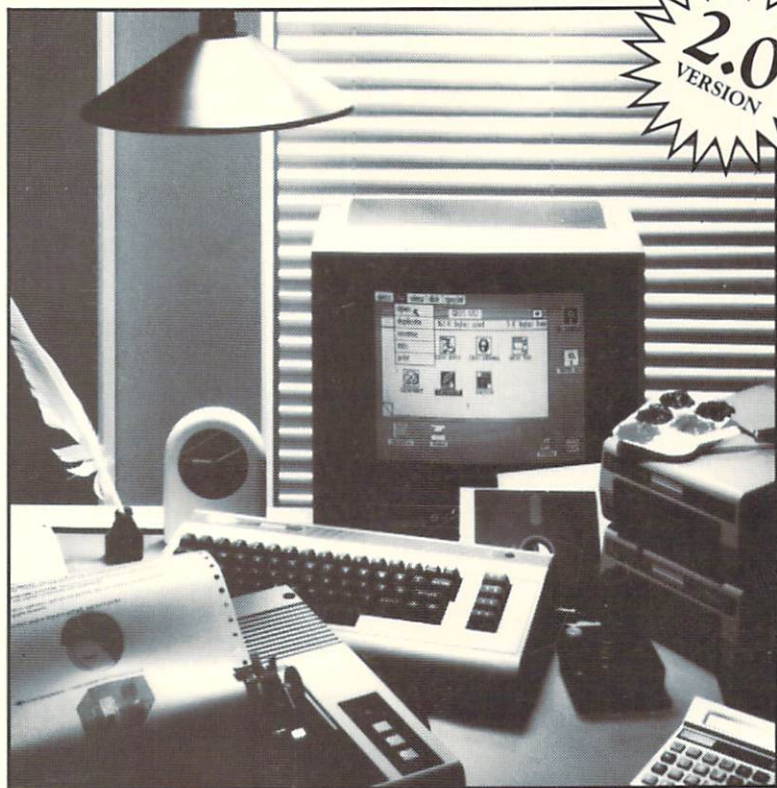# G E O S ™

GRAPHIC ENVIRONMENT OPERATING SYSTEM

2.0 VERSION

For Commodore 64, 64c and 128 Computers

Berkeley Softworks

GEOS 2.0 User's Manual
Errata Information

Printers

- Daisywheel printers are not supported by GEOS 2.0.

- On page 18, under the listing of printer drivers, note that the Apple LaserWriter™ printer requires an RS-232 interface, not RE-232.

Different Disk Drives and No RAM Expansion Unit

- On pages 91 (geoPaint) and 145 (geoWrite 2.1): If you have two disk drives of different types (e.g., a 1541 and a 1581) but do not have a RAM Expansion Unit, note the following:

    1. Any work disk containing a copy of the DESKTOP 2.0 file must also have a copy of the CONFIGURE 2.0 file.

    2. The application and document files must be on the same work disk. As long as the application is on the same disk as the document files, you will be able to open a document directly from the deskTop. This procedure refers to any GEOS application that produces documents, such as geoPublish, geoFile, geoChart, and geoCalc.

Copying a Disk

- Copying a disk, whether by using the DISK COPY program or the disk copy command menu option, will automatically give you the option of formatting the destination disk if that disk is unformatted.

geoPaint

- On page 90, under the suggestions for work disk configurations: you cannot use geoLaser to print a geoPaint document. If you wish to print a geoPaint document on an Apple LaserWriter printer, select the Laserwriter 2.1 printer driver as the default printer driver, then use the regular printing method described on page 139, "Printing Your Document." The Laserwriter 2.1 printer driver is located on your System and Backup System disks. The procedure for selecting a printer driver as a default file is on page 20, "Activating Your Printer."

(over)

- On page 113, Step 7 should read: "Select **paste** from the **edit** menu. The Bitmap Scaling dialog box will appear. Click **OK**. The photo scrap will be pasted in the editing region you opened. Its color will have been erased."

geoWrite 2.1

- On page 182, under the information regarding the NLQ (near letter quality) option: Bold, italic, underline, superscript, and supscript styles are not available with NLQ mode.

- On page 292, under the menu options for the **edit** menu, the second menu option should be **copy**, not **edit**.

geoSpell

- On page 195, under "Searching for a Word in a Dictionary": you can use the additional methods to scroll through the list of words displayed in the Dictionary Box:

  1. Click on the up and down arrows located below the **Find** button.

  2. Press the up and down cursor keys on your keyboard.

GEOS 2.0

User's Manual

Important: Read This Notice Before Using This Software

BY READING THIS NOTICE AND USING THE ENCLOSED SOFTWARE, YOU AGREE TO BE BOUND BY ALL THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT. IF YOU DO NOT ACCEPT OR AGREE TO THESE TERMS, YOU MAY, WITHIN FIFTEEN (15) DAYS, RETURN THIS ENTIRE PACKAGE, TOGETHER WITH PROOF OF PURCHASE, TO THE PERSON FROM WHOM YOU ACQUIRED IT OR TO BERKELEY SOFT-WORKS, INC. FOR A FULL REFUND.

Software License Agreement

BERKELEY SOFTWORKS, INC. grants you a non-exclusive license to use this copy of the program and accompanying materials according to the following terms:

License

You may:

a. use the program on only one computer at a time;

b. make copies of the program in machine-readable form solely as necessary for your personal use, provided that you reproduce all proprietary notices on the copy; and

c. transfer this license to another, together with all documentation and copies of the software, but only if: (i) the transferee agrees in writing to be bound by this software license agreement and (ii) you notify BERKELEY SOFTWORKS, INC. of the transfer, together with the transferee's name and address, and provide to BERKELEY SOFT-WORKS, INC. the written and signed agreement of the transferee to be bound by this license which reads: "I have read the BERKELEY SOFTWORKS, INC. Software License Agreement and agree to be bound by the terms thereof."

You may not:

a. use the program in a network or a multi-user system;

b. modify, translate, reverse engineer, decompile, disassemble, create derivative works based on, make copies of the documentation, or copy (except as necessary for your personal use) the program or the accompanying materials;

c. rent, transfer or grant any rights in the program or accompanying materials in any form to any person, except as specifically permitted in this agreement, without the prior written consent of BERKELEY SOFTWORKS, INC., which, if given, is subject to transferee's consent to the terms and conditions of this license, or

d. remove any proprietary notices, labels, or marks on the program and accompanying materials.

This license is not a sale. Title and copyrights to the program, accompanying materials and any copy made by you, remain with BERKELEY SOFTWORKS, INC.

Termination

Unauthorized copying of the program (alone or merged with other software) or the accompanying materials, or failure to comply with the above restrictions, will result in automatic termination of this license and will make available to BERKELEY SOFTWORKS, INC. other legal remedies. Upon termination, you will destroy or return to BERKELEY SOFTWORKS, INC. the program, accompanying materials, and any copies.

Limited Warranty and Disclaimer

BERKELEY SOFTWORKS, INC. has no control over your use of the software, nor can BERKELEY SOFTWORKS, INC., anticipate every potential or possible use. Therefore, BERKELEY SOFTWORKS, INC. does not and cannot warrant the performance or result that may be obtained by its use, nor do we warrant that the operation of the program will be uninterrupted or error-free. Therefore, BERKELEY SOFTWORKS, INC. provides a limited warranty to you as follows:

BERKELEY SOFTWORKS, INC. warrants that the software will perform substantially in accordance with the specifications set forth in the documentation provided with the software and that the diskettes on which the program is furnished are free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery to you, as evidenced by a copy of your receipt.

BERKELEY SOFTWORKS, INC.'s entire liability and your exclusive
remedy as to software performance and the diskettes (which is subject to
your returning the diskettes to BERKELEY SOFTWORKS, INC. or an
authorized dealer with a copy of your receipt) will be the replacement of the
diskettes or, if BERKELEY SOFTWORKS, INC. or the dealer is unable to
deliver a replacement diskette, the refund of the purchase price and termina-
tion of this agreement. THE DURATION OF ANY IMPLIED WARRAN-
TIES ON THE DISKETTES, INCLUDING THE IMPLIED WARRAN-
TIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
PURPOSE, IS LIMITED TO THE SAME NINETY (90) DAY PERIOD
AS THE FOREGOING EXPRESS WARRANTY.

THE PROGRAM AND ACCOMPANYING MATERIALS ARE PRO-
VIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS
OR IMPLIED, OR STATUTORY, INCLUDING (BUT NOT LIMITED
TO) THE IMPLIED WARRANTIES OF MERCHANTABILITY AND
FITNESS FOR A PARTICULAR PURPOSE.

SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED
WARRANTIES SO THE ABOVE EXCLUSIONS MAY NOT APPLY TO
YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS.
YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM
STATE TO STATE.

Limitation of Liability
IN NO EVENT WILL BERKELEY SOFTWORKS, INC. BE LIABLE
FOR ANY DAMAGES, INCLUDING LOSS OF DATA, LOST PROFITS,
COST OF COVER OR OTHER SPECIAL, INCIDENTAL, CONSE-
QUENTIAL OR INDIRECT DAMAGES ARISING FROM THE USE OF
THE PROGRAM OR ACCOMPANYING MATERIALS, HOWEVER
CAUSED AND ON ANY THEORY OF LIABILITY. THIS LIMITA-
TION WILL APPLY EVEN IF BERKELEY SOFTWORKS, INC. OR AN
AUTHORIZED DEALER HAS BEEN ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE. YOU ACKNOWLEDGE THAT THE LICENSE
FEE REFLECTS THIS ALLOCATION OF RISK. SOME STATES DO
NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY
FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE
ABOVE LIMITATION MAY NOT APPLY TO YOU.

General

This Agreement will be governed by the laws of the State of California.

This Agreement is the entire agreement between us and supersedes any other communications with respect to the program and accompanying materials.

If any provision of this Agreement is held unenforceable, the remainder of this Agreement shall continue in full force and effect.

If you have any questions, please contact us, in writing, at the following address:

BERKELEY SOFTWORKS, INC.
Customer Service
2150 Shattuck Avenue
Berkeley, CA 94704

If you wish to return defective disks for replacement under this warranty, send the defective disks and a copy of your purchase receipt to the address above.

Sign and Mail the Registration Card Today

Return of the Registration Card is needed in order for you to receive notices of new versions or enhancements.

Copyright Information

How to Get Help

If you ever encounter any problems with GEOS, there are several steps you should take before trying to contact Customer Service. First, re-read the pertinent chapter(s) in the manual. With a graphic interface it is often tempting to ignore the manual and forge ahead with using the program. However, if the program does not perform in a manner you expect, reading the manual may help clarify any confusion. If the chapter does not answer your question directly, try looking in the table of contents and the index for help. Make sure that you read "Never and Always (Do's and Don'ts)" on page 49. Should you come across any unfamiliar terms, refer to the glossary on page 282.

QuantumLink

The first, fastest, and recommended way to obtain information about and help with GEOS and its follow-on applications is through the Q-Link telecommunications network. Q-Link is an on-line service network designed for Commodore users.

Berkeley Softworks provides Customer Service message boards, along with a Programming message board and other useful services, in the Commodore Software Showcase section of Q-Link. Through these message boards, you can receive the most timely help and information from Berkeley Softworks employees and thousands of GEOS users. In addition, you will have access to programs and products from Berkeley Softworks that are offered through Q-Link, many of them free of charge.

Customer Service

The second way to obtain help is to contact Customer Service at Berkeley Softworks, either by phone or letter. If you write, *please include your telephone number*. All inquiries are answered in order received. The Berkeley Softworks customer service telephone number and address are as follows:

Call:

Customer Service: (415) 644-0890, 9 a.m.–5 p.m. Pacific Time

Or write:

Berkeley Softworks
Commodore Customer Service Division
2150 Shattuck Avenue
Berkeley, CA 94704

If you write, please be sure to include your phone number.

Welcome to GEOS

Your new Graphic Environment Operating System (GEOS) ushers in a
whole new world for your Commodore 64, 64c, or 128. GEOS brings you
the power and ease that icons, windows, and pull-down menus provide. A
simple keyboard command or click of your input device is all it takes to get
the job done.

This manual is divided into 12 chapters:

1: **Getting Started** guides you through the initial process of installing
GEOS, creating backup copies of your GEOS disks, booting GEOS,
and exiting GEOS. Also included is general advice on using work
disks.

2: **Learning GEOS** introduces you to some basic techniques necessary to
manage GEOS applications and move around the system. A tutorial is
provided to give you some hands-on experience; you will find that
learning GEOS is fun and easy.

3: **The GEOS deskTop** describes in detail how you can move around
GEOS, manage files, desk accessories, and applications, and use one to
three disk drives. The GEOS deskTop has been upgraded to enable
multiple file selection, file retrieval from the waste basket, more
keyboard shortcuts, easier printer and input device default procedures,
the ability to add or delete disk note pad pages, the use of a deskTop
clock, and more.

4: **geoPaint** is a powerful color graphics program that enables you to
create graphics in a wide variety of ways. geoPaint has been enhanced
to include bitmap scaling, a grid, and special commands to create
images precisely on the screen.

5: **geoWrite 2.1** is an enhanced version of the easy-to-use "what you see
is what you get" GEOS word processor.

6: **geoSpell** is a powerful spell-checking program that enables you to
create and alter personal dictionaries.

7: **geoMerge** is a mail merge program that enables you to combine data from two documents to produce a customized form letters and mailing labels.

8: **geoLaser** is an application that enables you to print geoWrite and geoPaint documents on the Apple LaserWriter printer.

9: **Text Grabber** is an application that reads non-GEOS files from supported word processors and converts them to geoWrite format.

10: **Paint Drivers** is an application that creates one or more geoPaint documents from a geoWrite or geoPublish document. Once converted, the new document or series of documents can be enhanced with geoPaint's graphic tools.

