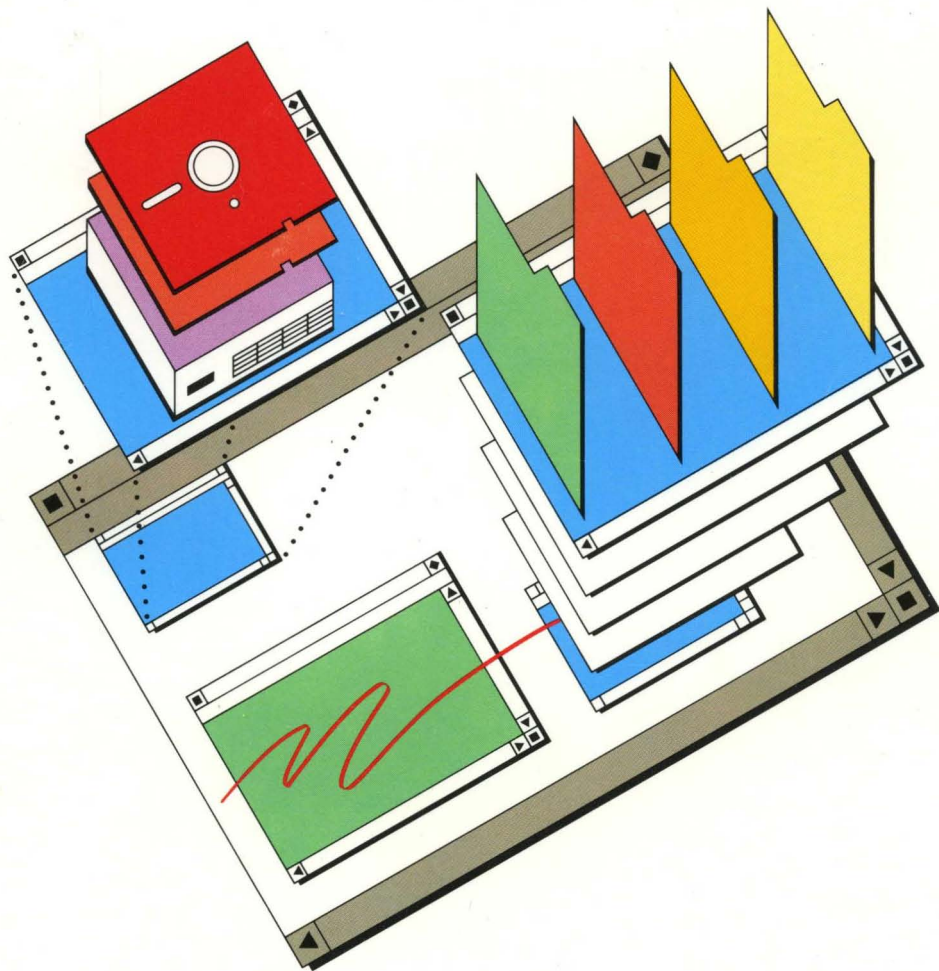


GEM/3 *Desktop*™

Installation Guide



GEM/3[®] *Desktop*[™]

Installation Guide

 DIGITAL
RESEARCH[®]

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Foreword

Welcome to GEM Setup. This easy-to-use installation program prepares or *sets up* the GEM[®] Desktop[™] software application to work with your particular hardware. It does so by asking which types of devices (graphics card, mouse, printer, etc.) are attached to your computer. Then it creates special directories on your hard disk or floppy disk, and copies the GEM[®]/3[™] system files and hardware-specific files into these directories.

The entire installation process takes only minutes. When you are done, you will be able to use desktop publishing, drawing, painting, and many other graphics-based programs formerly unavailable to DOS users.

How to Use this Guide

For quick installation instructions, see “Starting GEM Setup” in Chapter 2.

If you are unfamiliar with GEM, you should read “Conventions” in this Foreword and Chapter 1 *before* starting GEM Setup.

If you are upgrading from an earlier version of the GEM Desktop, see “GEM/3 Features” in this Foreword and “Upgrading to GEM/3” in Chapter 1.

- Chapter 1 acquaints you with the GEM Desktop package and explains how to prepare to run GEM Setup.
- Chapter 2 takes you step-by-step through the GEM Setup program and describes the directories and files created as a result of installation. It also tells you how to start the GEM Desktop and set up the commands to start it automatically every time you boot your computer.
- Chapter 3 explains how to change your hardware setup once you've installed the GEM Desktop on your computer. It provides instructions for installing, removing, and changing printers, plotters, scanners, and cameras.
- Chapter 4 presents the *generic* procedure for installing other GEM software applications from Digital Research®.
- Chapter 5 contains basic troubleshooting information. It lists commonly asked questions and common problems and provides some answers.
- Appendix A lists the hardware and software that can be used with the GEM Desktop and contains the GEM/3 system requirements.

Conventions

This guide uses the conventions and terminology presented below.

Examples

- Examples pertaining to hard disk systems assume that they have at least one hard disk drive, drive C.
- Information you must enter on your keyboard is displayed in the typeface shown below. The characters you type are shown in upper case, although you can use either upper or lower case.

USER INPUT ↵

The ↵ symbol means press the ENTER or RETURN key.

- GEM Setup screen examples use ✓ to indicate items being selected.

Terminology

The term *high-density disk* means a floppy diskette containing 720K bytes or more of space. It refers to both 5.25" and 3.5" floppy disks.

Double-density disk means a floppy disk containing 360K bytes of space.

Mouse is used generically to refer to a pointing device attached to your computer.

GEM/3 Features

In response to customer requests, this release of GEM system software provides enhancements in the following areas:

- installation
- GEM Output
- fonts
- printers

Installation

The installation program is easier to use and provides more options. GEM Setup combines the functions of the GEM 2.x GEMPREP and GEM Setup programs. It handles both first-time installation and subsequent changes.

