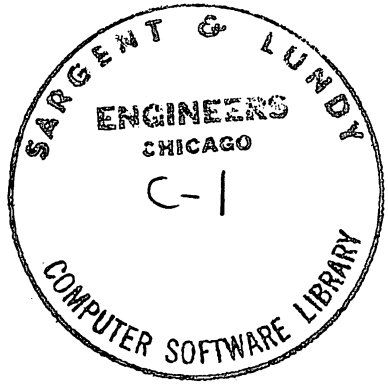


Storyboard Plus

Version 2.00



First Edition, June 1989

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About This Book

This book describes how to use IBM Storyboard Plus Version 2.00, an easy-to-use system for preparing and showing color presentations, or *stories*, with your computer.

Storyboard Plus has other uses, too. For example, most of the figures in this book were created using the screen capture and editing features of Storyboard Plus.

How This Book Is Organized

Chapter 1, “Introduction” describes Storyboard Plus and how to get started using the program.

Chapter 2, “Picture Maker” describes how to create pictures for your stories.

Chapter 3, “Picture Taker” describes how to “capture” pictures from other programs and use them with Storyboard Plus.

Chapter 4, “Text Maker” discusses how to create text screens for use in your stories.

Chapter 5, “Story Editor” discusses how to put pictures and text screens together to create stories.

Chapter 6, “Story Teller” describes how to present stories you create with Story Editor.

Appendixes discuss the following information:

- Messages you may see while using Storyboard Plus
- Supported hardware

- How to set up Storyboard Plus for use on the IBM PC Local Area Network
- How to set up a Kodak Remote Control Adapter
- Picture file format
- Creating new digitize and print drivers
- Product support and license information

Chapters 2 through 6 contain reference information about the modules that make up Storyboard Plus. In addition, each of these chapters includes a tutorial you can use to learn more about some of the features discussed in that chapter.

For information about product support and warranty, refer to Appendix G, “Storyboard Plus Product Support and License Information.”

What You Should Know Before Reading This Book

This book assumes you know basic information about your computer, including how to:

- Switch your system on and off
- Insert, format, and handle diskettes
- Use input devices that may be attached to your system, such as a mouse, graphics tablet, or joystick

You also should be familiar with basic Disk Operating System (DOS) concepts, such as the role of files and directories.

If you need more information about these topics, refer to the DOS manual and to the manuals that accompanied your computer system.

What's New in This Version

If you have used IBM Storyboard Plus before, here's what you can look forward to in Version 2.00:

Added Features

- New resolution mode, 640 x 480 – 256, using the IBM Personal System/2® 8514/A Display Adapter (1MB of memory required on card)
- Support for the TIFF and PCX file formats
- Ability to use the following video capture boards:
 - Jovian Logic Corporation VIA¹ Video Frame Grabber Board (PC Bus and MCA Bus versions)
 - Truevision TARGA² 16 Videographics Adapter
- New printers supported:
 - IBM Pageprinter
 - IBM Proprinter™ II
 - IBM Proprinter II XL
 - IBM Proprinter III
 - IBM Proprinter III XL
 - IBM Proprinter X24E™
 - IBM Proprinter XL24E™
 - IBM Pageprinter Model 2
 - IBM Personal Pageprinter 010
 - IBM Personal Pageprinter 020
 - IBM Personal Page Printer II
 - IBM Quickwriter

Personal System/2 is a registered trademark of the International Business Machines Corporation.

¹ VIA is a trademark of Jovian Logic Corporation.

² TARGA is a trademark of Truevision Corporation.

Proprinter, Proprinter X24E, and Proprinter XL24E are trademarks of the International Business Machines Corporation.

- Hewlett-Packard LaserJet Series II
- Hewlett-Packard PaintJet³
- In Picture Maker:
 - Contour option for selecting irregularly-shaped areas
 - Ruler option to help with alignment in pictures
 - Ability to underline spaces when entering text
 - Spread feature for creating interesting backgrounds and filled areas using an automatically-generated range of colors
 - Ability to save and retrieve text attributes for ease of style selection
 - Change Color option for altering color with the Paint and Spray icons
 - Two additional palettes available in the 320 x 200–4 resolution mode
 - Ability to save defaults for Modes menu options, library and font files, graph parameters, Print panel, and other features
- In Story Editor:
 - Copy Story option for copying a story and all referenced files to a directory or diskette
 - Ability to view all partial pictures in sequence
 - Ability to change all colors in text mode
 - New command: /CALL (like /TELL, except that control returns to the original story)
 - Two new dissolve methods: INSTANT and BLEND
 - Ability to save default selection of Full Screen or Monitor mode

³ Hewlett-Packard LaserJet Series II and Hewlett-Packard PaintJet are trademarks of Hewlett-Packard Corporation.

- In Picture Taker:
 - Ability to define the key combination used to capture screens
 - Ability to convert text screens to graphics

Improved Performance and Usability

- Ability to type a filename on the File Services panel as an alternative to scrolling and selecting from the list
- Quick Save feature in Picture Maker and Story Editor for convenient saving of pictures and stories
- In Picture Maker:
 - Improved print capabilities, including three print sizes and ability to preview and change print colors
 - Ability to display and edit pictures created in higher resolution modes in lower resolution modes
 - Improved display of lower resolution pictures in higher resolution modes
 - Ability to use the Constrain option with the Scale feature and when scaling library and graph images
 - Display of Rotate, Scale, X,Y Coordinates, and Zoom information in Full Screen mode
 - Ability to restore information after selecting Undo
 - Use of Cursor keys for precise drawing while using the mouse as the input device
 - Ability to display keyboard assignments on the screen while using Picture Maker
 - Code swapping to a specified default buffer path to reduce memory requirements
- In Story Editor:
 - Improved performance of run functions, dissolve methods, and commands
 - Ability to type information directly into the story table
 - Ability to change path information directly for the selected file

- Ability to pass larger strings with the /INT command
- Improved /EXEC command for faster transitions to other programs, without clearing the screen
- Ability to display keyboard assignments on the screen while using Story Editor
- In Story Teller:
 - Improved performance of run functions, dissolve methods, and commands
 - Two Story Teller files combined into one EXE file
 - Faster progression through introductory program screen

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About This Chapter

This chapter describes Storyboard Plus. It also includes information about starting and using the program. You may not need to read everything in this chapter, especially if you have used Storyboard Plus before. Refer to the following list to decide which sections in this chapter you should read.

- **“About Storyboard Plus”** —Read this section if you have never used Storyboard Plus before.
- **“Getting Started”** —Follow the procedures in this section if you do not have backup copies of the Storyboard Plus diskettes or if you want to install the program on a fixed disk.
- **“Starting and Exiting Storyboard Plus”** —Read this section if you do not know how to start and exit Storyboard Plus.
- **“Storyboard Plus Setup”** and **“Quick Menu Maintenance”** —Use the information in these sections to customize Storyboard Plus for your system. You can skip these sections if you want to use the standard setup information included with the program (refer to “Storyboard Plus Setup” to find out more about standard setup information).

About Storyboard Plus

Storyboard Plus helps you create color presentations, or *stories*, which you can run on an IBM PC or Personal System/2, show with a video projector, or transfer to other media, such as videotape, slides, or paper.

Storyboard Plus consists of five modules:

Picture Maker	Story Editor
Picture Taker	Story Teller
Text Maker	

Picture Maker

Picture Maker lets you create pictures and graphs for your Storyboard Plus presentations. With Picture Maker, you can modify pictures you have created and pictures you have “captured” from other programs by using Picture Taker.

With Picture Maker, you can:


- Draw rectangles, squares, circles, ellipses, and lines.
- Spray, paint, and fill areas with colors or pre-made patterns which you can modify and save.
- Move, copy, scale, rotate, and flip figures.
- Create text in a variety of fonts and styles.
- Easily generate bar, pie, and line graphs.
- Use shadows in the depth, direction, and color of your choice for figures, text, and graphs.
- Create pictures using a video camera.

Picture Taker

Picture Taker is like a camera that captures what appears on the screen and stores it in a file. With Picture Taker, you can capture graphics screens or text screens from other DOS applications. Then you can edit those screens in Storyboard Plus. Picture Taker can save you time by eliminating the need to recreate screens from scratch.

Text Maker

Text Maker lets you create and edit text screens for use in your stories. You can create text screens from scratch, or you can edit screens you have captured with the Picture Taker module.




For example, you can capture a screen from a spreadsheet program that contains data you want to present. Then, using Text Maker, you can add titles and explanatory text to the screen before using it in your Storyboard Plus presentation.

Text Maker also lets you create boxes and draw text-character pictures in the foreground and background colors of your choice.

Story Editor


Story Editor is the module you use to assemble your Storyboard Plus presentation. Story Editor makes it easy to arrange your pictures and text screens in sequence and select special dissolve techniques that lead you from one screen to the next.



With Story Editor, you immediately see the results of additions or changes to your story. You can display pictures sequentially forward or backward, or jump to specific steps in the story. After you create or modify a presentation, you can save it on diskette or fixed disk.

Story Teller

Story Teller lets you display presentations you have created with Story Editor. You can present your stories on a large monitor or video projector, if the equipment is supported by your system configuration.



Getting Started

This section describes how to back up the Storyboard Plus diskettes and how to install and remove Storyboard Plus from a fixed disk. If you already have backup copies and Storyboard Plus is installed on your fixed disk, go to “Starting and Exiting Storyboard Plus” on page 1-10.

Backing Up Your Program Diskettes

Before using Storyboard Plus, you should make a backup copy of each of the program diskettes that accompany this book. You can make these copies using the DOS DISKCOPY command or using the backup program provided with Storyboard Plus. The following steps describe how to use the Storyboard Plus backup program.

1. Format and label one blank diskette for each Storyboard Plus diskette you back up.

For example, if you are using the 5.25-inch, double-sided, double-density Storyboard Plus diskettes, you will need to format six 5.25-inch diskettes at 360KB density.

If you are using the 3.5-inch, double-sided diskettes, you will need to format three 3.5-inch diskettes at 720KB density.

Also, if you intend to store pictures and stories on diskette, you should format one or more additional diskettes.

2. Make sure drive A is the default drive (if C > appears as the DOS prompt, type **a:** and press **Enter**).
3. Insert the Storyboard Plus Diskette 1 in drive A.

4. Type **install** and press **Enter**. You see the Backup/Install Menu.

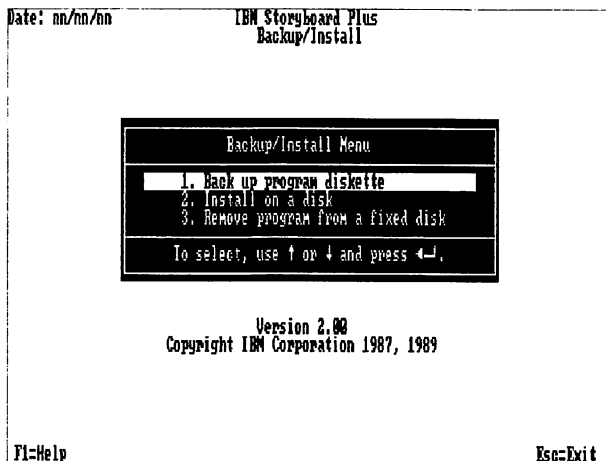


Figure 1-1. The Backup/Install Menu

Note that the first option on this menu, **Back up program diskette**, is highlighted. You can highlight other selections on Storyboard Plus menus by using the Cursor keys. You select a highlighted option by pressing **Enter**.

5. Select **Back up program diskette** from the menu.
6. Follow the instructions that appear on the screen. When you see the message **Back up is complete**, press **Enter** to return to the Backup/Install Menu.
7. Store the original Storyboard Plus diskettes in a safe place. From now on, use your backup copies to run the program.

If you want to install Storyboard Plus on a fixed disk, follow the steps in the next section. To start using Storyboard Plus, go on to “Starting and Exiting Storyboard Plus” on page 1-10.

Installing Storyboard Plus on a Fixed Disk

If you use a fixed disk, you may wish to install Storyboard Plus in its own subdirectory. You can install using the DOS MAKE DIRECTORY and COPY commands or using the installation program provided with Storyboard Plus. The following steps describe how to use the Storyboard Plus installation program.

1. Display the Backup/Install Menu as described in the previous section.
2. Select **Install on a disk** from the Backup/Install Menu. A box appears where you enter the drive and directory in which to install Storyboard Plus.
3. Press **Enter** if you want to install the program on drive C in a subdirectory named STORYBD (the Install program creates this subdirectory for you). To install Storyboard Plus in a different drive or directory, type a new path and press **Enter** (to cancel installation, press **Esc**).
4. Follow the instructions that appear on the screen.
5. When you see the message **Installation is complete**, press **Enter** to return to the Backup/Install Menu.
6. If you are using 5.25-inch diskettes, remove Diskette 6 from drive A and insert Diskette 1. If you are using 3.5-inch diskettes, remove Diskette 3 and insert Diskette 1.
7. Press **Esc** to exit the Backup/Install Menu. A message asks you to confirm that you want to exit.
8. Press **Y**. You return to the DOS prompt.

Removing Storyboard Plus from a Fixed Disk

If you want to reorganize your fixed disk or move Storyboard Plus to a different system, you should first remove Storyboard Plus from the subdirectory in which it is installed.

To do this, use the **Remove program from a fixed disk** option on the Backup/Install Menu. Note that this option only removes files that were included on the original Storyboard Plus program diskettes. Any files you have created remain in the subdirectory.

To use this option:

1. Make sure drive A is the default drive (if **C >** appears as the DOS prompt, type **a:** and press **Enter**).
2. Insert the Storyboard Plus Diskette 1 in drive A.
3. Type **install** and press **Enter**. You see the Backup/Install Menu.
4. Select **Remove program from a fixed disk** from the Backup/Install Menu. A box appears with **C:\STORYBD** as the default drive and directory in which Storyboard Plus is installed.
5. If **C:\STORYBD** is the correct path, press **Enter** to continue. If Storyboard Plus is installed in a different drive or directory, type the path where Storyboard Plus is installed, and then press **Enter**. The Storyboard Plus files are removed from the drive and directory you specified.
6. Press **Enter** to return to the Backup/Install Menu.
7. Press **Esc** to exit the Backup/Install Menu. A message asks you to confirm that you want to exit.
8. Press **Y**. You return to the DOS prompt.

Remember to go back and erase the other files you created after you copy them to your new location.

Starting and Exiting Storyboard Plus

The following sections describe how to start Storyboard Plus from a fixed disk or diskette, and how to exit the program.

Starting From Fixed Disk

To start Storyboard Plus from a fixed disk, follow these steps:

1. Start DOS.
2. At the DOS prompt, change to the directory in which you installed Storyboard Plus. For example, at the DOS prompt enter:

```
cd\storybd
```

Refer to your DOS manual if you need more information about changing directories.

3. Type **sbmenu** and press **Enter**.

The Storyboard Plus Quick Menu/Setup screen appears. This menu displays the selections you choose to start the Storyboard Plus modules. Starting a module is discussed further in the chapter about that module.

Starting From Diskette

To start Storyboard Plus from diskettes, follow these steps:

1. Start DOS.
2. Insert the Storyboard Plus Diskette 1 in drive A.
3. Type **sbmenu** and press **Enter**.

The Storyboard Plus Quick Menu/Setup screen appears. This menu displays the selections you choose to start the Storyboard Plus modules. Starting a module is discussed further in the chapter about that module.

Exiting Storyboard Plus

To exit Storyboard Plus from the Quick Menu/Setup screen, press the **Esc** key. A message appears asking you to confirm that you want to exit the menu. Type **y** to exit, or press **Enter** to cancel exiting the program.

Storyboard Plus Setup

This section describes how to set up Storyboard Plus with information about your system and how you want the program to work. If Storyboard Plus already has been set up on your computer, go to the chapter that describes the Storyboard Plus module you want to use. Refer to this section in the future if you need information about changing how Storyboard Plus is set up.

When you set up Storyboard Plus from the Quick Menu/Setup screen, you select:

- How the date appears on Storyboard Plus menus
- The default buffer path (drive and directory) used by Storyboard Plus to swap out parts of the program when you need more memory
- The default data path used automatically by Storyboard Plus to store and retrieve your work
- The digitizer card you use, if any
- The type of input device you use (keyboard, mouse, graphics tablet, or joystick)
- The type of printer you use
- The color you would like to use for the screen
- The resolution mode you work in most often
- Whether you want to use sound for messages and errors

If you do not set the default data path, input device, printer, and resolution mode, Storyboard Plus is set up with:

- Drive A as the default data and buffer paths
- The keyboard as your input device
- An IBM Proprinter as your printer
- An IBM Color Display in 320 x 200 – 4 resolution mode

Note: The name of this resolution mode, “320 x 200 – 4,” indicates how many *pixels* (320 x 200) and how many colors (4) can be used in a picture. Pixels are discussed later in this chapter.

To set up Storyboard Plus, press the **F2** key. The Setup menu appears. To select an option from this menu, highlight the option using the Cursor Up or Down key, and then press **Enter**. The following sections describe how to use each of these options.

When you have finished using these options, press **Esc**. If you made any changes to the setup, a message informs you that the changes have been saved. Press **Enter** to return to the Quick Menu/Setup screen.

Choosing the Date Format

With **Date format** highlighted on the Setup menu, press **Enter** to determine how the date appears on all of the Storyboard Plus main menus. After you select this option, a box appears that shows three date formats.

The list of formats contains more than the three displayed. To view the other choices, use the Cursor keys to scroll through the list.

To select a date format, highlight the format and press **Enter**. You return to the Setup menu.

Setting the Default Buffer Path

The programs that make up Storyboard Plus use your computer's memory. When Storyboard Plus needs more memory, it temporarily takes sections of programs out of memory and places them on the fixed disk or diskette, so that other parts of the program can use the memory.

The *default buffer path* is the drive and directory where Storyboard Plus temporarily places programs. To set this path, press the **Cursor Down** key to highlight **Default buffer path** on the Setup menu. Then press **Enter**. A box appears where you can enter a drive and a directory.

When you first use this option, **A:** appears in this box. This indicates that the root directory of the diskette in drive A is the default buffer path. You can change this path to any drive or directory.

Press **Enter** when you have finished typing the default buffer path. You return to the Setup menu.

You also can display a panel to help you select the default buffer path. With the Default Buffer Path box displayed, press **F10** to display the File Services panel.

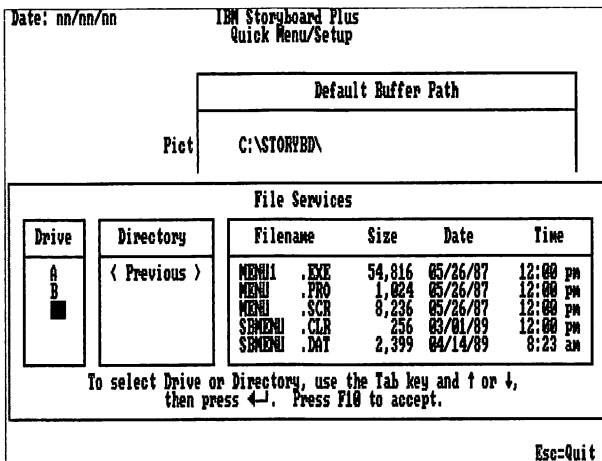


Figure 1-2. The File Services Panel

This panel also appears if you enter an incorrect buffer path or if you delete the information in the Default Buffer Path box and press **Enter**.

The File Services panel displays your system's drives, directories, and files. You can use the Tab and Shift-Tab keys to move the cursor among the Drive, Directory, and Filename boxes of this panel. Selecting a drive displays the directories on that drive. Selecting a directory displays the files and subdirectories in that directory.

As you select drives and directories, the information in the Default Buffer Path box changes to reflect your selections. When the default buffer path you want to use is displayed in the Default Buffer Path box, press **F10**. You return to the Setup menu.

Note: The most efficient buffer path involves using a virtual disk, which you can set up using the VDISK.SYS file included with DOS. The least efficient buffer path is a diskette drive.

Setting the Default Data Path

The default data path is the drive and directory in which you most commonly store your work. When using the Storyboard Plus modules, you have the option of changing the drive and directory where work is stored. Setting the path you will use most often will save you time as you use Storyboard Plus.

To set the default data path, use the Cursor Down key to highlight **Default data path** on the Setup menu. Then press **Enter**. A box appears where you can type a drive and a directory. While typing the path, you can use the Cursor Right and Left, Insert, and Delete keys to edit your entry. After typing the default data path, press **Enter**. You return to the Setup menu.

You also can display a panel to help you select the default data path. With the Default Data Path box displayed, press **F10** to display the File Services panel. This panel also appears if you enter an incorrect data path or if you delete the information in the Default Data Path box and press **Enter**. Refer to the previous section for information about using this panel.

Selecting a Digitizer Card

If you use a digitizer card, select **Digitizer card** on the Setup menu to tell Storyboard Plus the type of card you use. A box appears displaying three of the choices. Use the Cursor keys to scroll through the list and view the other choices. To select a digitizer card, highlight your choice and then press **Enter**. You return to the Setup menu.

Note: Select **Other** if you are using a digitizer card other than those listed. To use a card other than those listed, you must supply a digitize driver. Refer to Appendix F, "Creating New Digitize and Print Drivers" for information about creating digitize drivers.

Choosing an Input Device

You can use a mouse, keyboard, graphics tablet, or joystick with Storyboard Plus. If you have a mouse attached to your system, you may find that the mouse is more convenient to use than the keyboard, especially with Picture Maker and Story Editor. The mouse lets you point and click when selecting options and other objects on the screen.

The input device you select using the Setup menu will be the default input device every time you start the program. If you do not use this option to change the input device, the program expects you to use the keyboard as your input device.

To change the default input device:

1. Use the Cursor Down key to highlight **Input device** on the Setup menu.
2. Press **Enter**. The Input Device menu appears.
3. Select **Input device** from the Input Device menu. A list of input devices appears.
4. Use the Cursor Up or Down key to scroll through the list and highlight the device you want to select as the default input device.

Note: Highlight **Other** if you are using a device other than those listed.

5. Press **Enter**. You return to the Input Device menu.
6. If your input device is attached to one of your system's communications ports, select **DOS device name** on the Input Device menu to tell Storyboard Plus which port you use.

A menu appears where you select **COM1**, **COM2**, or **none**. Highlight the device name of your choice and press **Enter**. You return to the Input Device menu.

7. Press **F10** to accept all of your changes. If you selected a mouse as your default input device, an additional menu appears where you select right- or left-handed operation and button action.

By default, Storyboard Plus is set for right-handed mouse operation. This means that **Button 1** on the mouse is the left button. **Button 2** is the right button. To switch to left-handed operation, select **Hand** on the menu. Then, select **Left handed**. This makes **Button 1** the right button and **Button 2** the left button on the mouse.

The **Button action** option lets you choose how the mouse buttons are used to select and carry out Storyboard Plus features. By default, the program uses the **Button press** action. (The instructions in this manual assume that this is the type of button action you use.) With this action, you start and stop most operations by pressing and releasing a mouse button.

The other button action, **Button release**, lets you start an operation by pressing a button, and then stop the operation by releasing the button. You can switch to this mode by selecting **Button action** from the menu. Then select **Button release**.

After selecting hand operation and button action, press **F10** to accept your changes and return to the Setup menu.

Using a Joystick as Input Device

To use a joystick as your input device, you first must install the joystick driver program supplied with Storyboard Plus. This program is located on the Storyboard Plus Diskette 2 (3.5-inch) or Diskette 3 (5.25-inch).

To install this program from DOS:

1. Make sure drive A is the default drive.
2. Insert the Storyboard Plus Diskette 2 (3.5-inch) or Diskette 3 (5.25-inch) in drive A.
3. At the DOS prompt, type **joystick**, and then press **Enter**. Instructions appear on the screen that help you set up your joystick for use with Storyboard Plus. After you follow these instructions, a message indicates installation is complete. You return to DOS.
4. Start Storyboard Plus as described earlier in this chapter.
5. Press **F2** at the Quick Menu/Setup screen to display the Setup menu.
6. Select **Input device** to change the default input device.
7. Select **Input device** from the Input Device menu.
8. Select **Other** from the list of input devices.
9. Press **F10** to accept all changes.

When using a joystick, you must follow these steps to install the driver program before starting Storyboard Plus. The program stays in memory until you install a driver program for a different device, reset the system by pressing the Ctrl-Alt-Delete keys, or switch off your computer.

Selecting a Printer

To set up Storyboard Plus with information about your printer:

1. Select **Printer** on the Setup menu. The Printer menu appears.
2. Select **Printer** on the Printer menu to select the type of printer you use. A list of printers appears.

3. Use the Cursor keys to scroll through the printer list and highlight the printer you use.
4. Press **Enter** to select the highlighted printer.
5. When selecting certain printers, such as the IBM Personal Pageprinter 010, another box appears where you choose printer resolution. Printer resolution is measured in dots-per-inch (DPI). Select **100 DPI** for lower-resolution printing, or **300 DPI** for higher-resolution printing. You return to the Printer menu.

Note: Your printer may need additional memory to operate in 300 DPI printing mode. If after selecting **300 DPI** your pictures do not print properly, return to this setup procedure and select **100 DPI**.
6. If you are using the printer in a country other than the United States, select **Model** on the Printer menu. A box appears with the selections **United States** and **Other countries**. Select **Other countries** from the box.
7. If you are using single sheets of paper that are manually or automatically fed select **Paper feed** from the Printer menu. Another menu appears. Select **Cut sheet auto** or **Cut sheet manual** from the menu. The default is **Continuous**.
8. To select the port to which your printer is attached, select **DOS device name** from the Setup menu (the default is LPT1). Another menu appears from which you can select the port. Parallel printers use LPT1, LPT2, or LPT3. Serial printers use COM1 or COM2.
9. Use the Cursor Up or Down key to scroll through the list of ports and highlight the port to which your printer is attached.
10. Press **Enter** to select the highlighted port. You return to the Setup menu.
11. Press **F10** to accept all changes.

Notes:

1. Select **Other** if you are using a printer other than those listed. Refer to Appendix F for information about creating a driver for printers not shown in this list.
2. The IBM Personal Pageprinter 010, IBM Personal Pageprinter 020, and IBM Personal Page Printer II are supported in Hewlett-Packard LaserJet + emulation mode only.

Selecting Screen Colors

Select **Screen color** on the Setup menu to change the color of message boxes, help text, instructions, screens, and main menus. After you select this option, the Change Screen Colors menu appears. Follow the instructions at the bottom of this menu to change the color of various menus, panels, and boxes you see while using Storyboard Plus. You also can view instructions by pressing **F1**.

Choosing a Resolution Mode

Select **Resolution modes** on the Setup menu to select the resolution, or sharpness, of the pictures you create with Storyboard Plus. The resolution mode also determines the number of colors available to you.

Screen resolution is measured in *pixels*. Pixels are tiny rectangles that make up a graphic image. The names of the resolution modes indicate how many pixels and colors are available to you. The greater the number of pixels on the screen, the sharper the image you can create.

For example, in 320 x 200 – 4 resolution mode, the screen is 320 pixels wide by 200 pixels tall, and the number of available colors is four. In 640 x 480 – 256 resolution mode, the screen is 640 pixels wide by 480 pixels tall, and the number of available colors is 256. The second mode is referred to as a *higher* resolution mode than the first.

The pixels in this mode are smaller and more numerous, and therefore, will yield a sharper picture.

After you select **Resolution modes**, a list of modes is displayed. Use the Cursor keys to scroll through the list and highlight the mode you want to use. Press **Enter** to select the highlighted resolution mode.

The resolution modes you can use are determined by the type of display and graphics adapter you have. Use the following table to help you decide which resolution modes you can select.

Table 1-1 (Page 1 of 2). Equipment and supported resolution modes.	
<i>Display and Graphics Adapter</i>	<i>Supported Resolution Modes</i>
Color Display and Color/Graphics Adapter	320 x 200 – 4
Color Display and Enhanced Graphics Adapter	320 x 200 – 4
Enhanced Color Display and Enhanced Graphics Adapter	320 x 200 – 4
Enhanced Color Display and Enhanced Graphics Adapter with 256KB of memory	320 x 200 – 4, 640 x 200 – 16, 640 x 350 – 16
IBM Personal System/2 Model 25 or 30 with Model 8512, 8513, or 8514 Color Display	320 x 200 – 4, 320 x 200 – 256

Table 1-1 (Page 2 of 2). Equipment and supported resolution modes.	
<i>Display and Graphics Adapter</i>	<i>Supported Resolution Modes</i>
IBM Personal System/2 Model 50, 60, 70, or 80 with Model 8512, 8513, or 8514 Color Display	All modes except 640 x 480 – 256
IBM Personal System/2 Display Adapter with Model 8512, 8513, or 8514 Color Display	All modes except 640 x 480 – 256
IBM Personal System/2 8514/A Display Adapter with the Model 8512, 8513, or 8514 Color Display (1MB of memory required on display adapter)	All modes

Notes:

1. If you select a mode for which you do not have enough memory or the correct display and graphics adapter, Storyboard Plus uses the next lower available resolution mode.
2. You can create pictures in one resolution mode and display them in another. However, the pictures may not appear as you expect.

Switching Sound On and Off

By default, Storyboard Plus is set up so that errors and completed tasks are accompanied by an audible tone. To switch off sound in the program, select **Sound on/off** on the Setup menu. A box appears where you can select **On** or **Off**. Select **Off** to switch off sound. Select **On** to switch sound back on.

Quick Menu Maintenance

Press **F3** to customize the Quick Menu/Setup screen by changing the following:

- Date format
- Screen colors
- Program names
- Order in which the Storyboard Plus modules are displayed on the screen

After you press **F3**, a menu appears that lets you make these changes. To view more information about each option, highlight the option and then press **F1**. After selecting an option, follow the instructions on the screen.

Chapter Summary

This chapter briefly described Storyboard Plus and its five modules. This chapter also described how to:

- Back up the Storyboard Plus program diskettes
- Install Storyboard Plus on a fixed disk
- Remove Storyboard Plus from a fixed disk
- Start and exit Storyboard Plus
- Set up Storyboard Plus for use with your system
- Customize the Quick Menu/Setup screen

What You Should Read Next

After completing this chapter, you should go on to the chapter that discusses the Storyboard Plus module you want to start using first. For example, go to one of the following chapters:

- Chapter 2, “Picture Maker”
- Chapter 3, “Picture Taker”
- Chapter 4, “Text Maker”
- Chapter 5, “Story Editor”
- Chapter 6, “Story Teller”

Each of these chapters includes a tutorial section that helps you learn more about the module and its features. You can use the tutorials before reading the rest of the information in the chapters, but you should read the first few pages of each chapter for necessary information about using the tutorial.

Chapter 2. Picture Maker

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About This Chapter

This chapter describes how to use Picture Maker, the module that lets you create and edit graphic pictures for use in your Storyboard Plus presentations.

The section “Learning Picture Maker” on page 2-12 is a tutorial designed to help you become familiar with some of Picture Maker’s features. Before using this tutorial, you should read the following sections “Starting and Exiting Picture Maker” on page 2-4, and “The Picture Maker Screen” on page 2-8. Picture Maker reference information begins with the section “Drawing With Picture Maker” on page 2-63.

We recommend that you use a mouse as your input device when using Picture Maker. However, if you are using the keyboard instead, look for boxes labeled “Notes for Keyboard Users.” These boxes contain information about the keys to use instead of mouse buttons in each procedure. You also can view this information on the screen while using Picture Maker by pressing **Alt-F1**. A panel appears that you can scroll through using the PgDn and PgUp keys. When you have finished viewing this information, press **Esc**.

To see general information about a menu option or other feature, move the arrow, or “pointer,” so the tip of the pointer touches the option or feature, then press **F1** for Help. A box appears with text you can scroll through by selecting the arrow pointing down. You also can use the PgDn and PgUp keys to view all of the Help information. When you have finished viewing this information, press **Esc** or **Button 2**.

Note: Throughout this chapter, you are instructed to select something on the screen. “Selecting” means to move the pointer until the tip of the pointer touches an object. Then, press **Button 1**.

Unless otherwise indicated, making a selection involves pressing Button 1. When you are required to press Button 2, you are explicitly instructed to do so.

Notes for Keyboard Users

Making a selection involves moving the pointer with the Cursor keys until the tip of the pointer touches an object you want to select. Then press **Enter** or the **Plus** key on the numeric keypad in place of **Button 1** on the mouse. When you are instructed in this chapter to press **Button 2**, press **Esc** or the **Minus** key on the numeric keypad.

Starting and Exiting Picture Maker

Starting From Fixed Disk

If you started Storyboard Plus by entering **sbmenu** at the DOS prompt, you can choose Picture Maker from the Quick Menu/Setup screen. Use the Cursor Up or Down key to highlight **Picture Maker**. Then, press **Enter** to display the Picture Maker Main Menu.

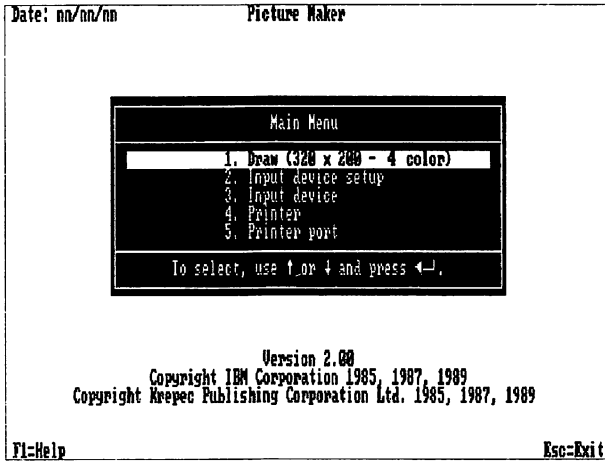


Figure 2-1. The Picture Maker Main Menu

You also can start Picture Maker from the DOS prompt by typing **pm** and pressing **Enter**. Starting the module in this manner displays the Picture Maker Main Menu without first displaying the Quick Menu/Setup screen.

The first selection on the Picture Maker Main Menu takes you to the Picture Maker screen. The other selections on this menu let you set up your input device and printer as you did in the section “Storyboard Plus Setup” on page 1-11. You can use these selections to change this information just for the current Picture Maker session. The next time you use Picture Maker, the information again is set according to the default selections you made by pressing F2 at the Quick Menu/Setup screen.

Starting from Diskette

To start Picture Maker from diskettes:

1. Highlight Picture Maker on the Quick Menu/Setup screen using the Cursor Down or Up key, and then press **Enter**.

A message appears instructing you to insert a program diskette.

2. Remove Diskette 1 from drive A and insert Diskette 2.
3. Press **Enter**. The Picture Maker Main Menu appears.
4. If you have two diskette drives, insert a formatted diskette for storing your work in drive B. If you have one diskette drive, remove Diskette 2 from drive A and insert a formatted diskette for storing your work.

You also can start Picture Maker from the DOS prompt without displaying the Quick Menu/Setup screen. Here's how:

1. Insert Diskette 2 in drive A.
2. At the DOS A > prompt, type **pm** and press **Enter**. After a few moments, a message asks you to insert Diskette 1 in drive A.
3. Remove Diskette 2 from drive A and insert Diskette 1.
4. Press **Enter**. Another message asks you to insert the PM Program diskette (this is Diskette 2).
5. Remove Diskette 1 from drive A and insert Diskette 2.
6. Press **Enter**. The Picture Maker Main Menu is displayed.
7. If you have two diskette drives, insert a formatted diskette for storing your work in drive B. If you have one diskette drive, remove Diskette 2 from drive A and insert a formatted diskette for storing your work.

Note: To eliminate diskette swapping when starting Picture Maker from the DOS prompt, use the DOS COPY command to copy the STB.CLR and STB.PRO files from Diskette 1 to Diskette 2. If in the future you change setup information from the Quick Menu/Setup screen, you must copy these files again to Diskette 2.

The first selection on the Picture Maker Main Menu takes you to the Picture Maker screen. The other selections on this menu let you set up your input device and printer as you did in the section "Storyboard Plus Setup" on page 1-11. You can use these selections to change this information just for the current Picture Maker session. The next time you use Picture Maker, the information again is set according to the default selections you made by pressing F2 at the Quick Menu/Setup screen.

Exiting Picture Maker

To exit the module from the Picture Maker Main Menu, press **Button 2**. A message asks you to confirm that you want to exit the program. The message also reminds you if any changes to a picture have not been saved. Press **Button 1** to exit, or press **Button 2** to keep the Picture Maker Main Menu displayed.

If you press **Button 1**, the Quick Menu/Setup screen or the DOS prompt is displayed, depending on how you started Picture Maker. If you started Picture Maker from diskette using the Quick Menu/Setup screen, a message asks you to insert Diskette 1 in drive A.

Notes for Keyboard Users

Press **Esc** to exit Picture Maker from the Main Menu. Press **y** to continue, or press **Enter** to keep the Picture Maker Main Menu displayed.

The Picture Maker Screen

With the **Draw** selection highlighted on the Picture Maker Main Menu, pressing **Button 1** (or the **Enter** key) displays the Picture Maker screen. The following figure shows the parts of this screen:

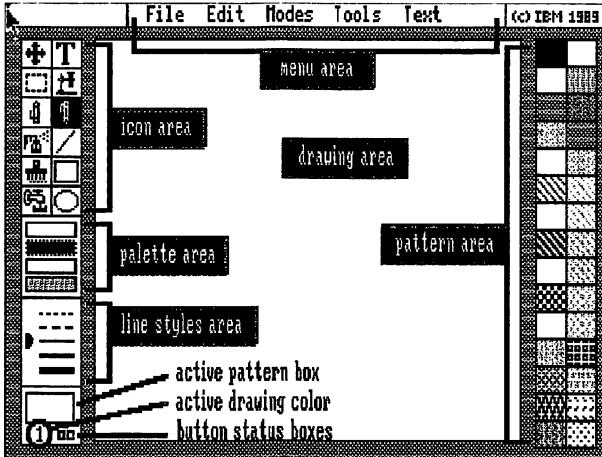


Figure 2-2. The Picture Maker Screen

Following is a description of each part of this screen.

<i>Screen Area</i>	<i>Description</i>
Drawing area	The drawing area is the space in which you create your pictures. This area is the size of your screen. You can scroll the area or expand it to its full size as described later in this chapter.
Menu area	Each word in the menu area represents a separate menu you can display by selecting the word. For example, selecting File displays the File menu. With a menu displayed, you can select an option on that menu.

Icon area

Icons are tools you use to create figures and text in the drawing area. These tools are:

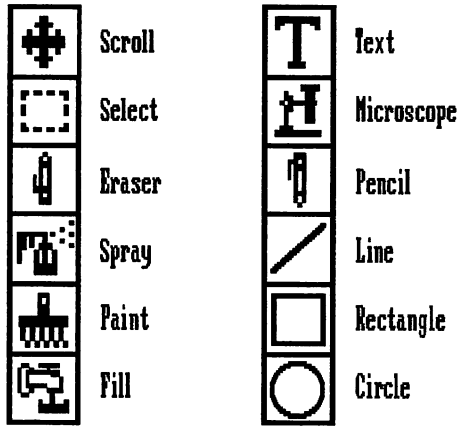


Figure 2-3. Picture Maker Icons

Palette area

This area displays the drawing colors you can use for figures and text.

Line styles area

The styles of lines you can use in your pictures are displayed in this area.

Pattern area

The pattern area shows the patterns you can select to use the Spray, Paint, and Fill icons. The pattern you select appears in the active pattern box.

Active pattern box

This box shows you the pattern that will be used if you select the Spray, Paint, or Fill icon.

Active drawing color

The active drawing color is shown either by color number or in a small color box.

Button status boxes

Mouse Buttons 1 and 2 have active and inactive states. Both buttons must be inactive before you can select an icon or menu option. The button status boxes indicate these states as shown in Figure 2-4.

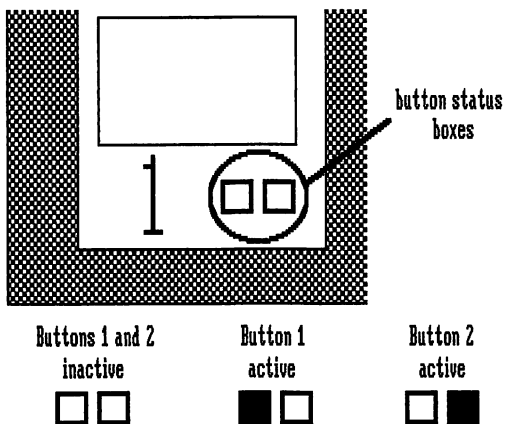


Figure 2-4. Button Status Boxes

To return to the Picture Maker Main Menu, select **Main Menu** from the File menu.

Notes for Keyboard Users

When the Picture Maker screen first appears, the pointer is in the drawing area. Use the following keys to move the pointer to other parts of the screen:

<i>Screen Area</i>	<i>Key</i>
Icon area	F3
Palette area	F4
Line styles area	F5
Pattern area	F6
Active pattern box	F9
File menu	1
Edit menu	2
Modes menu	3
Tools menu	4
Text menu	5

After moving the pointer to an area or menu, use the Tab key or Cursor keys to move the pointer over the option you want to select. Then press **Enter** or the **Plus** key on the numeric keypad.

Learning Picture Maker

This section is a tutorial designed to introduce you to some of Picture Maker's features. It shows you step-by-step how to draw and color boxes, enter text, and make graphs. You need at least 30 minutes to complete this section. Picture Maker reference information begins with the section "Drawing With Picture Maker" on page 2-63.

Note that this section does not contain all of the information you may need to know about features you will use. For more information about Picture Maker features, refer to the Contents at the beginning of this chapter or to the Index at the back of this book for the relevant page numbers in this chapter. You also can get information while using Picture Maker by pressing the **F1** key.

Before using this section, make sure you have backup copies of the Storyboard Plus diskettes and that the program has been set up for your system. Chapter 1 discusses backup and setup procedures. Also refer to Chapter 1 if you need information about starting Storyboard Plus.

If you are using this tutorial, make sure you have read the sections "About This Chapter" on page 2-3, "Starting and Exiting Picture Maker" on page 2-4, and "The Picture Maker Screen" on page 2-8, before getting started.

Note: This tutorial assumes that:

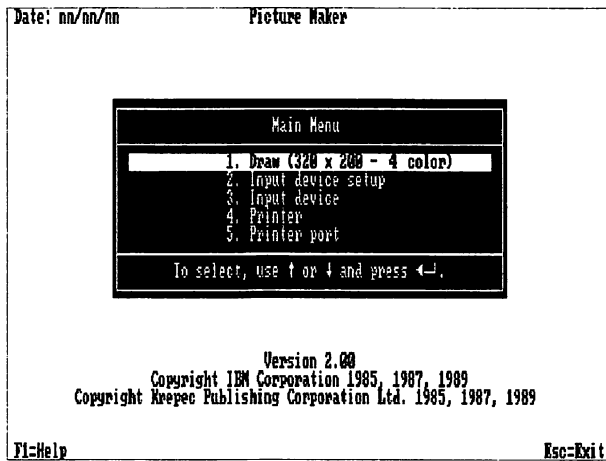
- You use a fixed disk.
- All of the files included on the original Storyboard Plus diskettes are located in the same default data path as described in "Storyboard Plus Setup" on page 1-11.

- You use the 320 x 200 – 4 resolution mode.
- The Picture Maker defaults have not been changed as described in “Changing and Saving Default Settings” on page 2-154.

If any of these assumptions is not true for you, steps may be added or missing from the tutorial, or your screen may differ slightly from the screens shown in this book.

Starting Picture Maker

1. Select **Picture Maker** on the Quick Menu/Setup screen. When the Picture Maker Main Menu appears, **Draw** is highlighted. The resolution mode you selected when you set up Storyboard Plus is displayed next to **Draw**.

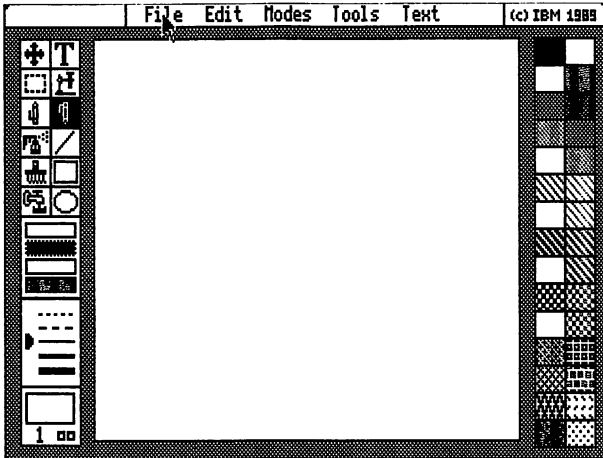


2. Start using Picture Maker by pressing **Button 1** (or **Enter**) while **Draw** is highlighted. The Picture Maker screen is displayed.

Retrieving a Picture

Retrieve a picture called SYSTEM.PIC that was included with Storyboard Plus by following these steps:

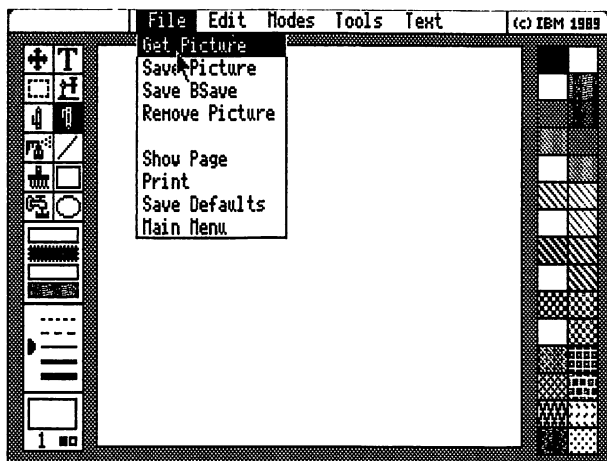
1. Move the pointer to **File** in the menu area.



2. Press **Button 1**. The File menu is displayed.

Note: Moving the pointer to an object and pressing Button 1 is called *selecting*. From now on, you will be instructed to select something instead of being told to move the pointer and press Button 1.

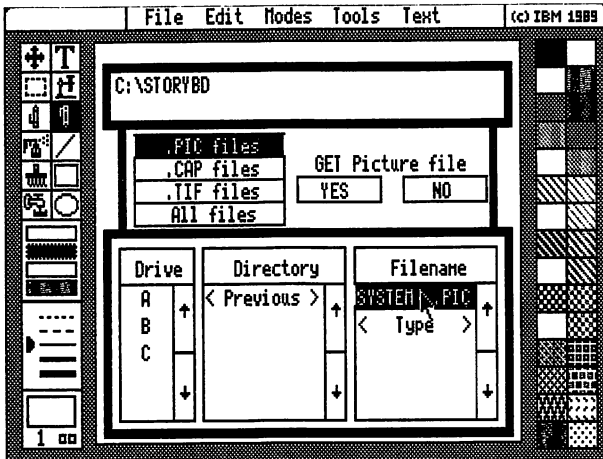
3. Select **Get Picture** from the File menu.



The File Services panel appears. Look for the box named **Filename** in the lower right corner of the panel.

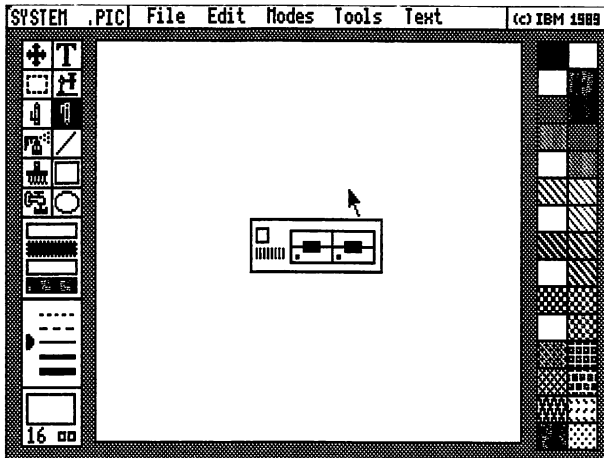
4. Select the arrow pointing down on the right side of the Filename box until the file SYSTEM.PIC is displayed in the list of files. If you pass this file, select the arrow pointing up.

5. Select **SYSTEM.PIC** in the Filename box.



Note: If the **SYSTEM.PIC** file is not displayed in the Filename box, move the pointer to the arrow pointing down on the right side of the Filename box and press **Button 1** until the **SYSTEM.PIC** filename appears. Then select the file.

6. Select **YES** in the middle of the File Services panel. The picture in the **SYSTEM.PIC** file is displayed in the drawing area. Your screen should look like this:

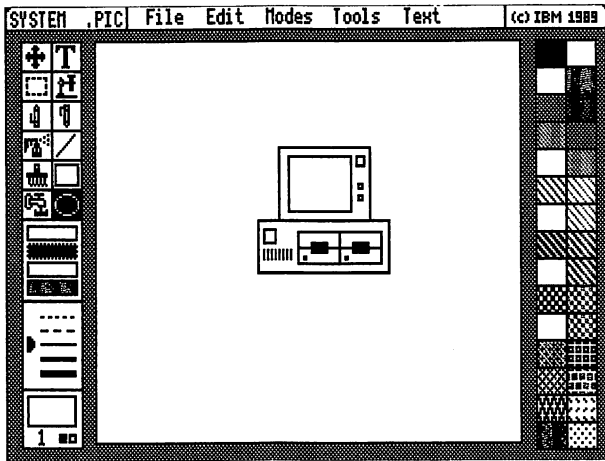


Notes for Keyboard Users

- Select the File menu by pressing the **1** key.
- Select **Get Picture** by pressing the **Plus** key on the numeric keypad.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Use the Tab and Shift-Tab keys to move the pointer in the File Services panel.
- Press **Y** or **N** to select YES or NO on the File Services panel.

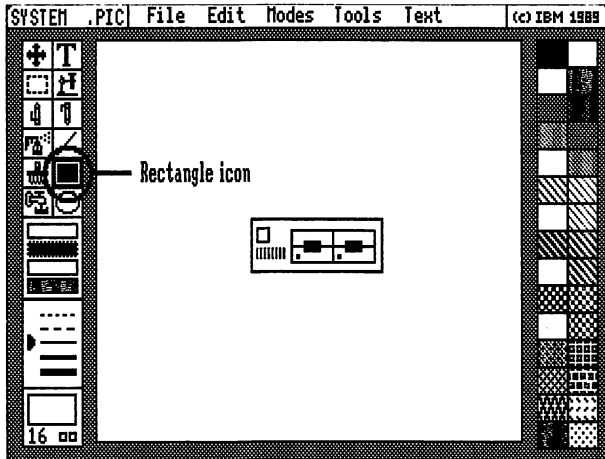
Drawing Rectangles and Circles

In this section you draw a display monitor for the PC on your screen using the Rectangle and Circle icons. At the end of this section, your picture will look like this:



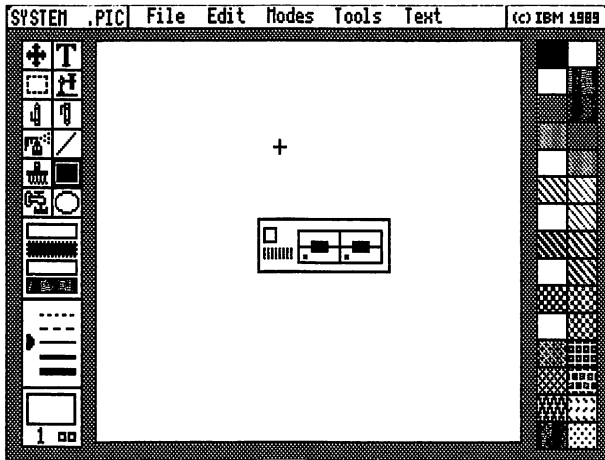
But first we'll show you how to display information about any icon or menu option on the screen.

1. Move the pointer so the tip of the pointer is on the Rectangle icon.



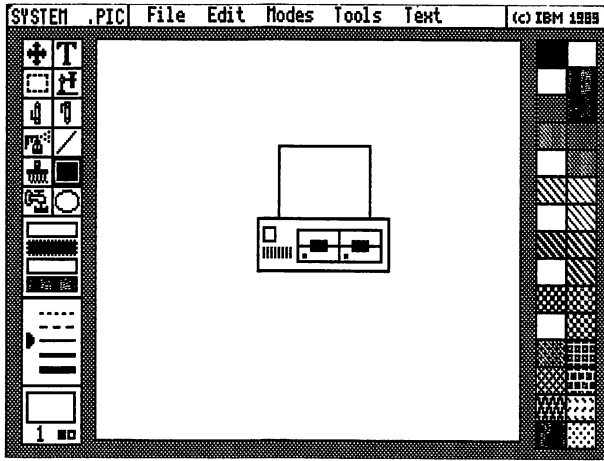
2. Press **F1**. A box appears that displays information about the Rectangle icon. To view more information, select the arrow pointing down in the upper right corner of the box (or press **PgDn**).
3. When you have finished viewing information about the Rectangle icon, press **Button 2** to exit the Help box.
4. Select the **Rectangle** icon.

5. Move the pointer to the drawing area as shown in the picture. Note that your pointer becomes a crosshair cursor in the drawing area.



6. Press **Button 1** to anchor a corner of the rectangle. From this corner you can pivot and expand the rectangle in any direction.

7. Try it. Expand the rectangle by moving the mouse until your screen looks like this:

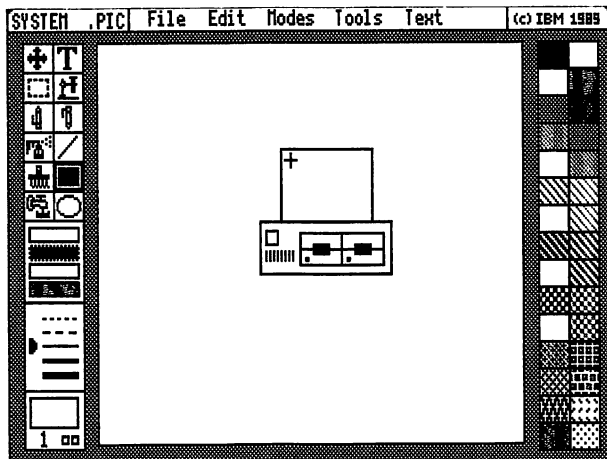


Hint: If you find that you can draw only squares, select **Modes** in the Menu area and select **Constrain** from the Modes menu. This lets you draw rectangles other than squares.

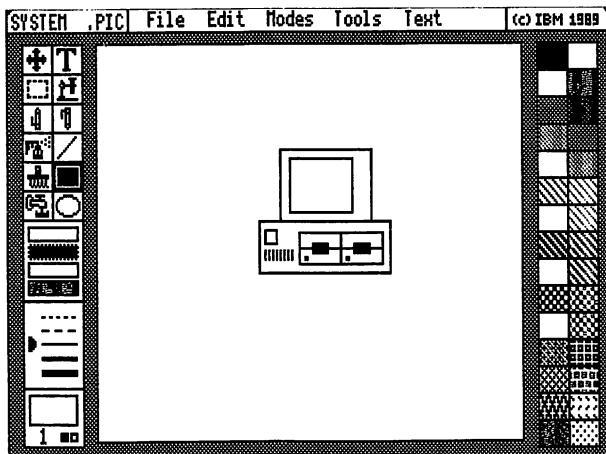
8. Press **Button 2** to fix the rectangle in the drawing area.
9. Press **Button 1** to reposition the crosshair and begin a second rectangle inside the first.