11: **Desk Accessories** are smaller applications that perform handy functions while on the deskTop or in an application. These accessories include the Alarm Clock, Calculator, Note Pad, Photo Manager, Text Manager, and Preference Manager. The Photo Manager and Text Manager have been enhanced to enable you to name, search for, and rename the pages of a photo album or text album. A new desk accessory, the Pad Color Manager, enables you to color file icons and the disk note pad on the deskTop.

12: **Appendices** include a glossary, listing of the options in all command menus, font samples, a detailed listing of the contents of each disk in your GEOS 2.0 package, and instructions for running the GEOS demonstration programs.

Suggested Order of Reading

Before you try to use a GEOS application, we suggest you use these chapters in the following order:

Chapter 1, "Getting Started"   to see what equipment you need in order to use GEOS, and install and make backup copies of the GEOS disks. Note that geoWrite, geoSpell, and geoMerge *must* be installed before you can use them. "Getting Started" also will guide

	you through setting up your printer and input device. In addition, "Getting Started" explains in detail the advantage of making work disks.
Chapter 2, "Learning GEOS"	to get an overall picture of what GEOS is all about. Use the tutorial to get some hands-on experience. Even if you are already familiar with using GEOS, we suggest you use the tutorial so that you can try out some of the new features of the deskTop and geoPaint.
Chapter 3, "The GEOS deskTop"	to learn more about file, disk, and disk drive management.

Once you have completed Chapter 3, "The GEOS deskTop," you will be ready to use the applications described in this manual. You may also wish to try out the GEOS demonstration program, which is provided on the GEOS Demo disk and whose instructions are in Appendix E: GEOS Demo. Enjoy!

Table of Contents

1 Getting Started

This chapter will guide you step-by-step through the procedures for getting started with GEOS. You will perform the following three procedures only once, when you first open GEOS:

- Install GEOS to your Commodore.
- Create backup copies of your GEOS disks.
- Set up your printer for use with GEOS.

This chapter also covers how to boot (i.e., start up) GEOS every time you plan to use it, and how to exit GEOS when you are finished. Also covered is general advice on making work disks.

Unfamiliar terms are defined in Appendix A: Glossary.

What You Need to Run GEOS

You must have the following hardware and software in order to use GEOS:

- a Commodore 64 or 64C computer, or a Commodore 128 (running in 64 mode).

- a compatible monitor or TV. The best monitor to use is a Commodore 1702, 1802, 1902 or 1902A monitor. Televisions can be used, but the resolution is sharper with a Commodore monitor.

- an input device (joystick, mouse, Koala Pad, or Inkwell light pen).

- one 5 1/4 inch disk drive (1541 or 1571).

- this GEOS package, which contains three program diskettes and this manual.

- blank 5 1/4 inch diskettes (for backup disks and work disks).

The following optional equipment is recommended so that you can take full advantage of the power and versatility of GEOS. This equipment is not, however, necessary to the operation of GEOS.

- a RAM Expansion Unit (REU). With an REU the operating speed of GEOS is greatly increased. In addition, you will be able to dedicate more disk space to the GEOS program you are currently using.

- additional disk drives (1541, 1571, or 1581). You can install two disk drives and a RAM Expansion Unit for use with GEOS.

- a GEOS supported printer. A list of supported printers is found on page 18.

Installing GEOS

Installing GEOS means preparing the applications for everyday use. You will have to install GEOS only once. Installing GEOS and the applications takes about 15 minutes. In brief, to install GEOS you will:

1: Set up your Commodore according to the instructions found in its installation manual.

2: Open GEOS and follow the directions on the screen. If you own other GEOS applications for the Commodore 64, you will be able to key them to this boot disk. For example, if you own DeskPack1, you will be able to use its applications after booting on the new GEOS System boot disk. (You will also be able to take advantage of the upgraded deskTop whenever your open your DeskPack1 work disks.)

3: Activate your mouse, Koala Pad, or Inkwell light pen if you are using one of these as an input device. If you are using a joystick, the program will automatically activate it for you.

4: Open three of the applications to key them to your System disk. These applications are geoWrite, geoMerge, and geoSpell.

Once you have installed GEOS, you need to make backup copies of the disks in your GEOS package. You also need to make an additional copy of the geoPaint disk for the tutorial (which is covered in Chapter 2, "Learning GEOS"). Even if you are familiar with GEOS, use the tutorial so that you can try out some of the new features in the deskTop and in geoPaint. Once you have created backups, you can set up your printer so that you can print GEOS documents.

Step 1: Boot GEOS

1: Set up your Commodore, disk drives, monitor, and input device according to the directions found in their installation manuals. If you have a RAM Expansion Unit, carefully insert it into the proper slot of your Commodore, as explained in its installation guide.

2: Turn on the monitor and disk drive switches.

NOTE   Never boot GEOS with more than one disk drive on.

3:   Insert the System disk (label side up) into the disk drive and close the
disk drive door.

4:   **64 users:** turn on your computer keyboard.

128 users: hold down the ⟨C⟩ key and turn on your computer key-
board.

5:   The Commodore 64 BASIC V2 screen will appear. Type
LOAD"GEOS",8,1 and press ⟨RETURN⟩ . The messages "SEARCH-
ING FOR GEOS", "LOADING", and "BOOTING GEOS..." will
appear next.

NOTE   If you are using a PPI interface, enter the following command
to load GEOS: **OPEN4,4,25:PRINT#4:CLOSE#4:LOAD"GEOS",8,1**.
Press RETURN.

6:   A message box (called a "dialog box") will ask you to "Please insert
disk: Backup System." Remove the System disk from the disk drive
and insert the Backup System disk, which is located on the back side of
the geoPaint disk. Close the disk drive door and press ⟨RETURN⟩ to
continue.

7:   Another dialog box will ask if you wish to key the GEOS boot disk
(i.e., the System disk) to a previously installed application. If you own
DeskPack1, geoWrite Workshop, geoCalc, or other GEOS applications
for the Commodore 64 (such as geoPublish, geoBasic, geoProgrammer,
etc.), answer **YES** by moving the pointer to **YES**. If this is the first
GEOS product you own, move the pointer to **NO**.

To move the pointer, use the ⟨CRSR⟩ keys located below the ⟨RETURN⟩
key:

To move: *Do the following:*

Right   Press ⟨CRSR⟩ ⇆
Left   Hold down ⟨SHIFT⟩ while pressing ⟨CRSR⟩ ⇆

Down   Press CRSR ↑↓
Up   Hold down SHIFT while pressing CRSR ↑↓

8: When you have positioned the pointer over YES or NO, press
   RETURN . If you selected YES, go to Step 9. If you selected NO, go
   to Step 10.

9: A dialog box will ask you to "Please insert any original disk on which
   an application was installed to your old boot disk: Desk Pack,
   geoWrite Workshop, geoCalc, geoFile, etc." This step will enable you
   to key your new boot disk with the older applications you own.
   Remove the Backup System disk from the disk drive and insert any
   original GEOS application disk that applies to this procedure. Close
   the disk drive door and press RETURN .

10: The next dialog box will ask you to insert the System disk. Remove
    the current disk from the disk drive and insert the System disk. Press
    RETURN to continue.

11: Another dialog box will ask for the Backup System disk. Remove the
    System disk from the disk drive and insert the Backup System disk.
    Press RETURN to continue.

12: The next dialog box will ask for the System disk. Remove the Backup
    System disk and insert the System disk. Close the disk drive door and
    press RETURN . In a moment the System deskTop will appear:

System deskTop   **close icon**

geos | file | view | disk | select | page | options   04/20/88 05:35 PM

System

47 files,   0 selected 139 Kbytes used   27 Kbytes free

GEOS   GEOS BOOT   GEOS KERNAL   DESK TOP

JOYSTICK   Comm. Compat.   CONFIGURE

disk
drive
icons

Comm. Compat.
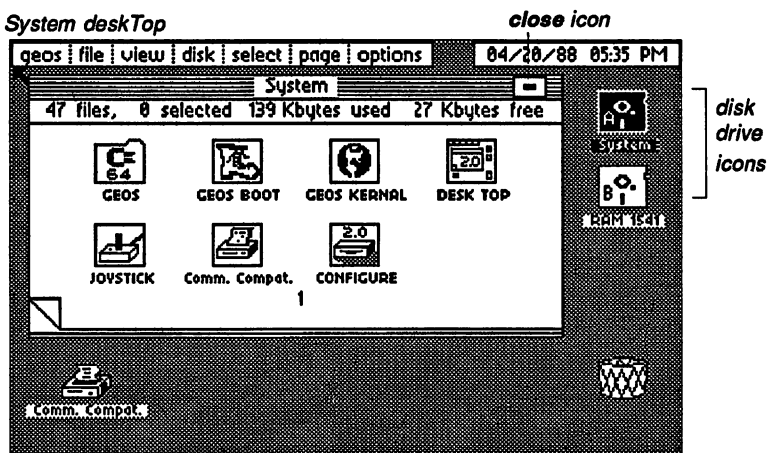
Step 2: Activate Your Mouse, Koala Pad, or Inkwell Light Pen

If you own a joystick, it will already have been activated and you can begin to use GEOS right away. If so, you can skip this step and go to Step 3: Install Your Applications. If the pointer at the upper left corner of the screen will not move, use the procedure below to install your input device.

To install an input device:

1: Hold down the ⬛C= key and while keeping it held down, press the letter (not number) ⬜I.

2: A dialog box will appear:

```
JOYSTICK        Select     Select Input Device
COMM 1351(a)    Input      dialog box
KOALA PAD
INKWELL         Device
COMM 1351
          ⬛⬆⬛⬇       OK
```
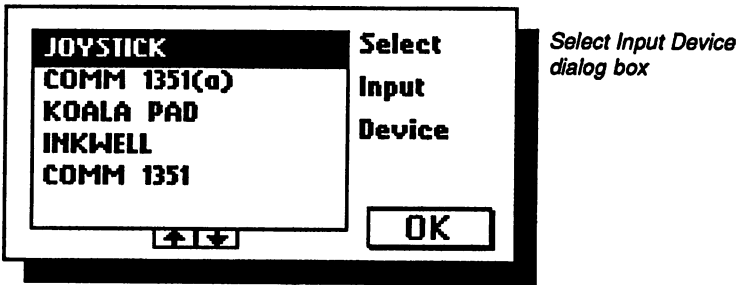
By using the ⬛CRSR keys, move the pointer so that it is positioned over the name of the input device you hooked up to your Commodore.

3: When the pointer is positioned over the input device you want, press ⬛RETURN. The name you selected will appear in reverse video (i.e., white on black).

4: Now use the ⬛CRSR keys to move the pointer to the OK icon. Once you have done so, press ⬛RETURN.

The input device you selected will become active and you will be able to move the pointer around the screen. *The next time you boot GEOS, the input device you selected will remain the active input device.*

Step 3: Install Your Applications

The applications you need to install to your System disk are geoWrite, geoMerge, and geoSpell. You cannot use these applications until you have installed them.

To install your applications:

1: Close the System disk by moving the pointer to the close icon located at the upper right corner of the disk note pad.

Click here to close the disk.

2: When the pointer is positioned over the close icon, press the input device button. (This is called **clicking**.) Once you have clicked on the close icon, you will have "closed" the disk. The screen will appear as follows:

A closed System deskTop

| geos | file | view | disk | select | page | options | 04/20/88 05:40 PM |
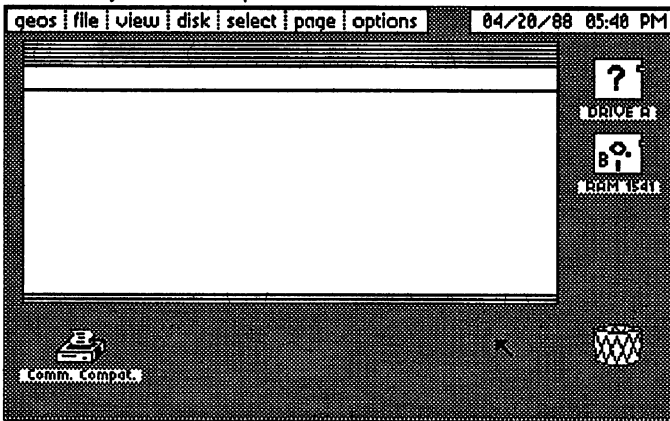
3: Remove the System disk from the disk drive and insert the disk entitled Applications. Close the disk drive door and click on the disk drive icon representing the disk drive into which you inserted the Applications disk (e.g., DRIVE A).

Click on this icon.

4: The Applications disk will open:
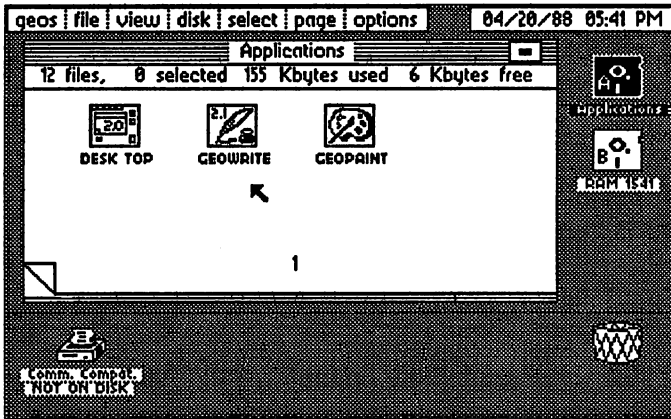
The Applications disk deskTop

Double-click on this file icon.

Move the pointer to the file icon entitled
GEOWRITE and click twice in rapid succession.
(This is called **double-clicking**.) The screen will
go blank momentarily and a dialog box will tell you that geoWrite is
installed. To return to the deskTop, either click OK or press
RETURN .
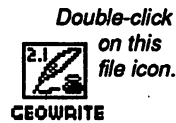
5: Now close the Applications disk by clicking on
the **close** icon at the upper right corner of the
disk note pad.

Click here to close the disk.

6: Remove the Applications disk from the disk drive and
insert the Write Utilities disk.

7: Click on the closed disk drive icon
representing the disk drive containing
the Write Utilities disk. The Write
Utilities disk will open.