GEM Output

The GEM Output application program offers a new interface as well as new functions. It also implements new printer functions supported by GEM Desktop, and organizes the menu entries in a more understandable form.

Fonts

Many additional fonts and font sizes are now available.

Printers

Added printer functions include:

Graphics Mode

- more native printer functions
- multiple page sizes and paper tray options
- manual feed selection
- use of resident graphics fonts
- use of downloadable fonts

Text Mode

- more text attributes (superscript, subscript, light text, italics)
- proportional, condensed, and expanded spacing
- elite and pica typefaces

Ventura Compatibility

You can now run Xerox® Ventura Publisher™ Edition 1.1 from the GEM Desktop. Devices installed under GEM/3 also work with this version of Ventura Publisher.

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Before You Begin

Before you install the GEM Desktop onto your computer system, you need to:

- check the contents of your GEM Desktop package to ensure that it is complete
- back up the GEM Desktop product disks (using the DOS DISKCOPY command)
- gather the information required by the installation program GEM Setup

This chapter explains these steps.

If you are upgrading from an earlier version of GEM, be sure to read “Upgrading to GEM/3” later in this chapter.

What's In this Package

Check to ensure that your GEM/3 Desktop package contains the following:

- Master disk set
- User's Guide
- End-user software license agreement
- End-user software registration card

Backing Up Your Master Disks

Before installing the GEM Desktop, make backup copies of the master disks and store the originals in a safe place. You'll use the copies to run the installation program, GEM Setup.

Note: You must use the DOS DISKCOPY command to make backup disks. Consult your operating system documentation for instructions.

Information You'll Need

The form on the following page lists the information that GEM Setup requires. You can collect this information and enter it in the spaces provided before you start GEM Setup. When you are done, you'll be prepared to complete the installation procedure quickly and easily.

About Communications Ports

If you are using a printer, a non-bus mouse, or other peripheral device, it is physically attached to a communications port located at the back of your computer. GEM Setup asks you to identify the communications port to which each device is attached.

There are two types of communications port: serial and parallel. The port you attach a device to depends on the device itself. If you do not know which port you need to use, consult the associated documentation or contact your computer dealer or a systems specialist. Note, however, that if you make an error in GEM Setup, the device affected will not function. This will not harm your system, and you can correct the error by rerunning GEM Setup.

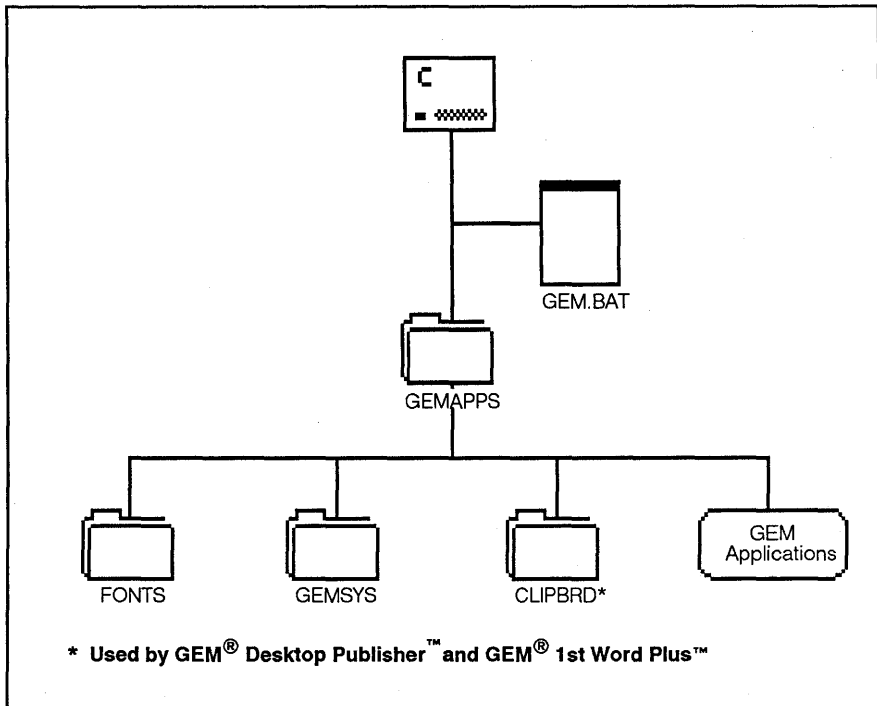
System Information Sheet

1. Graphics card/display:				
2. Mouse/graphics tablet (if any):				
3. Mouse communications port:		#1(COM1)	#2(COM2)	
4. Printer 1:				
Printer serial port:		#1(COM1)	#2(COM2)	#3(COM3)
Parallel port:		#1(LPT1)	#2(LPT2)	#3(LPT3)
5. Printer 2:				
Printer serial port:		#1(COM1)	#2(COM2)	#3(COM3)
Parallel port:		#1(LPT1)	#2(LPT2)	#3(LPT3)
6. Plotter:				
Plotter serial port:		#1(COM1)	#2(COM2)	#3(COM3)
7. Camera:				
Camera serial port:		#1(COM1)	#2(COM2)	#3(COM3)
8. Scanner:				
Input/output port address:	200	220	300	Other
Transfer port address:	200	220	300	Other