Note: If you make a mistake, select **Undo** from the Edit menu and try again.

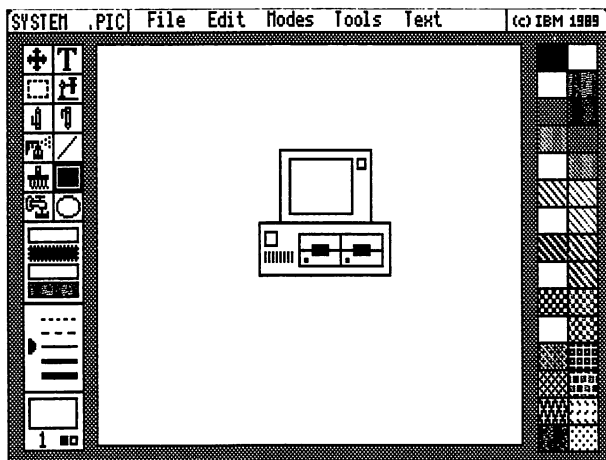
10. Place the crosshair inside the rectangle you've already drawn, as shown, and press **Button 1** to start the second rectangle.



11. Expand the rectangle to draw the computer screen inside the first rectangle. Press **Button 2** to fix it in the drawing area. Make sure you leave enough space on the right side to draw the third box and the knobs of your display.

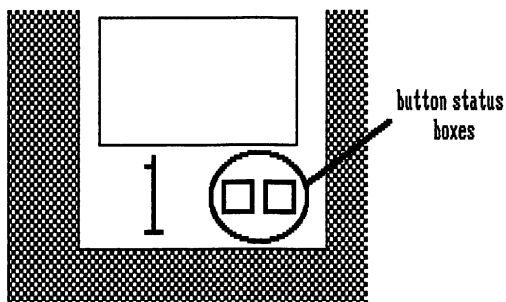


12. Press **Button 1** to reposition the crosshair for the third, small rectangle on the right side of the computer screen.
13. Now draw the third rectangle as shown.



After drawing the third rectangle, you are ready to select the Circle icon and draw the knobs on the display monitor.

Remember: To select a new icon, both status boxes in the lower left corner of the screen must show that the buttons are inactive.



Buttons 1 and 2
inactive



Button 1
active

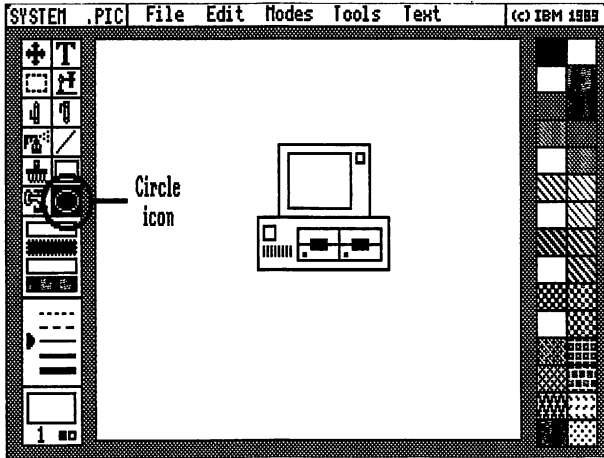


Button 2
active



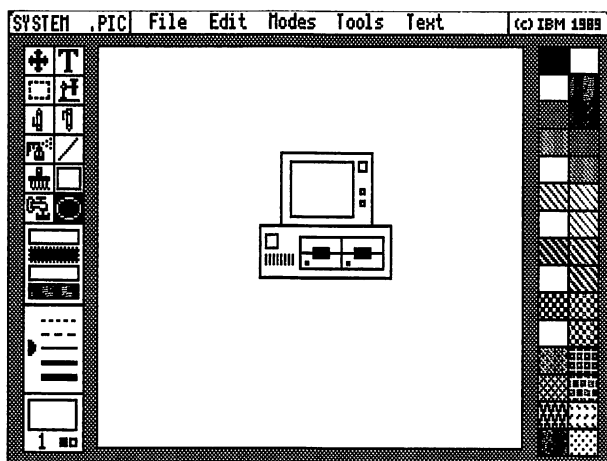
Make a button inactive by pressing it.

14. Select the **Circle** icon.



15. Move the pointer to the drawing area. The pointer becomes a crosshair cursor in the drawing area. With circles and ellipses, the center of the crosshair marks the center of the circle or ellipse you draw.

16. Draw two knobs on the PC as shown. You use Buttons 1 and 2 to draw circles just as you use them to draw rectangles.



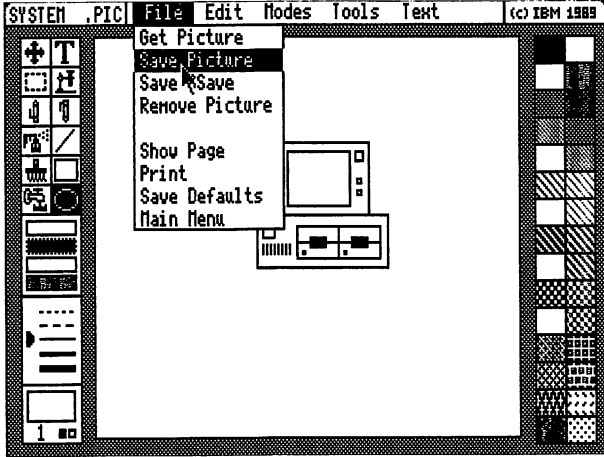
Notes for Keyboard Users

- Press F3 to move the pointer to the icon area.
- Use the Cursor keys to move the pointer to the Rectangle and Circle icons.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Use the Cursor keys to move the pointer in the drawing area.
- Press the 3 key to move the pointer to the Modes menu.
- Press the 2 key to move the pointer to the Edit menu.

Saving a Picture

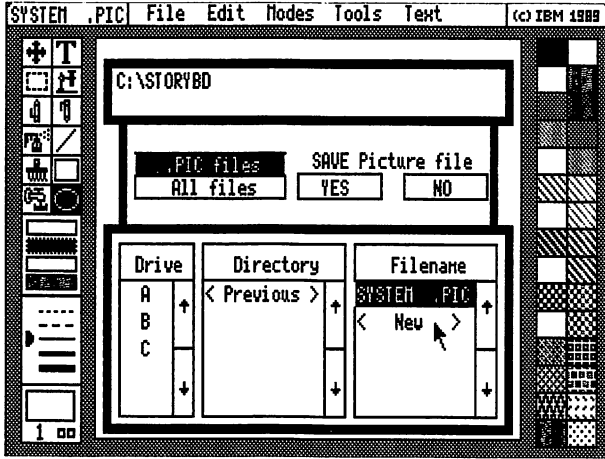
Now let's save the drawing and name it PC1.

1. Select **File** in the menu area. The File menu appears.
2. Select **Save Picture** on the File menu.



The File Services panel appears. Look for the box in this panel named **Filename**.

3. Select **New** in the Filename box.



The word **New** disappears and the line becomes highlighted with a blinking cursor. The blinking cursor indicates you can type a name for the new file. As with any DOS filename, it can consist of up to eight numbers and letters.

4. Type **PC1** and press **Enter**.

The File Services panel is removed from the screen. The new filename appears in the upper left corner of the screen. A copy of the file remains in the drawing area for you to continue editing.

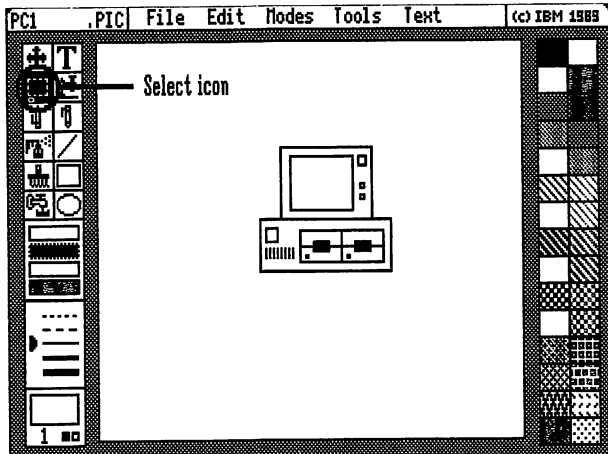
Notes for Keyboard Users

- Press the **1** key to move the pointer to the File menu.
- Use the Cursor Down key to move the pointer to the Save option.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Use the Tab and Shift-Tab keys to move the pointer in the File Services panel.
- Press **Y** or **N** to select YES or NO on the File Services panel.

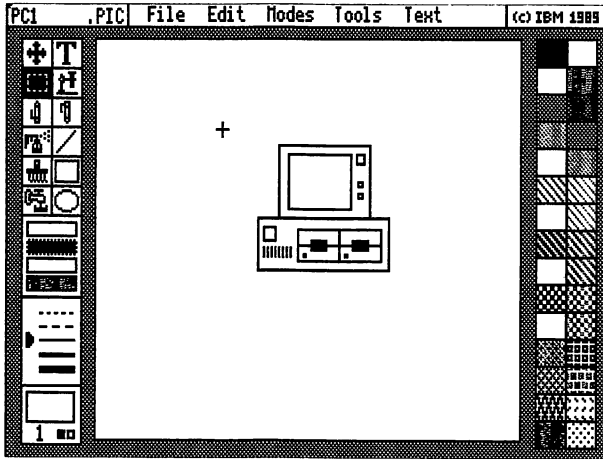
Selecting and Moving Part of a Picture

Now you will move the PC to a new location in the drawing area using the Select icon and the Move option.

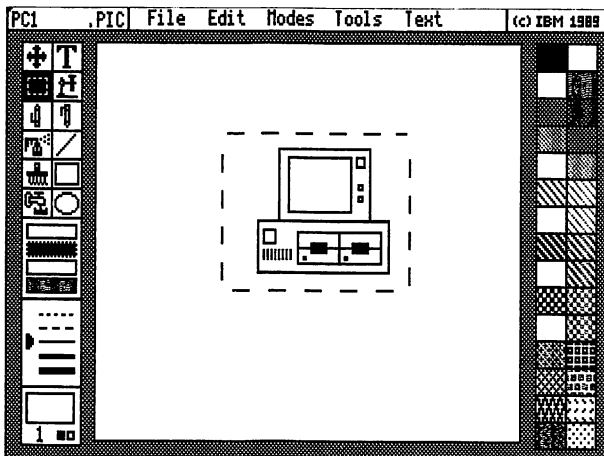
1. Choose the **Select** icon.



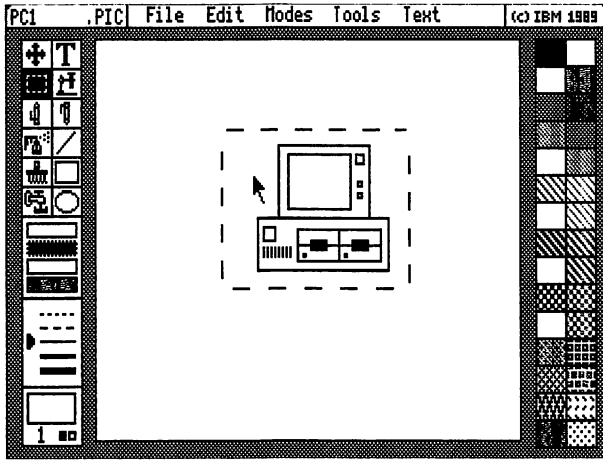
2. Move the pointer to the upper left corner of the PC picture as shown. Note that the pointer becomes a crosshair cursor.



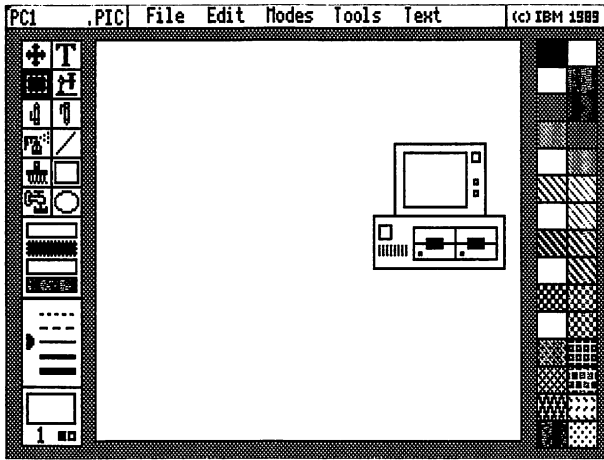
3. Press **Button 1**. Moving the pointer now displays a dashed line box called a "select box."
4. Move the mouse so the select box expands to encompass all of the PC picture.



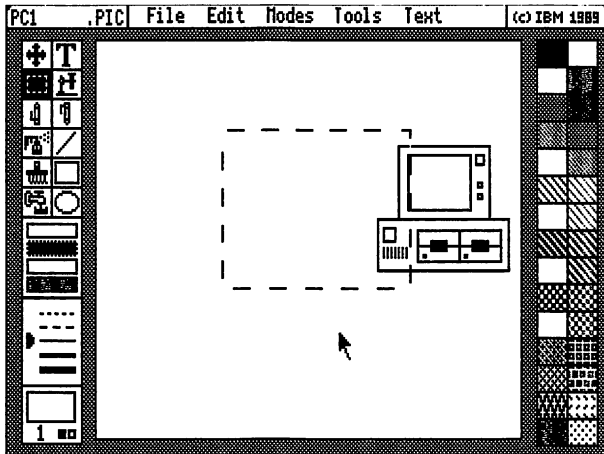
5. Press **Button 2** to fix the select box around the PC.
6. Select the **Modes** menu.
7. Select the **Move** option from the Modes menu.
8. Position the pointer inside the select box and press **Button 1**.



9. Move the PC to the right side of the drawing area and press **Button 2**.



10. Press **Button 1**. The select box returns to its original position. To remove the select box, move the pointer outside of the box and press **Button 1**.



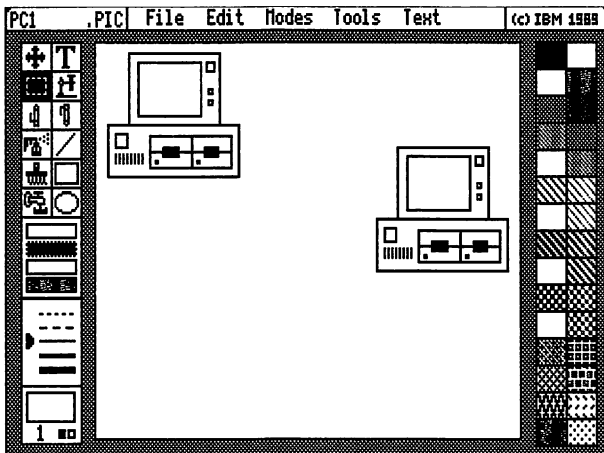
Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Press the **3** key to move the pointer to the Modes menu.

Copying Parts of a Picture

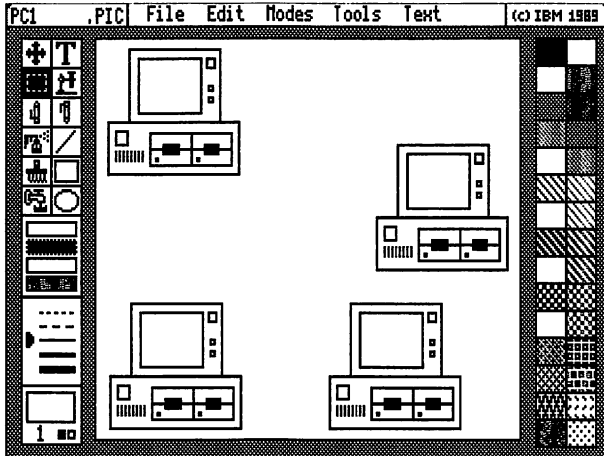
Now you will use the Select icon and the Copy option to make three copies of the PC and position them in the drawing area.

1. Select the **Modes** menu.
2. Select the **Copy** option.
3. Draw a select box around the PC as you did in the previous section.
4. Position the pointer inside the select box and press **Button 1**. Now as you move the mouse, a copy of the PC moves in the drawing area.
5. Move the copy to the upper left corner of the drawing area and press **Button 2**. Now you have two PCs in the drawing area.



As you move the mouse, note that the select box and a copy of the PC still move in the drawing area. You can copy the contents of the select box as many times as you need by positioning the copy and pressing **Button 2**.

6. Position two more copies of the PC as shown.



7. Press **Button 1** to cancel copying. Note that the pointer and select box return to the drawing area. To remove the select box from the drawing area, make sure the pointer is not in the box and press **Button 1**.

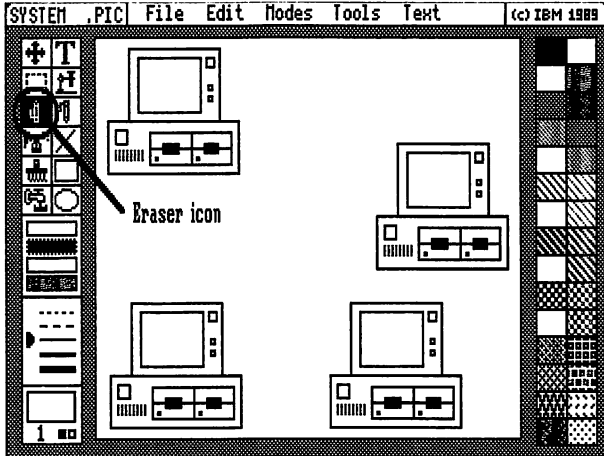
Notes for Keyboard Users

- Press the **3** key to move the pointer to the Modes menu.
- Press **F3** to move the pointer to the icon area.

Erasing Parts of a Picture

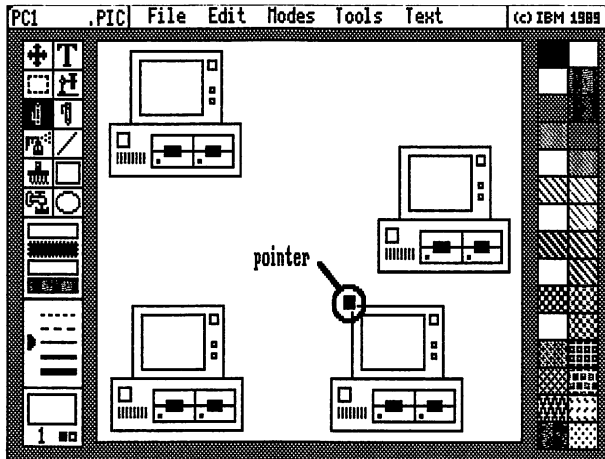
In this section you will use the Eraser icon to erase one of the PC copies.

1. Select the **Eraser** icon.



2. Move the pointer into the drawing area. Note that the pointer becomes a solid block.

3. Position the pointer on the PC copy shown in the following figure, and then press **Button 1**.



4. Erase the PC by moving the pointer back and forth over the PC until it is erased.

Note: To restore areas you accidentally erased, press **Button 2** and move the pointer over the areas you want to restore. Press **Button 2** again when you have finished restoring areas.

5. Press **Button 1** when you have finished erasing the PC.

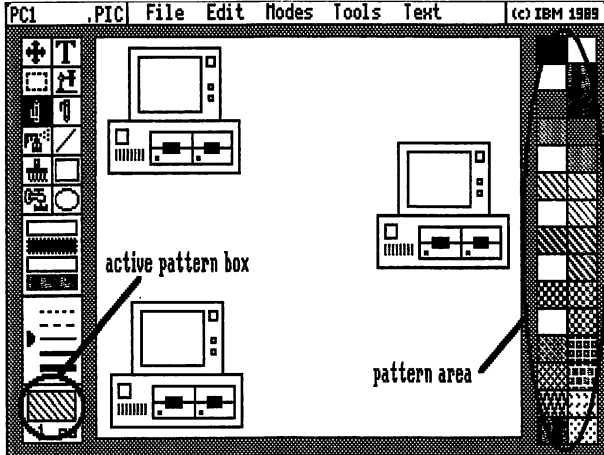
Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Use the Cursor keys to move the pointer in the drawing area.

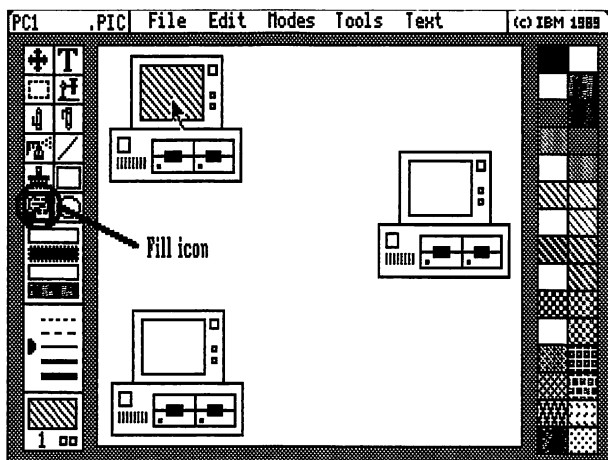
Using the Fill Icon

Now add color to the picture using the Fill icon.

1. Select a pattern by moving the pointer to a pattern shown in the pattern area and pressing **Button 1**. Note that the pattern you selected appears in the active pattern box in the lower left corner of the screen.



2. Select the **Fill** icon, and then move the pointer to the screen of a PC display and press **Button 1**. The pattern you selected appears on the screen of the display monitor.



3. Fill the other two displays using the same or different patterns from the pattern area.
4. Save this picture and name it **PC2**.

Notes for Keyboard Users

- Press **F6** to move the pointer to the pattern area.
- Press **F3** to move the pointer to the icon area.

Filling a Rectangle or Circle as You Draw It

Here's a technique you can use to fill rectangles and circles as you draw them:

1. Select the **Modes** menu.
2. Select **Fill Shape** on the Modes menu.

3. Select the **Rectangle** icon and draw a box. Note that after you press Button 2 to fix the box, it is automatically filled with the pattern displayed in the active pattern box. Circles also are filled automatically in this manner.
4. Select the **Modes** menu again.
5. Select **Hollow Shape** to switch off the Fill Shape option.

Notes for Keyboard Users

- Press the 3 key to move the pointer to the Modes menu.
- Press F3 to move the pointer to the icon area.

Undoing Your Latest Work

Before we go on, let's undo the filled box you just created.

1. Select the **Edit** menu.
2. Select **Undo** from the Edit menu. The filled box is removed from the drawing area.

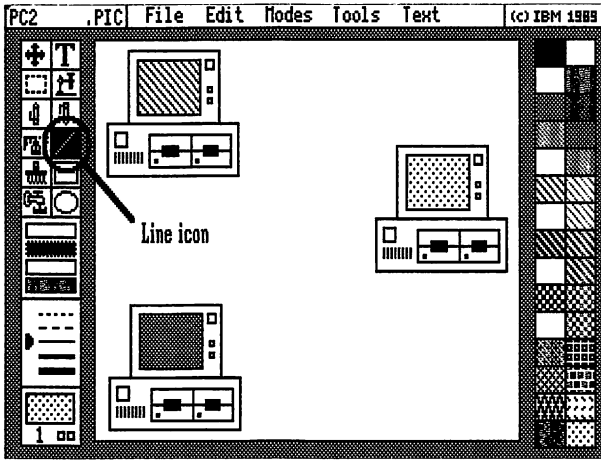
Notes for Keyboard Users

Press the 2 key to move the pointer to the Edit menu.

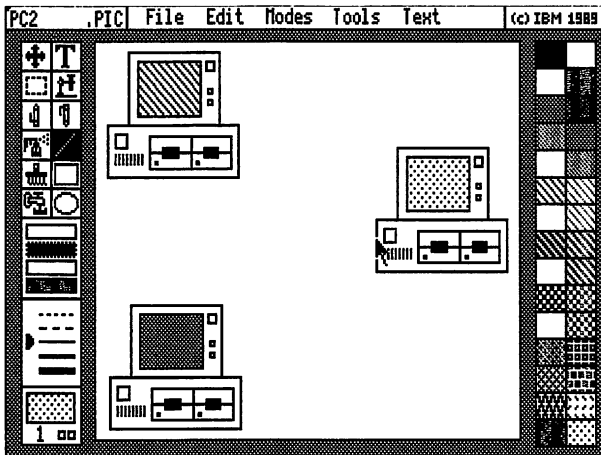
Drawing Lines

In this section you use the Line icon to draw a line that connects the three PCs in the picture.

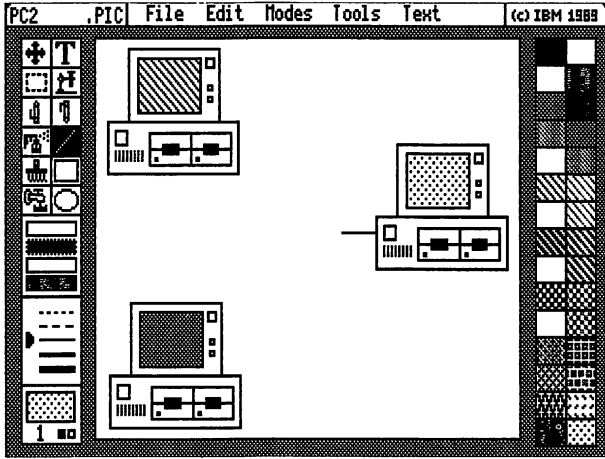
1. Select the **Line** icon.



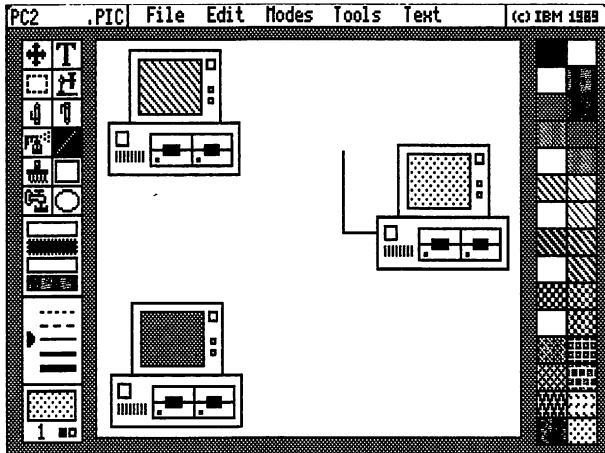
2. Position the pointer on the edge of the PC on the right side of the drawing area.



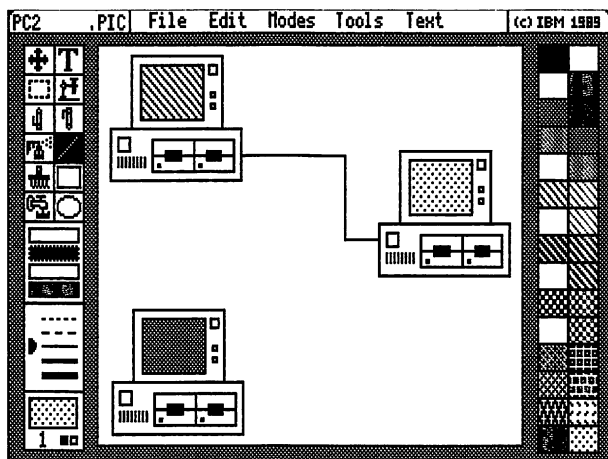
3. Press **Button 1** to start drawing a line.
4. Move the pointer left to draw a short line.



5. Press **Button 2** to set the first segment of the line.
6. Move the pointer up to draw a second line segment perpendicular to the first.

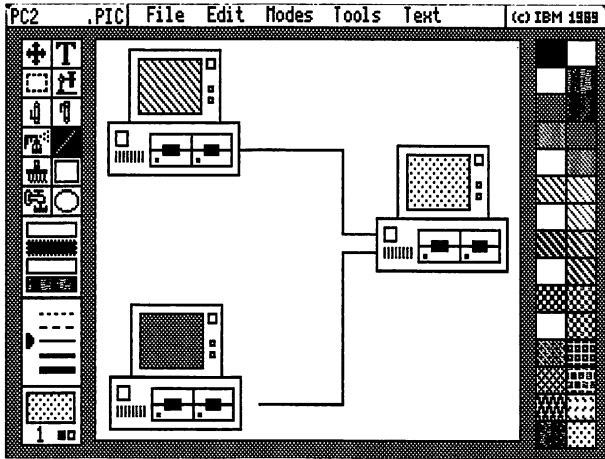


7. Press **Button 2** to set the second line segment and switch direction.
8. Move the pointer left to draw a horizontal line extending from the second segment to the system unit of the PC in the upper left corner of the screen.



9. Press **Button 1** so you can reposition the pointer and start drawing a second line.

10. Draw the second line as shown. Do not extend the line all the way to the PC in the lower left corner of the screen.



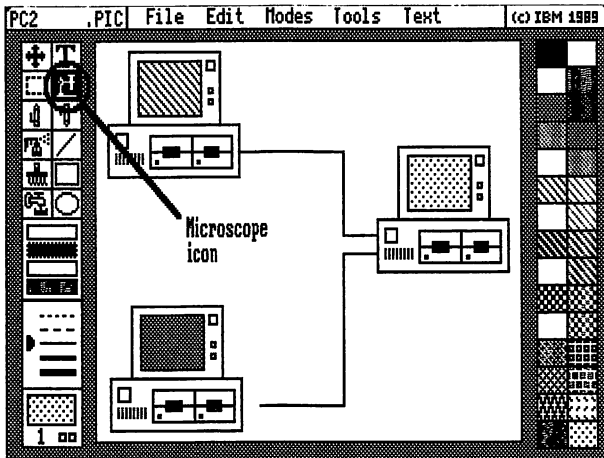
Notes for Keyboard Users

Press **F3** to move the pointer to the icon area.

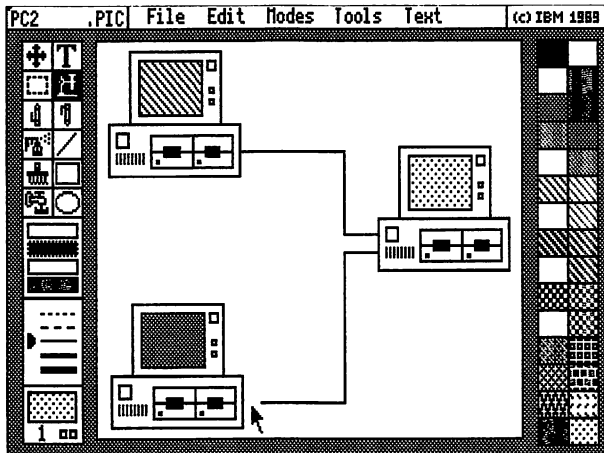
Drawing with the Microscope

In this section you will magnify part of your picture for detailed drawing.

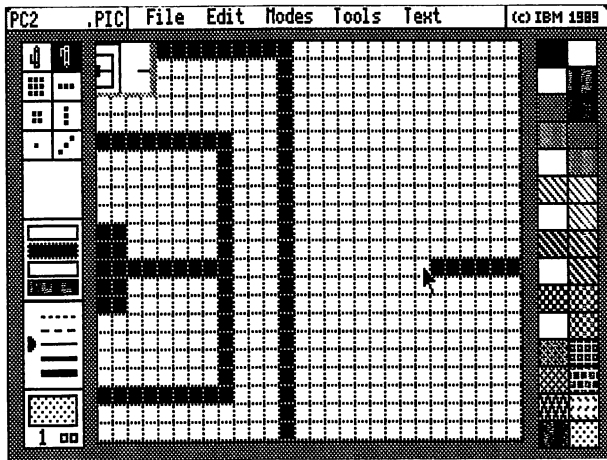
1. Select the **Microscope** icon.



2. Move the pointer to the gap between the end of the last line you drew and the PC.



3. Press **Button 1**. That section of the drawing is magnified. A small box in the upper left corner of the screen shows you the magnified portion of the screen in normal scale. Any changes you make to the magnified area are reflected in this box so you can see how the changes appear in normal scale.
4. Move the pointer to the white box next to the end of the last line you drew, as shown in the following figure.



5. Press **Button 1**.
6. Move the pointer left to extend the line so it touches the side of the PC system unit. Any squares touched by the pointer are changed to the default drawing color (black).
7. When the line touches the right side of the PC, press **Button 1** to stop drawing.

If you accidentally colored additional boxes black, move the pointer to one of those boxes and press **Button 2**. Button 2 lets you restore a box to its original color. Move the pointer over the boxes you want to restore, then press **Button 2** to stop restoring.

8. To exit the microscope, move the pointer to the box displaying the normal scale view and press **Button 1**.
9. Save this picture and name it **PC3**.

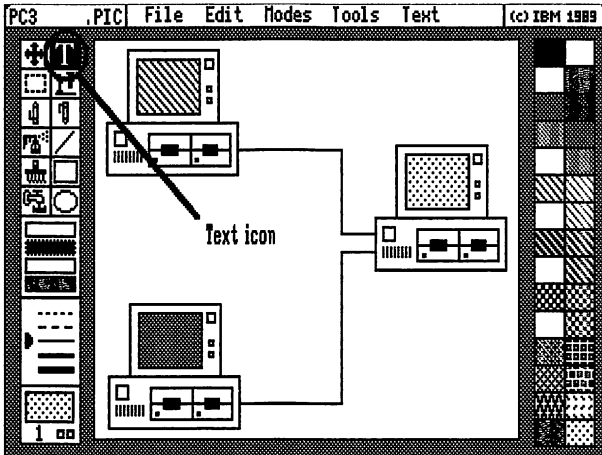
Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Hold the **Shift** key down while using the Cursor keys to draw in Microscope.
- Press the **1** key to move the pointer to the File menu.

Using Text in Your Picture

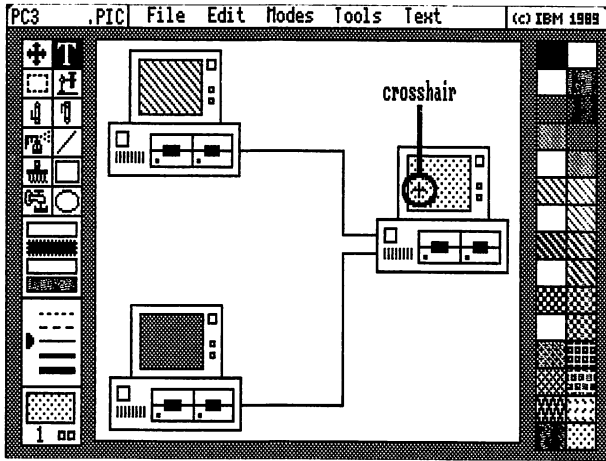
Now you will add text to the picture using the Text icon.

1. Select the **Text** icon.



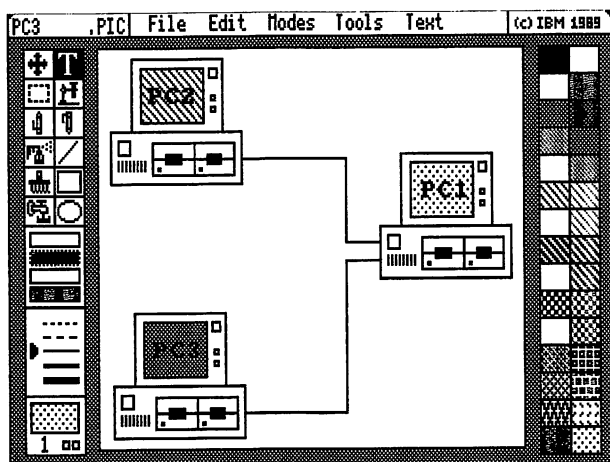
2. Move the pointer into the drawing area. Note that the pointer becomes a crosshair cursor.

3. Position the crosshair on the first PC you drew.



4. Press **Button 1**. Note the crosshair disappears and a blinking cursor appears where the first position of your text will be placed.
5. Type **PC1**.
6. Press **Button 2**.

7. Continue labeling the other PCs as shown.



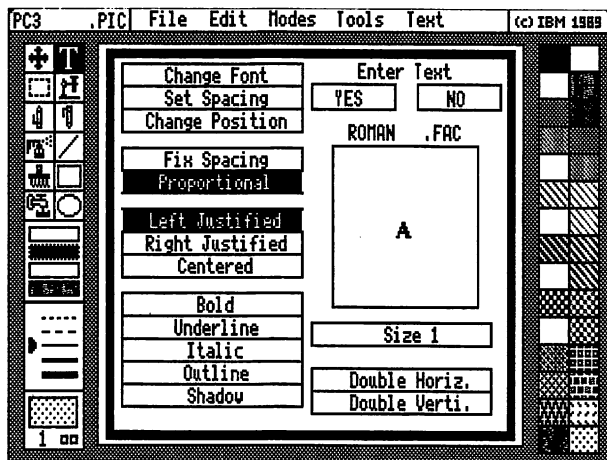
Notes for Keyboard Users

Press F3 to move the pointer to the icon area.

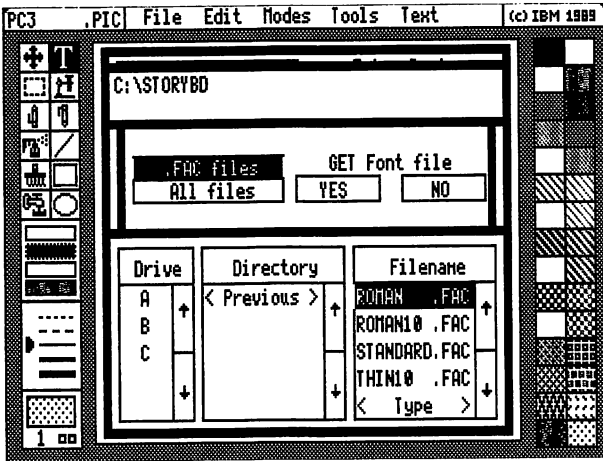
Changing Text Font

In this section you will change the text font for other text you will enter in the picture.

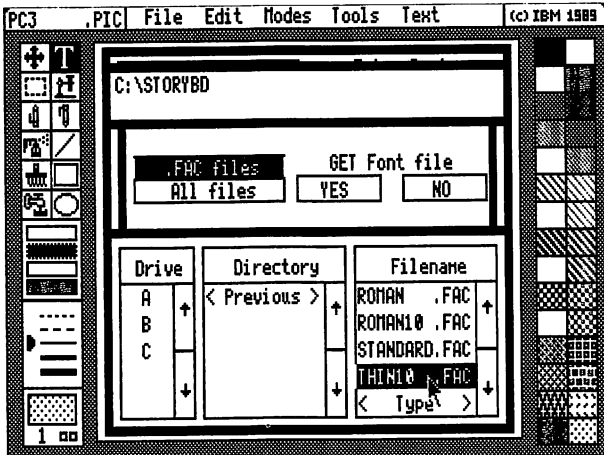
1. Select **Set Attributes** from the **Text** Menu. The **Set Attributes** panel appears.



2. Select **Change Font** from the Set Attributes panel. The File Services panel is displayed.

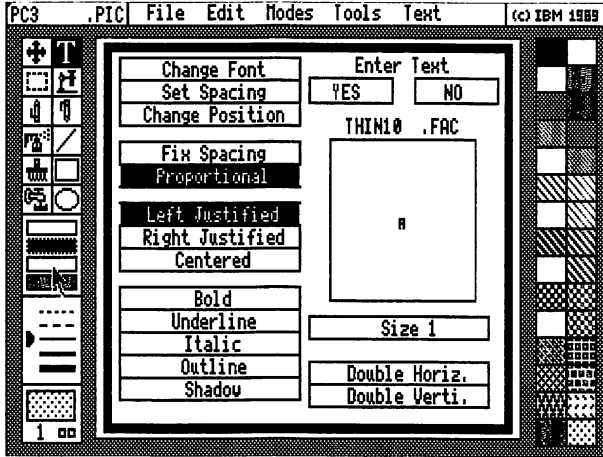


3. Select **THIN10.FAC** in the Filename box of the File Services panel.



4. Select **YES** to get the font called Thin 10.

The File Services panel is removed. An example of a character in the Thin 10 font appears in the large box on the Set Attributes panel. To change the color of the font, select a color from the palette area. The sample character in the box changes to the color you selected.



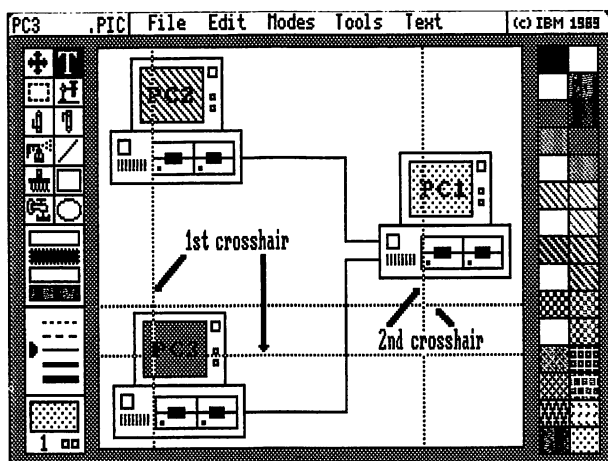
5. To change the size of the font you selected, move the pointer to **Size 1** and press **Button 1**. The size is now Size 2.
6. Try selecting each of the following options on the Set Attributes panel to see how they affect the sample character.

Bold
Underline
Italic

7. When you have finished changing your text attributes and you are satisfied with the results, select **YES** to return to the drawing area.

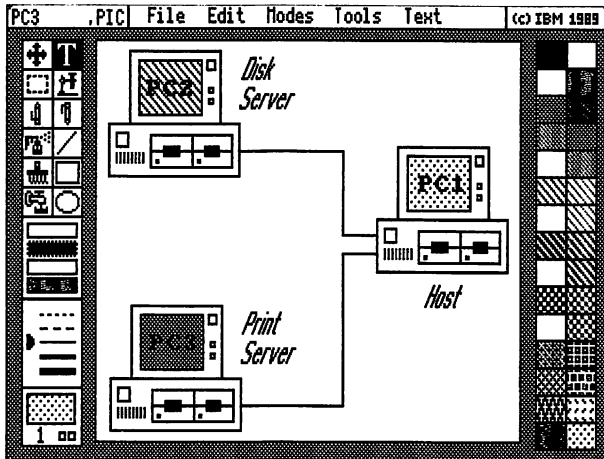
A large crosshair appears showing where text you enter will appear. As you move the mouse, a second large crosshair appears to indicate a new text position.

8. Position the second crosshair as shown below and press **Button 1**.



9. Press **Button 2** and type **Host** as a label for the PC.
10. If you want to, reposition the text you just typed by pressing **Button 1** to display the Set Attributes panel.
11. Select **Change Position** from the Set Attributes panel. The panel is removed, and you can move the large crosshair to indicate the new position of the text you just typed.
12. Press **Button 1** to set the new position. The text is moved to the new position.
13. Press **Button 2** to resume typing text.

14. Press **Button 2** again to set the text in the drawing area.
15. Use the following figure as a guide to label the other two PCs.



16. Save the drawing and name it **PC4**.
17. Select **Clear** from the Edit menu to clear the drawing area. A message gives you the chance to confirm that you want to clear the screen.
18. Select **YES** to clear the drawing area.

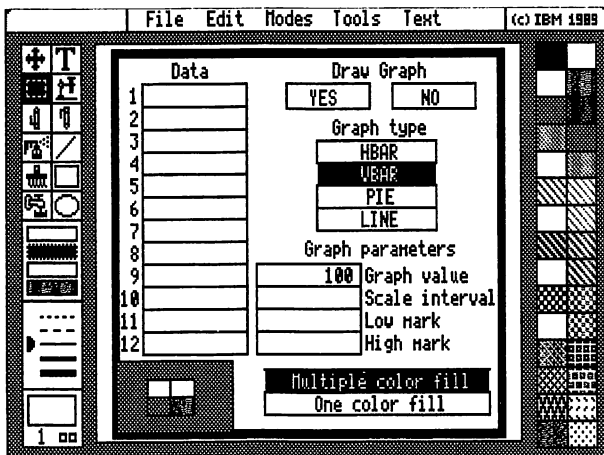
Notes for Keyboard Users

- Press the **5** key to move the pointer to the Text menu.
- Use the Tab and Shift-Tab keys to move the pointer in the Set Attributes and File Services panels.
- Press **Y** or **N** to select YES or NO on the File Services and Set Attributes panels.
- Press the **1** key to move the pointer to the File menu.
- Press the **2** key to move the pointer to the Edit menu.

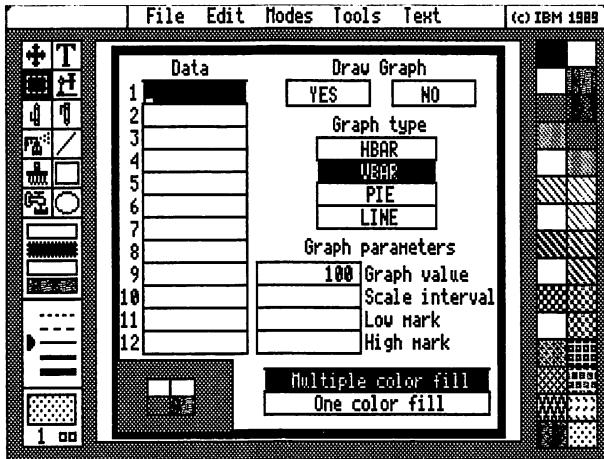
Creating Graphs

Now you will create a graph that illustrates the projected sales increase of a certain product due to the networking of the company's computers.

1. Select **Graph** from the Tools menu. The Graph panel is displayed.



2. Move the pointer to the first box in the Data column and press **Button 1**. The first box becomes highlighted so you can enter the first data value for your graph.

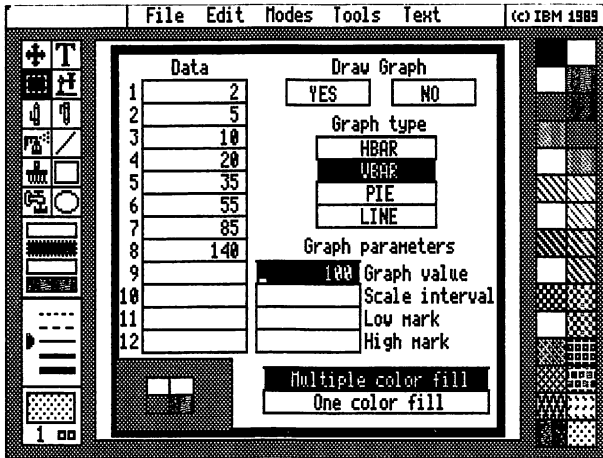


3. Type **2** and press **Enter**. The second box in the column becomes highlighted.
4. Continue entering the following values in the Data column.

5
10
20
35
55
85

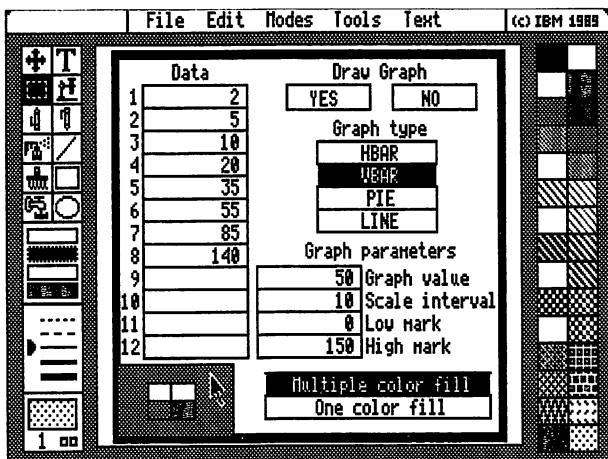
5. Type **140** as the last data value, and press **Button 1** to accept all of the numbers.

6. Move the pointer to the first box under **Graph parameters** and press **Button 1**.

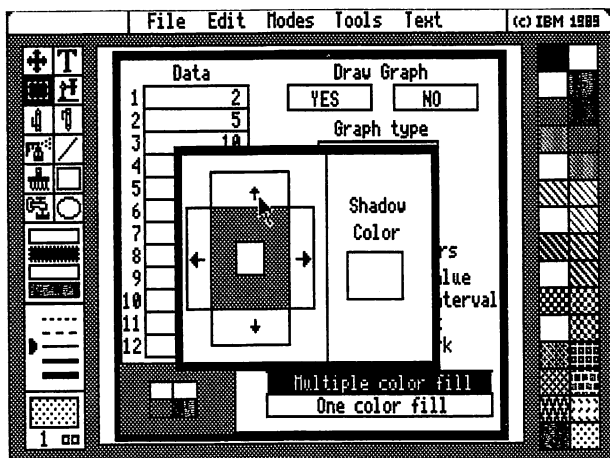


7. Type **50** in the **Graph value** field and press **Enter**. This value indicates the amount of space to leave between the bars in the graph.
8. Type **10** in the **Scale interval** field and press **Enter**. The Scale interval indicates the spacing of tics on the scale axis.
9. Type **0** in the **Low mark** field and press **Enter**. The Low mark indicates the lowest scale mark you want to use.
10. Type **150** in the **High mark** field. The High mark indicates the highest scale mark you want to use.
11. Press **Button 1** to accept all of the information.

12. To display your graph with shadows, position the pointer as shown and press **Button 1**.

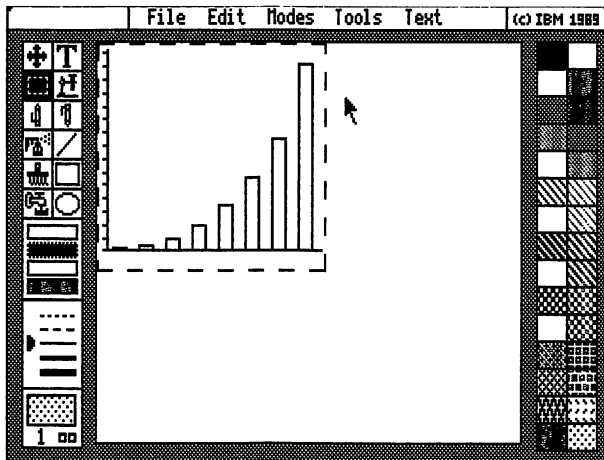


- A panel appears where you can select the color, direction, and depth of the graph's shadow.



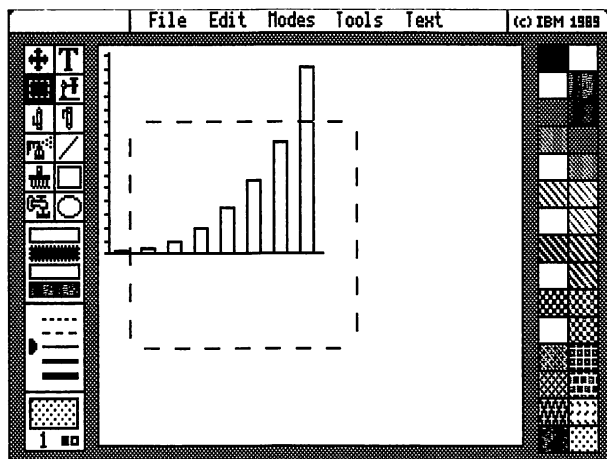
13. Change shadow color by selecting a new color from the palette area.

14. Change the direction and depth of shadow by selecting the arrows on the left side of the panel.
15. Move the pointer outside of the shadow panel and press **Button 2** to accept your selections. The boxes in the lower left of the Graph panel display the color, depth, and direction of shadow you selected.
16. Select **YES** on the Graph panel to display your graph. The Graph panel is removed, displaying the graph in the upper left corner. The graph is framed in a select box.

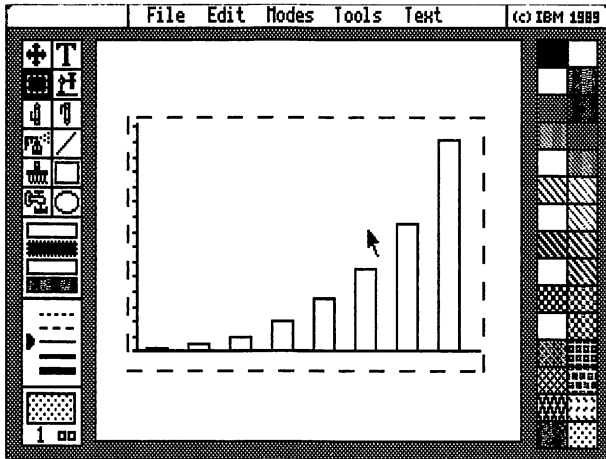


17. Position the pointer inside the select box and press **Button 1**.

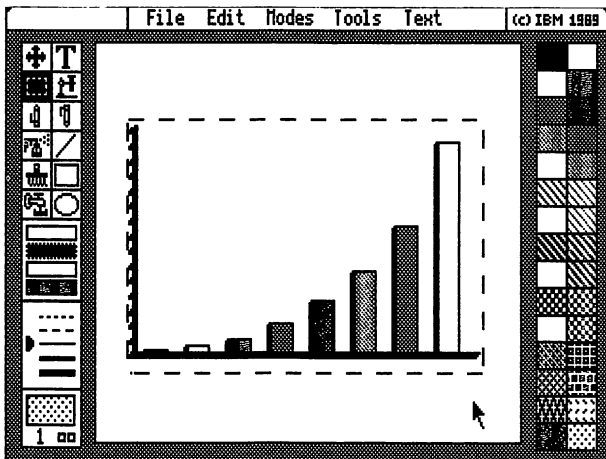
18. Move the select box in the drawing area as shown. The graph remains in the upper left corner as you move the select box to a new location.



19. Press **Button 1**. The graph is moved to the new location.
20. To increase or decrease the size of the graph, position the pointer inside the select box and press **Button 2**.
21. Move the mouse to make the select box larger or smaller, and then press **Button 2**. The graph is resized and displayed inside the select box.

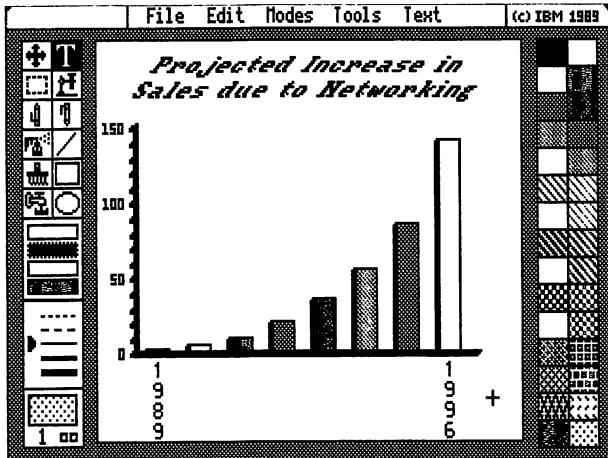


22. Position the pointer outside the select box and press **Button 1** to fix the graph to the screen. The graph is drawn with colors and shading.



23. Press **Button 1** again to remove the select box from the screen.
24. Now label the graph by selecting the **Text** icon.

