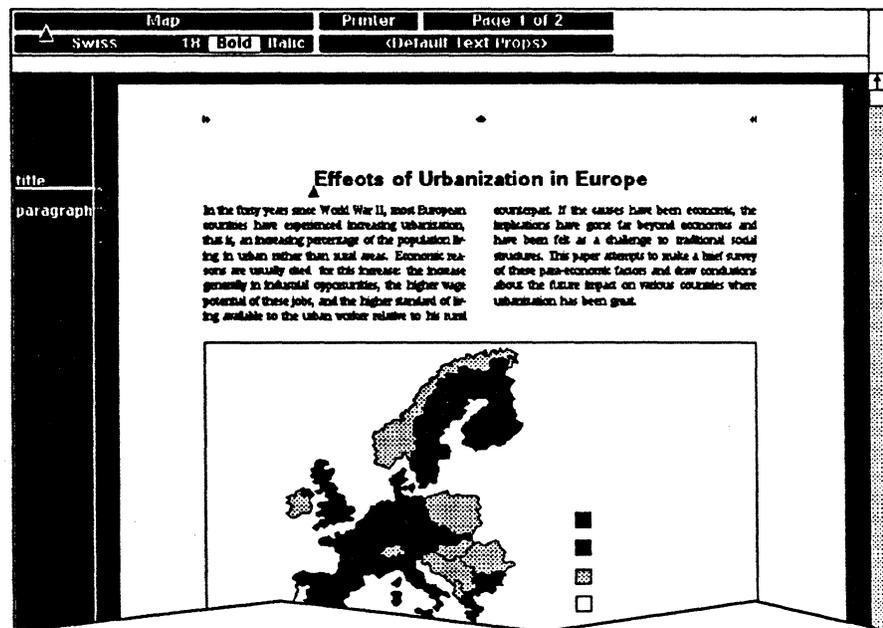


Figure 2. Open Map document

The *Map* document contains two columns of text in paragraph components and a map of Europe in a frame. The outlines of the countries in the map are filled with different patterns.

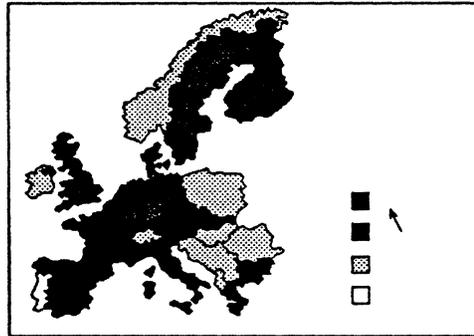
Adding a Microdocument to a Frame

There are several ways to create microdocuments. The easiest way is to position the diagramming cursor in an open frame and start typing. You used this method in Lesson 14 to add the name *Cylindrical Associates, Inc.* to the sample logo.

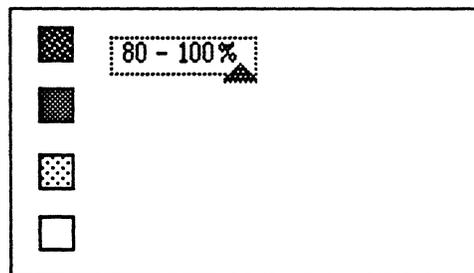
In the next exercise you complete the legend to the right of the map by creating four separate microdocuments.

To create a microdocument in a frame:

- ☐☐☐ Point to the map of Europe.
- ☐☐☐ Click the select button twice.
The frame opens and the diagramming cursor appears.
- ☐☐☐ Point to a spot about a one-quarter of an inch to the right of the top-most box in the lower-right corner of the frame.



- ☐ Type: *80 - 100%* (do not press RETURN).
The text appears at the cursor location and grows to the right as you type.

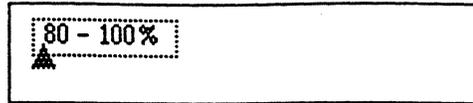


When you typed the first character, the publishing software automatically created and opened a new microdocument. An open microdocument appears on the screen as a box containing text and a text caret. The outline of the box is called the microdocument **bounding box**. The text caret indicates where text appears when you type.

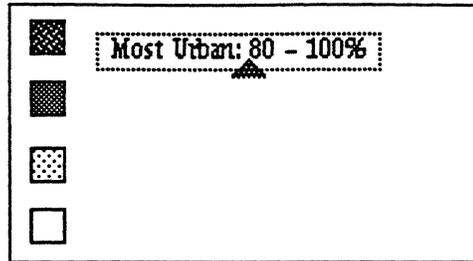
Do not worry if you have not positioned the text in the exact location indicated by the illustration. When you complete the legends for all four boxes, you will move them.

To add text to a microdocument:

- ☐☐☐ Position the text caret at the beginning of the line, just before the 8.



- ☐ Type: *Most Urban*: (Include a space after the colon.)



Look at the component bar. Instead of components from the main document, the component bar shows a single component named *micro:caption* (Figure 3).

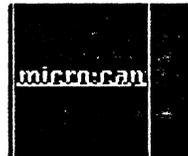


Figure 3. A microdocument component

When a microdocument is open, the component bar shows only the component names in that microdocument. When you close a microdocument, you see only the component names in the main document.

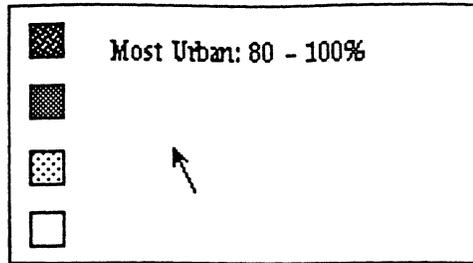
The *micro:caption* component is the component that is automatically created for a microdocument. The default properties for a *micro:caption* component are 10-point Thames text with flush-left alignment. You see these properties in the microdocument you just created.

You can modify the properties of a *micro:caption* component in the same way you modify component properties in the main document, by changing the values in its Component property sheet.

When you have finished entering or editing text in a microdocument, you must close it before you can create another microdocument.

To close a microdocument:

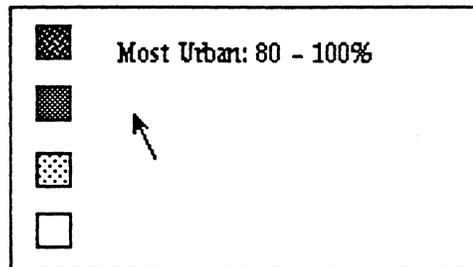
- ☐☐☐ Execute Close.
The bounding box disappears and the diagramming cursor replaces the text cursor.



In the next exercise, you create more microdocuments as annotations to the other boxes in the legend.

To create additional microdocuments:

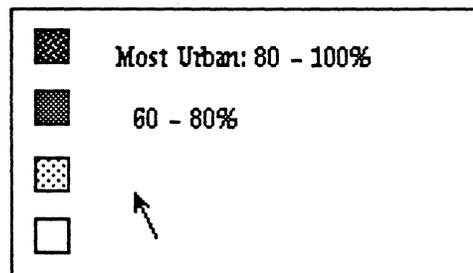
☰☰☰ Point to the right of the second box from the top.



☐ Type: 60 - 80%

☰☰☰ ☐☐☐ Close the microdocument by pointing the cursor away from the microdocument (but not out of the frame) and clicking the select button.

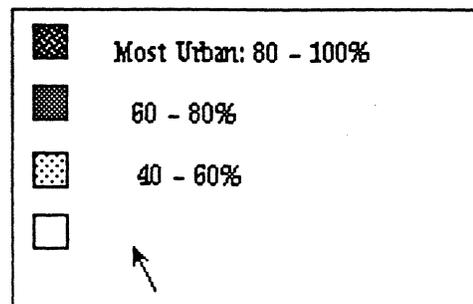
☰☰☰ Point to the right of the third box.



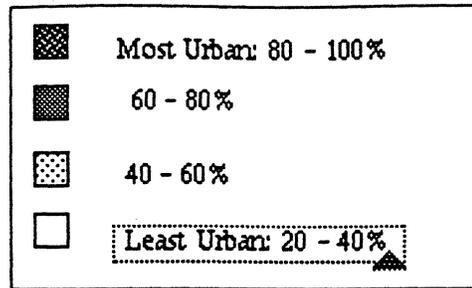
☐ Type: 40 - 60%

☐ Close the microdocument.

☰☰☰ Position the cursor to the right of the last box.



- Type: *Least Urban: 20 - 40%*



- Close the microdocument.

Changing Variable-Width Microdocuments to Fixed-Width Microdocuments

All of the microdocuments you have created so far expand when you add text and contract when you delete text. This kind of microdocument is called a **variable-width** microdocument. There is a second type of microdocument, which does not expand or contract as you add or delete text. This kind of microdocument is called a **fixed-width** microdocument. You can create a fixed-width microdocument in several ways. The most common way is to give a variable-width microdocument a fixed width.

In the next exercise you use a command from the Diagramming Object Selected popup to open a closed microdocument, and then add a line to convert it to a fixed-width microdocument.

To open a microdocument:

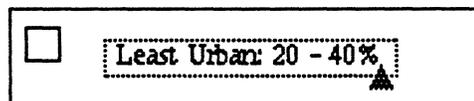
 Point to the microdocument beginning with *Least Urban*.

 Click the select button.

The text and bounding box blink to show that the microdocument is selected.

  Point to the end of the selected microdocument and execute **Props→ Edit**.

The text caret appears at the cursor location.

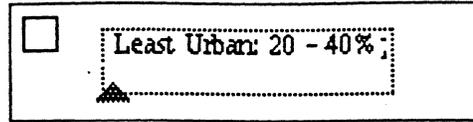


When there is no bounding box around a microdocument, it is closed and you cannot edit the text within it. To open a microdocument, you select it and execute **Props→ Edit**. When the text caret appears you can add text to or edit a microdocument, just as you can a main document.

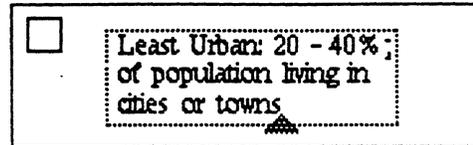
To give a variable-width microdocument a fixed width:

- Press **RETURN**.

The microdocument bounding box grows downward, and the text caret moves to the next line. The mark at the end of the first line is all you can see of a hard-return symbol.



- Type: of population living in cities or towns
Instead of causing the box to grow wider, the new text automatically wraps to the next line, causing the box to grow downward.



- Close the microdocument.

The differences between a variable-width and a fixed-width microdocument are

- A variable-width microdocument has a fixed height (one line) and a variable width.
- A fixed-width microdocument has a variable height and a fixed width.

Once you have converted a variable-width microdocument to a fixed-width microdocument, you cannot convert it back again.

Aligning Microdocuments

In a main document, you align text on the page by setting page margins in the Page property sheet and component margins on the Component property Format sheet.

In a frame, microdocuments are not automatically aligned with other diagramming objects or with each other. For example, unless you have been extremely careful, the microdocuments you created in the previous exercises are not aligned with the boxes in the legend or with each other.

In the next two exercises you correct these alignment problems by using commands from the Diagramming Object Selected popup. First you align the microdocuments horizontally with their boxes, then you align them vertically with each other.

To align the microdocuments with their boxes:

-  Point to the top-most box.
-  Click the select button.
The box is selected.



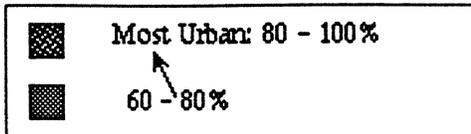
Point to the microdocument to the right of the selected box and click the extend button.

The microdocument is also selected.



Execute Misc→ Align→ Top edges.

The higher object remains fixed; the lower object moves to align its top edge with the top edge of the other.



Repeat the last three steps for each box and its annotation.

The legends should resemble Figure 4.

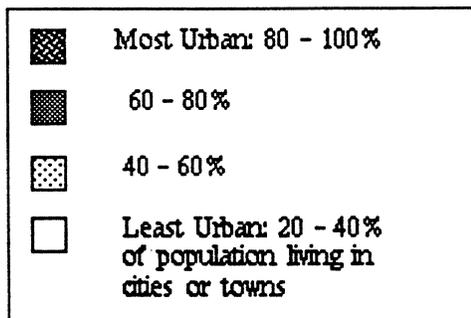


Figure 4. Boxes horizontally aligned with their annotations

To align the microdocuments with each other:



Select the four microdocuments.

Point to each and click the extend button.



Execute Misc→ Align→ Left sides.

The left-most microdocument remains fixed; the other microdocuments move to line up with it. The legends should resemble Figure 5.

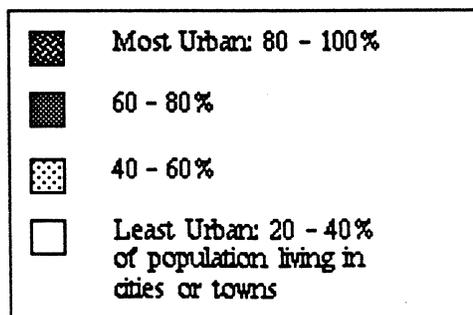


Figure 5. Microdocuments aligned horizontally



Point to the Name box in the document header and execute Save→ Fast.

You can save time by creating microdocuments without regard to their exact alignments and then aligning them.

This is the end of Lesson 15. At this time you can close the *Map* document or leave it open and continue to Lesson 16.

Summary

- A **microdocument** is a document you create inside a frame. Microdocuments share all the text editing features of main documents; in addition, you can move and size them like diagramming objects.
- To create a microdocument, begin typing when the cursor is in an open frame. Text appears within a **bounding box** at the cursor location and grows to the right.
- To close a microdocument, point away from it and click the select button.
- To open a microdocument, select it and execute **Props→ Edit**.
- When a microdocument is open, the component bar shows only the components in the microdocument.
- To create a **variable-width** microdocument, begin typing in an open frame. The publishing software automatically creates and opens a variable-width microdocument.
- A variable-width microdocument is always one line long. Its width expands when you add text and contracts when you delete text.
- A **fixed-width** microdocument is one or more lines long; its width remains fixed. A fixed-width microdocument grows downward to accommodate new text.
- To convert a variable-width microdocument to a fixed-width microdocument, press RETURN when the text caret is in the open microdocument. You cannot convert a fixed-width microdocument to a variable-width microdocument.
- To make microdocuments align with other diagramming objects and with each other, execute **Misc→ Align→** and one of the commands on the Misc Align submenu.

Further Exercise

This exercise provides practice in aligning variable-width microdocuments. To complete this exercise you must have a document with an open frame on your desktop. You can either create a document for this purpose, or you can use the *Map* document.

The default microdocument component, *micro:caption*, has flush-left alignment. This means that all variable-width microdocuments are created with left-aligned text unless you specify otherwise.

To change the default alignment of a variable-width microdocument:

- Make sure that the diagramming cursor is located in the open frame.
- Type CTRL-r.
- Begin typing any text you like.

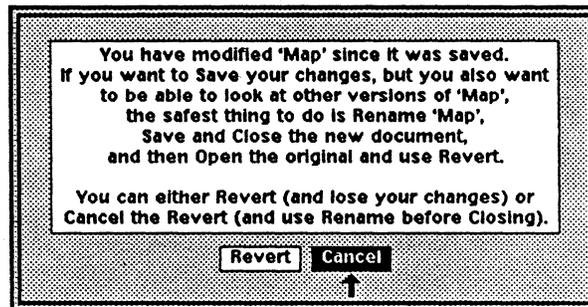
Typing creates a microdocument; however, the microdocument grows to the left, not to the right.

- Close the microdocument.
- Type CTRL-c.
- Begin typing.

Again, typing creates a microdocument, but the text in the microdocument is center-aligned; that is, it grows in both directions from the original cursor location.

- Close the microdocument.
- If you used the *Map* document for this exercise, point to the Name box in the document header and execute Misc→ Revert→ to Document.

The Revert Stickup appears.



- Select *Revert*.

The document returns to the contents it had when you executed Save→ Fast at the end of this lesson.

Typing CTRL-l, CTRL-c, or CTRL-r presets the alignment of variable-width microdocuments to flush left, centered, or flush right, respectively. Once you set an alignment, all microdocuments you create in a frame will have that alignment until you change it.

Lesson 16: Editing Microdocuments

In Lesson 15 you created four microdocuments. Three were variable-width microdocuments, and the fourth became a fixed-width microdocument when you typed RETURN.

In this lesson you learn more about fixed-width microdocuments by

- creating a fixed-width microdocument using menu commands
- opening an existing microdocument
- adding text to a fixed-width microdocument
- renaming microdocument components
- moving and sizing microdocuments
- undoing changes to a microdocument

The approximate time to complete Lesson 16 is 20 minutes.

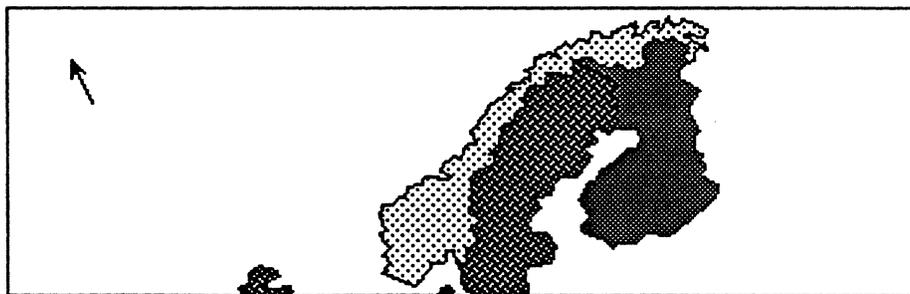
Creating a Fixed-Width Microdocument

For the microdocuments you created in Lesson 15, the exact width of the text was not important. It was convenient to type the text into the frame and create variable-width microdocuments.

In some situations you might want to create a microdocument with a specific width, and then add text to it. You can do this using menu commands.

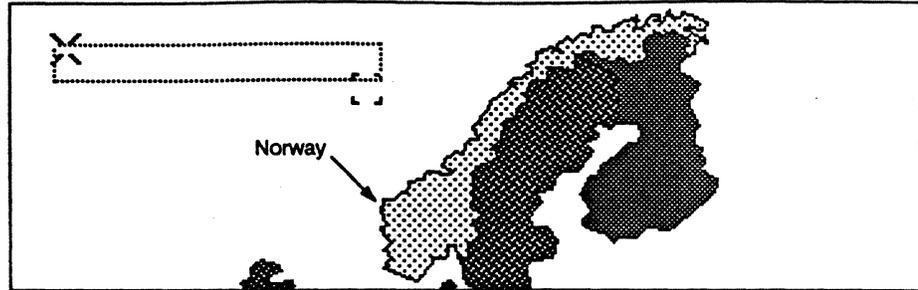
To create a fixed-width microdocument:

- Open the *Map* document and the frame that contains the map of Europe, if you closed them at the end of Lesson 15.
- ☐☐☐ Point the diagramming cursor to the upper-left corner of the frame.



- ☐☐☐ Execute **Create**→**Misc**→**Microdoc**→**micro:**→**caption**.
A bounding box appears with an anchor point at the cursor location and a control point at the opposite corner of the box.
- ☐☐☐ Move the mouse vertically.
The size of the box does not change.

- ☐☐☐ Move the mouse to the left until the bounding box is approximately 1.5 inches wide (the right edge of the box should line up with the westernmost part of Norway on the map).



- ☐☐☐ Click the menu button to execute **Deselect**.
The microdocument is deselected. The bounding box remains visible.

When you execute **Create**→ **Misc**→ **Microdoc**→ and the name of a component master, you create an empty, fixed-width microdocument containing an instance of that component master. The microdocument is automatically placed in **Size**→ **Horizontal** mode, so you can change its width by moving the mouse. You cannot change the height of the microdocument, since an empty microdocument is not more than one line high.

When you deselect an empty microdocument, the bounding box remains visible on the screen as long as the frame is open. This helps you find the microdocument again.

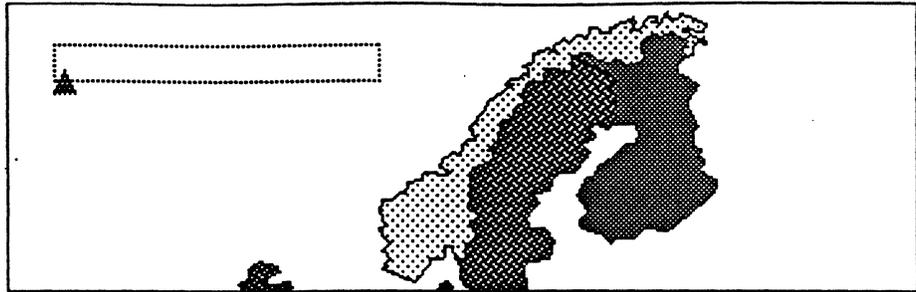
Editing an Existing Microdocument

When you create a microdocument by executing **Create**→ **Misc**→ **Microdoc**→ and the name of a component master, the microdocument is not automatically open, as it would be if you had created it by typing.

To edit a closed microdocument:

- ☐☐☐ Point to a corner of the bounding box.
- ☐☐☐ Click the select button.
The bounding box blinks to show that the microdocument is selected.
- ☐☐☐ Execute **Props**→ **Edit**.

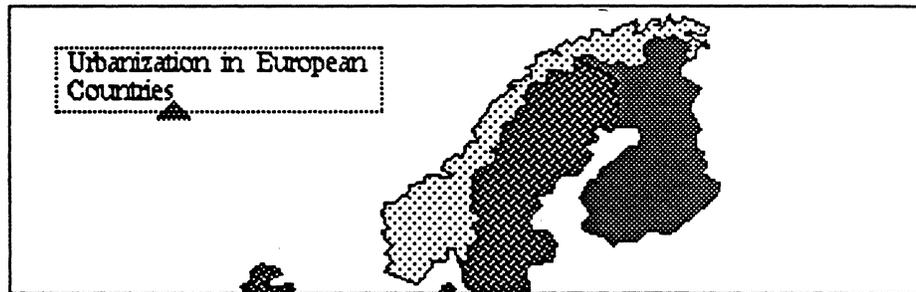
The text caret appears at the left edge of the microdocument, and a single *micro:caption component* appears in the component bar.



As you learned in Lesson 15, when the text caret appears, the microdocument is open and you can enter and edit text in it.

To add text to a fixed-width microdocument:

- Type: *Urbanization in European Countries*
While you are typing *Countries*, the publishing software creates a new line and the bounding box grows downward.



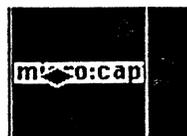
When you add text to a fixed-width microdocument, the microdocument grows vertically to accommodate the new text. The width of the microdocument does not change.