Click here to open a disk.

The Write Utilities disk deskTop
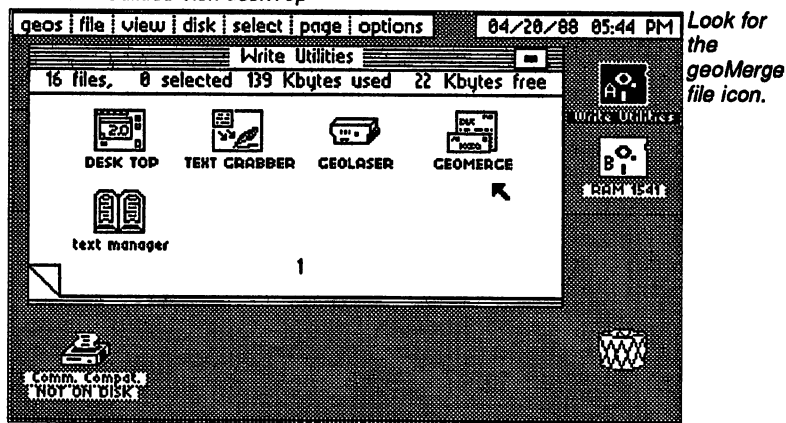
8: Double-click on the GEOMERGE file icon. When the geoMerge installation dialog box appears, click **OK** or press RETURN to return to the deskTop.

9: Now repeat the installation procedure for the geoSpell application:

a: Close the Write Utilities disk by clicking on its close icon.

b: Remove the Write Utilities disk from the disk drive.

c: Insert the geoSpell disk into the disk drive and click on the closed disk drive icon to open the geoSpell disk.

d: Double-click on the geoSpell application icon.

e: A dialog box will let you know that geoSpell has been installed. Click **OK** or press RETURN to return to the deskTop.

Once You Have Installed GEOS

You have now installed GEOS and its applications. Next you will need to make copies of the disks in your GEOS package. Go to "Backup Copies of Your GEOS Master Disks," on the next page.

Back up Copies of Your GEOS Master Disks

You have already been provided with a backup copy of the GEOS kernal (this system file that starts GEOS is located on the System disk). After installing your applications, you should make copies of all of the files on the GEOS disks, including the files that are on the System disk and the Backup System disk. You will also need to create a TUTORIAL disk, which will be an additional copy of the Applications disk.

The methods for making backups vary, depending on whether you have one disk drive, more than one disk drive, a RAM Expansion Unit, or a 1581 disk drive. If you have a 1581 disk drive, you can backup all three GEOS disks onto one 3 1/2 inch disk.

Depending on your disk drive set-up, you may need to configure your disk drives so that they can be recognized by GEOS. If necessary, refer to "Adding or Changing a Disk Drive" on page 78.

The following procedures describe how to format a disk, make backups depending on the disk drive set up you have, and make an additional copy of the Applications disk for the tutorial in Chapter 2, "Learning GEOS."

Step 1: Format Disks
If you have a 1541 or 1571 disk drive, format six single-sided 5 1/4 inch disks. If you have a 1581 disk drive, format two double-sided 3 1/2 inch disks. The procedure for formatting a 3 1/2 inch disk is slightly different. If you are formatting such a disk, refer to "To format a 3 1/2 inch disk," which follows the procedure below.

To format a 5 1/4 inch disk:
1: Open the System disk to its deskTop.

2: Click on the disk menu, then click on the format menu item.

3: A dialog box will ask you to "Put a disk to format in drive # and enter a name for it." Remove the System disk from the disk drive and insert the disk to be formatted.

4: Enter the name TUTORIAL and press ⌐RETURN¬ .

> ***NOTE*** If you are using a 1571 disk drive and have placed a double-sided disk into the disk drive, a dialog box will give you the option of formatting both sides of the disk. If you click **YES** both sides will be formatted. If you click **NO**, one side will be formatted. Clicking **Cancel** will stop the procedure and return you to the deskTop.

5: In a few moments the disk will be formatted and opened onto the screen. Remove the TUTORIAL disk from the disk drive and place a label on it.

6: Repeat this procedure to create backups of the System, System Backup, Applications, geoSpell, and Write Utilities disks. The names could be as follows: SYSBAK for the System disk, SPELLBAK for the geoSpell disk, APPBAK for the Applications disk, etc.

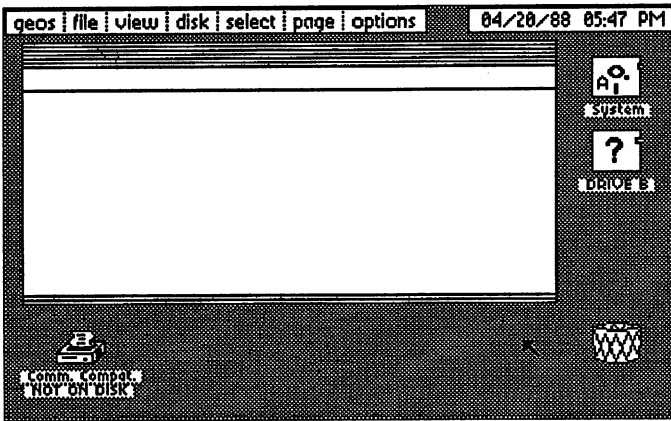## *To format a 3 1/2 inch disk:*

If you have a 1581 disk drive, use the following procedure to format a 3 1/2 inch disk:

1: Open the System disk to its deskTop.

2: Insert the 3 1/2 inch disk into the other active disk drive and click on that disk drive's icon.

3: An error message will appear and let you know that the disk is unformatted.

4: Click **OK**. An "inactive" screen will appear.

Drive B is the inactive screen.

5: Select **format** from the **disk** menu.

6: A dialog box will ask you to "Put disk to format in drive # and enter a name for it." Re-insert the 3 1/2 inch disk, enter the name GEOSBAKS, and press ⌜RETURN⌝ . The disk will be formatted.

7: Repeat Steps 5 and 6 to format a second disk entitled TUTORIAL.

Step 2: Now Make the Backups

Now that you have formatted your disks, you are ready to make the backups. Use the following procedures to copy the GEOS master disks onto the disks you formatted, and to make a second copy of the Applications disk onto a new disk entitled TUTORIAL.

The methods for copying the disks depend on the disk drive set-up you have: if you have one disk drive, one disk drive and a RAM Expansion Unit, two disk drives of the same disk size format (e.g., two 1541s), or two disk drives of different formats (e.g., a 1571 and a 1581).

In the following instructions, the **source** disk is the original disk (e.g., the Application disk) and the **destination** disk is the disk which will be the backup (e.g., the APPBAK disk you formatted).

If you have one 5 1/4 inch disk drive:

1: Open the System disk so that its deskTop is displayed.

2: Go to page 2 of the disk note pad by pressing 2.

3: Double-click on the DISK COPY program file icon.

4: The screen will turn blue and a message will instruct you to insert the disk to be copied into the disk drive. Remove the System disk and insert the source disk (e.g., the Application disk) into the disk drive. Press RETURN.

   NOTE You cannot copy the System or Backup System disk. You can, however, copy certain files from those disks: the DESKTOP 2.0, CONFIGURE 2.0, DISK COPY, PAINT DRIVERS, RBOOT, the desk accessories, and the printer drivers.

5: Next, you will be instructed to insert the destination disk (e.g., the formatted disk for the Applications disk, which you could have entitled APPBAK) into the disk drive. Remove the source disk and insert the destination disk into the disk drive. Press RETURN .

6: Continue to follow the instructions on the screen until the disk copy procedure is complete. It should take about three disk exchanges.

7: When the disk copy procedure is finished, you will have the option of copying another disk or returning to the deskTop. Press Y to copy the next GEOS master disk and repeat Steps 4–7. When you are finished copying the master disks, be sure to copy the Applications disk again onto the TUTORIAL disk. When the disk copy procedure is complete, press N to return to the deskTop.

If you have one 5 1/4 inch disk drive and a RAM Expansion Unit:

If you have a RAM Expansion Unit, you can copy the files from the source disk onto the REU, then copy the REU's contents onto a destination disk. If the message "Disk copy can't be done between these formats" appears, use the following procedure:

1: Select **all pages** from the **select** menu (or press ⌘W).

2: A dialog box will prompt you to "Please insert a disk with deskTop V2.0." Remove the current disk and insert the System disk. Click **OK**.

3: The next dialog box will instruct you to insert the source disk. Remove the System disk and insert the source disk into the disk drive.

4: When all the file icons are highlighted, click on one of the file icons once, pause, then click on the file icon again. The multi-file ghost icon will appear.

5: Move the multi-file ghost icon to the RAM disk drive icon and click. The files will be copied onto the REU.

If you have more than one disk drive of the same disk size format (e.g., a 1541 and a 1571):

1: Open the source disk to its deskTop.

NOTE You cannot copy the System or Backup System disk. You can, however, copy certain files from those disks: the DESKTOP 2.0, CONFIGURE 2.0, DISK COPY, PAINT DRIVERS, RBOOT, the desk accessories, and the printer drivers.

2: Select **copy** from the **disk** menu (or press ⌘K).

NOTE The message "Please insert a disk with deskTop V2.0" may appear. If so, remove the current disk and insert the System disk. Click **OK**. In a moment you will be asked to insert the source disk into the disk drive. Once you have done so, go to Step 3.

3: A dialog box will ask you to "Please insert destination disk in drive: #". Insert the destination disk into the drive indicated in the dialog box (e.g., Drive B if the dialog box specified Drive B). Click **OK**.

4: The next dialog box will ask you "Replace the contents of (destination disk name) with the contents of (source disk name)? Click **YES**.

5: A dialog box will ask you to "Please insert disk (source disk name) in drive: #". If the source disk is already in the disk drive, click **OK**. In a

few moments the disk will be copied and you will be returned to the source disk deskTop.

If you have more than one disk drive of different disk size formats (i.e., one is a 1571 and another is a 1581):

1: Open the source disk to its deskTop.

> *NOTE* You cannot copy the System or Backup System disk. You can, however, copy certain files from those disks: the DESKTOP 2.0, CONFIGURE 2.0, DISK COPY, PAINT DRIVERS, RBOOT, the desk accessories, and the printer drivers.

2: Insert the destination disk into Drive B.

3: Select **RESET** from the **options** menu (or press $\boxed{\text{C=}}\boxed{\text{R}}$). This will enable GEOS to recognize the disk in the other disk drive. Once you have selected **RESET**, the name of that disk will appear below its disk drive icon.

4: Select **all pages** from the **select** menu (or press $\boxed{\text{C=}}\boxed{\text{W}}$). All of the file icons will become highlighted.

> *NOTE* The message "Please insert a disk with deskTop V2.0" may appear. If so, remove the current disk and insert the System disk. Click **OK**. In a moment you will be asked to insert the source disk into the disk drive. Once you have done so, go to Step 5.

5: Click on one of the file icons. You will bring up the **multi-file ghost icon**, which represents all of the selected file icons on the disk.

6: Move the multi-file icon to the destination disk drive icon and click to deposit it there. The files on the source disk will be copied to the destination disk.

Once You Have Made the TUTORIAL disk and the Backups

Once you have made a TUTORIAL disk and backups of your GEOS master disks, place a write protect tab on each master disk. Store the original applications disks in a safe place and use the backups when you create work disks.

Now you are ready to set up your printer so that you can print documents produced with GEOS applications. See "Setting Up Your Printer," on the next page.

Setting Up Your Printer

GEOS supports over 70 different printers. Each one requires its own printer file called a **printer driver**. The printer driver file you need is found on the System disk.

Use the procedures described in this section to set up your printer so that you can print GEOS documents. To set up your printer, you will need to do the following:

1: Locate the printer driver you need by referring to the chart under "Printer Drivers" below.

2: Activate your printer driver by following the procedure under "Activating Your Printer," later on in this section.

3: Copy the correct printer driver to the backups you made of your applications disks.

   NOTE Once you copy the correct printer driver to the backups of the applications disks, you can copy the printer driver from the backup applications disks to your work disks. The reason you should copy the printer driver to the backup applications disks in the first place is simply because it will be easy to locate when you are making work disks.

   IMPORTANT The printer driver should always be on the work disk containing the application in use.

Printer Drivers

To find the printer driver you need, refer to the chart on the next page. For example, if you own an Apple Scribe printer, you will need to look for the Scribe printer driver file on the System disk. Once you have found the printer driver file you need, use the procedure described under "Activating Your Printer," after this section.