25. Use the Set Attributes panel to select new fonts of your choice and enter text for the graph title and data labels, as shown in the following figure.



26. Save the graph and name it **GRAPH**.
27. Exit the Picture Maker screen by selecting **Main Menu** on the File menu. The Picture Maker Main Menu appears.
28. Press the **Esc** key. A message reminds you that you are about to exit Picture Maker.
29. Type **Y** to return to the Quick Menu/Setup screen.

Notes for Keyboard Users

- Press the **4** key to display the Tools menu.
- Use the **Tab** and **Shift-Tab** keys to move the pointer in the Graph panel.
- Press **Y** or **N** to select YES or NO on the Graph panel.
- Press **F3** to move the pointer to the icon area.
- Press the **1** key to move the pointer to the File menu.

This concludes the Picture Maker tutorial. The rest of this chapter contains reference information and instructions for using each of the Picture Maker features. You can use the pictures you created here in the Story Editor tutorial, “Learning Story Editor” on page 5-14.

Selecting a Line Style

Picture Maker provides five line styles for drawing rectangles, circles, and lines. These styles are displayed to the left of the drawing area above the active pattern box. The three solid line styles are also available when using the Graph feature described later in this chapter.

The current, or active, line style is indicated by an arrow. To change the active line style, select a different style. The arrow moves to the style you select.

Note: Only the thinnest solid line style is available with the Pencil icon. If this icon is selected, you cannot change the active line style.

Notes for Keyboard Users

- Press **F5** to move the pointer to the Line Styles area.
- Use the Tab key or Cursor Up and Down keys to move the pointer to a new selection.
- Use the Enter key or the Plus key on the numeric keypad in place of Button 1.

Drawing Rectangles and Squares

You can draw rectangles using the Rectangle icon to the left of the drawing area. By first selecting the **Constrain** option on the Modes menu, you can limit the Rectangle feature to drawing squares.

Note: The Fill Shape option on the Modes menu lets you draw rectangles and squares that are filled in with the active pattern. With the Hollow Shape option active, you draw just the outline of a rectangle or square. Patterns are discussed later in this chapter.

To draw a rectangle or square:

1. Select the **Rectangle** icon.
2. Move the pointer into the drawing area where you want one corner of the rectangle (or square) to be located (the pointer now appears as a crosshair).
3. Press **Button 1** to anchor one corner of the rectangle.
4. Move the pointer in any direction to stretch the rectangle to the desired size and shape. As you move the pointer, a rectangle appears in the active line style.
5. Press **Button 2** to set the rectangle (or press **Button 1** to cancel).
6. Move the pointer to draw another rectangle connected to the one you just drew, or press **Button 1** to stop drawing rectangles.

Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Use the **Tab** key or the **Cursor Up** and **Down** keys to move the pointer to a new selection.
- Use the **Plus** and **Minus** keys on the numeric keypad in place of **Buttons 1** and **2**, respectively.
- Use the following keys for pointer movement in the drawing area:

<i>Key</i>	<i>Direction</i>
Cursor Keys	Right, left, up, and down
Home	Diagonally up and left
End	Diagonally down and left
PgUp	Diagonally up and right
PgDn	Diagonally down and right
Shift-Cursor Key	One pixel in direction of arrow
Shift-Diagonal Key	One pixel in direction of diagonal movement

- If using the **Constrain** feature to draw squares, use the diagonal cursor keys (**Home**, **End**, **PgUp** and **PgDn**) to stretch the square.

Drawing Circles and Ellipses

The **Circle** icon lets you draw circles and ellipses. By first selecting the **Constrain** option on the **Modes** menu, you can limit this feature to drawing circles.

Note: The **Fill Shape** option on the **Modes** menu lets you draw circles and ellipses that are filled in with the active pattern. With the **Hollow Shape** option active, you draw just the outline of a circle or ellipse. Patterns are discussed later in this chapter.

To draw an ellipse or circle:

1. Select the **Circle** icon.
2. Move the pointer into the drawing area where you want the center of the ellipse (or circle) to be located. The pointer now appears as a crosshair.
3. Press **Button 1** to anchor the center of the ellipse.
4. Move the pointer in any direction to stretch the ellipse to the desired size and shape. As you move the pointer, an ellipse appears in the active line style.
5. Press **Button 2** to set the ellipse (or press **Button 1** to cancel).
6. Move the pointer to draw another ellipse with the same center as the one you just drew, or press **Button 1** to stop drawing ellipses.

Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Use the **Tab** key or the **Cursor Up** and **Down** keys to move the pointer to a new selection.
- Use the **Plus** and **Minus** keys on the numeric keypad in place of **Buttons 1** and **2**, respectively.
- If using the **Constrain** feature to draw circles, use the diagonal cursor keys (**Home**, **End**, **PgUp** and **PgDn**) to stretch the circle.
- See “Notes for Keyboard Users” in the “Drawing Rectangles and Squares” section for information about moving the pointer in the drawing area.

Drawing Lines

You can draw single, straight lines or connected line segments using the Line icon. Selecting **Constrain** on the Modes menu lets you draw lines at angles which are multiples of 45 degrees.

Hint: When drawing equally spaced, parallel lines, select the **Grid** option on the Modes menu before using the Line icon. This option is discussed later in this chapter.

To draw lines:

1. Select the **Line** icon.
2. Move the pointer into the drawing area where you want one end of the line to be located.
3. Press **Button 1** to anchor the end of the line.
4. Move the pointer in any direction to stretch the line to the desired length.
5. Press **Button 2** to set the line (or press **Button 1** to cancel).
6. Move the pointer to draw another line connected to the one you just drew, or press **Button 1** to stop drawing lines.

Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- See “Notes for Keyboard Users” in the “Drawing Rectangles and Squares” section for information about moving the pointer in the drawing area.

Freehand Line Drawing Using the Pencil Icon

The Pencil icon lets you draw freehand lines. Only the thinnest solid line style is available when using this feature. No matter what the active line style, selecting the Pencil icon changes the active line style to the thinnest solid line. Selecting a different icon switches the line style back to the previously active style.

To use the Pencil icon:

1. Select the **Pencil** icon.
2. Move the pointer into the drawing area where you want to start drawing.
3. Press **Button 1** to start drawing.
4. Move the pointer to draw.
5. Press **Button 1** again to stop drawing. Press **Button 2** to erase any lines you just drew (press **Button 2** again to stop erasing).

Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- See “Notes for Keyboard Users” in the “Drawing Rectangles and Squares” section for information about moving the pointer in the drawing area.

Using the Eraser

The Eraser icon lets you erase any part of the picture. Areas you erase are replaced with the current background color. To use this feature:

1. Select the **Eraser** icon.
2. Move the pointer into the drawing area where you want to start erasing. Note that the pointer becomes a solid block.
3. Press **Button 1** to start erasing.
4. Move the pointer over areas you want to erase. To restore areas you have erased, press **Button 2** and move the pointer over the areas you want to restore. (As soon as you select another icon or option, you cannot restore what you have erased.)
5. Press **Button 1** again to stop erasing, or **Button 2** to stop restoring erased areas.

Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Use the **Cursor** keys to move the pointer to a new selection.
- Use the **Plus** and **Minus** keys on the numeric keypad in place of **Buttons 1** and **2**, respectively.
- See “Notes for Keyboard Users” in the “Drawing Rectangles and Squares” section for information about moving the pointer in the drawing area.

Using Shadows

You can draw rectangles, circles, and lines so they appear with shadows. Use the Set Shadow option on the Tools menu to activate shadows and set their color, direction, and depth.

Shadows also are used with options that involve a select box, such as Move and Copy. Shadows cannot be used with rectangles, circles, or lines when the active line style is a dashed line.

To use shadows:

1. Select **Set Shadow** from the **Tools** menu. You see the following panel:

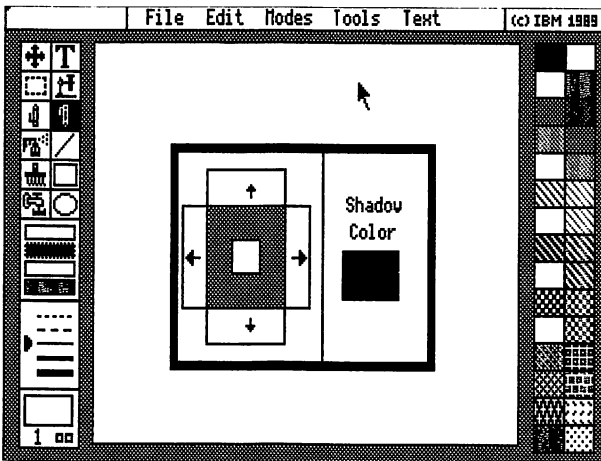


Figure 2-5. The Set Shadow Panel

The right side of this panel displays the current shadow color. The left side is used to set the direction and depth of the shadow you want to use.

2. To change the shadow color, select a new color from the palette area. The new shadow color appears in the Shadow Color box.

Note: If you are using the 320 x 200–256 or 640 x 480–256 resolution mode, you can move the pointer to the palette area and press **Button 2** to display the extended palette. The extended palette is discussed later in this chapter.

3. Set the shadow direction and depth by selecting one of the four arrows on the left side of the Set Shadow panel. A shadow appears on the side of the square opposite the direction you selected. Selecting a direction repeatedly lengthens the shadow. Select a second direction adjacent to the first if you want to create a slanting shadow.
4. Exit the Set Shadow panel by pressing **Button 2** (make sure the pointer is outside of the palette area before doing so).

To deactivate shadows, select the Tools menu again. Then, move the pointer to the Set Shadow option and press **Button 2**. The arrow next to the option disappears.

Notes for Keyboard Users

- Press the 4 key to move the pointer to the Tools menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.

Controlling Alignment in Your Pictures

Aligning to a Grid

You can align text and pictures to an invisible grid by using the **Grid** option on the **Modes** menu before you start drawing. This option restricts pointer movement so that drawing begins and ends on the invisible grid. With the **Grid** option active, you cannot access pixels that are not on the grid.

To use the **Grid** option, select **Grid** from the **Modes** menu. Select **Grid** again to cancel the option (use **Button 2** to cancel the option and keep the **Modes** menu displayed).

Using a Crosshair

With the **Crosshair** option on the **Modes** menu, you can display a screen-sized crosshair while creating rectangles, circles, lines, and text. The crosshair helps you align objects as you draw them.

The **Crosshair** option can be used with other options that involve a select box. Using a select box is discussed later in this chapter.

To use the **Crosshair** option, select **Crosshair** from the **Modes** menu. Select **Crosshair** again to cancel the option (use **Button 2** to cancel the option and keep the **Modes** menu displayed).

Displaying Screen Coordinates

Another way you can control alignment is by continuously displaying the screen coordinates of the pointer position. You can do this by selecting the **X,Y Coordinates** option on the **Modes** menu.

The coordinates, which are displayed in the Line Styles area, show two representations of the pointer's position in the drawing area:

- By pixel location, with 0 on the X axis at the left edge, and 0 on the Y axis at the top of the full-screen drawing area
- As a percentage of the drawing area's width from left to right (the X axis), and as a percentage of the drawing area's height from top to bottom (the Y axis)

To switch off the display of screen coordinates, select **X,Y Coordinates** again on the Modes menu.

Using a Ruler

Picture Maker also lets you display a ruler at the top and left side of the drawing area while you create and edit pictures. When used with the Crosshair option on the Modes menu, the ruler lets you measure and align elements of your pictures.

To use this feature, select **Ruler** on the Tools menu. To remove the ruler, select **Ruler** again.

Creating Pictures for Composite Video

If you create pictures in the 320 x 200 – 4 resolution mode that you want to record on videotape or display on a video monitor, video projector, or television screen, you should first select **Composite Video** on the Modes menu.

Selecting this option ensures that images you create are aligned to even pixel boundaries, as required by composite video display technology.

For more information about attaching composite video and RGB monitors to the Color/Graphics Adapter in your system unit, refer to the *Guide to Operations* for your system.

Notes for Keyboard Users

- The Grid and Composite Video options are not available when you use the keyboard as your input device.
- Press the **3** key to move the pointer to the Modes menu.
- Press the **4** key to move the pointer to the Tools menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.

Using Text In Your Pictures

The Text Icon

The Text icon lets you type text in your pictures. To use this feature:

1. Select the **Text** icon.
2. Move the pointer to the position in the drawing area where you want to start typing text. The pointer becomes a small crosshair.
3. Press **Button 1**. A cursor appears, indicating you can start typing text. Text that you type appears in the active drawing color indicated in the lower left corner of the screen.

When typing numbers, use the number keys on the main portion of the keyboard. The numbers on the Numeric Keypad are not active while you are using the Text icon or the Text menu.

4. Press **Button 2** or the **Esc** key when you are finished typing text (pressing **Button 1** or **F2** displays the Set Attributes panel, which is described in the next section).

Once you have pressed **Button 2** or **Esc**, the text is set as part of the picture, just as a line or rectangle you draw would be set. However, before you press **Button 2** or **Esc**, you can use the following keys to edit the text:

<i>Key</i>	<i>Action</i>
Enter	Moves the cursor to the beginning of the next line.
Backspace	Moves the cursor to the left, erasing any characters you have typed.
Cursor keys	Move the cursor up, down, right, and left.

Insert	Changes the cursor to a block, indicating you can insert characters. Press Insert again to switch off insert mode.
Delete	Deletes the character at the cursor position, moving any characters to the right of the cursor left one space.
Shift-Insert	Inserts a blank line before the line where the cursor is located.
Shift-Delete	Deletes the line where the cursor is located.
Home	Moves the cursor to the position where you pressed Button 1 to start typing text.
F2	Displays the Set Attributes panel (described in the next section).
F10	When using shadows with text, lets you see how text will appear after you are finished.
Esc	Indicates you are finished typing text, and that you want to keep the text.
Shift-Esc	Lets you quit typing text and erases what you just typed.

Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.

Setting Text Attributes

You can determine the font, size, justification, and other aspects of text using the Set Attributes panel. You can access this panel two ways:

- By selecting **Set Attributes** from the Text menu
- By pressing **Button 1** or F2 while typing text.

After you take one of these actions, you see the Set Attributes panel:

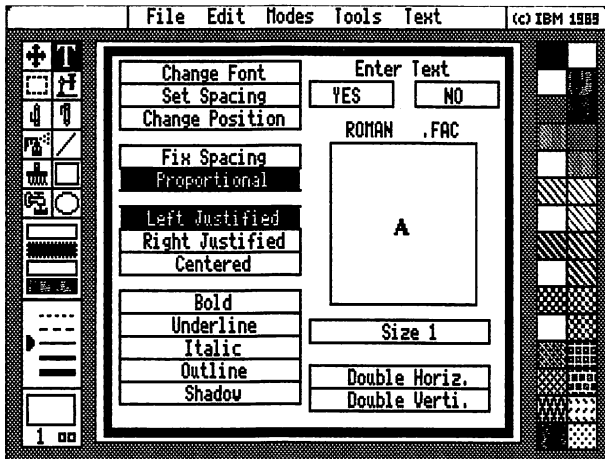


Figure 2-6. The Set Attributes Panel

The large box on the right side of this panel shows you a sample text character with the attributes that are currently active. The name of the currently active font appears above the box containing the sample text character. The other boxes on this panel are described in the following sections.

Note: If the current drawing color and background color are the same, the sample character does not show on the Set Attributes panel. To display the sample character, select a different drawing color.

Changing Font

You can change the font of your text by following these steps:

1. Select **Change Font** in the Set Attributes panel. You see the File Services panel. The font files in the current directory are listed in the lower right box of this panel. The active font is highlighted.
2. To select a font from a different directory or drive, select the directory or drive from those listed in the Drive and Directory boxes.
3. Select the name of the font file you want to get from those listed in the Filename box. Or, select **Type** in the Filename box to enter the name of a file.

Note: If you are running Picture Maker from 5.25-inch diskettes, remember that all font files except ROMAN.FAC are located on Diskette 3. The ROMAN.FAC file is located on Diskette 2. Before changing fonts, you must insert the correct diskette in a drive, and then select that drive on the File Services panel.

4. If you selected the name of a file, select **YES** to get it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**. The Set Attributes panel appears with a sample of the font you just selected.

Selecting Font Size

Fonts have five sizes from which you can choose (except for the Label font, which has three). You can change font size using the box under the sample text character.

Repeatedly selecting the Size box cycles through all of the sizes available for a font. The sample text character changes each time to reflect the new size.

Doubling the Height and Width of a Font

You also can alter the size of a font using the **Double Horiz** and **Double Verti** boxes in the lower right portion of the Set Attributes panel.

Selecting **Double Horiz** widens characters as shown by the sample text character. Selecting **Double Verti** makes characters taller. These options can be used individually or together. To deactivate an option, select it again.

Spacing Text

You can choose between proportional and fixed spacing for text by selecting **Proportional** or **Fix Spacing** on the Set Attributes panel.

When using either of these options, you can determine the amount of space between characters using the **Set Spacing** option on the Set Attributes panel. Selecting this option displays the following panel:

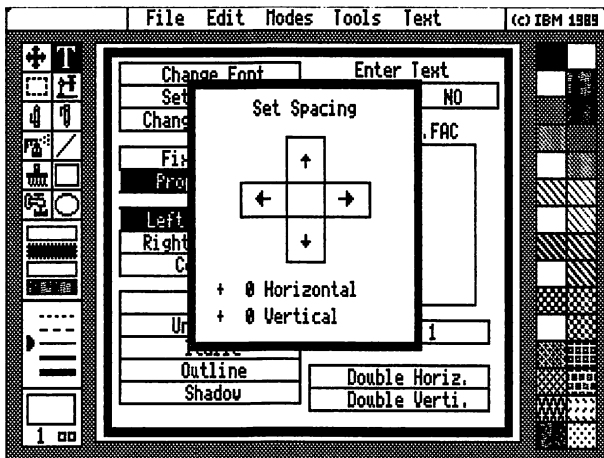


Figure 2-7. The Set Spacing Panel

The spacing value displayed can range from -10 to +30. Select the arrow pointing up or down to increase or decrease vertical spacing; select the arrow pointing right or left to increase or decrease horizontal spacing.

When you are finished with this panel, press **Button 2** to return to the Set Attributes panel.

Justifying Text

Select from three options on the Set Attributes panel to determine how your text is justified: **Left Justified**, **Right Justified**, or **Centered**.

As you type text that is left justified, the cursor moves to the right. When you press **Enter**, the cursor moves to the next text line below the first character you typed.

As you type text that is right-justified, the cursor remains stationary and text moves to the left. When you press **Enter**, the cursor moves to the next text line below the last character you typed.

As you type centered text, the cursor moves to the right and text moves to the left. When you press **Enter**, the cursor moves to the next text line below the center of the preceding text line.

Choosing Type Styles

You can choose combinations of type styles by selecting from the **Bold**, **Underline**, **Italic**, **Outline**, and **Shadow** options on the Set Attributes menu. As you select these options, the sample text character changes.

Combinations of these styles are valid with one exception: text can be bold *or* outlined, but not both. If you select both options, outlining takes precedence.

You can change the outline color by moving the pointer to the **Outline** option and pressing **Button 2**. A box appears showing you the active outline color. When you select a different color from the palette area, the color appears in the outline color box. Press **Button 2** to return to the Set Attributes panel.

You also can determine the color, direction, and depth of shadow by moving the pointer to the **Shadow** option and pressing **Button 2**. The Set Shadow panel appears. For information about using the Set Shadow panel, refer to “Using Shadows” on page 2-70.

Notes:

1. You can choose to underline spaces *and* text by moving the pointer to **Underline** and pressing **Button 2**. A box appears where you choose whether to underline spaces or not. After making your choice, press **Button 2** to return to the Set Attributes panel. Note that spaces are not underlined until you have typed the next character following the spaces.
2. If using 320 x 200–256 or 640 x 480–256 resolution mode, you can move the pointer to the palette area and press **Button 2** to display the extended palette. Using the extended palette is discussed later in this chapter.

Changing the Position of Text

While typing text, you may decide that you want to reposition it in the drawing area. You can reposition text using the Change Position option on the Set Attributes panel, provided you have not pressed **Button 2** to set the text. (If you have set the text, reposition it using the Rewrite Last Text feature described in the next section.)

To reposition text while typing:

1. Press **Button 1** to display the Set Attributes panel.
2. Select **Change Position**. You return to the drawing area. A large flashing crosshair marks the current text position. As you move the mouse, a second crosshair appears. You use the second crosshair to select the new position of the text.
3. Position the crosshair where you want the text to be located.
4. Press **Button 1**. The text moves to the new position.
5. If you are not satisfied with the new position, press **Button 1** again to reposition the crosshair cursor. To stop repositioning, press **Button 2**. The text cursor reappears where you left off typing.

Notes for Keyboard Users

- Press the **5** key to move the pointer to the Text menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Use the Tab and Shift-Tab keys to move the pointer in the Set Attributes and File Services panels.
- Press **Y** or **N** to select YES or NO on the Set Attributes and File Services panels.
- Use the Cursor keys to move the pointer and set spacing in the Set Spacing box.

Rewriting the Last Text You Entered

The Rewrite Last Text option on the Text menu lets you display a copy of the last text you entered, reposition this copy, and edit the text. The original text remains on the screen. (Use the Eraser icon or Clear option to remove unwanted text.)

After you select **Rewrite Last Text**, a copy of the last text you entered is displayed in the drawing area with a large crosshair. If you changed the size of the text prior to selecting Rewrite Last Text, all of the text may not be displayed.

Reposition the text by moving the crosshair to a new location and pressing **Button 1**. Once you are satisfied with the new position, press **Button 2**. The text cursor appears at the beginning of the text, enabling you to edit it. Press **Button 2** again when you have finished editing the text.

Notes for Keyboard Users

- Press the **5** key to move the pointer to the Text menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.

Saving and Retrieving Text and Attributes

Picture Maker lets you store attributes with text that you use in your pictures. You also can retrieve text attributes in preparation for entering new text. This ability allows you to set up combinations of attributes that you use frequently so you can maintain consistency among the titles, captions, and other text in your pictures.

Saving Text and Attributes

You can save the text you typed since you last entered text and pressed Button 2 by following these steps:

1. Select **Save Text & Attr.** on the Text menu. The File Services panel appears.

The box at the top of this panel shows the currently selected drive and directory. The left side of the middle box is where you decide which files will be listed in the Filename box in the lower right portion of the panel. When saving text, **.TXT files** is highlighted in the middle portion of the panel, which means only files with the extension TXT are listed in the Filename box. To list all files in the current directory, select **All files**.

The bottom portion of the panel is where you select the drive, directory, and filename in which to save text. In each of the Drive, Directory, and Filename boxes, arrows pointing up and down on the right side of the box enable you to scroll through the list when there are more entries than those displayed.

2. Select a filename from the Filename box if you want to replace a previously saved text file. Select **New** if you want to create a new text file.
3. If you selected a filename, select **YES** to save the text (or **NO** to cancel).

If you selected **New**, the word **New** disappears and the line becomes highlighted with a blinking cursor, indicating you can enter a filename. Enter a name of up to eight numbers and letters (follow DOS file naming conventions).

To change the TXT file extension appended to the filename you enter, press the **Period (.)** key after typing the filename. The cursor moves to the extension field where you can enter a different extension for the file.

4. If you are saving text with an existing filename, a message informs you that saving the file will overwrite the file on disk with the same name. Select **YES** to continue (or **NO** to cancel).

Retrieving Text and Attributes

The Text menu also gives you the option of retrieving text and attributes. You can retrieve just the text in a file and use the currently selected attributes, or you can retrieve just the attributes used in a text file. You also can select both text and attributes. When you get the attributes of a text file (with or without the text), the Set Attributes panel is updated to reflect the new attributes.

The ability to save and retrieve text attributes lets you easily establish and maintain consistent text styles among your pictures.

To use these options:

1. Select **Get Text**, **Get Attributes**, or **Get Text & Attr.** from the Text menu. The File Services panel is displayed. The text files in the current drive and directory are listed in the **Filename** box.
2. To get a file from a different directory or drive, select the directory or drive from those listed in the Drive and Directory boxes.
3. Select the name of the text file you want to get from those listed in the Filename box. Or, select **Type** in the Filename box to enter the name of a file.
4. If you selected the name of a file, select **YES** to get it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**.

If you selected **Get Text**, just the text from the file is displayed in the drawing area with a large crosshair cursor. If you selected **Get Attributes**, the last text you entered appears with the attributes of the selected file (if you have not entered any text in the current

Picture Maker session, the attributes are set according to the selected text file, but no text appears in the drawing area).

If you selected **Get Text & Attr.**, the text and attributes of the selected file are displayed with a large crosshair cursor.

The amount of text displayed can be increased or decreased by selecting different font sizes and styles.

5. Reposition the text by moving the crosshair cursor to a new location and pressing **Button 1**.
6. Once you are satisfied with the new position, press **Button 2**. The text cursor appears at the beginning of the text, enabling you to edit it.
7. Press **Button 2** when you have finished editing the text.

Notes for Keyboard Users

- Press the **5** key to move the pointer to the Text menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Use the Tab and Shift-Tab keys to move the pointer in the File Services panel.
- Press **Y** or **N** to select YES or NO on the File Services panel.

Limits on Text Entry

Storyboard Plus accepts 25 lines of 80 characters per line during a single text entry session. The size and style of the font you select determines how much of the text is displayed on the screen.

For example, if you select the font THIN10, Size 2, Proportional, and the Full Screen option on the Tools menu, you can type and see all 25 lines of 80 characters. If you increased the size to 4, all of the characters would still be in memory, but not all of them would be displayed on the screen.

Editing and Creating Fonts

The **Font Editor** selection on the Text menu lets you edit existing Picture Maker fonts and create new ones.

Editing Fonts

To edit an existing Picture Maker font:

1. Select **Font Editor** from the Text menu. The following Font Editor panel is displayed:

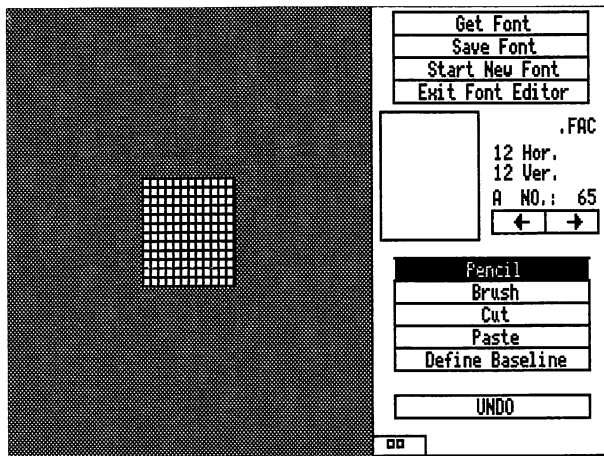


Figure 2-8. The Font Editor Panel

2. Select **Get Font**. The Get Font panel is displayed.
3. Select the size of the font you want to edit.
4. Select **Keep the original size** or **Scale to current size**.
The first option retains the original size of the font as defined when the font was created. The second option scales the font to the current size of the editing area of the Font Editor panel.

Note: Depending on the current size of the editing area and the original size of the font, scaling the font may degrade the appearance of characters.

5. Select **YES** on the Get Font panel to continue (or **NO** to cancel editing a font). The File Services panel appears.

The box at the top of the File Services panel shows the currently selected drive and directory. The left side of the middle box is where you decide which files will be listed in the Filename box in the lower right portion of the panel. When getting fonts, **.FAC files** is highlighted in the middle portion of the panel, which means only files with the extension FAC are listed in the Filename box. To list all files in the current directory, select **All files**.

The bottom portion of the panel is where you select the drive, directory, and filename of the font to get. In each of the Drive, Directory, and Filename boxes, arrows pointing up and down on the right side of the box enable you to scroll through the list when there are more entries than those displayed.

6. Select a font file from the **Filename** box, or select **Type** to type the name of a font file.

7. If you selected a filename, select **YES** to get the font (or **NO** to cancel). If you selected **Type**, press **Enter** to get the font whose filename you typed.

The font file is read into Picture Maker and is ready for editing.

There are three ways of selecting the characters you want to edit:

- Use the left and right arrows above the edit options to display the character you want to edit.
- Enter the ASCII code of the character you want to edit. To enter an ASCII code, hold down the **Alt** key and then type the code number on the numeric keypad. For example, press and hold the **Alt** key and then type **65** for the “A” character (then release the **Alt** key).
- Enter the character by pressing the actual key. For example, if you want to edit the lower case “a,” press the “a” key. To edit the upper case “A,” press **Shift-A**.

The current character appears in the editing area. Use the following edit options to change the current character.

Pencil: The Pencil option lets you change characters with pixel precision. After selecting this option, move the pointer to the editing area. Press **Button 1** to start changing pixels. Move the pointer over the pixels you want to change. Press **Button 1** again to stop changing pixels.

To restore pixels to their original color, press **Button 2** and move the pointer over the pixels you want to restore. Press **Button 2** again when you have finished restoring pixels.

Brush: The Brush option works similarly to the Pencil option, except that you change an area two pixels square as you move the pointer.

Cut: Select **Cut** to cut the design of one character and copy it to another character using the Paste option. After selecting **Cut**, move the pointer into the editing area and press **Button 1**. The character is stored in memory for later use with Paste.

Paste: Select **Paste** to recall the last character you stored in memory using the Cut option. After you select **Paste**, move the pointer into the editing area and press **Button 1**. The cut character is pasted in the editing area.

Move the pointer to position the cut character, and then press **Button 1** to set the character in place.

Note: You also can edit a character from the main Picture Maker screen, then cut the character and paste it using the Font Editor panel. The character always is pasted in the same position in the character box, unless that position has been changed in the main drawing mode.

Define Baseline: Select **Define Baseline** to set the baseline for the character you are editing. The baseline is the vertical distance between the bottom of a character and the line on which it is written.

After selecting this option, move the pointer to the line in the editing area where you want the baseline to be located. Press **Button 1**.

UNDO: Selecting **UNDO** lets you undo all changes you made since you last selected an editing option.

Creating a Font

Select **Start New Font** to create your own font.

After selecting this option from the Font Editor panel, a box appears in the editing area where you can set the size of the new font. Select from the four arrows to increase or decrease the height and width of the new font. A box on the Font Editor panel changes as you select these arrows. The minimum font size is five by five pixels. The maximum size is 48 by 50 pixels.

Once you have adjusted the size of the font, select **YES** to start creating the font.

To create each character in a font, you first assign the character to a keystroke. There are three ways to assign a character to a keystroke:

- Use the left and right arrows above the edit options to display the keystroke of the character you want to create.
- Enter the ASCII code of the character you want to create. To enter an ASCII code, hold down the **Alt** key and then type the code number on the numeric keypad. For example, press and hold the **Alt** key and then type **65** for the “A” character (then release the **Alt** key).
- Press the actual key you want to assign to a character. For example, if you want to create the lower case “a,” press the **A** key. To create the upper case “A,” press **Shift-A**.

Use the edit options on the Font Editor panel to create each character in the new font.

Saving a Font

The Save Font option on the Font Editor panel lets you save a font you have edited or created. To use this option:

1. Select **Save Font** from the Font Editor panel. A box appears in the editing area where you select the size of the font.
2. Select the size you want to save. You can save up to five font sizes in one font file.
3. Select **YES** to save the font (or **NO** to cancel). The File Services panel is displayed.
4. Select a filename from the Filename box if you want to replace a previously saved font size or add a new size to the file. Select **New** if you want to create a new font file.
5. If you selected a filename, select **YES** to save the font (or **NO** to cancel).

If you selected **New**, the word **New** disappears and the line becomes highlighted with a blinking cursor, indicating you can enter a filename. Type a name of up to eight numbers and letters and press **Enter** (follow DOS file naming conventions).

To change the FAC file extension automatically appended to the filename you enter, press the **Period** (.) key after typing the filename. The cursor moves to the extension field where you can enter an extension for the file.

6. If you are saving a font with an existing filename, a message informs you that saving the file will overwrite the file on disk with the same name. Select **YES** to continue (or **NO** to cancel).

Exiting the Font Editor

To exit the Font Editor and return to the Picture Maker screen, select **Exit Font Editor** on the Font Editor panel.

Notes for Keyboard Users

- Press the **5** key to move the pointer to the Text menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Use the Spacebar to move the pointer between the editing area and the right portion of the Font Editor panel.
- Use the Tab and Shift-Tab keys to move the pointer in the File Services panel.
- Press **Y** or **N** to select **YES** or **NO** on the File Services panel.

Generating Graphs with Picture Maker

Picture Maker automatically draws bar, pie, and line graphs you can use in your pictures. To use this feature, select **Graph** from the Tools menu. You see the Graph panel:

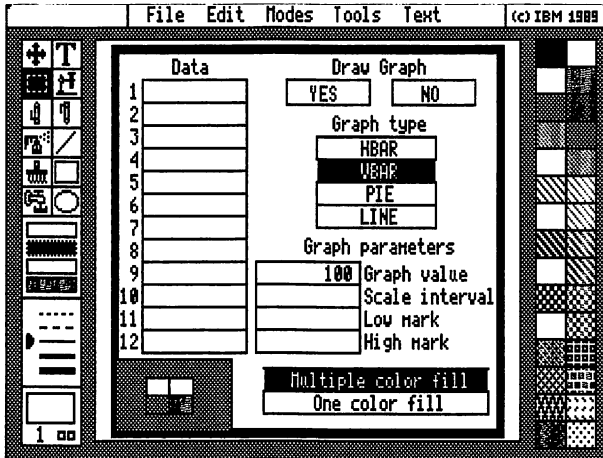


Figure 2-9. The Graph Panel

Entering Graph Data

You can enter up to 36 data values for a graph using the data area of the Graph panel. To start entering data, select the first line of the data area. The line is highlighted, and a blinking cursor appears.

Type the first data value and press **Enter**. The next line becomes highlighted, indicating that you can enter the next data value. Keep entering values in this manner. When you finish, press **Button 1** or the **Esc** key.

While entering values, you can use the following keys.

Key	Action
Backspace	Moves the cursor to the left, erasing any characters you have typed.
Cursor keys	Move the cursor up, down, right, and left.
Insert	Changes the cursor to a block, indicating you can insert characters. Press Insert again to exit insert mode.
Delete	Deletes the character at the cursor position, moving any characters to the right of the cursor left one space.
PgDn	Displays lines for the next 12 graph values.
PgUp	Displays lines for the previous 12 graph values.
Tab	Lets you type information in the graph parameter fields.

You can enter negative values for a graph. With pie graphs, a negative value results in the pie slice being moved away, or *exploded*, from the center of the pie.

Selecting a Graph Type

Select from the four types of graphs listed on the Graph panel. The default graph type is vertical bar (VBAR). You also can select horizontal bar (HBAR), pie, or line. You can switch among these selections and draw different types of graphs using the same data.

Setting Graph Parameters

You can determine how graphs are displayed by selecting the following graph parameters on the Graph panel. While typing in these fields, you can press the Tab key to enter information in the data area of the Graph panel.

Graph Value

For bar graphs, the graph value determines how much space exists between bars. The default value of 100 results in no space between bars. If you enter a value greater than 100 or less than -100, bars overlap.

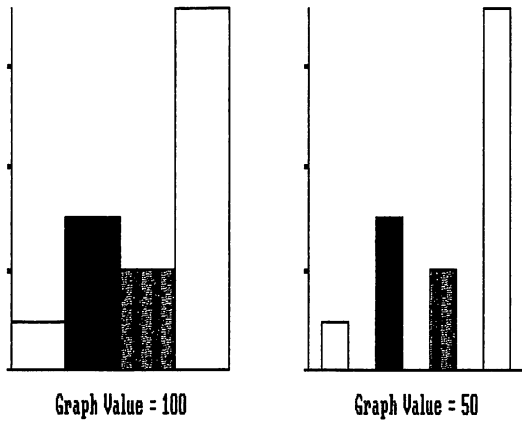


Figure 2-10. The Effects of Graph Value on Bar Graphs

For pie graphs, the graph value determines the distance that exploded slices (those with negative data values) are removed from the pie center.

Distance is a percentage of radius length. A negative graph value results in exploded slices not being shown.

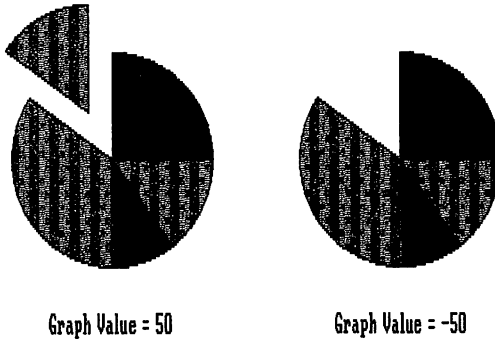


Figure 2-11. The Effects of Graph Value on Pie Graphs

For line graphs, the graph value determines the width of the line in pixels. Values can range from 1 to 10 (a value of 0 results in no line).

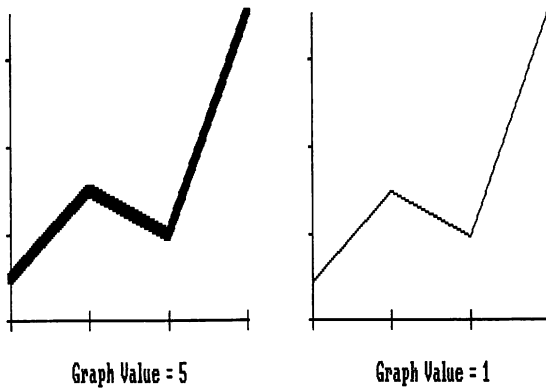


Figure 2-12. The Effects of Graph Value on Line Graphs

Scale Interval

Use this parameter to control the appearance of axes and tics in bar and line graphs (this parameter is not applicable to pie graphs). No value in this field results in the graph being drawn without axes and tics.

Positive values result in tics being placed on the scale axis at the specified interval (the scale axis is the vertical axis in vertical bar and line graphs, and the horizontal axis in horizontal bar graphs).

A zero value results in no tics being drawn on the scale axis.

Negative values cause grid lines to be drawn across the graph extending from the tics.

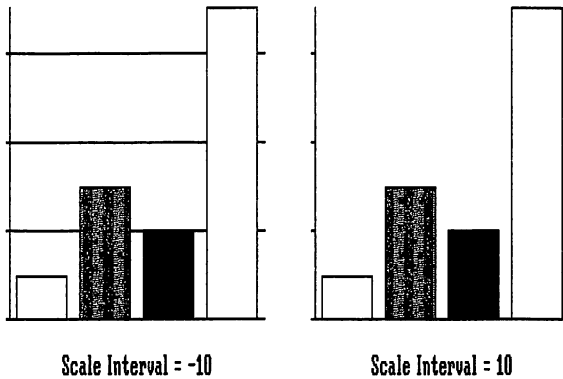


Figure 2-13. The Effects of Scale Interval Values on Bar Graphs

Low Mark

This parameter lets you specify the lowest tic value in a bar or line graph (this parameter is not applicable to pie graphs). No value in this field results in the minimum data value or 0 being used, whichever is less.

When the low mark value is zero or negative, data values less than the low mark value default to the low mark value when the graph is drawn.

High Mark

This parameter lets you specify the highest tic value in a bar or line graph (this parameter is not applicable to pie graphs). When you leave this field blank, the high mark is determined by the scale interval and the highest data value.

Data values greater than the high mark value default to the high mark value when the graph is drawn.

Choosing How Graphs are Colored and Shadowed

You can choose to have Picture Maker select the colors for your bar or pie graph, or you can select the colors yourself. To let Picture Maker choose the colors, select **Multiple color fill** at the bottom of the Graph panel. Picture Maker selects a different color for each bar or pie slice.

To use one color or pattern you select for all bars and pie slices, select **One color fill** at the bottom of the Graph panel. To fill bars and pie slices with a pattern, select a pattern from the right side of the Picture Maker screen. To fill with a drawing color, select a color from the palette area, then select the active pattern box to make the drawing color the active pattern. (Selecting a drawing color also changes the outline color used in the graph.)

Alternatively, you can fill bars and pie slices with different colors or patterns of your choice by selecting **One color fill** and selecting white as the active pattern. After drawing the graph, use the Fill icon to fill each bar or pie slice with a pattern or color of your choice.

The axes, tics, bars, lines, and pie slices in graphs can be drawn with shadows. To set shadow direction, depth, and color, move the pointer over the four boxes in the lower left corner of the Graph panel and press **Button 1**. The Set Shadow panel appears. For information about using this panel, see “Using Shadows” on page 2-70.

After you use the Set Shadow panel, the four boxes in the lower left corner of the Graph panel are shown with the shadow settings you selected. To deactivate the use of shadows with graphs, move the pointer over these boxes and press **Button 2**. To switch shadows back on without changing settings on the Set Shadow panel, move the pointer to the four boxes and press **Button 2** again.

Selecting a Line Style

For bar, pie, and line graphs, you can select from the three solid line styles in the line styles area for use in your graph.

Drawing the Graph

When you are ready to draw your graph, select **YES** on the Graph panel. The panel is removed, and the graph (minus color and shadows) appears in the upper left corner of the drawing area in a select box. If there already was a select box in the drawing area, the graph appears in the existing select box.

You can move and scale the graph as described in the next section. To set the graph, press **Button 1** while the pointer is outside of the select box.

Once you set the graph, the graph is drawn with the colors and shadowing you selected on the Graph panel. Press **Button 1** again to remove the select box.

Note: Refer to “Editing Pictures” on page 2-121 for information about the Transparent and Opaque options, which affect the way graphs overlay areas of your pictures.

Moving and Scaling the Graph

After you select YES on the Graph panel, the graph appears in a select box in the drawing area. To place the graph in your picture, move the pointer inside the select box and press **Button 1**. Move the graph to its new location and press **Button 1** again.

Scale the graph by moving the pointer inside the select box and pressing **Button 2**. Move the mouse to scale the select box, and then press **Button 2** again.

Note: Select **Constrain** on the Modes menu to scale the graph proportionally in all directions.

After moving or scaling the graph, move the pointer outside of the select box and press **Button 1** to set the graph in your picture. If you have scaled the graph to the full size of the screen, press **F10** to set the graph. Once you set the graph, the graph is drawn with the colors and shadowing you selected on the Graph panel. Press **Button 1** (or **F10**) again to remove the select box.

Another way to place and scale a graph is to draw a select box in the shape, size, and position you want the graph to appear before you define the graph. When you draw the graph, it is automatically placed and scaled according to the select box you drew. For more information about drawing select boxes, see “Selecting Areas of the Picture” on page 2-121.

Labeling Graphs

You can use titles, legends, and data labels with graphs using the Text icon and Set Attributes panel described in “Using Text In Your Pictures” on page 2-75. Refer to this section for information about entering and positioning the text for your graphs.

Notes for Keyboard Users

- Press the **4** key to move the pointer to the Tools menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Use the Tab and Shift-Tab keys to move the pointer in the Graph panel.
- Use the following keys to move the pointer to other parts of the Picture Maker screen while using the Graph panel:
 - F4** palette area
 - F5** line styles area
 - F6** pattern area
 - F9** active pattern box
- Press **Y** or **N** to select YES or NO on the Graph panel.

Working with Colors and Patterns

Picture Maker employs two color-related concepts: drawing color and pattern. Drawing colors are used for rectangles, circles, lines (using the Line or Pencil icon), text, and graphs (for lines and bar/slice outlines). Drawing colors also are used for shadows, background color, text outline color, and the Transparent and Opaque options.

Patterns are used when you spray, paint, or fill (with the Fill icon and using the Fill Shape option). As discussed later in this chapter, you also can spray, paint, and fill with drawing colors.

Using Drawing Colors

The number of drawing colors available depends on the resolution mode you use. The name of the resolution mode indicates how many colors are available in that mode. For example, the 320 x 200 – 4 resolution mode offers four colors; the 640 x 480 – 256 resolution mode offers 256 colors.

Selecting the Active Drawing Color

The active drawing color is shown in the lower left corner of the Picture Maker screen below the active pattern box. To change the active drawing color, select a new color from the palette area above the line styles area. The number of the new color is displayed.

If you use the 320 x 200 – 256 or 640 x 480 – 256 resolution mode, you can select from an extended palette of 240 colors in addition to those displayed in the palette area. To display the extended palette, move the pointer to the palette area and press **Button 2**. The extended palette appears in the drawing area. Select the active drawing color from this palette just as you would select a color from the palette area.

After you select a color from the extended palette, the color (rather than a color number) appears in the lower left corner of the screen. Press **Button 2** to exit the extended palette. The next section describes how to further use the extended palette.

You also can select the active drawing color from a color in the picture. Point to a color and press the **F2** key. Selecting the active color in this manner is especially useful when using the extended palette of the 320 x 200–256 and 640 x 480–256 resolution modes.

Changing Colors in the Extended Palette

This section applies to you only if you use the 320 x 200–256 or 640 x 480–256 resolution mode.

There are different systems for describing color. Picture Maker employs the RGB system, which describes all colors as some combination of red, green, and blue. You can change any color in the extended palette by changing the amount of red, green, or blue in the color. You do this by using the three color scales to the right of the extended palette.

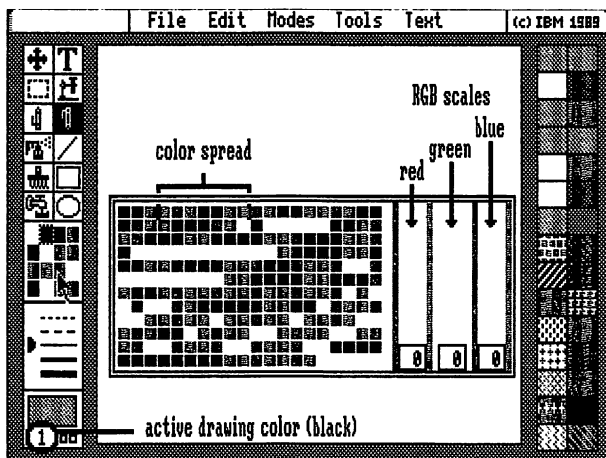


Figure 2-14. The Extended Palette

When you select a color from the extended palette, a box in each color scale shows you the amount of red, green, or blue in the color. The amount is a number on the scale from 0 to 63.

To change a color in the extended palette:

1. If the extended palette is displayed, press **Button 2** to remove it.
2. Make sure **Fix Palette** on the Tools menu is switched off (an option is off when no arrow appears in front of the option name).
3. Move the pointer to the palette area and press **Button 2** to display the extended palette.
4. Select a color to change in the extended palette. The boxes in the color scales show you the amount of red, green, and blue in the color.
5. Select a box in one of the color scales.
6. Move the box up to increase the amount of red, green, or blue in the color, or move the box down to decrease the amount. The color in the extended palette changes to reflect the altered amount of red, green, or blue.
7. Press **Button 1** again to set the box.
8. Select a box in another scale to move, or select another color to change from the extended palette.
9. When you have finished changing colors, press **Button 2** to exit the extended palette.

Changing the 16-color Palette

If you are using the 640 x 350 – 16 or 640 x 480 – 16 resolution mode, you can change colors in the palette area as follows:

1. Make sure **Fix Palette** on the Tools menu is switched off (an option is off when no arrow appears in front of the option name).
2. Select the color in the palette area you want to change.
3. Press **Button 2**. The color number changes in the lower left corner of the screen. Each time you press **Button 2**, the color number increases by 1 and the color in the palette area changes. In this manner you can scroll through all 64 available colors.

To reverse direction, press **Button 1** once, then resume pressing **Button 2**. The color number decreases by one each time you press **Button 2**.

Changing the Background Color

The Background Color option on the Modes menu lets you change the background color in the drawing area. To use this option:

1. Select **Background Color** from the Modes menu. A box appears that shows you the current background color.
2. Select a new background color from the palette area (or from the extended palette, if you are using the 320 x 200 – 256 or 640 x 480 – 256 resolution mode). The new color appears in the background color box.
3. Press **Button 2** to remove the background color box.

Note that using this option does not automatically change the former background color in your picture to the new color. The new background color will show up when you use the following features:

- The Eraser icon
- The Move option on the Modes menu
- The Clear option on the Edit menu

Changing Screen Color

In all resolution modes except 320 x 200 – 256 and 640 x 480 – 256, you can change the screen color by performing the following steps.

1. If you use the 640 x 200 – 16, 640 x 350 – 16, or 640 x 480 – 16 resolution mode, make sure the **Fix Palette** option on the Tools menu is switched off (an option is off when no arrow appears in front of the option name).
2. Move the pointer to the second color in the palette area and press **Button 2**. The screen color changes. Continue pressing **Button 2** to scroll through all available screen colors.

Following is the number of available screen colors depending on the resolution mode you use:

<i>Resolution Mode</i>	<i>Colors</i>
320 x 200 – 4	15
640 x 200 – 16	15
640 x 320 – 16	64
640 x 480 – 16	64

Note: In 320 x 200 – 4 resolution mode, you also can switch among bright white, yellow, white, and brown in the menu area, pattern area, icon area, and drawing area. To switch colors, move the pointer to the first color in the palette area and press **Button 2**. Changing these colors also alters the drawing colors.

Creating Color Spreads

In all resolution modes except 320 x 200 – 4, you can create areas of graduated color called *color spreads*. Color spreads are useful for shading objects and creating attractive backgrounds in your pictures. You create color spreads using the Fill icon and the Spread option on the Modes menu. How you use this option differs based on the number of colors supported by the resolution mode you use.

Using 16-Color Resolution Modes

If you use the 640 x 200 – 16, 640 x 350 – 16, or 640 x 480 – 16 resolution mode, you can create color spreads using the background color and one drawing color. To create a color spread in these resolution modes:

1. Use the Background Color option on the Modes menu to select a background color for the spread.
2. Select the drawing color for the spread.
3. Select **Spread** from the Modes menu. You see the Color Spread panel.

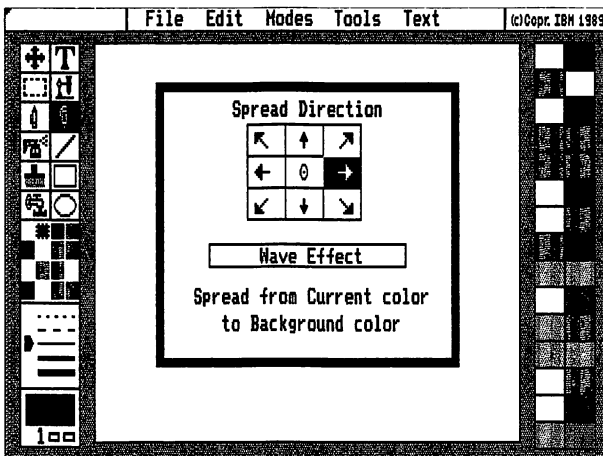


Figure 2-15. The Color Spread Panel in 16-Color Resolution Modes

4. Select an arrow in the Spread Direction box to set the direction in which the spread is drawn. For example, if you select the arrow pointing right, the spread starts on the left side of the drawing area. The drawing color you selected is spread across the drawing area to the right, gradually replaced by the background color.

If you select the center of the Spread Direction box, the spread radiates in a circular pattern. The center of the circle is determined by the pointer's location when you initiate the spread.

5. Select **Wave Effect** on the Color Spread panel to spread the drawing color into the background color, and then back again. This option creates a mirror-image effect with the color spread.
6. Move the pointer outside of the Color Spread panel and press **Button 2**. The panel is removed.
7. Select the **Fill** icon.
8. Move the pointer to the area you want to fill with the color spread.
9. Press **Button 1**. The area you selected is filled with the color spread.

Notes:

1. If you want to use the entire drawing area with a color spread, select **Full Screen** on the Tools menu before you select the area to fill. Refer to "Using the Full Screen" on page 2-138 for more information about this option.
2. You also can create color spreads using the **Alter Color** option on the Edit menu. For more information about using this option, refer to "Altering Color" on page 2-129.

3. To remove a color spread you just created, select **Undo** on the Edit menu. You must remove an existing color spread before you refill an area with a new color spread.
4. To resume using the Fill icon with patterns, move the pointer to **Spread** on the Modes menu and press **Button 2**. The arrow in front of the Spread option disappears.

Using 256-Color Resolution Modes

If you use the 320 x 200–256 or 640 x 480–256 resolution mode, you can create color spreads using up to 240 colors in the extended palette. To create a color spread in these resolution modes:

1. Make sure **Fix Palette** on the Tools menu is switched off (an option is off when no arrow appears in front of the option name).
2. Select **Spread** on the Modes menu. You see the Color Spread panel with the extended palette.

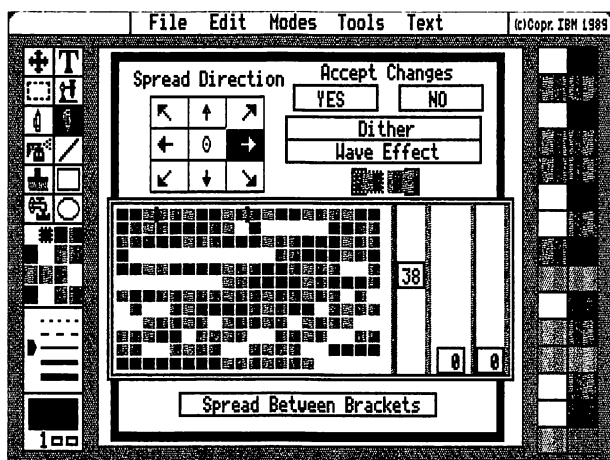


Figure 2-16. The Color Spread Panel in 256-Color Resolution Modes

3. Move the pointer to the color in the extended palette that you want to be the starting color in the spread.
4. Press **Button 1**. The color you select appears on the left between the brackets below the Wave Effect option. A dotted line around the color indicates that you can change the color using the color scales to the right of the extended palette. To use these scales, see “Changing Colors in the Extended Palette” on page 2-104.
5. Move the pointer to the last color you want to use in the spread.
6. Press **Button 2**. The color appears between the brackets above the extended palette. You also can change this color using the color scales.
7. At this point, you have selected the starting and ending colors of the spread. If you were to create a spread right now, Picture Maker would use these starting and ending colors, and all colors in between as they appear in the extended palette.

However, you also can use the starting and ending colors to create a spread within the extended palette by selecting **Spread Between Brackets** at the bottom of the Color Spread panel. The colors in the palette between the starting and ending colors change. Now when you create a spread in your picture, the spread you defined in the extended palette will be used.

8. Select an arrow in the Spread Direction box to set the direction in which the spread is drawn. For example, if you select the arrow pointing right, the spread starts on the left side of the drawing area with the first color you selected. The rest of the colors in the spread fill the area moving to the right.

If you select the center of the Spread Direction box, the spread radiates in a circular pattern. The center of the circle is determined by the pointer's location when you initiate the spread.

9. Select **Dither** if you want Picture Maker to “blur” the boundaries of the colors in the spread.
10. Select **Wave Effect** to create a mirror-image effect with the color spread.
11. When you are finished selecting colors and options on the Color Spread panel, select **YES** to accept your changes. The panel is removed.
12. Select the **Fill** icon.
13. Move the pointer to the area you want to fill with the color spread.
14. Press **Button 1**. The area you selected is filled with the color spread.