Upgrading to GEM/3

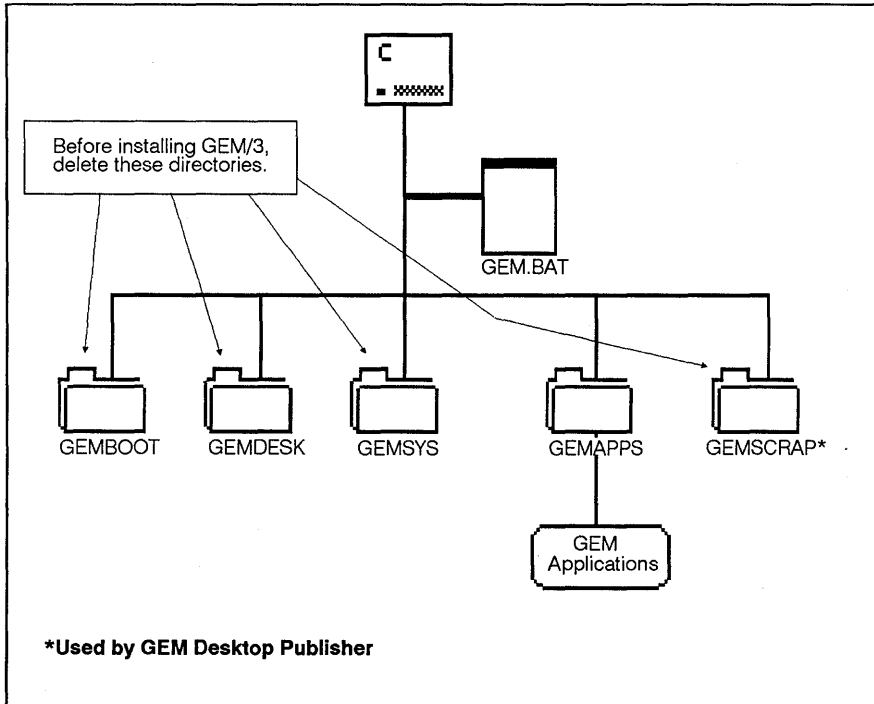
In GEM/3, all GEM directories are placed within a directory called GEMAPPS, shown below:

GEM/3 Directories



If you have GEM 2.x (versions from 2.0 to 2.2) installed on your system, your GEM directories (folders) are located at the root level and organized as follows:

GEM 2.x Directories



When you install GEM/3, your GEM 2.x directories remain intact. Documents you created with GEM 2.x can be read and edited with GEM/3 application programs. To avoid confusing GEM/3 directories with GEM 2.x directories, you should delete the directories indicated in this illustration before installing GEM/3.

Installation

This chapter takes you step-by-step through the GEM Setup installation procedures for both hard disk systems and dual floppy disk systems. It describes the results of installation on your system, and explains how to start the GEM Desktop. The chapter ends with a section explaining how to set the commands needed to open the GEM Desktop automatically whenever you start up your computer.

Note: If you make a mistake during GEM Setup, this will not harm your system. You can correct it by rerunning GEM Setup, which you can run as many times as you need.

Starting GEM Setup


If you intend to run the GEM Desktop from floppy disks, you need two blank, formatted double-density (360K) disks or one blank formatted high-density (720K) disk. Your computer must be equipped with a high-density disk drive to use high-density disks. If you are unsure about the type of disk drive or other hardware you have, refer to your hardware documentation or consult a systems specialist.

To run GEM Setup, follow these steps:

1. Start your computer to DOS.
2. Insert the disk labeled GEM SYSTEM MASTER into drive A.
3. Logon to drive A (floppy disk drive). The **A:** prompt is displayed.
4. Type this command:

```
GEMSETUP _↓
```

This starts GEM Setup. The first GEM Setup Screen you see looks similar to the illustration below:

 Digital Research Inc.	GEM Setup R 3.0
Welcome to GEM Setup!	
This program installs GEM/3 onto your computer. Do you want to install GEM/3 for the first time or change an existing GEM/3 installation?	
<input checked="" type="checkbox"/> INSTALL NEW CONFIGURATION	
<input type="checkbox"/> CHANGE EXISTING CONFIGURATION	
Press ↑ or ↓ to move cursor, [ENTER] to choose, [ESC] to exit/cancel.	

The \surd symbol, which blinks on your screen, indicates the item being selected. On some display monitors, this symbol appears as a box or triangle.

Select **INSTALL NEW CONFIGURATION** and follow the instructions through the end of the program. The instructions differ, depending on whether you are installing GEM/3 onto a hard disk or onto floppy disks. These instructions are explained below. In either case, you will be asked to provide the information outlined on the System Information Sheet in Chapter 1.

Installing onto a Hard Disk

Follow the steps below to install GEM/3 onto your hard disk.

You have just selected **INSTALL NEW CONFIGURATION**. If your system has more than one hard disk, GEM Setup asks you to specify the one onto which you want to install GEM/3. Otherwise, you see the following:

From the list below, select the graphics card and display installed in your system.

- AT&T DEB Card / 16-Color Display (640x400)
- AT&T Monochrome Card (640x400)
- Hercules Card / Monochrome PC Display (720x348)
- IBM CGA / Color Display (640x200) - Mono Mode
- IBM EGA / Monochrome Display (640x350)
- IBM Enhanced Card & Enhanced 16-Color Display (640x350)
- IBM 16 -Color VGA for PS/2 (640x480) or Compatible
- IBM VGA Monochrome for the PS/2 (640x480) or Compatible
- MDS THE GENIUS Monitor / THE GENIUS Monitor Card (728x1008)
- Video 7 Vega Deluxe / Quadram Prosync 16-Color Display (640x480)
- Video 7 Vega Deluxe / Quadram Prosync 16-Color Display (752x410)
- Wyse/Amdek Monochrome Graphics Display (1280x800)
- OTHER (Driver Pack)

Press [F1] for device info, \uparrow or \downarrow to move cursor, [ENTER] to choose.

1. Choose the graphics card/display type installed on your computer. If your display is compatible with any of the devices listed, choose the entry for the compatible device. If you are installing from a driver pack disk, choose OTHER and select your device from the list displayed.

For more information about driver packs available from Digital Research, see the Driver Pack Information Sheet supplied with this package.

Note: The devices listed on your screen may differ from the ones shown in the preceding illustration.

Next you see:

Select the mouse or tablet you are using from the list below.