Your Printer	Interface	Printer Driver
Apple Scribe	RS-232 Serial	Scribe
Apple LaserWriter	RE-232 Serial	Laserwriter 2.1
Apple ImageWriter	RS-232 Serial	ImageWriter
Apple ImageWriter II	RS-232 Serial	ImageWriter II
Blue Chip M120	Centronics Parallel	Bluechip M120
BMC BX-80	Centronics Parallel	Bluechip M120
Cal-Abco Legend 800	Centronics Parallel	Bluechip M120
Cal-Abco Legend 808	Centronics Parallel	Epson MX-80
Cannon PW-1080A	Centronics Parallel	Epson FX-80
Cannon PW-1156A	Centronics Parallel	Epson FX-80
Citizen 120-D	Commodore Serial Bus	MPS 1200
C.Itoh 8510	Centronics Parallel	C.Itoh 8510
C.Itoh 8510A	Centronics Parallel	C.Itoh 8510A
C.Itoh Riteman C+ NLQ	Commodore Serial Bus	Riteman C+
Commodore 1525	Commodore Serial Bus	MPS-801
Commodore 1526	Commodore Serial Bus	1526
Commodore MPS-801	Commodore Serial Bus	MPS-801
Commodore MPS-802	Commodore Serial Bus	1526
Commodore MPS-803	Commodore Serial Bus	MPS-1000
Commodore MPS-1000	Commodore Serial Bus	MPS-1000
Commodore MPS-1000	Centronics Parallel	IBM 5152+
Commodore MPS-1200	Commodore Serial Bus	MPS 1200
Epson FX 80/80+/85/100/ 100+/185	Centronics Parallel	Epson FX-80
Epson EX-800	Centronics Parallel	Epson FX-80
Epson FX-185/286	Centronics Parallel	Epson FX-80
Epson JX-80	Centronics Parallel	Epson JX-80
Epson LQ-800/1000/1500	Centronics Parallel	Star NB-15
Epson LX-80	Centronics Parallel	Epson FX-80
Epson MX-80/100	Centronics Parallel	Epson MX-80
Ergo Systems Hush 80CD	Commodore Serial Bus	MPS-1000
Hewlett Packard Laserjet	RS-232 Serial	HP Laserjet
Hewlett Packard Laserjet+	RS-232 Serial	HP Laserjet
IBM 5152+	Centronics Parallel	IBM 5152+
Mannesmann Talley Spirit 80	Centronics Parallel	Blue Chip M120
NEC 8023	Centronics Parallel	C.Itoh 8510
NEC PC Printer (Epson LQ Series)	Centronics Parallel	Star NB-15

Okidata Microline 92/93	Centronics Parallel	Oki ML 92/93
Okidata Okimate 10	Commodore Serial Bus	Okimate 10
Okidata Okimate 20	Commodore Serial Bus	Okimate 20
Okidata 120	Commodore Serial Bus	Oki 120
Okidata Oki 120	Commodore Serial Bus	Oki 120 NLQ
Olivetti PR-2300	Centronics Parallel	Olivetti PR2300
Panasonic KX-P1090	Centronics Parallel	Epson MX-80
Panasonic KX-P1091/1092	Centronics Parallel	Epson FX-80
Seikosha SP-1000A	Centronics Parallel	Epson FX-80
Seikosha SP-1000VC	Commodore Serial Bus	Comm Compat
Star Delta	Centronics Parallel	Gemini 10x
Star Gemini II	Commodore Serial Bus	Comm Compat
Star Gemini 10x	Centronics Parallel	Gemini 10x
Star Gemini 10x	Centronics Parallel	Epson MX-80
Star Micronics NL-10 (with Commodore interface)	Commodore Serial Bus (com)	Star NL-10
Star Micronics NL-10 (with Centronics Parallel interface)	Centronics Parallel	Star NX-10
Star Micronics NX-10	Centronics Parallel	Star NX-10
Star Micronics NX-10C	Commodore Serial Bus	Star NX-10C
Star NB-15	Centronics Parallel	Star NB-15
Star NX-1000C Rainbow	Commodore Serial Bus	NX-1000 Rainbow
Star SG-10/15	Centronics Parallel	Star SG-10/15
Star Radix	Centronics Parallel	Gemini 10x
Toshiba PA7253	Centronics Parallel	C.Itoh 8510

Printer Interfaces

The interface you use depends on the type of printer you have. After you have connected the interface card to your Commodore and printer cable as explained in the interface card's instruction manual, note the following:

- The printer is always addressed as device #4 on the serial bus, so set the interface card or printer to device #4.

- Turn off any auto line-feed settings on the printer and the interface card.

- If the interface card that you are using has a transparent mode and you cannot get your printer to work with the specific printer setting, use the transparent mode.

- Tested cards are: Centronics Parallel, Commodore Serial Bus, Cardco Card?+G, Cardco Super G, DSI PPI Printer Interface, G-Whiz, Jameco JE-232 CM, Micrografix MW-302, Micrografix MW-350, Omnitronix Deluxe RS232 Interface, Telesys Turboprint GT, Xetec Graphics Printer Interface, Xetec Super Graphix, Xetec Super Graphix Jr.

If Your Printer Is Not Listed
If you don't find your particular printer listed, don't despair—most printers are compatible with one of the printers listed and can use the same setup. If your printer does not work, please call Berkeley Softworks for help. The Customer Service phone number is (415) 644-0890. We will be able to help get you up and running.

As new printers become available, Berkeley Softworks will write new printer drivers to support these devices. These drivers will be made available to registered GEOS users for the cost of the disk plus shipping and handling. They will also be available for downloading on QuantumLink Telecommunications Service.

Activating Your Printer
After you have activated your printer driver it will remain the default printer driver until the next time you change it (even if you reboot GEOS). If you have more than one printer, you can switch printer drivers as often as you need.

The following procedure entails using a geos menu option to activate the printer driver you need, then copying the printer drivers you need to the backups you made of your original applications disks. Be sure to copy the correct printer drivers to your applications disks *before* you make work disks from the applications disks. If you do so, you will not need to copy the printer drivers to each of your work disks.

To set up your printer:
1: Refer to the Printer Drivers chart on page 18 to find the name of the printer driver you need.

2: Open the System disk so that the deskTop appears.

3: Click on the **geos** menu, then click on the **select printer** menu item.

4: A dialog box listing the printer drivers on that disk will appear. Click on the name of the printer driver you need, then click **OK**. You will be returned to the deskTop.

Select Printer dialog box
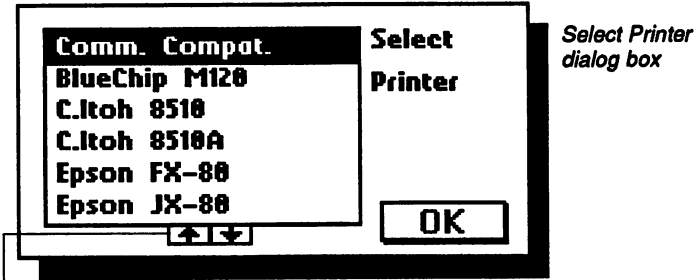
scrolling arrows

NOTE If your printer driver is not listed, click on the scrolling arrows located just below the list of names. You will scroll through the names of the printer driver files on the disk. When you find the name you need, click on it, then click **OK**.

IMPORTANT Once you have performed this procedure, the printer driver you selected will be made the default (i.e., active) printer driver on the System disk (*even if you reboot GEOS*). You will note that its file icon has moved on the deskTop; it will appear ahead of all the other printer drivers on that disk on page 1 of the System disk note pad. This means that it is in the "default" printer driver position.

5: Now copy the printer driver to the backups you made of the geoPaint and geoWrite Accessories applications disks.

NOTE Refer to "Copying a File to Another Disk," page 66, if needed. If you plan to use more than one printer driver and have copied them to your backup applications disks, use the **select printer** option in the **geos** menu to activate the printer driver you plan to use next.

Booting GEOS

You need to "boot up" (i.e., turn on the computer and open the System disk) GEOS before you can begin to use the applications.

The methods for booting GEOS if your computer is turned off depend on whether you have a Commodore 64 or a 128, and if you are using a PPI printer interface.

If you have a Commodore 64:

1: Make sure your computer and any accompanying equipment (e.g., disk drives, printer, input device, RAM Expansion Unit) are properly set up.

2: Insert the System disk into a disk drive (or Drive A).

3: Turn on the computer, monitor, and disk drives.

4: The Commodore 64 BASIC V2 screen will appear. Type **LOAD"GEOS",8,1** and press RETURN . The System deskTop will appear shortly.

5: Close the System disk by clicking on its close icon or holding down C= and pressing C . Remove it from the disk drive.

6: Insert the work disk you need, then open the disk so that its files are displayed on the screen. You are now ready to begin using GEOS.

If you have a Commodore 128:

1: Make sure your computer and any accompanying equipment (e.g., disk drives, printer, input device, RAM Expansion Unit) are properly set up.

2: Turn on the monitor and disk drives.

3: Insert the System disk into a disk drive (or Drive A).

4: Hold down the C= key and turn on the computer keyboard.

   NOTE This will open your Commodore 128 in 64 mode.

5: The Commodore 64 BASIC V2 screen will appear. Type
   LOAD"GEOS",8,1 and press [RETURN] . The System deskTop will
   appear shortly.

6: Close the System disk by clicking on its close icon or holding down
   [C] and pressing [C] . Remove it from the disk drive.

7: Insert the work disk you need, then open it so that its files are displayed
   on the screen. You are now ready to begin using GEOS.

If you are using a Commodore 64 or 128 with a Parallel Printer Interface (PPI):

1: Make sure your computer and any accompanying equipment (e.g., disk
   drives, printer, input device, RAM Expansion Unit) are properly set up.

2: Turn on the monitor and disk drives.

3: Insert the System disk into a disk drive (or Drive A).

4: 64 owners: Turn on the computer keyboard.

   128 owners: Hold down the [C] key and turn on the computer key-
   board.

5: When the Commodore 64 BASIC V2 screen appears, type
   OPEN4,4,25:PRINT#4:CLOSE#4:LOAD"GEOS",8,1 and press
   RETURN. The System deskTop will appear shortly.

   NOTE The **OPEN...** command will set the printer in transparent
   mode.

Exiting GEOS

Never turn off your computer until you have properly closed a program, or damage to your files may occur. Use the following procedures to exit GEOS. You can close up your computer entirely, or you can exit to BASIC mode from the deskTop, if desired.

If you wish to turn off the computer:

1. Exit the current application and return to the deskTop (e.g., by selecting **quit** from the **file** menu if you are in geoWrite or geoPaint).

2: Position the pointer over the close icon on the disk note pad and click. The file icons on the disk note pad will disappear and the disk drive icon representing the disk drive containing the program disk will appear with a question mark inside.

3: Remove the disk from the disk drive and store the disk in a safe place.

4: Turn off the computer, disk drive, and monitor switches.

If you wish to return to BASIC mode:

1: Exit the current program and return to the deskTop.

2: Go to the command menu and click on the **options** menu item.

3: Clicking on **options** will display four items: **set clock, RESET, BASIC,** and **shortcuts.** Click on **BASIC.** You will be returned to the original 64 BASIC mode.

Work Disks

Once you have installed GEOS, created backup disks, and set up your printer driver file, you will be ready to use the applications described in this manual. The easiest way to use these applications is to create work disks, which are the disks you use on a day to day basis. The kind of work disk you prepare depends on the project you are working on, how much space you have on your disks, and the kind of disk drive set-up you are using.

Before You Create a Work Disk

Before you create a work disk, make sure you have completed the following procedures, which are explained earlier in this chapter:

- You have installed GEOS and its applications.

- You have created backup disks of your GEOS master disks.

- You have copied the printer driver files you need onto the backups you made of the original applications disks.

Why You Need Work Disks

The disks that come with the GEOS package are master disks. Aside from booting, they should not be used for everyday use. Instead, you should copy the applications, fonts, desk accessories, and other files you need for a particular type of project onto a work disk. You will find that using work disks is convenient in that you can tailor them to your own needs, depending on the equipment you have and the type of work you plan to do.

In this manual, each chapter covering applications describes how you can create a work disk for the application you are using. For example, if you are using geoPaint, the GEOS graphics program, and if you have only one disk drive, you may wish to copy the following files onto a work disk:

- the geoPaint application.
- the correct printer driver.
- geoPaint documents.

The following optional files can be included as well:

- the DESKTOP 2.0 file.
- the Photo Manager desk accessory.
- any photo scraps.
- any font files.

If you have two disk drives, the recommended procedure is to copy the application and other needed files (desk accessories, photo or text scraps, font files, etc.) onto one disk and store your document files on another disk.

To copy files from one disk to another, refer to "Copying a File to Another Disk," page 66.

Standard Files to Place on Work Disks

Depending on the disk drive set-up you have, you should have the following files on work disks:

Printer Drivers   If you plan to print the document, copy the printer driver you need onto any work disk containing an application. Printer drivers are located on the System disk.

DESKTOP 2.0   Ideally, a copy of the DESKTOP 2.0 file should be kept on any work disk that contains an application. If not, when you exit a document, a message will instruct you to insert a disk containing any version of the DESKTOP that is higher than version 1.5. If this happens, you will need to remove the current disk and insert a disk containing the DESKTOP (such as the System disk, or the original geoWrite and geoPaint applications disks). If you wish to avoid this procedure, simply copy the DESKTOP 2.0 file to your work disks; when you exit a document, you will be returned directly to the deskTop.

Another reason you should copy the DESKTOP 2.0 file onto your work disks is that some functions of the deskTop require the use of the DESKTOP 2.0 file.

Do not copy the DESKTOP 2.0 file to earlier versions of GEOS System disks, since the DESKTOP 2.0 file is incompatible with the earlier versions of the KERNAL file. If you try to use an earlier System disk with the DESKTOP 2.0 file, a dialog box will instruct you either to boot with the earlier System disk or the GEOS 2.0 System disk.

The DESKTOP 2.0 file is located on the System, Applications, Write Utilities, and geoSpell disks.

CONFIGURE 2.0   If you have different disk drive types (e.g., a 1541 and a 1571) and no RAM Expansion Unit, you will need to copy the CONFIGURE 2.0 program to any work disk containing a copy of the DESKTOP 2.0 file.

If, however, you have a RAM Expansion Unit, you need not copy the CONFIGURE 2.0 file to any work disk containing the DESKTOP, even if the disk drives are different.

If a copy of the CONFIGURE 2.0 file is not on a work disk containing the DESKTOP 2.0 file, the settings you entered in the CONFIGURE program will be lost, and the disk drive icons for Drives A and B will disappear from the deskTop. You will not lose data from the disks representing the missing disk drive icons, though. To retain the settings, insert the System disk, which contains the CONFIGURE 2.0 file, and reconfigure the disk drives.

The CONFIGURE 2.0 file is located on the System disk.

Work Disks and the 1581 Disk Drive

The 1581 disk drive is large enough for you to copy all of your applications and related files onto one 3 1/2 inch disk drive. The easiest method for

preparing work disks for use with a 1581 disk drive is to copy *all* of your GEOS master disk files onto one 3 1/2 inch disk, and keep your documents on other disks.

Work Disks and the RAM Expansion Unit

If you copy the application files you need for the current work session onto a RAM Expansion Unit (REU), GEOS will operate much faster. You can use the disk drive for the disks containing your documents.