Notes:

1. If you want to use the entire drawing area with a color spread, select **Full Screen** on the Tools menu before you select the area to fill. Refer to “Using the Full Screen” on page 2-138 for more information about this option.
2. You also can create color spreads using the **Alter Color** option on the Edit menu. For more information about using this option, refer to “Altering Color” on page 2-129.
3. To remove a color spread you just created, select **Undo** on the Edit menu. You must remove an existing color spread before you refill an area with a new color spread.

4. To resume using the Fill icon with patterns, move the pointer to **Spread** on the Modes menu and press **Button 2**. The arrow in front of the Spread option disappears.
5. Before retrieving pictures that contain color spreads, switch off the Fix Palette option on the Tools menu. If you retrieve a picture without switching off this option, the color spread will not appear as you expect. Switch off Fix Palette, and then get the picture again. For more information about retrieving pictures, refer to “Getting Pictures” on page 2-147.

Notes for Keyboard Users

- Press **F4** to move the pointer to the palette area.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Press **F3** to move the pointer to the icon area.
- If you use the 320 x 200–256 or 640 x 480–256 resolution mode, press the **Tab** key to move the pointer to the RGB scales on the right side of the extended palette.
- Press the **4** key to move the pointer to the Tools menu.
- Press the **3** key to move the pointer to the Modes menu.

Using Patterns

Selecting the Active Pattern

The active pattern is displayed in the box above the active drawing color number in the lower left corner of the Picture Maker screen. You can change the active pattern by selecting a different pattern from the pattern area on the right side of the Picture Maker screen.

Note: If you are using the 640 x 200 – 16, 640 x 350 – 16, or 640 x 480 – 16 resolution mode, you have 30 additional patterns to choose from. To alternate between the pattern sets, move the pointer to the pattern area and press **Button 2**.

Making the Active Color the Active Pattern

You also can use any drawing color as the active pattern. First select the active drawing color. Then, move the pointer to the active pattern box and press **Button 1**. The active drawing color appears in the active pattern box.

Spraying Patterns

The Spray icon lets you spray the active pattern onto your picture. To use this feature:

1. Select the **Spray** icon.
2. Move the pointer to the area in the picture where you want to start spraying. The pointer changes to a diamond shape.
3. Press **Button 1** to start spraying.
4. Move the pointer over the areas you want to spray. Note that the spray is not solid. To create a solid spray, move the pointer over the same area several times.
5. Press **Button 1** again to stop spraying. To erase an area you just sprayed, press **Button 2** and move the pointer over the area. Press **Button 2** again to stop erasing.

Painting Patterns

With the Paint icon, you can paint solid patterns onto your picture. To use this feature:

1. Select the **Paint** icon.
2. Move the pointer to the area in the picture where you want to start painting. The pointer changes shape (the shape depends on the currently active brush shape).
3. Press **Button 1** to start painting.
4. Move the pointer over the areas you want to paint.
5. Press **Button 1** again to stop painting. To erase an area you just painted, press **Button 2** and move the pointer over the area. Press **Button 2** again to stop erasing.

To change the brush shape, follow these steps:

1. Select **Brush Shape** from the Tools menu. A panel appears that shows the available brush shapes. The active brush shape is outlined with a box.
2. Select a different brush shape. You return to the drawing area.

Filling with Patterns

You can fill areas of the screen with the active pattern using the Fill icon. To use this feature:

1. Make sure the Buffer Fill and Spread options on the Modes menu are switched off (an option is switched off when no arrow appears in front of the option name).
2. Select the **Fill** icon.
3. Move the tip of the pointer to an area in the picture you want to fill.

4. Press **Button 1**. The area is filled with the active pattern until a different color is encountered. If the area you want to fill is not completely enclosed by a different color, surrounding areas are also filled. Press **Button 2** to stop a fill.

You always can refill a solid colored area with another color or pattern. However, you can refill a patterned area you just filled only if you have not selected a menu option, icon, or Help in the meantime. To change the pattern, simply select a new active pattern from the pattern area, and then press **Button 2**. The new pattern fills the area. Otherwise, erase the pattern and fill the area with a different pattern.

Editing Patterns

You can edit any existing pattern to create your own. Edited patterns are saved when you save your pictures. The original patterns remain available for all other pictures you create.

To edit a pattern:

1. Select the pattern that can be most easily modified to achieve the effect you want.
2. Select **Edit Pattern** from the Tools menu. A panel with two boxes appears. The right box is the pattern in normal scale. The left box is a magnified portion of the pattern.
3. Select the active drawing color you want to use to change the pattern.
4. Move the pointer to a pixel you want to change in the magnified pattern and press **Button 1**. The pixel changes to the active drawing color. Move the pointer to change adjacent pixels to the same color. The pattern also changes in the box on the right.

5. To stop changing pixels, press **Button 1**. To restore pixels to their previous color, press **Button 2**. Press **Button 2** again to stop restoring pixels.
6. Select different active drawing colors as needed while changing pixel color.
7. When you have finished editing the pattern, select **YES** to save your changes (or **NO** to cancel). If you save the edited pattern, it replaces the original pattern in the pattern area, but only for the picture you are currently creating or editing.

Hint: If you will be using a set of edited patterns often, edit and save the patterns in a blank picture file just for that purpose. Retrieve this file when you want to create a new picture that uses one or more of the edited patterns.

Notes for Keyboard Users

- Press **F6** to move the pointer to the pattern area.
- Use the Cursor keys to move the pointer to a new selection.
- Press **F9** to move the pointer to the active pattern box.
- Use the Plus and Minus keys on the numeric keypad in place of **Buttons 1** and **2**, respectively.
- Press **F3** to move the pointer to the icon area.
- Press the **4** key to move the pointer to the Tools menu.

Creating Pictures with a Video Camera

The **Digitize** option on the **Tools** menu lets you create an image using a video camera. The **Digitize** option takes video signals and digitizes them for use with **Storyboard Plus**. Once digitized, the image can be displayed, edited, and saved with **Picture Maker**.

You need special equipment to use this feature, such as that listed under “**Video Input Devices**” in **Appendix B**. Refer to the manual that accompanies your equipment for installation instructions. Once you have correctly installed this equipment, follow these steps to use the **Digitize** option:

1. In all resolution modes except 320 x 200 – 4, select **Fix Palette** on the **Tools** menu to switch off the option (an option is off when no arrow appears before the option name).

2. Select **Digitize** on the **Tools** menu.

Note: If you are running **Picture Maker** from 5.25-inch diskettes, remember that a file essential to using the **Digitize** option, **DIGITIZE.PDR**, is located on **Diskette 3**. Before selecting this option, insert **Diskette 3** in the default drive.

3. Position the pointer on the **Brightness** scale and press **Button 1** to change the brightness of your digitized image.
4. Position the pointer on the **Contrast** scale and press **Button 1** to change the contrast of your digitized image.

Note: The image must be digitized again to reflect any changes made to the **Brightness** or **Contrast** setting.

5. Use one of three options to digitize your picture: **Black & White**, **Shades**, or **Color**. The number of shades and colors available varies depending on the resolution mode you are using.
6. To digitize an image, select **YES**. Whatever the video camera is pointing at will be digitized onto the screen.
7. Once the image has been digitized, you can press **Enter** to digitize the image again. To return to the Digitize panel, press the **Esc** key. You can now make adjustments in the brightness and contrast and digitize the image again, or select **NO** to exit the Digitize panel.

Use the other options on the Digitize panel as follows:

One Input

Select this option to use a video camera with one input jack. Place the input line from the camera in the first channel of the video capture board you are using.

RGB Input

Select this option to use a video camera that has RGB input capabilities. The RGB input lines should be placed in the second, third, and fourth channels of the video capture board you are using.

Digitizing in 256-Color Modes

If you use the 320 x 200–256 or 640 x 480–256 resolution mode, you can further adjust a digitized image before you return to the Digitize panel.

With the digitized image displayed, you can adjust the amount of red, green, and blue in the image, as well as adjust intensity and reset the image to its original colors, using the following keys:

Keys Action

F1, F2 Decreases (F1) or increases (F2) red in the image

F3, F4 Decreases (F3) or increases (F4) green in the image

F5, F6 Decreases (F5) or increases (F6) blue in the image

F7, F8 Decreases (F7) or increases (F8) the intensity of the image

F9 Resets the image to its original color and intensity

Notes for Keyboard Users

- Press the **4** key to move the pointer to the Tools menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.

Undoing Your Latest Changes

Select **Undo** on the Edit menu to undo all changes to a picture since you last selected an icon or pattern. For example, if you paint a pattern, and then decide you don't like it, select **Undo** to remove it.

Remember that Undo cancels *everything* you did since you last selected an icon or pattern. If you draw five rectangles in succession, selecting Undo erases all five rectangles, not just the last one you drew. When using the Fill icon, selecting Undo removes *all* fills since you last selected a pattern, not just the last fill.

You can restore changes by selecting **Undo** again – provided you have not already selected another menu option or icon, or you have not performed any other action in the drawing area (other than pressing Button 2 while using the Pencil, Eraser, Spray, or Paint icon).

Selecting Areas of the Picture

Several of Picture Maker's editing features work with areas of the picture you frame using the Select icon. Using this icon lets you draw a dashed-line rectangle, called a *select box*, around an area of the picture. For some features, a selected area of the picture is optional; for other features, a select box is required.

To select an area of the picture:

1. Move the pointer to the Select icon and press **Button 1**.
2. Move the pointer into the drawing area where you want one corner of the select box to be located. The pointer becomes a crosshair cursor.

3. Press **Button 1** to start drawing the select box.
4. Move the pointer to stretch the select box so it encompasses the area of the picture you want to select.
5. Press **Button 2** to set the select box, or press **Button 1** to cancel.

To remove a select box, move the pointer outside of the select box and press **Button 1**. If the select box takes up the full screen, press **F10** to remove the select box.

Moving and Copying Selected Areas of the Picture

To move or copy a selected area of the picture:

1. Select **Move** or **Copy** from the Modes menu. These two options are mutually exclusive; only one of them can be switched on at a time (an option is on when an arrow appears in front of the option name).
2. If you have not already done so, select the area of the picture you want to move or copy.
3. Move the pointer over the select box in the drawing area and press **Button 1**. The pointer disappears.
4. Move the select box to a new location in the picture. If you are copying the selected area, the area remains in its original location as you move the copy.
5. Press **Button 2** to set the select box in its new location (or press **Button 1** to cancel the move or copy). The area remains selected for further moving or copying.
6. Move the pointer outside of the select box and press **Button 1** to finish moving or copying. If the select box takes up the full screen, press **F10**.

Note: If the Select icon is flashing, the selected area is too large to move or copy. Try selecting a smaller area. The size of the area you can select before the Select icon starts flashing depends on the resolution mode you are using.

Transparent and Opaque Moving and Copying

When you move or copy an area in a select box, all pixels within the boundaries of the select box are moved or copied. There may be times when you want to move or copy just a figure without the surrounding pixels in a selected area. You can do this using the Transparent and Transparent Color options on the Modes menu.

For example, a picture contains three figures: a red circle, a blue square, and a green rectangle. The red circle is on the blue square, but you want to move it to the green rectangle without moving any of the blue as well. You can do this by making blue a transparent color before you move the red circle. Here's how:

1. Select **Transparent Color** on the Modes menu. A box appears that shows you the current transparent color.
2. Select the blue used for the square from the palette area. The blue appears in the transparent color box.
3. Press **Button 2** to remove the transparent color box.
4. Select **Transparent** from the Modes menu.
5. Using the Select icon, draw a select box around the red circle.
6. Move the select box to the green rectangle and press **Button 2**.
7. Press **Button 1** to finish. The red circle appears on the green rectangle without any blue around it. The selected area in the blue square is gone. The background color appears there instead.

You also can select the transparent color from those available in the select box. Before you press **Button 2** to set a moved or copied area in place, press **F7** or **F8** to cycle through the available transparent colors within that select box. When the color you want to make transparent disappears, press **Button 2**.

To move or copy all pixels in a select box, select **Opaque** from the Modes menu. The Transparent and Opaque options are mutually exclusive; only one of them can be switched on at a time (an option is on when an arrow appears in front of the option name).

Moving and Copying Using Contour

Select boxes limit you to moving or copying rectangular or square areas of a picture. You also can move or copy an irregularly-shaped area by outlining it using the Contour option on the Edit menu. To use this feature:

1. Select **Contour** on the Edit menu.
2. Move the pointer into the drawing area where you want to start outlining the area to move or copy. The pointer changes to indicate you are using Contour.
3. Press **Button 1** to start outlining the area.
4. Move the pointer around the area you want to move or copy. A line appears around the area.
5. Press **Button 2** when you have finished outlining the area. The area appears blinking within a select box.

To cancel outlining an area, press **Button 1** instead of **Button 2**. Then, to cancel using the Contour feature, press **Button 2**.

6. With the pointer in the blinking area, press **Button 1** to move or copy the selected area.
7. Move the blinking area to a new position.
8. Press **Button 2** to set the selected area in its new position (or press **Button 1** to cancel).
9. Move the pointer outside of the selected area and press **Button 1** when you have finished moving or copying the selected area.

Inverting Colors

Select **Invert** on the Edit menu to invert the colors on the screen. If there is a select box on the screen, only the selected area is inverted.

Select **Invert** again to restore the original colors to the picture or selected area.

Note: You can invert a selected area even if the Select icon is flashing.

Flipping Pictures

You can flip the entire picture or selected areas of the picture from top to bottom or left to right. To flip the picture or selected area top to bottom, select **Flip Vertical** on the Edit menu. To flip left to right, select **Flip Horizontal** on the Edit menu.

Note: You can flip a selected area even if the Select icon is flashing.

Rotating Selected Areas of a Picture

The Rotate option on the Edit menu lets you rotate a selected area of a picture in five-degree increments, either clockwise or counterclockwise. Here's how:

1. Use the Select icon to draw a select box around the area of the picture you want to rotate.
2. Select **Rotate** from the Edit menu.
3. Move the pointer up to rotate the selected area clockwise; move the pointer down to rotate the area counterclockwise. The degree of rotation is displayed in the line styles area.

4. Press:

- **Button 1** to set the rotation and move or copy the area to another location in the drawing area (depending on whether Move or Copy is selected on the Modes menu). After moving or copying the selected area to the new location, press **Button 2** (or **Button 1** to cancel).
- **Button 2** to set the rotated area in place.

Notes:

1. The Move and Copy options affect the selected area you rotate. If you want to replace a selected area with a rotated version of it, make sure Move is switched on in the Modes menu.
2. Depending on the resolution mode you use and the complexity of the image, rotating may cause distortion.
3. When canceling a rotation, use the Undo option instead of rotating a selected area back to its original orientation. Otherwise, the selected area may become distorted.
4. If the Select icon is flashing and you cannot rotate an area, try selecting a smaller area.

Scaling Selected Areas of a Picture

The Scale option on the Edit menu lets you make a selected area of a picture larger or smaller, horizontally and/or vertically. To scale an area the same amount horizontally and vertically, select **Constrain** on the Modes menu before scaling the area.

To scale a selected area:

1. Use the Select icon to draw a select box around the area of the picture you want to scale.
2. Select **Scale** from the Edit menu.

3. Move the pointer up or down to scale the selected area vertically; move the pointer left or right to scale the area horizontally. The percentage of horizontal (top number) and vertical (bottom number) scaling is displayed in the line styles area.
4. Press:
 - **Button 1** to set the new scale of the area and move or copy the area to another location in the drawing area (depending on whether Move or Copy is selected on the Modes menu). After moving or copying the selected area to the new location, press **Button 2** (or **Button 1** to cancel).
 - **Button 2** to set the scaled area in place.

Notes:

1. The Move and Copy options affect the selected area you scale. If you want to replace a selected area with a scaled version of it, make sure Move is switched on in the Modes menu.
2. Depending on the resolution mode you use and the complexity of the image, scaling may cause distortion.
3. When canceling an image you scaled, use the Undo option instead of scaling a selected area back to its original size. Otherwise, the selected area may become distorted.
4. If the Select icon is flashing and you cannot scale an area, try selecting a smaller area.

Cutting, Pasting and Filling from Buffer

You can cut a selected area of the picture and store it in a buffer for use with the Paste and Buffer Fill options. These options let you cut areas from one picture for use in others.

To cut a selected area, select **Cut** from the Edit menu. The area in the select box is stored in a buffer (the area remains unchanged in the picture).

If the select box changes to a dash/dot style (the normal style uses dashes only), the selected area is too large to cut. You also hear a tone, if you have set up Storyboard Plus to issue audible signals. Select a smaller area, and then try cutting again. The size of the area you can cut varies depending on the resolution mode you are using.

To paste the cut image in the same picture, select **Paste** from the Edit menu. The image appears in a select box in the upper left corner of the drawing area. Move or copy the image as needed.

To paste the cut image in another file, follow these steps:

1. Select **Get Picture** from the File menu. The File Services panel appears. Use this panel to select the file you want to paste the image in (see “Getting Pictures” on page 2-147 for more information about retrieving picture files). The file appears in the drawing area.
2. Select **Paste** from the Edit menu. The last image you cut appears in a select box in the drawing area.
3. Move or copy the image as needed.

You also can cut an image for use with the Buffer Fill option on the Modes menu. Using Buffer Fill is similar to using the Fill icon, except the area you select is filled with the last image you cut. To use this feature:

1. Select **Buffer Fill** from the Modes menu.

2. Select the **Fill** icon.
3. Move the tip of the pointer to an area in the picture you want to fill, and then press **Button 1**. The area fills first with the letter “c,” then with the image you last cut. The area fills until a different color is encountered. If the area you want to fill is not completely enclosed by a different color, surrounding areas are also filled. Press **Button 2** to stop a fill.

Note: If you have set up Storyboard Plus to use sound for messages and errors, you may hear a beep while trying to use Buffer Fill. This is a signal that there is no cut image with which to fill.

4. To resume using the Fill icon with patterns, select **Buffer Fill** again to switch off the option.

Altering Color

Using the Alter Color Option

Use the Alter Color option on the Edit menu to change a color in all or a selected area of the picture to the active drawing color. To use this option:

1. Select **Alter Color** from the Edit menu.
2. Move the pointer into the drawing area. The pointer changes to a box with a tip on it. As the tip of the box touches a pixel, the color of that pixel is displayed in the box.
3. When the color you want to change is displayed in the pointer box, press **Button 1**. All pixels of that color are changed to the active drawing color. If there is a select box in the drawing area, only pixels in the selected area are altered.
4. To use a different drawing color, use the pointer box to select a different drawing color from the palette area. Then select the color to change in the drawing area.

5. Press **Button 2** when you have finished altering colors.

Note: You also can use Alter Color with color spreads. First select **Spread** from the Modes menu. Then, follow the steps above to change all pixels of one color to the current color spread. For more information about using the Spread option, see “Creating Color Spreads” on page 2-108.

Using the Change Color Option

You also can alter color in your picture using the Change Color option on the Tools menu and the Paint or Spray icon. Here’s how:

1. Select the **Change Color** option on the Tools menu.
2. Select the new color you want to change to and make it the active pattern.
3. Select the color you want to change.
4. Select the **Paint** or **Spray** icon.
5. Move the pointer to the area of the picture in which you want to alter color.
6. Press **Button 1** and move the pointer to change the old color to the new color. Press **Button 1** again to stop altering color. To restore areas to the old color, press **Button 2** and move the pointer over areas you want to restore. Press **Button 2** again to stop restoring.
7. When you have finished altering color, select the **Change Color** option on the Tools menu again.

Clearing the Picture

Select **Clear** on the Edit menu to clear all or a selected area of the picture. Selected areas can be chosen using the Select icon or the Contour option on the Edit menu.

If you select this option to clear the entire picture, a message asks you to confirm that you want to continue (you are not asked to confirm if clearing a selected area). Select **YES** to continue or **NO** to cancel. If you select YES, any changes you made since the last time you saved the file are lost.

The active background color appears in areas you have cleared. For this reason, the Clear option is useful after you change the background color with the Background Color option on the Modes menu (see “Changing the Background Color” on page 2-106 for more information about the Background Color option).

Note: You can clear a selected area even if the Select icon is flashing.

Retrieving Library Images

Picture Maker includes several library files of images you can use in your pictures. To use these images, select **Library** from the Tools menu. You see the following Library panel.

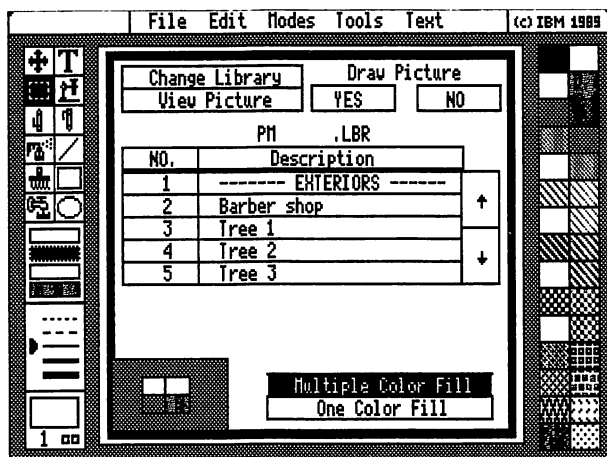


Figure 2-17. The Library Panel

The box in the middle of this panel displays a list of images in the current library file, the name of which appears above the list. Use the arrows on the right side of the image list to scroll through all of the images.

To view an image, select it from the list and then select **View Picture**. The image you chose appears on the screen. To view the next image in the library file, press **Button 1**. You can scroll through all of the images in the library file while viewing them. Return to the Library panel by pressing **Button 2**.

Changing Library Files

Picture Maker includes several library files, which you can identify by their LBR file extension. You can change the current library file by following these steps:

1. Select **Change Library** on the Library panel. The File Services panel is displayed.

The box at the top of this panel shows the currently selected drive and directory. The left side of the middle box is where you decide which files will be listed in the Filename box in the lower right portion of the panel. Because you are changing libraries, **.LBR files** is highlighted in the middle portion of the panel, which means only files with the extension **LBR** are listed in the Filename box. (To list all files in the current directory, select **All files**.)

The bottom portion of the panel is where you select the drive, directory, and filename of the library you want to change to. In each of the Drive, Directory, and Filename boxes, arrows pointing up and down on the right side of the box enable you to scroll through the list when there are more entries than those displayed.

Note: If you are running Picture Maker from 5.25-inch diskettes, remember that all library files except PM.LBR are located on Diskette 3. The PM.LBR file is located on Diskette 2. Before changing libraries, you must insert the correct diskette in a drive, and then select that drive on the File Services panel.

2. To get a library from a different directory or drive, select the directory or drive from those listed in the Drive and Directory boxes.
3. Select the name of the library file you want to get from those listed in the Filename box. Or, select **Type** in the Filename box to enter the name of a file.
4. If you selected the name of a file, select **YES** to get it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**. You return to the Library panel, where you can select and view the images in the new library.

Choosing How Library Images are Colored and Shadowed

You can choose to have Picture Maker select the colors for your library image. Images can be multicolored or all one color. To use multiple colors, select **Multiple color fill** at the bottom of the Library panel.

To use one color in an image, select **One color fill**. When using this option, you can select the fill color from the patterns on the right side of the Picture Maker screen. You also can fill using a drawing color by selecting a color from the palette area, then selecting the active pattern box in the lower left corner of the screen. The active color becomes the active pattern. (Selecting a drawing color also changes the outline color of the image.)

Alternatively, you can select your own colors for an image by selecting **One color fill** and selecting white as the active pattern. After selecting YES on the Library panel to draw the image, use the patterns and drawing colors to fill, paint, or spray the image however you choose.

To set the direction, depth, and color of shadows in library images, move the pointer over the four boxes in the lower left corner of the Library panel and press **Button 1**. The Set Shadow panel appears. For information about using this panel, see “Using Shadows” on page 2-70.

After you use the Set Shadow panel, the four boxes in the lower left corner of the Library panel are shown with the shadow settings you selected. To deactivate the use of shadows with library images, move the pointer over these boxes and press **Button 2**. To switch shadows back on without changing settings on the Set Shadow panel, move the pointer to the four boxes and press **Button 2** again.

Drawing the Library Image

When you are ready to draw the library image, select YES on the Library panel (or select NO to exit the panel without drawing an image). The panel is removed, and the image (minus color and shadows) appears in the upper left corner of the drawing area in a select box. If there already was a select box in the drawing area, the image appears in the existing select box.

You can move and scale the image as described in the next section. To set the library image in its current location, press **Button 1** while the pointer is outside of the select box. Once you set the image, it is drawn with the colors and shadowing you selected on the Library panel. Press **Button 1** again to remove the select box.

Note: Refer to “Transparent and Opaque Moving and Copying” on page 2-123 for information about the Transparent and Opaque options, which affect the way library images overlay areas of your pictures.

Moving and Scaling the Image

After you select YES on the Library panel, the image appears in a select box in the drawing area. To place the image in your picture, move the pointer inside the select box and press **Button 1**. Move the image to its new location and press **Button 1** again.

Scale the library image by moving the pointer inside the select box and pressing **Button 2**. Move the mouse to scale the select box, and then press **Button 2** again.

Note: Select **Constrain** on the Modes menu to scale the image proportionally in all directions.

After moving or scaling the image, move the pointer outside of the select box and press **Button 1** to set the image. Once set, the image is drawn with the colors and shadowing you selected on the Library panel. With the pointer outside of the select box, press **Button 1** again to remove the select box. If the select box fills the screen, press **F10** to remove the select box.

Another way to place and scale a library image is to draw a select box in the shape, size, and position you want the image to appear before you display the Library panel. When you draw the image, it is automatically placed and scaled according to the select box you drew. For more information about drawing select boxes, see “Selecting Areas of the Picture” on page 2-121.

Notes for Keyboard Users

- Press the **2** key to move the pointer to the Edit menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Press the **3** key to move the pointer to the Modes menu.
- Press the **1** key to move the pointer to the File menu.
- Press the **4** key to move the pointer to the Tools menu.
- Use the Tab and Shift-Tab keys to move the pointer in the Library and File Services panels.
- Press **Y** or **N** to select YES or NO on the Library and File Services panels.

Scrolling the Drawing Area

As mentioned at the beginning of this chapter, the drawing area is the size of your computer screen. Parts of the Picture Maker screen, such as the menu, palette, icon, and pattern areas, overlay parts of the drawing area.

You can scroll the drawing area to use the parts that are obscured by the Picture Maker screen. To scroll the drawing area, use the Scroll icon as follows:

1. Select the **Scroll** icon in the icon area.
2. Move the pointer into the drawing area. The pointer becomes the scroll symbol.
3. Press **Button 1** to start scrolling.
4. Move the pointer in the direction you want to scroll the drawing area. If the drawing area stops scrolling, you have reached the limit in that direction.
5. Press **Button 2** to set the drawing area in place (or **Button 1** to cancel scrolling). Now you can draw and edit in the portion of the drawing area that was previously obscured.

Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.

Using the Full Screen

The Full Screen option on the Tools menu lets you remove the parts of the Picture Maker screen that obscure the drawing area. You then can draw or edit using the full screen. To use this option:

1. Select the icon, option, or pattern you want to use.
2. Select **Full Screen** from the Tools menu. The drawing area takes up the full screen.
3. If you are using the X,Y Coordinates or Zoom option with Full Screen, you can move the display box for these options to another portion of the screen. Move the pointer to the box and press **Button 1**. Move the box to another area of the screen and press **Button 2**.
4. Draw or edit as needed.
5. To select a different icon, option, pattern, or color, press the **Spacebar**, then select what you need. Press the **Spacebar** again to resume using the full screen.
6. When you have finished using the full screen, press the **Spacebar**, and then select **Full Screen** again from the Tools menu.

Note: The Scroll and Microscope icons are not available while you are using the Full Screen option.

Notes for Keyboard Users

- Press the **4** key to move the pointer to the Tools menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.

Notes for Keyboard Users

- To select an icon, option, or pattern, use the key assigned to the appropriate area or menu as listed in the section “The Picture Maker Screen” in this chapter. After making a selection, press the **Plus** key to return to the full screen.

Using Two Pages of Drawing Area

Picture Maker lets you store the picture you are currently working with in memory so you can get another picture to edit or create a new one. With this ability, you can quickly move and copy parts of one picture to another.

In effect, you have two “pages” of drawing area to work with, although only one page is displayed at a time. For example, you can select **Switch Page** and use the second page as a sketch pad. Then, you can use **Switch Page** again to quickly copy selected areas into the picture on the first page.

Note: When working with pictures that use two different color palettes, Picture Maker defaults to the palette of the second picture, which may change the appearance of the first picture.

To use the **Switch Page** option:

1. Store the picture you are currently working on in memory by selecting **Switch Page** from the Tools menu. The drawing area clears, displaying a blank second page.
2. Get another picture to work with or start drawing a new one (refer to “Getting Pictures” on page 2-147 for information about retrieving picture files).
3. To copy a part of the second page to the first, select an area using the **Select** icon.

4. Select **Switch Page** again to display the original picture on the first page. Any area you selected on the second page is displayed on the first page.
5. Save each page as a separate picture.

You also can select an area of a picture before selecting **Switch Page**. After you select **Switch Page**, the selected area of the first page appears on the second page.

Notes:

1. The **Move** option only moves a selected area within a page, not between two pages. Selected areas are always copied between pages.
2. The default buffer path is used if **Picture Maker** cannot store both pages in memory.

Notes for Keyboard Users

- Press the **4** key to move the pointer to the **Tools** menu.
- Use the **Cursor** keys to move the pointer to a new selection.
- Use the **Plus** and **Minus** keys on the numeric keypad in place of **Buttons 1** and **2**, respectively.

Getting a Closer Look: Microscope and Zoom

The **Microscope** icon and the **Zoom** option on the **Tools** menu let you get a closer look at your picture. When you use these features, you can change one pixel at a time to fine tune your pictures.

Using the Microscope Icon

The Microscope icon lets you magnify a portion of the drawing area so you can work with individual pixels.

Note: This feature is not available while you are using the Full Screen option.

To use Microscope:

1. Select the **Microscope** icon.
2. Move the pointer to the area of the picture you want to magnify, and then press **Button 1**. The area is magnified. A box in the upper left corner of the drawing area shows you the same area in normal scale.

Note that the icon area has changed. The available icons are Eraser, Pencil, and six brush shapes for painting patterns in the magnified area. Select these icons as you would select icons from the Picture Maker screen.

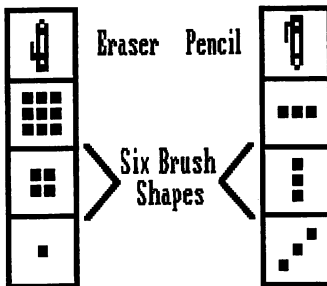


Figure 2-18. The Icons Available with Microscope

3. To use the pencil or paint brushes, select the icon you want to use. Then, select a pixel you want to change to the active drawing color or pattern.

Moving the pointer changes all pixels under the pointer to the active drawing color or pattern. Press **Button 1** to stop changing pixel color as you move the pointer. To change just one pixel, position the pointer and press **Button 1** twice.

As you change the pixels, the picture in the box in the upper left corner of the screen changes to show you the effect of your editing in normal scale.

To restore pixels to the color they were when you magnified the area, press **Button 2**. Move the pointer over the pixels you want to restore. Press **Button 2** again to stop restoring pixels. To restore just one pixel, position the pointer and press **Button 2** twice.

While drawing or painting, you can switch to restoring just by pressing **Button 2** (you do not have to press **Button 1** to stop drawing first). The same is true when restoring and you want to switch to drawing.

Select the **Eraser** icon to change pixels to the current background color.

There are two ways you can change the active drawing color while using **Microscope**:

- Select a different color from the palette area (or from the extended palette, if you are using the 320 x 200 – 256 or 640 x 480 – 256 resolution mode).
- Position the pointer on a pixel with the color you want as the active drawing color and press the **F2** key. That color becomes the active drawing color.

Change the active pattern by selecting a different pattern from the pattern area. The new pattern appears in the active pattern box.

4. Change the portion of the picture currently magnified by moving the pointer to the normal scale box in the upper left corner of the drawing area and pressing **Button 2**. Move the mouse to scroll the part of the picture into view that you want to magnify. Then, press **Button 2** again. The magnified portion of the picture changes.
5. To exit Microscope, position the pointer in the normal scale box, and then press **Button 1**.

Using the Zoom Option

Select **Zoom** on the Tools menu to display a magnified portion of the picture while you edit in normal scale. The magnified portion, which appears in the line styles area, is the part of the picture around the pointer. As you edit in the drawing area, the changes are reflected in the magnified portion of the picture. The Zoom option is not available while using the X,Y Coordinates option, or while the Scroll or Microscope icon is selected.

Notes for Keyboard Users

- Press **F3** to move the pointer to the icon area.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Hold the **Shift** key down while using the Cursor keys to draw or paint a continuous line.
- Press **F4** to move the pointer to the palette area.
- Press **F6** to move the pointer to the pattern area.
- Press **F9** to move the pointer to the active pattern box.

Saving, Retrieving, and Printing Your Pictures

Use options on the File menu to save, retrieve (get), and print your pictures. Other options on the File menu let you remove pictures from your disk, show the picture as it will appear in your stories, save Picture Maker defaults, and return to the Picture Maker Main Menu.

Saving Pictures

Saving a picture stores your work on a diskette or fixed disk while keeping it in memory so you can continue working on it. When you make changes to a picture that has been previously saved, you must save the picture again in order to keep those changes.

You also can save just a selected area of your picture. When a select box is present in your picture, saving the picture saves only the portion of the picture in the select box. For more information about selecting an area of a picture, see "Selecting Areas of the Picture" on page 2-121.

There are two ways to save a picture: using Quick Save, and using the File Services panel.

Using Quick Save

You should save your picture periodically during a drawing session to prevent losing all of your changes if the power should fail. You can do this quickly by pressing **Alt-F8** while the pointer is in the drawing area, and while no icon or option is active. The Quick Save panel appears.

If you are working on a new picture, save it by selecting **Type** from the Quick Save panel. A cursor appears in the Type box, indicating you can type the name of the file. After typing a filename, press **Enter**.

If you are saving an existing picture, select **YES** to save it with the name displayed on the Quick Save panel. Or, save the picture with a different name by moving the pointer to the picture name, pressing **Button 1**, and entering a new name.

If a select box was active when you pressed Alt-F8, a message informs you that just the select box will be saved. Select **YES** to continue, or **NO** to save the entire picture.

When saving a picture with an existing filename, a message informs you that the file will be replaced. Select **YES** to continue, or **NO** to cancel.

Note: Quick Save does not let you change the drive and directory in which you save your picture, although this information is displayed.

Using the File Services Panel

When you are ready to save all or part of a picture, follow these steps to use the File Services panel:

1. Select one of the following options from the File menu:
 - **Save Picture** to save a picture in Storyboard Plus picture file format
 - **Save BSave** to save a picture in the standard BSave file format (this option only appears in 320 x 200 – 4 resolution mode)
 - **Save TIFF** to save a picture in the Tag Information File Format used by many desktop publishing programs (this option is not available in 320 x 200 – 4 resolution mode)

Note: The steps to use these options are the same. The rest of this procedure assumes you have selected **Save Picture**.

The File Services panel appears.

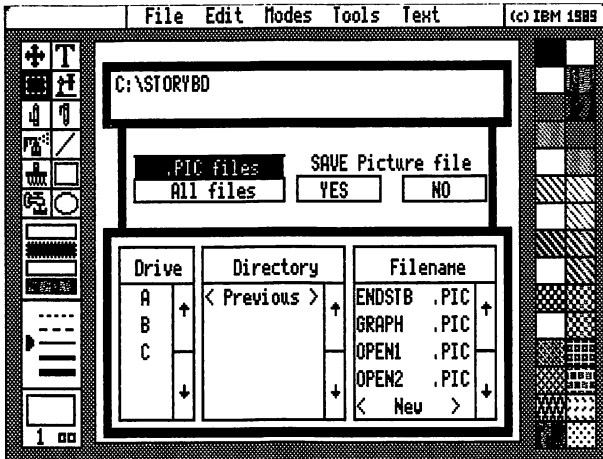


Figure 2-19. The File Services Panel

The box at the top of this panel shows the currently selected drive and directory. The left side of the middle box is where you decide which files will be listed in the Filename box in the lower right portion of the panel. When saving pictures, **.PIC files** is highlighted in the middle portion of the panel, which means only files with the extension PIC are listed in the Filename box. To list all files in the current directory, select **All files**.

The bottom portion of the panel is where you select the drive, directory, and filename in which to store a picture. In each of the Drive, Directory, and Filename boxes, arrows pointing up and down on the right side of the box enable you to scroll through the list when there are more entries than those displayed.

When you save pictures, the entry **New** appears in the Filename box.

2. Select a filename if you want to replace a previously saved picture. Select **New** if you want to save the picture under a new filename.

3. If you selected a filename, select **YES** to save the picture (or **NO** to cancel).

If you selected **New**, the word **New** disappears and the line becomes highlighted with a blinking cursor, indicating you can enter a filename. Type a name of up to eight numbers and letters (follow DOS file naming conventions).

To change the PIC file extension automatically appended to the filename you enter, press the **Period** (.) key after typing the filename. The cursor moves to the extension field where you can type an extension for the file.

When you have finished typing a filename, press **Enter**.

4. If you are saving a selected area of the picture, a message reminds you of this fact and asks you to confirm that you want to continue. Select **YES** to continue, or **NO** to save the entire picture.

If you are saving a picture with an existing filename, a message informs you that saving the file will overwrite the file on your disk with the same name. Select **YES** to continue, or **NO** to cancel.

After you save a picture, the name appears in the upper left corner of the Picture Maker screen. The picture is saved on your disk, and a copy remains in memory so you can continue editing.

Getting Pictures

The **Get Picture** option on the File menu lets you retrieve a picture file from diskette or fixed disk so you can view, edit, or print the picture. In addition to Storyboard Plus picture files, you can retrieve TIFF files (uncompressed format only) and files in the PCX format.

Note: In the 256-color resolution modes, a gray scale is used to display PCX files. In the 16-color modes, color is used to display PCX files.

To use the Get Picture option:

1. Select **Get Picture** from the File menu. The File Services panel appears.

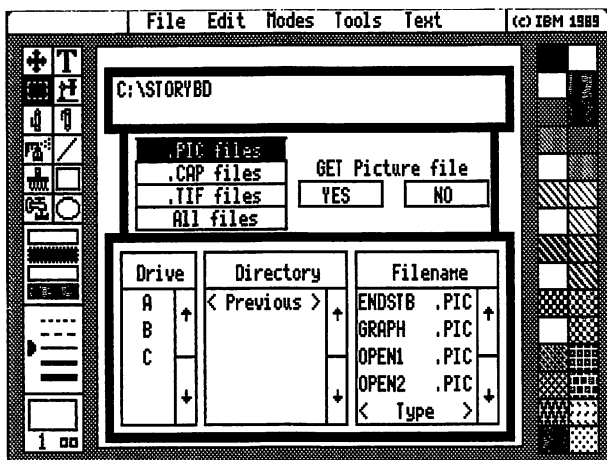


Figure 2-20. The Get Picture File Services Panel

All files in the current directory with the extension PIC are listed in the Filename box. You also can list capture files (.CAP), TIFF files (.TIF), or all files in the current directory by selecting an option from the middle box of the File Services panel.

2. To get a file from a different directory or drive, select the directory or drive from those listed in the Drive and Directory boxes.
3. Select the name of the picture file you want to get from those listed in the Filename box. Or, select **Type** in the Filename box to enter the name of a file.

4. If you selected the name of a file, select **YES** to get it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**.
5. Getting a picture replaces any other picture in memory you may have been creating or editing. If you have not saved your latest changes to a picture, you see a message warning you that your latest changes have not been saved. Select **YES** to continue, or **NO** to cancel getting a file.

After you get a picture, the name of the file appears in the upper left corner of the Picture Maker screen.

Getting Capture Files

If you get a special type of picture file that contains more than one image saved by Picture Taker (usually with the extension CAP or LIB), you also see the Get Capture File panel where you select the image you want to get.

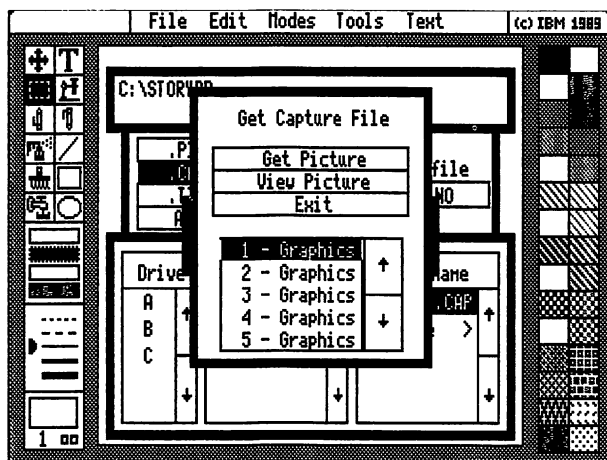


Figure 2-21. The Get Capture File Panel

If there are more images in the list than those displayed, use the arrows to the right of the list to scroll the other image names into view. After you select an image, you can retrieve it by selecting **Get Picture**, or view it by

selecting **View Picture**. While viewing an image, you can scroll through the other images in the capture file by pressing **Button 1**. Pressing **Button 2** returns you to the Get Capture File panel.

To leave the Get Capture File panel without getting an image, select **Exit**.

Note: Using Picture Maker, you only can get an image if **Graphics** follows the image number. Use Text Maker to retrieve and edit text images.

Showing a Picture

You can display the current picture file by selecting **Show Page** on the File menu. This option displays the picture without the parts of the Picture Maker screen that obscure the drawing area.

There are no icons or menu options available when the Show Page option is selected.

To return to the Picture Maker screen, press **Button 1** or **Button 2**.

Removing Picture Files

Use the Remove Picture option on the File menu to erase picture files from your disk. To use this option:

1. Select **Remove Picture** from the File menu. The File Services panel appears. The picture files in the current directory are listed in the lower right box of this panel.
2. To select a picture to remove from a different directory or drive, select the directory or drive from those listed in the Drive and Directory boxes.
3. Select the name of the picture file you want to remove from those listed in the Filename box. Or, select **Type** in the Filename box to enter the name of a file.

4. If you selected the name of a file, select **YES** to get it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**. A message asks you to confirm that you want to remove the picture.
5. Select **YES** to remove the picture, or **NO** to cancel.

Printing Your Picture

Use the Print option on the File menu to print the picture currently displayed in the drawing area.

Note: If you are running Picture Maker from 5.25-inch diskettes, remember that a file essential to using the Print option, **PRINTER.PDR**, is located on Diskette 3. Before selecting this option, make sure you insert Diskette 3 in the default drive.

To use the Print option:

1. Select **Print** from the File menu. The Print panel appears. The name of the printer you selected from the Quick Menu/Setup screen or the Picture Maker Main Menu is displayed near the top of this panel.

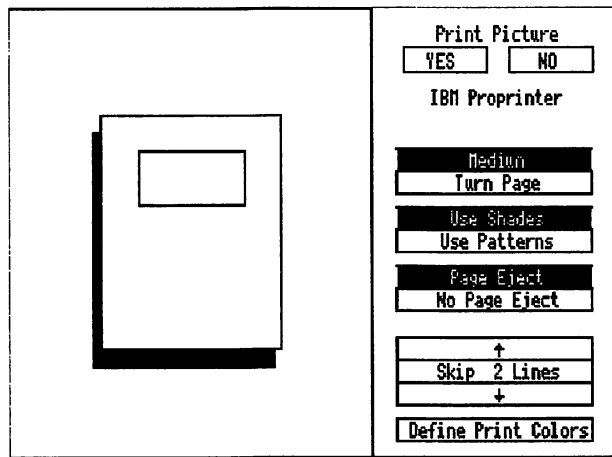


Figure 2-22. The Print Panel

2. Align your paper in the printer.
3. Use the following options on the Print panel to determine how the picture will print.

Small, Medium, or Turn Page: These options determine the size and placement of the picture on the paper. On the left side of the Print panel, a box appears on a sample page to show you how the picture will print based on the currently selected option.

Note: Depending on the printer you have selected, the Small and Medium options may yield the same results.

Use Shades or Use Patterns: These options let you determine how the colors in your picture print. You can use shades or patterns for the colors in your picture. These options are used with the Define Print Colors option.

Note: For best results when using the Hewlett-Packard PaintJet¹ printer, select **Use Shades** for pictures with text, shapes, and detailed graphics. Select **Use Patterns** for digitized pictures.

If you use the IBM Color, IBM Color Jetprinter™, or Quadram Quadjet² QJ9000 printer, the Use Shades and Use Patterns options yield the same results.

Page Eject or No Page Eject: These options let you determine whether the paper advances to the top of the next page after the picture prints.

¹ Hewlett-Packard PaintJet is a trademark of Hewlett-Packard Corporation.

Color Jetprinter is a trademark of the International Business Machines Corporation.

² Quadram and Quadjet are trademarks of Quadram Corporation.

Skip 2 Lines: This option lets you determine the number of lines the printer will advance before printing the picture. Select the arrow pointing up or down to set the number of lines from 0 to 40. This option is not available when **Turn Page** is selected.

4. You can determine how colors print by selecting **Define Print Colors** at the bottom of the Print panel. You see the following panel:

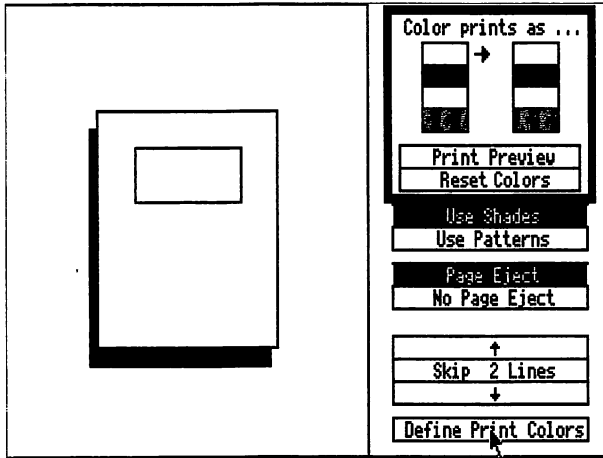


Figure 2-23. The Define Print Colors Panel

The colors of the palette in the current resolution mode appear in the left column on this panel. The colors they print as appear in the right column.

The Print Preview option lets you print a sample page to show how colors in your picture will appear. Based on this printout, you can make color assignments for printing using the two columns of colors on the Define Print Colors panel as follows. To cause blue in your picture to print as white, select white in the left column. Then, select blue in the right column. The blue in the right column changes to white.

After changing colors on the Define Print Colors panel, you can reset colors to their default settings by selecting **Reset Colors**.

When you have finished defining print colors, press **Button 2**.

5. Select **YES** to print the picture (or **NO** to exit the Print panel without printing).
6. To cancel a print job once you have started it, press the **Esc** key.
7. When printing is finished, select **YES** to reprint the picture or **NO** to return to the drawing area.

If your picture does not finish printing, you may need to change the printer resolution you are using. To change printer resolution, refer to the setup procedure “Selecting a Printer” on page 1-18.

Changing and Saving Default Settings

When you first start using Picture Maker, you may notice that certain choices are automatically made for you. For example, the same brush shape is used when you select the Paint icon, and the same font is used when you enter text.

You can change these automatic choices, or *defaults*, using the **Save Defaults** option on the File menu. This option can save you time if you find yourself making the same changes to any of the following Picture Maker features:

- Print Options
- Modes:
 - Move vs. Copy
 - Transparent vs. Opaque
 - Fill Shape vs. Hollow Shape
 - Constrain (on or off)
 - Grid (on or off)
 - Crosshair (on or off)

- Buffer Fill (on or off)
- Spread (on or off)
- Composite Video (on or off)
- Transparent Color
- Tools:
 - Brush Shape
 - Change Color (on or off)
 - Set Shadow (on or off) and shadow settings
 - X,Y Coordinates (on or off)
 - Zoom (on or off)
 - Ruler (on or off)
 - Fix Palette (on or off)
 - Graph type and parameters
 - Library filename
 - Digitize options
- Text font filename
- Changes to the extended palette in 256-color resolution modes

To use this feature, first set any or all of the above information. Then, select **Save Defaults** from the File menu. If you are using diskettes, make sure you insert Diskette 1 in the default drive.

A box appears that asks you to confirm that you want to save defaults. Select **YES** to continue, or **NO** to cancel. If you select **YES**, any new defaults you have set are saved in a file called **STB.DEF**. The new defaults take effect the next time you start Picture Maker from the Quick Menu/Setup screen or the DOS prompt.

You can repeat this procedure any time you want to change one or more of the defaults.

Notes for Keyboard Users

- Press the **1** key to move the pointer to the File menu.
- Use the Cursor keys to move the pointer to a new selection.
- Use the Plus and Minus keys on the numeric keypad in place of Buttons 1 and 2, respectively.
- Use the Tab and Shift-Tab keys to move the pointer in the File Services, Get Capture File, and Print panels.
- Press **Y** or **N** to select YES or NO on the File Services and Print panels.

Chapter Summary

This chapter described how to use Picture Maker to create pictures you can use in Storyboard Plus presentations. “Learning Picture Maker” on page 2-12 is a tutorial that contains steps you can follow to familiarize yourself with some of the Picture Maker features discussed in more detail elsewhere in the chapter.

Chapter 3. Picture Taker

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About This Chapter

This chapter describes how to use Picture Taker, the Storyboard Plus module that lets you take pictures of, or “capture,” graphics and text screens used by other programs as they run on your system. You can edit these pictures with Picture Maker or Text Maker and use them in your Storyboard Plus presentations.

Picture Taker captures 40- and 80-column text screens (in text or graphics mode) and medium- and high-resolution graphic images.

Picture Taker works by attaching a small program to DOS that can be switched on and off. When the program is switched on, a screen capture key you select works like the shutter button on a camera, capturing the screen you currently are viewing.

Note: Picture Taker may not be able to capture screens in applications that bypass the Basic Input/Output System (BIOS) and program the Graphics Adapter directly.

The section “Learning Picture Taker” on page 3-6 is a tutorial designed to help you become familiar with using this module. Before using this tutorial, you should read the following section “Starting Picture Taker.” Picture Taker reference information begins with the section “Setting Picture Taker Options” on page 3-10.

Starting Picture Taker

Starting from Fixed Disk

If you started Storyboard Plus by entering **sbmenu** at the DOS prompt, you can choose Picture Taker from the Quick Menu/Setup screen. Highlight **Picture Taker** in the Quick Menu, and then press **Enter**.

You also can start Picture Taker directly from the DOS prompt by typing **pt** and pressing **Enter**. Starting the module from the DOS prompt bypasses the Quick Menu/Setup screen.

After you start Picture Taker, you see the Options panel. These options are discussed in the section "Setting Picture Taker Options" on page 3-10. To display this panel at any time while using Picture Taker, follow the procedures in this section to restart Picture Taker.

You also can view information about using these options while the Options panel is displayed. Press the **Tab** key to move the cursor to the option you want information about, and then press **F1**. A box appears with text you can scroll through by selecting the arrow pointing down. You also can use the **PgDn** and **PgUp** keys to view all of the help information. When you have finished viewing this information, press **Esc**.

Starting from Diskette

To start Picture Taker from diskettes:

1. Highlight **Picture Taker** on the Quick Menu/Setup screen using the Cursor Down or Up key, and then press **Enter**.

A message appears instructing you to insert a program diskette.

2. Remove Diskette 1 from drive A and insert Diskette 3, if you are using 3.5-inch diskettes, or Diskette 4, if you are using 5.25-inch diskettes.
3. Press **Enter**. The Picture Taker Options Panel appears. These options are discussed in the section “Setting Picture Taker Options” on page 3-10.

To display the Options panel at any time while using Picture Taker, follow the steps in this section to restart Picture Taker.

You also can start Picture Taker from the DOS prompt without displaying the Quick Menu/Setup screen. Here's how:

1. In drive A, insert Diskette 3, if you are using 3.5-inch diskettes, or Diskette 4, if you are using 5.25-inch diskettes.
2. At the DOS A > prompt, type **pt** and press **Enter**. The Picture Taker Options panel is displayed.

Learning Picture Taker

This section is a tutorial that introduces you to Picture Taker by taking you step-by-step through its use. You will start Picture Taker and then “capture” the screen of a program we have included on your Storyboard Plus diskettes. You need at least five minutes to complete this section. Picture Taker reference information begins with the section “Setting Picture Taker Options” on page 3-10.

This section does not contain all of the information you may need to know about Picture Taker. For more information about this module, refer to the Contents at the beginning of this chapter or to the Index at the back of this book for the relevant page numbers in this chapter.

Before using this section, make sure you have backup copies of the Storyboard Plus diskettes and that the program has been set up for your system. Chapter 1 discusses backup and setup procedures. Also refer to Chapter 1 if you need information about starting Storyboard Plus.

If you are using this tutorial, make sure you have read the section “Starting Picture Taker” on page 3-4 before you continue.

Note: This tutorial assumes that:

- You use a fixed disk.
- All of the files included on the original Storyboard Plus diskettes are located in the same default data path as described in “Storyboard Plus Setup” on page 1-11.
- You use the 320 x 200 – 4 resolution mode.

If any of these assumptions are not true for you, steps may be added or missing from the tutorial or your screen may differ slightly from the screens shown in this book.

Activating Picture Taker

1. Highlight **Picture Taker** on the Quick Menu/Setup screen and press **Enter**. You see the Picture Taker Options panel.

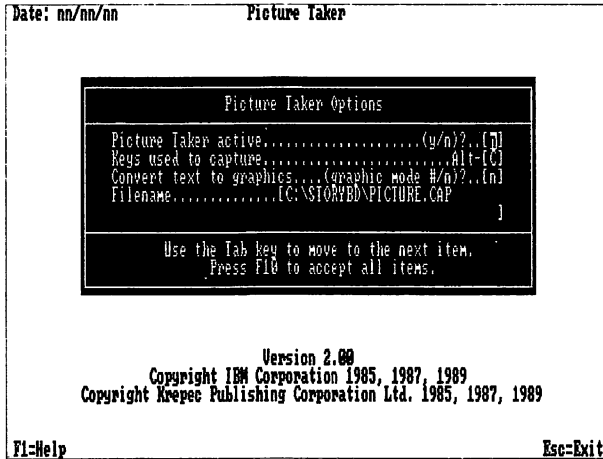


Figure 3-1. The Picture Taker Options Panel

The options on this panel are discussed later in this chapter. You do not need to change any of these settings for the purpose of this tutorial.

2. Press **F10** to accept the option settings displayed on this panel. A message informs you that you will exit Picture Taker.
3. Press **Y** to continue. You return to the Quick Menu/Setup screen.