- No Mouse
- Bus Mouse (Requires file MOUSE.COM)
- IBM Personal System/2 Mouse
- Microsoft Serial Mouse (RS232)
- Mouse Systems PC Mouse / SummaMouse / Compatibles
- SummaSketch 961 cursor-type tablet
- SummaSketch 961 stylus-type tablet
- SummaSketch 1201 cursor-type tablet
- SummaSketch 1201 stylus-type tablet
- Summagraphics MM1812 cursor-type tablet
- Summagraphics MM1812 stylus-type tablet

Press [F1] for device info, ↑ or ↓ to move cursor, [ENTER] to choose.

2. Identify your mouse as you did your graphics card/display. If you are unable to determine the type of mouse you are using, chances are you are using a *generic* serial mouse. In this case, choose the fifth option:

Mouse Systems PC Mouse / SummaMouse / Compatibles

GEM Setup displays:

Select a communications port for your mouse or tablet:

Communications port #1 (COM1)

Communications port #2 (COM2)

Press \uparrow or \downarrow to move cursor, [ENTER] to choose, [ESC] to exit/cancel.

3. Choose your mouse communications port. Read "Specifying Communications Ports" in Chapter 1 for information about communications ports.

Note: If you have a bus mouse, you need to install it according to the manufacturer's instructions and copy the file MOUSE.COM onto the root directory of your hard disk. You will find this file either on the disk supplied with your mouse or on your DOS boot disk.

You must run MOUSE.COM *before* starting the GEM Desktop. You can run it from within your AUTOEXEC.BAT file (See "Starting the GEM Desktop Automatically" later in this chapter.)

After you choose your mouse port, GEM Setup displays your hardware setup. It looks like the following example:

Your current setup is:

IBM Enhanced Card & 16-Color Display (640x350)

Mouse Systems PC Mouse / SummaMouse / Compatibles

Communications port #1 (COM1)

Would you like to:

CONTINUE

SAVE AND EXIT FROM GEM SETUP

Press \uparrow or \downarrow to move cursor, [ENTER] to choose, [ESC] to exit/cancel.

If you wish to install GEM/3 software for another device such as a printer, choose **CONTINUE** – see Chapter 3 for installation instructions. If you do not intend to use an output device, you should now check to see that installation was successful. Installation results are explained later in this chapter.

Installing onto Floppy Disks

You have just selected **INSTALL NEW CONFIGURATION**. The following *alert* (reminder or warning) is displayed:

To continue, you will need to have **TWO** empty formatted disks ready. If you need to clean off or format a disk, you must exit GEM Setup and return to DOS to do so.

EXIT TO DOS
 CONTINUE

This alert is displayed if you are using double-density disks. If you are using a high-density or 3.5" disk, you need only one empty disk.

1. Choose **CONTINUE** unless you need to exit GEM Setup to prepare your disk(s).

Next, GEM Setup instructs you to label your GEM STARTUP and GEM DESKTOP disks (GEM DESKTOP only if 3.5" disk) and set them aside. When you complete these instructions, you see a list of graphics cards/displays (shown on page 2-3).

2. Choose the graphics card/display type installed on your computer. If your display is compatible with any of the display monitors listed, choose the entry for the compatible display. If you are installing from a driver pack disk, choose **OTHER** and select your device from those listed.

For more information about the driver packs available from Digital Research, see the GEM/3 Driver Pack Information Sheet supplied with this package.

GEM Setup displays a list of mice and graphics tablets (see page 2-4).

3. Choose your mouse as you did your graphics card/display monitor. If you are unable to determine the type of mouse you are using, chances are you are using a *generic* serial mouse. In this case, select the fifth option:

Mouse Systems PC Mouse / SummaMouse / Compatibles

When you choose your mouse, GEM Setup lists communications ports COM1 and COM2 (shown on page 2-5).

4. Choose your mouse communications port. See “Specifying Communications Ports” in Chapter 1 for information about communications ports.

Note: If you have a bus mouse, you need to install it according to the mouse manufacturer’s instructions and copy the file MOUSE.COM onto your DOS boot disk . You will find this file either on the disk supplied with your mouse or on your DOS boot disk.

You need to copy MOUSE.COM *before* starting the GEM Desktop. MOUSE.COM can be executed from within your AUTOEXEC.BAT file .

When you choose your mouse port, GEM Setup displays your current hardware setup. Here’s an example:

Your current setup is:

IBM Enhanced Card & 16-Color Display (640x350)
Mouse Systems PC Mouse / SummaMouse / Compatibles
Communications port #1 (COM1)

Would you like to:

CONTINUE
 SAVE AND EXIT FROM GEM SETUP

Press ↑ or ↓ to move cursor, [ENTER] to choose, [ESC] to exit/cancel.

To install another device, such as a printer, choose **CONTINUE** (see Chapter 3 for installation instructions).

If you do not intend to use an output device, choose **SAVE AND EXIT FROM GEM SETUP**. GEM Setup instructs you to insert your installation disks and copies the driver files onto your system. When it finishes copying, installation is complete.

Installation Results

This section describes the directory structures and files that GEM Setup creates, for both hard disk and floppy disk systems.

Hard Disk, High-Density Disk, and 3.5" Floppy Disk

GEM Setup creates a folder called GEMAPPS on the drive or disk you specify. This directory contains all of the GEM Desktop files as well as other GEM applications, as outlined below:

Directory	Files
Root	GEM.BAT
GEMAPPS	GEM Output files: OUTPUT.APP and OUTPUT.RSC
GEMSYS	System files Device Drivers Desk accessories
FONTS	Font files
CLIPBRD	Used by GEM Desktop Publisher and GEM 1st Word Plus

The GEM.BAT file created in your root directory contains the commands that open the GEM Desktop from your DOS command line. The GEM/3 directories are illustrated on page 1-5.