It is highly recommended that you purchase a RAM Expansion Unit. Not only will it speed up the performance of GEOS, it can speed up the performance of the disk drives as well. In addition, it will make the preparation of work disks easier for you, as explained under "Different Disk Drive Types," above.

2
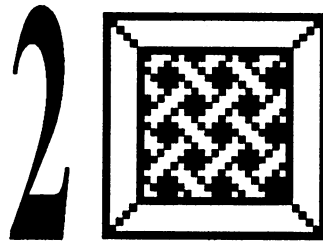
Learning GEOS

This chapter will introduce you to GEOS, the Graphic Environ-
ment Operating System. GEOS is both easy and fun to use. After
reading this chapter, you will have the basic knowledge necessary
to use GEOS.

Before you read this chapter, however, make sure that you have
installed GEOS according to the instructions in Chapter 1, "Getting
Started."

This chapter defines terms used throughout the *GEOS 2.0 User's
Manual* and introduces you to some basic features of GEOS. Also
included is a tutorial to get you better acquainted with GEOS.

For further reference, refer to Appendix A: Glossary.

Common Features and How They Work

This section defines a number of words and phrases used throughout the manual to describe various features of GEOS. (Note that there is a glossary provided in Appendix A.) Once you have read this section, follow the tutorial that begins on page 37 so that you can get a better idea of how GEOS works.

The Pointer, Clicking, and Double-Clicking

When you boot GEOS, a small arrow called the pointer will appear on the screen. The pointer can be moved around the screen by moving the input device in the direction you want the pointer to go. The input device pointer is a decision-making tool which enables you to move around GEOS. The pointer is used to select items or to move the text cursor (described shortly) to another location. In geoPaint, the pointer is used in conjunction with a graphic tool to create images on the screen.

The pointer

To select an item or move to a new location, position the pointer at the new location and press the input device button. This action is called **clicking**.

Sometimes you can open an application or document by clicking twice in rapid succession on its file icon. This is called **double-clicking**.

Icons

An **icon** is a picture denoting an operation or option. Icons appear in a variety of places:

On the deskTop   *In a dialog box*   *In an application*

To select an icon, move the pointer to the icon and click. Depending on the icon's purpose, it will carry out the function it denotes.

The Text Cursor

Whenever you are working with text, there is a small flashing vertical bar on the screen indicating where the next typed character will appear. This bar is called a **text cursor** or simply a **cursor**. You can move it around by pointing and clicking on a new location or pressing the keyboard ⌈CRSR⌉ keys, which are described below.

The Keyboard Cursor Keys

Another way of moving the cursor or pointer on the screen is to use the ⌈CRSR⌉ keys, which are located below the ⌈RETURN⌉ key on your keyboard.

To move:	*Press:*
Right	⌈CRSR⌉ ⇆
Left	⌈SHIFT⌉ ⌈CRSR⌉ ⇆
Down	⌈CRSR⌉ ↑↓
Up	⌈SHIFT⌉ ⌈CRSR⌉ ↑↓

To select an item using the keyboard cursor keys, position the pointer over it and press ⌈RETURN⌉ .

Menus

A **menu** is just what you might guess: a list of items used to list commands, desk accessories, or fonts. For example, the command menu located at the upper left corner of the deskTop screen appears as follows:

| geos | file | view | disk | select | page | options |

You can select a menu item by moving the pointer to it and clicking, or you can use a keyboard shortcut (which is described under "The Commodore Key," below).

Clicking on an item in the command menu will cause another menu to appear.

The disk menu options

disk
open   C=O
close   C=C
rename   C=N
copy   C=K
validate C=U
erase   C=E
format   C=F

The Commodore Key

The Commodore key, ⌈C⌉ , is used in conjunction with other keys to perform special keyboard commands. To use a keyboard command, hold down the ⌈C⌉ key, and while keeping it held down, press the

key needed to carry out the command. For example,
if you wish to open (activate) the current
disk, hold down ⬛ and press ⬛ . Keyboard commands can be found listed in the
menus to the right of the menu option.

keyboard commands
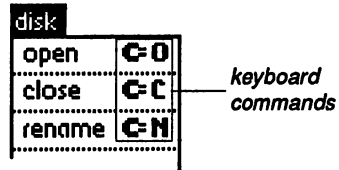
Dialog Boxes

Dialog boxes are small windows that appear over the current feature on the
screen:

Please Select Option:

Create new document

Open existing document

Quit to deskTop
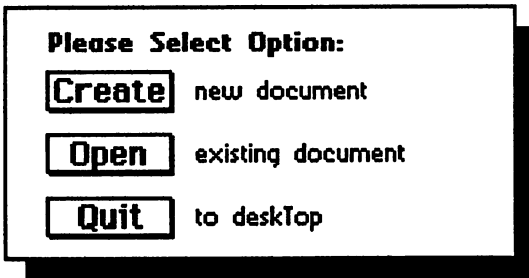
A dialog box may give you special instructions or information. It may also
require you to enter special information before you can continue using a
feature. You will be asked to enter information, or use the pointer to make
a selection from a list of items. Once you enter information into a dialog
box, you can:

- change information by pressing the INST/DEL key to backspace over
  existing text.
- cancel the operation by clicking on **Cancel.**
- switch to another disk drive by clicking on **Drive.**
- switch to another disk by clicking on **Disk.**
- carry out the dialog box's instructions by clicking on **OK.**

Sometimes you can press RETURN to select **OK.**

Windows

The framed rectangular regions on the screen are called windows. In
geoPaint or geoWrite the window is a view port into an area larger than can
be displayed on the screen. It is typically used to separate different functional areas of the screen.
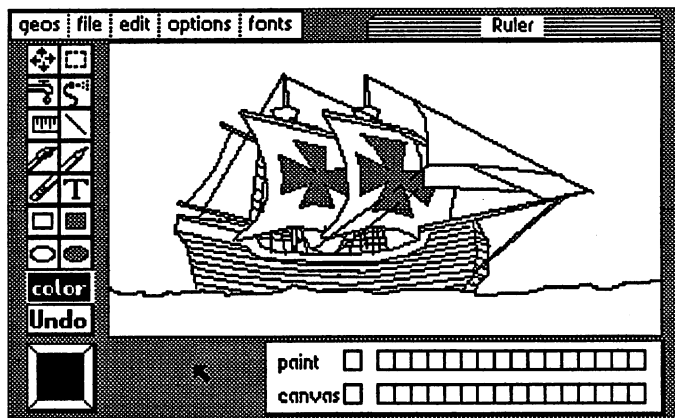
geoPaint's Drawing Window

For example, geoPaint provides a **Drawing Window** into an 8 by 10 1/2
inch document. This window only shows a portion of the document at a
time. You can work with the document by scrolling or moving the window
to different parts of the document. You can view an entire document page
by using that application's **preview** command. Similarly, geoWrite
provides a **Writing Window.**

Fonts, Type Styles, Point Sizes, and Proportional Spacing

When you are creating text in a geoWrite or geoPaint document, you will be
able to alter the appearance of the text in a variety of ways and see the
results right away. You can change the size, style, and font (typeface) of
the text.

California **California** *California* California

𝕯𝔴𝔦𝔫𝔢𝔩𝔩𝔢 𝔇𝔴𝔦𝔫𝔢𝔩𝔩𝔢 𝔇𝔴𝔦𝔫𝔢𝔩𝔩𝔢

The size of each font is measured in points. There are 72 points to an inch.
The actual height of characters printed using GEOS depends on the resolu-
tion of your printer.

For any given font and point size, you also can change the type style used to
print your text. Available styles are plain, **bold**, *italic*, outline, underline,
superscript, and subscript.

Berkeley Softworks offers over 50 different fonts in all, each with a number of point sizes. Ten font files, Commodore, California, Dwinelle, Cory, Roma, University, LW_Barrows, LW_California, LW_Greek, and LW_Roma, and one resident font, BSW, come with GEOS. (The BSW font won't appear as a font file on your disk note pad; this font, which automatically appears in all **font** menus, is internal.) Once font files are placed on a work disk, the first six or so (depending on the application) will appear in the **font** menu of the application documents on that disk. You can rearrange font files on a work disk so that the fonts you need most will appear in the **font** menu. (Refer to "Rearranging File Icons," page 64.)

If you look closely at the spacing between the individual letters printed by most typewriters, you will notice that the letters are printed with a fixed spacing. If you look at a professionally printed page you will notice that the spacing depends on the shape of the letter. For example, **w** is wider than **i**. This is called **proportional spaced printing**, which is what GEOS uses for all text to enable you to create professional looking documents.

Files Within GEOS

When you boot GEOS, the first screen that appears will contain the **desk-Top**. Use the deskTop to work with your files and disks, which are represented by icons or text. With the deskTop, you can perform operations such as opening, copying, and renaming files and disks that appear in the deskTop. The deskTop appears as follows:

file icon

disk drive icons
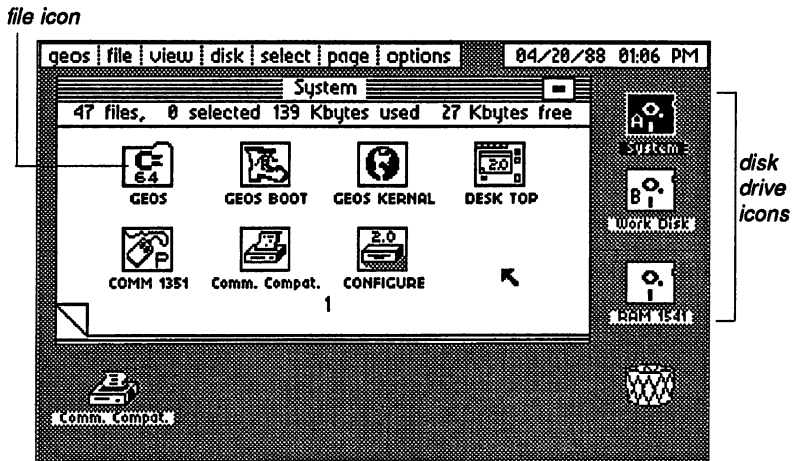
The files on the deskTop are the following:

- **System files,** which are necessary for the operation of GEOS. GEOS KERNAL, DESKTOP V2.0, and GEOS BOOT are all System files.

- **Interface driver files,** which are programs used to control certain parts of your hardware, such as the printer and input device you are using.

- **Applications,** which are computer programs that operate in GEOS. geoWrite, geoPaint, geoSpell, geoMerge, Text Grabber, geoLaser, and Paint Drivers are all applications.

- **Application data files,** which are data files created by you when you use an application. For example, a term paper can be an application data file if it is created with the geoWrite application. In this manual, data files are referred to as **documents.**

- **Desk accessory files,** which are small utility programs you can use within an application or on the deskTop. For example, you can use the Calculator desk accessory to perform quick calculations while you are using a geoWrite document.

- **Assembly language files,** which are programs and data files in Assembly language or BASIC format.

- **Non-GEOS files,** which are non-GEOS documents not yet converted to GEOS format. For example, you can take a document created with the EasyScript word processing program and use Text Grabber to create a geoWrite version of the same file.

Sharing Data Between Applications

One of the most important features about GEOS programs is their ability to "share information" by way of special temporary files called **text scraps** or **photo scraps.** Once you select text or a graphic in a document, you can copy or move it into a scrap. When you open another document, even one created with a different GEOS application, you can use a simple command to copy the scrap contents into the second document, as many times as you like. These scraps can be saved permanently to **album** files, which are handled by the **Text Manager** and **Photo Manager** desk accessories.

Customizing GEOS

As you work with GEOS, you will find how easy it is to customize your disks to create **work disks**. Depending on the project you have in mind and your disk drive configuration, you can copy almost any combination of Berkeley Softworks' products to a work disk to suit your own needs and standards.

Now that you have had a glimpse of what GEOS provides, you can begin to learn how to use GEOS right away. If you have never used a GEOS product before, a tutorial is provided on the next page to get you started using GEOS.

The Tutorial

If you are unfamiliar with graphic environmental operating systems, use the following tutorial to get familiar with GEOS. Even if you have used GEOS products before, we recommend this tutorial so that you can try out some of the updated features that appear in both the deskTop and in geoPaint.

Once you have completed this tutorial, you will know how to select a group of file icons on the deskTop, create a work disk for geoPaint, open a geoPaint document, draw a little, use the bitmap scaling feature, and exit.

The disks you will need for this tutorial are the GEOS System disk and the TUTORIAL disk you created when you were making backups of your GEOS disks in Chapter 1. The TUTORIAL disk is an additional copy of the Applications disk.

Step 1: Boot GEOS

- If you have a Commodore 64, insert the System disk into the disk drive, and turn on the computer, monitor, and disk drive switches. When the BASIC screen appears, enter LOAD"GEOS",8,1 and press ⌐RETURN⌐.

- If you have a Commodore 128, insert the System disk into the disk drive and turn on the monitor and disk drive switches. On the keyboard, hold down the ⌐C⌐ key and turn on the computer. When the BASIC screen appears, enter LOAD"GEOS",8,1 and press ⌐RETURN⌐.

  NOTE This procedure will boot a Commodore 128 in 64 mode.

- If you have a PPI interface connected to your Commodore, boot your Commodore in 64 mode and enter the command OPEN4,4,25:PRINT#4:CLOSE#4:LOAD"GEOS",8,1 and press ⌐RETURN⌐.

Step 2: Insert the TUTORIAL Disk

Never use an original application disk to create a document! Instead, use the TUTORIAL disk you created earlier when you were making backup disks.