Renaming Microdocument Components

The text for the title of the illustration is too small. In the next exercise you increase its size by changing the default *micro:caption* component to a pre-existing component containing an appropriate font size.

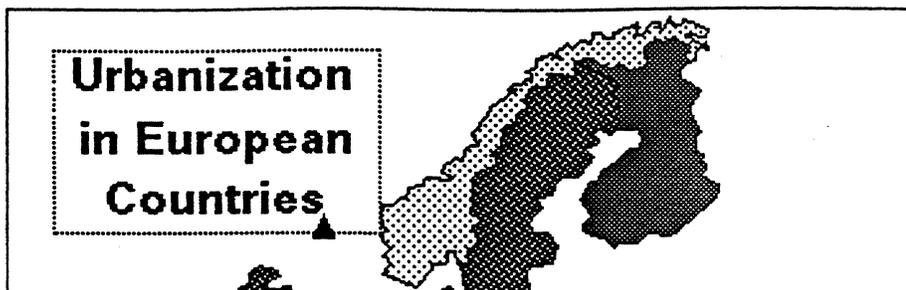
To change the component for the illustration title:

- Select the *micro:caption* component.



- With the cursor in the component bar, execute **Change**→ **title**.

The caption component changes to title, and the text in the microdocument changes to 18-point Swiss bold with centered alignment.



Changing the component in the microdocument to *title* changes the default font to the font defined in the *title* component in the main document. You can use any component master in a microdocument that exists in the main document.

The title in the microdocument still does not look right. This is because the master for the *title* component in the main document includes centered text alignment. You can fix this problem by defining a second, nearly identical component with a different name.

To rename the title component and create a new master:

- ☐ With the *title* component in the microdocument still selected, execute Props.

The Format property sheet opens.

- ☐ Make the following changes to the Format sheet:

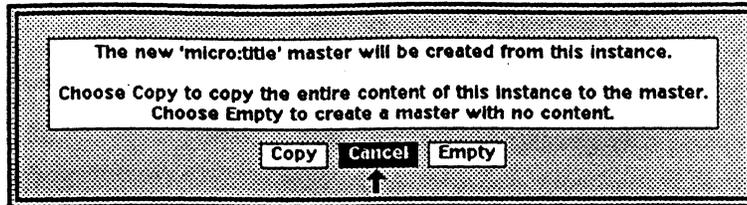
Name **micro:title**

Alignment **Flush Left**

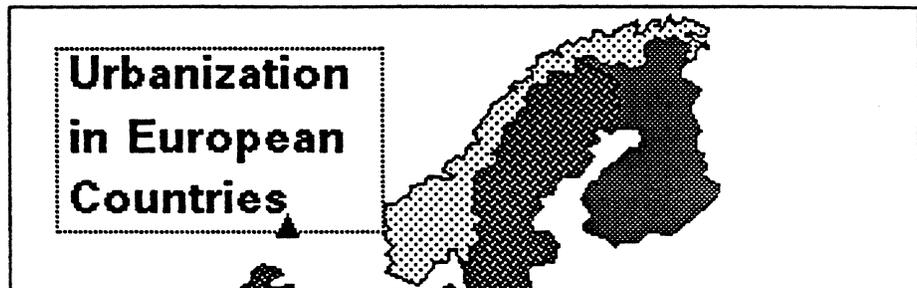
Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	micro:title						
Margins							
Top	0.07						Inches
Bottom	0.07						Inches
Left	0						Inches
Right	0						Inches
Initial Indent	0						Inches
Number	Default	1					lines
Line Spacing	1.31						lines
Alignment	<input checked="" type="radio"/> Flush Left <input type="radio"/> Centered <input type="radio"/> Flush Right						
Font	Swiss 18 Bold Italic						
Text Props	<Defaults>						

- ☐ Execute Apply.

The New Component Master stickup appears.



- Select **Empty** and then execute **Close**.
The publishing software creates a master definition for micro:title, the property sheet closes, and the text in the microdocument is left aligned.



- Close the microdocument.
 The colon (:) in the name of the *micro:title* master causes the publishing software to create an additional submenu off of the **Create** submenu for *micro:title*. Now you have separate components for titles in the main document and titles in microdocuments. If you later decide to change the properties of one type of title, you will not accidentally change the other.

Resizing a Fixed-Width Microdocument

To make a microdocument wider or narrower, you resize it, using commands on the **Size** submenu of the **Diagramming Object Selected** popup. This is a convenient way to change the number of lines in a fixed-width microdocument.

In the next exercise you experiment by changing the format and location of the *micro:title* component.

To resize and move the title:



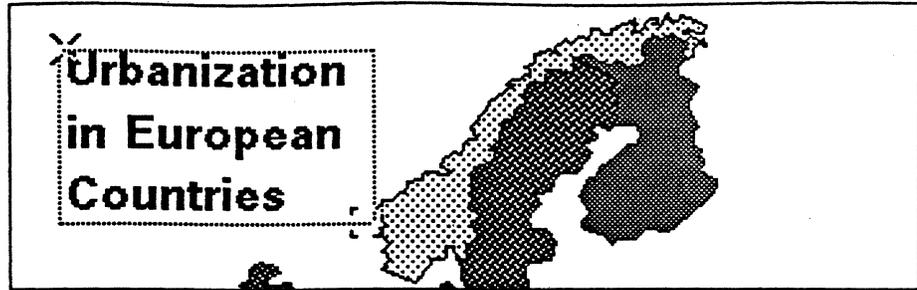
Select the microdocument by pointing to the lower-right corner of the text and clicking the select button.

The microdocument blinks to show that it is selected.

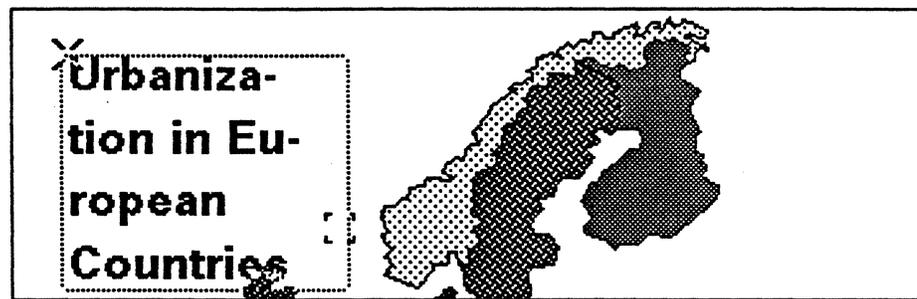


Execute **Size**→ **Horizontal**.

The control point appears at the corner of the bounding box nearest the cursor location. The anchor point appears at the opposite corner.



- ☰☰☰ Move the mouse to the left.
As the microdocument gets narrower, it grows vertically.



- ☰☰☰ Move the mouse to the right until the microdocument becomes a single line.



- ☰☰ Without deselecting the microdocument, execute Move→ All.
The anchor point disappears.

- ☰☰☰ Move the microdocument to the bottom of the frame.



- ☰☰ Execute Deselect.



Undoing Changes to a Microdocument

The **Undo** command works on microdocuments the same way it works on other diagramming objects. Executing **Undo** reverses all changes made to the most recently modified object.

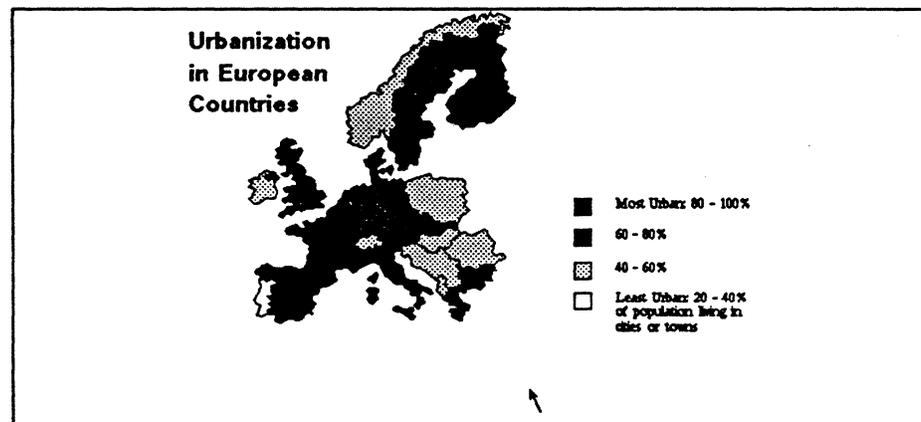
In the last exercise in this lesson you reverse the changes you made to the title in the previous exercise.

To undo changes to the microdocument:



Execute **Undo**.

The title returns to the upper-left corner of the illustration.



The **Undo** command reverses the effects of both the **Size**→ **Horizontal** and **Move**→ **All** commands.

This is the end of Lesson 16. You can save and close the document now, or you can leave the document and frame open and continue to Lesson 17.

Summary

- To create a fixed-width microdocument, execute **Create**→ **Misc**→ **Microdoc**→ and the name of a component master.



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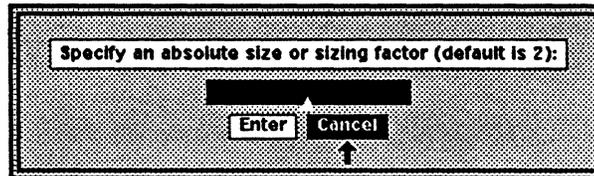
- When you first create a fixed-width microdocument, it is in **Size→ Horizontal** mode.
- When you add text to a fixed-width microdocument, the microdocument grows vertically, but not horizontally, to accommodate the text.
- The main document and any microdocuments in the main document share the same component master definitions.
- To change the width of a fixed-width microdocument, select it and execute **Size→ Horizontal**.
- If you reduce the width of a fixed-width microdocument, it grows vertically to accommodate the text.
- If you increase the width of a fixed-width microdocument, it shrinks vertically.

Further Exercise

This exercise provides more practice in sizing a microdocument. For this exercise, you must have the *Map* document and frame open on your desktop.

To change a microdocument to a specific width:

- Select the *title* microdocument you created in Lesson 16.
- Execute **Size→ Numeric→ Horizontal**.
The Size Numeric stickup appears



- Type: *13pi* (for picas) and press RETURN.

The *title* microdocument changes to the width you specified.

You can execute **Size→ Numeric** when you want to specify an exact width for a fixed-width microdocument. You can enter a size in any of a number of standard measurements, and the publishing software translates that measurement into inches.

For a complete list of symbols that the publishing software can translate to inches in stickups and property sheets, consult Appendix A, *Expressions for Numeric Values*, in the *Interleaf Basics* manual.

Lesson 17: Changing Microdocument Properties

In this lesson you learn how to

- create a microdocument by pasting text into a frame
- change the page properties of a microdocument
- change the font of text in a microdocument
- change the line width of a microdocument to create a box around the text.
- change the fill pattern of a microdocument to create a shaded or opaque background for the text

The approximate time to complete Lesson 17 is 20 minutes.

Pasting Text Into a Frame

You can create a microdocument by pasting components or text into an open frame. The text can come from the main document, another document, or another microdocument.

In the first exercise you create a microdocument by cutting and pasting text from the main document into the frame containing the map of Europe. After you have created the microdocument, you change some of its properties.

To create a microdocument by pasting text:

- Open the *Map* document if you closed it at the end of Lesson 16.
- Select the *paragraph* component below the illustration.
- ☐☐☐ Execute Cut.
The component disappears.
- ☐☐☐ Point to the frame that contains the map of Europe.
- ☐☐☐ Click the select button twice.
The frame opens.
- ☐☐☐ Point the diagramming cursor about one-half inch below Portugal on the map.

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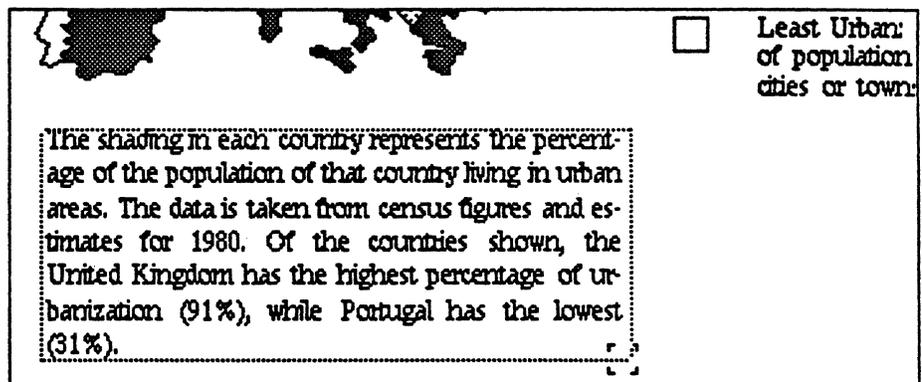
C

C

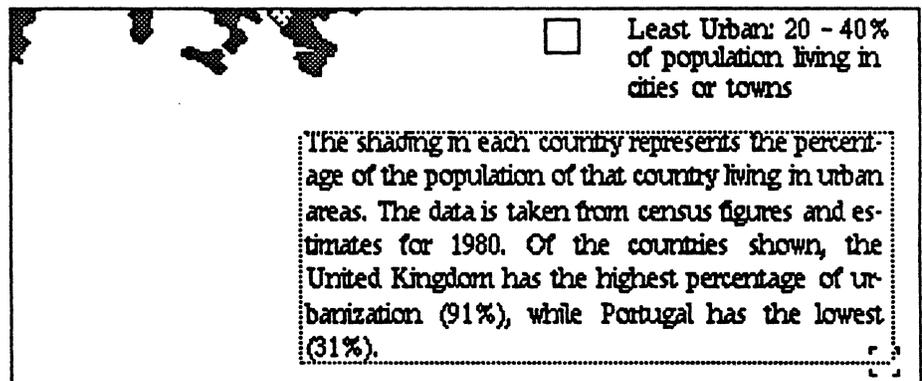


Execute Paste.

The text from the component appears in a microdocument, with the upper-left corner at the cursor location. The microdocument is in animation state.



Move the microdocument so that the right edge of its bounding box is approximately even with the right edges of the microdocuments in the legend.



Deselect the microdocument.

Two things happened when you pasted text from the main document into the open frame:

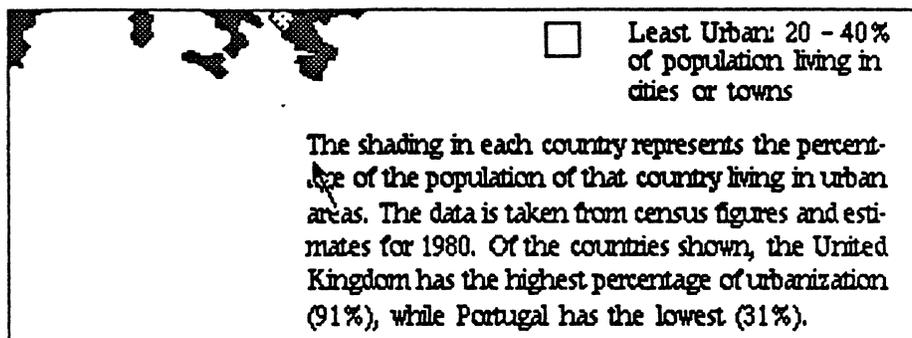
- The publishing software created a microdocument containing the pasted text. This microdocument was three inches wide and appeared in animation state.
- The component you copied was dual-column. The microdocument you created, which contained the same text, was single-column.

Pasting a component into an open frame creates a microdocument three inches wide, the default width.

Microdocument properties, such as size and number of columns, are controlled by the microdocument's Page property sheet which is separate from the main document's Page Property sheet.

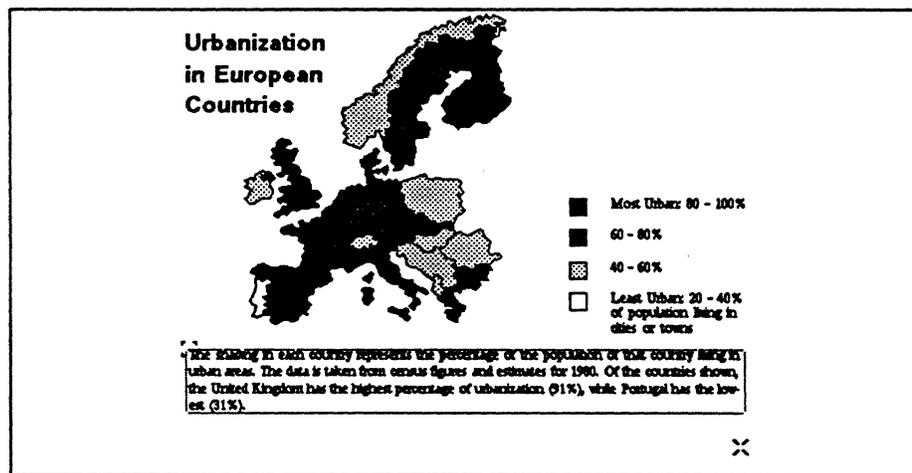
To size a microdocument:

- ☰☰☰ Point to the upper-left corner of the microdocument.



- ☐ Select the microdocument and execute **Size→ Horizontal**.
The microdocument appears in animation state with the control point in the upper-left corner and an anchor point in the lower-right corner.

- ☰☰☰ Move the mouse to the left so that the left edge of the microdocument is close to the left edge of the map.



- ☐ Deselect the microdocument.

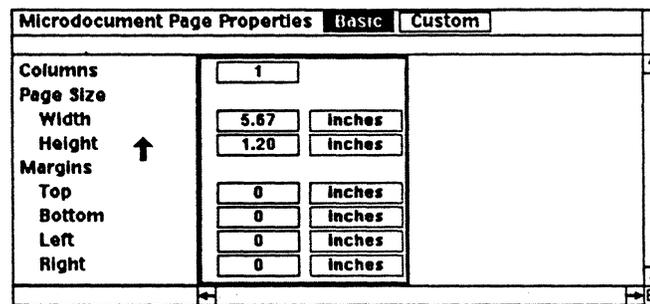
Changing Microdocument Page Properties

Microdocuments have page properties that are similar, but not identical to, the page properties of the main document. The most important difference

is that document page properties define the relationship of text to a specific page size, and microdocument page properties define the relationship of text to the microdocument's bounding box.

To see page properties for a microdocument:

- Select the microdocument you created in the previous exercise.
-  Execute **Props**→ **Edit**.
The text caret appears at the cursor location.
-  Point to the **Page** box in the document header.
-  Execute **Props**.
The Microdocument Page property sheet appears.



Microdocument Page Properties		Basic	Custom
Columns	1		
Page Size			
Width	5.67	inches	
Height	1.20	inches	
Margins			
Top	0	inches	
Bottom	0	inches	
Left	0	inches	
Right	0	inches	

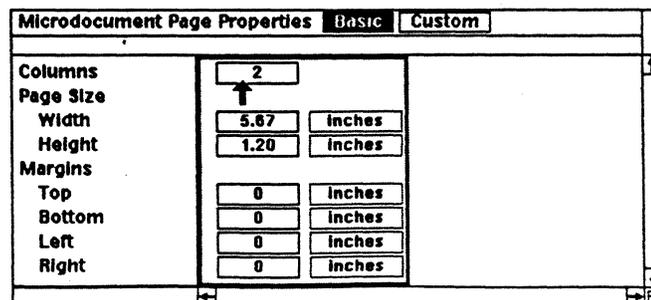
There are two property sheets for microdocuments:

- The **Basic** sheet includes settings for number of columns, page size (size of the microdocument), and margins.
- The **Custom** sheet includes settings for hyphenation, revision bar placement, gutter width, and vertical justification.

In the next exercise you make the text in the pasted microdocument appear in two columns, with a gutter width of .15 inch.

To create two-column text in a microdocument:

- Make sure that the **Basic** sheet is open.
- Change the *Columns* field to **2** and confirm.



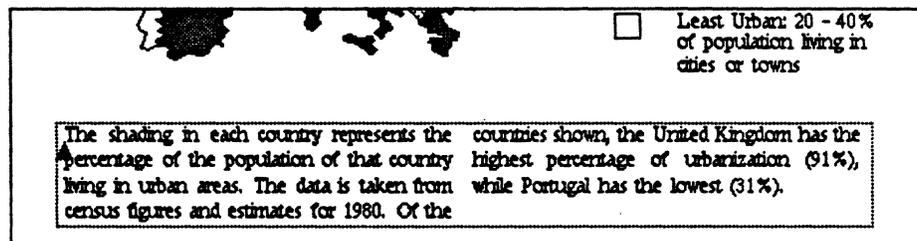
Microdocument Page Properties		Basic	Custom
Columns	2		
Page Size			
Width	5.67	inches	
Height	1.20	inches	
Margins			
Top	0	inches	
Bottom	0	inches	
Left	0	inches	
Right	0	inches	

- Open the **Custom** sheet.

- Change the *Gutter Width* field to .15 and confirm.
The gutter width defines the space (in inches, by default) between columns in multicolumn text.

The screenshot shows the 'Microdocument Page Properties' dialog box with the 'Custom' tab selected. The 'Gutter Width' field is set to '0.15' inches. Other settings include: Hyphenation (On/Off), # Consecutive (Any, 1, 2, 3, 4), Revision Bar Placement (Left, Right, Automatic), Vertical Justification (On/Off), Margin Stretch (200%), Margin Shrink (50%), Feathering, Maximum (On/Off, 8%), and Vertical Just. Pages (On/Off).

- ☐ Execute Apply and then execute Close.
The property sheet closes and the text of the microdocument appears in two columns.



- Close the microdocument.

Microdocument properties override those of the main document. To make changes to a microdocument's properties, you first open the microdocument and then access the microdocument's property sheet from Page pulldown in the document header.

Changing Microdocument Fonts and Diagramming Properties

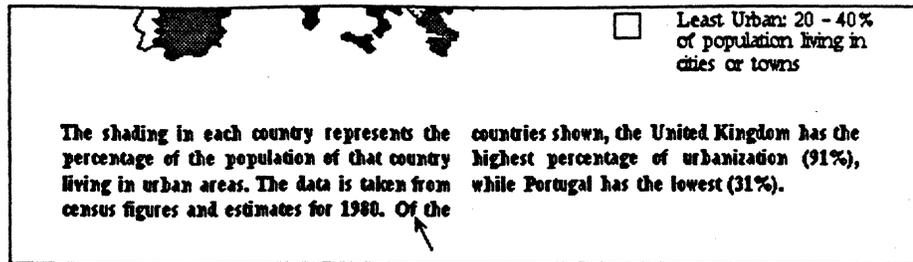
In addition to page properties, microdocuments have properties that affect the entire microdocument. These properties include font family and size, and properties that are common to diagramming objects, such as fill pattern, line width, and dashes pattern.