Dual Floppy Disks

During installation, you create two disks: GEM Startup and GEM Desktop.

The following chart outlines the directories and files contained on each disk:

GEM Startup Disk	
Directory	Files
Root	GEM.BAT
GEMAPPS	
- GEMSYS	System files Device Drivers Desk accessories
GEM Desktop Disk	
Directory	Files
GEMAPPS	GEM Output files: OUTPUT.APP and OUTPUT.RSC System files Device drivers
FONTS	Font files
CLIPBRD	Used by GEM Desktop Publisher and GEM 1st Word Plus

To ensure that installation was successful, you should start the GEM Desktop. The procedure for this is explained next.

Starting the GEM Desktop

This section explains the procedure for starting the GEM Desktop for both hard disk and floppy disk systems.

Starting from Hard Disk

Follow these steps to start the GEM Desktop:

1. Move to your hard disk drive.
2. Type this command to move to the root directory:

```
CD \ ↵
```

3. Type:

```
GEM ↵
```

This executes the GEM.BAT file, which contains the commands that start the GEM Desktop. The GEM Desktop screen, explained in the following section, is displayed.

Starting from Floppy Disks

Follow these steps to start the GEM Desktop:

1. Start your computer to DOS.
2. Insert your GEM STARTUP disk (GEM DESKTOP, if 3.5" disk) into drive A and logon to this drive.
3. When you see the **A:** prompt, type:

```
GEM ↵
```

4. As instructed, insert your GEM DESKTOP disk in drive A, close the drive door, and press any key.

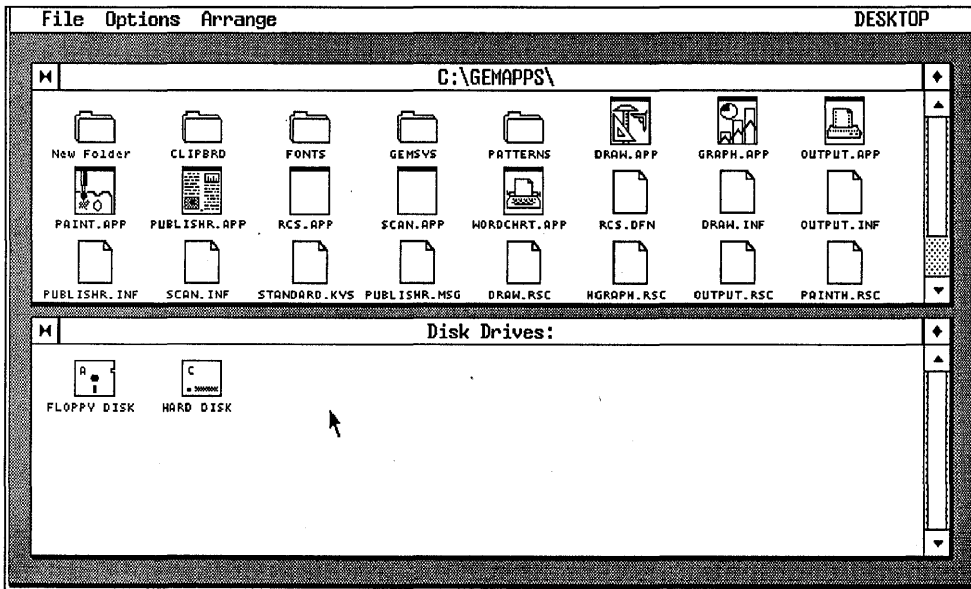
You see an hourglass icon on your screen indicating that your computer is busy retrieving the GEM Desktop.

The GEM Desktop screen, explained below, is displayed.

GEM Desktop Screen Components

The GEM Desktop screen represents graphically the data structures within your operating system. When you start the GEM Desktop, the screen looks similar to the following illustration, depending on your hardware configuration and on the number of GEM applications you've installed.

GEM Desktop Screen



Notice that the screen is divided into two sections called *windows*. The top window is labeled **C:\GEMAPPS**, which means that the folder GEMAPPS is open and you have access to the folders within it.

The bottom window is labeled **Disk Drives**. It contains two or more disk icons representing the disk drives on your system. In this example, the window contains a floppy disk icon labeled **A** and a hard disk icon labeled **C**.

Folder icons represent both directories and subdirectories.

Refer to *GEM Desktop User's Guide* for a complete explanation of the GEM Desktop screen components.

Starting the GEM Desktop Automatically: Hard Disk

If you are using a hard disk system, you can set commands that open the GEM Desktop automatically every time you start your computer. To do this, you need to create an AUTOEXEC.BAT file containing these commands .

The AUTOEXEC.BAT file is a batch file that your computer looks for every time you turn it on or reboot the operating system. If it finds this file, it completes the commands contained in the file before doing anything else. If you are using a bus mouse, you can execute the MOUSE.COM program from within the AUTOEXEC.BAT file.

Note: Be sure to have completed GEM Setup *before* taking any of the steps described below.

If You Already Have AUTOEXEC.BAT

If you installed the GEM Desktop onto your hard disk and you *already have* an AUTOEXEC.BAT file on that disk, you need to modify this file. There are two ways to do this:

1. Use the DOS COPY command to merge the GEM.BAT file with your AUTOEXEC.BAT file.

First, logon to your hard disk. When you see the system prompt (such as **C:** or **D:**), type the following commands:

```
CD \ ↵  
COPY AUTOEXEC.BAT + GEM.BAT ↵
```

2. Using a word processor or text editor, add the following command to the end of your existing AUTOEXEC.BAT file:

```
GEM
```

Note: Be sure that a carriage return precedes the GEM command.

Now whenever you start your computer or reboot the operating system, the GEM Desktop will open automatically.