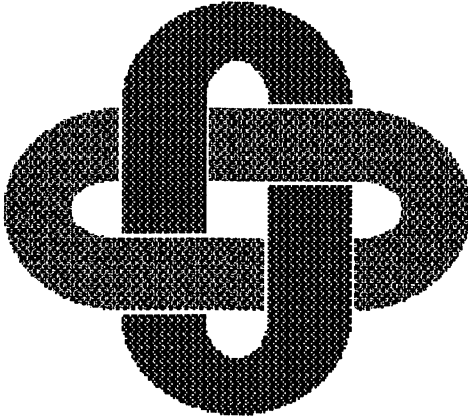
Taking a Picture

1. Press **Esc** to exit the Quick Menu/Setup screen and return to the DOS prompt. A message informs you that you will exit the screen.
2. Press **Y** to continue. The DOS prompt is displayed.

3. Enter the following at the DOS prompt:

st doodle

This command starts a program that was included with Storyboard Plus. The program displays the following picture on the screen.



You will capture this picture with Picture Taker.

4. When the picture appears on the screen, press the **Alt-C** key combination. After a moment, you hear three short beeps that indicate Picture Taker has captured the picture that appears on your display.
5. Press **Esc** to remove the picture and return to the DOS prompt.
6. Enter **sbmenu** to return to the Quick Menu/Setup screen.

Working with the Captured Picture

Because the screen you captured is a graphics screen, you can use Picture Maker to view and edit the file.

1. Highlight **Picture Maker** on the Quick Menu/Setup screen and press **Enter**. The Picture Maker Main Menu is displayed.
2. Select **Draw** from the Picture Maker Main Menu. The Picture Maker screen is displayed.
3. Select **File** at the top of the Picture Maker screen (if using the keyboard as your input device, press 1). The File menu appears.
4. Select **Get** from the File menu. The File Services panel is displayed.
5. Select **All files** in the center of this panel.
6. Select **PICTURE.CAP** from the list of files in the lower right portion of the File Services panel. This file contains the picture you just captured with Picture Taker.
7. Select **YES** to get the PICTURE.CAP file. The picture you captured is displayed on the Picture Maker screen. Now you can edit the picture as described in Chapter 2, "Picture Maker."
8. Exit the Picture Maker screen by selecting **Main Menu** from the File menu.
9. Press **Esc** to return to the Quick Menu/Setup screen. A message informs you that you are exiting Picture Maker.
10. Press **Y** to continue.

This concludes the Picture Taker tutorial. The rest of this chapter contains reference information and instructions for using Picture Taker.

Setting Picture Taker Options

Picture Taker options let you determine how the program works. Use the **Tab** key to move the cursor to an option you want to change. You can follow the directions in the section “Starting Picture Taker” on page 3-4 to display the Options panel and change these options at any time while using Storyboard Plus.

The following sections describe each option on the Picture Taker Options panel. You also can get information about these options while the Options panel is displayed by pressing the **F1** key. After pressing **F1**, a box appears that displays information about the option where the cursor is located. To scroll through the information in the box, select the arrow pointing down. You also can scroll using the **PgDn** and **PgUp** keys. When you have finished viewing this information, press **Esc**.

Picture Taker Active

Select this option to switch Picture Taker on and off. When Picture Taker is active (on), the capture key you select on the Options panel works like the shutter button on a camera. Then, while using an application, pressing the capture key takes a picture of the screen and saves it in a file.

When Picture Taker is inactive (off), the capture key is restored to its normal operation although Picture Taker remains in memory. To remove Picture Taker from memory, restart your computer.

Keys Used to Capture

Use this option to select the key you press with the **Alt** key to capture screens. The key can be any letter or number key (other than those on the numeric keypad).

In addition to this capture key combination, the Print Screen key and the Ctrl-Alt-/ (Slash) key combinations are always active. If you cannot use the Alt key combination for any reason, try these capture keys instead.

Convert Text to Graphics

This option lets you capture 40- or 80-column text screens in graphics mode so you can use Picture Maker to add graphics to the screens. This ability also eliminates the need to switch between text and graphics modes when using Story Editor and Story Teller.

You can select the resolution mode in which to capture text screens. Type the number of the resolution mode you want to use according to the following table:

<i>Type:</i>	<i>To use:</i>
1	320 x 200 - 4
2	320 x 200 - 256
3	640 x 200 - 16
4	640 x 350 - 16
5	640 x 480 - 16
6	640 x 480 - 256

To capture text screens in text mode, make sure **n** appears between the brackets for this option.

Note: Text screens you convert to graphics in the 320 x 200 - 4 and 320 x 200 - 256 resolution modes should be in 40-column format. If you convert an 80-column text screen in these resolution modes, only half of the screen is captured.

Filename

Select this option to enter the drive, directory, and filename for storing pictures you capture.

Follow DOS file naming conventions when entering the filename. If you do not enter a drive and directory, Picture Taker stores the picture file in the drive and directory that are current when you start Picture Taker. If you do not specify a file extension, Picture Taker adds a .CAP file extension to the filename.

If you stop a Picture Taker session and later start a new session with the same drive, directory and filename, pictures are added to the end of the file created during the first session.

Taking Pictures

When you press the capture key to capture a screen, Picture Taker responds in one of three ways:

3 short beeps

Picture has been taken.

1 short beep

DOS is currently running and the picture will be taken when the currently active DOS command has completed. DOS may be waiting for you to press one or more keys and then the three short beeps will follow.

High-low sound

A high-low “chirp” sound will be heard if an error has occurred. Errors can result from problems such as a diskette or disk that is full, a write-protected or improperly inserted diskette, a diskette drive door that is open, or a bad or unformatted diskette.

Notes:

1. Picture Taker does not capture host system screens or pictures displayed in native 3270 mode.
2. If you get incorrect results when trying to capture graphics screens, the program you are using may have bypassed the BIOS. Although the purpose of the BIOS is to provide an interface between the system and hardware devices, some programs do not use the BIOS. When trying to capture screens from these programs, Picture Taker may not be able to determine the current display mode.
3. Some programs use a screen resolution of 640 by 480 pixels and offer a selection of more than 64 colors. When you use the 640 x 480 – 16 resolution mode, the colors may vary in pictures you capture from these programs.

Retrieving the Captured Pictures

Each time you capture a screen, it is added to the end of the file you named when you set the Picture Taker options. Because this is a single DOS file, the DIRECTORY command does not show the number of pictures in the file. You may wish to keep track of the screens you have captured and the order in which you captured them.

You can use the Get Picture option in Picture Maker to view and edit graphics screens you have captured. When more than one screen is stored in a capture file, each screen is given a sequential number. Once you have edited a screen using Picture Maker, it cannot replace the original picture in the capture file. You should use the Save Picture option to save it as a new picture.

Note: When you are taking pictures with the Picture Taker program, we recommend that **Fix Palette** be switched on in the Tools menu of Picture Maker.

Captured text screens cannot be retrieved by Picture Maker, but they can be viewed and edited in Text Maker. Use the **Get** option in Text Maker to view captured text screens.

When more than one text screen is stored in a capture file, each is given a sequential number. For example, when using Text Maker or Story Editor, you would enter `PICFILE.CAP 3` to get the third captured screen in `PICFILE.CAP`.

Once a text screen from a captured file has been modified by Text Maker, it cannot replace the original screen in the capture file. You should use the **Save** option to save it as a new text screen.

Chapter Summary

This chapter described how to start Picture Taker, how to set options that let you control how the program works, and how to capture screens and use them with other Storyboard Plus modules. A tutorial instructed you how to capture a screen and display it using Picture Maker.

Chapter 4. Text Maker

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About This Chapter

This chapter describes how to use Text Maker, the module that lets you create and edit text screens for use in your Storyboard Plus presentations. With Text Maker, you can create text screens from scratch, or you can edit text screens you have captured from other applications using Picture Taker. For example, you can edit a screen you have captured from a spreadsheet program.

The section “Learning Text Maker” on page 4-6 is a tutorial designed to help you become familiar with some of Text Maker’s features. Before using this tutorial, you should read the following section “Starting and Exiting Text Maker.” Text Maker reference information begins with the section “Switching between 80- and 40-Column Display” on page 4-14.

You also can get information about Text Maker while using it by pressing the **F1** key. After pressing **F1**, a box appears that displays information about the option or feature you are currently using. To scroll through the information in the box, use the **PgDn** and **PgUp** keys. When you have finished viewing this information, press **Esc**.

Note: The keyboard is your input device while using Text Maker. The mouse is not used with this program.

Starting and Exiting Text Maker

Starting from Fixed Disk

If you started Storyboard Plus by entering **sbmenu** at the DOS prompt, you can choose Text Maker from the Quick Menu/Setup screen. When this screen first appears, the Picture Maker selection is highlighted. Use the Cursor Up or Down key to highlight the **Text Maker** selection, then press **Enter** to display the Text Maker Main Menu.

You also can start Text Maker directly from the DOS prompt by typing **tm** and pressing **Enter**. Starting the module in this manner displays the Text Maker Main Menu without first displaying the Quick Menu.

Starting from Diskette

To start Text Maker from diskettes:

1. Highlight **Text Maker** on the Quick Menu/Setup screen using the Cursor Down or Up key, and then press **Enter**.

A message appears instructing you to insert a program diskette.

2. Remove Diskette 1 from drive A and insert Diskette 3, if you are using 3.5-inch diskettes, or Diskette 4, if you are using 5.25-inch diskettes.
3. Press **Enter**. The Text Maker Main Menu appears.
4. If you have two diskette drives, insert a formatted diskette for storing your work in drive B. If you have one diskette drive, remove the diskette from drive A and insert a formatted diskette for storing your work.

You also can start Text Maker from the DOS prompt without displaying the Quick Menu/Setup screen. Here's how:

1. In drive A, insert Diskette 3, if you are using 3.5-inch diskettes, or Diskette 4, if you are using 5.25-inch diskettes.
2. At the DOS A > prompt, type **tm** and press **Enter**. After a few moments, a message asks you to insert Diskette 1 in drive A.
3. Remove the diskette from drive A and insert Diskette 1.
4. Press **Enter**. Another message asks you to insert the TM Program diskette (this is the first diskette you inserted).
5. Remove Diskette 1 from drive A and insert the Text Maker program diskette.
6. Press **Enter**. The Text Maker Main Menu is displayed.
7. If you have two diskette drives, insert a formatted diskette for storing your work in drive B. If you have one diskette drive, remove the diskette from drive A and insert a formatted diskette for storing your work.

Exiting Text Maker

To exit the module from the Text Maker Main Menu, press the **Esc** key. A message asks you to confirm that you want to exit the program. Press **Y** to exit, or press **Enter** to keep the Text Maker Main Menu displayed. If you press **Y**, the Quick Menu/Setup screen or the DOS prompt is displayed, depending on how you started Text Maker.

Learning Text Maker

This section is a tutorial designed to introduce you to some of Text Maker's features. You will create a text screen that you can use in another tutorial section later in this manual. You need at least 10 minutes to complete this section. Text Maker reference information begins with the section "Switching between 80- and 40-Column Display" on page 4-14.

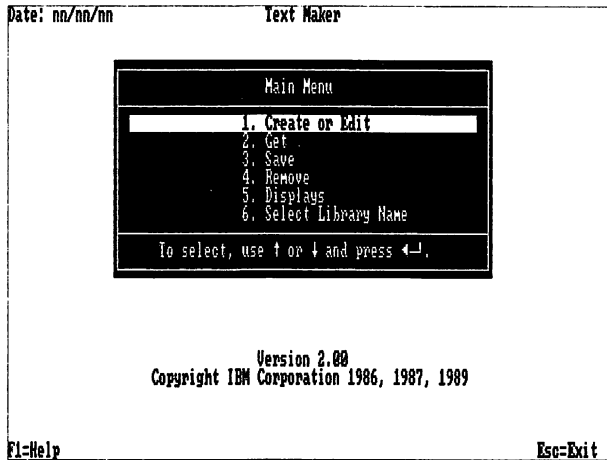
This section does not contain all of the information you may need to know about features you will use. For more information about Text Maker features, refer to the Contents at the beginning of this chapter or to the Index at the back of this book for the relevant page numbers in this chapter. You also can get information about Text Maker while using it by pressing the F1 key.

Before using this section, make sure you have backup copies of the Storyboard Plus diskettes and that the program has been set up for your system. Chapter 1 discusses backup and setup procedures. Also refer to Chapter 1 if you need information about starting Storyboard Plus.

In this chapter, make sure you have read the section "Starting and Exiting Text Maker" on page 4-4 before you continue.

Starting Text Maker

1. Highlight the **Text Maker** selection on the Quick Menu/Setup screen by pressing the **Cursor Up** or **Down** key.
2. Press **Enter** to select **Text Maker**. When the Text Maker Main Menu appears, **Create or Edit** is highlighted.



3. Start using Text Maker by pressing **Enter** while **Create or Edit** is highlighted. The Text Maker screen is displayed.

Entering Text

At the bottom of the Text Maker screen you see information about modes and commands you are using. This line is called the *status line*:



The status line shows you the current foreground color (F) and background color (B). The message **MAIN COMMAND MODE** indicates Text Maker is ready for you to issue a command.

1. Press **X**. In the upper right corner of the screen you see this:

X = 1 Y = 1

This message shows you the current location of the cursor on the Text Maker screen (column 1, row 1). As you move the cursor with the Cursor keys, the X and Y values change to show you the current column and row location of the cursor.

2. To enter text, press T. Note that the status line now looks like this:

```
F1=Help      - -F-B TEXT      Esc=Quit
```

The message **TEXT** reminds you that you are using the Text command.

3. Move the cursor with the Cursor Right and Down keys so that **X = 22 Y = 9** is displayed in the corner of the screen.
4. Type the following text on the screen (do not press Enter at the end):

Following is a brief demonstration of what

If you press **Enter**, you end the Text command. If this happens, press **T** again.

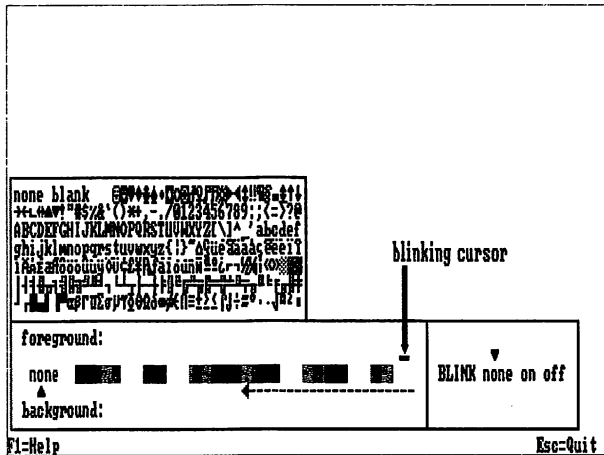
5. After typing this line, move the cursor down one line, and then left so **X = 35** and **Y = 10**. You can use the Tab and Shift-Tab keys to quickly move the cursor right and left on the screen.
6. Type the following text:
Storyboard Plus
7. Move the cursor down and to the left so that **X = 32** and **Y = 12**.
8. Type the following:
can do. Prepared by

9. Move the cursor down one more line and type your name so it is centered under the other text.
10. To make the text “Storyboard Plus” more noticeable, let’s insert a blank line before it. Move the cursor to **Storyboard Plus** and press **Alt-I**. The text moves down one line.
11. Insert another blank line after the **Storyboard Plus** line. Move the cursor to **can do. Prepared by** and press **Alt-I** again.
12. Press **Enter** to end the Text command.

Changing Foreground and Background Colors

In this section you will add color to the text screen you have begun.

1. Press **F7** to select a new foreground color (the color of text or other characters on the screen). You see the Color/Character Table. The current foreground color is indicated by the blinking cursor above the color bar.



2. Select a new foreground color by pressing **F7** or **F8** until the cursor is over the color of your choice.

3. Press **F9** to select a new background color. A blinking cursor indicates that **none** is the current background color.
4. Select a new background color by pressing **F9** or **F10** until the cursor is under the color of your choice.
5. Press **Enter** to remove the Color/Character Table and return to the Text Maker screen.

Note that the new colors you selected are indicated on the status line. Also note that the text you typed is still white on a black background. Changing current foreground and background colors does not automatically change existing colors on your text screen. However, any new text you type appears in the new colors.

Using the Erase Command

You can change existing colors to the current foreground and background colors using the Erase command. The Erase command uses the current character selected in the Color/Character Table. To keep the text you have already entered, you must select **none** as the current character with which to erase.

1. Press **F5** to display the Color/Character Table with the cursor in the Character portion of the table. The current character is **blank**.
2. Press **F5** to select **none** as the current character.
3. Press **Enter** to remove the Color/Character Table and return to the Text Maker screen.
4. Move the cursor so **X = 21** and **Y = 8**.
5. Press **E**. Note that **ERASE** appears on the status line, indicating that you are using the Erase command. Also note that a box in the current background color appears at the cursor position. The cursor appears in the current foreground color.

6. Move the cursor down and to the right so **X=64** and **Y=15**. The area encompassed by the cursor movement changes to the current foreground and background colors.
7. Press **Enter** to end the Erase command.

Drawing Boxes

Let's draw a box around the color block you have created on the screen. But first, let's change the foreground and background colors again, this time using a feature that lets you change colors without displaying the Color/Character Table.

1. Move the cursor so **X=20** and **Y=7**.
2. Press **Alt-K**. The letter **I** (for Immediate Palette) appears on the status line. Now as you press **F7** through **F10**, you cycle through the foreground and background colors, as displayed by the color of **F** and **B** on the status line.
3. Press **F7** or **F8** to change the current foreground color. Press **F9** or **F10** to change the current background color.
4. Now press **B** to start drawing a box in the new foreground and background colors.
5. Move the cursor down and to the right so **X=65** and **Y=16**. A box is drawn around the color block you created. Note that the character used to draw the box is a single line.
6. Press **Alt-B** to display other choices for the style of box you just drew.
7. Use the Cursor Right and Left keys to select a different box style, then press **Enter**.
8. When you have finished selecting a box style, press **Enter** to end the Box command. **MAIN COMMAND MODE** appears on the status line.

Altering Colors

Another way to change colors is to use the Alter Colors feature. This feature lets you change all of one color to another color.

1. Press **Alt-A** to change all of one color to another everywhere the color appears on the screen. A color bar and command line appear.
2. Change all of the black on the screen (color A) to light blue (color D) by typing this command on the command line:

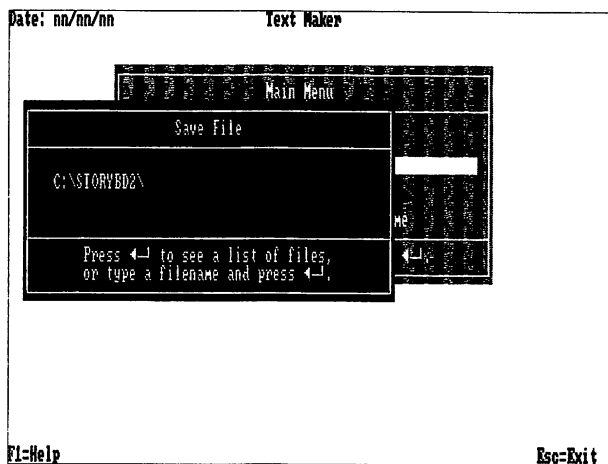
(bad)

In this command, the **b** indicates you are altering a background color. The letter **a** represents the existing color, black, that you want to alter. The **d** indicates the new color you want to use instead of black.

3. Press **Enter**. The black is changed to light blue.

Saving the Text Screen

1. To save the text screen you have been working on, press **Esc**. You return to the Text Maker Main Menu.
2. Select **Save** on the Text Maker Main Menu. You see the Save File box:



The default drive and directory are shown in the box.

3. Type **CREDITS** in the Save File box and press **Enter**. A message confirms that the file CREDITS.TXM has been saved (TXM is an extension Text Maker adds to the filename).
4. Press **Enter** to continue. You return to the Text Maker Main Menu.

This concludes the Text Maker tutorial. You can use the text screen you created here in the Story Editor tutorial, "Learning Story Editor" in Chapter 5.

Switching between 80- and 40-Column Display

Select **Displays** on the Text Maker Main Menu to switch between 80-column and 40-column display formats (the default format is 80-column). Use 40-column format for creating text screens for composite video. After you select this option, a message informs you of the format you just switched to. Press **Enter** to continue.

If you switch from 80-column to 40-column format while editing a screen, Text Maker preserves the right half of the screen (columns 41 through 80) even though this portion is not displayed. When you switch back to 80-column format, the right half of the screen is restored.

Note: The right half of the screen is preserved *unless you save the screen in 40-column format*. If you save an 80-column screen in 40-column format, the right half of the screen is lost.

Retrieving a Screen to Edit

To edit a text screen you already have created with Text Maker or captured with Picture Taker, first select **Get** on the Text Maker Main Menu. A box appears where you enter the name of the file containing the text screen.

The default drive and directory you specified when you set up Storyboard Plus are shown in this box. To get a file from a different drive or directory, backspace over the information and include a drive and path with the filename of the text screen you want to edit.

For example, if this appears in the Get File box:

A:

but you want to get the MARCH.TXM file from the REPORTS subdirectory on drive C, use the Backspace key to erase A:\, then enter:

c:\reports\march.txm

If you are retrieving one screen from a capture or library file (a file with the extension CAP or LIB), specify the screen number after the name of the file. For example:

scrnfile.lib 5

retrieves the fifth screen in the library named SCRNFILE.

Once you have retrieved the screen, select **Create or Edit** on the Text Maker Main Menu. Refer to the next section for information about using this option.

Creating and Editing Text Screens

To create or edit a text screen, select **Create or Edit** from the Text Maker Main Menu. The Text Maker screen appears. Note the cursor in the upper left corner of this screen. The cursor's color is the same as the foreground color where the cursor is located. If you change the foreground color from white to yellow, the cursor also becomes yellow.

At the bottom of the screen you see information about Text Maker modes and commands you are using. This line is called the *status line*:



The status line shows you the current foreground color (F) and background color (B). The message **MAIN COMMAND MODE** indicates Text Maker is ready for you to issue a command.

The status line also indicates you can press **F1** to receive further information contained elsewhere in this chapter. After you press **F1**, a box appears with text you can scroll through using the **PgDn** and **PgUp** keys. When you have finished viewing this information, press **Esc**.

To use the last line of the Text Maker screen in the screen you are creating or editing, suppress the display of the status line by pressing **Alt-X**. Press **Alt-X** again when you want to redisplay the status line.

Creating text screens involves using Text Maker commands and function keys. These commands and keys, which are summarized on the Quick Reference Card, are described in the following sections.

Using Color, Characters, and Blinking Text

Each position on the Text Maker screen has three properties: foreground color, background color, and blink setting. The foreground color is used for characters you type and lines you draw. The background color is the color in front of which a character appears.

through **F10** or **Alt-J**. Pressing one of these keys displays the Color/Character Table.

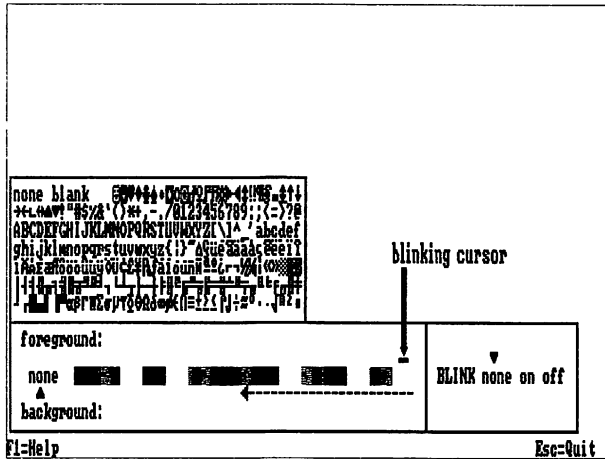


Figure 4-1. The Color/Character Table

Setting Foreground and Background Colors

To set the foreground color using the Color/Character table, use the **F7** and **F8** keys. If the cursor is not in the Color portion of the Color/Character table, pressing one of these keys moves the cursor to the color bar over the current foreground color.

Press **F7** to move the cursor left over the color bar; press **F8** to move the cursor to the right. Position the cursor over the new color you want to use as the foreground color. Press **Enter**. The Text Maker screen appears with the foreground color indicated on the status line.

Use **F9** and **F10** to set the background color. These keys work in a similar fashion as when you select foreground color, except only the first seven colors in the color bar

are available. After you press **Enter** to select the background color, the Text Maker screen appears with the background color indicated on the status line.

You also can set the foreground and background colors without displaying the Color/Character Table by pressing **Alt-K**. The letter I (for "Immediate Palette") appears at the beginning of the status line. With the letter I displayed, use the F7 or F8 key to cycle through the foreground colors, and F9 or F10 to cycle through the background colors. To resume using the Color/Character Table, press **Alt-K** again.

You can make the current foreground and background colors the same as those at the cursor position by pressing **Alt-S**. The status line changes to reflect the new settings.

Selecting None for Foreground/Background: If you select **none** as the foreground or background color, Text Maker commands which ordinarily use the current foreground and background color to change your text screen instead leave the existing foreground or background color unchanged.

For example, if black is the current background color, using the Erase command will erase characters on a red background and change the background to black. However, if you select **none** as the current background color, the Erase command will let you erase the characters but retain the red background.

Selecting **none** for both foreground and background is handy for changing just text on screens that use several foreground and background colors. The text you type automatically appears in the correct foreground color against the correct background color.

Altering Colors

You can change one color to another on all or a selected area of the screen by following these steps:

1. In command mode on the Text Maker screen, press **A** to change a color in an area of the screen you will select. Or, press **Alt-A** to change one color everywhere on the screen to another color.
2. If you pressed **A** to change color in a selected area, move the cursor to expand the select box on the screen, and then press **Enter**.

A command line appears at the bottom of the screen where you enter your color changes. Follow this format when entering color changes:

(bxx)(fxx)

where **b** stands for background and **f** stands for foreground. The first *x* represents the color you want to change; the second *x* is the color you want to change it to. Colors are assigned letters as shown on the screen.

You don't have to change background and foreground colors at the same time, and you can make more than one change in a command. For example, the following commands are valid:

- (fba)** Changes foreground (f) from blue (b) to black (a)
- (bba)** Changes background (b) from blue (second b) to black (a)
- (fbacd)** Changes foreground (f) from blue (b) to black (a) and from green (c) to cyan (d)

If you are making the same change in foreground and background color, you can use one command without parentheses, as follows:

ba

This command changes blue to black, in both foreground and background.

3. After you enter a color change command, you see the color updated on the screen.

Changing Border Color

You can change the border color of the Text Maker screen by pressing **F3** or **F4**. These keys cycle through the 16 choices. The border color you choose while creating or editing a screen is not saved with the screen.

Note: You may not be able to cycle through the border colors while using the Enhanced Graphics Adapter (EGA), depending on the EGA switch settings.

Selecting Characters

You can select characters in the upper portion of the Color/Character Table by pressing **F5** or **F6**. Selected characters are used with the Box, Draw, and Erase commands.

If the cursor is not in the Character portion of the Color/Character Table, pressing **F5** or **F6** moves the cursor to the current selection. Once the cursor is in the Character Table, pressing **F5** moves it backward and pressing **F6** moves it forward. **Ctrl-F5** and **Ctrl-F6** move the cursor up one line and down one line, respectively. Select a character by pressing **Enter**.

Notes:

1. To display a more readable Character Table, change to 40-column format as described in “Switching between 80- and 40-Column Display” on page 4-14.
2. The third character in the last line is a solid block of the foreground color. The fourth through seventh characters are blocks that are half foreground and background colors.
3. To select a character without displaying the Color/Character Table, press **Alt-K**. Then use F5 or F6 to cycle through the characters in the table. Press **Alt-K** again to resume use of the Color/Character table.

Selecting None: If you select **none** as the character, Text Maker commands which ordinarily write the current character on the screen leave the existing characters unchanged.

This option is handy when you want to change just the foreground and/or background colors on the screen, and not the text. For example, if you select **none** and use the Erase command, text on the screen is not changed. However, the area you erase is updated with the current foreground and background colors.

Selecting Blank: Select **blank** for use with the Erase or Draw command to erase part of the screen with the current background color.

Selecting a Blink Setting

Press **Alt-J** to select a blink setting from the Color/Character Table. The cursor appears above the current blink setting on the right side of the Color/Character Table.

Use the **Cursor Right** or **Left** key to move the cursor over a new blink setting, and then press **Enter**.

If you select **none** as a blink setting, commands that change color or text on the screen leave the existing blink settings unchanged.

You can make the current blink setting the same as the setting at the cursor position by pressing **Alt-S**. The status line changes to reflect the new setting.

Entering Text

Press **T** (for the **Text** command) to type or edit text on the **Text Maker** screen. Note that the status line indicates you are using the **Text** command.

While typing and editing, use the following keys to move the cursor and edit text.

<i>Key</i>	<i>Action</i>
Cursor keys	Move the cursor up, down, right, and left.
Insert	Changes the cursor to a block, indicating you can insert characters. Press Insert again to exit insert mode.
Delete	Deletes the character at the cursor position, moving any characters to the right of the cursor left one space.
Backspace	Moves the cursor to the left, erasing any characters one at a time.
Home	Moves the cursor to the beginning of the current line.
End	Moves the cursor to the end of text on the current line.
Ctrl←	Same as Home .

Ctrl→ Moves the cursor to the end of the current line.

Ctrl-Home, -End, -PgUp, -PgDn Move the cursor to the four corners of the Text Maker screen.

Shift← or → Moves the cursor four positions to the left or right on the current line.

Shift↑ or ↓ Moves the cursor up or down two lines.

Tab Moves the cursor right to the next tab position on the current line.

Shift-Tab Moves the cursor left to the previous tab position on the current line.

Ctrl-Enter Moves the cursor to the beginning of the next line.

When you have finished typing text, press **Enter** to keep what you have typed. To finish without keeping what you have typed, press **Esc**.

Drawing with the Cursor Keys

You can draw using the Cursor keys by following these steps:

1. Press **D** (for the Draw command) in command mode at the Text Maker screen. A message after **DRAW** on the status line indicates the character that will be used to draw as you move the cursor.
2. Select a different character to draw with by pressing the **Minus** key. Pressing this key cycles through these choices:
 - Single line
 - Double line
 - Dotted line
 - The character selected in the Color/Character Table.

3. Use the Cursor keys to draw with the character indicated on the status line. The character appears in the current foreground and background colors.
4. Use **F7** through **F10** at any time to change current colors in the Color/Character Table.

To use a character from the Color/Character Table, press **F5** or **F6**. Then, position the cursor under the character you want to use and press the **Minus** key. Continue to press the **Minus** key until you see the character you selected on the status line.

5. Press **Enter** when you are finished drawing (or **Esc** to cancel what you just drew).

You also can use the Draw command to erase. Make the current background color the same as the area you want to erase and select **Blank** as the character with which to draw.

Drawing Boxes

You can draw boxes in the current foreground and background colors, and with a frame that you select, by following these steps:

1. Move the cursor where you want to start drawing a box.
2. Press **B** (for the Box command) while in command mode at the Text Maker screen. A select box with the current frame character appears at the cursor position.
3. To change the frame of the box, press the **Minus** key to cycle through the choices until you see the frame you want. You also can press **Alt-B** to display all of the choices. With the choices displayed, move the cursor to the frame you want, and then press **Enter**.

The first frame choice is the character selected in the Color/Character Table. To choose another character from the table, press **F5**. Move the cursor to a new character, and then press **Enter**.

4. Use the Cursor keys to expand the select box to the correct dimensions.
5. Press **Enter** when you have finished drawing the box (or **Esc** to cancel drawing the box).

Erasing All or Part of the Screen

Text Maker's Erase command clears all or part of the screen using the current foreground color, background color, and character settings. To use this command:

1. Move the cursor to one corner of the area you want to erase, and then press **E** (for the Erase command). Or, to erase the entire screen, press **Alt-E**.

If you press **E**, a select box appears in the current character and color settings. If you press **Alt-E**, the entire screen is cleared using the current settings.

2. If erasing part of the screen, use the Cursor keys to extend the select box. You can change the current character and color settings by pressing **Alt-K** and using keys F5 through F10 as described in "Setting Foreground and Background Colors" on page 4-17. Selecting a character other than blank results in the select box being filled with the character of your choice.
3. Press **Enter** when you have finished expanding the select box and changing color and character settings.

Cutting and Pasting

You can cut an area of the screen and paste multiple copies of the area to other parts of the screen. Here's how:

1. Move the cursor to a corner of the area to cut.
2. Press **C** (for the Cut command). A select box appears at the cursor position.
3. Use the Cursor keys to expand the select box and encompass the area you want to cut.
4. Press **Enter** to cut the area.
5. Move the cursor to the position where you want to paste the cut area.
6. Press **P** (for the Paste command). A copy of the cut area appears on the screen.
7. Use the Cursor keys to position the copy where you want to paste it.
8. Press **Enter** to paste the copy in its new position.

To move a cut area, the steps are similar except that you erase the area you cut before pasting it. Following are the steps for moving a cut area.

1. Set the current character and colors in preparation for erasing the area after you cut it.
2. Move the cursor to one corner of the area you want to cut.
3. Press **C**.
4. Expand the select box to encompass the area you want to cut.
5. Press **C** again. Pressing **C** instead of **Enter** cuts the area but keeps the select box displayed.
6. Press **E** to erase the area in the select box.

7. Press **Enter** to end erasing.
8. Move the cursor to the position where you want to paste the cut area.
9. Press **P**. The area you cut appears on the screen.
10. Move the area into position, and then press **Enter** to paste the area on the screen.

Areas you cut can be pasted on other screens. First save the current screen, and then use the Get option on the Text Maker menu to retrieve another text screen. Paste the area on the new screen as described in this section.

Inserting and Deleting Lines

You can insert and delete lines in your text screen. To insert lines:

1. Move the cursor to the line below where you want to insert a new line.
2. Press **Alt-I** (for the Insert command). A line is inserted, moving lines below it down one line. The last line is removed from the screen.

To delete lines from the screen, follow these steps:

1. Move the cursor to the line you want to delete.
2. Press **Alt-D** (for the Delete command). The line is removed from the screen. All lines below the deleted line are moved up.

Undoing Your Work

You can undo the last change you made to the screen by pressing **U** (for the Undo command) while in command mode. To restore the change you undid, press **U** again.

You also can clear the entire screen to black by pressing **Alt-U**. Pressing **U** restores the screen.

Displaying Screen Coordinates

You can display the current cursor position by line and column number by pressing **X** (for the X,Y Coordinates command) while in command mode. As you move the cursor, its coordinate position is updated in the upper right corner of the screen. Press **X** again to remove the coordinate display.

Saving Your Work

To save a screen you have created or edited, press **Esc** to leave the Text Maker screen and return to the Text Maker Main Menu.

Select **Save** from the Text Maker Main Menu. You see the Save File box:

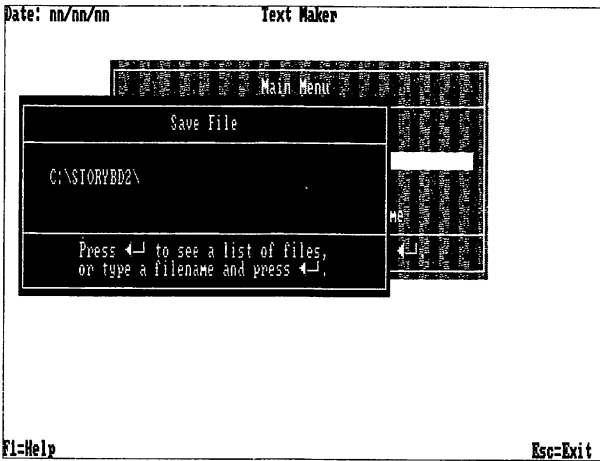


Figure 4-2. The Save File Box

The default drive and directory are shown in the box. Save your screen by typing a filename in the box. If you do not specify an extension, Text Maker adds **TXM** as the extension of your file. To specify no extension, include a period at the end of the filename.

To save a screen in a different drive or directory, use the Backspace key to erase the information shown, then type a new drive or directory with your filename.

After you press **Enter**, you see one of two messages. If you are saving a screen with a new filename, a message confirms that the file has been saved. Press **Enter**.

If you are saving the screen with a name that already exists in the drive and directory you specified, a message informs you that saving the screen will overwrite (replace) the existing file on disk. Press **Y** to continue, or press **Enter** to cancel saving the file.

If you press **Y**, the screen is saved in the file you specified. The screen also remains in memory so you can continue editing it.

Note: If you have edited a screen from a library file, you should save the screen in a different file. Text Maker does not treat a changed library screen as part of the library file from which it came.

Removing Screens

You can permanently remove a screen from disk by selecting **Remove** on the Text Maker Main Menu. A box appears where you enter the name of the screen to remove. Enter the correct drive and directory if they are different from the displayed default drive and directory.

After entering a filename, a message warns you that the file will be removed from disk. Press **Y** to continue, or **Enter** to cancel removing the file. If you press **Y**, a message informs you that the file has been removed. Press **Enter** to continue.

Working with Screen Libraries

Text Maker includes a library of text screens you can view and use by pressing **F2** at the Text Maker screen. Press **F2** again to cycle through the available screens in the file. Press **U** to exit the library screen and return to the Text Maker screen.

While viewing a library screen, you can cut an area to be pasted in the screen you are creating or editing. First cut the area as described earlier in this chapter, exit the library screen, and paste the area in the screen you are working on.

You also can create your own screen libraries. To create a library, save a screen that you want to include in the new library with a new filename and the extension **LIB**. To add more screens to the new library, use the same library name and extension. Screens are added at the end of the library file.

To use a new library while creating or editing text screens, choose the **Select Library Name** option on the Text Maker Main Menu. A box appears where you enter the name of the library. Enter the correct drive and directory if they are different from the displayed default drive and directory. Now when you create or edit a screen and press **F2**, the new library is used.

Chapter Summary

This chapter described how to use Text Maker to create and edit text screens for use in your Storyboard Plus presentations. “Learning Text Maker” on page 4-6 takes you step-by-step through the creation of a text screen you can use in other tutorial sections of this manual.

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About This Chapter

This chapter describes how to use Story Editor, the module that lets you create stories.

The section “Learning Story Editor” on page 5-14 is a tutorial designed to help you become familiar with some of Story Editor’s features. Before using this tutorial, you should read the following sections “Starting and Exiting Story Editor,” “The Story Editor Screen” on page 5-7 , and “Using the Story Table” on page 5-10. Story Editor reference information begins with the section “Labeling Story Lines” on page 5-32.

If you are using the keyboard as your input device, look for boxes labeled “Notes for Keyboard Users.” These boxes contain information about the keys you use instead of mouse buttons when using Story Editor.

You also can get more information about Story Editor while using it by moving the pointer to a story table column, command, parameter, or other menu option and pressing the **F1** key. After pressing **F1**, a box appears that displays information about the option or feature you are currently using. To scroll through the information in the box, select the arrow pointing down. You also can scroll using the **PgDn** and **PgUp** keys. When you have finished viewing this information, press **Esc** or **Button 2**.

Starting and Exiting Story Editor

Starting from Fixed Disk

If you started Storyboard Plus by entering **sbmenu** at the DOS prompt, you can choose Story Editor from the Quick Menu/Setup screen. Use the Cursor Up or Down key to highlight **Story Editor** in the menu, and then press **Enter** to display the Story Editor Main Menu.

You also can start Story Editor directly from the DOS prompt by typing **se** and pressing **Enter**. Starting the module in this manner displays the Story Editor Main Menu without first displaying the Quick Menu/Setup screen.

The first selection on the Story Editor Main Menu takes you to the Story Editor screen. The other selections on this menu let you set up your input device and printer as you did in the section “Storyboard Plus Setup” on page 1-11. You can use these selections to change this information just for the current Story Editor session. The next time you use Story Editor, the information again is set according to the selections you made by pressing F2 at the Quick Menu/Setup screen.

Starting from Diskette

To start Story Editor from diskettes:

1. Highlight **Story Editor** on the Quick Menu/Setup screen using the Cursor Down or Up key, and then press **Enter**.

A message appears instructing you to insert a program diskette.

2. Remove Diskette 1 from drive A and insert Diskette 3, if you are using 3.5-inch diskettes, or Diskette 5, if you are using 5.25-inch diskettes.
3. Press **Enter**. The Story Editor Main Menu appears.
4. If you have two diskette drives, insert a formatted diskette for storing your work in drive B. If you have one diskette drive, remove the program diskette from drive A and insert a formatted diskette for storing your work.

You also can start Story Editor from the DOS prompt without displaying the Quick Menu/Setup screen. Here's how:

1. In drive A, insert Diskette 3, if you are using 3.5-inch diskettes, or Diskette 5, if you are using 5.25-inch diskettes.
2. At the DOS A > prompt, type **se** and press **Enter**. After a few moments, a message asks you to insert Diskette 1 in drive A.
3. Remove the diskette from drive A and insert Diskette 1.
4. Press **Enter**. Another message asks you to insert the SE Program diskette (this is the first diskette you inserted).
5. Remove Diskette 1 from drive A and insert the Story Editor program diskette.
6. Press **Enter**. The Story Editor Main Menu is displayed.
7. If you have two diskette drives, insert a formatted diskette for storing your work in drive B. If you have one diskette drive, remove the program diskette from drive A and insert a formatted diskette for storing your work.

Note: To eliminate diskette swapping when starting Story Editor from the DOS prompt, use the DOS COPY command to copy the STB.CLR and STB.PRO files from Diskette 1 to Diskette 3 or Diskette 5. If in the future you change setup information from the Quick Menu/Setup screen, you must copy these files again to Diskette 3 or Diskette 5.

The first selection on the Story Editor Main Menu takes you to the Story Editor screen. The other selections on this menu let you set up your input device and printer as you did in the section “Storyboard Plus Setup” on page 1-11. You can use these selections to change this information just for the current Story Editor session. The next time you use Story Editor, the information again is set according to the selections you made by pressing F2 at the Quick Menu/Setup screen.

Exiting Story Editor

To exit the module from the Story Editor Main Menu, press **Button 2**. A message asks you to confirm that you want to exit the program. Press **Button 1** to exit, or press **Button 2** to keep the Story Editor Main Menu displayed. If you press **Button 1**, the Quick Menu/Setup screen or the DOS prompt is displayed, depending on how you started Story Editor.

Notes for Keyboard Users

Press **Esc** to exit Story Editor from the Story Editor Main Menu. Press **y** to continue, or press **Enter** to keep the Story Editor Main Menu displayed.

Resolution Modes and Story Editor Performance

Story Editor lets you display pictures created in resolution modes that are lower than the current resolution mode (the current resolution mode is displayed with the first option on the Story Editor Main Menu). If you are using the 640 x 480 – 16 resolution mode, you also can display pictures created in the 640 x 480 – 256 resolution mode.

Note, however, that your stories run most efficiently when the pictures you display have been created in the current resolution mode.

The Story Editor Screen

With the **Edit Story** selection highlighted on the Story Editor Main Menu, pressing **Button 1** (or the **Enter** key) displays the Story Editor screen. The parts of this screen have been labeled in the following figure.

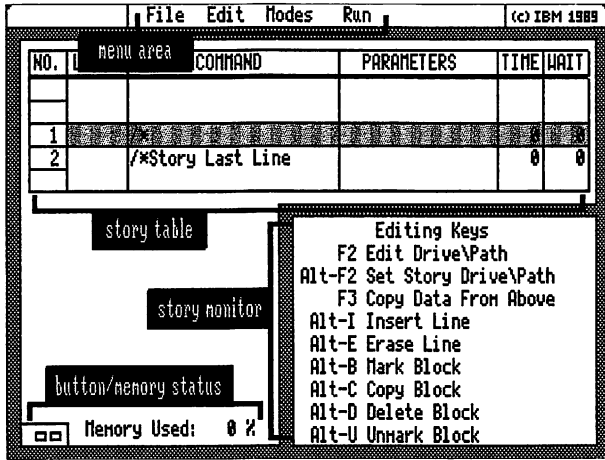


Figure 5-1. The Story Editor Screen

Note: Throughout this chapter, you are instructed to select something on this screen. “Selecting” means to move the arrow, or *pointer*, on the screen until the tip of the pointer touches an object. Then you press **Button 1**. Unless otherwise indicated, making a selection involves pressing Button 1. When you are required to press Button 2, you are explicitly instructed to do so.

Following is a brief description of each part of the Story Editor screen.

Screen Area **Description**

Story table The story table is where you enter information about your story. The story table is discussed in more detail in the next section, "Using the Story Table."

Menu area Each word in the menu area represents a separate menu you can display by selecting the word. For example, selecting **File** displays the File menu. With a menu displayed, you can select any option from that menu.

Story monitor The story monitor lets you preview your story as you create it.

Button and memory status area

Buttons 1 and 2 often are used in operations where the buttons have an active or inactive state. The button status boxes indicate these states as follows:

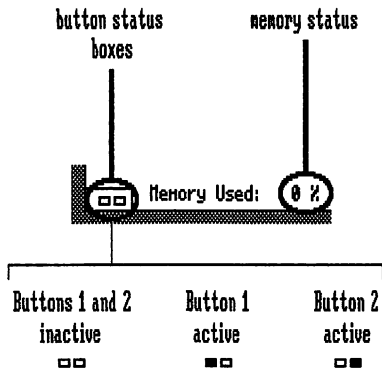


Figure 5-2. Button Status Boxes

Next to the button status boxes is an indication of the percentage of memory your story has used.

To return to the Story Editor Main Menu from the Story Editor screen, select **Main Menu** from the File menu.

Notes for Keyboard Users

Making a selection involves moving the pointer with the Cursor keys until the tip of the pointer touches an object you want to select. Then press the **Plus** key on the numeric keypad in place of **Button 1** on the mouse. When you are instructed in this chapter to press **Button 2**, press the **Minus** key on the numeric keypad.

Use the following keys to display the menus at the top of the Story Editor screen.

<i>Menu</i>	<i>Key</i>
File	Alt-1
Edit	Alt-2
Modes	Alt-3
Run	Alt-4

Pressing one of these keys displays the menu options and moves the pointer from the current position to the selected menu. To choose a menu option, highlight your choice using the Cursor Up or Down key, and then press the **Plus** key. The pointer returns to the story table. If you make a selection by mistake, press the **Esc** key to exit the selection.

Using the Story Table

You create your story using the story table. This table contains all of the information about your story, including the picture files to be used. Each line in the story table represents one step in the story. The highlighted line in the story table is called the *current story line*. You use the pointer to select the area, or column, on the current story line in which to enter information.

story table columns

NO.	LABEL	COMMAND	PARAMETERS	TIME	WAIT
1				0	0
2		/*Story Last Line		0	0

current story line

story lines

Figure 5-3. The Story Table

The number of lines your story can have varies depending on the number of labels, comments, and directory locations of the files used by your story. On the average, a story can contain 450 story lines. The line numbers are displayed on the left side of the story table.

You can scroll the story table to see all lines by moving the pointer above or below the current story line and pressing **Button 1**. This scrolls the story table up or down one line. You also can scroll continuously to the beginning or end of the story by moving the pointer above or below the current story line and pressing **Button 2**. To halt continuous scrolling, press **Button 2** again.

You also can use the following keys to scroll the story table.

Key **Action**

PgUp Displays the previous five or 11 lines of your story, depending on the resolution mode you are using.

PgDn Displays the next five or 11 lines of your story, depending on the resolution mode you are using.

Home Goes to the first line of the story.

End Goes to the last line of the story.

When you select a column in the current story line, a list appears of the possible entries in that column on the current story line. You select the entry just as you would select an item from a menu.

When you enter information on the last line of a story, another line is automatically added to the story table. There always is one blank line between the current story line and the last line of the story.

If you edit an existing story to make a new one, you see many lines in the story table that represent the steps in the existing story. Any of this information can be changed to create a new story. To change a line, scroll the story table so the line becomes the current story line.

As you become more familiar with creating and editing stories, you can save time by pointing to a column on the current story line and typing information from the keyboard. As soon as you type a unique letter, Story Editor completes the entry for you.

For example, you can select the **COMMAND** column, and then select **/DISPLAY** from the command list to enter the **/DISPLAY** command on the current story line. Or, you can move the pointer to the **COMMAND** column and type **/d**. The **/DISPLAY** command appears on the current story line.

While typing in the story table in this manner, you can use the following keys:

Key	Action
↑, ↓	Scroll the story table up and down.
→, Tab	Move pointer one column to the right.
←, Shift-Tab	Move pointer one column to the left.
Alt-I	Inserts a line before the current story line.
Alt-E	Erases the current story line.
Alt-B	Marks the current story line.
Alt-C	Copies the marked block of lines before the current story line.
Alt-D	Deletes a marked block of story lines.
Alt-U	Unmarks a block of lines.
Shift-←	Moves the pointer to the beginning of the current story line.
Shift-→	Moves the pointer to the end of the current story line.

These key assignments are shown in the story monitor for your convenience. For more information about inserting, deleting, marking, and copying story lines, refer to the section "Editing Stories" on page 5-80.

Notes for Keyboard Users

Use the following keys to move the pointer in the story table.

Key	Action
→, ←	Move the pointer one column in the direction of the arrow.
↑, ↓	Scroll the story one line in the direction of the arrow.
Y	Confirms selection.
N	Exits panel without executing selection.
PgUp	Displays previous panel selection lines.
PgDn	Displays additional panel selection lines.
Tab	Moves pointer one column to the right.
Shift-Tab	Moves pointer one column to the left.
Shift-←	Moves the pointer to the beginning of the current story line.
Shift-→	Moves the pointer to the end of the current story line.

Learning Story Editor

Story Editor has several special features that help you make attractive presentations. For example, you can select any of several picture-to-picture transition methods that allow one picture to dissolve into another.

This section is a tutorial designed to introduce you to some of these features. You will be given the option of using pictures you created in the section “Learning Picture Maker” on page 2-12, or, if you did not use this section, pictures that have been included with the other Storyboard Plus files. You need at least 20 minutes to complete this section. Story Editor reference information begins with the section “Labeling Story Lines” on page 5-32.

This section does not contain all of the information you may need to know about features covered in this tutorial. For more information about Story Editor features, refer to the Contents at the beginning of this chapter or to the Index at the back of this book for the relevant page numbers in this chapter. You also can get information about Story Editor while using it by pressing the F1 key.

Before using this section, make sure you have backup copies of the Storyboard Plus diskettes and that the program has been set up for your system. Chapter 1 discusses backup and setup procedures. Also refer to Chapter 1 if you need information about starting Storyboard Plus.

In this chapter, make sure you read the sections “About This Chapter” on page 5-3, “Starting and Exiting Story Editor:” on page 5-3, “The Story Editor Screen” on page 5-7, and “Using the Story Table” on page 5-10, before getting started.

Note: This tutorial assumes that:

- You use a fixed disk.
- All of the files included on the original Storyboard Plus diskettes are located in the same default data path as described in “Storyboard Plus Setup” on page 1-11.
- You use the 320 x 200 – 4 resolution mode.

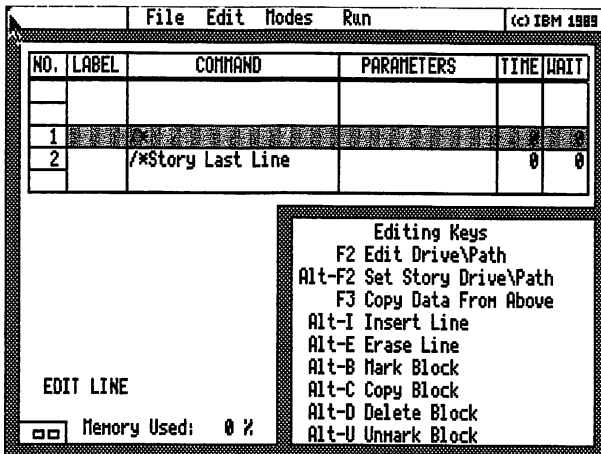
If any of these assumptions are not true for you, steps may be added or missing from the tutorial or your screen may differ slightly from the screens shown in this book.

Starting Story Editor

1. Select **Story Editor** on the Quick Menu/Setup screen.

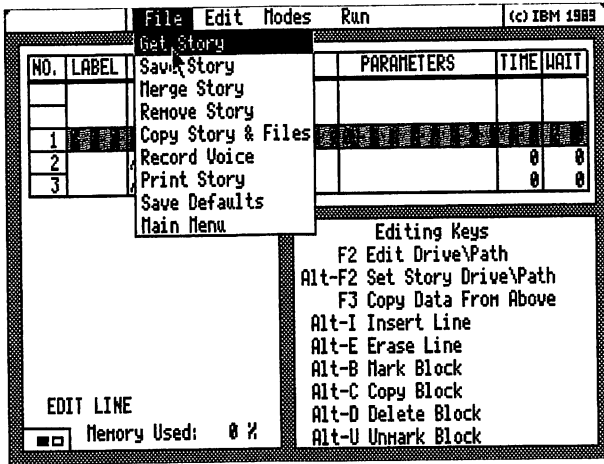
When the Story Editor Main Menu appears, **Edit Story** is highlighted. The resolution mode you selected when you set up Storyboard Plus is displayed next to Edit Story.

2. Select **Edit Story**. The Story Editor screen is displayed.

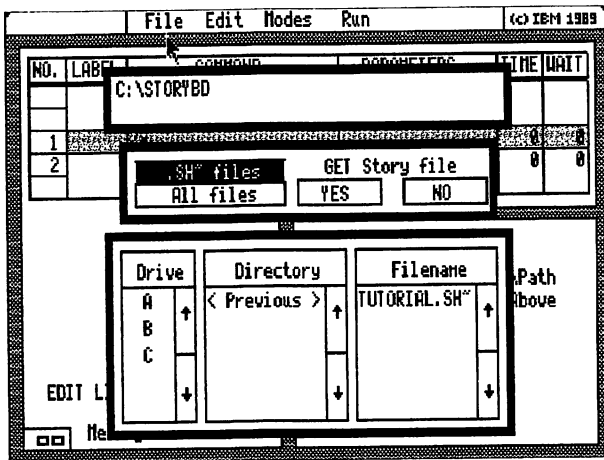


Retrieving a Story to Edit

1. Select **Get Story** from the File menu.



The File Services panel appears for you to select a story. Look for the box labeled **Filename** on the File Services panel.



2. Select **TUTORIAL.SH~** from the list of files in the Filename box.
3. Select **YES** on the File Services panel to get the story named **TUTORIAL.SH~**. The story is displayed in the story table.

Editing a Story

Now you are ready to use the story table to edit the **TUTORIAL.SH~** story. Because you are building on an existing story, lines 2, 3, 11, 12, and 13 already have been completed. You will be entering information on line 1 and lines 4 through 10 of the story.

1. Select the **PARAMETERS** column by moving the tip of the pointer to the **PARAMETERS** column on the current story line and pressing **Button 1**. A list of parameters for the **/DISPLAY** command appears.