Changing the font affects the appearance of the text itself; changing the fill pattern, line width, or dashes pattern affects the appearance of the bounding box.

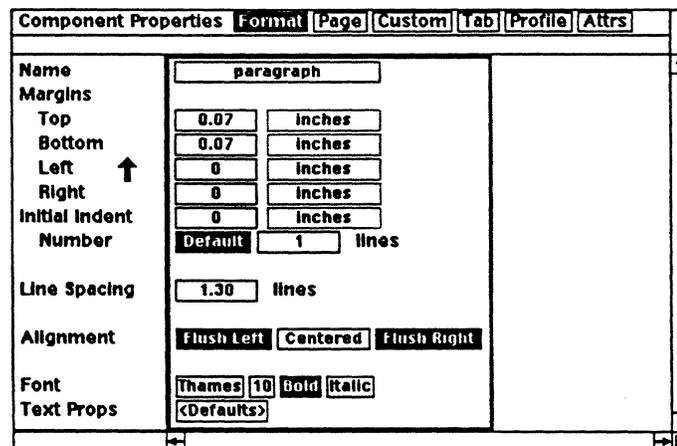
To change the font of a microdocument:

- Select the two-column microdocument.

- ☐☐☐ Execute Props→ Font→ Bold→ On.
The text of the microdocument changes to bold.



- ☐☐☐ Execute Props→ Edit.
The microdocument opens and the microdocument's paragraph component name appears in the component bar.
- ☐ Select the *paragraph* component and execute Props.
The Format sheet opens.



- ☐ Examine the Format sheet. Notice that the **Bold** property is selected.
- ☐ Close the property sheet and the microdocument.

By changing the font of the microdocument, you change the font of all the components in it, but not their masters. For this reason, the font of the *paragraph* components in the main document is still Roman.

In the next exercises you change one of the diagramming properties of the same microdocument.

To create a box around the microdocument:

- ☐ Select the microdocument.
- ☐☐☐ Execute Props→ Edge→ Weight→ and choose the thinnest solid line.
The microdocument appears with a box around it.

The shading in each country represents the percentage of the population of that country living in urban areas. The data is taken from census figures and estimates for 1980. Of the countries shown, the United Kingdom has the highest percentage of urbanization (91%), while Portugal has the lowest (31%).

A microdocument bounding box has a default edge weight of **None**. Unless you change the edge property, the unselected bounding box is not visible and does not print. By changing the edge property, you can make the bounding box appear on the screen and in the printed document.

To create a shaded background for the microdocument:

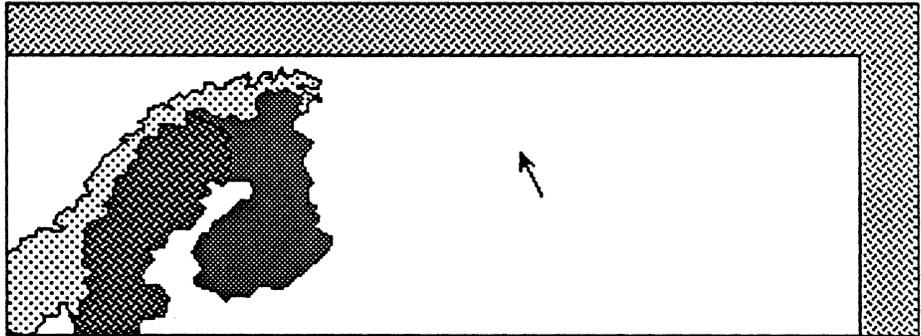
- Select the microdocument.
- Execute **Props**→ **Fill**→ **Color**→ and choose a light gray pattern.
The microdocument appears with a gray background.

The shading in each country represents the percentage of the population of that country living in urban areas. The data is taken from census figures and estimates for 1980. Of the countries shown, the United Kingdom has the highest percentage of urbanization (91%), while Portugal has the lowest (31%).

In the next exercise you call attention to the countries in the illustration that have the highest and lowest percentages of urbanization by creating a microdocument with an opaque background.

To create an opaque background for the microdocument:

- Point to the upper-right corner of the frame.

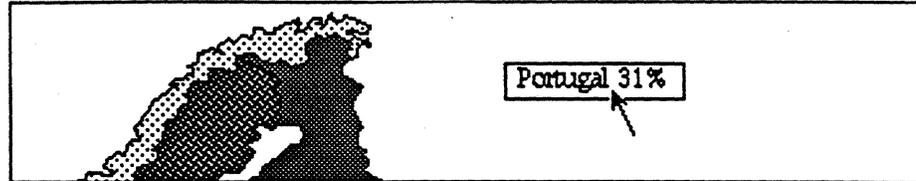


- Type: Portugal 31%**
The text appears in bold type because that was the last font you used in a microdocument.
- Close and select the microdocument.
- Execute **Props**→ **Font**→ **Bold**→ **Toggle**.
The font changes to Roman.
- Select the microdocument again.

Execute **Props**→ **Edge**→ **Weight**→ and choose the thinnest solid line.
A box appears around the microdocument.

Select the microdocument a third time.

Execute **Props**→ **Fill**→ **Color**→ and choose white.
There is no visible change.



Select the microdocument again.

Execute **Move**→ **All**.
The microdocument changes to animation state.

Move the microdocument so that it partially covers Portugal on the map and click the select button.
The microdocument is deselected.

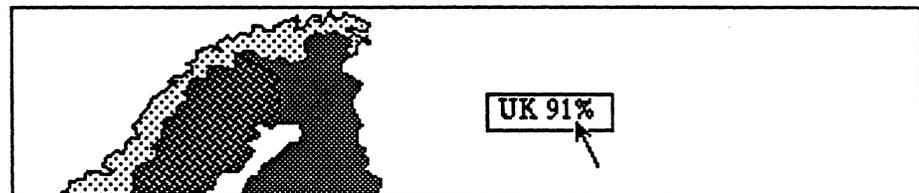


Again, point to the upper-right corner of the frame.

Type: **UK 91%**

Close and select the microdocument.

Execute **Props**→ **Edge**→ **Weight**→ and choose the thinnest solid line.
The bounding box appears as a solid line.

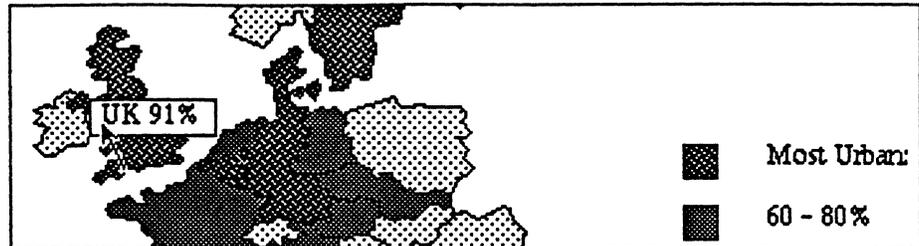


Select the microdocument again.

Execute **Props**→ **Fill**→ **Color**→ and choose white.
The microdocument fills with white.

Select the microdocument again.

- ☐☐☐ Execute Move→ All.
The microdocument changes to animation state.
- ☐☐☐ Move the microdocument so that it partially covers the United Kingdom.
- ☐☐☐ Click the select button.
The microdocument is deselected.



- ☐☐☐ Execute Close and then execute Deselect.
Your screen should now resemble Figure 6.

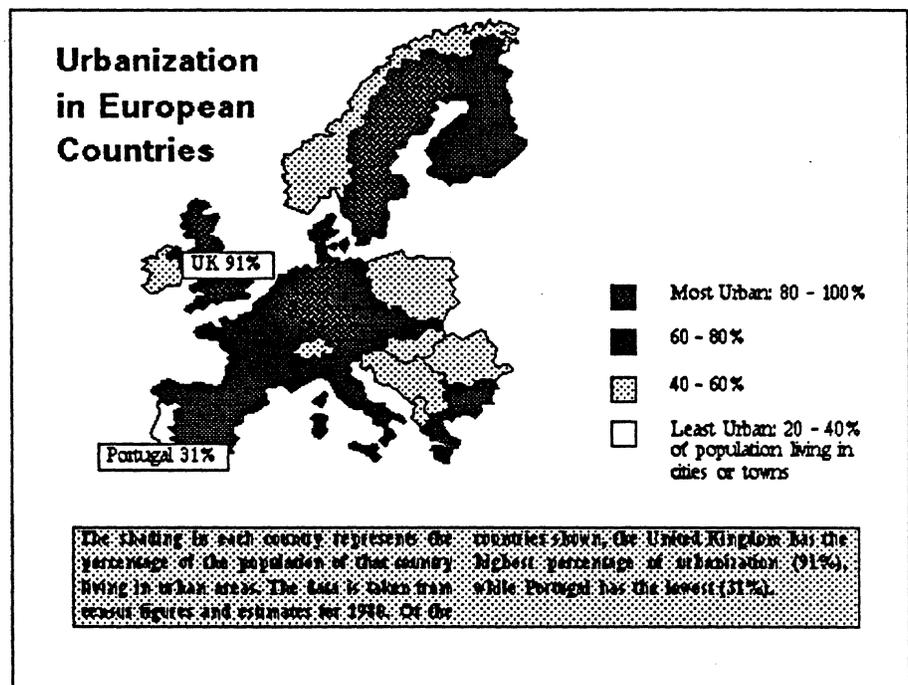


Figure 6. Completed map

- ☐☐☐ ☐☐☐ Point to the Name box in the document header and execute Save→ Fast.
This is the end of Lesson 17. You can close the *Map* document now or you can leave it open and continue to Lesson 18.

Summary

- When you paste text into a frame, you create a microdocument containing that text. The microdocument preserves the component information of the original text.
- The properties on Microdocument Page property sheet are similar to the page properties of a main document. A microdocument's page properties control the relationship of text to the microdocument's bounding box.
- To see the Page property sheet for a microdocument, open the microdocument, and then execute **Props** from the Page pulldown menu in the document header.
- Microdocuments have diagramming properties such as fill pattern and line width. These properties affect the appearance of the bounding box.
- To change the font of text in a microdocument, select the microdocument and execute a command on the Props Font submenu.
- To create boxed text, change the default line width of a microdocument.
- To create a shaded or opaque background for text in a microdocument, change the microdocument's default fill pattern.

Further Exercise

This exercise provides more practice with microdocument properties. To complete this exercise, you must have the *Map* document open on your desktop.

To place diagramming objects in front of text:

- Open the frame that contains the map.
- Select the microdocument in the upper-left corner (the microdocument that contains the title).
- Execute **Props**→ **Edge**→ **Weight**→ and choose the thinnest line.
The bounding box changes to a solid line.
- Select the microdocument again.
- Execute **Move**→ **Horizontal**.
- Move the microdocument so that the lower-right corner overlaps Norway on the map.



Execute Misc→ Back.

The microdocument is now behind the outline of the country.



- Close the document without saving.

Like all other diagramming objects, microdocuments can be in front of or in back of other objects. You can use this feature to place microdocuments in back of diagramming objects for special effects.

Lesson 18: Text Strings in Headers and Footers

A text string is a text object that you can create in a frame. The features of a text string are different from those of a microdocument. Text strings are useful in special types of frames, such as document header and footer frames.

Lesson 18 describes how to

- create a text string
- select and edit a text string
- change the alignment of a text string
- change the font or size of a text string
- move a text string within a frame
- add the page number and document name to header and footer frames

There are two text string features that allow you to rotate text strings and convert them to outline fonts. These features are part of the Advanced Graphics and Document Management packages. If you have either of these packages, you can find out more about these features in Chapter 30, *Text as a Diagramming Object*, in the *Diagramming* manual.

The approximate time to complete Lesson 18 is 20 minutes.

Header and Footer Frames

In this lesson you add text to the header and footer frames of your *Map* document. To understand how these changes affect the document, you need to know more about how header and footer frames work.

Header and footer frames have two properties not associated with other frames you create in the publishing software:

- Each page in every document has a header frame and a footer frame. You can change the size and shape of a header or footer frame by changing the page margins on the Page property sheet, but you cannot remove these frames from a document.
- Header and footer frames on different pages share the same text and illustrations. What you enter in one header or footer appears in all headers or footers.

For double-sided page layouts, you can alternate header and footer frames by changing the *Page Layout* property on the Page property sheet. If you choose one of the double-sided layouts (**Odd Page Right** or **Odd Pages Left**), what you enter in the header and footer frames on right-hand pages alternates with what you enter on left-hand pages.

During this lesson, you add text strings to the header and footer frames of the *Map* document. This text then appears in the header and footer frames on all pages in the document, even pages you create at a later date.

Using Text Strings

A **text string** is a single line of text that you can create at specific locations in a frame. Text strings must be attached to **text anchors**, which are position markers that determine the locations and alignments of text strings. Some of the other ways in which text strings differ from microdocuments are:

- Text strings must be attached to text anchors.
- Text strings consist of only one line of text.
- Text strings do not have bounding boxes, so they cannot contain fill patterns or have line widths.
- You can cut and paste entire text strings, but not parts of text strings.
- Text strings can contain **tokens** for the current page number or the name of the document.

Although you can use text strings in any frame, their ability to contain page number and document name tokens makes them very useful in headers and footers.

When you first create and open a document, there are text anchors in both the header and footer frames. In the next exercises you open a header frame and begin creating text strings at these preset locations.

To open the header frame of your document:

- Open the *Map* document if you closed it at the end of Lesson 17.
- ☞ Point to the area of the page just above the title.
- ☞ Click the select button.

A gray box appears to indicate the dimensions of the open header frame.

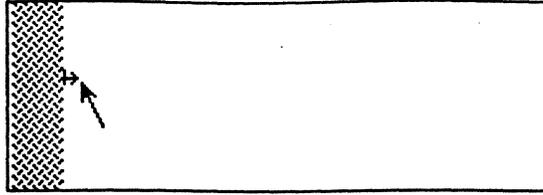
There are three text anchors in the header frame:

- ➔ The right arrow is an anchor for flush-left text.
- ↔ The double arrow is an anchor for centered text.
- ← The left arrow is an anchor for flush-right text.

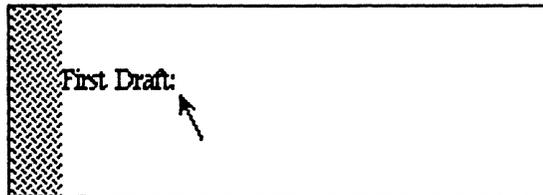
By default, all documents contain these three text anchors in their header and footer frames. You can create additional text anchors anywhere you want to add text strings in a frame.

To create a text string using an existing text anchor:

- ☞ Point to the text anchor at the left of the header frame.



- ☐☐☐ Click the select button.
The text anchor blinks to show that it is selected
- ☐ Type: *First Draft:* (include the colon and a space).
If you make a mistake while typing, use the DELETE key to remove the error, then retype.



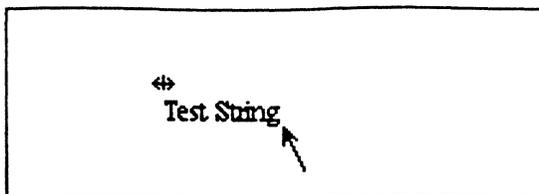
As you type, the text string covers the text anchor and the diagramming cursor points to where the next character will appear. The message: *entering flush left text* appears in the status line to tell you that you are entering a text string at a right-arrow text anchor. The type of anchor you select determines whether the text string has flush-right, flush-left, or centered alignment.

To deselect a text string:

- ☐☐☐ Move the diagramming cursor away from the text string, but do not point to any other text anchor.
The text string blinks to show it is still selected, but the message in the status line is replaced by the standard message you see when you are working in a frame.
- ☐☐☐ Click the select button.
The text string stops blinking.

To create a text string and text anchor simultaneously:

- ☐☐☐ Point the diagramming cursor to a spot about one-quarter inch below the center text anchor in the header frame.
- ☐ Hold down CTRL and type o.
The message: entering flush left text appears in the status line.
- ☐ Type: *Test String* (do not move the mouse).
A text string appears at the cursor location. The string blinks to show that it is selected.



You can create a flush-left text string anywhere in an open frame by using the keyboard command **CTRL-o**.

Aligning Text Strings

When you create a text string using **CTRL-o**, the default alignment is flush left. You can change the default alignment by using the following keyboard commands:

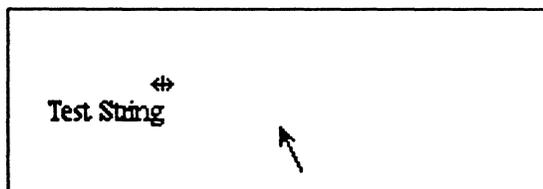
- **CTRL-l** changes the alignment to flush left.
- **CTRL-c** changes the alignment to centered.
- **CTRL-r** changes the alignment to flush right.

If you moved the mouse after typing the text string in the previous exercise, the next exercise will not work as described. In this case, delete the text string and repeat the previous exercise.

To change the default alignment of text strings:

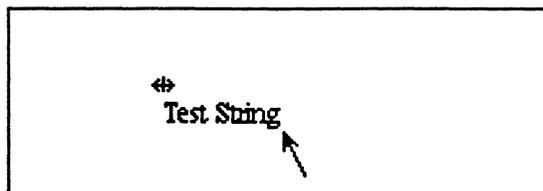
- ☐ Hold down **CTRL** and type **r**.

The text now has flush-right alignment. The message in the status line indicates that you are entering flush-right text.



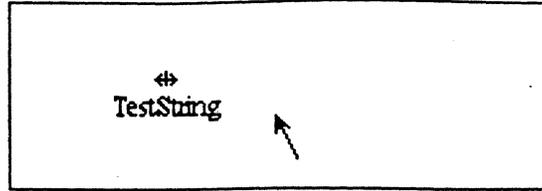
- ☐ Hold down **CTRL** and type **l**.

The text now has flush-left alignment. The status line message changes again.



- ☐ Hold down **CTRL** and type **c**.

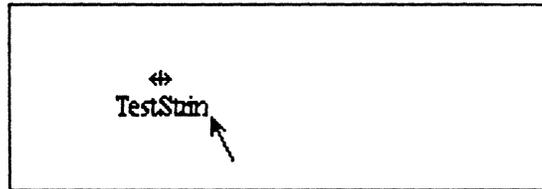
The text is centered.



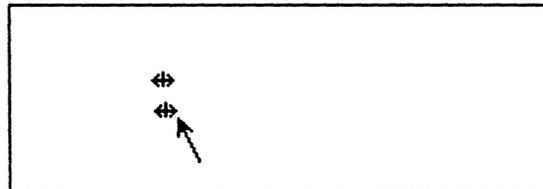
You can change the alignment of a selected text string by using the commands **CTRL-l**, **CTRL-c**, and **CTRL-r**. You can also use these commands to change the default alignment of text strings before you create them.

To delete a text string and its anchor:

- Make sure that *Test String* is still selected.
- Press **DELETE**.
The last letter in the text string disappears.



- Hold down **CTRL** and type **d**.
The text string disappears, but the text anchor remains and is still selected.



- Execute **Cut**.
The text anchor disappears.

You can use **DELETE** to remove the last letter of a text string or **CTRL-d** to delete an entire text string. If you do remove a text string with **DELETE** or **CTRL-d**, the text anchor remains. To remove a text anchor from a frame, select it and execute **Cut**.

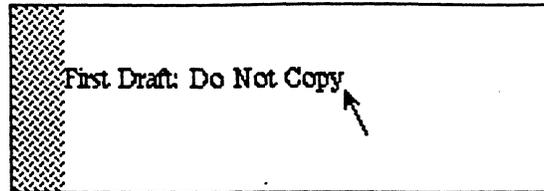
Editing a Text String

Because you do not have access to a text caret when you edit a text string, you cannot change a selected portion of the string. Because there are not any components, as there are in open microdocuments, you cannot make changes to the appearance of a text string through property sheets.

To edit a text string, you can delete characters one at a time as you did in the last exercise, or you can add text, as you do in the next exercise.

To add text to a text string:

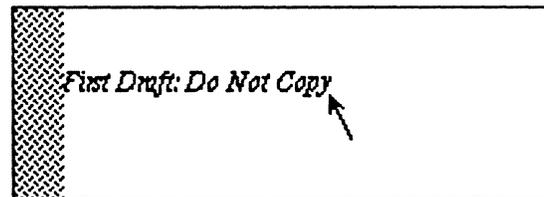
- Select the text string *First Draft:* at the far left of the header frame. *The text string blinks to show it is selected.*
- Type: *Do Not Copy*



In the next exercise you change the font of the text string you just edited.

To change the font of a text string:

- Select the text string at the far left of the header frame if you deselected it at the end of the last exercise.
- Execute **Props**→ **Font**→ **Italic**→ **On**. *The font changes to italic.*



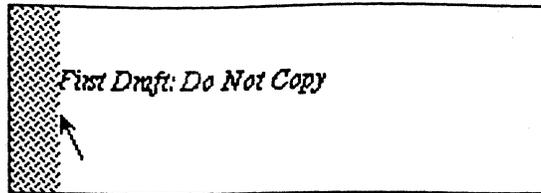
You can use commands on the Props Font submenu to change other text string properties such as the font family and size.

Adding Additional Lines to a Text String

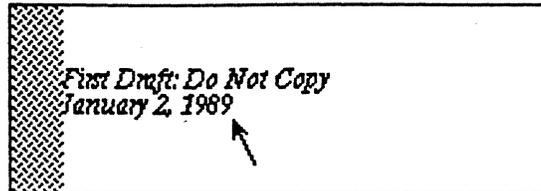
You can use two commands, **CTRL-n** (or **LINEFEED**) and **CTRL-p**, to simulate a next or previous line in a text string. These commands create a new text string that is aligned with a selected text string and is exactly one line above or below it.

To simulate additional lines in a text string:

- Select the text string at the far left of the frame if you deselected it at the end of the last exercise.
- Hold down **CTRL** and press **n**. *The diagramming cursor jumps to the next line (the distance to the next line is determined by the font size of the original text string).*



- Type: *January 2, 1989*
The text appears as part of a new text string, aligned with the first and exactly one line below it.



The CTRL-p command adds a text string exactly one line *above* the first string.

Tokens in Text Strings

There are keyboard commands you can use to add page numbers and document names to header and footer frames. These commands insert **tokens** into text strings. The publishing software expands these tokens into a page number or document name, depending on the particular command you use.

A page-number token is expanded to the value of the current page. If the token appears on page one, it is expanded to *1*; if it appears on page two, it is expanded to *2*, and so on.

A document name token expands to the name you have given the document icon on its Object property sheet.

Page Number Tokens

The keyboard command for adding a page number token to a text string is ESC # (press ESC, then hold down SHIFT and press the $\frac{\#}{3}$ key).