1: Close the System disk by holding down the ⌐C⌐ key and while continuing to hold down the ⌐C⌐ key pressing ⌐C⌐. Here is how the screen will appear:
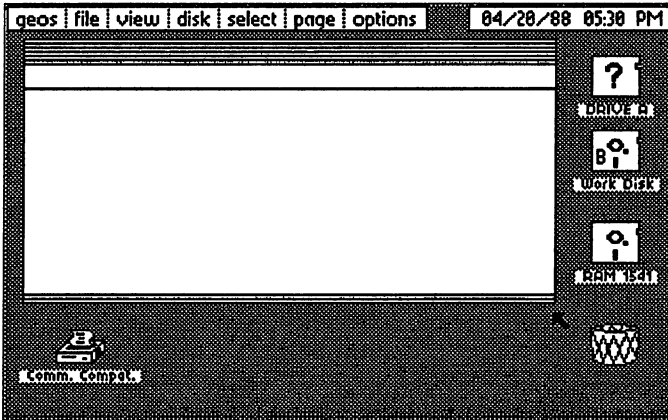
NOTE You just performed the keyboard shortcut for closing the currently active disk. Another way of closing the disk would have been to select **close** from the **disk** menu. The keyboard shortcut, [C][C], is listed next to the **close** menu option.

2: Remove the System disk from the disk drive and insert the TUTORIAL disk into the disk drive. Close the disk drive door.

3: Activate the TUTORIAL disk by holding down the [C] key and pressing [O]. The TUTORIAL deskTop will appear on the screen:
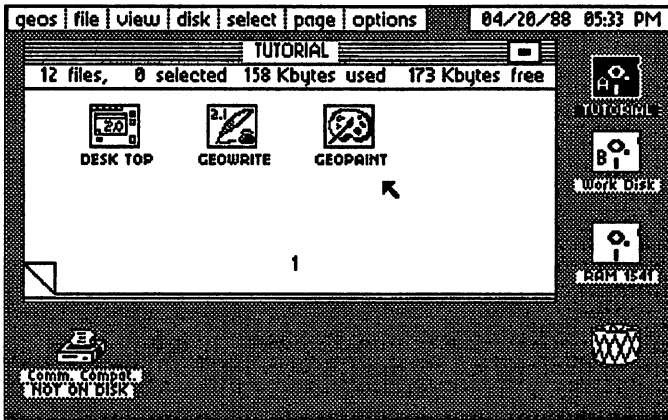
Step 3: Now Remove Some Files

You will now make a work disk for geoPaint by using the TUTORIAL disk. Follow these instructions:

1: You're not going to need all those files you see on the TUTORIAL disk, so now you can delete some of them from the disk. First you have to find a file to delete. The files you need to delete are located on pages 1, 2 and 3.

2: You won't need the GEOWRITE file icon for this tutorial. Position the pointer over the geoWrite file icon and click once. The file icon will become highlighted.

3: Now click again on the GEOWRITE file icon. An outline called a "ghost icon" will appear. It will be attached to the pointer.

Here is the highlighted file icon.

4: Move the pointer to the waste basket icon at the lower right corner of the screen and click. The GEOWRITE file icon will be deposited inside and the name GEOWRITE will appear below the file waste basket.

Here is its ghost icon.

5: But no! You might need the geoWrite application! (Actually, you won't for this tutorial.) To retrieve the GEOWRITE file icon, click on the waste basket. The screen will be redrawn and the GEOWRITE file icon will be restored to its original position on the disk note pad.

6: Now go to page 2 by pressing 2 on the keyboard. The disk note pad will display the photo manager, calculator, and note pad desk accessories. You won't need the photo manager or the calculator file icons. You will delete them from the disk.

photo manager   calculator

7: Move the pointer to the photo manager file icon, hold down the ⌖ key, and click. The photo manager file will become highlighted. Now, while continuing to hold down the ⌖ key, click on the calculator file icon. It too will become highlighted, along with the photo manager file icon.

photo manager   calculator

IMPORTANT Make sure you have *not* clicked on the **note pad** file, since you will need it for the tutorial.

8: Now go to page 3 of the disk note pad by pressing 3. This page contains a number of font files, which enable you to change the typeface used in a geoPaint document. Normally, you would include fonts on a geoPaint work disk, since they *are* handy to have. However, for this tutorial, we're

Choose page files from the select menu.

going to delete them. Go to the **select** menu and click on it. When the menu options appear, click on **page files**. All the file icons on that page will become highlighted, just as if you had clicked on them.
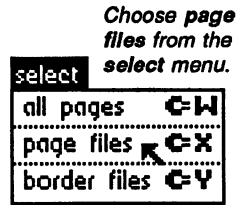
9: Now move the pointer to one of the high-lighted file icons and click once. An outline with the words Multi File will appear and become attached to the pointer. It's called the **multi-file ghost icon**. This is how you can move a group of file icons around the screen. This multi-file ghost icon represents all the file icons on the current page and the files you selected on page 2.
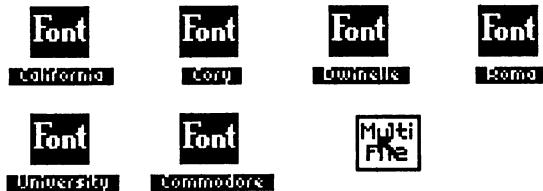
10: You're going to remove all of the files you selected from the TUTO-RIAL disk: move the pointer, which should still have the multi-file select icon attached to it, to the waste basket at the lower right corner of the screen.

11: Position the multi-file ghost icon over the waste basket and click. A dialog box will ask you if you wish to delete the selected files (such dialog boxes come in handy). If you did not, you would have clicked on the **Cancel** icon. But since you do wish to delete these file, click on the **OK** icon. The files will be deleted.

You have just created a work disk. The contents of a work disk depend entirely on your needs, disk space, and disk drive set-up. Note that if you have different disk drives (e.g., a 1541 and a 1581) and no RAM Expansion Unit, you will need to copy the CONFIGURE 2.0 file to any work disk containing a copy of the DESKTOP 2.0 file.

Step 4: Open geoPaint

Now you are ready to be introduced to geoPaint, the GEOS graphics program.

1: Go to page 1 of the TUTORIAL work disk by pressing 1. The DESK-TOP 2.0, GEOWRITE, and GEOPAINT files will be displayed.

2: Move the pointer to the GEOPAINT file icon and click twice in rapid succession. By "double-clicking" you can open a file quickly.

Double-click here.

GEOPAINT

> *NOTE* Another way to open a file is to click once on its icon so that it is highlighted, then select **open** from the **file** menu (or press C= Z).

3: The screen will change to the following:
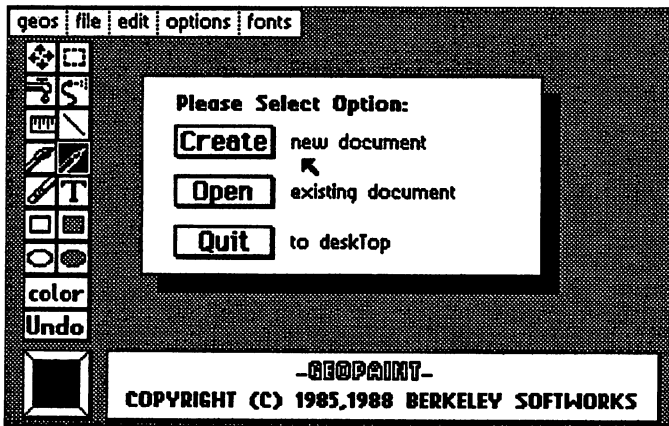
4: You are going to create a new document. Move the pointer to the **Create** icon and click once.

5: Another dialog box will appear. This one will ask you to enter a name for the document you plan to create. Enter any name you wish, so long as it does not exceed 16 characters. Press RETURN afterwards. You will enter the new document.

> *NOTE* If you are using more than one disk drive, a **Drive** icon will appear in the dialog box. This will give you the option of having the

document created on a disk in another disk drive. However, for this tutorial, do not create the document in another disk drive.

Step 5: Create a Drawing

After you pressed $\boxed{\text{RETURN}}$ in the last step, the following geoPaint screen will appear.
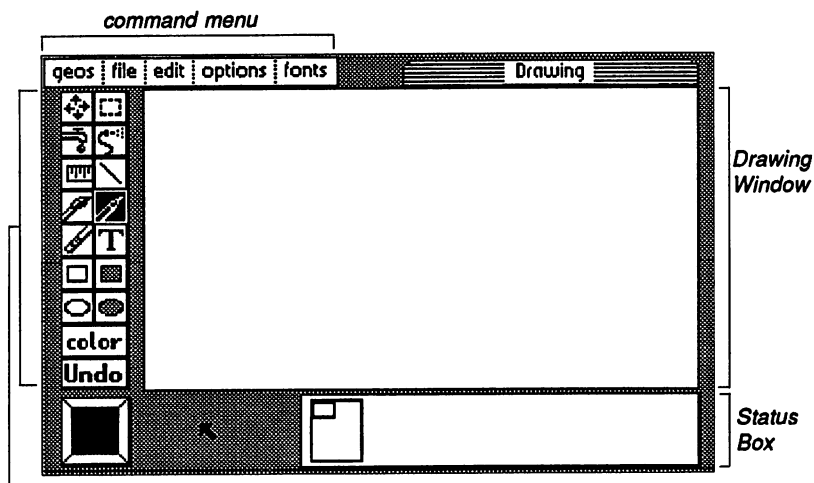
Use the Toolbox to create images.

As with the deskTop, a command menu will appear at the top left corner of the screen. Clicking on one of its menu options will display a list of more options.

In the middle of the screen is a large rectangular Drawing Window, in which you will create your drawing. At the left side of the screen is the Toolbox, which contains tools for creating a variety of drawings. For this tutorial, you will create a simple drawing, just to get familiar with geoPaint. Then you will try out the Bitmap Scaling feature.

1: Go to the Toolbox and look for the tool that resembles a hollow circle. This is the **Hollow Ellipse** tool. Click on the **Hollow Ellipse** tool to select it.

Click on this icon in the Toolbox.

2: The **Hollow Ellipse** tool will become highlighted. Move the pointer to the Drawing Window: you will discover that the pointer will assume the shape of a small cross-hair.

42 Learning GEOS

3: Click once to activate the **Hollow Ellipse** tool.

4: Move the pointer across the Drawing Window. An ellipse will be drawn across the Window.

5: Make the ellipse any size you want. When it is a size you like, click to set the ellipse in place and to deactivate the tool.
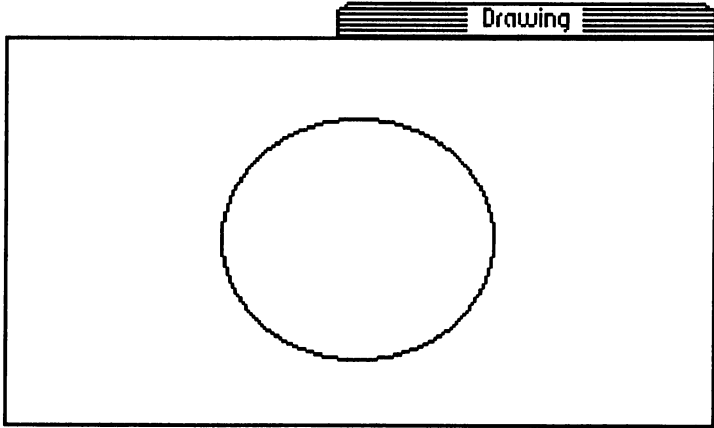
6: Next, go to the Current Pattern Indicator, which appears just below the Toolbox. Click on the Current Pattern Indicator.

Click on the Current Pattern Indicator.

7: To the right of the Current Pattern Indicator, a selection of patterns will appear. Click on a pattern you like. Once you have done so, the pattern selections will disappear and the color bar will return.

Now select a pattern.

8: Now that you have selected a pattern, go to the Toolbox again and look for the Faucet tool. The **Faucet** will fill an enclosed image or the background with a pattern or color. Click on the **Faucet**.

Next, click on the Faucet.

9: You are now ready to fill the ellipse with the pattern you selected. Move the pointer to the ellipse and position the cross-hair within its boundaries.

10: Now click. The ellipse will become filled with the pattern you selected.
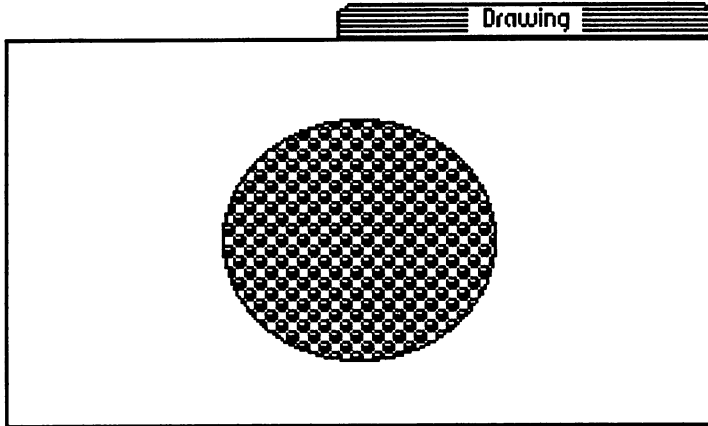
Step 6: Use the Bitmap Scaling Feature

A feature that has been added to geoPaint for the GEOS 2.0 upgrade is the Bitmap Scaling feature. With Bitmap Scaling, you can copy an image into a photo scrap, use a dialog box to change its appearance, then paste the altered image into the document. For this part of the tutorial, you get to experiment with the Bitmap Scaling feature.

1: In order to use the Bitmap Scaling feature, you will need to create a photo scrap. Move the pointer to the **Edit Box** tool and click on it to select it.

Click on the Edit Box tool.

2: Move the pointer to the Drawing Window; the pointer will assume the shape of a cross-hair.

3: Position the pointer at the upper left of the ellipse you drew earlier, and click.