The screenshot shows the Story Editor window titled "TUTORIAL.SH~" with a menu bar (File, Edit, Modes, Run) and a status bar "(c) IBM 1989". The main area contains a table with the following structure:

NO.	LABEL	COMMAND	PARAMETERS	TIME	WAIT
1					
2		/DISPLAY*	Get Existing\Name	1	
3		/DISPLAY*	Input Name	2	
			View Picture		

Below the table, there are several panels:

- A panel with columns: METHOD, DIR, LINE, AREA.
- A panel with columns: FROM PICTURE, TO SCREEN.
- A panel labeled "Current Story Drive\Path".
- A panel labeled "EDIT LINE" with a checkbox and "Memory Used: 1 %".
- A panel titled "Editing Keys" listing:
 - F2 Edit Drive\Path
 - Alt-F2 Set Story Drive\Path
 - F3 Copy Data From Above
 - Alt-I Insert Line
 - Alt-E Erase Line
 - Alt-B Mark Block
 - Alt-C Copy Block
 - Alt-D Delete Block
 - Alt-U Unmark Block

2. Select **Input Name** from the list of parameters. A blinking asterisk appears in the **PARAMETERS** column of the current story line.

- If you used the Text Maker tutorial to create a file called CREDITS.TXM, type **CREDITS.TXM** in the **PARAMETERS** column and press **Enter**.

If you did not create this file, type **CREDITS2.TXM** and press **Enter**.

- Select the **WAIT** column on the current story line to determine how long the text screen will be displayed.
- Select **Input Wait Delay** from the **WAIT** options. A blinking asterisk appears in the **WAIT** column.
- Type **4** and press **Enter**.

Editing Lines 4 through 8 of the Story

Now you will start displaying pictures created with Picture Maker.

- Move line 4 to the current story line by positioning the tip of the pointer below the current story line and pressing **Button 1** three times (the pointer changes to an arrow pointing down). Line 4 scrolls to the current story line.

The screenshot shows a terminal window titled "TUTORIAL.SH" with a menu bar containing "File Edit Modes Run" and a copyright notice "(c) IBM 1989". The main content is a table with the following data:

NO.	LABEL	COMMAND	PARAMETERS	TIME	WAIT
2		/DISPLAY*	OPEN1 .PIC	FAST	1
3		/DISPLAY*	OPEN2 .PIC	MED	2
4					*
5		/*		0	0
6		/*		0	0

Below the table, there is a section titled "EDIT LINE" with a checkbox and the text "Memory Used: 1 %". To the right of this section is a box titled "Editing Keys" containing the following list:

- F2 Edit Drive\Path
- Alt-F2 Set Story Drive\Path
- F3 Copy Data From Above
- Alt-I Insert Line
- Alt-E Erase Line
- Alt-B Mark Block
- Alt-C Copy Block
- Alt-D Delete Block
- Alt-U Unmark Block

2. Select the **COMMAND** column on the current story line. A list of commands is displayed.

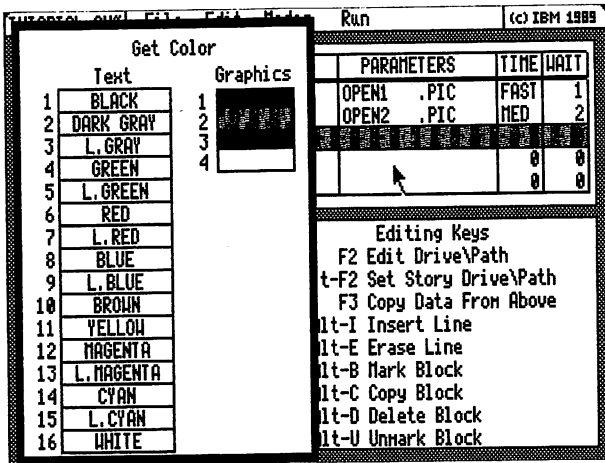
TUTORIAL.SH" File Edit Modes Run (c) IBM 1989					
NO.	LABEL	COMMAND	PARAMETERS	TIME	WAIT
2		/DISPLAY*	OPEN1 .PIC	FAST	1
3		/DISPLAY*	OPEN2 .PIC	MED	2
4		/*			
5		Input Comment	/INPUT		0 0
6		/*	/IF		0 0
		/CLEAR	/IFNOT		
		/COLOR	/GOTO		
		/DISPLAY	/GOSUB		
		/SHOW	/RETURN		
		/SPRITE	/INT		
		/SPEAK	/EDEC		
		/SOUND EFFECTS	/LOCK ON		
		/MUSIC ON	/LOCK OFF		
		/MUSIC OFF	/TELL		
		/PRINT	/CALL		
		/PALETTE	/END		

EDIT LINE
 Memory

g Keys
 ory Drive\Path
 From Above
 meters Field
 e
 ck
 lock

3. Select **/CLEAR** from the command list. This command clears all or part of a picture displayed in a story.
4. Select the **PARAMETERS** column on the current story line. The parameter used with the **/CLEAR** command, Get Color, is displayed. This parameter lets you select the color with which to clear the picture.

5. Select **Get Color**. The Get Color panel appears.



6. Select the color white from the Graphics column on the right side of the panel. (If you are not using the 320 x 200 – 4 resolution mode, the Get Color panel displays one column of colors. Select white from this column.)
7. Select the **TIME** column on the current story line to enter the amount of transition time needed to go from one screen to the next.
8. Select **FAST**.

- Select the **METHOD** column on the current story line. A list of dissolve methods is displayed.

The screenshot shows the Story Editor interface with the following components:

NO.	LABEL	COMMAND	PARAMETERS	TIME	WAIT
2		/DISPLAY*	OPEN1 .PIC	FAST	1
3		/DISPLAY*	OPEN2 .PIC	MED	2
4					
5		/*		0	0
6		/*		0	0

METHOD	DIR	LINE	AREA
CRUSH			
NONE	SPLIT	SCREEN	
CRUSH	STRIPES		
EXPLODE	WEAVE		
FADE	CHECKER		
PUSH	DIAGONAL		
REPLACE	BLEND		
INSTANT			

Editing Keys

- F2 Edit Drive\Path
- Alt-F2 Set Story Drive\Path
- F3 Copy Data From Above
- Alt-I Insert Line
- Alt-E Erase Line
- Alt-B Mark Block
- Alt-C Copy Block
- Alt-D Delete Block
- Alt-U Unmark Block

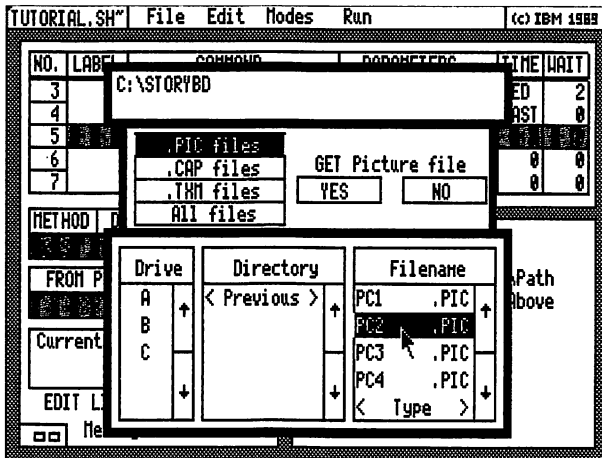
Memory Used: 2 %

- Select **CHECKER** from the **METHOD** column. Note that **NONE** automatically appears in the **DIR** and **LINE** columns. Some dissolve methods, such as **CHECKER**, do not use these columns, which let you determine the direction of the dissolve and whether a line is used.

This completes line 4 of your story.

- Scroll line 5 to the current story line.
- Select the **COMMAND** column on the current story line.
- Select **/DISPLAY** from the list of commands.
- Select the **PARAMETERS** column on the current story line. The parameters for the **/DISPLAY** command appear.
- Select **Get Existing Name** from the list of parameters. The File Services panel is displayed.

- If you are using pictures you created from the Picture Maker tutorial, select **PC2.PIC** from the Filename box. If you are not using pictures you created, select **PC2A.PIC**.



- Select **YES** to get the file.
- Select the **WAIT** column on the current story line.
- Select **Input Wait Delay**. A blinking asterisk appears in the **WAIT** column.
- Type **2** and press **Enter**.
- Select the **METHOD** column on the current story line.
- Select **FADE** from the **METHOD** column. **FADE** is another dissolve method that does not use the **DIR** and **LINE** columns.
- Make sure that **FULL** appears in the **AREA** column.
This completes line 5 of your story.
- Scroll line 6 to the current story line.

25. Repeat step 12 through step 16 on page 5-22, except select **PC3.PIC** from the File Services panel (or **PC3A.PIC**, if you did not use the Picture Maker tutorial).
26. Move the pointer to the **WAIT** column, but do not press Button 1.
27. Press **F3** to use the **WAIT** value from the previous story line. The **WAIT** value **2** appears in the **WAIT** column on the current story line.
28. Select the **METHOD** column on the current story line.
29. Select **REPLACE** from the **METHOD** column.
30. Select the **DIR** column on the current story line.
31. Select **LEFT** from the **DIR** column.
32. Make sure that **FULL** appears in the **AREA** column.
This completes line 6 of your story.
33. Scroll line 7 to the current story line.
34. Repeat step 12 through step 16 on page 5-22, except select **PC4.PIC** from the File Services panel (or **PC4A.PIC**, if you did not use the Picture Maker tutorial).
35. Move the pointer to the **WAIT** column, but do not press Button 1.
36. Type **4** in the **WAIT** column. The pointer disappears, and **4** appears in the **WAIT** column. This is a short cut to entering information in the story table. Press **Enter**.
37. Select the **METHOD** column on the current story line.
38. Select **PUSH** from the **METHOD** column.
39. Select the **DIR** column on the current story line.
40. Select **RIGHT** from the **DIR** column.

41. Make sure that **FULL** is in the **AREA** column.
This completes line 7 of your story.
42. Scroll line 8 to the current story line.
43. Select the **COMMAND** column on the current story line.
44. Select **/CLEAR** from the list of commands.
45. Select the **PARAMETERS** column on the current story line.
46. Select **Get Color** from the **PARAMETERS** column.
47. Select the color white from the **Graphics** column on the right side of the **Get Color** panel.
48. Select the **METHOD** column on the current story line.
49. Select **WEAVE** from the **METHOD** column. **NONE** appears in the **DIR** and **LINE** columns.
50. Make sure that **FULL** is in the **AREA** column.
This completes line 8 of your story.

Lines 9 and 10—Displaying Partial Pictures

On lines 9 and 10, you will display parts of a picture to achieve a special effect.

1. Scroll line 9 to the current story line.
2. Select the **COMMAND** column on the current story line.
3. Select **/DISPLAY** from the **COMMAND** column.
4. Select the **PARAMETERS** column on the current story line.
5. Select **Get Existing Name** from the **PARAMETERS** column.

6. Select **GRAPH.PIC** from the File Services panel (or **GRAPH2.PIC**, if you did not use the Picture Maker tutorial).
7. Move the pointer to the **WAIT** column, type **3**, and press **Enter**.
8. Select the **METHOD** column on the current story line.
9. Select **EXPLODE** from the **METHOD** column.
10. Select the **AREA** column on the current story line.
11. Select **PART** from the **AREA** column.

TUTORIAL.SH File Edit Nodes Run (c) IBM 1989

NO.	LABEL	COMMAND	PARAMETERS	TIME	WAIT
7		/DISPLAY*	PC4 .PIC-	0	4
8		/CLEAR*	4	0	0
9					
10		/*		0	4
11		/DISPLAY*	ENDSTB .PIC-	MED	2

METHOD	DIR	LINE	AREA
EXPLODE			FULL
FROM PICTURE	TO		FULL
EXPLODE			PART
			TRANSPARENT FULL
			TRANSPARENT PART

Current Story Drive

EDIT LINE

Memory Used: 3%

Editing Keys

F2 Edit Drive\Path

let Story Drive\Path

Copy Data From Above

Insert Line

Erase Line

Alt-B Mark Block

Alt-C Copy Block

Alt-D Delete Block

Alt-U Unmark Block

Selecting **PART** allows you to have certain pictures “develop” on your display screen as a series of partial pictures. As with full pictures, each line in the table represents *one* step in the resulting show, so each partial picture must be on a separate line in the story.

12. Select **TO SCREEN**.

NO.	LABEL	COMMAND	PARAMETERS	TIME	WAIT
7		/DISPLAY*	PC4 .PIC-	0	4
8		/CLEAR*	4	0	0
9					
10		/*		0	0
11		/DISPLAY*	ENDSTB .PIC-	MED	2

METHOD	DIR	LINE	AREA

FROM PICTURE	TO SCREEN
11- 21	101-116
11- 21	11- 21

Set on Monitor
Set on Full Screen
Input Coordinates

EDIT LINE

Memory Used: 3 %

Editing Keys

- F2 Edit Drive\Path
- Alt-F2 Set Story Drive\Path
- F3 Copy Data From Above
- Alt-I Insert Line
- Alt-E Erase Line
- Alt-B Mark Block
- Alt-C Copy Block
- Alt-D Delete Block
- Alt-U Unmark Block

13. Select **Set on Monitor**. This allows you to use a select box to define the coordinates or location of the partial picture and the location where you want the partial picture to be displayed.

14. Move the pointer into the story monitor area but outside the select box.

15. Press **Button 1**. The pointer becomes a crosshair.

16. Position the crosshair in the story monitor area as shown and press **Button 1**.

The screenshot shows the Story Editor interface. At the top is a menu bar with 'TUTORIAL.SH', 'File', 'Edit', 'Nodes', 'Run', and 'IBM 1985'. Below the menu bar is a table with the following data:

NO.	LABEL	COMMAND	PARAMETERS	TIME	WAIT
7		/DISPLAY*	PC4 .PIC-	FAST	4
8		/CLEAR*	4	0	0
9		/DISPLAY*	GRAPH .PIC-	FAST	4
10		/*		0	0
11		/DISPLAY*	ENDSTB .PIC-	MED	2

Below the table is a section with 'METHOD DIR LINE AREA' and 'FROM PICTURE TO SCREEN'. Underneath is a text box labeled 'Current Story Drive\Path'. Below that is 'EDIT LINE' and 'Memory Used: 3 %'. To the right of the text box is a graph with a title 'STORY MONITOR' and a y-axis labeled 'TIME' and an x-axis labeled 'LINE'. The graph shows a bar chart with four bars of increasing height, corresponding to lines 7, 8, 9, and 10.

17. Move the mouse to stretch the select box and surround the title of your graph.
18. Press **Button 2** to fix the select box to the screen.
19. Move the pointer inside the select box and press **Button 1**. The previous picture appears as background behind the select box.
20. Press **Button 2**. The coordinates in the TO SCREEN column change to reflect the partial picture you just defined (the title of the graph).

This completes line 9 of your story.

21. Scroll line 10 to the current story line.
22. Select the **COMMAND** column on the current story line.
23. Select **/DISPLAY** from the **COMMAND** column.

24. Move the pointer to the **PARAMETERS** column.
25. Press **F3**. The filename you selected for the **PARAMETERS** column on line 9 is entered in the **PARAMETERS** column on line 10.
26. Move the pointer to the **WAIT** column, type **4**, and press **Enter**.
27. Select the **METHOD** column on the current story line.
28. Select **EXPLODE** from the **METHOD** column.
29. Select the **LINE** column.
30. Select **No Line** from the **LINE** column. **NONE** appears in the line column, indicating that no border will be used with the picture as it “explodes” onto the screen.
31. Select the **AREA** column on the current story line.
32. Select **PART** from the **AREA** column.
33. Select the **TO SCREEN** column.
34. Select **Set on Monitor**.
35. Move the pointer into the monitor area but outside the select box and press **Button 1**. The pointer becomes a crosshair.

36. Position the crosshair as shown and press **Button 1**.

The screenshot shows the Story Editor interface with the following components:

NO.	LABEL	COMMAND	PARAMETERS	TIME	WAIT
8		/CLEAR*	4	0	0
9		/DISPLAY*	GRAPH .PIC-	0	3
10					
11		/*		0	0
12		/DISPLAY*	ENDSTB .PIC	MED	2

METHOD	DIR	LINE	AREA
FROM PICTURE			TO SCREEN

Current Story Drive\Path

EDIT LINE

Memory Used: 3 %

The graph on the right is a bar chart with a title that is partially obscured. The y-axis is labeled 'IN' and has a scale from 0 to 10. The x-axis has labels '1' and '2'. There are four bars of increasing height, with the tallest bar at position 2.

37. Move the mouse to stretch the select box and surround the graph.
38. Press **Button 2** to set the select box to the screen.
39. Move the pointer inside the select box and press **Button 1**. Again the previous full picture appears as background to the select box.
40. Press **F5** to see the graph title you previously selected.
41. If you wish, reposition the graph in relation to the title by moving the pointer inside the select box and pressing **Button 1** again. Then, move the graph.
42. Press **Button 2**. The coordinates in the TO SCREEN column are updated to reflect the partial picture of the graph you just created, and its new position on the screen.

When you view your story, the title of the graph will appear first, and then the graph will appear (the title remains on the screen).

Accessing Picture Maker from Story Editor

If your text is too close to the graph and you are having difficulty surrounding the area with the select box, you can return to Picture Maker from Story Editor to move the text away from the graph.

1. Select **Modes** from the Story Editor menu area.
2. Select **Picture Maker**. The Picture Maker screen appears.
3. Select **File** from the Picture Maker menu area.
4. Use the **Get Picture** option to retrieve the GRAPH.PIC (or GRAPH2.PIC) file.
5. Move the text away from the graph using the Move option and the Select icon.
6. Use the **Save Picture** option on the File menu to save the picture file.
7. Select **Story Editor** from the **File** menu in Picture Maker to return to Story Editor.

Running a Story

Now that you have defined how you want to present a story, you can run it to see how it looks.

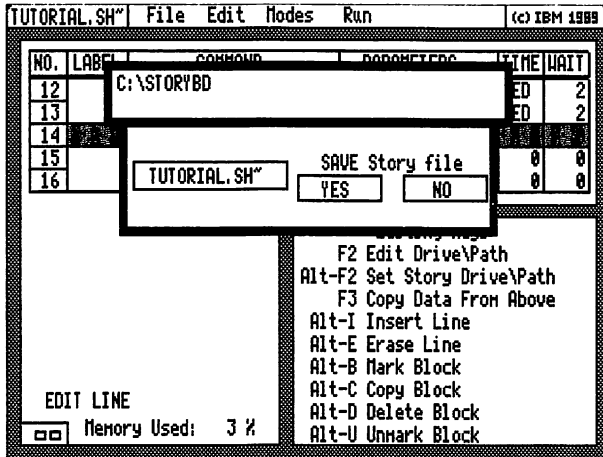
1. Press the **Home** key to return to the first line of the story.
2. Select **Modes** from the Menu area.
3. Select **Full Screen** from the Modes menu.
4. Select **Run** from the Menu area.
5. Select **Run Story** from the Run menu.

The story is shown on the full screen. When the last line of the story is reached and there is no command, such as GOTO, to start the story over again, you return to the Story Editor screen.

Saving Your Story

Before exiting the Story Editor program, be sure to save your story. You can save your story using the Save Story option on the File menu, which displays the File Services panel. You also can use Quick Save by following these steps:

1. Press **Alt-F8**. The Quick Save panel appears.



The name of the story you have been working on, TUTORIAL.SH~, appears on this panel.

2. To save your story under a different name, move the pointer to TUTORIAL.SH~ and press **Button 1**. The story name disappears. A blinking cursor indicates you can type a new name.
3. Type **TUTOR** and press **Enter**. Your story is saved in the current drive and directory under its new name.

This concludes the Story Editor tutorial. You can use the story you created here in the Story Teller tutorial, "Learning Story Teller" on page 6-3.

Labeling Story Lines

The LABEL column lets you assign a label to a story line. Labels are used by some Story Editor commands to control the flow, or “plot,” of your story. To work with labels, point to the LABEL column on the current story line and press **Button 1**. The LABEL options are displayed.

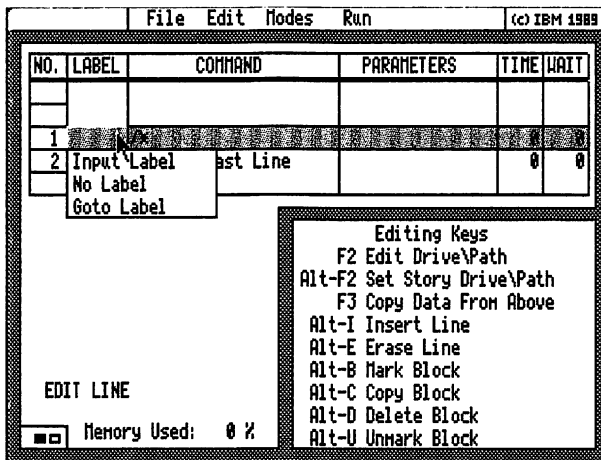


Figure 5-4. The LABEL Options

The first option on this menu lets you type a label on the current story line. You also can move the pointer to the LABEL column and start typing a label directly onto the current story line without displaying the LABEL options. When you have finished typing a label, press **Enter** or the **Tab** key to move to the next column.

The following sections discuss how to use the LABEL options to type, remove, and go to labels in your story.

Inputting a Label

To input a label on the current story line, select **Input Label** from the Label options. A blinking asterisk appears in the LABEL column on the current story line.

Type a label of up to five characters. The label must not already be used on another story line in the same story. Pressing any character key or the Spacebar blanks out the current entry. You can use the Cursor Left and Right, Insert, Delete, Spacebar, and Backspace keys while typing a label or editing an existing label. To exit without entering a label, press **Esc**.

Press **Enter** after typing a label. The label appears in the LABEL column on the current story line. To input a label on another line, scroll the story table so the line becomes the current story line, then repeat the steps in this section.

Removing a Label

To remove the label from the current story line, select **No Label** from the Label options. The label is removed from the line. To remove a label from another line in the story, scroll the story table so the line becomes the current story line, and then select **No Label** again from the Label options.

Goto Label

This option allows you to immediately go to any labeled line in your story. To use this option, select **Goto Label** from the Label options. The Goto Label panel appears.

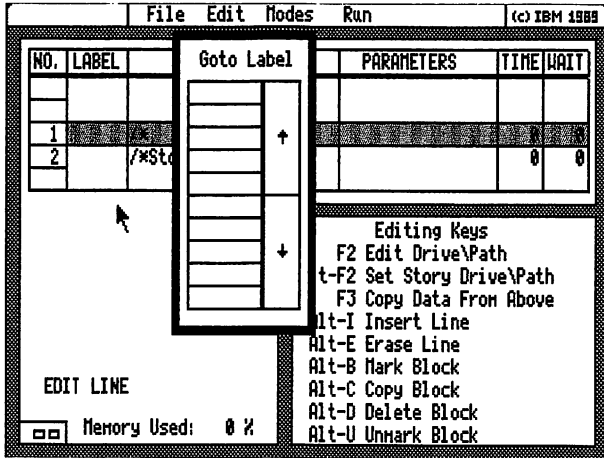


Figure 5-5. The Goto Label Panel

To scroll through the Goto Label panel, select the arrow pointing down or up. Then, select the label of the line you want to go to. The story table scrolls to the line with the label you chose.

To exit the Goto Label panel without making a selection, press **Button 2**.

Story Editor Commands and Parameters

The **COMMAND** column lets you use Story Editor commands that serve several purposes in your story. They enable you to do the following:

- Display and clear pictures and screens
- Control the flow of your story
- Use music, voice, and sound effects in your stories
- Run other programs from within your story

- Use moving figures called *sprites*
- Lock the keyboard while a story is running
- Print the pictures in a story
- Deactivate a story line
- Insert comments in your story

You can view a list of commands by moving the pointer to the **COMMAND** column on the current story line and pressing **Button 1**.

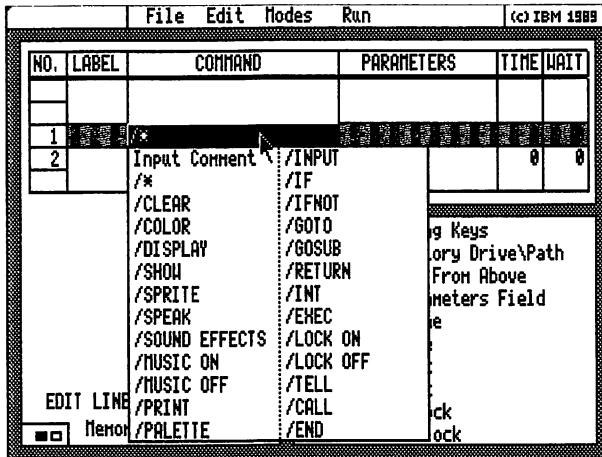


Figure 5-6. Story Editor Commands

To enter a command on the current story line, select a command from the list. Or, move the pointer to the **COMMAND** column and start typing the command, beginning with /. As soon as Story Editor recognizes the command you want to use, the rest of the command appears on the current story line. Refer to “Using the Story Table” on page 5-10 for more information about typing information in the story table.

You also can move the pointer to the **COMMAND** column on the current story line and press **F3** to use the command from the previous story line. The command is entered on the current story line.

The following sections describe how to use the Story Editor commands. These sections also describe how to use the parameters that are associated with most of the commands. After selecting a command, you can view its parameters by selecting the PARAMETERS column on the current story line. As with commands, you also can point to the PARAMETERS column and type information directly onto the current story line.

With the pointer in the PARAMETERS column, pressing **F3** enters the filename or parameter from the PARAMETERS column of the last story line that used the same command.

Displaying Images

The `/DISPLAY` and `/SHOW` commands enable you to display all or part of a file created with Picture Maker, Picture Taker, or Text Maker.

Pictures or screens you display using the `/DISPLAY` command remain on the screen until another command, such as another `/DISPLAY` command, removes them. With the `/SHOW` command, a picture or screen is removed when the next story line is executed. The only dissolve method available with the `/SHOW` command is `FADE`.

You can use the `/DISPLAY` command with the dissolve method `NONE` to change all or part of a picture before displaying it on the screen. The altered picture can be displayed on a following story line using another `/DISPLAY` command or the `/SHOW` command.

After you select `/DISPLAY` or `/SHOW`, additional columns appear on the Story Editor screen. The options in these columns determine how `/DISPLAY` and `/SHOW` commands are used. Refer to “Additional Story Table Columns” on page 5-65 for more information.

Switching Resolution Modes, Display Modes, and Palettes

Story Editor lets you display pictures created in resolution modes that are lower than the current resolution mode (the mode displayed with the first option on the Story Editor Main Menu). If you are using the 640 x 480 – 16 resolution mode, you also can display pictures created in the 640 x 480 – 256 resolution mode.

Pictures created in 320 x 200 – 256 resolution mode can be displayed in a 16-color resolution mode, but distortion may occur.

Note that your stories run most efficiently when the pictures you display have been created in the current resolution mode.

After you display a graphics screen, Story Editor is in *graphics mode*. After displaying a text screen, the program is in *text mode*. The `/DISPLAY` and `/SHOW` commands are the only commands that let you switch between graphics and text modes. As the first step in switching modes, the screen is cleared to black.

While in text mode, commands such as `/CLEAR` and `/COLOR` execute in text mode until you use the `/DISPLAY` or `/SHOW` command to display a graphics image. The `/SPRITE` command is ignored while the story is in text mode.

To display a picture that uses a different palette than the previous picture, use the `/SHOW` command or use the `/CLEAR` command before displaying the picture. If you are using a 256-color resolution mode, you can use the `BLEND` dissolve method as an alternative.

Selecting the Image to Display

Select the image you want to use with a `/DISPLAY` or `/SHOW` command by moving the pointer to the `PARAMETERS` column and typing the name of the file. Or, select the `Get Existing Name` or `Input Name` parameter from the `PARAMETERS` column. You can view the file you select using the `View Picture` parameter. The following sections describe how to use these parameters.

Get Existing Name Parameter

After you select `Get Existing Name` from the `PARAMETERS` column, the `File Services` panel appears.

The box at the top of this panel shows the currently selected drive and directory. The left side of the middle box is where you decide which files will be listed in the `Filename` box in the lower right portion of the panel.

When using `Get Existing Name`, **.PIC files** is highlighted in the middle portion of the panel, which means only files with the extension `PIC` are listed in the `Filename` box. To list just capture files, select **.CAP**. To list just text files, select **.TXM**. To list all files in the current directory, select **All files**.

The bottom portion of the panel is where you select the drive, directory, and name of the file to get. In each of the `Drive`, `Directory`, and `Filename` boxes, arrows pointing up and down on the right side of the box enable you to scroll through the list when there are more entries than those displayed.

Select the name of the file you want to get from those listed in the `Filename` box. Or, select **Type** in the `Filename` box to enter the name of a file.

If you selected the name of a file, select **YES** to get it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**.

Note: Before pressing Enter, type a period (.) after the filename to type a new file extension.

The File Services panel is removed. The filename you selected or entered appears in the **PARAMETERS** column. If the file is located in a different drive or directory than the current story, the file's path is displayed in a box in the lower left portion of the screen.

Using the Get Capture File Panel: Selecting a file that contains more than one image displays the Get Capture File panel.

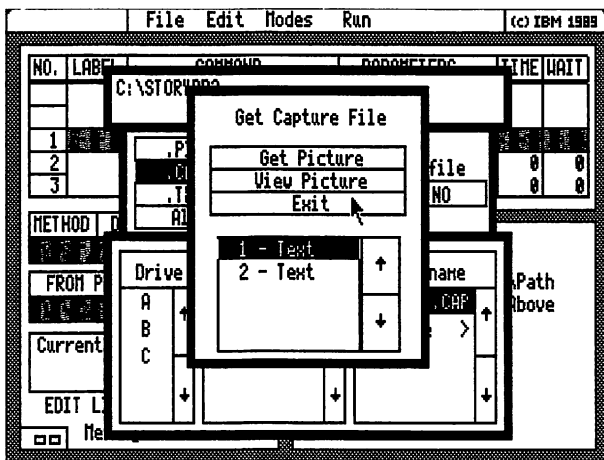


Figure 5-7. The Get Capture File Panel

To preview images before retrieving them, select the image from the numbered list on the Get Capture File panel. If there are more pictures in the list than those displayed, select the arrows pointing down and up to scroll through the list. Then select **View Picture**.

To view successive images in the file, press **Button 1** while previewing an image. The next image in the file is displayed. Press **Button 2** to return to the Get Capture File panel.

Note: Text files can display only on a full screen. Even if Monitor mode is selected, the text image will still display on the full screen.

To retrieve an image, select the image from the list. Then select **Get Picture**. You return to the Story Editor screen. The filename and image number you selected appear in the PARAMETERS column.

To exit the Get Capture File Panel without selecting an image, select **Exit**. You return to the Story Editor screen.

Input Name Parameter

This parameter allows you to type a filename directly into the PARAMETERS column without using the File Services panel. When you use this parameter, Story Editor assumes that the picture is in the same drive and directory as the story you are editing. You can use this parameter and then change the drive and directory of the picture as described in “Changing the Drive and Directory of a File” on page 5-84.

After you select this parameter, a blinking asterisk appears on the story line. Type a filename. To change the file extension, type a period (.), then the new extension. If the file contains more than one image, type a hyphen (-) and the image number after the filename.

Pressing any character key or the Spacebar blanks out the current entry. You can use the Cursor Left and Right keys, Insert, Delete, Spacebar, and Backspace while typing the filename or editing the current entry. To exit without entering a filename, press **Esc**.

Press **Enter** when you have finished typing the filename. The filename appears on the story line next to the asterisk.



View Picture Parameter

Selecting this parameter displays the picture or screen you have selected to use with a `/DISPLAY` or `/SHOW` command. The picture appears in the monitor area or on the full screen, depending on the option you select from the Modes menu.

This parameter is helpful when you are not certain you have selected the correct file. Viewing a picture or screen in this manner does not alter the information on the current story line.

If you are viewing the picture on the full screen, press **Button 1** to return to the Story Editor screen.




Changing Image Colors

Using the /COLOR Command

Select `/COLOR` to change the color of all or part of the picture displayed on the screen. The picture is not removed, but a color you choose is changed to another color. You can change two colors with one `/COLOR` command by selecting the **Get 2 Colors** parameter.

`/COLOR` can be used with dissolve method `NONE` to alter one or more partial picture areas before any action is seen on the screen. The altered picture can be displayed using the `/DISPLAY` or `/SHOW` command on a following line in the table.



After you select `/COLOR`, additional columns appear in the lower left corner of the Story Editor screen. The options you choose in these columns determine how the `/COLOR` command is used. Refer to “Additional Story Table Columns” on page 5-65 for more information.

Following is a description of the parameters for this command.

Get 1 Color Parameter: Get 1 Color allows you to choose a color on all or part of the screen to replace with another color of your choice.

After you select this parameter, the From Color panel appears.

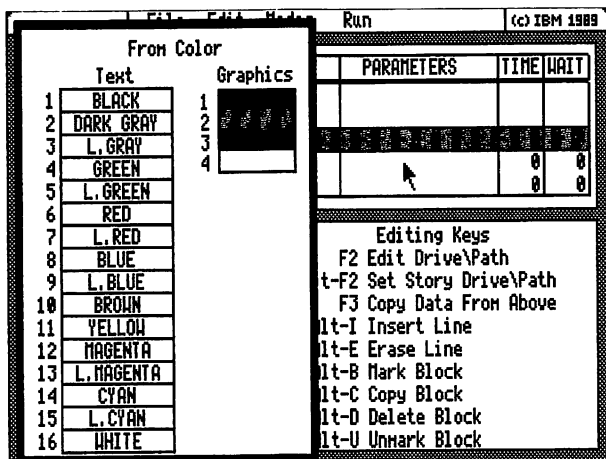


Figure 5-8. The From Color Panel (320 x 200 – 4 resolution mode)

Select the color you want to replace from this panel. If you are using the 320 x 200 – 4 resolution mode, select the color from the left column for displaying a screen in text mode. Select a color to replace from the right column for displaying a graphics picture. If you are using a resolution mode other than 320 x 200 – 4, you select the color to replace from just one column of 16 colors. The number of the color you select is entered in the PARAMETERS column, and the To Color panel appears.

Select the color you want to replace the first color. The color number appears in the PARAMETERS column.

Get 2 Colors Parameter: The Get 2 Colors parameter is similar to Get 1 Color, but you can select two colors to be replaced. The From Color and To Color panels appear twice.

Using the /PALETTE Command

This command lets you change the palette used to display pictures in 320 x 200–4 resolution mode. It only appears in the command list if you are using this resolution mode. This command should be on the story line that precedes the line in which a file is displayed.

The palette colors set with this command remain in effect until you use another /PALETTE command.

Following is a description of the parameters you can use with the /PALETTE command.

Get Palette Colors Parameter: After you select this parameter, the Get Palette panel appears. Use the following table to select from the four palettes listed on the panel.

Palette # Colors

- | | |
|---|----------------------------|
| 1 | White, cyan, magenta |
| 2 | Brown, green, red |
| 3 | Light white, cyan, magenta |
| 4 | Yellow, green, red |

After you select a palette, the palette number appears in the PARAMETERS column of the Story Editor screen.

By default, the background color is black. To change this color, select a new background color using the Get Background Color parameter.

Get Background Color Parameter: After you select this parameter, the Background Color panel appears. Select the background color you want to use. The color name appears in the PARAMETERS column of the Story Editor screen.

Use PM Palette Parameter: Use PM Palette instructs Story Editor to use the color palette that was used when the picture file was created in Picture Maker.

After you select this parameter, PM.PALETTE appears in the PARAMETERS column.

Clearing the Screen

Use the /CLEAR command to clear all or part of the picture displayed on the screen. To select the color to use for clearing the screen, use the Get Color parameter.

After you select this parameter, the Get Color panel appears.

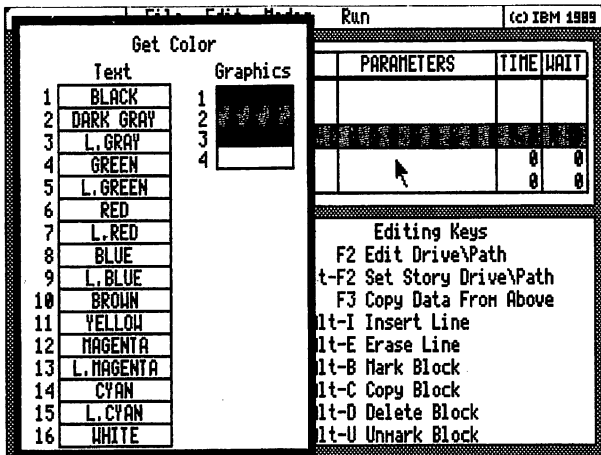


Figure 5-9. The Get Color Panel (320 x 200 – 4 resolution mode)

Select the color you want to use with the /CLEAR command from this panel. If you are using the 320 x 200 – 4 resolution mode, select the color from the left column for displaying a screen in text mode. Select a color from the right column for displaying a graphics picture. If you are using a resolution mode other than 320 x 200 – 4, you select the color from just one column of 16 colors. The number of the color you select is entered in the PARAMETERS column.

If you do not select a color using the Get Color parameter, black is used to clear the picture.

/CLEAR can be used with dissolve method NONE to alter one or more partial picture areas before any action is seen on the screen. The altered picture can be displayed using the /DISPLAY or /SHOW command on a following line in the table.

After you select /CLEAR, additional columns appear in the lower left corner of the Story Editor screen. The options you choose in these columns determine how the /CLEAR command is used. Refer to “Additional Story Table Columns” on page 5-65 for more information.

Branching to Other Story Lines

The /GOSUB and /GOTO commands let you branch to other lines within your story. Story Editor allows up to 10 levels of branching using these commands.

Use the /GOSUB command to start a subroutine beginning with the line you choose in the PARAMETERS column. The subroutine continues until a /RETURN command is found. The /RETURN command causes the story to return to the story line that follows the /GOSUB command.

Use the /GOTO command to go to a story line you specify. /GOTO is commonly used to go back to the beginning of a story so that the story runs continuously, or to go back to a story menu screen.

For both of these commands, you use the Get Existing Label or Input Label parameter to indicate the story line you want to branch to. After you select the **Get Existing Label** parameter, the Get Label panel appears.

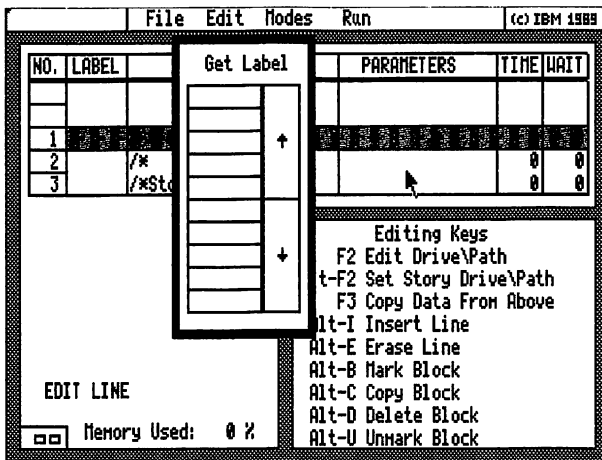


Figure 5-10. The Get Label Panel

Select the label of the story line you want to branch to from this list. To scroll through the list of labels in this panel, select the arrows pointing down and up. The label you select from the Get Label panel appears in the PARAMETERS column. To exit the Get Label panel without selecting a label, press **Button 2**.

If you select the **Input Label** parameter, a blinking asterisk appears in the PARAMETERS column. Type the label of the line you want the story to go to and press **Enter**.

While typing, use the Cursor Left and Right, Insert, Delete, Spacebar, and Backspace keys to edit. To cancel entering a label, press **Esc**. After you enter the label, the label appears in the PARAMETERS column.

Reading Input from the Keyboard

The `/INPUT` command allows your story to read input from the keyboard.

Use the following parameters with this command to specify the number of keystrokes needed before the story continues.

0 (no wait)

With this parameter, input from the keyboard is read without stopping the story. After you select this parameter, **0** is entered in the PARAMETERS column on the current story line.

1 Keystroke

This parameter tells the story to halt until one key is pressed (the default if no parameter is chosen for the `/INPUT` command). After you select this parameter, **1** is entered in the PARAMETERS column on the current story line.

Input Number

This parameter tells the story to halt until the number of keys you specify are pressed. You can specify up to 15 keystrokes.

After you select Input Number, a blinking asterisk appears in the PARAMETERS column. Type the number of keys you want the viewer to press before the story continues. You can edit your entry using the Cursor Right and Left, Insert, Delete, Spacebar, and Backspace keys.

Press **Enter** when you have finished typing a number. The number appears in the **PARAMETERS** column on the current story line. To continue without typing a number, press **Esc**.

Note: Regardless of the parameter you use, the story continues if the **Enter** key is pressed before any other keys have been pressed.

Conditional Execution of Story Lines

After using an **/INPUT** command, you can use an **/IF** command on a following story line to determine how the story proceeds if a specific key is pressed.

If the keys pressed while the story runs match the keys you specify with the **/IF** command, the story branches to the line or subroutine with the label you enter in the **PARAMETERS** column, or to the end of the story if you select the **END** parameter.

After you select **/IF**, a blinking asterisk appears in the **COMMAND** column next to the command. Type one or more keys (up to 15) you want the story viewer to press, or type **\$** to accept any keystroke. Then press **Enter**.

After using an **/INPUT** command, you can use an **/IFNOT** command on a following story line to determine how the story proceeds if a specific key is not pressed.

If the keys pressed while the story runs do not match the keys you specify with the **/IFNOT** command, the story branches to the line or subroutine with the label you enter in the **PARAMETERS** column, or to the end of the story if you select the **END** parameter.

After you select **/IFNOT**, a blinking asterisk appears in the **COMMAND** column next to the command. Type one or more keys (up to 15). The keys you type prevent the **/IFNOT** command from being carried out if they are pressed. You also can type **\$** to keep the story running until any key is pressed. Then press **Enter**.

Following is a description of the parameters you use with the **/IF** and **/IFNOT** commands.

GOSUB Label Parameter

The **GOSUB Label** parameter instructs the story to go to a story subroutine beginning on the line with the label you select. This occurs if the input from the keyboard matches the input required by the command. After the subroutine is ended with a **/RETURN** command, the story continues with the line following the **GOSUB Label** parameter.

After you select this parameter, a blinking asterisk appears in the **PARAMETERS** column next to **GOSUB**. Type the label of the line you want the story to go to and press **Enter**. Or, press **Alt-F3** to select a label from the Get Label panel. To scroll through the list of labels in this panel, select the arrows pointing down and up.

The label you enter or select from the Get Label panel appears in the **PARAMETERS** column. To exit the Get Label panel without selecting a label, press **Button 2**.

GOTO Label Parameter

The **GOTO Label** parameter instructs the story to go to the story line with the label you specify. This occurs if the input from the keyboard matches the input required by the command.

After you select this parameter, a blinking asterisk appears in the PARAMETERS column next to GOTO. Type the label of the line you want the story to go to and press **Enter**. Or, press **Alt-F3** to select a label from the Get Label panel. To scroll through the list of labels in this panel, select the arrows pointing down and up.

The label you enter or select from the Get Label panel appears in the PARAMETERS column. To exit the Get Label panel without selecting a label, press **Button 2**.

END Parameter

The END parameter instructs the story to end if the input from the keyboard matches the input required by the command.

After you select this parameter, END appears in the PARAMETERS column on the current story line.

Using Music, Sound Effects, and Voices

You can play back music and sound effects and use voices in your stories if you have the following additional options installed with your system:

- For music and sound effects: the IBM Music Feature and a speaker
- For voices: the IBM Voice Communications Option or the IBM Personal System/2 Speech Adapter with a microphone and speaker

Refer to the documentation for the IBM Music Feature, the IBM Voice Communications Option, and the IBM Personal System/2 Speech Adapter for installation instructions.

Playing Music with Your Stories

Use the /MUSIC ON command to play back music files. The picture currently displayed on the screen remains while the file you choose in the PARAMETERS column begins to play. The story then proceeds to the following lines while the music plays.

If the music file is finished before the story ends, the music file repeats. To switch off the music file before the story ends, use the /MUSIC OFF command.

Several music files are supplied with Storyboard Plus:

BLUES.ESQ ROCK.ESQ.
POP.ESQ JAZZ.ESQ

Use the Get Existing Name or Input Name parameter to select the music file you want to use. Refer to “Get Existing Name Parameter” on page 5-38 or “Input Name Parameter” on page 5-40.

Notes:

1. This command allows you to play back, but not create, music files.
2. To use this command, you must run the KAPI.EXE file before you start Story Editor. This file is located on Diskette 1.
3. If you are running Story Editor from 5.25-inch diskettes, remember that music files are located on Diskette 1. Insert Diskette 1 before you try to view or select music files.

Using Sound Effects in Your Stories

Use the /SOUND EFFECTS command to play back sound effects files. The picture currently displayed on the screen remains while the file you choose in the PARAMETERS column begins to play. The story then proceeds to the following lines while the sound effects are played. Once the sound effects file is played, it does not repeat.

Several sound effects files are supplied with Storyboard Plus:

ALARM.ESQ	BEACH.ESQ
BIGBEN.ESQ	CHOPPER.ESQ
DRUMS.ESQ	KNOCK.ESQ
PHONE.ESQ	RACING.ESQ
WATER.ESQ	WHISTLE.ESQ

Use the Get Existing Name or Input Name parameter to select the sound effects file you want to use. Refer to "Get Existing Name Parameter" on page 5-38 or "Input Name Parameter" on page 5-40.

Notes:

1. This command allows you to play back, but not create, sound effects files.
2. To use this command, you must run the KAPI.EXE file before you start Story Editor. This file is located on Diskette 1.
3. If you are running Story Editor from 5.25-inch diskettes, remember that sound effects files are located on Diskette 1. Insert Diskette 1 before you try to view or select sound effects files.

Using Voices

Use the /SPEAK command to play back the files created when you select Record Voice from the File menu. Refer to the section “Using Voice Files with Your Stories” on page 5-94 for more information about recording and using voice files.

Use the Get Existing Name or Input Name parameter to select the voice file you want to use. Refer to “Get Existing Name Parameter” on page 5-38 and “Input Name Parameter” on page 5-40 for information about using these parameters. The picture currently displayed on the screen remains while the file you select plays back. Once the voice file is played, the story proceeds to the next line.

To use this command, you must have the IBM Voice Communications Option or the IBM Personal System/2 Speech Adapter installed with a microphone and speaker.

Note: If you are using the IBM Voice Communications Option, you must run VOICE.BAT before starting Story Editor. The VOICE.BAT file is located on the same diskette as Story Editor. Also, the following files supplied with the IBM Voice Communications Option must either be in the directory with Story Editor or be accessed using the DOS PATH or APPEND command:

VCAPIDRV.COM	V0OTPC.AIC
APIDIR.AIC	V1INSP.AIC
BASEPC.AIC	V1OTSP.AIC
BASESP.AIC	V2OTSP.AIC
BATCMD.AIC	V3OTPC.AIC
V0INSP.AIC	V4OTSP.AIC

Running Other Stories and Programs from within Your Story

You can branch to another story, DOS program, or memory-resident program while running your story. The following sections describe the commands that enable you to do this.

Branching to Another Story

Use the `/TELL` and `/CALL` commands to branch the current story to another story, using any specified drive and directory, and to start the new story. The specified drive and directory also set the drive and path for all files used by the new story.

These commands let you join stories to make large presentations. They also let you combine stories that use pictures created in different resolution modes.

The difference between `/TELL` and `/CALL` is that control does not return to the story containing the `/TELL` command. Using `/CALL`, the line following the `/CALL` command is executed after the `/CALLED` story is run.

The story you branch to with the `/CALL` command runs until an `/END` command or the end of the story is reached, at which time control returns to the main story. You can `/CALL` stories that in turn `/CALL` other stories, but once an `/END` command or the end of a story is encountered, control returns to the main story.

To see the results of these commands, you must use Story Teller. Story Editor skips lines with these commands when you run or step through the story.

Use the Get Existing Name or Input Name parameter to select the story you want to branch to. Refer to “Get Existing Name Parameter” on page 5-38 or “Input Name Parameter” on page 5-40.

Branching to a DOS Program

The /EXEC command is used to exit your story, connect to DOS, call another DOS program, execute it, and return to the story line following the /EXEC command. You enter the name of the .EXE or .COM file you want to execute in the PARAMETERS column.

Note: Memory-resident programs cannot be executed with the /EXEC command. Use the /INT command to branch to memory-resident programs.

If you do not want the screen cleared when branching to the other program, select the **Input Comment** command to display a blinking asterisk after the /EXEC command in the COMMAND column. Then, type \$ after the asterisk and press **Enter**.

Use the Get Existing Name or Input Name parameter to select the DOS program you want to execute. Refer to “Get Existing Name Parameter” on page 5-38 or “Input Name Parameter” on page 5-40.

Branching to a Memory-Resident Program

The /INT command lets you interrupt your story to access a memory-resident .COM program through a specified software interrupt. The .COM program must be loaded before Story Editor or Story Teller is started, and must return to the interrupted program. DOS reserves interrupts 60 through 67 for user software.

To specify the interrupt and register values to use with this command, select **Input Parameters** from the PARAMETERS column. You see the /INT Parameters panel.

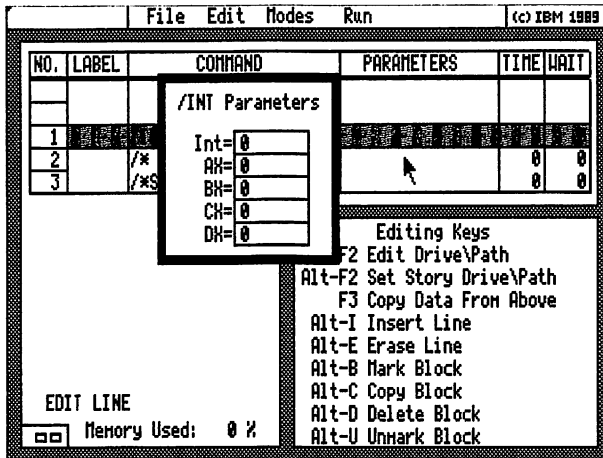


Figure 5-11. /INT Parameters Panel

The interrupt and register values can be expressed decimally (000 to 255) or hexadecimally (00h to FFh). You enter only register values for the registers you need.

To start entering register values, move the pointer to a register field on the /INT Parameters panel and press **Button 1**. A blinking asterisk appears, indicating you can start typing a register value. While typing, you can use the Cursor Right and Left, Insert, Delete, Spacebar, and Backspace keys to edit.

Press **Enter** when you have finished typing the value. The blinking asterisk appears in the next field on the panel. When you have finished entering register values, press **Button 1** or **Enter**, if you just typed a value in the last field on the panel. To exit a register field without saving a value you typed, press **Esc**.

Press **Button 2** to remove the /INT Parameters panel. The interrupt parameters appear in the PARAMETERS column.

The /INT command optionally loads registers AX, BX, CX, and DX with values and issues a branch to the interrupt specified. Registers AX, BX, CX, DX, SI, DI, DS, ES, and the Flags register are saved and need not be restored. The interrupt processing program must leave the stack pointer (SP) and stack segment (SS) registers in the same state they were before leaving Story Editor or Story Teller.

Using Sprites

Sprites are “canned” action figures you can use in your stories. To use a sprite, select the /SPRITE command for the current story line.

To select a sprite, use the Get Existing Name parameter to choose one of the sprite files. These files have an SPR extension. See “Get Existing Name Parameter” on page 5-38 for more information about this parameter.

You will notice from the sprite filenames that two versions of each sprite have been included with Storyboard Plus. One version is designed for use in the 640 x 350 – 16, 640 x 480 – 16, and 640 x 480 – 256 resolution modes. These files begin with the letter H (for “high resolution”). Although you can use any sprite file in these modes, the high-resolution sprites look the best. However, high-resolution sprites are slower and take up more room on disk than lower-resolution sprites.

When you select the `/SPRITE` command, additional story table columns appear. These columns are used to enter additional information to control the movement of the sprite. Under the column headings is a highlighted line. This line is an extension of the current story line.

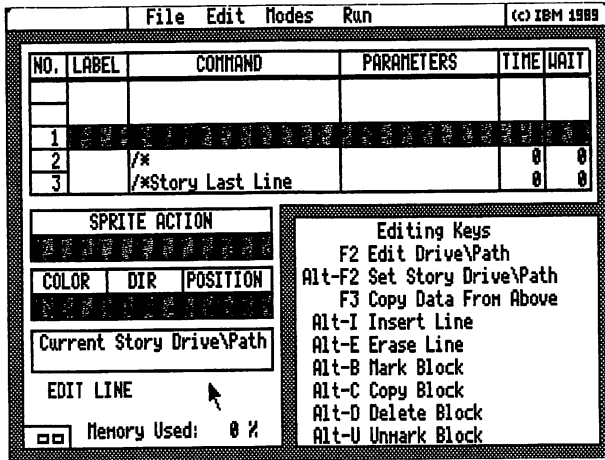


Figure 5-12. Additional Columns of the `/SPRITE` Command

The following sections describe these columns.

Notes:

1. If you are running Story Editor from 3.5-inch diskettes, remember that sprite files are located on Diskette 1. Insert Diskette 1 before you try to view or select sprite files. If you are running Story Editor from 5.25-inch diskettes, sprite files are located on Diskette 5 and Diskette 6.
2. Story Editor ignores the `/SPRITE` command if you are working in text mode. If the last screen you displayed was a text screen, use the `/DISPLAY` or `/SHOW` command with a graphics screen to switch to graphics mode before using the `/SPRITE` command.

The **SPRITE ACTION** Column

This column lets you determine the sprite's action when movement across the screen ends. The options in this column vary depending on the sprite being used. Select this column to display the options for the sprite you selected using the **Get Existing Name** parameter. To choose a sprite action, select an option from the list.

DIR

Select this column to display the possible directions from which the sprite appears as it moves to the location you chose. To choose a direction, select one of the displayed options.

POSITION

This column lets you set the final position of the sprite on the screen. You have four options for entering the sprite's position:

- **Set on Monitor**
- **Set on Full Screen**
- **Input Position**
- **Go to Background**

Using Set on Monitor and Set on Full Screen: These options allow you to use a select box to determine the final location of a sprite.

To set the sprite's position on the screen using these options:

1. Select **Set on Monitor** or **Set on Full Screen** from the **POSITION** menu. A select box appears on the story monitor or full screen with the last picture listed in the **PARAMETERS** column as background. If no full screen picture is found, the background is black. The select box represents the sprite's position.
2. To use the current select box location for the sprite position, move the pointer outside of the select box and press **Button 2**.

To change the sprite's position, move the pointer inside the select box and press **Button 1**. Move the select box to a new location on the story monitor or full screen. To display the sprite, press **F4**. When you are satisfied with the sprite's location, press **Button 2**. The coordinates in the **POSITION** column change to reflect the sprite's position.

Using Input Position: Use this option to type coordinates for the sprite's location.

Story Editor accepts coordinates in four-pixel increments on the X axis in the 320 x 200 resolution modes. Story Editor accepts coordinates in eight-pixel increments on the X axis in all other resolution modes. If a value not matching a four- or eight-pixel increment is entered, Story Editor rounds to the next lower odd pixel.

Story Editor accepts coordinates in one-pixel increments on the Y axis.

After you select **Input Position**, a blinking asterisk appears in the **POSITION** column. Type the X axis coordinate. Press the **Tab** key, and then type the Y axis coordinate. Press **Enter** when you have finished. The coordinates appear in the **POSITION** column. To exit input mode without making a change, press **Esc**.