By default, documents contain a page number token at the center anchor of the footer frame. This is why you see the page number *-1-* at the bottom of a newly created and opened document.

In the next exercise you change the location of the page-number token in the *Map* document.

To change the location of the page number in a document footer:

- If the bottom of the *Map* document's page is not visible, scroll the document so that it is visible.

☞☞☞ Point to the area between the bottom of the text and the end of the page.

☐☐☐ Click the select button.

The footer frame opens.

☞☞☞ Point to the page number.

☐☐☐ Click the select button.

The page number blinks to show that the text string is selected.

☐☐☐ Execute **Cut**.

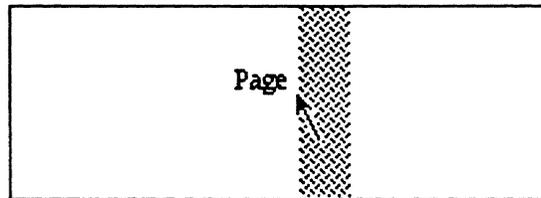
The text string and its anchor disappear.

☞☞☞ Point to the right text anchor.

☐☐☐ Click the select button.

The anchor blinks to show it is selected.

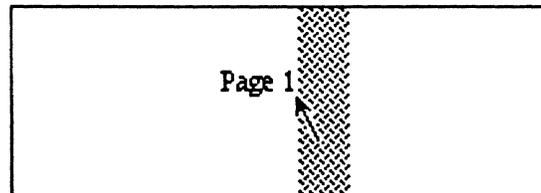
☐☐☐ Type: *Page* (include a space after the word).



☐☐☐ Press **ESC**.

☐☐☐ Hold down **SHIFT** and press **Ⓜ**.

The number 1 appears after Page.



☐☐☐ Execute **Deselect**.

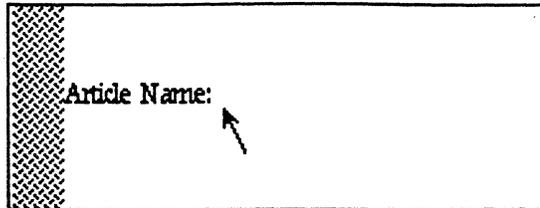
You can change the appearance of the expanded token in the same way you change the rest of the text string. For example, if you change the font of the text string, the font of the expanded token changes with it.

Adding Document Name Tokens

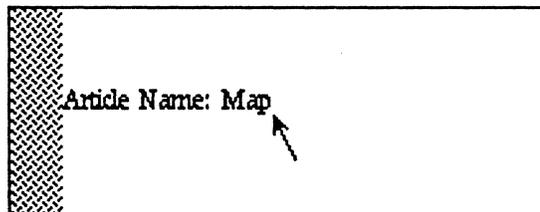
The keyboard command for adding a document name token to a text string is **ESC @** (press **ESC**, then hold down **SHIFT** and press the **Ⓜ** key).

To add the document name to the document footer:

- ☰☰☰ Point to the left text anchor.
- ☑☑☑ Click the select button.
- ☑☑☑ Type: *Article name:* (include a space after the colon).



- ☑☑☑ Press ESC.
- ☑☑☑ Hold down SHIFT and press  .
The word Map appears at the end of the text string.



- ☰☰☰ Execute Deselect.

When you use the keyboard command ESC @, the publishing software adds a document name token to the text string. Since the name of the document is *Map*, the token expands to that name.

You have now completed Chapter 6. Save and close the *Map* document.

Summary

- A text string is a single line of text attached to a text anchor.
- A text anchor is a position marker in a frame that determines the location and alignment of a text string.
- To create a text string at an existing text anchor, select the text anchor and start typing.
- To create a text string and a text anchor simultaneously, use the keyboard command CTRL-o, and then start typing.
- To change the alignment of a text string, use the keyboard commands CTRL-l, CTRL-c, or CTRL-r.
- If you use the keyboard command CTRL-o in an open frame, and then start typing, the result is a text string. If you start typing without first using the CTRL-o command, the result is a microdocument.

- To add text to a text string, select the text string and start typing. The text is added to the end of the text string.
- To delete characters from a text string, select the text string and press DELETE. To delete the whole text string and leave the text anchor, type CTRL-d.
- To remove a text anchor from a frame, select the anchor and execute Cut.
- A **page number token** in a header or footer frame always displays the correct page number.
- To enter a page number token in a text string or at a text anchor, select the string or text anchor and type ESC # (ESC SHIFT-3).
- A **document name token** displays the name of the document that contains the token.
- To enter a document name token in a text string or at a text anchor, select the string or anchor and type ESC @ (ESC SHIFT-2).

Further Exercises

These exercises provide practice in using text strings as diagramming objects and in customizing page number tokens. To complete these exercises you must have the *Map* document open on your desktop.

To duplicate and move a text string:

- Open the footer frame.
- ☞☞☞ Point to the text string *Article Name: Map*.
- ☐☐☐ Click the select button.
The text string blinks to show that it is selected.
- ☐☐☐ Execute Dup→ Move.
A duplicate of the text string overlays the first. The duplicate is in animation state.
- ☞☞☞ Move the duplicate text string anywhere in the footer frame.
- ☐☐☐ Without deselecting the text string, execute Misc→ Align to Frame→ Center.
The text string is placed in the exact center of the frame.
- ☐☐☐ Execute Cut.
The text string disappears.

To customize page number tokens:

- Make sure that no frames are open in the *Map* document.
- ☞☞☞ Point to the Page box in the document header.

- ☐☐ Execute Props.
The Page property sheet appears.

- ☐ Make the following changes to the property sheet:

Starting Page # **5**
Page # Style **Lowercase Roman**

Starting Page #	Inherit	5
Page # Prefix		
Page # Style	Lowercase Roman	

- ☐☐ Execute Apply and then execute Close.
The Page property sheet closes.

- ☐ Scroll to the bottom of the page if necessary.
The new page number style appears at the right margin of the footer frame.

Page: v

- ☐ Close the *Map* document without saving it.

For More Information

If you are interested in learning more about the topics covered in these lessons, see the following chapters in the *Reference* set:

- Chapter 20, *Header and Footer Frames*, in the *Text Processing and Page Makeup* manual provides more information on the use of page number and document name tokens.
- Chapter 30, *Text as a Diagramming Object*, in the *Diagramming* manual describes both microdocuments and text strings in more detail.

7 *Document Assembly: Using and Modifying Templates*

One of the most common electronic publishing tasks is assembling documents from various pieces: text produced by one or more writers, and illustrations, both those drawn using graphics packages and those scanned from various sources. Once this material is assembled, a person working with the publishing software typically must make various changes to the document, such as moving illustrations and adding finishing touches.

There are three lessons in this chapter:

- Lesson 19, *Assembling Text*, explains how to import text from various sources into a single document and then unify the style of that text. This lesson also includes practice in changing the document format.
- Lesson 20, *Placing Illustrations*, describes how to anchor illustrations in text.
- Lesson 21, *Completing a Document Layout*, contains methods for adding finishing touches to the document, such as creating a heading for the first page and display initials for each section, and justifying the text. Finally, it describes how to save the new masters you have created in a document, called a template, that can be used to reproduce the same format in other documents.

The document you assemble in Chapter 7 is a traveler's guidebook for the Boston area. All the pieces are provided; you must put them together. Figure 1 shows the first page of the completed Boston guidebook.

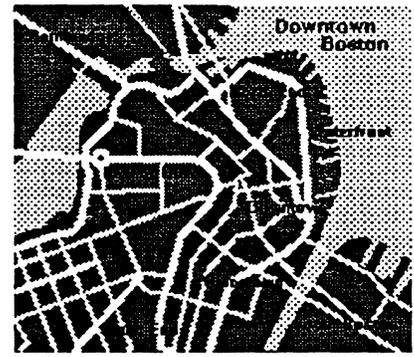
WW Guide to Boston

The WorldWide Traveler Series

heading

paraD

BOSTON is the capital of the Commonwealth of Massachusetts. The largest city in New England, Boston is the focus of a metropolitan area of ninety-two cities and towns, and more than three million people. Just across Boston Harbor is Logan Airport, only two miles and a few minutes' ride from downtown. The many scenic and historic attractions of New England are easily accessible by automobile, bus, train, or airplane.



Suggested Clothing. Medium-weight clothing is suitable for most of the year, although lightweight garments are recommended for summer, and a warm overcoat is necessary in winter.

Driver's License. Licenses issued by other states or international licenses issued by drivers' home countries are valid in Massachusetts.

Public Transportation (MBTA). Boston's rapid transit system connects all sections of the city—including downtown, the Back Bay, and the waterfront—with nearby communities, such as Harvard Square in Cambridge and the North and South Shores.

Airport Water Shuttle. The shuttle departs every half hour for Logan Airport from Rowe's Wharf.

Trains. Amtrak services Boston from South Station on Atlantic Avenue.

Boston Demographics

Land Area	46 square miles
Population	570,719
Median Age	28.8 years
Median Income	\$34,000 per year
Average Household	2.7 persons

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BOSTON FACTS

Air-Travel Time Between Boston and Major Foreign Cities

	Air Miles	Flight Time
London	3267	6 hrs., 10 min.
Paris	3437	6 hrs., 45 min.
Berlin	3793	8 hrs., 50 min.
Tokyo	6928	17 hrs., 25 min.
Rome	4125	9 hrs., 15 min.
Hong Kong	7966	20 hrs., 7 min.
Sydney	10,101	21 hrs., 28 min.
Montreal	254	59 min.

Automobile Rentals. Rental Agencies maintain offices at convenient locations throughout the city as well as at Logan Airport. Drivers must be at least twenty-one years of age.

VISITING BOSTON

THERE is no shortage of things to see and enjoy during a stay in Boston. One of the most popular attractions for visitors is the Freedom Trail. This three-hour walking tour is designed to allow the visitor to see sixteen different historic sites, with emphasis on Colonial and Revolutionary events.

Sites that every visitor should see are:

Old State House

The Old State House, Boston's oldest public building, was built in 1713 on the site of Boston's first market and merchant exchange. Inside is a museum devoted to the city's history and seafaring past. The Boston Massacre took place just east of the Old State House.

U.S. Custom House

Ammi B. Young designed this Greek Revival building, which was constructed between 1837-1847. It was a significant structure on Boston's nineteenth-century waterfront. The tower, designed in 1913-1914, was for many years the city's only skyscraper.

Figure 1. The final, assembled document (first page)

Lesson 19: Assembling Text

A **template** is a document containing a set of masters—for components, frames, autonumber streams, and tables—that you can use to produce specific document formats. When templates are stored in accessible locations, you and others in your work group can use them to create documents with a consistent style and appearance.

Lesson 19 teaches you how to

- paste text from existing documents into a template
- unify component properties in a template
- add component masters to a template
- change a document from a single-column to a two-column format
- display component names in a multicolumn document

The approximate time to complete Lesson 17 is 30 minutes.

Using Templates

You can use publishing software templates to insure a uniform document style, allowing writers to concentrate on text rather than formatting issues. For a complex project, a template's masters and page properties might be set by a graphic designer who then makes the template available to writers.

There are several text and graphics templates supplied with the publishing software. You can create one of these templates on the desktop by executing **Create→ Templates→** and the appropriate submenu choice. These supplied templates contain masters for basic document formats, such as letters, memos, outlines, and reports. You can begin with these formats and modify them to suit your needs. Once you have a suitable format, you can save it in a custom template. If you place the template in the *Templates* drawer of the *Create* cabinet, you will be able to use the *Create Templates* submenu to create it on demand.

In Lesson 19 you are supplied with a partially completed template, containing masters of some of the components you will be using in the document. In later lessons you add illustrations, create frame masters and save these modifications separate from the completed document by creating a new template.

Pasting Text into a Template

To illustrate how templates unify the style of materials created in different formats, you will make a copy of a template and paste into it text prepared by different writers.

In the next two exercises you will copy the template and the materials to be assembled onto your desktop, and then begin to paste the materials into the template.

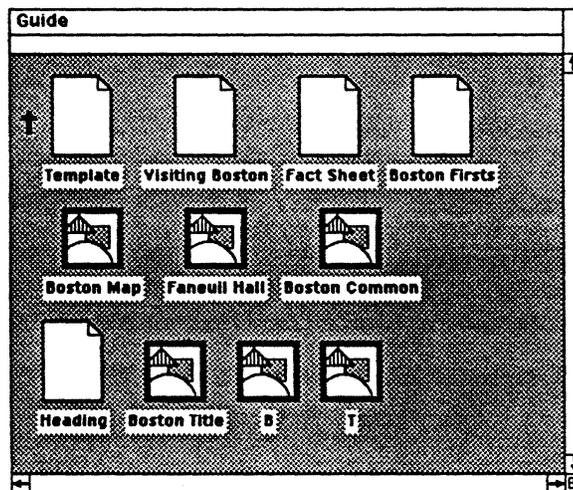
To copy the sample materials onto the desktop:

- Open the *System* cabinet, the *Library* cabinet, the *Documentation* drawer, and the *Tutorial* folder.

The Tutorial folder contains a folder named Chapter 7. The Chapter 7 folder contains all the documents and illustrations that you will use to assemble the Boston guidebook.

- Select the *Chapter 7* folder and execute **Copy**→**Normal**.
- Paste the *Chapter 7* folder onto your desktop and rename it *Guide*.
- Select and open the *Guide* folder.

The folder contains five document icons and six diagram icons.



- Move the *Guide* window to the upper-right corner of the screen if it is not already there.

The document icons contain the template and the text, and the diagram icons represent the illustrations for the guidebook you are going to assemble. By moving the window to the upper-right corner of the screen, you ensure that the contents of the window will still be visible when you open documents.

Diagram icons (Figure 2) represent graphic objects, such as illustrations created in the diagramming system, graphic text, or scanned illustrations. You cannot open a diagram icon directly; instead you must copy or cut the icon and then paste its contents into an open document.

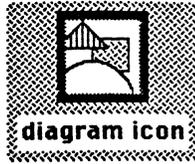


Figure 2. An Interleaf diagram icon

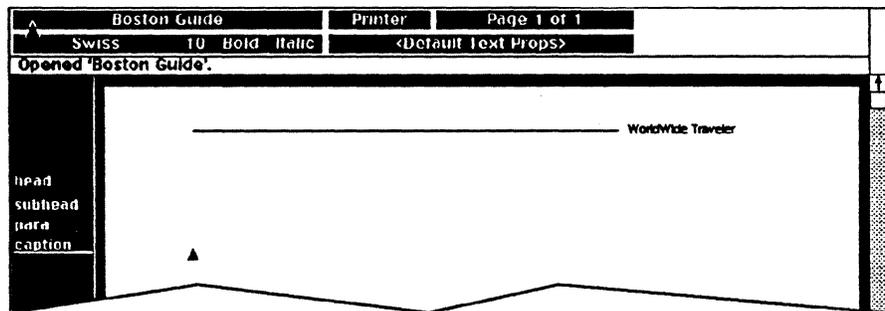
The next step is to rename and open the copy of the *Template* document. The predefined components in this document are the basis of the guide-book format.

To open a template:

- Change the name of the *Template* document to *Boston Guide*.



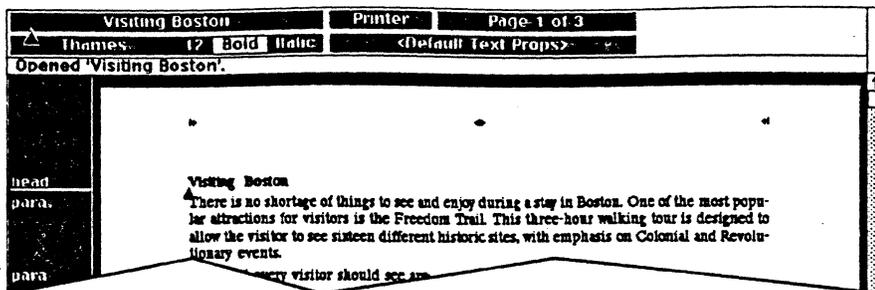
- Select the *Boston Guide* document and open it.
The document contains a header, a footer, and four components, named head, subhead, para, and caption.



The component names in the component bar of the open document represent the predefined component masters of the template.

To copy components from a document:

- Open the document in the *Guide* folder named *Visiting Boston*.
When the Visiting Boston document opens, the text caret is in the first head component. The Font box in the document header indicates that the font at the text caret location is 12-point Thames bold.

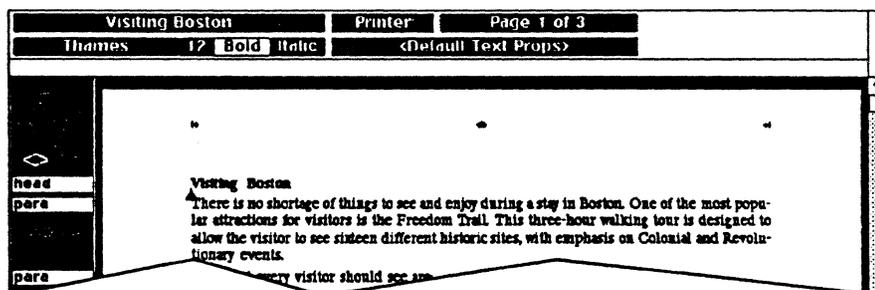


- Move the text caret to a *para* component, and then to a *subhead* component.

The Font box indicates that the para component contains 12-point Thames Roman text and the subhead component contains 12-point Thames bold text.

- With the cursor in the component bar, execute **Select→ All**.

All the components in the document are selected.



- Execute **Copy**.

When the copy process is complete, the components are automatically deselected.

- Close the *Visiting Boston* document.

The component names in the *Visiting Boston* document are identical to the names in the *Boston Guide* document.

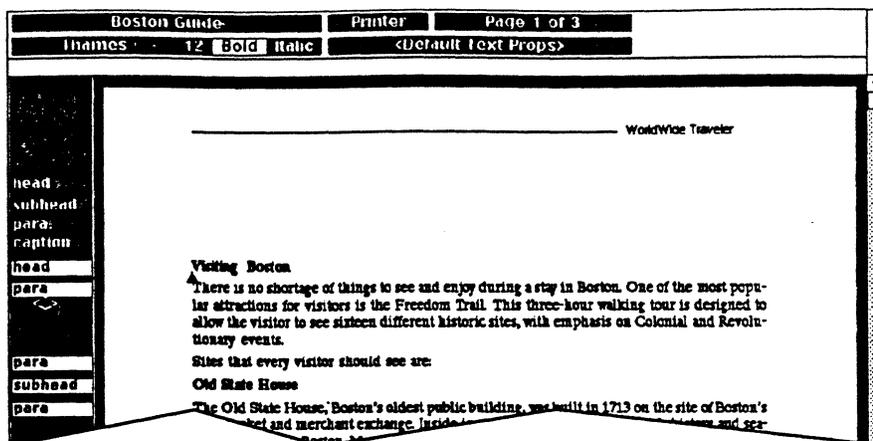
To paste text into a template:

- Move the cursor to the *Boston Guide* document.

The border of the document header turns white to indicate that the window is active.

- Point to the component bar and execute **Paste**.

*The text in the *Visiting Boston* document appears in the *Boston Guide* document.*



By executing Paste with the cursor in the component bar, you are preserving the component definitions contained in the *Visiting Boston* document. This is called **paste as components**.

If you had executed Paste when the cursor was in the template's text area, then all the text from the *Visiting Boston* document would have lost its previous component properties and appeared within the component containing the text caret. The properties of the combined text would have been those of that component. Pasting text in this way is called **paste as text**.

If you accidentally paste the text of the Visiting Boston document as text, immediately execute Cut, recopy the components in the Visiting Boston document and paste them as components.

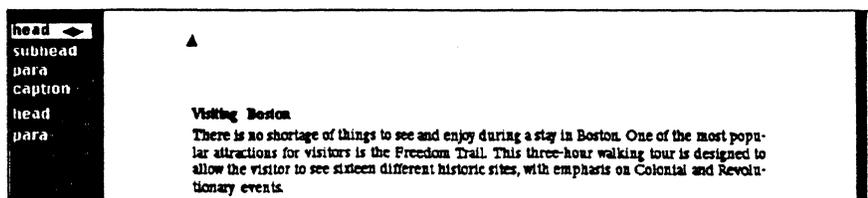
Unifying Component Properties

According to the document header, the text of the pasted *head* component is still 12-point Thames bold. All the components you pasted from the *Visiting Boston* document appear in the *Boston Guide* template as exceptions to the masters defined in the template.

Since the components containing the pasted text have different properties than do the masters in the template, the next step is to unify those properties so that the components are no longer exceptions.

To unify component properties:

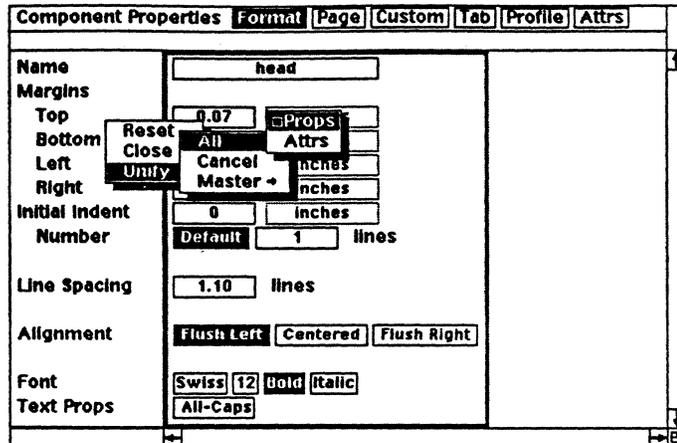
- Select the empty *head* component on page 1.



- Execute Props.

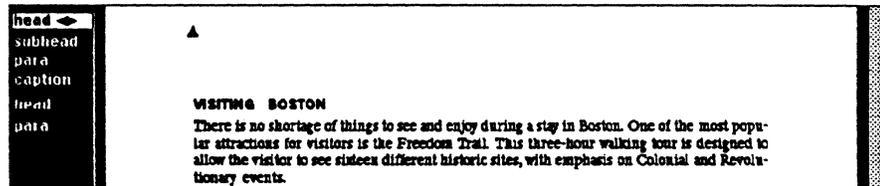
The Component property sheet for the head component opens. If the Format sheet is not displayed, point to Format in the property sheet header and click the select button.

- ☐ With the cursor in the property sheet, hold down the menu button and drag the cursor to Unify→ All→ Props.