If You Don't Have AUTOEXEC.BAT

If you installed the GEM Desktop onto your hard disk, and you *do not* already have an AUTOEXEC.BAT file on that disk, do the following:

1. Logon to your hard disk.
2. Type the following commands when the system prompt (**C:** or **D:**) is displayed:

```
CD \ ↵  
RENAME GEM.BAT AUTOEXEC.BAT ↵
```

Now whenever you start your computer or reboot the operating system, the GEM Desktop will open automatically.

Changing Your Hardware

Whenever you add, remove, or change the hardware components you are using, you need to change the device setup you created with GEM Setup. This section explains how to:


- install printers
- install multiple devices on floppy disks
- install from driver packs
- remove devices from your setup
- change device types within your setup

The first step is to choose which operation you want to perform. Read “Choosing the Operation” in the next section, then see the section in this chapter that explains the operation.

For instructions on	See this section
adding a printer	“Installing Printers”
adding a plotter, camera, scanner, screen, or display from a driver pack	“Installing from Driver Packs”
changing device types within your current setup	“Changing Your Setup”
removing devices from your setup	“Removing Devices”

Choosing the Operation

If you're not running GEM Setup, start it now. (If you do not remember how, see Chapter 2, "Running GEM Setup.") The first GEM Setup screen is displayed:

 Digital Research Inc.	GEM Setup R 3.0
Welcome to GEM Setup!	
This program installs GEM/3 onto your computer. Do you want to install GEM/3 for the first time or change an existing GEM/3 installation?	
<input type="checkbox"/> INSTALL NEW CONFIGURATION	
<input checked="" type="checkbox"/> CHANGE EXISTING CONFIGURATION	
Press ↑ or ↓ to move cursor, [ENTER] to choose, [ESC] to exit/cancel.	

Select **CHANGE EXISTING CONFIGURATION**.

The screen displays your current setup and gives you the option to continue or exit the program.

Choose **CONTINUE**.

GEM Setup displays:

Would you like to:

- ADD A PRINTER
- ADD A PLOTTER
- ADD A CAMERA
- ADD A SCANNER
- CHANGE YOUR CURRENT SETUP
- REMOVE A DEVICE FROM YOUR SETUP

Press **↑** or **↓** to move cursor, **[ENTER]** to choose, **[ESC]** to exit/cancel.

Select the operation you want to perform, then see the section in this chapter that explains the operation, outlined on page 3-1.

Installing Printers

This section explains how to install printers for both hard disk and floppy disk systems.

If you have not already done so, read and follow the instructions in "Choosing the Operation" in the preceding section.

Follow the steps below to add a printer to your setup. You have just selected **ADD A PRINTER**. The screen displays:

Select the printer that you intend to use from the list below.

- Epson GQ-3500 Laser Printer (300 x 300 Dots/Inch)
- Epson LQ Series Printers (180 x 180 Dots/Inch)
- Hewlett Packard Laserjet II Printer (300 x 300 Dots/Inch)
- Hewlett Packard LaserJet+ (150 x 150 Dots/Inch)
- IBM/Epson High Resolution Printers (120 x 144 Dots/Inch)
- IBM Proprinter (120 x 144 Dots/Inch)
- LaserWriter / Postscript Printers
- LaserWriter Plus / Postscript Printers
- Toshiba Printer (180 x 180 Dots/Inch)
- Xerox 4020 Color Ink Jet (120 x 240 Dots/Inch)
- OTHER (Driver Pack)

Press [F1] for device info, ↑ or ↓ to move cursor, [ENTER] to choose.

1. Choose your printer. This example shows the entry to choose if you are using a printer that uses the a Postscript[®] driver, such as the Apple[®] LaserWriter[™].

Next, you see:

Select a communications port for your printer:

- Parallel port #1 (LPT1)
- Parallel port #2 (LPT2)
- Parallel port #3 (LPT3)
- Communications port #1 (COM1)
- Communications port #2 (COM2)

Press \uparrow or \downarrow to move cursor, [ENTER] to choose, [ESC] to exit/cancel.

2. Choose a communications port for your printer. See "About Communications Ports" in Chapter 1 for further information.

GEM Setup displays your *new* setup.

If you want to make another change to your setup, select **CONTINUE**, then choose the operation you want to perform. To finish installation and exit GEM Setup, select **SAVE AND EXIT FROM GEM SETUP**.

GEM Setup instructs you to insert one of your disks labeled GEM PRINTER DISK into drive A. This disk contains the device driver and font files for your printer.

3. Insert your printer driver disk into drive A. Press \downarrow . You see a list of files being copied onto your disk. If you are installing onto floppy disks, GEM Setup instructs you to insert disks as needed.

When copying is completed, your printer is installed. GEM Setup concludes with instructions on starting the GEM Desktop.

Installing Multiple Devices on Floppy Disks

This section explains how to add more than one output device to your setup. You can add:

- printers
- plotters
- scanners
- cameras

5.25" Floppy Disks

When you install GEM/3 onto 5.25" floppy disks, you create a disk labeled GEM STARTUP and another labeled GEM DESKTOP. The GEM STARTUP disk contains the files that execute GEM/3. The GEM DESKTOP disk contains the printer and other device-related files. Since floppy disk space is limited, to install more than one device, you need to create as many GEM DESKTOP disks as there are devices attached to your computer. Here's how:

1. Format as many disks as you'll need. Label each "Desktop Disk" and add the name of the device.
2. If you have not already done so, run GEM Setup as a new installation and install the first device. (See Chapter 2, "Installing onto Floppy Disk Systems.") Put the first Desktop Disk you create aside.
3. Restart GEM Setup. When you see the first GEM Setup screen (see page 3-2), choose **CHANGE EXISTING CONFIGURATION**. When prompted to insert your GEM STARTUP disk, insert the one you created originally.

GEM Setup displays your current setup and gives you the option to continue or exit the program.

4. Choose **CONTINUE**.

Next, you see a list of options (illustrated on page 3-3). You can choose any of the first four. Let's assume you select **ADD A PRINTER**.