Using Go To Background: Selecting this option changes the sprite to the background color of the next picture displayed. This is how you remove the sprite from the screen.

If you use two sprites in succession without removing the first sprite with the Go To Background option, the second sprite appears at the ending position of the first sprite, regardless of the option you selected in the **DIR** column.

Notes for Keyboard Users

- Press the **Tab** key to move the pointer to the additional story table columns.
- Select an option from the **SPRITE ACTION** column by entering the number associated with the option.
- Move the pointer in the story monitor or full screen using the Cursor keys. The pointer moves in four-pixel increments in the 320 x 200 resolution modes and eight-pixel increments in all other resolution modes. To move the pointer in single-pixel increments, press **Shift** and a Cursor key.

Locking the Keyboard

The **/LOCK ON** command disables all keys on the keyboard except those you specify with the **/INPUT** command. **/LOCK ON** is useful for stories that run unattended.

The **/LOCK OFF** command re-enables all keys after a **/LOCK ON** command.

Printing Pictures in a Story

Use the **/PRINT** command with the Run & Print Story option on the Run menu. Any time you want to print a screen, select **/PRINT** on the story line that follows the line displaying the screen.

The **/PRINT** command is ignored when Step Story and Run Story are selected. **/PRINT** is always ignored in Story Teller.

When you select **Run & Print Story**, the screens you select with the **/PRINT** command are printed as the story is run. Story Editor uses Picture Maker's default settings on the Print panel for the Shades, Print Eject, and Define Print Colors options, unless you have saved different Picture Maker defaults.

The story proceeds as rapidly as possible, stopping only to print the pictures you specify. Any information in the **TIME** and **WAIT** columns is ignored.

Use the following parameters with the **/PRINT** command:

Small Causes a small version of the image to print.

Medium Causes a medium-sized version of the image to print.

Turn Page Causes an enlarged version of the image to be printed sideways on the paper.

Note: Depending on the printer you have selected, the **Small** and **Medium** parameters may yield the same results.

Inserting Comments in Your Story

The **Input Comment** command allows you to enter a comment on the story line. Comments can be used to identify what's happening on a particular line. If a command is used on a story line, the comment appears next to the command.

After you select **Input Comment**, a blinking asterisk appears on the story line. Start typing your comment. Pressing any character key or the Spacebar blanks out the current entry. You can use the **Cursor Left** and **Right** keys, **Insert**, **Delete**, **Spacebar**, and **Backspace** while typing your comment or editing the current entry. To exit without entering a comment, press **Esc**.

Note: Comments cannot begin with a slash (/).

Press **Enter** when you have finished typing the comment. The comment appears on the story line next to the asterisk.

Deactivating a Story Line

The `/*` command allows you to deactivate the story line by removing the command on the line. Any comments you may have entered remain on the story line.

Ending a Story

Select the `/END` command to stop the story immediately. This command is commonly used with story menus where one of the choices is to end the story. It is also used as the last line in a story to separate the story from any sub-routines that may follow.

Controlling the Timing Between Images

The `TIME` column lets you set the transition time needed between the images in your story. Select this column to display the available options.

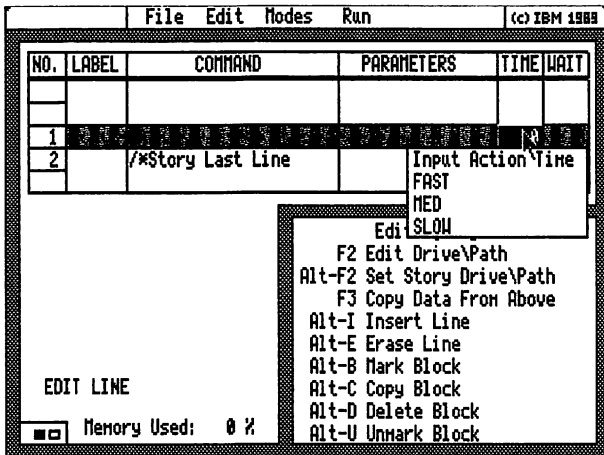


Figure 5-13. The TIME Options

To use the same **TIME** option as the previous story line, move the pointer to the **TIME** column and press **F3**.

You also can point to the **TIME** column and type information directly onto the current story line. Refer to "Using the Story Table" on page 5-10 for more information about typing in the story table.

Entering a Transition Time

Select **Input Action Time** from the **TIME** column to enter a transition time in seconds. After you select this option, a blinking asterisk appears. Type a number from **0.1** to **60**, and then press **Enter**.

To exit input mode without entering a time, press **Esc**.

Choosing FAST, MED, or SLOW

The other three options in the **TIME** column enable you to select a relative transition time that is approximately the same among IBM PC and Personal System/2 models. These transition times are faster for partial displays.

After you select one of these options, the option name appears in the **TIME** column.

The WAIT Column

The **WAIT** column lets you select the amount of time a picture is displayed before the next dissolve begins. Move the pointer to the **WAIT** column and press **Button 1** to see the **WAIT** options.

Move the pointer to the **WAIT** column and press **F3** to use the **WAIT** value of the previous story line.

You also can point to the **WAIT** column and type information directly onto the current story line. Refer to

“Using the Story Table” on page 5-10 for more information about typing in the story table.

Input Wait Delay

Select **Input Wait Delay** to enter a display time in seconds. A blinking asterisk appears. Type a number from **0.1** to **999**, and then press **Enter**. The time you enter appears in the **WAIT** column.

To exit input mode without entering a **WAIT** value, press **Esc**.

No Wait (0)

Select **0** from the **WAIT** options to enable a story to proceed immediately after a picture is displayed. After you select this option, **0** appears in the **WAIT** column on the current story line.

The Key Option

Select **Key** from the **WAIT** options to instruct the story to wait until a key is pressed before the story continues. After you select this option, **Key** appears in the **WAIT** column on the current story line.

Additional Story Table Columns

After you select the **/CLEAR**, **/COLOR**, **/DISPLAY**, or **/SHOW** command, additional Story Table columns appear on the Story Editor screen. These columns let you select additional information required by these commands.

As with the other story table columns, you can point to a column and press **Button 1** to select an option from a list. Or, you can move the pointer to the column and type information directly onto the current story line. Refer to “Using the Story Table” on page 5-10 for more information about typing in the story table.

Following is a description of each of the additional story table columns.

Selecting Dissolve Method and Direction

The **METHOD** and **DIR** columns enable you to select the dissolve method and direction used to present each picture in the story. The direction options available depend on the method you select. Some dissolve methods do not have associated directions. In this case, **NONE** is displayed in the **DIR** column.

To select a dissolve method, move the pointer to the **METHOD** column and press **Button 1**. A list of dissolve methods is displayed. To select a method from the list, move the pointer to the method and press **Button 1**.

Following is a description of each dissolve method and associated direction options.

NONE

With **NONE** as the dissolve method, a picture is loaded into memory but not displayed. The value in the **WAIT** column is applied. This allows you to use Story Editor commands to modify the picture on following story table lines before the picture is displayed.

There are no direction options with this dissolve method.

CRUSH

With this dissolve method, the new picture overlays the old picture in two directions simultaneously. Direction options for this method are:

- OUT-V** The new picture overlays the old picture from the center to the top and bottom.
- IN-V** The new picture overlays the old picture from the top and bottom to the center.

OUT-H The new picture overlays the old picture from the center to the right and left.

IN-H The new picture overlays the old picture from the right and left to the center.

EXPLODE

The new picture overlays the old picture simultaneously in four directions. Direction options for this method are:

OUT-V and OUT-H

The new picture starts in the center.

IN-V and IN-H

The new picture starts at the edges.

FADE

The old picture fades in random groups of one, two, or four pixels as the new picture appears. There are no direction options for this method.

PUSH

The new picture pushes out the old picture in one of four directions. Direction options for this method are:

UP
DOWN
LEFT
RIGHT

REPLACE

The new picture overlays the old picture in one of four directions. Direction options for this method are:

UP
DOWN
LEFT
RIGHT

INSTANT

The new picture is displayed as quickly as possible on the screen. Any information in the **TIME** column is ignored. This is the method you should use when creating animation sequences as described in the section “Creating Animation Sequences” on page 5-76.

BLEND

This method, which is similar to **FADE**, is designed for the 256-color resolution modes. First, the colors of the old picture are changed to the background color of the new picture. Then, the new picture is displayed.

This method works only in Full Screen mode. If you are using a resolution mode other than 320 x 200 – 256 or 640 x 480 – 256, the **FADE** method is used instead.

SPLIT

The new picture is revealed as the old picture is split and pushed off the screen. Direction options for this method are:

OUT-V The old picture is pushed from the center to the top and bottom.

IN-V The old picture is pushed from the top and bottom to the center.

OUT-H The old picture is pushed from the center to the right and left.

IN-H The old picture is pushed from the right and left to the center.

STRIPES

Stripes of the new picture overlay the old picture in the selected direction. Direction options for this method are:

UP and DOWN

Horizontal stripes overlay the old picture moving up or down.

LEFT and RIGHT

Vertical stripes overlay the old picture moving left or right.

WEAVE

The old picture is pushed out horizontally in two directions simultaneously, and replaced by the new picture. There are no direction options for this method.

DIAGONAL

The new picture diagonally overlays the old picture. Direction options are:

UP The new picture overlays the old picture from the lower right to the upper left.

DOWN The new picture overlays the old picture from the upper left to the lower right.

RIGHT The new picture overlays the old picture from the upper right to the lower left.

LEFT The new picture overlays the old picture from the lower left to the upper right.

CHECKER

The new picture replaces the old picture using upwardly expanding boxes. There are no direction options for this method.

The LINE Column

Some dissolve methods use a line between the old picture and the new picture while the transition is taking place. The LINE column allows you to select the color of that line. You may also choose not to use a line.

The LINE options are used with the following dissolve methods:

- **DIAGONAL**
- **EXPLODE**
- **CRUSH**

- SPLIT
- PUSH
- REPLACE

Move the pointer to the **LINE** column and press **Button 1** to display the **LINE** options. Following is a description of each option.

Get Line Color

This option lets you select the color for the line. Black is used if no color is selected. After you select this option, the **Line Color** panel is displayed. Select the color you want to use for the line.

No Line

To use no line color with a dissolve method, select **No Line** from the **LINE** options. **NONE** appears in the **LINE** column on the current story line.

The AREA Column

This column lets you determine whether a full screen display or a partial screen display should be used for your pictures. The **FULL** and **TRANSPARENT FULL** options are used for full screen displays. The **PART** and **TRANSPARENT PART** options are used for partial displays.

When **FULL** or **PART** is used, the original background of the picture is maintained. The **TRANSPARENT FULL** and **TRANSPARENT PART** options allow one color to be designated as transparent, enabling a portion of the previous picture to “show through” the new picture. The transparent color used by Story Editor is the same as that selected as the transparent color in **Picture Maker**.

To define which part of a picture you want to use in a partial display, use the **FROM PICTURE** and **TO SCREEN** columns described in the next section.

Defining a Partial Picture with the FROM PICTURE and TO SCREEN Columns

The FROM PICTURE and TO SCREEN columns are used when either PART or TRANSPARENT PART is selected in the AREA column. The information you enter in these columns determines which part of a picture will be displayed, and where it will appear on the screen.

For graphics screens, the values in these columns represent X,Y coordinates measured in pixels, as shown in the following figure.

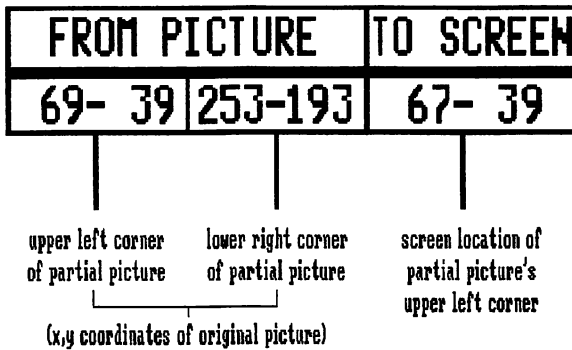


Figure 5-14. Coordinates in the FROM PICTURE and TO SCREEN Columns

In each of the three pairs of coordinates, the first number is the X value measured in pixels from the left side of the screen. The second number is the Y value in pixels measured from the top of the screen.

Note: The TO SCREEN coordinates are used with the /DISPLAY and /SHOW commands, but not with the /CLEAR and /COLOR commands.

The possible X,Y values for the supported resolution modes are as follows:

<i>Resolution Mode</i>	<i>X Axis Values</i>	<i>Y Axis Values</i>
320 x 200	1 to 320	1 to 200
640 x 200	1 to 640	1 to 200
640 x 350	1 to 640	1 to 350
640 x 480	1 to 640	1 to 480

For 80-column and 40-column text screens, X refers to the character column starting at the left side of the screen (1 to 80 or 1 to 40), and Y refers to the line starting at the top of the screen (1 to 25).

You can enter these coordinates using the Set on Monitor, Set on Full Screen, or Input Coordinates option.

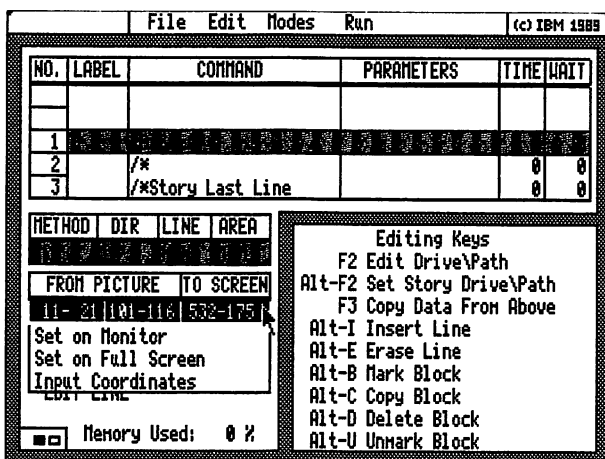


Figure 5-15. FROM PICTURE TO SCREEN Options

Note: When displaying partial text screens, use **Set on Monitor** or **Set on Full Screen**. These options are more accurate than **Input Coordinates** because coordinates you enter may be rounded by the program.

Entering Coordinates using Set on Monitor or Set on Full Screen

These options allow you to use a select box to enter coordinates for the partial picture you want to display or alter. **Set on Monitor** lets you set the coordinates in the story monitor area of the Story Editor screen. **Set on Full Screen** allows you to set the coordinates on the full screen.

To use these options:

1. Select either **Set on Monitor** or **Set on Full Screen** from the **FROM PICTURE TO SCREEN** menu. The picture you indicated in the **PARAMETERS** column is displayed with a select box.
2. To use the select box to define your partial picture, move the pointer outside of the select box and press **Button 1**. The select box is removed, and the pointer changes to a crosshair.
3. Position the crosshair at the upper left corner of the partial picture you want to display and press **Button 1**.
4. Expand the select box to encompass the area you want to use as the partial picture, and then press **Button 2**.
5. If you are just changing the **FROM PICTURE** coordinates, press **Button 2** again. The new coordinates appear in the **FROM PICTURE** column. Otherwise, continue with the next step.
6. Move the pointer inside the select box and press **Button 1**. The previous full picture in the **PARAMETERS** column appears as background. If no full picture is found, the background is black.

7. To leave the picture in the same screen location, move the pointer outside the select box and press **Button 2**.
8. If you want to select another area in which to display the partial picture, move the pointer inside the select box and press **Button 1**.
9. Move the select box to the new location.
10. If you want to view the partial screen image in the new position, press **F4**. To view the other partial pictures used in your story, press **F5**. Press **F5** repeatedly to display successive partial pictures.
11. When you are satisfied with the position of the partial picture, press **Button 2**. The coordinates appear in the TO SCREEN column.

Notes for Keyboard Users

Use the Cursor keys to move the pointer in the story monitor or full screen areas. The pointer moves in four-pixel increments in the 320 x 200 resolution modes, and in eight-pixel increments in all other resolution modes. To move the pointer in single-pixel increments, press **Shift** and a Cursor key.

Entering Coordinates with the Input Coordinates Option

Use this option to type the screen coordinates of the upper left corner of the partial picture that will be altered or displayed.

In the FROM PICTURE and TO SCREEN columns of the table, Story Editor accepts coordinates in four-pixel increments on the X axis in the 320 x 200 resolution modes. Story Editor accepts coordinates in eight-pixel increments on the X axis in all other resolution modes. If values not matching the four- or eight-pixel increments are entered, Story Editor rounds them up or down as shown in the following table.

<i>Resolution Mode</i>	<i>FROM PICTURE 1st X and TO SCREEN Values</i>	<i>FROM PICTURE 2nd X Value</i>
320 x 200	Rounds to next lower odd pixel (1, 5, 9, ...317)	Rounds to next higher even pixel (4, 8, 12, ...320)
640 x 200, 640 x 350, 640 x 480	Rounds to next lower odd pixel (1, 9, 17, ...633)	Rounds to next higher even pixel (8, 12, ...640)

Story Editor accepts coordinates in one-pixel increments on the Y axis.

To enter coordinates in the FROM PICTURE and TO SCREEN columns:

1. Select the **Input Coordinates** option from the FROM PICTURE TO SCREEN columns.

The columns are divided into six areas. The first two areas are where you enter the coordinates of the upper left corner of the partial picture. The Tab and Shift-Tab keys move the blinking asterisk between these areas. Pressing any number key blanks out the area where the blinking asterisk is located.

2. At the blinking asterisk, type the coordinates of the upper left corner of the area that will be altered or displayed on the screen.
3. Press the **Tab** key to move the blinking asterisk to the next area. This area is where you type the coordinates of the lower right corner of the partial picture.

4. Type the coordinates of the lower right corner of the partial picture.
5. Press the **Tab** key. The blinking asterisk moves to the **TO SCREEN** column. This column lets you determine the partial picture's location by entering new coordinates for the upper left corner of the partial picture.
6. If you do not want to change the location of the partial picture, press **F9** to use the first set of coordinates in the **FROM PICTURE** column.

To change the partial picture's location, type new coordinates for the upper left corner of the partial picture.
7. Press **Enter** to set the coordinates. The coordinates appear in the **FROM PICTURE** and **TO SCREEN** columns.
8. If you want to exit input mode without making a change, press **Esc**.

Creating Animation Sequences

Story Editor can be used to create three types of animation sequences with graphics screens (screens in text mode cannot be used):

- Movement across the screen using one image, such as a car moving across the screen
- Movement across the screen using a series of images, such as a bird flying and flapping its wings
- Stationary animation, such as a flag waving

Story Editor automatically inserts the story lines needed for the animation sequence as you use the **/SHOW** command, and displays a select box to enter coordinates in the **FROM PICTURE** and **TO SCREEN** columns.

Note that if the select box outline changes to a dash/dot style (normally the box is made of dashes), the area you have surrounded is too large to use in an animation sequence. In this case, reduce the area you have selected until the box outline changes back to dashes. The area you can surround before the select box outline changes to the dash/dot style is determined by the color and resolution mode you select by pressing F2 at the Quick Menu/Setup screen.

If you continue using an area that is too large, the program defaults to a standard /SHOW command, which takes longer to execute.

Following is a discussion of creating each type of animation sequence.

Movement Across the Screen Using One Image

To create an animation sequence that has one image moving across the screen:

1. Select **/SHOW** from the Commands menu.
2. Enter the picture filename in the PARAMETERS column.
3. Enter **0** in the TIME column.
4. Enter **0** in the WAIT column.
5. Select either **PART** or **TRANSPARENT PART** from the AREA column.
6. Select either **Set on Monitor** or **Set on Full Screen** from the FROM PICTURE TO SCREEN columns. A select box appears on the screen with the picture you selected in the PARAMETERS column.
7. If the select box is outlining the partial area you want to use in your animation sequence, go to step 11. If you want to select a partial area to use in your animation sequence, continue with the next step.

8. Move the pointer outside the select box but within the screen area and press **Button 1**. A crosshair pointer appears on the screen.
9. Move the pointer to the upper left corner of the area you want to display and press **Button 1**.
10. Move the select box until it encloses the area you want to display and press **Button 2**.
11. Move the pointer inside the select box and press **Button 1**. The last full picture in the PARAMETERS column is displayed as background behind the select box. If no full picture is found, the background is black.
12. To begin your animation sequence, move the pointer inside the select box and press **Button 1**.
13. Move the select box and press **Button 2** every time you would like the image displayed in your animation sequence. Each time you press Button 2, a new line is added to your story.
14. To end an animation sequence, press **Button 1**.

Movement Across the Screen Using a Series of Images

When creating this type of animation sequence, all of the images you want to use must be in the same file.

To create an animation sequence that has a series of images moving across the screen:

1. Perform the steps in “Movement Across the Screen Using One Image” on page 5-77.
2. Scroll the story table so the current story line contains the picture you want to change.
3. Select either **Set on Monitor** or **Set on Full Screen** from the FROM PICTURE TO SCREEN columns. A select box appears on the screen with the picture you specified in the PARAMETERS column.

4. Move the pointer outside the select box but within the screen area and press **Button 1**. A crosshair pointer appears on the screen.
5. Move the pointer to the upper left corner of the area you want to display and press **Button 1**.
6. Move the select box until it encloses the area you want to display and press **Button 2**.
7. Move the pointer outside the select box and press **Button 2**. The FROM SCREEN column is updated without changing the TO SCREEN coordinates.
8. Continue following these steps until you have made all of the necessary changes to the animation sequence.

Stationary Animation

To create an animation sequence that involves an object remaining in the same position on the screen, follow each of the steps in the two other animation procedures, except keep the select box stationary while pressing **Button 2** to insert story lines.

Note: If you are creating stationary animation and you are using the PART option from the AREA column, we recommend that you use the /DISPLAY command and the INSTANT method for better performance.

Editing Stories

The Edit menu at the top of the Story Editor screen contains options that enable you to insert, delete, and copy lines or blocks of lines in your story. To display the Edit menu, select **Edit** at the top of the Story Editor screen. The following sections discuss using each option on this menu.

In addition to using these options, you can quickly edit a story by typing over information or by selecting new commands and parameters from menus to change the current story line. The keys you can use to edit the story are displayed on the story monitor. Refer to “Using the Story Table” on page 5-10 for more information about entering commands and parameters in the story table.

Inserting Story Lines

To insert blank lines above the current story line, follow these steps:

1. Select **Insert Line** from the Edit menu. “INSERT LINE” appears in the lower left portion of the Story Editor screen.
2. Move the pointer to the current story line and press **Button 2**. A blank line is inserted before the current story line. To insert more lines, press **Button 2** as many times as needed.
3. When you are finished inserting lines, press **Button 1** while the pointer is on the current story line.

Deleting Story Lines

Follow these steps to delete the current story line:

1. Select **Delete Line** from the Edit menu. “DELETE LINE” appears in the lower left portion of the Story Editor screen.

2. Move the pointer to the current story line and press **Button 2**. The current story line is deleted. The next line moves up to become the current story line. To delete successive lines, press **Button 2** as many times as needed.
3. When you are finished deleting lines, press **Button 1** while the pointer is on the current story line.

Marking Blocks of Lines

The Mark Block option on the Edit menu lets you copy, delete, or print a section of your story. To mark a block of story lines:

1. Select **Mark Block** from the Edit menu. “**MARK BLOCK**” appears in the lower left portion of the Story Editor screen.
2. Scroll the story table so the first line of the block you want to mark is the current story line.
3. Move the pointer to the current story line and press **Button 2** to mark the first line of the block. The line number is highlighted.
4. Scroll the story table so the last line of the section to be marked is the current story line.
5. Move the pointer to the current story line and press **Button 2** to mark the block. The line numbers within the block are highlighted.
6. After you have marked a block, move the pointer to the current story line and press **Button 1** to exit Mark Block mode.

Copying a Block

Copy Block is used to copy a marked block of lines before the current story line. To copy a marked block:

1. Select **Copy Block** from the Edit menu. “**COPY BLOCK**” appears in the lower left portion of the Story Editor screen.
2. Move the pointer to the current story line and press **Button 2**. You can copy the block to other areas by scrolling the story table and repeating this step.
3. When you have finished copying a block, move the pointer to the current story line and press **Button 1**.

Deleting a Block

The Delete Block option lets you remove a marked block of lines from your story. To delete a marked block:

1. Select **Delete Block** from the Edit menu. A box appears that asks you to confirm that you want to delete the block.
2. Select **YES** to delete the marked block, or **NO** to cancel deleting the block.

Note: Once lines are deleted, they cannot be retrieved unless you have previously saved your story.

Unmarking a Block

To unmark a block of story lines, select **Unmark Block** from the Edit menu. The highlighting is removed from the line numbers in the block.

Clearing the Story Table

The Start New Story option on the Edit menu lets you clear the story table so you can start a new story. If you have created or edited a story, make sure you save it before using this option.

To begin a new story, select **Start New Story** from the Edit menu. A box appears asking you to confirm that you want to start a new story. Select **YES** to start a new story, or **NO** to cancel.

Using Picture Maker while Editing a Story

While editing a story, you may want to make changes to one or more pictures used in the story. Rather than exiting Story Editor and starting Picture Maker, you can go directly to the Picture Maker screen by selecting **Picture Maker** on the Modes menu.

After selecting this option, the Picture Maker screen is displayed. You can get a picture to edit or create a new picture. Refer to Chapter 2, "Picture Maker" for information about creating and editing pictures.

When you have finished using the Picture Maker screen, select **Story Editor** from the Picture Maker File menu. You return to the Story Editor screen, where you can continue editing your story.

Notes:

1. To use the Picture Maker option, the default buffer path must be set to a fixed disk (see the setup procedure "Setting the Default Buffer Path" on page 1-13). The Picture Maker option is not available if you use a diskette-based system. Instead, exit Story Editor to use Picture Maker.
2. If you are running Storyboard Plus from diskettes, you see messages that instruct you to insert the PM Program Diskette or the SE Program Diskette. Diskette 2 is the PM Program Diskette. Diskette 3 is the SE Program Diskette for 3.5-inch drives; Diskette 5 is the correct diskette for 5.25-inch drives.

Changing the Drive and Directory of a File

Several Story Editor commands require a filename in the PARAMETERS column. For example, the /DISPLAY command requires the name of the picture to be displayed. When you select one of these commands, a box appears in the lower left portion of the Story Editor screen with the message **Current Story Drive\Path**.

This message indicates that, unless you specify otherwise with the File Services panel, the file you select to use with the command is located in the same directory as the story you are currently editing. If you select the file from a different drive or directory using the File Services panel, that drive and directory are displayed in the box.

There may be times when you need to change the drive and directory of a file. For example, if you change the name of a picture using the Input Name Parameter, but the new picture is located in a different directory than the original picture, Story Editor will not be able to locate the picture.

In these cases, you can easily change the drive and directory of the file on the current story line by pressing **F2**, or by pointing to the **Current Story Drive\Path** box and pressing **Button 1**. A blinking asterisk appears in the box, which indicates you can type the drive and directory where the file is located (for example, D:\PM\REPORTS). Then, press **Enter**. To change a file's drive and directory back to the Current Story Drive\Path, press **Alt-F2**.

You can follow this procedure whenever you need to change the drive and directory of a file referenced on the current story line.

Viewing Your Story

The options on the Run menu enable you to view your story. You can choose to step through your story one line at a time, or to run it without stopping.

Using the Story Monitor or the Full Screen

You also can choose to run your story so it appears on the story monitor or on the full screen. To make this choice, select the **Modes** menu on the Story Editor screen. Select **Monitor** to run your story on the story monitor, or **Full Screen** to run your story using the full screen.

Monitor mode is helpful for viewing each line in the story table as the story runs (the story table is not displayed when you use Full Screen mode). However, pictures on the story monitor are not of the same quality as when you run the story on the full screen. Also, text screens cannot be displayed in Monitor mode, although you see a representation of these files.

Step Story and Run Story Options

The Step Story option lets you view your story as it runs one line at a time. The story begins at the current story line. After each line executes, press **Enter** to continue.

The Run Story option lets you view your story without interruption starting at the current story line.

After selecting either of these options, you can use the following keys while your story is running:

<i>Key</i>	<i>Action</i>
Esc	Stops the story and returns to the story table at the end of the current action.
Shift-Esc	Stops the story immediately.

Enter	Executes the next line of the story when in Step Story mode.
F5	When running in Run Story mode, switches to Step Story mode.
F6	When running in Step Story mode, switches to Run Story mode.
F10	Freezes the story; pressing any key resumes the story.
Spacebar	Skips current WAIT period.
Minus (-)	Backs up the story to the last picture, or to the previous line with a period in the label field.
Plus (+)	Resumes the story from where it was backed up.

Printing Pictures as the Story Runs

The Run & Print Story option lets you view your story and print the screen image any time a /PRINT command has been entered on a following story line. WAIT periods are ignored when you use this option.

If there is a marked block of lines in your story, only the /PRINT commands in the block are executed.

Clearing the Monitor

Select **Clear Monitor** on the Run menu to clear the current picture displayed on the story monitor.

Notes for Keyboard Users

Press **Alt-4** to move the pointer to the Run menu.

Saving, Retrieving, and Merging Your Stories

The File menu on the Story Editor screen contains options you use to save, retrieve, and merge your stories. Options on this menu also enable you to remove, print, and copy stories and to record voice files.

Saving Stories

There are two ways to save a story: using Quick Save, and using the File Services panel.

Using Quick Save

You should save your story periodically during an editing session to prevent losing all of your changes if the power should fail. You can do this quickly by pressing **Alt-F8** from the Story Editor screen. The Quick Save panel appears.

If you are working on a new story, save it by selecting **Type** from the Quick Save panel. A cursor appears in the Type box, indicating you can type the name of the file. After typing a filename, press **Enter**.

If you are saving an existing story, select **YES** to save it with the name displayed on the Quick Save panel. Or, save the story with a different name by moving the pointer to the story name, pressing **Button 1**, and entering a new name.

When saving a story with an existing filename, a message informs you that the file on disk with the same name will be replaced. Select **YES** to continue, or **NO** to cancel.

Note: Quick Save does not give you the opportunity to change the drive and directory in which you save your story, although this information is displayed.

Using the File Services Panel

1. Select **Save Story** on the File menu. The File Services panel appears.

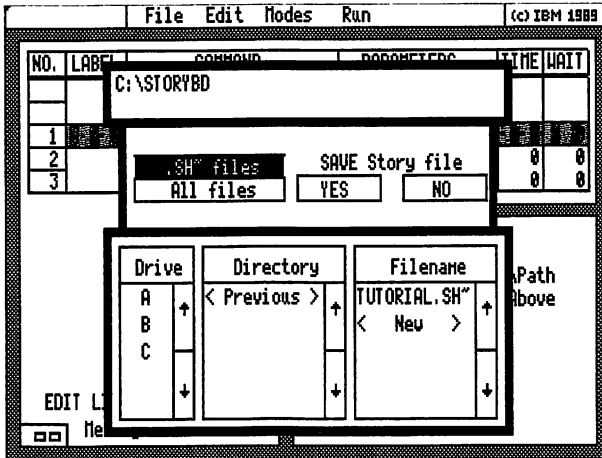


Figure 5-16. The File Services Panel

The box at the top of this panel shows the currently selected drive and directory. The left side of the middle box is where you decide which files will be listed in the Filename box in the lower right portion of the panel. When saving a story, **.SH~ files** is highlighted in the middle portion of the panel, which means only files with the extension SH~ are listed in the Filename box. To list all files in the current directory, select **All files**.

The bottom portion of the panel is where you select the drive, directory, and filename in which to save the story. In each of the Drive, Directory, and Filename boxes, arrows pointing up and down on the right side of the box enable you to scroll through the list when there are more entries than those displayed.

2. If you are editing a story and you want to update the original with your changes, select the name of the file from the **Filename** box.

If you want to create a new file for the story, select **New** from the **Filename** box. Then type a name for the file, following DOS file naming conventions.

3. If you selected a filename, select **YES** on the File Services panel to save the story. If you selected **New**, press **Enter**.

The story is saved using the filename you selected or entered.

Getting Stories

1. Select **Get Story** from the File menu. The File Services panel appears. All files in the current directory with the extension SH~ are listed in the **Filename** box (to list all files in the current directory, select **All files** in the middle box of the File Services panel).
2. To get a file from a different drive or directory, select the drive or directory from those listed in the **Drive** and **Directory** boxes.
3. Select the name of the story file you want to get from those listed in the **Filename** box. Or, select **Type** in the **Filename** box to enter the name of a file.
4. If you selected the name of a file, select **YES** to get it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**. The name of the file appears in the upper left corner of the Story Editor screen.

Merging Stories

You can merge a story with one you are currently creating or editing by following these steps.

1. Select **Merge Story** from the File menu. The File Services panel appears so you can select the story to merge. All files in the current directory with the extension SH~ are listed in the Filename box (to list all files in the current directory, select **All files** in the middle box of the File Services panel).
2. To get a file from a different drive or directory, select the drive or directory from those listed in the Drive and Directory boxes.
3. Select the name of the story file you want to merge from those listed in the Filename box. Or, select **Type** in the Filename box to enter the name of a file.
4. If you selected the name of a file, select **YES** to get it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**. You return to the Story Editor screen. "MERGE FILE" appears in the lower left part of the screen.
5. Scroll the story table so that the line you want to follow the merged story is the current story line.
6. Move the pointer to the current story line and press **Button 2**. The story you selected is inserted before the current story line. You can scroll the story table and merge the story again by repeating this step.

Note: The original merged story file is not changed or affected in any way by merging it in the story you are creating or editing.
7. Exit Merge Story mode by moving the pointer to the current story line and pressing **Button 1**.

Removing a Story

Use the Remove Story option on the File menu to erase story files from your disk. To use this option:

1. Select **Remove Story** from the File menu. The File Services panel appears. The story files in the current directory are listed in the lower right box of this panel.
2. To select a story to remove from a different directory or drive, select the directory or drive from those listed in the Drive and Directory boxes.
3. Select the name of the story file you want to remove from those listed in the Filename box. Or, select **Type** in the Filename box to enter the name of a file.
4. If you selected the name of a file, select **YES** to remove it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**. A message asks you to confirm that you want to remove the story.
5. Select **YES** to remove the story, or **NO** to cancel.

Printing Your Story

Use the Print Story option on the File menu to print the story you are currently creating or editing. If there is a marked block of lines in the story, only those lines are printed.

To use the Print Story option:

1. Select **Print Story** from the File menu. A box appears that instructs you to press **Enter** to start printing and **Esc** to stop printing.
2. Make sure your printer is switched on and ready, and that the paper is adjusted properly.
3. Press **Enter** to start printing. To halt printing at any time, press **Esc**.

Copying a Story and Related Files

You can copy the current story and the files and parameters referenced in the story to another drive or directory using the Copy Story & Files option on the File menu. Files referenced by the /CALL and /TELL commands are not copied.

Note: Before copying a story to diskettes, make sure you have enough formatted diskettes to hold the story and all picture files used in the story.

To use the Copy Story & Files option:

1. Select **Copy Story & Files** on the File menu. The File Services panel appears.
2. Select the drive and/or directory where you want to copy the story and its associated files. To display other drives or directories not shown in the Drive and Directory boxes, select the arrows pointing down and up on the right side of these boxes.
3. To copy the story with its current filename, select **YES** on the File Services panel. To copy the story with a new name, select **New** in the Filename box. Type a new name for the story, and then press **Enter**.

The story and all files referenced in the story are copied to the drive and directory you specified on the File Services panel. The path associated with each referenced file is changed to the new drive and directory.

Saving Story Editor Defaults

When you first start using Story Editor, the Monitor option rather than the Full Screen option is always selected on the Modes menu. If you use the Full Screen option more often than the Monitor option, you may wish to have Full Screen rather than Monitor selected every time you start Story Editor. You can do this using the Save Defaults option on the File menu.

To use the Save Defaults option, first make sure **Full Screen** is selected on the Modes menu. If you are running Story Editor from diskette, also remove the Story Editor diskette and insert Diskette 1. Then, select **Save Defaults** on the File menu. A box appears asking you to confirm that you want to save defaults. Select **YES** to continue, or **NO** to cancel.

If you select **YES**, the Full Screen option is selected the next time you start Story Editor.

Notes for Keyboard Users

Press **Alt-1** to move the pointer to the File menu.

Using Voice Files with Your Stories

The Record Voice option on the File menu allows you to record a voice and to create a file that can be played back with your story. To use this option, you must have a microphone, speaker, and either the IBM Voice Communications Option or the IBM Personal System/2 Speech Adapter installed on your system. Refer to the documentation for the IBM Voice Communications Option and the IBM Personal System/2 Speech Adapter for installation instructions.

If you are using the IBM Voice Communications Option, you must run VOICE.BAT before starting Story Editor. Also, the following files must either be in the directory with Story Editor or be accessed using the DOS PATH or APPEND commands:

VCAPIDRV.COM	V1OTSP.AIC
APIDIR.AIC	V2INSP.AIC
BASEPC.AIC	V2OTSP.AIC
BASESP.AIC	V3INSP.AIC
BATCMD.AIC	V3OTSP.AIC
V0INPC.AIC	V4INSP.AIC
V0OTPC.AIC	V4OTSP.AIC
V1INSP.AIC	

To create and use voice files, select **Record Voice** on the File menu. The Record Voice panel appears. The following sections discuss how to use the options on this panel.

Recording a Voice

To record a voice:

1. Select a sampling rate from the Record Voice panel.

The slower sampling rates yield poorer quality, but use less memory. Some experimentation may help you decide which rate to use.

2. Select **Recording** from the Record Voice panel.
3. If you are using the Voice Communications Option, press **Enter** to start recording and **Esc** to end.
4. If you are using the IBM Personal System/2 Speech Adapter, a panel appears that allows you to choose the length of your recording. The length options vary, depending on the sampling rate selected. Select a time from this panel to begin recording.
5. When the recording is complete, the Record Voice panel appears.

Playing Back a Recording

Select **Playback** on the Record Voice panel to listen to the recording currently in memory.

If you are using the IBM Voice Communications Option, press **F7** to decrease volume and **F8** to increase it.

To stop playback, press **Esc**.

Saving a Recording

To save the recording currently in memory:

1. Select **Save Voice File** on the Record Voice panel. The File Services panel appears. The voice files in the current directory are listed in the lower right box of this panel.
2. To save the recording in an existing file in a different directory or drive, select the directory or drive from those listed in the Drive and Directory boxes.
3. If you want to update an existing voice file, select the name of the file from the **Filename** box.

If you want to create a new voice file, select **New** from the **Filename** box. Then enter a name for the file following DOS file naming conventions.

4. Select **YES** on the File Services panel. The recording is saved using the filename you selected or entered. Also, the recording remains in memory for playing back or recording over.

Getting a Voice File

The **Get Voice File** option lets you retrieve a voice file for playing back or recording over. To use this option:

1. Select **Get Voice File** on the Record Voice panel. The File Services panel appears. All files in the current directory with the extension **SPK** are listed in the Filename box (to list all files in the current directory, select **All files** in the middle box of the File Services panel).
2. To get a file from a different drive or directory, select the drive or directory from those listed in the Drive and Directory boxes.
3. Select the name of the voice file you want to get from those listed in the Filename box. Or, select **Type** in the Filename box to enter the name of a file.

4. If you selected the name of a file, select **YES** to get it (or **NO** to cancel). If you selected **Type**, type the name of the file and press **Enter**. The voice file is loaded into memory.

Exiting the Record Voice Panel

To exit the Record Voice panel, select **Exit**. You return to the Story Editing screen.

Note: If you want to save the recording in memory, make sure you do so before exiting the Record Voice panel.

Notes for Keyboard Users

Press **Alt-1** to move the pointer to the File menu.

Chapter Summary

This chapter described how to use Story Editor to create your stories. “Learning Story Editor” on page 5-14 is a tutorial that contained steps you can follow to familiarize yourself with some of the Story Editor features described in more detail elsewhere in the chapter.



Chapter 6. Story Teller

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About This Chapter

This chapter describes how to use Story Teller, the module that lets you present stories you have created with Story Editor. Using Story Teller is similar to running stories within Story Editor, except that Story Teller branches to other stories you specify using the /TELL and /CALL commands.

The following section “Learning Story Teller” is a tutorial designed to help you become familiar with this module. Story Teller reference information begins with the section “Distributing Story Teller with Your Stories” on page 6-5.

Learning Story Teller

This section is designed to introduce you to Story Teller. You need 10 minutes to complete this section.

Note that this section does not contain all of the information you may need to know about Story Teller. For more information about this module, refer to the Contents at the beginning of this chapter or to the Index at the back of this book for the relevant page numbers in this chapter.

Before using this section, make sure you have backup copies of the Storyboard Plus diskettes and that the program has been set up for your system. Chapter 1 discusses backup and setup procedures. Also refer to Chapter 1 if you need information about starting Storyboard Plus.

Showing a Story from the Quick Menu/Setup Screen

In this section you will use Story Teller to show the story you created using Story Editor. If you did not create a story using the section “Learning Story Editor” in Chapter 5, you can show a story that has been included with your other Storyboard Plus files.

1. Use the Cursor Down key to highlight **Story Teller** on the Quick Menu/Setup screen.
2. Press **Enter** to select Story Teller. You see this message:

STORY_NAME:

3. If you created a story using the section “Learning Story Editor” in Chapter 5, type **TUTOR**.

If you did not create a story, type **TUTOR2**.

4. Press **Enter**. The story begins on your display.
5. While the story is running, use the following keys to control the presentation. Press:
 - To back up to the previous picture in the story.
 - + To return to the point where you started backing up. The story waits until you press any key to continue.
 - F5** To present the story one step at a time. Press **F5** again to present the next step.
 - F6** To resume the normal running of the story.
 - F10** To pause the story. Press any key to resume the story.
6. When the story finishes, you return to the Quick Menu/Setup screen.

Showing a Story from the DOS Prompt

You also can use Story Teller to show a story directly from the DOS prompt.

1. Press **Esc** to exit the Quick Menu/Setup screen. A message informs you that you are exiting.
2. Press **Y** to exit. The DOS prompt is displayed.
3. If you created a story using the section “Learning Story Editor” in Chapter 5, type **st tutor**.

If you did not create a story, type **st tutor2**.

4. Press **Enter**. The story begins on your display. After the story finishes, you return to the DOS prompt.

This concludes the Story Teller tutorial.

Distributing Story Teller with Your Stories

You can make additional copies of only the Story Teller module so you can distribute and show your stories, provided each diskette copy is labeled as follows:

CONTAINS

IBM Story Teller program (ST.EXE)

© Copyright IBM Corp. 1985, 1986, 1987, 1989

All Rights Reserved

Starting Story Teller

Starting from Fixed Disk

If you started Storyboard Plus by entering **sbmenu** at the DOS prompt, you can choose Story Teller from the Quick Menu/Setup screen. Use the Cursor Up or Down key to highlight **Story Teller** in the menu, and then press **Enter**.

After you select Story Teller from the Quick Menu, a message prompts you to enter the name of the story to present. Type the story name, preceded by a drive and directory, if necessary, and then press **Enter**. Although Story Editor and Story Teller use the SH~ file extension to distinguish story filenames, you do not need to include this extension when entering the story name.

While typing the filename, you can use the Cursor Right and Left, Insert, and Delete keys to edit your entry. To cancel entering a filename, press **Esc**.

You also can start Story Teller directly from the DOS prompt by entering:

st filename

where *filename* is the name of the story file. If you do not include the story filename in this command, a message prompts you to enter the filename. Include a drive and directory with the filename, if necessary.

Note: If Story Teller is in a subdirectory, make sure you change to that directory before entering the **st** command.

Starting from Diskette

To start Story Teller from diskettes:

1. Highlight **Story Teller** on the Quick Menu/Setup screen using the Cursor Down or Up key, and then press **Enter**.

A message appears instructing you to insert a program diskette.

2. Remove Diskette 1 from drive A and insert Diskette 3, if you are using 3.5-inch diskettes, or Diskette 4, if you are using 5.25-inch diskettes.
3. Press **Enter**. A message prompts you to enter the name of the story to present. If your story and its pictures are located on a different diskette than the one you are using, you can switch diskettes before entering the filename.

Type the story name, preceded by a drive and directory, if necessary, and then press **Enter**. Although Story Editor and Story Teller use the SH~ file extension to distinguish story filenames, you do not need to include this extension when entering the story name.

While typing the filename, you can use the Cursor Right and Left, Insert, and Delete keys to edit your entry. To cancel entering a filename, press **Esc**.

You also can start Story Teller directly from the DOS prompt. First, insert Diskette 3, if you are using 3.5-inch diskettes, or Diskette 4, if you are using 5.25-inch diskettes. Then, enter:

st filename

where *filename* is the name of the story file. If you do not include the story filename in this command, a message prompts you to enter the filename. Include a drive and directory with the filename, if necessary. If your story and its pictures are located on a different diskette than the one you are using, you can switch diskettes before entering the filename.

Controlling the Presentation

Using the Keyboard

You can use the following keys while Story Teller is running to control the presentation of your story.

<i>Key</i>	<i>Action</i>
F5	Causes the story to be presented one step at a time. Press F5 to continue stepping.
F6	Resumes normal running of a story.
F10	Pauses the story. Press any key to resume.
Spacebar	Skips the current WAIT period.
Esc	Stops the story after the current picture is displayed. You are asked if you want to continue. Pressing Y continues the story; pressing N stops Story Teller and returns to DOS.
-	Causes Story Teller to back up to the previous picture or to the previous story line with a period in the LABEL column, and then waits until you press any key to continue.

- / Entering a slash (/) followed by a label causes the story to immediately branch to the line in the story containing that label. The label name entered does not display. If the label cannot be found, a beep sounds.
- + Returns either to the point in the story where you began backing up (using the - key), or to the point where you first took a direct branch using the / key. The story waits until you press any key to continue.

Using a Joystick

You also can control the presentation of your story using the two buttons on a joystick connected to the IBM Game Control Adapter card. Pressing **Button A** advances the presentation when a keystroke is required to continue. Pressing **Button B** backs up the presentation in the same manner as using the - key.

If you use an IBM PS/2 mouse, you can control the presentation with Buttons 1 and 2 as if they were joystick Buttons A and B.

Using Other Devices

Any device that closes a contact between pins 2 and 4 of the IBM Game Control Adapter card will have the same effect as using **Button A** on a joystick. Similarly, closing a contact between pins 5 and 7 has the same effect as using **Button B**.

Buttons and momentary switches can be used for this purpose. However, a convenient device is the Kodak EC-1 Remote Control for Kodak Carousel slide projectors. To use this device, you need to construct an adapter that connects the five-pin plug on the EC-1 to the 15-pin D-Shell Connector on the IBM Game Control Adapter card, as described in Appendix E, "Constructing a Remote Control Adapter" on page E-1.

Chapter Summary

This chapter described how to use Story Teller to present stories you create with Story Editor. The section “Learning Story Teller” discussed step-by-step how to show a story. The story could be one you created in a previous tutorial, or a story supplied with the Storyboard Plus programs.

Appendix A. Messages

Following are alphabetical lists of messages grouped by Storyboard Plus module. Included with each message is an explanation of what has occurred, and what, if anything, you should do when you see the message.

Picture Maker and Story Editor

**Block not found.
Return to story editing?**

Cause: You have tried to copy or delete a block of lines and there is no block marked.

What to do: Mark the block of lines you want to copy or delete.

**Cannot access .CLR/.PRO file
Press ESC to continue**

Cause: A file containing setup information required to run Picture Maker/Story Editor cannot be found. This file can be found on Diskette 1.

What to do: Refer to the sections “Starting and Exiting Picture Maker” on page 2-4 and “Starting and Exiting Story Editor” on page 5-3 for information about starting these modules. If you are running Storyboard Plus from fixed disk, you may need to use the DOS COPY command to copy the STB.CLR or STB.PRO file to the directory containing the other Storyboard Plus program files.

Cannot create file. RETRY?

Cause: Picture Maker/Story Editor attempted to store a picture on a disk and was unsuccessful. The probable cause is that the directory is full.

What to do: The best solution is to store the picture on a blank, formatted diskette. If you are storing your pictures on a fixed disk, create a new directory or erase files from your existing directory.

Cannot display image *nnn*. Image created in *resolution mode mode*.

Press Button 1 for next image or press Button 2 to exit.

Cause: You have selected an image to get or view from the Get Capture File panel, but Picture Maker/Story Editor cannot display the image. The image was created in a higher graphics resolution, or if you are using Picture Maker, the image may have been created in text mode.

What to do: Press **Button 1** to move to the next image or **Button 2** to return to the Get Capture File panel.

**Cannot find digitize card.
Return to Digitize panel?**

Cause: You have selected YES on the Digitize panel, but the required digitize card cannot be found. Picture Maker requires special equipment to use the Digitize function. This equipment is either not installed in your computer or the jumpers are not set correctly on the digitize card.

What to do: Refer to "Creating Pictures with a Video Camera" on page 2-118 for more information about required equipment and jumper settings.

**Cannot find DIGITIZE.PDR file.
Return to drawing area?**

Cause: Picture Maker cannot find the DIGITIZE.PDR file, which is required for the Digitize option. The file may have been erased or renamed, or it may be on a different program diskette, if you are using a diskette-based system and you have switched diskettes.

What to do: If you are running Storyboard Plus from diskettes, insert Diskette 2, if you are using 3.5-inch drives, or Diskette 3, if you are using 5.25-inch drives, in the default drive and select **NO**. If you are running Storyboard Plus from fixed disk, select **YES** to return to the drawing area. Then, use the DOS COPY command to copy the file from Diskette 2 or 3 to the directory from which you are trying to run Picture Maker.

**Cannot find Disk Buffer file. /Picture and/
Font Editor/Switch Page data will be lost. Continue?**

Cause: You started to use the Font Editor or Switch Page option, but Picture Maker could not find the buffer file—probably because it is located on a different diskette.

What to do: If you have switched diskettes, reinsert the diskette containing the buffer file and press **YES** to continue.

Cannot find *FILENAME.EXT* file. **RETRY?**

Cause: The file you entered cannot be found.

What to do: Check to see that you entered the filename correctly. To retype the filename, select **NO**. If the filename is correct and you are using a diskette-based system, the file may be on a different diskette. Switch diskettes and then select **YES** to retry.

Cannot find

LABEL label.

Return to Story Editor?

Cause: Story Editor cannot find the label you have entered.

What to do: Select **YES** to return to story editing. Check to see if you have entered the correct label.

Cannot find OTHERPRN.PDR file.

Return to drawing area/story editing?

Cause: Picture Maker/Story Editor cannot find the OTHERPRN.PDR file, which is required for printing when **Other** is selected as the printer.

What to do: To return to the drawing area or Story Editor screen, select **YES**.

Cannot find PM.HLP file.

Press any key to return to Drawing Area.

Cause: You have pressed the **F1** key for help, but Picture Maker cannot find the PM.HLP file, which contains the Help information. The file may have been erased or renamed, or it may be on a different program diskette, if you are using a diskette-based system and you have switched diskettes.

What to do: Check the Storyboard Plus Diskette 2 for the PM.HLP file. Copy the file to the directory from which you are trying to run Picture Maker. If you are using a diskette-based system, insert Diskette 2 in the default drive. Then, press **F1** again.

**Cannot find PRINTER.PDR file.
Return to drawing area/story editing?**

Cause: Picture Maker/Story Editor cannot find a file that is required for printing. The file may have been erased or renamed, or it may be on a different program diskette, if you are using a diskette-based system and you have switched diskettes.

What to do: To return to the Picture Maker or Story Editor screen, select **YES**. Use the DOS COPY command to copy the file from Diskette 2, if you use 3.5-inch drives, or Diskette 3, if you use 5.25-inch drives, to the directory or diskette from which you are trying to run Picture Maker/Story Editor.

Cannot find ROMAN.FAC file. RETRY?

Cause: The ROMAN.FAC font file cannot be found. The file may have been erased or renamed, or it may be on a different program diskette, if you are using a diskette-based system and you have switched diskettes.

What to do: If you are running Storyboard Plus from diskettes, insert Diskette 2 in the default drive and select **YES** to continue. If you are running the program from fixed disk, select **NO**. Use the DOS COPY command to copy the font file from Diskette 2 to the directory from which you are trying to run Picture Maker.

Cannot find SE.HLP file.

Press any key to return to story editing

Cause: You have pressed the F1 key for help, but Story Editor cannot find the SE.HLP file, which contains the Help information. The file may have been erased or renamed, or it may be on a different program diskette, if you are using a diskette-based system and you have switched diskettes.

What to do: Check the Storyboard Plus Diskette 3, if you use 3.5-inch diskettes, or Diskette 5, if you use 5.25-inch diskettes, for the SE.HLP file. Copy the file to the directory from which you are trying to run Picture Maker. If you are using a diskette-based system, insert Diskette 3 or 5 in the default drive. Then, press F1 again.

Cannot gain access to the card.

Hardware or software missing.

Return to story editing?

Cause: You have tried to use the Record Voice option or the /SPEAK, /SOUND EFFECTS, or /MUSIC ON command and you do not have the correct hardware or software installed in your system.

What to do: To use the Record Voice option or the /SPEAK command, you must have the IBM Voice Communications Option or the IBM Personal System/2 Speech Adapter installed in your system. If you are using the IBM Voice Communications Option, you must run the VOICE.BAT file before you start Story Editor.

To use the /SOUND EFFECTS or /MUSIC ON command, you must have the IBM Music Feature installed in your system and you must run KAPI.EXE before starting Story Editor.

Cannot get file.

Cause: The second line of this message contains more information about why Storyboard Plus could not retrieve a file. Find the second line of the message in this list for more information.

**Cannot get file. File created
in resolution mode.**

Return to story editing?

Cause: Story Editor cannot display the picture file you have selected in the resolution mode you are using. The message displays the resolution mode in which the picture file was created.

What to do: Select **YES** to return to story editing. Refer to “Resolution Modes and Story Editor Performance” on page 5-6 for information about the compatibility of resolution modes when using Story Editor.

Cannot print picture.

Printer is not ready. RETRY?

Cause: You tried to print but your printer is not ready.

What to do: Switch off your printer, and then make sure it is properly loaded with paper and connected to your computer. Switch the printer back on and make sure it is online. Then, select **YES** to retry printing.

Cannot print story.

Printer is not ready. RETRY?

Cause: You tried to print but your printer is not ready.

What to do: Switch off your printer, and then make sure it is properly loaded with paper and connected to your computer. Switch the printer back on and make sure it is online. Then, select **YES** to retry printing.

Cannot read disk.

Cause: The second line of this message contains more information about why Storyboard Plus could not read the disk. Find the second line of the message in this list for more information.

Cannot use this option.

Default buffer path is a diskette.

Cause: You tried to use the Picture Maker option in Story Editor, but your default buffer path is a diskette drive.

What to do: Select **YES** to return to story editing. If you have a fixed disk, change your default buffer path by pressing **F2** at the Quick Menu/Setup screen. If you do not have a fixed disk, exit Story Editor to use Picture Maker.

Disk is full. RETRY?

Cause: Picture Maker/Story Editor attempted to store your picture or story on a disk and found that not enough space was available.