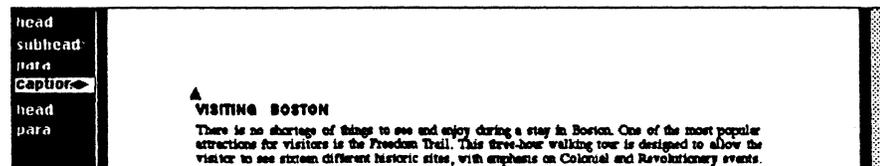
- ☐ Release the menu button.

The properties of the pasted head component change to 12-point Swiss All-Caps (the properties of the head master.)



- ☐ Close the Component property sheet.
- ☐ In turn, select the first *subhead*, *para*, and *caption* components in the template, open their property sheets, execute Unify→ All→ Props and deselect them.

The properties of all subhead and para components from the pasted text change to those of the masters for those components.



The Unify→ All→ Props command makes the properties of the master and all instances of that component in the document match the properties of the component whose property sheet is open. Even though there are no examples of the *caption* component for the publishing software to unify, you should open its property sheet and execute Unify→ All→ Props. It is good practice to unify all component masters after you have pasted text into a

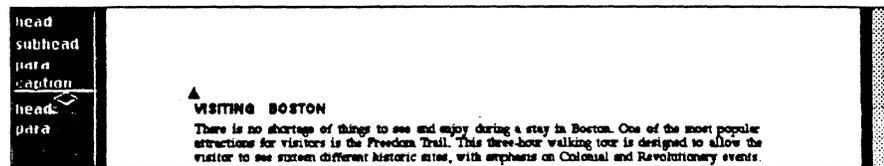
template. When you are working with large documents, you might not remember which of the template's component masters have instances in the pasted text and which do not.

If you have pasted components that have different names than the masters in the template, you can select them, and execute **Change**→ and the name of the master whose properties you want them to adopt.

Once you have unified component properties in a template, you no longer need the empty examples of the template masters in the component bar.

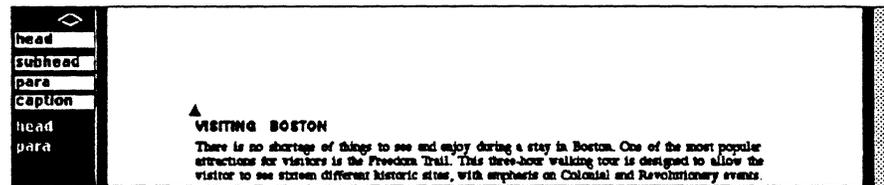
To cut empty components:

- Move the component caret so that it is just after the *caption* component.



- ☐ Hold down the extend button and drag the cursor up past the first *head* component.

All the empty components are selected.



- ☐ Execute **Cut**.

All the selected components are removed from the document.

Adding Component Masters to a Document

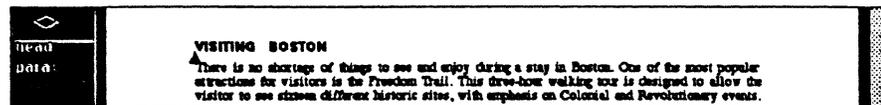
You can add a master to a document by copying an instance of that master from another document and pasting it into the template. In the next exercise you copy the contents of a document named *Fact Sheet* and paste it into the *Boston Guide* document. The *Fact Sheet* document contains three new component masters and two table masters. Because you want to paste the entire contents of the document, you can just select its icon in order to copy it.

To paste new masters into a document:

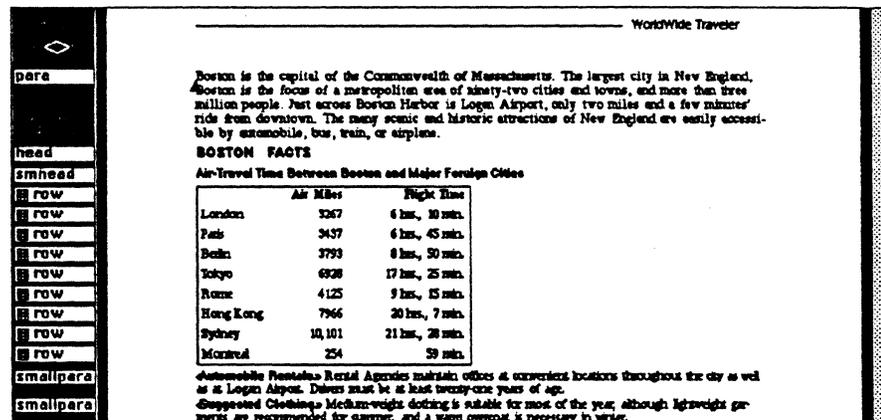
- Select the *Fact Sheet* document in the *Guide* folder.



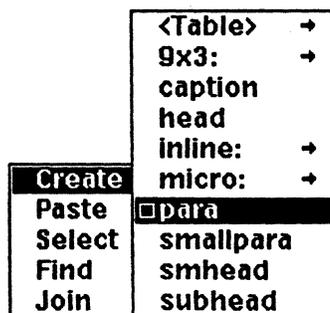
- ☐☐☐ Execute Copy→ Normal.
- ☐ Move the component caret so that it is just above the *head* component. *The text caret moves to the head component.*



- ☐☐☐ With the cursor in the component bar, execute Paste. *The contents of the Fact Sheet document appear at the beginning of the document.*



- ☐☐☐☐ Deselect the components, then hold down the menu button and drag the cursor to the Create submenu.



- ☐☐☐☐☐ Drag the cursor off the menu without executing a command, and release the menu button.

When you pasted the *Fact Sheet* document, you added several components to the *Boston Guide* template: the full components *smhead* and *smallpara*

Changing a Single-Column Document to a Two-Column Document

If you were working with a finished template you probably would not change page properties. In this example, however, the properties of the template are only partially set. As part of this lesson you will change certain properties of the document in order to modify the page design. This new design will become part of the new template, which will then be available for creating other versions of the traveler's guide.

In the next exercise, you make *Boston Guide* a two-column document.

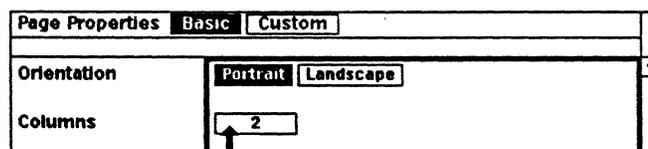
To change the number of columns:

- ☐ Point to the Page box in the document header.

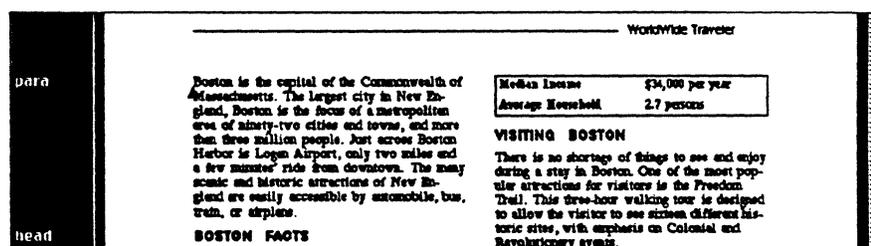


- ☐ Execute Props.
The Page property sheet opens.

- ☐ On the Basic sheet, change the number in the *Columns* field to 2 and confirm.



- ☐ Execute Apply and then execute Close.
The document now has a two-column format.



Moving the Text Caret in a Multicolumn Document

When you change the number of columns in a document from one to two, the publishing software causes text and graphics to flow from the top to the bottom of the page, first in the left column and then in the right column. Because components can appear side by side in a multicolumn document, the component bar displays only the component names from the column in which the text caret is located.

For example, since the text caret currently appears in the left column of the *Boston Guide* document, you see in the component bar only the names of components that begin in the left column (Figure 3).

WorldWide Traveler

Boston is the capital of the Commonwealth of Massachusetts. The largest city in New England, Boston is the focus of a metropolitan area of ninety-two cities and towns, and more than three million people. Just across Boston Harbor is Logan Airport, only two miles and a few minutes' ride from downtown. The many scenic and historic attractions of New England are easily accessible by automobile, bus, train, or airplane.

BOSTON FACTS

Air-Travel Time Between Boston and Major Foreign Cities

	Air Miles	Flight Time
London	3267	6 hrs., 10 min.
Paris	3437	6 hrs., 45 min.
Berlin	3793	8 hrs., 50 min.
Tokyo	6528	17 hrs., 25 min.
Rome	4125	9 hrs., 15 min.
Hong Kong	7966	20 hrs., 7 min.
Sydney	10,101	21 hrs., 28 min.
Moscow	254	59 min.

Automobile Rentals: Rental Agencies maintain offices at convenient locations throughout the city as well as at Logan Airport. Drivers must be at least twenty-one years of age.

Median Income	\$34,000 per year
Average Household	2.7 persons

VISITING BOSTON

There is no shortage of things to see and enjoy during a stay in Boston. One of the most popular attractions for visitors is the Freedom Trail. This three-hour walking tour is designed to allow the visitor to see sixteen different historic sites, with emphasis on Colonial and Revolutionary events.

Sites that every visitor should see are:

Old State House
The Old State House, Boston's oldest public building, was built in 1713 on the site of Boston's first market and merchant exchange. Inside is a museum devoted to the city's history and seafaring past. The Boston Massacre took place just east of the Old State House.

U.S. Custom House
Ammi B. Young designed this Greek Revival building, which was constructed between 1837-1847. It was a significant structure on Boston's nineteenth-century waterfront. The tower, designed in 1913-1914, was for many years the city's only skyscraper.

Quincy Market
In 1824, Quincy Market was Boston's first m-

Figure 3. Component bar in a two-column document

To see the names of components that begin in the right column, you must move the text caret.

To see the names of components located in the right column:



Point to any text in the right column and click the select button.

The text caret moves to the right column and different component names appear in the component bar.

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Quincy Market
In 1824, Quincy Market was Boston's first m-

When the text caret moves from the left column to the right column, the names of components that begin in the right column replace the names of the components that begin in the left column.

The *Boston Firsts* table is wider than the width of a single column in the document. When a table, a component, or a frame extends across more than one column, it is called a **straddle**. Text above a straddle wraps to the next column and does not flow to columns below the straddle (Figure 4).

Having the *Boston Firsts* table straddle the two-column document separates it visually from the body of the text.

subhead: para	<p>King's Chapel The present building was completed in 1754. It was the first Anglican Church in Boston. During England's rule, royal governors worshipped here and the church was favored with gifts of silver and vestments by Queen Anne and George III. After the Revolution, it became America's first Unitarian Church.</p>	<p>recently restored between 1973 and 1976. It is the oldest commissioned warship afloat in the world. The U.S.S. Constitution Museum is located nearby in the Charlestown Navy Yard, where the ship is moored.</p>
subhead: para	<p>The Old Corner Book Store Built in 1712, and first a publishing house, this building later housed the literary center of America. Here met the authors who made Boston the "Athens of America." Longfellow, Emerson, Thoreau, Holmes, Harriet Beecher Stowe, and others. It is now maintained as a bookshop by <i>The Boston Globe</i>.</p>	<p>Bunker Hill Monument This towering obelisk across the river in Charlestown marks one of the major battles of the Revolution. A 220-foot landmark, it was built to honor those who died in the Battle of Bunker Hill, June 17, 1775. Although the battle was lost, the badly outnumbered colonists fought bravely and withdrew only after their ammunition was gone.</p>
subhead: para	<p>U.S.S. Constitution Nicknamed "Old Ironsides" because of the strength of her oak construction, this heavy frigate never lost a battle in the War of 1812. Launched in Boston in 1797, she was most</p>	<p>Old North Church Built in 1723, "Old North" is the City's oldest standing church still in use. It was from the steeple of this church that Simon Robert Newman hung two lanterns, on April 18, 1775, to signal patriots across the river that the British were on the way to Concord "by sea."</p>
row	<p>Boston Firsts</p>	
row	<p>In the United States, the city of Boston has been a trendsetter for new ideas for technology, medicine, academia, finance, transportation and many other areas. The following is a list of Boston "firsts":</p>	
row	<p>1630 first ferry boat ran from Boston to Charlestown and Wrentham (now Chelsea)</p>	<p>1862 first football team organized</p>
row	<p>1634 first public park, Boston Common, a "place for a playing field ... and for the trading of Cattle"</p>	<p>1873 first university in the world to open all departments to women, Boston University</p>

Figure 4. A table that straddles a multicolumn document

This is the end of Lesson 17. You have completed the assembly of the text elements of the *Boston Guide* document. You can save the document now and continue to Lesson 18, or you can save and close the document and continue to Lesson 18 at a later time.

Summary

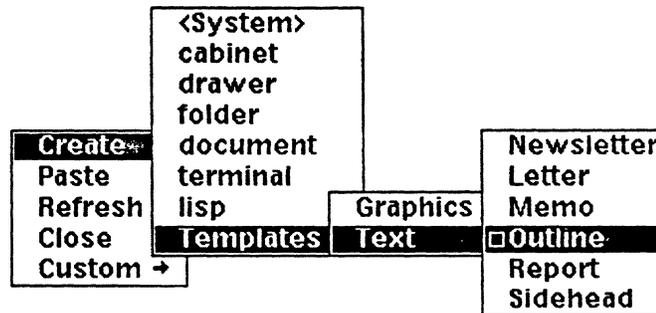
- A **template** is a document that contains a set of masters for components, frames, autonumber streams, and tables, that you can use to produce specific document formats.
- To preserve component definitions when you paste text into a document, place the cursor in the component bar before you execute Paste. This is called **pastings as components**.
- To unify the properties of all components of the same name with those of the master definition, open the property sheet of an instance of the component that conforms with the master and execute **Unify→ All→ Props**.
- When you copy a uniquely named component into a document, you create a new master.
- You can cut and paste tables made with the Tables package into a document, even if you do not have access this optional package.
- To change the number of columns in a document, modify the *Columns* field on the Page property sheet and apply the change.
- A table, a component, or a frame that extends across more than one column in a multicolumn document is called a **straddle**. Text above a straddle wraps to the next column and does not flow to columns below the straddle.

Further Exercise

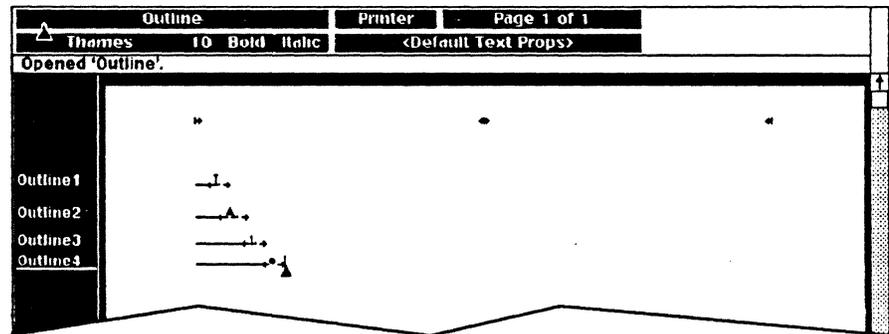
The publishing software contains a series of generic templates that you can create using the Create Templates submenu. You can use these templates as starting points for your documents.

To create publishing software-supplied templates:

- ☰ With the cursor on the desktop, hold down the menu button and drag the cursor to the Create Templates Text submenu.
The submenu contains six choices that describe different types of documents, such as Letter, Memo, and Report.



- ☰ Release the menu button.
A document named Outline appears.
- ☐ Open the document
The open document contains four predefined components, each of which has initial content. Three of the four components have as their content a different level of an autonumber stream.



- ☐ Create and open a *Newsletter* document, a *Letter* document, a *Memo* document, a *Report* document, and a *Sidehead* document.
Each template document contains a set of components that define a typical layout for that type of document.

Lesson 20: Placing Illustrations

Frames (other than header and footer frames) can appear anywhere on a page and at the same time maintain a relationship with a particular portion of text. These frames are called **text-anchored frames**. As you edit a document, a text-anchored frame moves as the text containing its anchor moves.

In Chapter 5 you worked with one frame on a blank page. In Lesson 20 you create and use text-anchored frames in the document you are assembling.

Lesson 20 teaches you how to

- paste an illustration directly into a document to create a frame automatically
- rename a frame to create a new frame master
- create a frame that straddles a multicolumn document
- create a component straddle
- size a frame either to its contents or to the width of the page
- size a diagramming object to its frame

The approximate time to complete Lesson 20 is 25 minutes.

Pasting an Illustration into a Document

The *Guide* folder contains several illustrations, which you add to the *Boston Guide* document by first finding anchor locations for the frames that will contain the illustrations.

To paste a diagram icon into a document:

- Select the image icon named *Boston Map* in the *Guide* folder.



- Execute Copy→ Normal.

- Move the cursor into the *Boston Guide* document window and position the text caret at the end of the first paragraph.

para	Boston is the capital of the Commonwealth of Massachusetts. The largest city in New England, Boston is the focus of a metropolitan area of ninety-two cities and towns, and more than three million people. Just across Boston Harbor is Logan Airport, only two miles and a few minutes' ride from downtown. The many scenic and historic attractions of New England are easily accessible by automobile, bus, train, or airplane.	Median Income	\$34,000 per year
		Average Household	2.7 persons
head	BOSTON FACTS	VISITING BOSTON There is no shortage of things to see and enjoy during a stay in Boston. One of the most popular attractions for visitors is the Freedom Trail. This three-hour walking tour is designed to allow the visitor to see sixteen different historic sites, with emphasis on Colonial and Revolutionary events.	

- Execute Paste.

A frame anchor appears at the text caret location and a map of Boston appears in the first column after the text of the first paragraph.

<p>Boston is the capital of the Commonwealth of Massachusetts. The largest city in New England, Boston is the focus of a metropolitan area of nearly two cities and towns, and more than three million people. Just across Boston Harbor is Logan Airport, only two miles and a few minutes' ride from downtown. The many scenic and historic attractions of New England are easily accessible by automobile, bus, train, or airplane.</p>	<p>Public Transportation (MBTA) Boston's rapid transit system connects all sections of the city—including downtown, the Back Bay, and the waterfront—with nearby communities, such as Harvard Square in Cambridge and the North and South Shores.</p> <p>Airport Water Shuttle The shuttle departs every half hour for Logan Airport from Rowe's Wheel.</p> <p>Shuttle Shuttle services Boston from South Station on Atlantic Avenue.</p> <p>Boston Demographics</p> <table border="1"> <tr> <td>Land Area</td> <td>46 square miles</td> </tr> <tr> <td>Population</td> <td>570,719</td> </tr> <tr> <td>Median Age</td> <td>28.8 years</td> </tr> <tr> <td>Median Income</td> <td>\$34,800 per year</td> </tr> <tr> <td>Average Household</td> <td>2.7 persons</td> </tr> </table> <p>VISITING BOSTON</p> <p>There is no shortage of things to see and enjoy during a stay in Boston. One of the most popular attractions for visitors is the Freedom Trail. This three-hour walking tour is designed to allow the visitor to see sixteen different historic sites, with emphasis on Colonial and Revolutionary events.</p>	Land Area	46 square miles	Population	570,719	Median Age	28.8 years	Median Income	\$34,800 per year	Average Household	2.7 persons
Land Area	46 square miles										
Population	570,719										
Median Age	28.8 years										
Median Income	\$34,800 per year										
Average Household	2.7 persons										

When you paste certain graphic objects, such as a diagram icon, into a document, the publishing software creates a frame the height and width of the object. The relationship between this frame and text is established by the presence of the **frame anchor** (☐), a marker that is the reference point in text for the frame. The way you create a frame and position the frame anchor is an important factor in the design of a document.

A text-anchored frame has properties that define its height, width, and relationship to its anchor. In the case of an automatically created frame, the publishing software assigns these properties by default. You can see a frame's properties on the Frame property sheet.

To open a Frame property sheet:



Execute Props.

The Frame property Format sheet appears.

Frame Properties				Format	Custom	Attrs
Name	Auto					
Size	↑					
Width	Fixed	3.08	Inches			
Height	Fixed	2.72	Inches			
Placement	Following Anchor	Same Column	Yes No			
Horizontal	Reference	Align	Offset			
	Column	Center	0 Inches			

The properties on the Format sheet are described below:

- **Name:** the name of the frame master
- **Size:** the dimensions of the frame and how they are determined (either by absolute measurements or relative to the frame contents or page dimensions)
- **Placement:** the relationship of the frame to its anchor

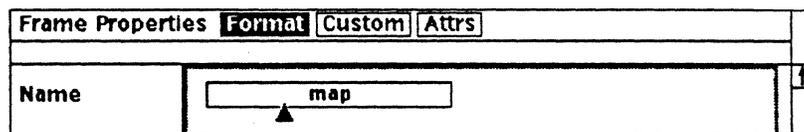
The publishing software gives an automatically created frame the name *Auto* and creates a frame master for *Auto* containing that frame's current properties, if a frame of that name does not already exist in the document.

The *Placement* property of the frame (**Following Anchor**) means that this frame will usually appear directly below the line containing the frame anchor. In some cases, if there is not enough space on the page for the frame to appear directly below its anchor, it will appear at the top of the following page.

If you are not satisfied with a frame's properties, or want to keep its properties in a separate master, you can change the frame's name and other properties on the Frame property sheet.

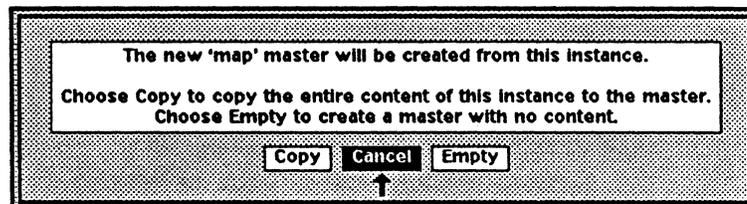
To create a new frame master:

- Enter the name *map* in the *Name* field.



- Execute **Apply**.

The New Frame Master stickup appears, presenting the choice of creating the map frame with or without initial contents.



- Select **Empty** and execute **Close**.

The stickup disappears and the property sheet closes.

The document now contains a frame master named *map*. Any frame created from this master will have the same height and width and will be located directly below its frame anchor. You can include this frame in the guidebook template. It will be useful for creating maps in other documents you create from the template.

Using Frame Straddles in Multicolumn Documents

There are differences between the way frames behave in single-column documents and the way they behave in multicolumn documents. The map of Boston fits exactly within the width of the left column, so its frame did not interrupt the flow of text in the right column. If the width of a frame exceeds column width, however, the frame automatically straddles both columns.

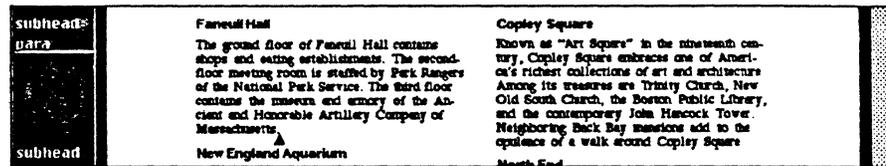
To create a frame straddle:

- Select the image icon named *Faneuil Hall* in the *Guide* folder.