4: Now move the pointer diagonally across the ellipse. A dotted line (called an **editing region**) will appear. When the ellipse is contained

within the editing region, click again. The editing region will be set in place.
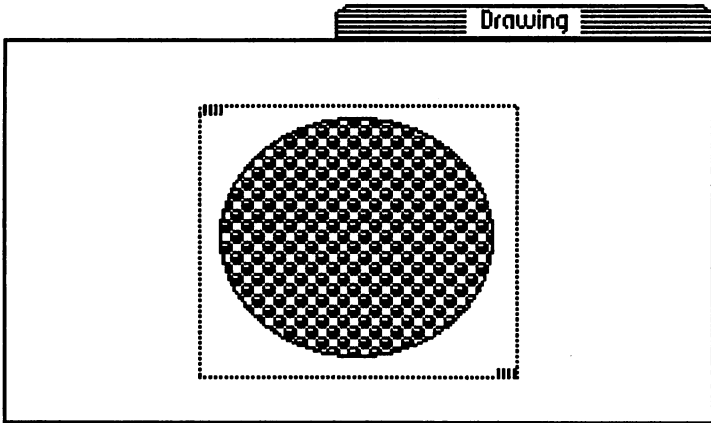
5: Now go to the command menu and select **copy** from the **edit** menu. A copy of the ellipse will be placed into a photo scrap.

6: Next, select the **Edit Box** tool again, and use Steps 2–4 to open another editing region, right over the current ellipse. However, make this editing region a different shape from the one created earlier.
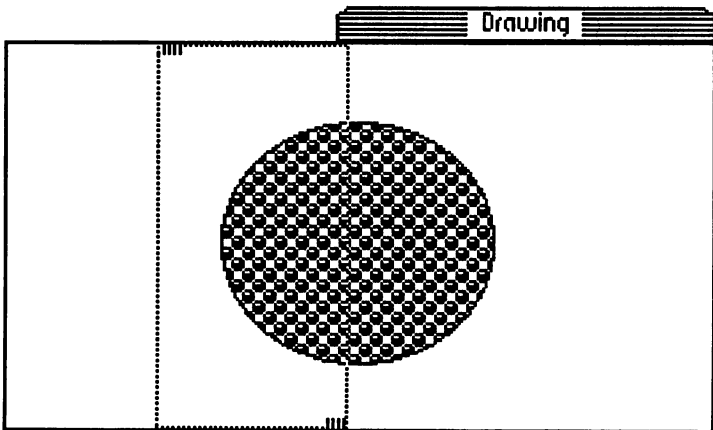

7: Now you can use the Bitmap Scaling feature. Select **paste** from the **edit** menu. The following dialog box will appear:
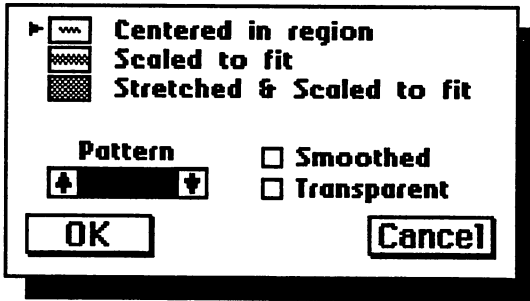
8: There are a number of ways you can alter the appearance of the photo scrap. For example:

a: Click on the **Stretched & Scaled to fit** option.

b: Click on the arrows in the **Pattern** box to scroll through a selection of 32 patterns. Select a pattern other than the one originally displayed.

c: Click on the **Transparent** option.

9: Once you have clicked on these options, click **OK**. You will be returned to the Drawing Window, and the ellipse you pasted into the second editing region will be very different from its original appearance:
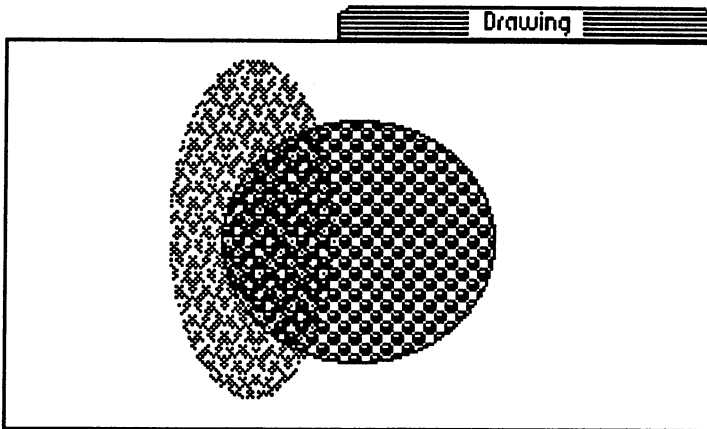
Step 7: Use a Desk Accessory

When you deleted most of the files of the TUTORIAL work disk, you deleted a number of programs called desk accessories. A desk accessory is a small program you can use from within an application document such as geoPaint. The desk accessory you are going to use now is the Note Pad.

1: Go to the command menu and select **note pad** from the **geos** menu.

2: The Note Pad will appear on the screen on top of your geoPaint drawing. You won't be able to use your drawing now; it will be rendered inactive as long as the Note Pad is on the screen. Here is how the Note Pad appears:
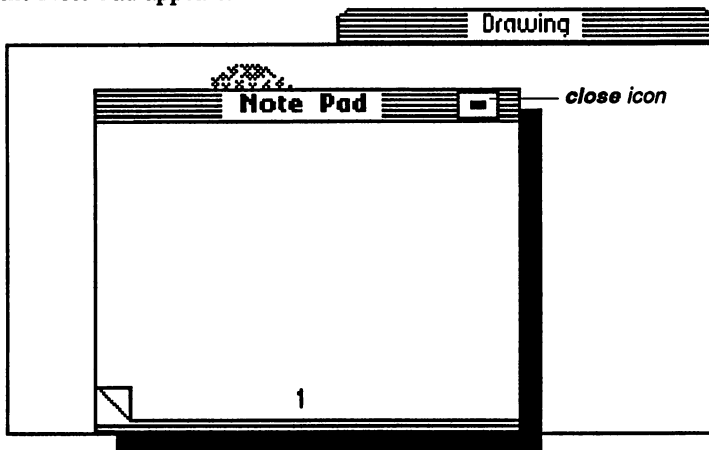
3: Type a note into the Note Pad: to do so, simply start typing.

4: Now exit the Note Pad. Move the pointer to the **close** icon and click. The Note Pad will disappear and you will be returned to your drawing.

Step 7: Now Exit geoPaint

When you leave the geoPaint application, you have the option of going to the following places:

- you can create and enter a new geoPaint document.
- you can enter an existing geoPaint document.
- you can return directly to the deskTop.

For this tutorial, you will go back to the deskTop.

- Go to the command menu and select **quit** from the **file** menu. Not only will you exit your geoPaint document and return to the deskTop, but the contents of your document will be saved as well.

Step 8: Look for the New File Icon

After you create a document with geoPaint or geoWrite, GEOS will create a document icon for it on the deskTop. After you exited the geoPaint document you created in the tutorial, look closely at the TUTORIAL deskTop. You will see a new file icon: it's shaped like a small painting and has the name you gave the tutorial document underneath it. The next time you need to open this document, you can do so quickly by double-clicking on this file icon. This will open geoPaint directly to the data contained in this document.

A geoPaint document file icon on the deskTop.

Drawing

Congratulations! You have just completed the GEOS tutorial. Now you are ready to use GEOS.

Never and Always (Do's and Don'ts)

- When you are not using your disks, keep them in their sleeves and away from all electronic or magnetic equipment. Do not lay them on top of your monitor or computer power supply.

- Always close the disk drive door after inserting any disk into the disk drive.

- Never remove a disk from the disk drive while on the deskTop, or while you are using an application, without first closing the disk (unless you are specifically asked to do so by a dialog box).

- Always create and use work disks. Use the System disk only for booting or to rearrange your default files.

- Never create a document on an original disk (i.e., one that comes with your GEOS package). Copy the applications onto work disks and create your documents from there. If, however, you do inadvertently create a document on an applications disk, follow this procedure:

  1: Copy the document to a work disk (if you wish to save it).

  2: Remove the document from the applications disk by dragging it to the border, depositing it there, then dragging it to the waste basket to delete it.

- Always make backup disks containing your document files in case a disk becomes damaged.

- Never give two disks the same name; it is too easy for you and your computer to confuse the two. If one disk is to be a backup, vary its name slightly. For example, the backup for a disk called "Limericks" could be named "Limericks 2" or "Limericks Backup".

- Never turn off your computer or reboot it if you are in an application. Go to the deskTop and close the disk before you exit the GEOS system.
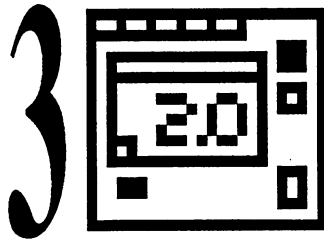
The GEOS deskTop

This chapter describes the functions of the GEOS deskTop, in which you will learn how to:

- identify the deskTop, icons, menus, and disk note pad.
- manage files (open, close, duplicate, rename, copy, move, delete, print, and gain access to file information).
- use more than one disk drive.
- use non-GEOS disks.
- use BASIC programs.

Unfamiliar terms are defined in Appendix A: Glossary. Menus are summarized in Appendix B: Menus.

The deskTop Screen

The deskTop, which is the first screen that appears after you boot GEOS, enables you to gain access to and work with your files. It also allows you to make decisions regarding disks, such as copying or renaming them. This chapter describes how to use the deskTop to manipulate files and disks.

The deskTop appears as follows:
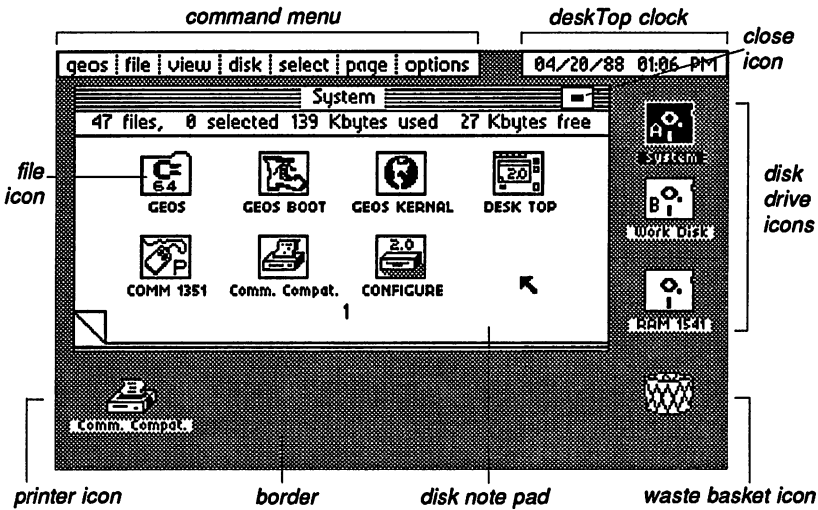
The **command menu** lies along the top of the deskTop. Selecting each item in the command menu will cause another menu of commands to appear. To select a menu or a menu item, point to it and click.

At the upper right corner of the screen is the **deskTop clock**, which displays the date and time. Along the upper right side of the deskTop are the **disk icons**, which indicate the disks that are currently in the disk drives. The disk drive containing the active or open disk appears in reverse video (i.e., highlighted). You can have up to three disk drive icons, each representing a disk drive or RAM Expansion Unit (REU); however, only the top two can be used at a time.

The **disk note pad** is the large area in the middle of the screen. It contains information about the currently open disk. The disk's name appears in the

title bar (in the above example, the name of the disk is **System**.) A **close** icon is displayed at the far right; click on it to close the disk. The number of files on disk, the number of files selected, how much disk space is used and how much is available are listed below the title bar. The disk note pad page displays the icons of the files residing on the currently open disk.

There may be up to eight **file icons** on each page of the disk note pad. The design of the icon itself indicates the file's type, such as application or document. The name of the file is written below the icon. Once you click on a file icon, it will become **highlighted** (i.e., it will appear in reverse video, just as the currently open disk drive). You need to highlight a file before you can move it around, open it , or manipulate it by using the command menu. You can use either the pointer or a keyboard command to highlight the file icon.

The area just below the disk note pad is the **border**, which is used temporarily to deposit file icons you are moving or copying. You can place up to eight file icons at a time in the border area.

The **printer** icon appears in the lower left corner of the deskTop border. The printer icon represents the currently active printer; below it is the name of the currently selected printer.

The **waste basket**, whose icon appears in the lower right corner of the deskTop border, provides a way to delete files from the deskTop. The name of the most recently deleting file will appear below the waste basket.

Special deskTop Functions

The deskTop V2.0 and Master Disks

Your System and applications disks are valuable disks. The deskTop V2.0 is designed to prevent accidental damage to your master disk by not letting you use the normal deletion method to throw away files from a master disk. Should you really need to get rid of a file, first move it to the border, then throw it into the waste basket from there.

Moving to Another Disk Note Pad Page

You can have as many as 18 pages on the disk note pad. There are several ways to flip through the pages:

- For pages 1–9, enter the page number (1–9) from the keyboard.

- To go to page 10, press 0 on the keyboard.

- For pages 11–18, hold down the SHIFT key and press 1–8 on the keyboard.

- For all pages, press the down CRSR key to move to the next page, or press SHIFT up CRSR to move to the previous page.

- For all pages, click on the dog-eared (turned over) corner at the lower left corner of the note pad to move to another disk note pad page:

Click here to go to the previous page.　　Click here to go to the next page.
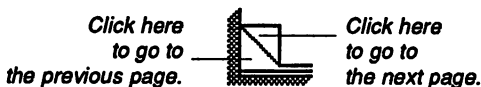
Adding or Deleting Disk Note Pad Pages

If desired, you can insert or delete disk note pad pages.

To insert a disk note pad page:

- Select **append** from the **page** menu (or press C= S). The new page will appear after the page currently on the screen.

To delete the current disk note pad page:

1: Select **delete** from the **page** menu (or press C= T).

2: If there are files present, dialog box will warn you "All files on this page will be lost." Either click **OK** to delete the current page or **Cancel** to cancel the procedure.

> *NOTE* A page cannot be deleted if it contains write-protected or non-GEOS files. In addition, you cannot delete the contents of a disk note pad page on the System disk. To change the write-protection of a file, refer to "File Info and Write Protect Status," page 61.