5. The screen displays a list of printers (see page 3-3). Choose your second printer.
6. GEM Setup displays a list of communications ports. Choose the one you intend to use.

GEM Setup displays your *new* setup, which lists both printers you've installed.

7. Choose **SAVE AND EXIT FROM GEM SETUP**.
8. When prompted to insert your GEM DESKTOP disk, insert the *new* one.

Repeat steps 3 through 8 for each additional device, using a new GEM DESKTOP disk each time.

3.5" Floppy Disks

Before attempting to add a device to your setup, check the amount of available disk space on your GEM DESKTOP disk. Most likely, there is enough disk space to add a second device to your setup, although the amount of space required varies for different devices.

To install a second device, rerun GEM Setup and follow steps 3 through 8 of the preceding section, only using the same GEM DESKTOP disk you created originally.

If, when GEM Setup displays your new setup, the second output device is not listed, prepare a separate GEM DESKTOP disk, rerun GEM Setup, and install the device as a new installation.

Installing from Driver Packs

This section explains how to install devices from driver packs. The procedure is the same for all of the following devices:

- display monitors
- printers
- plotters
- scanners
- cameras

Notes:

1. If you are installing a plotter, ensure that it is configured to the following settings before running GEM Setup:
 - 9600 baud
 - No parity
 - 8 data bits
2. If you are installing a scanner, you may be asked for one or more of the following:
 - input/output port address
 - transfer address
 - .COM file (DOS command file)

If this information is required, refer to your scanner hardware documentation or contact your scanner dealer.

What Is a Driver?

When you install a device, you are actually installing a *device driver* – a software program which enables an application program to use a device (printer, plotter, screen, etc.). When you install device drivers for GEM, you are providing the GEM software with the means to identify and use the devices you are installing.

GEM is supplied with a certain number of *standard device drivers*. Since drivers can take up large segments of memory and disk space, not all devices can be supplied as part of the standard GEM Desktop package. Many drivers are available on disks called *driver packs*, obtainable directly from Digital Research. See the GEM/3 Driver Pack Information Sheet supplied with this package for a list of available driver packs.

Note that some hardware manufacturers also supply device drivers compatible with GEM/3. You can contact them directly for driver availability information.

Installation Procedure

If you have not already done so, read and follow the instructions in "Choosing the Operation" at the beginning of this chapter.

Let's assume you are adding a plotter. You have just selected **ADD A PLOTTER**.

1. Insert your plotter driver pack disk into drive A and press ↵.

The screen displays a list of plotters.

2. Move your cursor to the plotter you wish to install and press ↵.

GEM Setup displays a list of communications ports.

3. Choose the port you intend to use. For more information, see Chapter 1, "Selecting Communications Ports."

The screen displays your new device setup. If you want to perform another operation, choose **CONTINUE**; to complete installation and exit GEM Setup, choose **SAVE AND EXIT FROM GEM SETUP**.

GEM Setup copies the GEM plotter driver onto your target disk. When it finishes copying, plotter installation is complete.

Removing Devices

This section tells you how to remove a device from your setup. When you remove a device from your setup, you remove its device driver and any associated fonts. The driver takes up disk and memory space, and you don't need the driver if you're not using the device.

If you have not already done so, read and follow the instructions in "Choosing the Operation" at the beginning of this chapter.

You have just selected **REMOVE A DEVICE FROM SETUP**. GEM Setup displays your current setup and instructs you to choose the device you want to delete.

When you choose the device, GEM Setup displays your new device setup. If you want to perform another operation, choose **CONTINUE**; to exit GEM Setup, choose **SAVE AND EXIT GEM SETUP**.

GEM Setup removes the device driver and any associated files.

Changing Your Setup

This section explains how to substitute one device for another within your setup without deleting or adding to the setup.

If you have not already done so, read and follow the instructions in “Choosing the Operation” at the beginning of this chapter.

You have just selected **CHANGE YOUR CURRENT SETUP**. The screen displays your current setup and asks you to identify the item you want to change.

Let's assume you want to change the mouse installed in your setup.

Move your cursor to the mouse entry and press \downarrow . The screen displays a list of mice and tablets. Choose the one you intend to use.

GEM Setup then displays your *new* setup. If you want to perform another operation, select **CONTINUE**; to exit GEM Setup, select **SAVE AND EXIT FROM GEM SETUP**. The new driver is copied onto your disk.

Changing Setups on Multiple Hard Disks

If you installed GEM/3 on multiple hard disks, whenever you select **CHANGE YOUR CURRENT SETUP**, GEM Setup makes changes to your setup on the drive having the lower letter drive identifier. For example, if you installed GEM/3 on drives C and E, it makes changes to drive C. To change your setup on drive E, you would need to assign drive C as drive E temporarily. Here's how:

1. Enter DOS and move to drive C.
2. Type the following command:

```
ASSIGN C=E  $\downarrow$ 
```

This redirects instructions performed on drive C to drive E. The **ASSIGN** command remains in effect until you reboot your computer.

Note: The **ASSIGN** command is available only on DOS 3.0 and later versions.

Installing GEM Applications

This chapter steps you through the generic procedure for installing other GEM applications for use with the GEM Desktop.

Each application is supplied with an installation program called `INSTALL.APP`. You run `INSTALL.APP` from within the GEM Desktop, which, except for application-specific instructions, is very similar from one application to another.

Note: This installation procedure applies only to GEM applications from Digital Research.

Running *INSTALL.APP*

Here is the typical installation procedure:

1. Start the GEM Desktop. If you do not recall how to do this, see Chapter 2, "Starting The GEM Desktop."
2. Insert your GEM application master disk into drive A.
3. Double click on the A disk-drive icon in the window labeled "Disk Drives."

The window changes to show the contents of the master application disk.

4. Double-click on the icon labeled *INSTALL.APP*.

INSTALL.APP displays a message confirming the disk drive on which the application is to be installed.