- ☐☐ Execute Copy→ Normal.
The icon is deselected when the copy process is complete.

- Move the cursor back to the *Boston Guide* document window, scroll the document to page 2, and position the text caret at the end of the paragraph describing Faneuil Hall.



- ☐☐ Execute Paste.
A frame containing a photograph of Faneuil Hall straddles the page just below its frame anchor. The frame is selected.



Whenever a straddle appears in a multicolumn document, it interrupts the normal flow of text. Text appearing before the straddle flows from column to column above the straddle, and text appearing after the straddle flows from column to column below the straddle; however, text from a column above the straddle does not flow to columns below the straddle (Figure 5). This is why all the text from the Faneuil Hall description remains above the frame and the text describing the New England Aquarium, Fort Point Channel, Museum Wharf, and the Boston Tea Party appears below the straddle.

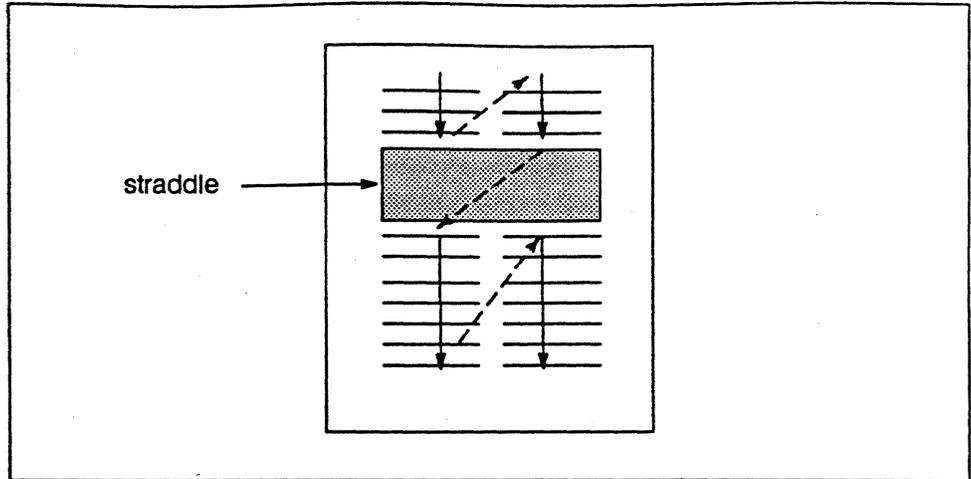
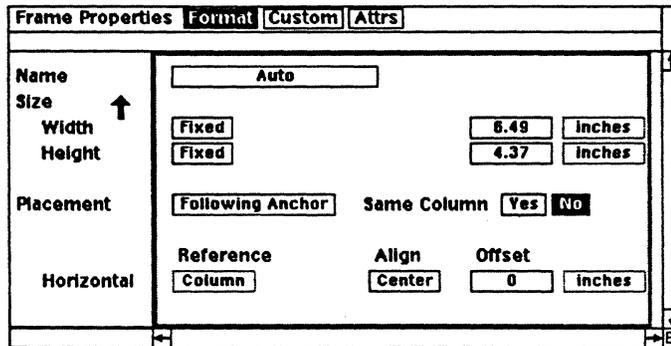


Figure 5. Text flow around a straddle in a two-column document

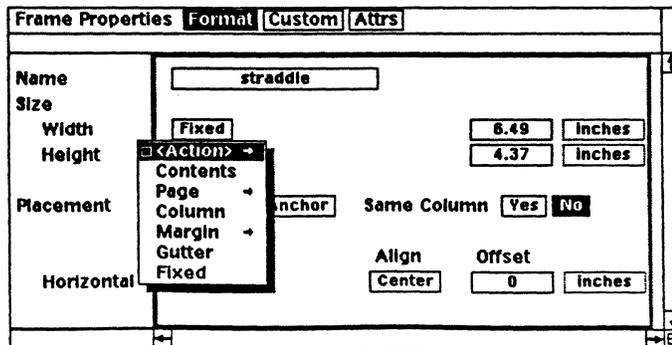
In the next exercise you create a frame master that straddles the page.

To create a page-width frame master:

- With the frame selected and the cursor in the text area, execute Props. *The Format property sheet appears.*



- Change the frame's name to *straddle*.
- Point to the *Width* list box and hold down the menu button. *An anchored popup appears.*





Drag the cursor down to **Page**, over to **Without Margins**, and release the menu button.

The Width setting changes to Page.

- Change the *Height* setting to **Contents**.

The Format sheet should resemble Figure 6.

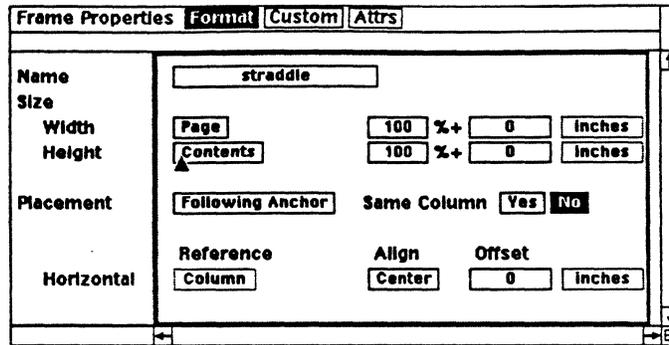
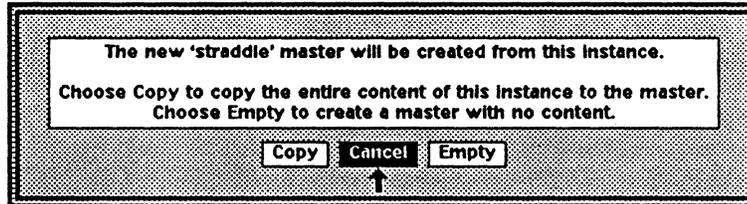


Figure 6. Completed Format sheet for the straddle frame



Execute **Apply**.

The New Frame Master stickup appears.



- Select **Empty** and close the property sheet.

The document now contains a frame master named *straddle*, which is exactly the width of the page without its margins and which changes its height to fit its contents. Because the master has no content, you can use it for any illustration that must be the width of the page.

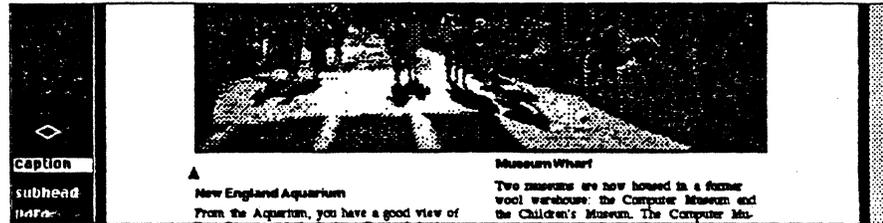
To complete the illustration, in the next exercise you create a component straddle containing a caption for the illustration of Faneuil Hall.

To create a component straddle:

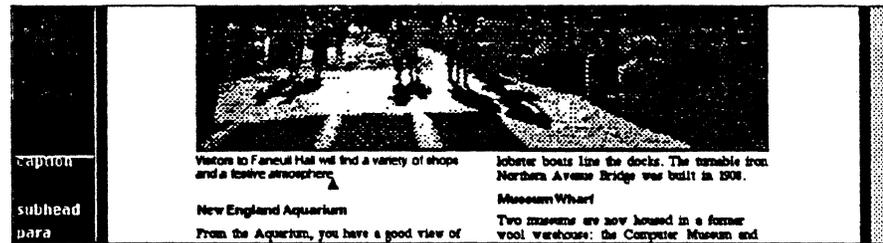
- Move the text caret to the left column and move the component caret so that it is above the *subhead* component containing the text *New England Aquarium*.



- Execute Create→ caption.
An empty caption component appears below the frame.



- Type: *Visitors to Faneuil Hall will find a variety of shops and a festive atmosphere*
The text appears in 10-point Swiss type and wraps within the left column.



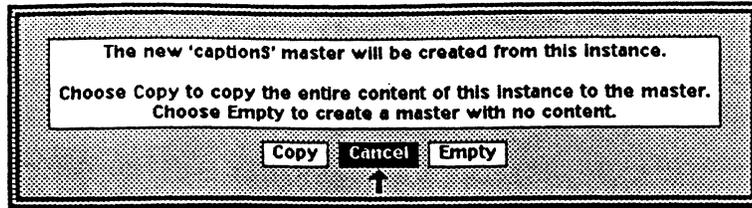
- Open the property sheet for the *caption* component.
- On the Format sheet, change the component name to *captionS*.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Name	captionS						

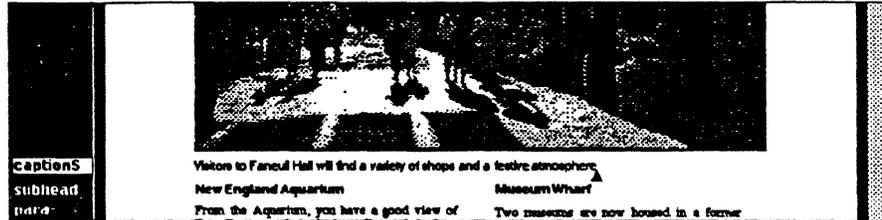
- On the Page sheet, change the *Straddle Columns* setting to Yes.

Component Properties		Format	Page	Custom	Tab	Profile	Attrs
Begin New Page	Yes	No					
Begin New Column	Yes	No					
Straddle Columns	Yes	No					

- Execute Apply.
The New Component Master stickup appears.



- Select **Empty** and close the property sheet.
The caption text now straddles both columns.



The document now contains two components, *caption* and *captionS*, for illustration titles. You can use *caption* for single-column illustrations and *captionS* for illustrations that straddle the document.

Sizing a Frame

In the previous exercise you worked with automatically created frames that change to fit the size of their contents. You can also change the size of an illustration to fit a frame. In the next series of exercises you add another photograph to the document and then size it to fit exactly within a single column. In the process you create a frame master that you can use to uniformly size illustrations to the width of a single column.

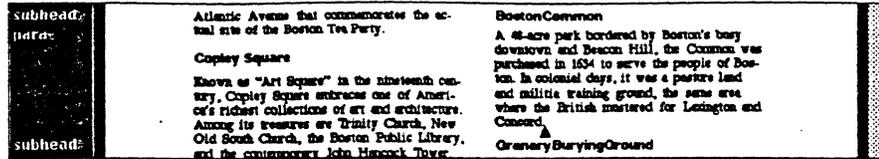
To add a scanned image to a document:

- Select the image icon named *Boston Common* in the *Guide* folder.



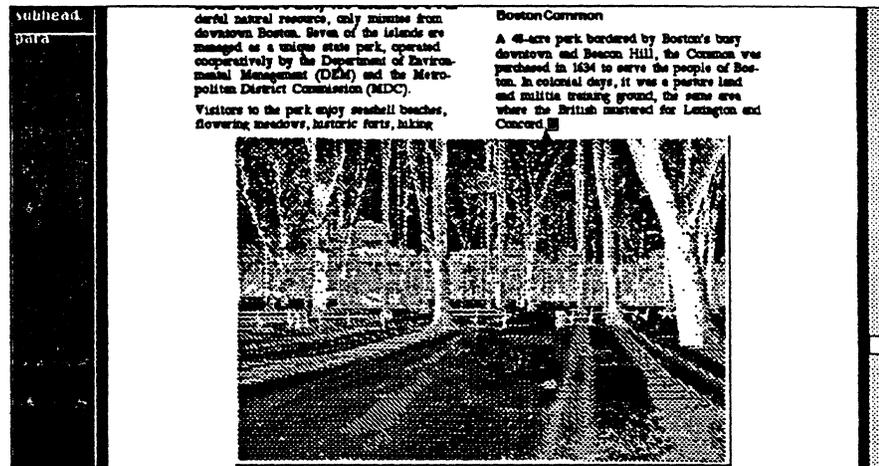
- Execute **Copy**→ **Normal**.

- Move the text caret to the end of the paragraph describing Boston Common on the third page.



- ☐☐ Execute Paste.

A frame containing a photograph of Boston Common straddles the third page, just below its frame anchor. The frame is selected.



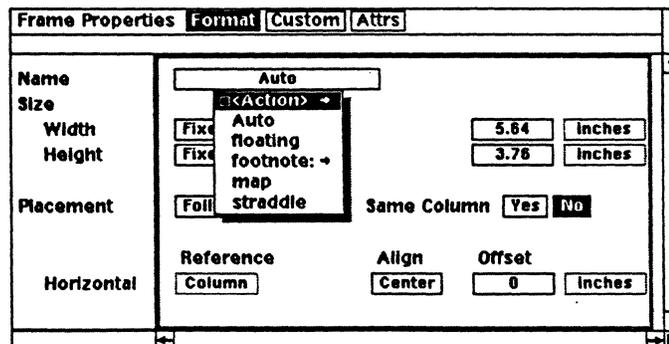
- ☐☐ Execute Props.

The Format sheet for the frame appears.

- ☐☐☐☐☐☐

Point to the *Name* field and hold down the menu button.

An anchored popup appears. It contains the names of all the available frame masters in the document.



- ☐☐☐☐☐☐

Drag the cursor down to *straddle* and release the menu button.

The settings on the property sheet now match the master for the straddle frame that you created in the previous exercise.

Frame Properties			
Format Custom Attrs			
All settings now match the 'straddle' master.			
Name	straddle		
Size			
Width	Page	100 %+	0 inches
Height	Contents	100 %+	0 inches
Placement	Following Anchor Same Column Yes No		
Horizontal	Reference	Align	Offset
	Column	Center	0 inches

- Make the following changes to the Format sheet:

Name **column**
Width **Column**

The Format sheet should resemble Figure 7.

Frame Properties			
Format Custom Attrs			
All settings now match the 'straddle' master.			
Name	column		
Size			
Width	Column	100 %+	0 inches
Height	Contents	100 %+	0 inches
Placement	Following Anchor Same Column Yes No		
Horizontal	Reference	Align	Offset
	Column	Center	0 inches

Figure 7. Completed Format sheet for the column frame master

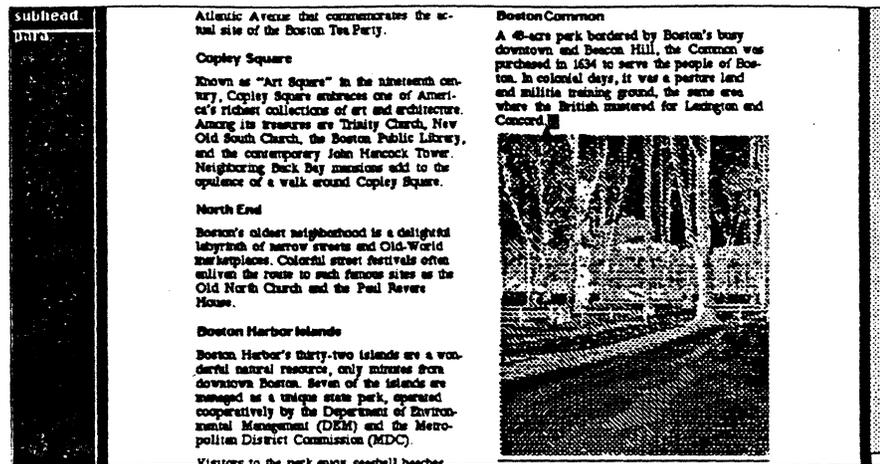
- ☐☐☐ Execute **Apply**.

The New Frame Master stickup appears.

The new 'column' master will be created from this instance.		
Choose Copy to copy the entire content of this instance to the master. Choose Empty to create a master with no content.		
Copy	Cancel	Empty

- Select **Empty** and close the property sheet.

The frame changes to the width of a single column and the document is reformatted.



When you changed the frame width, you did not change the size of the photograph. This means that the width of the image no longer fits within the frame. To correct this problem, you can execute a command to size the image to the size of its frame.

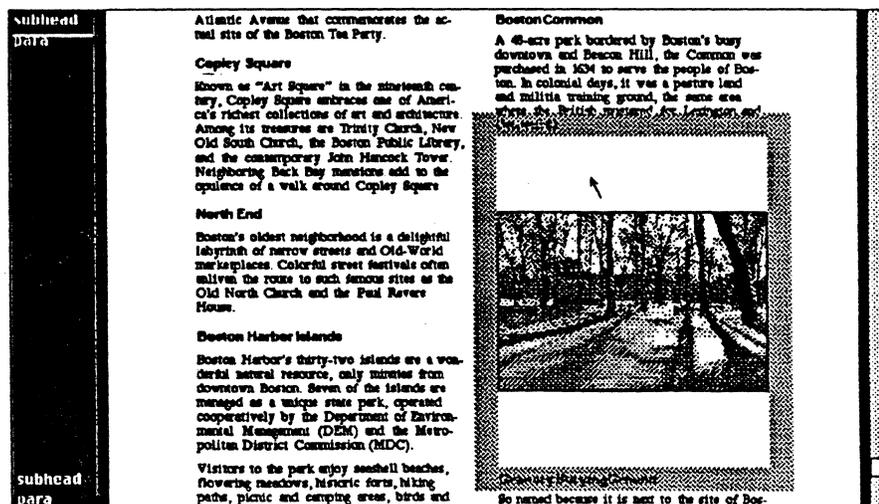
To size an object to its frame:

- Open the frame containing the photograph of Boston Common and select the image.

The border of the photograph blinks to show it is selected.

- Execute **Size→ to Frame→ Diagonal**.

The width of the photograph changes to match the width of the frame.



- Execute **Close** and then execute **Deselect**.

The height of the frame changes to match the height of the photograph and the document is reformatted to accommodate the frame's new size.

<p>subhead para</p>	<p>Atlantic Avenue that commemorates the actual site of the Boston Tea Party.</p> <p>Copley Square Known as "Art Square" in the nineteenth century, Copley Square embraces one of America's richest collections of art and architecture. Among its treasures are Trinity Church, New Old South Church, the Boston Public Library, and the contemporary John Hancock Tower. Neighboring Back Bay mansions add to the splendor of a walk around Copley Square.</p> <p>North End Boston's oldest neighborhood is a delightful labyrinth of narrow streets and Old-World marketplaces. Colorful street festivals often enliven the route to such famous sites as the Old North Church and the Paul Revere House.</p> <p>Boston Harbor Islands Boston Harbor's thirty-two islands are a wonderful natural resource, only minutes from</p>	<p>Boston Common A 48-acre park bordered by Boston's busy downtown and Beacon Hill, the Common was purchased in 1634 to serve the people of Boston. In colonial days, it was a pasture land and militia training ground, the same area where the British mustered for Lexington and Concord.</p>  <p>Granary Burying Ground So named because it is next to the site of Boston's first granary, the Granary Burying</p>
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When you select an object and execute **Size→ to Frame→ Diagonal** you preserve the proportions of that object. Because the photograph was wider than the frame, the publishing software sized it to fit the frame in that dimension. Because the frame height was set to **Contents**, when you closed the frame, the frame height changed automatically to match the height of its contents.

Many scanned illustrations, like the ones you use in this lesson, will not be the correct size for your documents. Having a frame master like *column* is one way that you can accurately fit illustrations into a particular layout.

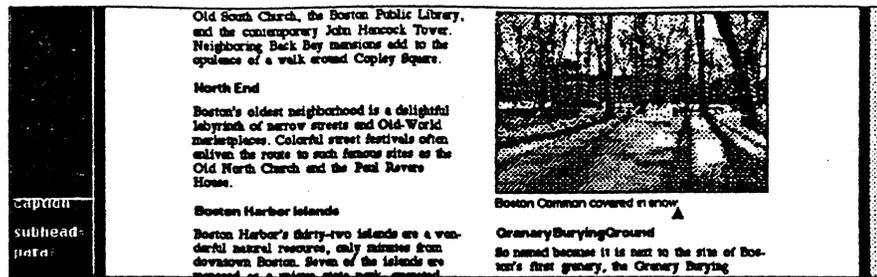
To add a single-column caption:

- Move the component caret so that it is just above the *subhead* component containing the text *Granary Burying Ground*.

<p>subhead para</p>	<p>Old South Church, the Boston Public Library, and the contemporary John Hancock Tower. Neighboring Back Bay mansions add to the splendor of a walk around Copley Square.</p> <p>North End Boston's oldest neighborhood is a delightful labyrinth of narrow streets and Old-World marketplaces. Colorful street festivals often enliven the route to such famous sites as the Old North Church and the Paul Revere House.</p> <p>Boston Harbor Islands Boston Harbor's thirty-two islands are a wonderful natural resource, only minutes from</p>	<p>Granary Burying Ground So named because it is next to the site of Boston's first granary, the Granary Burying</p>
-------------------------	--	---

- With the cursor in the component bar, execute **Create→ caption**. A caption component appears below the column frame.
- Type: *Boston Common covered in snow*

The text appears in 10-point Swiss type.



This is the end of Lesson 20. You have created several new frame masters for the *Boston Guide* document that will later become part of the new guidebook template. You can save the *Boston Guide* document now and continue to Lesson 21, or you can save and close it and work on Lesson 21 later.

Summary

- **Text-anchored frames** can appear anywhere on a page and still maintain a relationship with a particular portion of text.
- To have the publishing software create a frame automatically, paste the contents of a diagram icon into a document. The automatically created frame is named *Auto*.
- Every frame in the publishing software has a name and gets its original properties from a master definition associated with that name.
- To create a new frame master, give a frame a unique name on its Format property sheet and execute **Apply**. When the Create Frame Master stickup appears, select either **Copy** (to add the contents of the instance to the master) or **Empty**.
- You can size a frame either by supplying its exact dimensions, or by specifying how the frame should relate to the page or to its contents and having the publishing software size the frame automatically.
- To create a straddle component, set the *Straddle Columns* property on the Component property Page sheet to **Yes**.
- To size a diagramming object to the dimensions of a frame, select that object and execute **Size→ to Frame→** and one of the options on the Size to Frame submenu.

Further Exercise

This exercise shows you how you can use a straddle as a formatting technique. To complete this exercise, you must have the *Boston Guide* document open on your desktop.

To use a straddle to reformat a page:

- Move the text caret to the right column and move the component caret so that it is just above *head* component containing the text: *Visiting Boston*.

Boston Demographics

Land Area	46 square miles
Population	576,719
Median Age	28.8 years
Median Income	\$34,000 per year
Average Household	2.7 persons

VISITING BOSTON
There is no shortage of things to see and enjoy during a stay in Boston. One of the most popular attractions for visitors is the Freedom Trail. This three-hour walking tour is designed to allow the visitor to see sixteen different historic sites, with emphasis on Colonial and Revolutionary events.