What to do: If you are using a diskette-based system, insert a formatted diskette with some available space on it in the default drive, and then select **YES** to retry. If you are using a fixed disk, select **NO**. Remove unnecessary files from the disk to create more available space.

Disk is write-protected. RETRY?

Cause: Picture Maker/Story Editor attempted to write to a write-protected diskette.

What to do: Make sure that the diskette is not write-protected and select **YES** to retry. Select **NO** to return to the File Services panel.

Drive is not ready. RETRY?

Cause: The drive door is open.

What to do: Make sure that a diskette is inserted in the drive and close the door. Then select **YES** to retry.

File about to be removed. Continue?

Cause: Picture Maker/Story Editor is about to erase the highlighted filename from the disk.

What to do: Select **YES** to remove the file from the disk, or **NO** to return to the File Services panel.

File about to be replaced. Continue?

Cause: Picture Maker/Story Editor is about to save the picture in a file that already exists.

What to do: Select **YES** to save the picture or story and overwrite the existing contents of the selected filename, or **NO** to return to the File Services panel.

File is not in .ESQ format. RETRY?

Cause: The file you are trying to retrieve for use with the /MUSIC ON or /SOUND EFFECTS command is not in the .ESQ format acceptable to Story Editor.

What to do: Select **NO** to continue.

File is not in .FAC format. RETRY?

Cause: The font file you are trying to retrieve is not in a format acceptable to Picture Maker. The only font format acceptable to Picture Maker other than its own is the PC Storyboard format.

What to do: Select **NO** to continue.

File is not in .LBR format. RETRY?

Cause: The library file you are trying to retrieve is not in the format acceptable to Picture Maker.

What to do: Select **NO** to continue.

File is not in .PIC format. RETRY?

Cause: The picture file you are trying to retrieve is not in a format acceptable to Picture Maker/Story Editor.

Acceptable formats other than its own are: PC Storyboard .PIC, BSAVE, Drawing Assistant 1.0 .ART and .PIC, Graphing Assistant 2.0, .PCX format, and TIFF (uncompressed).

What to do: Select **NO** to continue.

File is not in .SH~ format. RETRY?

Cause: The story file you are trying to retrieve is not in a format acceptable to Story Editor. The only valid format other than its own is the PC Storyboard format.

What to do: Select **NO** to continue.

File is not in .SPK format. RETRY?

Cause: The file you are attempting to retrieve for use with the /SPEAK command is not in the .SPK format acceptable to Story Editor.

What to do: Select **NO** to continue.

File is not in .SPR format. RETRY?

Cause: The file you are trying to retrieve for use with the /SPRITE command is not in the .SPR format acceptable to Story Editor.

What to do: Select **NO** to continue.

File not removed.

Cause: The second line of this message contains more information about why Storyboard Plus did not remove the file. Find the second line of the message in this list for more information.

File not saved.

Cause: The second line of this message contains more information about why Storyboard Plus did not save the file. Find the second line of the message in this list for more information.

I/O error. RETRY?

Cause: A problem has been encountered with the disk drive, the disk controller, or the diskette.

What to do: If the diskette drive door is open, close it. If the drive door is not open, try using a new diskette. If the error persists, take the disk drive to your dealer for testing.

Label cannot be found.

Continue?

Cause: The label you have entered cannot be found.

What to do: Select **NO** to continue.

Memory is full.

Return to story editing?

Cause: You tried to insert a line, copy a block of lines, or merge a story into the story table and the story table is full.

What to do: If you need to add more lines to a story, delete unneeded lines or create a second story and use the /TELL command to join the two stories together.

Only .EXE and .COM files are allowed.

Continue?

Cause: You are using the /EXEC command and have selected a file that is not a .EXE or .COM file.

What to do: Check to see if you have selected the correct filename. Select **YES** to return to the Get .EXE File Services panel and select a new filename.

Picture will be added to the file. Continue?

Cause: Picture Maker adds the picture being saved to the end of the selected file. Picture Maker recognizes this file as one that has been created in the Picture Taker program with multiple images under the same filename.

What to do: Select **YES** to add this picture to the selected filename, or select **NO** to return to the File Services panel.

Saving select box only. Continue?

Cause: Picture Maker saves only the portion of the picture framed by the select box.

What to do: Select **YES** if you want only the portion of the picture framed by the select box to be saved, or select **NO** to save the entire picture.

Switch Page content will be erased to use Digitize. Proceed?

Cause: The second picture you are working with using the Switch Page option will be lost if you use the Digitize option.

What to do: Select **YES** to use the Digitize option, or **NO** to cancel.

The graphics mode you selected cannot be supported with your graphics hardware. Picture Maker/Story Editor has selected another mode for you. Press Enter to continue.

Cause: The graphics mode you selected cannot be supported with your hardware. In this message, “graphics hardware” can be replaced with “system memory” or “graphics hardware & system memory.” Picture Maker/Story Editor automatically places the program in the next lower resolution mode supported by your system.

What to do: Refer to “Choosing a Resolution Mode” on page 1-20 for information about resolution modes and required equipment.

**This label exists already.
Continue?**

Cause: The label you entered already exists in the story.

What to do: If you would like to change the label you entered, select **NO**. If you would like to continue editing the story without changing the label, select **YES**.

**You are about to exit Picture Maker/Story Editor
Exit (y/n)? [n]**

Cause: You pressed **Button 2** or **Esc** at the Picture Maker or Story Editor Main Menu.

What to do: Press **Button 1** or **Y** to exit, or press **Button 2** or **Enter** to cancel exiting Picture Maker or Story Editor.

**You are about to exit the program
without saving your latest changes.**

Exit (y/n)? [n]

Cause: You pressed **Button 2** or **Esc** at the Picture Maker or Story Editor Main Menu, but you have not saved your work on the Picture Maker or Story Editor screen.

What to do: Press **Button 1** or **Y** to exit, or press **Button 2** or **Enter** to cancel exiting Picture Maker or Story Editor. To save your work before exiting, first return to the Picture Maker or Story Editor screen by selecting the first option on the main menu.

**You don't have necessary graphics
hardware to run the program.**

Cause: Your computer does not have the necessary graphics hardware to run the program.

What to do: Refer to "Choosing a Resolution Mode" on page 1-20 for information about resolution modes and required equipment.

**You have selected COMn
for the DOS Device Name
and the card cannot be found.**

Cause: A serial card is not located on the COM port that you selected. You may have selected the wrong serial port or the wrong input device.

What to do: First, check to make sure you selected the correct input device. If you have, use the Input Device Setup option and select the correct serial port.

**You have selected COM*n*
for the Printer Port
and the card cannot be found.**

Cause: A serial card is not located on the COM port that you selected. You may have selected the wrong serial port or the wrong printer.

What to do: First, check to make sure you selected the correct printer. If you have, use the Printer Port option and select the correct serial port.

**You have selected LPT*n*
for the Printer Port
and the card cannot be found.**

Cause: A parallel card is not located on the printer port that you selected. You may have selected the wrong printer port or the wrong printer.

What to do: First, check to make sure you selected the correct printer. If you have, use the Printer Port option and select the correct printer port.

**You have selected the Other option and the
external device driver cannot be found.**

Cause: The external device driver required by your input device has not been installed.

What to do: Exit Picture Maker/Story Editor and install the external driver for your input device. Then restart the program.

You need more memory to run the program.

Cause: Your computer does not have enough memory to run the module.

What to do: Refer to Appendix G, “Storyboard Plus Product Support and License Information” on page G-1 for information about what you need to use Storyboard Plus.



Drive is not ready.

Cause: The diskette drive door is open.

What to do: Ensure that a diskette is inserted into the drive and close the door.

Drive I/O error.

Cause: A problem was encountered with the disk drive, the disk controller, or the diskette.

What to do: If the diskette drive door is open, close it. If the drive door is not open, try using a new diskette. If the error persists, take the disk drive to your dealer for testing.

Drive\path\filename you have selected is not in DOS format.

Cause: The drive, directory, or filename you have entered is not correct.

What to do: Check to make sure you correctly entered the drive, directory, and filename.

Drive\path you have selected cannot be found.

Cause: You entered a drive or directory that Picture Taker cannot find.

What to do: Check to make sure you entered the drive and directory correctly.

Cannot change library.

Cause: The second sentence of this message contains more information about why Storyboard Plus could not change the library. Find the second line of the message in this list for more information.

Cannot create file.

Cause: Text Maker tried to store a text screen on a disk and was unsuccessful. The probable cause is that the directory is full.

What to do: If you are using a diskette-based system, store the text screen on a blank, formatted diskette. If you are storing your text screens on a fixed disk, create a new directory or erase files from your existing directory.

Cannot get file.

Cause: The second line of this message contains more information about why Storyboard Plus could not get the file. Find the second line of the message in this list for more information.

Disk is full.

Cause: Text Maker tried to store your screen on a disk and found that not enough space was available.

What to do: If you have unnecessary files on the disk, free some space by removing them. Otherwise, store the screen on a diskette.

Disk is write-protected.

Cause: Text Maker tried to write to a write-protected diskette.

What to do: Make sure that the diskette is not write-protected and retry.

Drive is not ready.

Cause: Text Maker tried to access a disk but was unsuccessful. The drive door probably is open.

What to do: Close the drive door and retry.

**ERROR in Alter Color specification:
Invalid characters or format. No changes
were made.**

Cause: The command you entered to alter color was incorrect.

What to do: After selecting the Alter Color command, press F1 for information about the correct format for Alter Color commands.

File extension must be .CAP or .LIB.

Cause: You selected a file for your active library with an extension other than .CAP or .LIB.

What to do: If the file is in a library file format, rename it with a .CAP or .LIB extension to use it as a library.

File is in an unusable format or is damaged.

Cause: The file you tried to retrieve is not in a format usable by Text Maker. Acceptable formats are: Text Maker files, text screens captured in a .CAP file by Picture Taker, and .LIB files created from captured text screens.

File not removed.

Cause: The second line of this message contains more information about why Storyboard Plus did not remove the file. Find the second line of the message in this list for more information.

File not saved.

Cause: The second line of this message contains more information about why Storyboard Plus did not save the file. Find the second line of the message in this list for more information.

I/O error.

Cause: A problem was encountered with the disk drive, the disk controller, or the diskette.

What to do: If the diskette drive door is open, close it. If the drive door is not open, try using a new diskette. If the error persists, take the disk drive to your dealer for testing.

Screen not appended to file. File is in invalid format.

Cause: Text Maker cannot use the file in which you are trying to store your text screen.

What to do: Save the text screen in a new file.

**Text Maker cannot find STB.PRO.
Press 'Esc' to exit.**

Cause: Text Maker must read the STB.PRO file before beginning the program. The file may have been erased or renamed.

What to do: Check the Storyboard Plus Diskette 1 for the STB.PRO file. Copy the file to the disk on which you are trying to run Text Maker.

Text Maker cannot find your file.

Cause: Text Maker cannot find the file in the current directory.

What to do: Verify that you have entered the drive and directory names where your file is stored.

Text Maker requires more memory to run.

Cause: There is not enough memory available to run Text Maker. You may be running other programs which are using memory.

What to do: Remove unnecessary programs from memory and retry running Text Maker.

The file contains no text screens.

Cause: The file selected as the current library is in the correct library format, but contains only graphic images.

What to do: Choose another file that contains text screens as the active library.

The file is not in a library file format.

Cause: The file selected as the current library is not in a format usable by Text Maker.

What to do: Choose another file as the active library.

The file or device name is incorrect.

Cause: The file or device name was not entered correctly.

What to do: Check that the drive, directory, and filename you entered are correct.

The file TM.CAP is not in drive X or it is improperly formatted. Please correct this and re-run Text Maker. Press 'Esc' to exit.

Cause: The TM.CAP file is required when using Text Maker. The file may have been erased or renamed.

What to do: Check the Storyboard Plus Diskette 3, if you use 3.5-inch diskettes, or Diskette 4, if you use 5.25-inch diskettes, for the TM.CAP file. Copy the file to the disk on which you are trying to run Text Maker. If you are using a diskette-based system, make sure that TM.CAP is on the diskette you are using.

The specified screen number is not a text screen.

Cause: You have selected a graphic image contained in a file created with the Picture Taker program. Text Maker cannot display graphic images.

What to do: Press Esc to continue. Try a different screen number from the file, or try a different capture file.

The specified screen number is too large or is invalid.

Cause: You have selected a text screen from a file containing multiple screen images, but the screen number is larger than the number of images in the file or it is an invalid number.

What to do: Make sure the number of the screen you are trying to retrieve is correct.

The Text Maker help file is either damaged or cannot be found.

Cause: You have pressed the F1 key for help, but Text Maker cannot find the TM.HLP file, which contains the Help information. The file may have been erased or renamed, or it may be on a different program diskette, if you are using a diskette-based system and you have switched diskettes.

What to do: Check the Storyboard Plus program Diskette 3, if you use 3.5-inch diskettes, or Diskette 4, if you use 5.25-inch diskettes, for the TM.HLP file. Copy the file to the directory from which you are trying to run Text Maker. If you are using a diskette-based system, insert the Text Maker diskette in the default drive. Then, press F1 again.

**Unable to paste; no cut exists.
Please cut first.**

Cause: You tried to use the Paste command, but no cut area exists.

What to do: First cut an area with the Cut command, and then try the Paste command again.

**Warning: A color was not in picture or background value out of range.
All valid changes were made.**

Cause: Your Alter Color command contained a color that was not found in your text screen, or you specified a color other than A through H for a background color change.

What to do: Verify your color choices and select the Alter Color command again.

You are about to overwrite the working copy.

Get and overwrite (y/n)? [n]

Cause: Text Maker is about to retrieve a screen that will replace the screen you are currently editing.

What to do: Type **Y** to replace the current screen with the new screen, or **N** to continue editing the current screen.

You are about to remove this file. If you do, the picture in it will be lost.

Remove (y/n)? [n]

Cause: Text Maker is about to erase the file you specified from the disk.

What to do: Type **Y** to remove the file from the disk, or type **N** to return to the Remove File panel.

You are about to save this file and overwrite the same file

on disk. Save and overwrite? (y/n)? [n]

Cause: Text Maker is about to save the text screen in a file that already exists.

What to do: Type **Y** to save this picture and overwrite the contents of the selected file, or type **N** to return to the Save File panel.

Your display cannot show 40 columns.

Cause: The display you are using cannot show text screens in 40-column format.

What to do: Change displays or switch to 80-column format.

Your screen has been added to the file.

Cause: Text Maker added the screen you saved to the end of the selected file. Text Maker recognizes this file as one that contains multiple screens under the same filename.



Appendix B. Supported Equipment

This appendix lists the equipment supported by Storyboard Plus. Refer to Appendix G, "Storyboard Plus Product Support and License Information" for information about the minimum equipment and software required to use Storyboard Plus.

IBM System Units

- IBM Personal System/2® Model 25
- IBM Personal System/2 Model 30
- IBM Personal System/2 Model 30-286
- IBM Personal System/2 Model 50
- IBM Personal System/2 Model 50Z
- IBM Personal System/2 Model 55SX
- IBM Personal System/2 Model 60
- IBM Personal System/2 Model 70
- IBM Personal System/2 Model P70 386
- IBM Personal System/2 Model 80
- IBM Personal Computer
- IBM Personal Computer XT™, Models 086, 087, 088, 089, 286, and 589
- IBM Personal Computer AT®, Models 099, 239, 319 and 339

Personal System/2, Personal Computer AT, and Quietwriter are registered trademarks of the International Business Machines Corporation.

Personal Computer XT, Color Jetprinter, Proprinter, Proprinter XL, Proprinter X24, Proprinter XL24, Proprinter X24E, and Proprinter XL24E are trademarks of the International Business Machines Corporation.

IBM-Compatible Tested Systems

- CompaqDeskpro 286¹
- Compaq Deskpro 386/25¹
- Compaq Deskpro 386S¹
- Tandy² 3000NL
- Tandy 4000LX

IBM Graphics Cards

- IBM Color/Graphics Adapter
- IBM Enhanced Graphics Adapter
- IBM Personal System/2 Adapter.
- IBM Personal System/2 8514/A Adapter (1MB of memory required on card)

Note: The Graphics Memory Expansion Module and Memory Kit for the EGA is required for the 640 x 200 – 16 and 640 x 350 – 16 resolution modes.

IBM-Compatible Tested Graphics Cards

- Compaq Video Graphics Adapter
- Tandy Enhanced Graphics Adapter
- Tandy Video Graphics Adapter

¹ Compaq, Compaq Deskpro 286, Compaq Deskpro 386/25, and Compaq Deskpro 386S are trademarks of Compaq Computer Corporation.

² Tandy is a trademark of Tandy Corporation.

IBM Displays

- IBM Color Display
- IBM Enhanced Color Display
- IBM Personal System/2 8512 Display
- IBM Personal System/2 8513 Display
- IBM Personal System/2 8514 Display

IBM-Compatible Tested Displays

- Compaq Video Graphics Monitor
- Tandy Enhanced Graphics EGM-1 Monitor
- Tandy VGM-300 Display

IBM Printers

- IBM Color Printer
- IBM Color Jetprinter™
- IBM Graphics Printer
- IBM Proprinter™
- IBM Proprinter XL™
- IBM Proprinter II
- IBM Proprinter II XL
- IBM Proprinter III
- IBM Proprinter III XL
- IBM Proprinter X24™
- IBM Proprinter XL24™
- IBM Proprinter X24E™
- IBM Proprinter XL24E™
- IBM Pageprinter
- IBM Personal Pageprinter 010

- IBM Personal Pageprinter 020
- IBM Personal Page Printer II
- IBM Quietwriter® Model 2
- IBM Quietwriter III
- IBM Quickwriter

Note: The IBM Personal Pageprinter 010, IBM Personal Pageprinter 020, and IBM Personal Page Printer II are supported in Hewlett-Packard LaserJet + emulation mode only.

IBM-Compatible Tested Printers

- Epson³ FX 80, FX 100, MX 80, MX 100, RX 80, RX100
- Hewlett-Packard LaserJet +
- Hewlett-Packard LaserJet 500 +⁴
- Hewlett-Packard LaserJet Series II⁴
- Hewlett-Packard PaintJet⁴
- Quadram Quadjet⁵ QJ9000

Input Devices

- Keyboard
- Joystick (IBM or any IBM-compatible)
- IBM Personal System/2 Mouse
- Microsoft Mouse, model number 039-099 (serial interface)

³ Epson is a trademark of Epson America, Incorporated.

⁴ Hewlett-Packard LaserJet +, Hewlett-Packard LaserJet 500 +, Hewlett-Packard LaserJet Series II, and Hewlett-Packard PaintJet are trademarks of Hewlett-Packard Corporation.

⁵ Quadram and Quadjet are trademarks of Quadram Corporation.

- Mouse Systems⁶ PC Mouse, part number 900120-214 (serial interface)

Note: The IBM PC and PC/XT Mouse is compatible with Mouse Systems PC Mouse, three-button serial.

- Visi On⁷ Mouse, part number 69910-1011 (serial interface)
- Graphics tablets:
 - Summagraphics Summasketch MM1201
 - Kurta⁸ Series One Tablet
 - Kurta Series Two Tablet
- Video Input Devices:
 - Chorus Data Systems PC-Eye⁹ PC-1000 Video Capture Board (PC Bus)
 - Chorus Data Systems PC-Eye PC-1100 Video Capture Board (PC Bus)
 - Chorus Data Systems PC-Eye PC-1200 Video Capture Board (PC Bus)
 - Jovian Logic Corporation VIA¹⁰ Video Frame Grabber Board (PC Bus)
 - Jovian Logic Corporation VIA Video Frame Grabber Board (MCA Bus)
 - Truevision TARGA¹¹ 16 Videographics Adapter

⁶ Mouse Systems is a trademark of Mouse Systems Corporation.

⁷ Visi On is a trademark of VisiCorp.

⁸ Kurta is a trademark of Kurta Corporation.

⁹ PC-Eye is a trademark of Chorus Data Systems, Inc.

¹⁰ VIA is a trademark of Jovian Logic Corporation.

¹¹ TARGA is a trademark of Truevision Corporation.

- Frame advance (For Story Teller)
 - Kodak EC-1 Remote Control
- Sound Cards
 - IBM Music Feature
 - IBM Personal System/2 Speech Adapter
 - IBM Voice Communications Card

Notes:

1. IBM only warrants the compatibility of non-IBM devices listed in this appendix.
2. Other input devices and printers can be used if a device driver exists. Your dealer may be able to identify additional input devices and printers as they become available.

Appendix C. Storyboard Plus on the IBM PC Local Area Network

This appendix is an aid for Storyboard Plus users who want to use this product on the IBM PC Local Area Network (LAN). This Appendix assumes you are familiar with the IBM PC Local Area Network and have the IBM Local Area Network User's Guide.

Installing Storyboard Plus on the IBM PC LAN

To use Storyboard Plus on the IBM PC Local Area Network, use Backup/Install to install Storyboard Plus on the server computer's fixed disk to each individual's private subdirectory. Each individual must have write access to his private subdirectory.

You can install to the server only from the server computer. You cannot install to the server from a remote node.

Starting Storyboard Plus on the IBM PC Network

If you are at the server computer, start Storyboard Plus according to the instructions in "Getting Started" on page 1-6.

If you are at a remote computer, be sure you make the remote directory the default directory. Then follow the instructions in "Getting Started" on page 1-6.



Appendix D. Picture File Format

This appendix is a technical reference for users who may need more information about the format of Picture Maker's PIC files.

File Header

; file header (128 bytes long) :

```
DB      'T'          ;first byte is ASCII 84 (should not be
                    ;used to identify the file)
                    ;
DW      C184H        ;file ID:  C184H for all other modes
                    ;             C185H for 320 x 200--256 mode (10)
                    ;             C186H for 640 x 480--256 mode (11)
                    ;
DW      3            ;resolution mode identifier:
                    ;             1 = 640 x 200--16
                    ;             3 = 640 x 350--16
                    ;             7 = 640 x 480--16
                    ;             8 = 320 x 200--4
                    ;             10 = 320 x 200--256
                    ;             11 = 640 x 480--256
                    ;(These numbers refer to corresponding
                    ; modes in this documentation.)
                    ;
DW      640          ;picture's horizontal size (in pixels):
                    ;             320 for modes 8, 10
                    ;             640 for modes 1, 3, 7, 11
                    ;
DW      350          ;picture's vertical size (in pixels):
                    ;             200 for modes 1, 8, 10
                    ;             350 for mode 3
                    ;             480 for modes 7, 11
                    ;
DW      4            ;should be:
                    ;             2 for modes 8, 10, 11
                    ;             4 for modes 1, 3, 7
                    ;
DW      2            ;should be:
                    ;             1 for modes 1, 8, 10, 11
                    ;             2 for modes 3,7
                    ;
DB      16 DUP(0)    ;16-color palette
                    ;(See the table later in this section for
                    ; color/bit map correspondence.)
                    ;
DB      0            ;reserved
                    ;
DW      0            ;framed area identifier (must be 0)
DW      4 DUP(0)    ;framed area size (don't care)
                    ;
DW      0            ;patterns validity identifier:
                    ;             0 for valid patterns
                    ;             12345 for invalid patterns
```

```

; (If identifier is 12345, pattern is not
; read into Storyboard Plus, but it is in
; the file.)
;
DW 0FFFFH ; background color; should be 0FFFFH
;
DW 0FFFFH ; transparent color; should be 0FFFFH
;
DB 78 DUP(0) ; reserved
;
DW ? ; picture total size LOW WORD
DW ? ; picture total size HIGH WORD
; (Picture size includes everything, even
; the Header.)

; ----- END OF THE HEADER -----

```

The 256-Color Palette

The 256-color palette is 768 bytes long (256 bytes each for red, green, and blue). The palette is at offset 128 for resolution modes 10 and 11, but not in the file for the other resolution modes.

; Palette for 256 color mode only (3*256 = 768 bytes)

```

DB 256 DUP(?) ; RED component
DB 256 DUP(?) ; GREEN component
DB 256 DUP(?) ; BLUE component
; These 256 RGB colors correspond
; directly to pixel numbers on screen.
; (This palette is not in picture files
; for modes other than 256-color mode.)
;
; There are 16 colors which are always
; fixed in Picture Maker:
;
; 0 = black      RGB=0,0,0
; 1 = dark gray  RGB=21,21,21
; 2 = light gray RGB=42,42,42
; 3 = green      RGB=0,42,0
; 4 = light green RGB=21,63,21
; 5 = red        RGB=42,0,0
; 6 = light red  RGB=63,21,21
; 7 = blue       RGB=0,0,42
; 8 = light blue RGB=21,21,63
; 9 = brown      RGB=42,21,0
; 10 = yellow    RGB=63,63,21
; 11 = magenta   RGB=42,0,42
; 12 = light magenta RGB=63,21,63
; 13 = cyan      RGB=0,42,42
; 14 = light cyan RGB=21,63,63
;
; 255 is White   RGB=63,63,63

```

Patterns Definition

The patterns definition is 960 or 1920 bytes long, depending on the resolution mode. The patterns are at offset 128 for resolution modes 1, 3, 7, 8, and 11, and at offset 896 for mode 10.

```
;Patterns definition (960 or 1920 bytes long depending on mode)
```

```
DB      X DUP(0)      ;      X = 960 for mode 10
                          ;      X = 1920 for other modes
```

Picture Bit Planes in Compressed Form

The picture bit planes are at offset 2048 for resolution modes 1, 3, 7, and 8, at offset 1856 for mode 10, and at offset 2816 for mode 11.

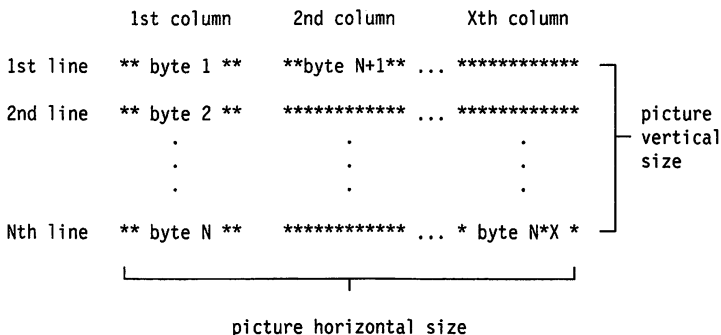
```
;Picture bit planes in compressed form
```

```
DB      X DUP(?)      ;compressed picture bit planes:
                          ;      1 bit plane for modes 10, 11
                          ;      2 bit planes for mode 8
                          ;      4 bit planes for modes 1,3,7
                          ; NOTE: The second plane data starts right
                          ; after the first plane. You must decom-
                          ; press the first plane to get to the
                          ; second one. The same applies for the
                          ; third and fourth planes.
```

Compression

Bit planes are compressed and saved column by column from top to bottom (except for the 256-color modes, where the picture is saved line-by-line).

The picture format bit plane (for modes 1,3,7, and 8) is as follows:



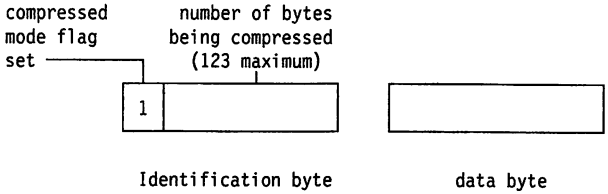
Note: Each byte in the first column provides one bit (which one depends on which bit plane you are on) for each of the first eight columns of pixels. In 256-color mode, each byte provides the value for one pixel.

Compression Technique

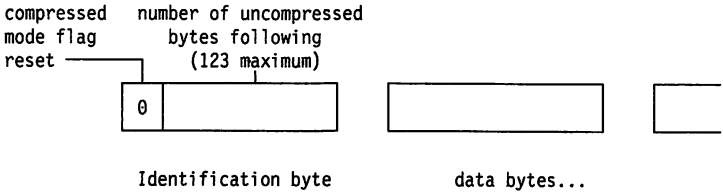
The bit planes are compressed using a “Pack-Bytes” scheme. If three or more consecutive data bytes are the same, they are saved under compressed form; if not, they are saved in uncompressed form.

Compressed form consists of an identification byte whose high order bit is set. The lower seven bits indicate how many times the following byte is to be repeated. Uncompressed form consists of an identification byte whose high order bit is cleared. The lower seven bits indicate the number of bytes that follow which are to be read just as they are.

Compressed Form:



Uncompressed Form:



Note: The number of data bytes following the identification must be less than or equal to 123.

Mode 11 Compression

The bit plane in mode 11 undergoes a second compression. If the Identification byte equals 255, the following two bytes (one word) contain the number of bytes being compressed.

Id.byte=255, count low byte, count high byte, data byte

If the Identification byte equals 254, the following byte contains the number of bytes to be copied from the line above.

Id.byte=254, count byte

If the Identification byte equals 253, the following two bytes (one word) contain the number of bytes to be copied from the line above.

Id.byte=253, count low byte, count high byte

The Bit Plane Combination/Palette Color Relationship (from File Header)

Note: Bit plane combinations have BitPlane#1 as LSBit.

Mode 8: 320 x 200 - 4

<i>Palette Number and Default Color Values in Header</i>				<i>Bit Plane Combination (less sig. bit on right)</i>
1	2	3	4	
0FH	0EH	07H	06H	00
*	*	*	*	11
0BH	0AH	03H	02H	10
0DH	0CH	05H	04H	01

Note: The second color in each of the four palettes can be any one of the 16 CGA background colors (as opposed to the Storyboard Plus background color, which is defined at file header offset 42).

Modes 1, 3, and 7: 16 Colors

<i>Color Number in Header</i>	<i>Default Value in Header</i>	<i>Color</i>	<i>Modes 3 and 7 Bit Plane Combination (least sig. bit on right)</i>	<i>Mode 1 Bit Plane Combination</i>
1	3FH	light white	0000	0000
2	00H	black	1111	1111
3	38H	gray	0110	0110
4	07H	white	1001	1001
5	02H	green	0011	0101
6	3AH	light green	1100	1010

<i>Color Number in Header</i>	<i>Default Value in Header</i>	<i>Color</i>	<i>Modes 3 and 7 Bit Plane Combination (least sig. bit on right)</i>	<i>Mode 1 Bit Plane Combination</i>
7	04H	red	0010	0100
8	3CH	light red	1101	1011
9	01H	blue	1000	1000
10	39H	light blue	0111	0111
11	06H	brown	1110	1110
12	3EH	yellow	0001	0001
13	05H	magenta	1011	1101
14	3DH	light magenta	0100	0010
15	03H	cyan	1010	1100
16	3BH	light cyan	0101	0011

To further explain the bit plane structure in the 16-color modes, we can refer to the EGA (VGA) graphics card. To properly display the picture from the .PIC file, you should perform the following steps:

1. Load the four bit planes from the .PIC file into the corresponding planes of the graphics card.
2. Load the color palette registers of the graphics card with the values found in the 16-color palette of the .PIC file header (offset 13), according to the previous table.

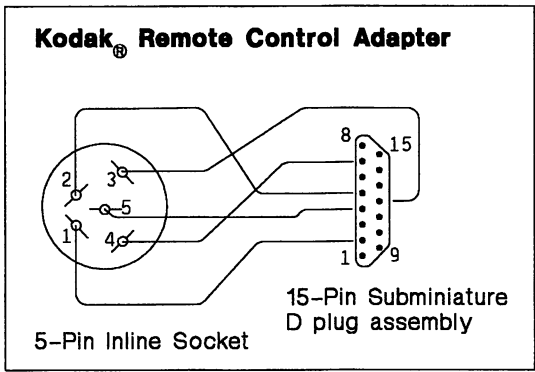
For example, in resolution mode 1 (640 x 200 – 16):

- a. The first color value in the 16-color palette (from the .PIC file's header) should be loaded into hardware color palette register 0000b = 00hex (0000b is the corresponding bit plane combination for color 1 in the header).
- b. The second color value in the color palette should be loaded into color palette register 1111b = 0Fhex (1111b is the corresponding bit plane combination for color 2 in the header).
- c. The third color value in the color palette should be loaded into color palette register 0110b = 06hex.

Continue in the same manner until all color values have been loaded.

Appendix E. Constructing a Remote Control Adapter

In the Story Teller section “Using Other Devices” on page 6-9, we mentioned using a Kodak EC-1 Remote Control for controlling presentations. Wiring and parts for this device are shown below. Construction by a qualified electrician is recommended.



Note: The numbers shown above are on the wire side of the Radio Shack ¹ 274-1215 socket. They do not correspond to the numbers on the plug of the Kodak EC-1. (Plug pin 1 is socket pin 2; plug pin 2 is socket pin 1; plug pin 3 is socket pin 4; plug pin 4 is socket pin 3.)

¹ Radio Shack is a registered trademark of the Tandy Corporation.

The leads are connected to plug and socket pins as follows:

- 5-pin socket lead 1 connects to 15-pin plug lead 2.
- 5-pin socket lead 2 connects to 15-pin plug lead 5.
- 5-pin socket lead 3 connects to 15-pin plug lead 12.
- 5-pin socket lead 4 connects to 15-pin plug lead 7.
- 5-pin socket lead 5 connects to 15-pin plug lead 4.

Parts list:

5-pin inline socket with leads	Radio Shack 274-1215, or equivalent
15-pin subminiature D plug assembly	AMP 728-2, or equivalent
15-pin subminiature D plug housing	AMP 728-3, or equivalent
Locking screw retainer	AMP 732-2, or equivalent
3/32" heat shrink tubing	ICO Rally "Heatrax" 8502, or equivalent
1/2" heat shrink tubing	ICO Rally "Heatrax" HIX-1/2, or equivalent

Appendix F. Creating New Digitize and Print Drivers

Digitize Drivers

To use a video input device other than those listed in Appendix B, you must create a replacement for the digitize driver included with Storyboard Plus (the OTHERDIG.PDR file). This section is a technical reference for those users who wish to create a new digitize driver.

General Requirements

Following are general requirements of any digitize driver you create for use with Storyboard Plus.

- The driver should be:
 - In standard EXE format
 - Named OTHERDIG.PDR
 - No larger than 60KB
- The digitize driver is loaded by Picture Maker via DOS using the INT 21H function 4BH. The driver should then:
 - Place the FAR address of the digitizing routines in interrupt vector 35H (for example, using INT 21H function 25H)
 - Terminate normally (for example, using DOS INT 21H function 4CH)

At this point the driver is resident in memory. When you select the Digitize option, Picture Maker accesses the driver using a FAR CALL through the vector. Note that a FAR CALL, not an INT, is used. Therefore, returning should be via a FAR RET, not an IRET.

Functions Requested by Picture Maker

The three functions that may be requested by Picture Maker are indicated by the value in AX:

- AX = 0** This is the *initialization call*, which is invoked when you select the Digitize option. The driver tests for the presence of a video input device. If the device is present, the Digitize panel is displayed. A message is displayed if the device is not present.
- AX = 1** This is the *digitize call*, which is invoked when you select **YES** on the Digitize panel. The driver digitizes an image and displays it on the screen. A work area the size of the screen is provided for use, if needed.
- AX = 2** This is the *adjust call*, which is invoked to process changes in brightness and contrast when you have altered the settings of these controls on the Digitize panel. Depending on the equipment used, the driver may do nothing or may send signals to the video input device.

These three function calls are described in the following sections.

Initialization Call

Upon entry, the AX register is set to 0. The Fix Palette flag is in BL. When BL=0, Fix Palette is off. When BL=1, Fix Palette is on.

Note: When Fix Palette is on, palette colors should not be changed.

Upon exiting, the AX register should be set to:

AX = 0 if no video input device is present.

AX = 1 if a video input device is present.

ES:SI = the pointer to two lines of text to be displayed on the Digitize panel. Each line can be up to 20 characters long, and should be followed by a byte containing X'F4'. For example:

```
HWNAM DB 'Digitizer XYZ',0f4h
        DB 'by ABCD Corporation.',0f4h
```

Digitize Call

Upon entry, the registers are set as follows:

AX =

1

BX =

the segment address of the work area available to the driver. The size of the work area depends on the current resolution mode:

16KB	320 x 200 - 4
64KB	320 x 200 - 256
64KB	640 x 200 - 16
112KB	640 x 350 - 16
153KB	640 x 480 - 16
76KB	640 x 480 - 256

CL =

the acquisition type selected on the Digitize panel:

1 = black and white
 2 = shades
 3 = color

CH =

the input type selected on the Digitize panel:

1 = single input
 2 = RGB input

DX =

the segment address of the color palette in 256-color resolution modes.

DS:DX =

the segment and offset of the color palette in all other resolution modes.

SI = the Brightness value selected on the Digitize panel (0 to 100).

DI = the Contrast value selected on the Digitize panel (0 to 100).

BP = the current resolution mode:

- 1 = 320 x 200 - 4
- 3 = 320 x 200 - 256
- 7 = 640 x 200 - 16
- 8 = 640 x 350 - 16
- 10 = 640 x 480 - 16
- 11 = 640 x 480 - 256

When designing the code to handle the digitize call, the nature of the video input device is very important. Keep in mind the following points:

- The picture is passed from the driver to Picture Maker via the screen. If colors must be changed, make the changes to the graphic screen controller and to Picture Maker's palette.

Colors should be changed only if Fix Palette is off.

For 256-color resolution modes, the colors 0 to 14 and 255 should never be changed.

- If the card does not support color, but merely provides gray scale information, then the value passed in CL should be interpreted as a request for either Black and White or Shades, or as a request for false color (the use of the full palette to show as many intensity values as possible). In this case, a value of 2 in CH should be treated as an error.

- If the video input device is a frame-grabber with memory on the card to hold an acquired image, then it should be possible to perform as much processing as needed. However, if the hardware scans the image and sends values back at a fixed rate, there may be little time to process each pixel and write it to the video buffer. In this case, you may need to optimize the code by preloading the registers, particularly when running on 8088-based machines such as the IBM PC/XT
- Where production of an image takes a long time (10 seconds or more), you should consider providing a way to cancel or restart the scan by pressing a key. This allows you to adjust the camera controls during digitizing, and then retry without waiting for digitizing to complete.
- Accessing the video buffer can be quite complex. In 320 x 200 – 4 resolution mode, several pixels are packed in each byte, and even and odd display lines are not contiguous. In modes that use the Enhanced Graphics Adapter, you must set mask and mode registers (write mode 2 is recommended for speed).

In the worst case, it may be necessary to save the image in the work area so it can be processed more slowly afterwards. When scanning the image takes several seconds, this method has the disadvantage that nothing appears on the display until the scanning has been completed, which means you have no opportunity to cancel the scan.

- For scanning-type video input devices, interrupts probably need to be disabled while scanning occurs. In this case, remember that peeking the keyboard using INT 16H re-enables the keyboard. You also may find it necessary to disable the Print Screen interrupt during scanning so that pressing the Print Screen key does not distort the image.

Picture Maker provides no facilities for displaying error messages during or after digitizing. If errors occur, the easiest technique for displaying messages involves using INT 10H functions 2 (set cursor) and 9 (write character), waiting for a keystroke, and then removing the message by writing it again (the write character interface provides an XOR option which allows this).

Adjust Call

Upon entry, the registers are set as follows:

AX = 2

SI = the brightness value selected on the Digitize panel (0 to 100).

DI = the contrast value selected on the Digitize panel (0 to 100).

Color Palette Descriptions

The following sections describe the layout of the color palette in the various resolution modes.

320 x 200 - 4 Resolution Mode

Four-byte palette, four possible settings:

	<i>Palette Number and Default Color Values in Header</i>				<i>Bit Map on Screen</i>
	1	2	3	4	
DB	0FH	0EH	07H	06H	11111111B
DB	*	*	*	*	00000000B
DB	0BH	0AH	03H	02H	01010101B
DB	0DH	0CH	05H	04H	10101010B

Note: The second color in each of the four palettes can be any one of the 16 CGA background colors.

256-Color Resolution Modes

256 red, 256 green, plus 256 blue: 768-byte palette

For example, the pixel represented by byte 0 on the screen has the color of:

ES:[0] —red component

ES:[256] —green component

ES:[512] —blue component

with ES being the segment of the 256-color palette.

Standard color assignments across this 256-color palette are as follows:

0 to 14 The equivalents of the IBM standard colors (except white). These colors cannot be changed.

15 to 230 The RGB color palette, which includes all combinations of the six intensities of red, green, and blue.

231 to 254 24 shades (gray scales) for black and white picture support.

255 White. This color cannot be changed.

16-Color Resolution Modes

Sixteen-byte color palette:

	<i>Color Code</i>	<i>Bit Map on Screen</i>
DB	0FH	1111B
DB	00H	0000B
DB	08H	1001B
DB	07H	0110B
DB	02H	1010B
DB	0AH	0101B
DB	04H	1011B

	<i>Color Code</i>	<i>Bit Map on Screen</i>
DB	0CH	0100B
DB	01H	0111B
DB	09H	1000B
DB	06H	0001B
DB	0EH	1110B
DB	05H	0010B
DB	0DH	1101B
DB	03H	0011B
DB	0BH	1100B

The LSBit corresponds to plane 0 on the screen.

Note: IBM does not warrant the compatibility of non-IBM devices.

Print Drivers

To use a printer other than those listed in Appendix B, you must create a replacement for the print driver included with Storyboard Plus (the OTHERPRN.PDR file). This section is a technical reference for those who wish to create a new print driver.

General Requirements

Following are general requirements of any print driver you create for use with Storyboard Plus.

- The driver should be:
 - in standard EXE format
 - named OTHERPRN.PDR
 - no larger than 30KB

- The digitize driver is loaded by Picture Maker via DOS using the INT 21H function 4BH. The driver should then:
 - Place the FAR address of the digitizing routines in interrupt vector 35H (for example, using INT 21H function 25H)
 - Terminate normally (for example, using DOS INT 21H function 4CH)

At this point the driver is resident in memory. When you select the Print option, Picture Maker accesses the driver using a FAR CALL through the vector. Note that a FAR CALL, not an INT, is used. Therefore, returning should be via a FAR RET, not an IRET.

When called from Picture Maker, the driver should preserve the DS register (save it upon entry and restore it upon exiting).

Functions Requested by Picture Maker

The two functions that may be requested by Picture Maker are indicated by the value in AX:

AX = 0 This is the *initialization call*, which is invoked when you select the Print option. The driver returns to Picture Maker the address of the parameter block and the printer name.

AX = 1 This is the *printing action call*, which is invoked when you select **YES** on the Print panel or **Print Preview** on the Define Print Colors panel.

The driver prints part of the picture by placing data bytes into PRINT_BUFFER, and then returns to Picture Maker, sending the PRINT_BUFFER contents to the printer. This call is repeated until the entire picture is printed.

These function calls are described in more detail in the following sections.

Initialization Call

Upon entry, AX = 0. Upon exiting, ES:BX contains the far address of the parameter block and ES:SI contains the far address of the two lines of text (the printer name) displayed on the Print menu. Each of these text lines can be up to 20 characters long. Each should be followed by a byte containing F4H. For example:

```
HWNAME DB 'Printer XYZ',0f4h
        DB 'by ABCD Corporation',0f4h
```

These two lines are automatically centered by Picture Maker.

Printing Action Call

Upon entry, AX = 1. The print driver action is controlled by variables in the parameter block, which is 80 bytes long. Before each printing action call, Picture Maker loads the parameter block with required information. Upon returning from the print driver, Picture Maker receives information from the parameter block.

The parameter block is shown in the following example.

```
PARAMETER_BLOCK

DB ? ;INIT_FLAG
  ; =1 start Picture Printing initialization.
  ; =0 otherwise
  ;
DB ? ;PRINT_FLAG (meaningful when INIT_FLAG = 0)
  ; = 1 print first part of the picture
  ; = 0 print next part of the picture.
  ; = 2 reset printer to its original state (printing aborted by user)
DW X ;reserved
DW X ;reserved
  ;
DW ? ;CURRENT_GRAPHIC_MODE
  ; = 8 for 320x200 4 color mode
  ; = 10 for 320x200 256 color mode
  ; = 1 for 640x200 16 color mode
  ; = 3 for 640x350 16 color mode
  ; = 7 for 640x480 16 color mode
  ; = 11 for 640x480 256 color mode
  ;
DW X ;reserved
DW X ;reserved
DW X ;reserved
DW X ;reserved
DW X ;reserved
  ;
DB ? ;PRINT_ORIENTATION
  ; = 1 for Normal Orientation
  ; = 2 for Turn Page
  ;
DB ? ;PRINT_SIZE (for Normal Orientation ONLY)
  ; = 0 for Small
```

```

; = 1 for Medium
;
DB ? ;PRINT_TYPE
; = 0 print with shades
; = 1 print with patterns
;
DW X ;reserved
DW X ;reserved
DW X ;reserved
DW X ;reserved
;
DD ? ;PM_GET_24LINES
; a FAR call to Picture Maker routine to get 24 lines of picture to
; print.
;
DW ? ;START_LINE
; first line number of that 24 lines.
;
DW X ;reserved
;
DB ? ;SKIP_LINES
; = number of lines (6 lines/inch) to skip before printing picture.
DB ? ;EJECT_FLAG
; = 1 eject page (form feed) at the end.
; = 0 do NOT eject
;
DW ? ;RGB_COLOR_BUFFER used with PM_GET_24LINES
; (offset inside BUFFERS_SEGMENT)
;
DW ? ;BUFFERS_SEGMENT
; segment of RGB_COLOR_BUFFER
; 24LINES_BUFFER
; PRINT_BUFFER
;
DW ? ;24LINES_BUFFER used with PM_GET_24LINES
; (offset inside BUFFERS_SEGMENT)
;
DW X ;reserved
;
DW ? ;PRINT_BUFFER size=800 bytes
; (offset inside BUFFERS_SEGMENT)
;
DW ? ;BYTES_IN_PRINT_BUFFER
; number of bytes in print buffer
;
DW ? ;PICTURE_HOR_SIZE in pixels
DW ? ;PICTURE_VER_SIZE in pixels
;
DW ;reserved
;
DW ? ;LINE_DONE_FLAG
; = 1 end of graphic line
; = 0 in the middle of graphic line
;
DW ? ;ALL_DONE_FLAG
; = 1 end of printing
; = 0 not done yet
;
DB 19 DUP(X) ;reserved

```

----- end of Parameter Block -----

How Picture Maker Interacts with the Print Driver

When the Print panel is displayed, Picture Maker loads the print driver in memory, gets its FAR address through interrupt vector 35H, and executes the initialization call ($AX=0$) to get the parameter block address and printer name.

After you select **YES** on the Print panel or **Print Preview** on the Define Print Colors panel, the following events occur:

1. Picture Maker executes the initialization call: $AX=1$ & $INIT_FLAG=1$. If the printer does not require initialization, ignore this call and return to Picture Maker.
2. Picture Maker executes the printing action call: $AX=1$, $INIT_FLAG=0$ & $PRINT_FLAG=1$ (the first time; $PRINT_FLAG=0$ other times).

The driver prints part of the picture by executing a FAR call to the `PM_GET_24LINES` routine to get 24 lines of the picture (this call is described in more detail later in this section).

Because Picture Maker is handling the printer output, the driver places the data bytes in `PRINT_BUFFER` (800 bytes maximum). When the buffer is full, or at any time before, the driver can return to Picture Maker to print the `PRINT_BUFFER` contents. Three variables in the parameter block must be set before returning to Picture Maker:

- **BYTES_IN_PRINT_BUFFER**: the number of data bytes in `PRINT_BUFFER` that must be sent to the printer.
- **LINE_DONE_FLAG**: = 1 if the `PRINT_BUFFER` does NOT contain the end of the graphic line; = 0 if the `PRINT_BUFFER` contains the end of the graphic line.

Note: Picture Maker will check for the Esc key only if this flag is set, so you should print the

PRINT_BUFFER contents at the end of each graphic line.

- **ALL_DONE_FLAG**: = 0 if the printing is not finished; = 1 if there is no more data to print.

Note: When the driver returns to Picture Maker with **ALL_DONE_FLAG**=1, the contents of the **PRINT_BUFFER** are not sent to the printer. All data bytes must be sent to the printer before this flag is set.

3. If the **ALL_DONE_FLAG**=1, Picture Maker assumes that the entire picture has been printed, and exits the printing action.
4. Picture Maker sends **BYTES_IN_PRINT_BUFFER** bytes from **PRINT_BUFFER** to the printer.
5. If **LINE_DONE_FLAG**=1 and the Esc key is pressed, Picture Maker executes a Printer Reset call before stopping the printing action:

AX=1, **INIT_FLAG**=0, **PRINT_FLAG**=2

The driver should reset the printer to its original state, since picture printing was stopped.

6. Picture Maker loops back to step 2 until the **ALL_DONE_FLAG** is set or printing is stopped.

How to Use the **PM_GET_24LINES** Routine

To get 24 lines of the picture to print, the driver should load **START_LINE** with the number of the first line to get (the first line number is 1), and then execute a FAR call to the **PM_GET_24LINES** routine.

Upon return, the **24LINES_BUFFER** (inside **BUFFERS_SEGMENT**) contains up to 24 lines of the picture to print. Those lines are in a standardized format, which is the same regardless of the resolution mode. Each line is composed of **PICTURE_HOR_SIZE** bytes, each byte (representing one pixel) is the index (0 to 255) to the **RGB_COLOR_BUFFER** (inside **BUFFERS_SEGMENT**). **RGB_COLOR_BUFFER** is 768 bytes long (256 bytes each for red, green and blue).

For example, index byte=0 has the color of:

ES:[SI] = red component (0 to 63)

ES:[SI+256] = green component (0 to 63)

ES:[SI+512] = blue component (0 to 63)

where ES=BUFFERS_SEGMENT and
SI=RGB_COLOR_BUFFER.

Each line is always 640 bytes long, even if only the first
PICTURE_HOR_SIZE bytes are valid

When PRINT_ORIENTATION = 2 (Turn Page), the
picture lines returned by PM_GET_24LINES routine are
already turned 90 degrees, and PICTURE_HOR_SIZE &
PICTURE_VER_SIZE contain the size of the turned
picture.

Appendix G. Storyboard Plus Product Support and License Information

Product Support

Product support is available for IBM Storyboard Plus Version 2.00 for one year from the date of registration.

You must register to receive product support. To register, fill out and return the enclosed registration card. When we receive your registration card, you become entitled to product support by calling the number printed on the enclosed registration card insert.

If you have a question about Storyboard Plus, follow these steps before you call IBM:

1. Press **F1** for on-line help.
2. Check the Contents or Index in this manual for the sections that describe what you are trying to do.
3. Refer to other manuals if your question involves the use of other equipment or software with Storyboard Plus.

If you do not find an answer to your question after following these steps, call IBM. Make sure that when you do call us, you are at your computer and you have the answers ready for these questions:

- What version of Storyboard Plus are you using? (The version number appears on the Quick Menu/Setup screen, on the module main menus, and on the original program diskettes.)
- What is the make and model of your computer?
- How much memory does your computer have?
- What version of DOS are you using?
- Are you running on a network, and if so, which one?

- What is the make and model of your printer?
- What type of graphics adapter are you using?
- What type of display are you using?
- What other types of equipment are you using with the system?
- Do you use any memory-resident programs, such as a keyboard enhancer?
- What were the last steps you performed before you encountered the problem?
- What messages did you see, if any?

Licensed Program Specification

The following Licensed Program Specification applies only to the United States and Puerto Rico.

Statement of Limited Warranty

IBM Storyboard Plus Version 2.00 is warranted to conform to this Licensed Program Specification when properly used in its designated hardware and software environment. Any other documentation with respect to this licensed program, excluding any documentation referenced in this program specification, is provided for information purposes only and does not extend or modify this Storyboard Plus Licensed Program Specification. The Storyboard Plus Licensed Program Specification may be updated from time to time. Such updates may constitute a change to these specifications.

This limited warranty and the three-month program media warranty are contained in the IBM Program License Agreement supplied with this product and is available to all licensees of Storyboard Plus.

Statement of Function Warranted

IBM warrants that:

- The media of the software disks and this Storyboard Plus manual are not defective.
- The program is properly recorded on the media.
- This Storyboard Plus manual is substantially complete and correct and contains the information which IBM deems necessary for use of the software.
- The program functions substantially as described in this manual.

Statement of Operating Environment

Equipment

- One of the following system units with at least 512KB¹ of memory and one 5.25-inch (360KB) or one 3.5-inch (720KB) diskette drive (or one diskette drive and a fixed disk):
 - IBM Personal System/2 Model 25
 - IBM Personal System/2 Model 30
 - IBM Personal System/2 Model 30-286
 - IBM Personal System/2 Model 50
 - IBM Personal System/2 Model 50Z
 - IBM Personal System/2 Model 55SX
 - IBM Personal System/2 Model 60
 - IBM Personal System/2 Model 70
 - IBM Personal System/2 Model P70 386
 - IBM Personal System/2 Model 80
 - IBM Personal Computer
 - IBM Personal Computer XT, Model 086, 087, 088, 089, 286, or 589
 - IBM Personal Computer AT, Model 099, 239, 319 or 339
 - Compaq Deskpro 286
 - Compaq Deskpro 386/25

¹ Memory requirement excludes DOS. Story Editor running in 640 x 480 – 16 or 640 x 480 – 256 resolution mode requires 528KB of memory.

- Compaq Deskpro 386S
- Tandy 3000NL
- Tandy 4000LX
- One of the following display combinations:
 - IBM Color Display and IBM Color/Graphics Adapter
 - IBM Color Display and IBM Enhanced Graphics Adapter
 - IBM Enhanced Graphics Display and IBM Color/Graphics Adapter
 - IBM Enhanced Graphics Display and IBM Enhanced Graphics Adapter with 256KB of memory
 - IBM Personal System/2 8512, 8513, or 8514 Display (with IBM Personal System/2 computer)
 - IBM Personal System/2 8512, 8513, or 8514 Display and IBM Personal System/2 Display Adapter or IBM Personal System/2 8514/A Display Adapter with 1MB of memory
 - Compaq Video Graphics Monitor and Compaq Video Graphics Adapter
 - Tandy Enhanced Graphics Monitor EGM-1 and Enhanced Graphics Adapter
 - Tandy VGM-300 Display and VGA Adapter

For information about optional equipment such as printers and input devices other than the keyboard, refer to Appendix B.

Software

- DOS environments:
 - For IBM system units: IBM Personal Computer Disk Operating System (DOS) Version 3.30 or 4.00
 - For Compaq system units: Compaq Personal Computer DOS Version 3.30
 - For Tandy system units: MS-DOS² Version 3.30

² MS-DOS is a trademark of Microsoft Corporation.

- Network environment:
 - DOS 3.30 or 4.00
 - PC LAN Network Version 1.1 or higher

Statement of Product Support

Product support is available for the IBM Storyboard Plus Version 2.00 Program Product for one year from the date of registration. You must register to receive product support, as described in “Product Support” on page G-1.

Redistribution Information

Only the following IBM Storyboard Plus module may be copied onto your application diskette when your application is dependent on it:

ST.EXE

Each diskette copy of the above module must be labeled as follows:

CONTAINS

IBM Story Teller Run-time Module

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All Rights Reserved

Copies of this module are provided “AS IS.”



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