5. Click on **OK**.

INSTALL.APP displays the names of the application files as they are copied onto your disk.

When copying is completed, a message is displayed, indicating the name of the folder on your hard or floppy disk containing the newly installed application.

When installation is complete, the screen displays instructions for running the application program.



Troubleshooting

This chapter answers commonly asked questions about using the GEM Desktop and other GEM applications. It lists problems you may encounter when using the GEM Desktop and their solutions.

Questions Commonly Asked

- 1. I have purchased several GEM applications and received a different release of the GEM Desktop with each. Which release should I install?**
 - Install the most recent release using the program GEM Setup on the disk labeled SYSTEM.
- 2. Can I remove or move any of the GEM/3 subdirectories?**
 - No.
- 3. Can GEM Setup be run from the hard disk?**
 - Yes, by copying files GEMSETUP.EXE and GEMSETUP.TXT from the GEM system master disk onto the hard disk. Having GEM Setup on your hard disk may be useful if you need to change your setup frequently.
- 3. What cable do I need for the Hewlett-Packard® 7550 Plotter?**
 - Hewlett-Packard part number: HP 17255F

Problems

- 1. After you type the GEM startup command, the screen is blank.**
 - The graphics card selected during GEM Setup is the wrong type or model. Rerun GEM Setup and change this entry.
- 2. When you print a document, the graphics are printed but no text.**
 - Either the printer font files have not been installed or they were installed and subsequently erased. Rerun GEM Setup.
- 3. The screen displays this error message when you attempt to start the GEM Desktop:**

GEM VDI not installed.

 - This occurs most commonly when:
 - The disk labeled SYSTEM has been copied to the root directory of your hard disk, or you typed "GEM" from within the \GEMAPPS\GEMSYS directory.
 - There is insufficient memory available on your system.
- 4. When attempting to use any GEM application, an alert is displayed instructing you to insert your GEM Fonts disk.**
 - The screen fonts are not installed on your system. Rerun GEM Setup and, for dual-floppy systems, reinstall the application.
- 5. You are using an IBM[®] CGA[™], but your display is not in color.**
 - GEM/3 supports the IBM CGA in monochrome mode only.

Resolving Problems

When experiencing a problem:

- Learn which systems your hardware is compatible with.
- Try to find out whether the problem is hardware incompatibility-related or software-related.

Have the following information ready when you call Digital Research's Customer Technical Support Services – (408) 646-6464:

- type of computer (IBM PC/XT[®], PC/AT[®], Personal System/2[™], etc.)
- type of graphics card
- mouse and mouse communications port
- printer(s) and printer port(s)
- release of the GEM Desktop installed
- product serial number

The GEM Desktop serial number is located on your SYSTEM disk. For GEM/3 applications, it is located on the application master disk.

System Information

This appendix lists the hardware and software that you can use with the GEM Desktop, as well as the GEM/3 system requirements.

Computer

AT&T® 6300

IBM PC™, PC/XT, PC/AT

3270 PC,

Personal System/2

100%-compatible computer

Notes:

- Your computer must have a graphics card installed.
- While you can perform all GEM Desktop operations directly from your keyboard, a mouse or graphics tablet is recommended for ease of use.
- Your computer must have at least two disk drives. You can have either two floppy drives or one floppy drive and at least one hard disk drive. The GEM Desktop is available in both 5.25" and 3.5" disk versions.
- For floppy disk systems, the GEM Desktop and GEM applications require two double-sided, double-density disks or one high-density disk.

Operating System

PC-DOS™ version 2.1 or higher

DOS Plus™

- For systems with multiple hard disks, DOS 3.0 and higher versions are recommended.

Memory

512K

Monochrome Graphics

AT&T Monochrome Card/Monochrome Display (640 x 400)

IBM Color Graphics Adaptor (CGA)/Color Display (640 x 200) -
Mono Mode

IBM Enhanced Graphics Adaptor (EGA™)/Monochrome Display
(640 x 350)

IBM Vector Graphics Adaptor (VGA™)/Monochrome Display (640 x 480)

Hercules Graphics Card™/Monochrome PC Display (720 x 348)

The GENIUS® Monitor/The GENIUS Monitor Card (720 x 1008)

Wyse®/Amdek Monochrome Graphics Display (1280 x 800)

100% compatible

Color Graphics

AT&T DEB Card/16-color Display (640 x 400)

IBM Enhanced Graphics Adaptor/16-color Display (640 x 350)

IBM 16-Color VGA Card for PS/2 (640 x 480)

Video 7™ Vega™ Deluxe/Quadram® Prosync™ 16-Color Display
(640 x 480 and 752 x 410 models)

100% compatibles

Printer

Apple LaserWriter, LaserWriter Plus™, and other Postscript printers
Epson® GQ-3500 Laser Printer
Epson LQ-Series Printers
Hewlett-Packard® LaserJet+™
Hewlett-Packard LaserJet II™
IBM/Epson High Resolution Printers (120 x 144 dots/inch)
Toshiba® 321, 341, and 351
Xerox® 4020 Color Ink Jet

Mouse

IBM Personal System/2 Mouse
Logimouse®
Manager Mouse®
Microsoft® Bus Mouse/generic bus mouse
Microsoft Serial Mouse
Mouse Systems™
PC Mouse™
SummaMouse™
SummaSketch™ 961or 1201 cursor-/stylus-type tablet
Summagraphics™ MM1812 cursor-/stylus-type tablet

Driver Packs

Digital Research offers over a dozen "driver packs," disks containing drivers for additional devices. These include many popular printers, displays, plotters, scanners, and cameras. If your display/graphics card or printer is not among those listed above, see the GEM/3 Driver Pack Information sheet elsewhere in this package.

Certain hardware manufacturers also supply GEM/3-compatible device drivers. You can contact them directly for driver availability information.