- Execute **Create**→ **captionS**.

The *captionS* straddle component appears and the text above and below the straddle is reformatted.

BOSTON FACTS
Air-Travel Time Between Boston and Major Foreign Cities

	Air Miles	Flight Time
London	3267	6 hrs., 10 min.
Paris	3437	6 hrs., 45 min.
Berlin	3793	8 hrs., 50 min.

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Average Household	2.7 persons

and seafaring part. The Boston Massacre took place just east of the Old State House.
U.S. Custom House

- Move the cursor to the text area and execute **Create**→ **Frame**→ **Straddle**. An empty straddle frame appears in the *captionS* component.

BOSTON FACTS
Air-Travel Time Between Boston and Major Foreign Cities

	Air Miles	Flight Time
London	3267	6 hrs., 10 min.
Paris	3437	6 hrs., 45 min.
Berlin	3793	8 hrs., 50 min.

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and seafaring part. The Boston Massacre took place just east of the Old State House.
U.S. Custom House

- Open the frame and create a horizontal line that extends from the right margin to the left margin of the frame.
- Select the horizontal line and execute **Props**→ **Edge**→ **Weight** and the thickest available line.
- Close and deselect the frame.
- When you have finished looking at the document, close it without saving, or execute **Misc**→ **Revert**→ **to Document** from the Name pulldown in the document header.

A straddle component can force the publishing software to reformat a page in a multicolumn document. Text before the straddle appears above the straddle, and text after the straddle appears below the straddle. Because of this, you can use straddles to alter a page layout.

Lesson 21: Completing a Document Layout

In this lesson you complete the document assembly you began in Lesson 19 by creating a first page header and making final modifications to the page layout. Once the *Boston Guide* document is finished, you create a document containing all the masters and page properties of this document but without the content. This document is the finished template that other writers can use to create guidebooks in the WorldWide Traveler series.

Lesson 21 teaches you how to

- create a double-sided layout
- create an overlay frame
- change the alignment of a frame
- create a display initial
- turn off all nonprinting characters
- change the alignment offset of a frame
- turn off vertical justification

The approximate time to complete Lesson 21 is 25 minutes.

Creating a Double-Sided Layout

In the first two lessons in this chapter, each page of the *Boston Guide* document has the same layout of headers, footers, and margins. This is called a **single-sided layout**. In situations where a document will be bound as a book, you can use a different design, called a **double-sided layout**. A double-sided layout takes into consideration the fact that a book displays two pages facing each other and that extra space is often needed along the inner margin of each page for binding.

In the following lessons you will change the layout of the *Boston Guide* document so that it is appropriate for a bound book.

To open the Page property sheet:

- Open the *Boston Guide* document if you closed it at the end of the last lesson.
- ☰ Point to the Page box in the document header.



- Execute Props.
The Basic property sheet appears.

Page Properties	
Basic Custom	
Orientation	Portrait Landscape
Columns	2
Page Size	Letter Legal Ledger A3 A4 A5 B5
Width	8.50 inches
Height	11 inches
Margins	
Top	1 inches
Bottom	1 inches
Left	1 inches
Right	1 inches
Starting Page #	Inherit 1
Page # Prefix	
Page # Style	Arabic
Headers/Footers	
Page Layout	Single Sided Odd Pages Right Odd Pages Left
Bleed	No Yes
Diff 1st Header	No Yes
Diff 1st Footer	No Yes

At the bottom of the Basic sheet are the *Headers/Footers* properties, which control the page layout and the appearance of headers and footers.

To change a page layout:

- Point to the **Odd Pages Right** box next to *Page Layout* and click the select button.

The *Odd Pages Right* box is selected and the *Single Sided* box is deselected.

Headers/Footers	
Page Layout	Single Sided Odd Pages Right Odd Pages Left
Bleed	No Yes
Diff 1st Header	No Yes
Diff 1st Footer	No Yes

- Point to the **Yes** box next to *Diff 1st Header* and click the select button.
- The *Yes* box is selected and the *No* box is deselected.

Headers/Footers	
Page Layout	Single Sided Odd Pages Right Odd Pages Left
Bleed	No Yes
Diff 1st Header	No Yes
Diff 1st Footer	No Yes

There are two choices on the Basic sheet for a double-sided layout, **Odd Pages Right** and **Odd Pages Left**. The convention for most western-language books is to have odd-numbered pages on the right-hand side of the book.

By setting the *Diff 1st Header* property to Yes, you remove the contents of the header on the first page of the document. You can replace the original contents with a unique header if you like. Figure 8 shows the first three pages of a document for which the *Page Layout* setting is *Odd Pages Right* and the *Diff 1st Header* setting is Yes.

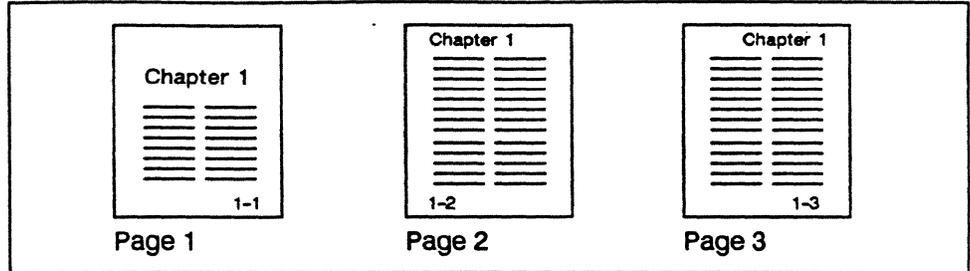


Figure 8. Double-sided layout with odd-numbered pages on the right

A double-sided layout, instead of having left and right margins for each page, has inner and outer margins. When you changed the *Page Layout* setting from *Single Sided* to *Odd Pages Right*, the *Left* and *Right* properties were replaced with *Inner* and *Outer* (Figure 9.)

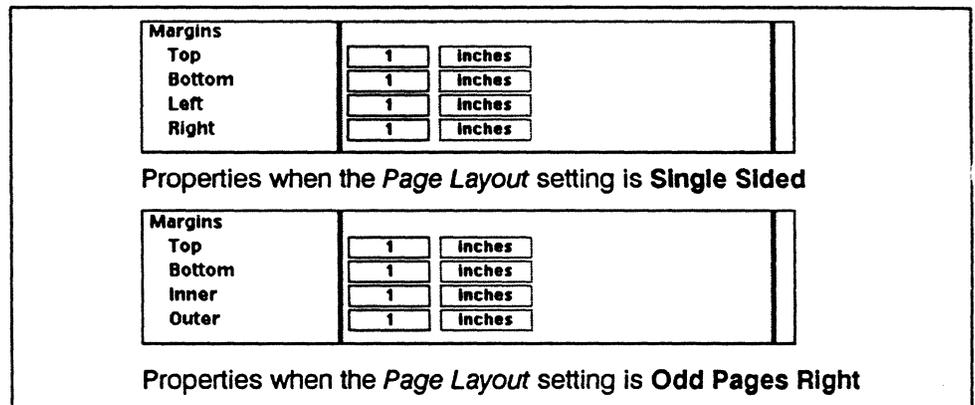


Figure 9. How the Page Layout setting affects the available margin options

In the next exercise you change the inner and outer margins so that the document margins will be symmetric when the document is bound.

To change inner and outer margin settings:

- Make the following changes to the Basic sheet:

Inner Margin 1.20
Outer Margin 0.80

The margins on the Basic sheet should resemble Figure 10.

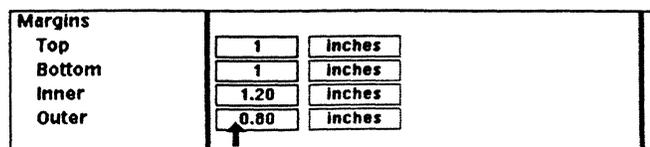


Figure 10. Completed Inner and Outer margins settings on the Basic sheet

- Execute **Apply** and then execute **Close**.

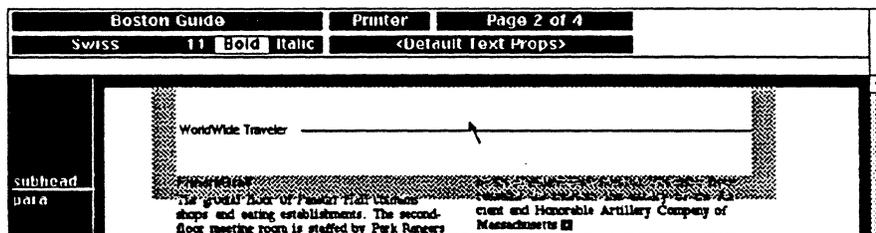
The document's inner and outer margins change and the Page property sheet closes.

When you change the page layout of a document from single sided to double sided, the headers and footers on even-numbered pages and odd-numbered pages are *reflected*. This means that headers and footers on odd-numbered pages are right justified and headers and footers on even-numbered pages are left justified. In addition, headers and footers on odd-numbered pages share their content only with other odd-numbered pages and vice versa. This gives you the opportunity to alternate the header and footer content in a double-sided page layout.

To change header text on even-numbered pages:

- Point to the header frame on page 2 and click the select button.

The header frame opens.

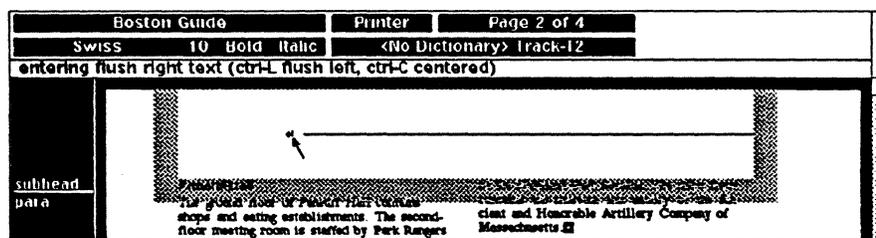


- Select the text string *WorldWide Traveler*.

The string blinks to show it is selected.

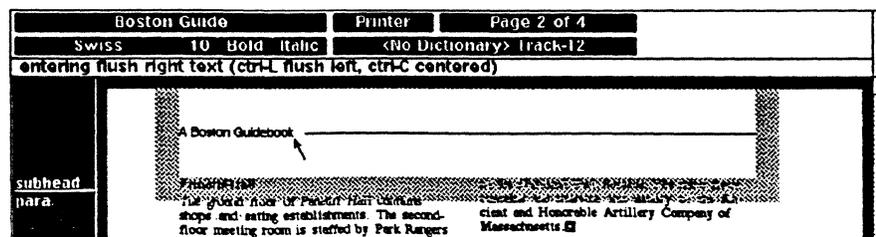
- Press **CTRL-d**.

A right text anchor indicates the former location of the text string.

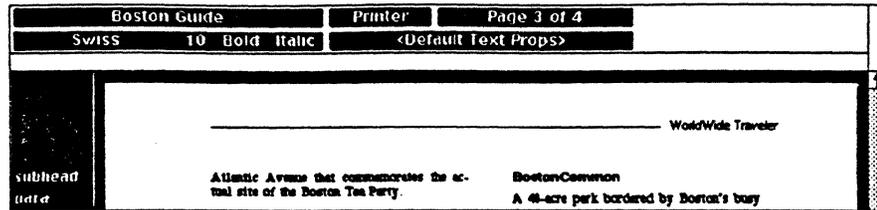


- Without deselecting the text anchor, type *A Boston Guidebook*

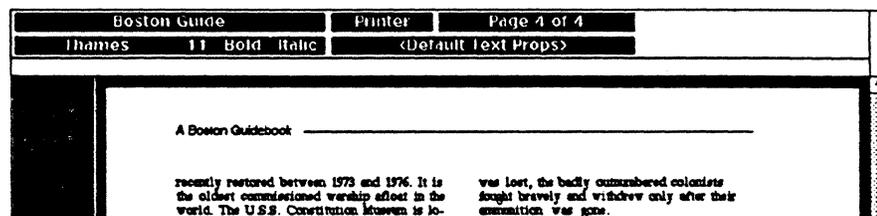
The text you type appears at the text anchor location and expands to the left.



- Scroll the document to page 3.
The header frame on page 2 automatically closes when the document scrolls. The header on page 3 still contains the text: WorldWide Traveler.



- Scroll the document to page 4.
The header on page 4 contains the same text as the header on page 2.



The headers on even-numbered pages now contain different content from the headers on odd-numbered pages.

Creating an Overlay Frame

A frame with Overlay placement can exist at the same page location as text or other frames. A useful analogy is to think of an overlay frame as a transparent layer placed over the page. This makes Overlay placement useful for creating special-purpose frames, such as a unique first page header for the Boston guidebook.

In the next series of exercises you paste a generic first page header frame into the document, change its placement property to **Overlay** so that you can move it over the existing header frame, and add text to identify it as a header for the Boston guidebook.

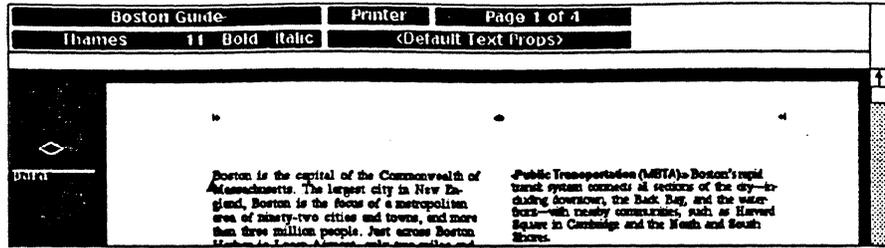
To paste a heading into the document:

- Select the *Heading* document in the *Guide* folder.

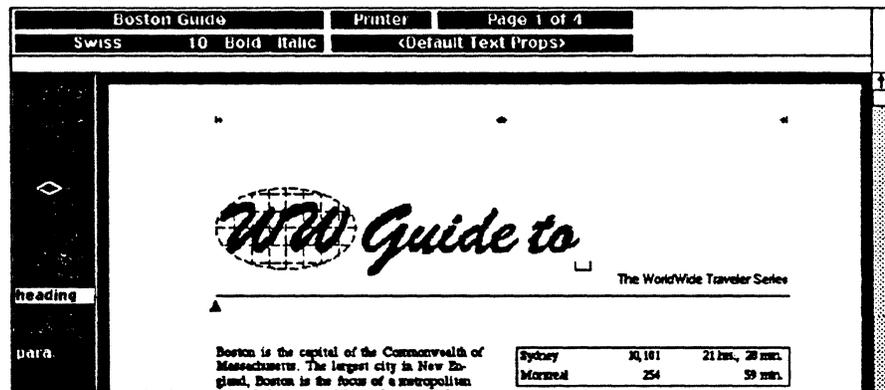


- Execute **Copy**→ **Normal**.

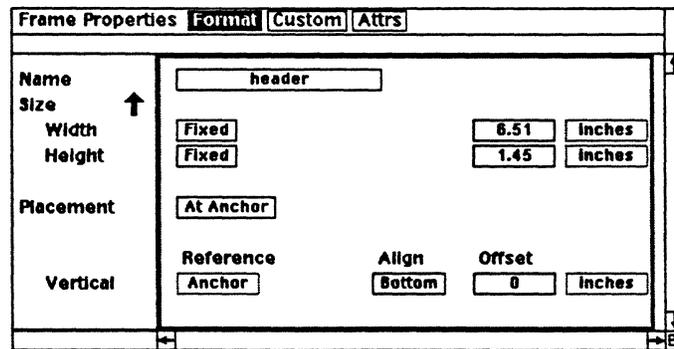
- ☰ Move the component caret so that it is above the first *para* component on page 1.



- ☰ Execute Paste.
A component named *heading* appears at the top of the document. It contains a frame that straddles both columns of the document.



- ☐ Select the frame in the *heading* component and open the frame's Format property sheet.
The frame is named *header*.

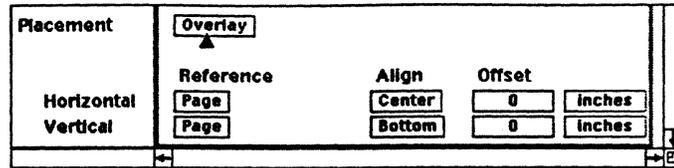


The current placement properties of the *header* frame locate it at the frame anchor in the *heading* component. This is lower on the page than it should be for a balanced page design. Changing the placement properties will move the frame closer to the top of the page.

To create an Overlay frame:

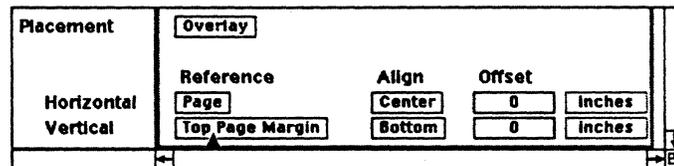
- Point to the *Placement* box, hold down the menu button, drag the cursor down to **Overlay**, and release the menu button.

The Placement setting changes to Overlay.



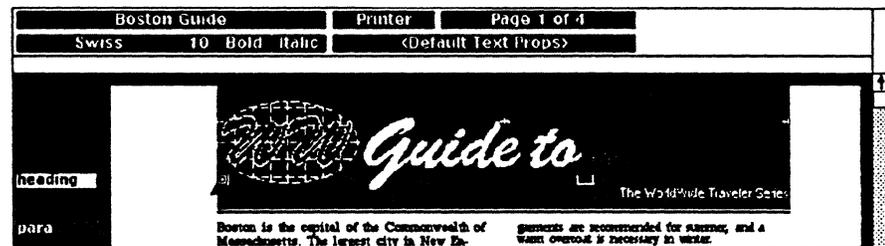
- Point to the *Vertical Reference* box and execute **Margin**→ **Page Top** from the anchored popup attached to that box.

The Vertical Reference setting changes to Top Page Margin.



- With the cursor anywhere in the property sheet, execute **Global Apply**→ **Confirm** and then execute **Close**.

The header frame moves closer to the top of the page.



The *Placement* setting of **Overlay** combined with a *Vertical Reference* setting of **Top Page Margin** allows the *header* frame to move to the approximate position of the first page header frame.

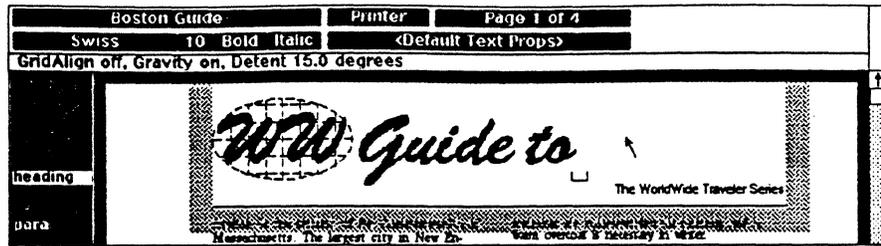
The heading you pasted is a generic heading that all writers can use for any guidebook in the *WorldWide* series. There is a diagram icon in the *Guide* folder that contains text that will make the heading appropriate for the *Boston* guidebook.

To complete the header text:

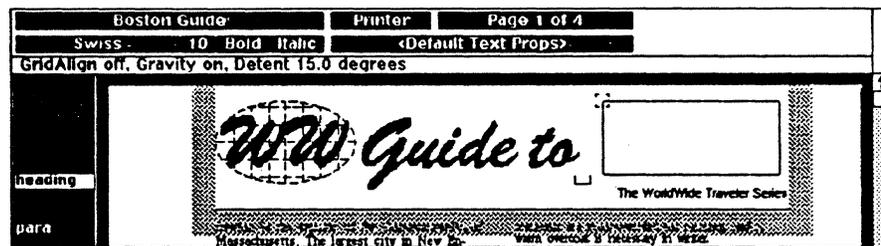
- Select the *Easton Title* diagram icon in the *Chapter 7* folder.



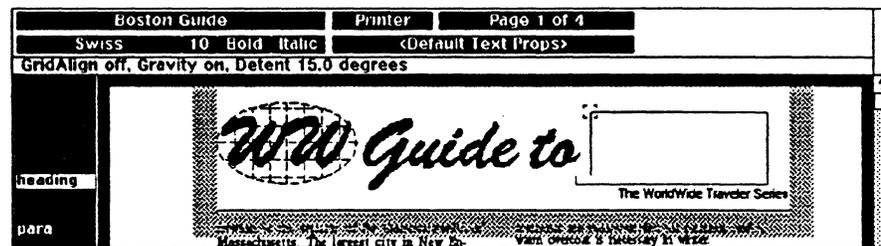
- ☐☐☐ Execute Copy→ Normal.
- ☐ Move the cursor to the *header* frame and open it.



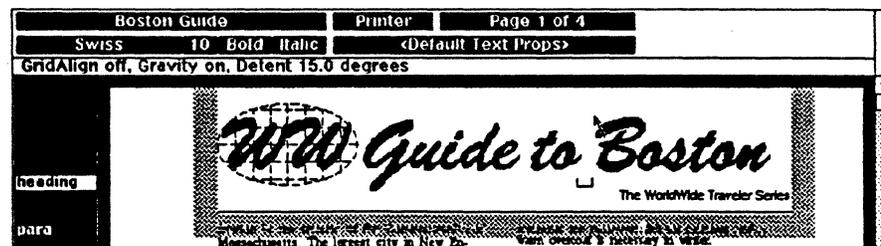
- ☐☐☐ Execute Paste.
The outline of a box with a control point on its upper-left corner appears inside the frame.



- ☐☐☐ Move the control point until gravity causes the lower-left corner of the outline to snap together with the nonprinting spacing character (␣) after the word *to*.



- ☐☐☐ Execute Deselect.
The word *Boston* appears.



The additional text used in this exercise was supplied in case you do not have the Advanced Graphics or Document Management packages. If you have one of these packages, you can produce the additional text for the

header by creating a text string and then executing Misc→ Convert→ to Outline→ Bitstream Brush→ Roman. Refer to Chapter 30, *Text as a Diagramming Object*, in the *Diagramming* manual for details on using the Convert to Outline commands.

Creating Display Initials

It is customary in book design to emphasize the first word of a chapter or section by setting it in capital letters with the first letter of the word much larger than the rest. This first letter, called a **display initial**, can either project above the first line as an **ascending initial** (Figure 11a) or align with the top of the line as a **descending initial** (Figure 11b). A descending initial is sometimes also called a **drop cap**.

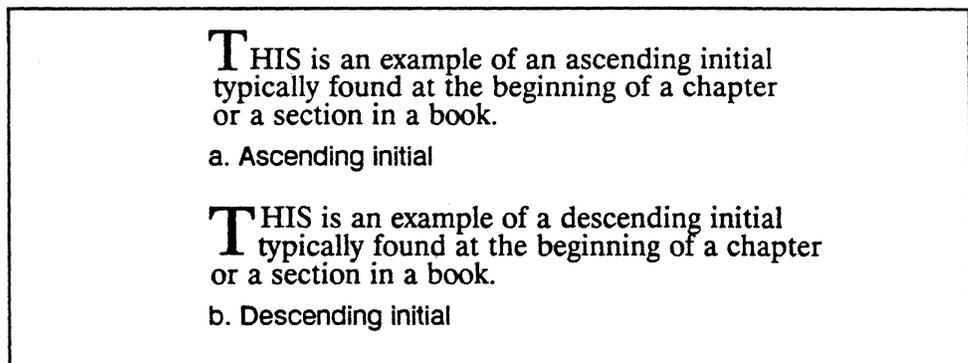
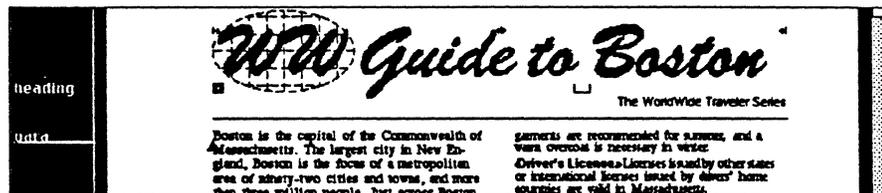


Figure 11. The two kinds of display initials

You can use the diagramming features in the publishing software to create display initials. In the following exercises you create a descending initial in two locations of the *Boston Guide* document.

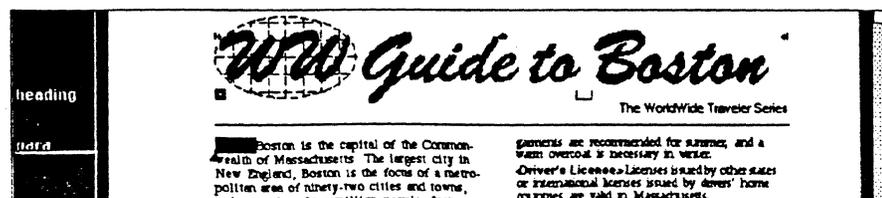
To create a frame for a display initial :

- Move the text caret to the beginning of the word *Boston* in the first paragraph.



- Execute Create→ Frame→ Auto.

A default Auto frame appears at the beginning of the paragraph.



- ☐ Execute Props.
The Format property sheet for the frame opens.

- ☐ Make the following changes to the Format sheet:

<i>Name</i>	display initial
<i>Height</i>	Contents
<i>Placement</i>	Overlay
<i>Horizontal Reference</i>	Anchor
<i>Horizontal Align</i>	Right
<i>Vertical Reference</i>	Anchor
<i>Vertical Align</i>	Top

The Format sheet should resemble Figure 12.

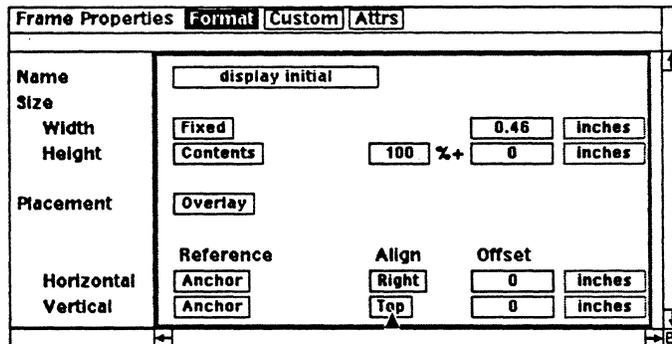
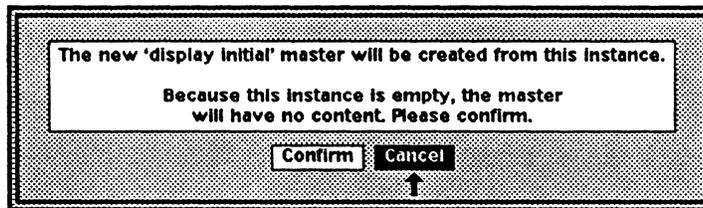
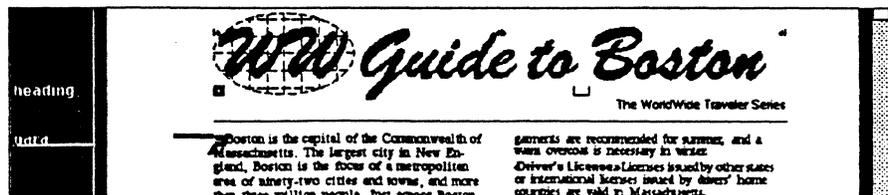


Figure 12. Completed Format sheet for the display initial frame

- ☐ Execute Apply.
The New Frame Master stickup appears.



- ☐ Select Confirm and then execute Close.
The property sheet closes and the empty frame shrinks and moves to the right of the frame anchor.



The *display initial* frame now aligns to the top and right of the frame anchor. Because it is an Overlay frame, it does not displace any text.

If you have the Advanced Graphics or Document Management package, you can make a display initial by creating a text string for the letter within the *display initial* frame, converting it to a Bitstream outline font, and then enlarging it to the desired size. The *Guide* folder contains a letter you can paste into the frame in case you do not have these optional packages.

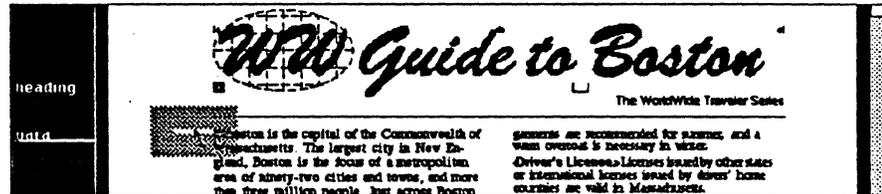
To add content to the display initial frame:

- Select the *B* diagram icon in the *Guide* folder.



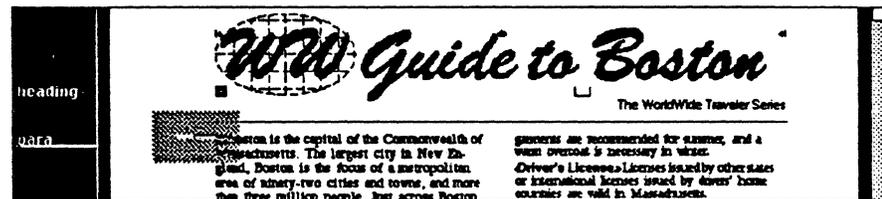
- Execute Copy→ Normal.

- Open the *display initial* frame in the *Boston Guide* document.



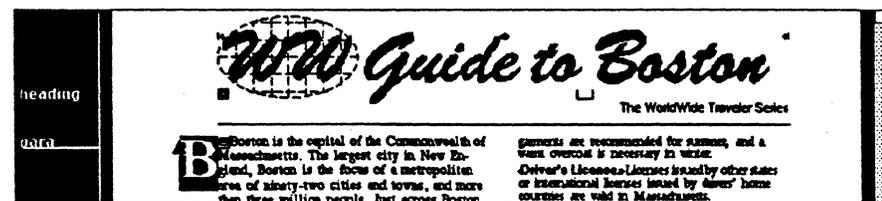
- Execute Paste.

A control point and the top part of a diagramming object in animation state appear in the open frame.



- Move the control point to the left side of the frame, execute Deselect and then execute Close.

The frame's height increases to match its contents.



The next step in creating a descending initial is to indent the paragraph containing it. You should create a new component for this purpose.

value in the *Number* field. Setting the initial indent to the same width as the frame and having the publishing software repeat the indent for the first three lines of the *paraD* component makes the descending initial fit correctly within the text.

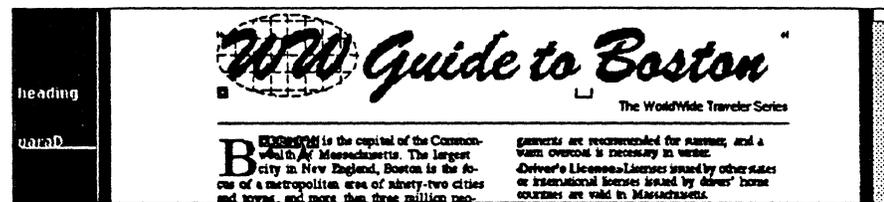
To complete the display text:

- Delete the letter *B* in the word *Boston*.
- Select the remaining text of the word *Boston*.



Execute Misc→ Convert→ Case→ All Upper Case.

The remaining letters in the word *Boston* are converted to upper case.

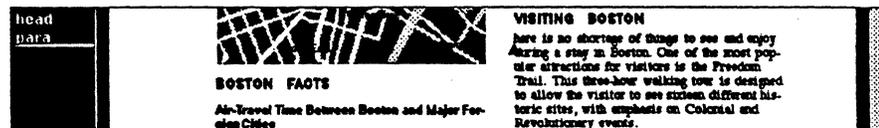


Remember that when you perform a spelling check in a document that contains display initials created in this manner, the spelling checker will not recognize the words containing these letters as correctly spelled. This is because the display initials are now diagramming objects.

Now that there are masters for both a *paraD* component and a *display initial* frame in the document, you can create a second descending initial more quickly.

To create a second descending initial :

- Move the text caret to the beginning of the word *There* in the first paragraph of the section titled *Visiting Boston* and delete the *T*.



Execute Create→ Frame→ display initial.

An empty display initial frame appears at the text caret location.



- Open the *display initial* frame.



- Copy the *T* diagram icon in the *Guide* folder and paste it into the open frame.
- Position the pasted diagramming object, execute **Deselect**, and execute **Close**.

The descending initial appears to the right of the left column margin.



- Select the *para* component containing the second *display initial* frame.



- ☐☐☐ With the cursor in the component bar, execute **Change→ paraD**.
The para component changes to a paraD component and the first three lines are indented to accommodate the descending initial.



- Select the remaining letters in the word *There* and execute **Misc→ Convert→ Case→ All Upper Case**.



Once their masters are defined, you can use *paraD* components and *display initial* frames to create descending initials in any future document that contains these masters.

Finishing Touches

You have now completed the assembly process for the *Boston Guide* document. In the following exercises you perform the finishing touches that create a polished final document. These include correcting bad line breaks in headings, adjusting the locations of frames, and justifying the text.

Correcting Bad Line Breaks

Before you complete a document, you should check all the headings for line breaks that makes the text in the heading hard to read. An example of this is the hyphenation of the word: *Foreign*, in the first *smhead* component on page 1.

To correct a bad line break:

- Select the word *Foreign* in the first *smhead* component on page 1.

head	BOSTON FACTS	tors is the Freedom Trail. This three-hour walking tour is designed to allow the visitor to see sixteen different historic sites, with emphasis on Colonial and Revolutionary events.
smhead:	Air-Travel Time Between Boston and Major Cities	Sites that every visitor should see are:
row		Old State House
row	London 3267 6 hrs., 10 min.	The Old State House, Boston's oldest public

- ☐☐☐ Execute Misc→ Hyphen→ Clear.

The line now breaks at the end of the word Major.

head	BOSTON FACTS	tors is the Freedom Trail. This three-hour walking tour is designed to allow the visitor to see sixteen different historic sites, with emphasis on Colonial and Revolutionary events.
smhead:	Air-Travel Time Between Boston and Major Foreign Cities	Sites that every visitor should see are:
row		Old State House
row	London 3267 6 hrs., 10 min.	The Old State House, Boston's oldest public

You can use the Misc Hyphen submenu to remove or restore hyphens in selected text.

Making Nonprinting Marks Invisible

The nonprinting marks in the document, such as frame anchors and inline component markers, can be distracting. By turning the display of these marks off, you can more easily preview the document's final format.

To turn off all nonprinting marks:

- ☐☐☐ With the cursor in the text area, execute Misc→ Show→ <All Marks> → Off.

The frame anchors, inline markers, and hard returns disappear from the document. The illustration shows the header and the first paragraph of the document.

heading		
para1	<small>The WorldWide Traveler Series</small>	
	<p>BOSTON is the capital of the Commonwealth of Massachusetts. The largest city in New England, Boston is the focus of a metropolitan area of ninety-two cities and towns, and more than three million peo-</p>	<p>ple are recommended for summer, and a swim cap is necessary in winter.</p> <p>Driver's License. Licenses issued by other states or international licenses issued by driver's home countries are valid in Massachusetts.</p>

When you turned the display of the frame anchors off, the positions of the *display initial* frames changed, indicating that they were not placed correctly. You can correct this by making fine adjustments to the frame's location.

To adjust the offset of a frame:

- Select one of the two *display initial* frames and open its property sheet. *The Format sheet appears.*
- Make the following changes to the Format sheet:

Horizontal Offset 0.12
Vertical Offset -0.02

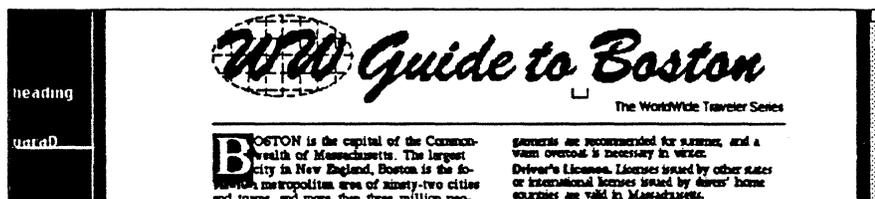
The Format sheet should resemble Figure 14.

Frame Properties			
Format Custom Attrs			
Name	display initial		
Size	Width	Fixed	0.46 inches
	Height	Contents	100 %+ 0 inches
Placement	Overlay		
Horizontal	Reference	Align	Offset
	Anchor	Right	0.12 inches
Vertical	Anchor	Top	-0.02 inches

Figure 14. Completed Format sheet for the display initial frame

Execute **Global Apply**→ **Confirm** and then execute **Close**.

The publishing software updates the master for the display initial frame and the two descending display initials are now aligned correctly.



The values in the *Offset* fields determine how the frame is moved (offset) from the position determined by the *Reference* and *Align* settings. A positive value moves the frame down or to the right; a negative value moves the frame up or to the left.

Justifying Text

Frequently, text in a multicolumn format looks better when the text on each line touches both the right and left margins of the column. This is called **justified text**. In the *Boston Guide* document there are three components that contain text: *para*, *paraD*, and *smpara*. To have justified text in the document, you must change the alignment of the masters of these three components.

To justify text:

- Open the Format property sheet for the *paraD* component, point to the **Flush Right** box next to *Alignment* and click the select button.

Alignment	Flush Left	Centered	Flush Right
-----------	------------	----------	-------------

Execute Global Apply→ Confirm and then execute Close.

The publishing software updates the master definition for the paraD component.

Component Properties	Format	Page	Custom	Tab	Profile	Attrs
Updated the master definition for 'paraD'.						
Name	paraD					

Repeat the first two steps for the *smallpara* component and then for the *para* component.

The publishing software updates the master definitions for the smallpara and para components.

Text is justified when its alignment is both Flush Left and Flush Right. Figure 15 shows part of the first page of the Boston Guide document with justified text.

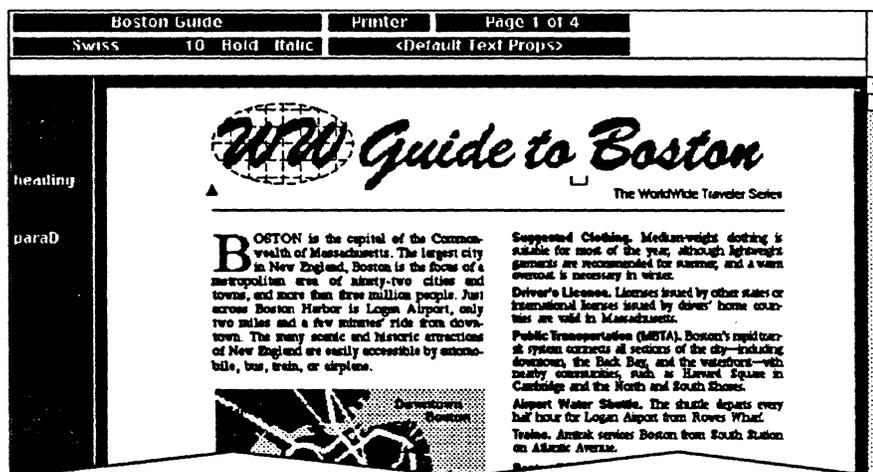


Figure 15. Boston Guide document with justified text

Creating a New Template Document

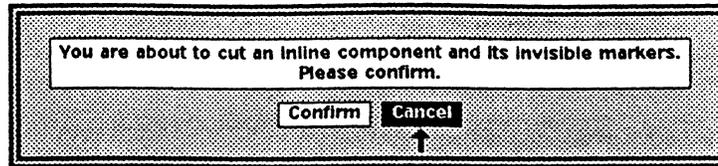
You have made many changes to page and component properties and added several masters since you first opened the supplied template document. You can save all of these changes and the work they represent by creating a new template from the completed *Boston Guide* document.

To rename and copy a document:



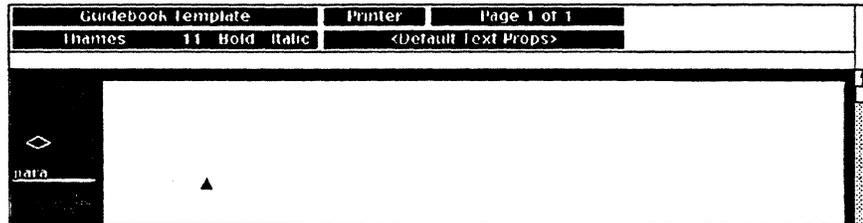
Point to the Name box in the document header and execute Save→ Fast.

The publishing software saves the most recent changes you have made to the Boston Guide document.



- Select **Confirm**.

Everything in the document disappears, with the exception of an empty para component.



- In the Component bar, create a single, empty example of each component master that appears on the Create submenu.
- ▣ With the cursor in the text area, execute **Misc→ Show→ <All Marks >→ On**.
- Save and close the document.

The *Guidebook Template* document contains no text, but it does have all the page properties and masters you created in Chapter 7. Executing **Misc→ Show→ <All Marks >→ On** before you saved the document ensures that all nonprinting marks will be visible in this document until you are ready to turn them off. You can use the *Guidebook Template* document to format text and illustrations to match the appearance of the Boston guidebook. All documents created using this template will have a uniform appearance, even though their contents are different.

This completes Chapter 7. If you are interested in knowing how make the *Guidebook Template* document appear on the Create Templates submenu, so that you or others can create it by executing a single command, complete the Further Exercise after the Summary for Lesson 21.

Summary

- To create a double-sided page layout, select either **Odd Pages Right** or **Odd Pages Left** on the Page property sheet.
- In a double-sided layout, headers and footers on even-numbered pages share their content only with other even-numbered pages, and headers and footers on odd-numbered pages share their content only with other odd-numbered pages.
- To have a unique header on the first page of a document, select **Diff 1s Header** on the document's Basic sheet.

- To create an Overlay frame, choose **Overlay** as the *Placement* property on the frame's Format sheet. A frame with Overlay placement can exist at the same page location as text or other frames.
- To create a **display initial**, create a correctly aligned overlay frame and either paste or create a diagramming object in that frame to represent the initial letter.
- To restore or remove hyphens in selected text, execute a command on the Misc Hyphen submenu.
- To turn off all nonprinting characters in a document, execute **Misc→ Show→ <All Marks> → Off**.
- To change the alignment offset of a frame, change the values for the *Offset* property on the Frame property sheet. A positive value moves the frame down or to the right; a negative value moves the frame up or to the left.

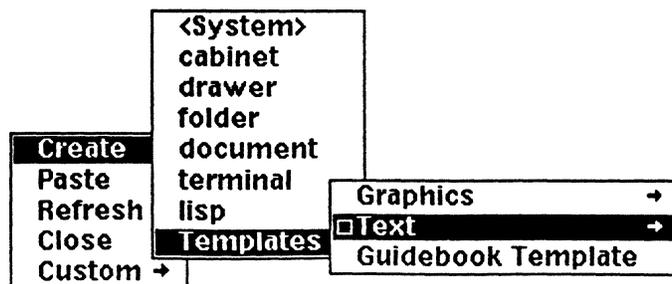
Further Exercise

In this exercise you put the *Guidebook Template* in the *Create* cabinet so that it appears on the Create submenu of the Nothing Selected popup.

To place a template in the Create cabinet:

- Open the *System* cabinet on your desktop.
 - Select the *Create* cabinet inside the *System* cabinet window and execute **Copy→ Normal**.
 - Paste the copy of the *Create* cabinet on your desktop and close the *System* cabinet.
 - Open the *Create* cabinet on your desktop and then open the *Templates* drawer inside the *Create* cabinet window.
 - Copy the *Guidebook Template* document from your desktop and paste it inside the *Templates* drawer window.
- ☰ ☰ Point to the desktop, hold down the menu button and drag the cursor to the Create Templates submenu.

The submenu contains a command named Guidebook Template.





Drag the cursor down to **Guidebook Template** and release the menu button.

A Guidebook Template document appears on the desktop.

- Open the *Guidebook Template* document.

A duplicate of the Guidebook Template document you created at the end of Lesson 21 appears.

The *Create* cabinet controls the contents of the Create submenu on the Nothing Selected popup. Documents and other icons stored in the *Create* cabinet are represented on this submenu. Directory icons that have contents have submenus off the Create submenu. Only your system administrator can make changes to the *Create* cabinet within the *System* cabinet; however, you can override this *Create* cabinet by creating a copy of it on your desktop. You can place in this copy any customized templates you like. These templates will appear on the Create submenu, so you can create them by executing a single command.

For More Information

If you are interested in learning more about the topics covered in these lessons, see the following chapters in the *Text Processing and Page Makeup* manual in the *Reference* set:

- Chapter 19, *Multicolumn Documents*, describes how to create and work with multicolumn documents.
- Chapter 20, *Header and Footer Frames*, describes page layout in relation to the content of header and footer frames.
- Chapter 21, *Text-Anchored Frames*, discusses frame placement properties.
- Chapter 24, *Masters' Properties and Content*, discusses the use of templates in the *Create* cabinet.
- Chapter 25, *Document Templates*, describes the templates supplied with the publishing software and how to create your own templates.

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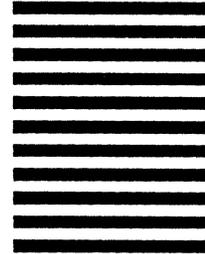


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