Using the deskTop Clock

You can change the date and time of the deskTop clock by using the **options** menu item or the Preference Manager desk accessory, which is described in Chapter 11, "Desk Accessories." (When the deskTop is displayed, it is recommended that you use the deskTop clock, since it is handier.) The date and time will need to be reset every time you boot GEOS. Changes you make to the date and time will be reflected in Preference Manager and the Alarm Clock desk accessories as well. If you have the deskTop displayed, you can change the date and time right away, in the following manner:

To set the deskTop clock:

| 04/20/88 01:06 PM |

1: Go to the upper right corner of the deskTop screen and click on the clock.

deskTop clock

> *NOTE* An alternative is to select **set clock** from the **options** menu.

2: Type in the new date and time. The cursor will skip to the next digit. Press the spacebar or the right CRSR key to bypass correct entries. To backspace, press the INST/DEL key or the left CRSR key.

> *NOTE* The day and month should be entered as two digits each. For example, enter July 4th as **07/04**, not **7/4**. Illegal numbers (e.g., entering 44 for the month) will not be accepted.

3: When finished, press RETURN . The pointer will reappear.

File Management

File Categories

There are seven main categories of GEOS and non-GEOS files. These categories are based on the kind of information the file contains and how that information is used.

The main categories of GEOS files are as follows:

System Files
* The GEOS deskTop file management program.
* System data files such as the photo scrap and text scrap.

Application Files
* Application programs, such as geoWrite and geoPaint.

Desk Accessory Files
* Utility programs, such as the Calculator, Note Pad, Photo Manager, and Text Manager.

Assembly Language and BASIC Files
* User programs and data files in either Assembly Language or BASIC format.

Data Files
* Documents created by GEOS applications.
* Font files containing bit-mapped image data for typefaces used in text.
* Documents created by non-GEOS programs.

Interface Drivers
* Input drivers to accommodate a mouse, joystick, Koala Pad, or Inkwell light pen.
* Printer drivers, each for a specific printer.

Non-GEOS Files
* Programs and data files that have not been converted to GEOS format. The deskTop displays a "C=64" icon for each of these files.

File Functions

You can perform a number of actions with files on the deskTop. You can alter a file's viewing mode, select a file or a group of files, move and copy files, open a file, gain access to and change a file's write protect status, rename files, duplicate files, rearrange files on a disk note pad page, delete files, make a file a default file, and print a file. If desired, you can change the color of a file icon's category. (This feature, the Pad Color Manager desk accessory, is described in Chapter 11, "Desk Accessories.")

Viewing Modes

You can view the items on the deskTop in either text or icon mode. Use text mode if you wish to view a list of all the files on the disk without having to page through the disk note pad pages. Text mode also displays certain information about each file: its category type and how much memory it uses. Scroll through the list by clicking on the scrolling arrows at the bottom of the disk note pad. You must use icon mode if you wish to manipulate the file in any manner (e.g., open it).

To view by icon mode:

• Select **by icon** from the **view** menu. The files on the disk note pad will be displayed as icons.

To view by text mode:

• Go to the **view** menu and click on one of the following options:

by size Sorts files by size, largest file first.

by type Sorts files by file type.

by date Sorts files by date of last modification, most recent first.

by name Sorts files alphabetically.

```
======================= System ==================  ■
 47 files,   0 selected  139 Kbytes  used   27 Kbytes  free
 1526              1K    Printer Driver
 BlueChip M128     1K    Printer Driver
 C.Itoh 8510A      1K    Printer Driver
 C.Itoh 8510       1K    Printer Driver
 COMM 1351(a)      1K    C64 Input Driver
 COMM 1351         1K    C64 Input Driver
 CONFIGURE         19K   Auto-Exec
 Comm. Compat.     1K    Printer Driver
```

System
Work Disk
RAM 1541

Comm. Compat.
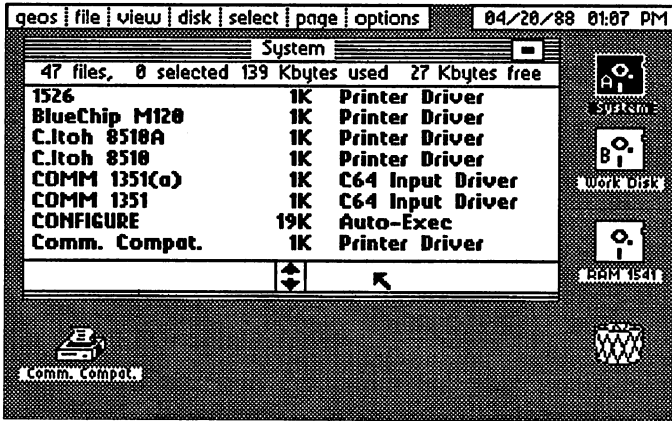
Use the text mode for viewing purposes only.

Selecting a File

You need to select a file in icon mode before you can work with it. Once you select a file, it will appear highlighted. You can select in a variety of ways. For example, you have the options of using the keyboard or input device, of selecting one file or several at once, of selecting files on the border or on the disk note pad, and even of selecting files across disk note pad pages.

To select a file using an input device:

• Simply point to the file and click. The file icon will become highlighted.

To select a file on the disk note pad using the keyboard:

• Each file on the deskTop has a number assigned to it. The numbering begins in the upper right corner and proceeds left to right. For example, the top left file icon is 1, the file icon to its right is 2, and so on. To select file icon 1, press [C=][1]. That icon will become highlighted.

To select a file on the border using the keyboard:

• The files on the border have the same number sequence as the files on the disk note pad. To select the top left file icon on the border, hold down [C=] and press [SHIFT][1].

To deselect a file, use one of the following methods:

• Click anywhere outside the file icon.

- Hold down ⟦**C=**⟧ and press the number of the file icon.

Selecting a Group of Files

Once you select a group of files, you can use most of the **file** menu commands, as well as the waste basket and disk drive icons, to work with the files. You cannot, however, open or print files in a group.

To select more than one file using the input device:

- Hold down the ⟦**C=**⟧ key and click on each file icon so that it is highlighted.

To select more than one file using the keyboard:

- To select files on the disk note pad, hold down ⟦**C=**⟧ while pressing each file icon's number.
  For example, pressing ⟦**C=**⟧⟦**1**⟧ will select the top left file icon, and pressing ⟦**C=**⟧⟦**2**⟧ will select the file icon to the right of the top left file.

selected file icons

- To select files on the border, hold down ⟦**C=**⟧ ⟦**SHIFT**⟧ and press each icon's number.

To select files across disk note pad pages:

1: On the current disk note pad page, select the file icons you need.

2: Go to the destination disk note pad page by entering its page number (1–9), clicking on the dog-ear corner, or pressing the up or down ⟦**CRSR**⟧ keys.

3: Hold down ⟦**C=**⟧ and click on the additional file icons you need.

To select all the files on the current disk note pad page:

- Select **page files** from the **select** menu (or press ⟦**C=**⟧⟦**X**⟧).

To select all the files on the border:

- Select **border files** from the **select** menu (or press ⟦**C=**⟧⟦**Y**⟧).

To select all the files on every page of the disk note pad:
• Select **all pages** from the **select** menu (or press ⟨C=⟩⟨W⟩).

> **NOTE** You can select up to 144 files on the current disk. If you wish to stop the selection procedure, hold down the ⟨RUN/STOP⟩ key until the procedure aborts. Afterwards, you can deselect the files that have been selected so far by clicking outside the selected files.

To deselect a file from a group of selected files:
• Hold down the ⟨C=⟩ key and click on the file icon or press the file icon's position number.

To cancel a multi-file operation while it is under way:
• Hold down ⟨RUN/STOP⟩ until the procedure stops.

To deselect all selected files:
• Click outside the selected files.

Opening a File
You can open documents from within an application, or you can use the deskTop to open the file. Remember that you need to be in icon mode to open a file.

To open a file from the deskTop, use one of the following methods:
• Double-click on the file icon.

• Click once on the file icon so that it is highlighted (or use the keyboard), then select **open** from the **file** menu (or press ⟨C=⟩⟨Z⟩).

The types of files you can open from the deskTop are application programs, documents you have created (i.e., application documents), or desk accessories. In addition, you can open BASIC or Assembly Language programs and data files. If you attempt to open another file type, such as a system data file, a dialog box will inform you that the file cannot be opened from the deskTop.

File Info and Write Protect Status

The file info menu item displays certain information about the selected files on the currently open disk. It also enables you to enter a brief note regarding a file and to change a file's write protect status. You can use this command on more than one file at a time.

To use the info menu option:

1: Select the files you need.

2: Select **info** from the **file** menu (or press $\boxed{\text{C=}}\boxed{\text{Q}}$).

A dialog box will display the disk name, file type, file class, file structure, file size, most recent file modification date, and file author. At this time, you can add a brief note or change the write protect status of the file.

close icon

| geos | file | view | disk | select | page | options | ■ | 04/20/88 01:12 PM |

System ■

47 files, 1 selected 139 Kbytes used 27 Kbytes free

CONFIGURE ■

disk: **System**
type: **Auto-Exec**
class: **Configure   V2.0**
structure: **VLIR**
size: **19K**
modified: **5/31/88 11:49 AM**
author: **Berkeley Softworks**
□ **Write Protect**

Allows varying disk
configurations: 1541, 1571,
1581 & RAM disks supported
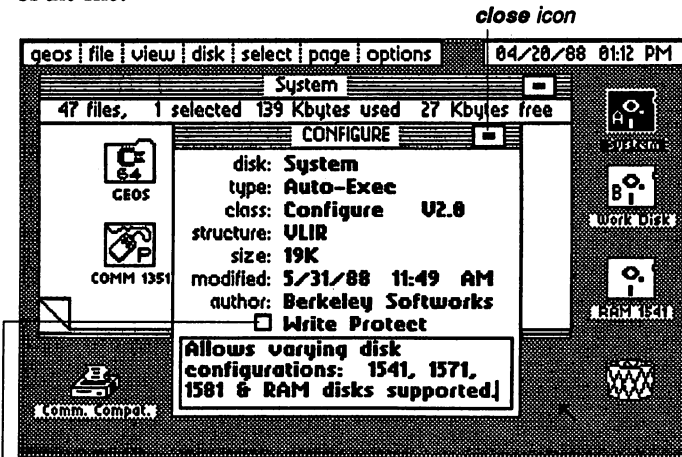
Write Protect Box

To add a brief note to a file's info dialog box:

- Simply start typing. The text will appear after the cursor in the area below the Write Protect box. Press $\boxed{\text{INST/DEL}}$ to backspace over existing text. To move to another location, click anywhere in the text.

To change the file's write protect status:

- Click on the **Write Protect** box once. If the box is filled in, the file cannot be deleted. If the box is empty, the file can be deleted.

To close the info dialog box:

- Click on the **close** icon in the upper right corner of the **info** dialog box. If you previously selected only one file for the **info** command, you will be returned to the deskTop. If you had selected a group of files, the **info** dialog box for the next file you selected will be displayed.

Renaming a File

You can rename (or alter the current name of) a file by using the **file rename** menu item. Before you can rename a file or group of files, you need to be in icon mode.

To rename a file:

1: Select the file(s) you wish to rename.

2: Select **rename** from the **file** menu (or press [C=][M]).

3: A dialog box will ask you to "Please enter new filename." Press [INST/DEL] to backspace over as much of the name as needed, enter a new name, and press [RETURN] . Use no more than 16 characters.

   NOTE If you are renaming more than one file, pressing [RETURN] will display a dialog box for the next file you selected in a group select.

To cancel and leave the name unchanged:

- Select **Cancel** or press [RETURN] without changing the file name.

Duplicating a File

Note that the name of the duplicated file cannot be the same as the original or any other file on that disk.

To duplicate a file:

1: Select the files you wish to duplicate.

2: Select **duplicate** from the **file** menu (or press [C=][H]).

3: A dialog box will ask you to "Please enter a new filename." Press [INST/DEL] to backspace, enter a new name, then press [RETURN] . The new filename should have no more than 16 characters.

NOTE The new file will be the same as the old file, except for the name.

Moving File Icons

You can move a file or a group of files within a disk note pad page, to the border, around the deskTop, or to other disk note pad pages. In addition, you can have two file icons on the same disk note pad page swap places. If you have more than one disk drive or a RAM Expansion Unit, you can copy a group of files between disks in Drive A or Drive B.

NOTE If you wish to copy a file to a disk in Drive C, you will need to activate Drive C. If necessary, refer to "Activating Drive C," page 83.

To move a file:

1: Click on the file icon so that it is highlighted, pause, then click on the icon again. An outline (called a **ghost icon**) will become attached to the pointer. You can move the ghost icon around on the deskTop.

Here is the original file icon.

Here is the file's ghost icon. It is attached to the pointer.

2: Move the ghost to its destination.

3: Position the ghost icon over the desired location and click to deposit it there.

To swap two file icons on the same disk note pad page:

1: Click on one of the file icons once, pause, then click on it again to bring up its ghost icon.

2: Find the file icon you wish to have it switch places with and move the ghost on top of it.

3: Click to deposit the first file icon on top of the second file icon. The two file icons will switch places.

To move more than one file icon:

1: Select the files you need, either by holding down the ⬚ key and clicking on them or using the keyboard.

2: Release the ⌘ key, point to one of the selected icons, and click again. The **multi-file ghost icon** will appear:

Here is their multi-file ghost icon. It is attached to the pointer.

These files are selected.
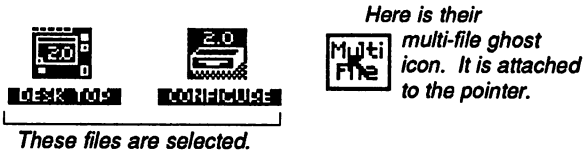
3: Move the multi-file ghost icon to its destination and click again to deposit it.

   NOTE In this manner, you can copy a group of files to a disk in another disk drive by depositing the multi-file ghost icon onto the destination disk drive icon. In addition, you can move a group of files to the border. You also can delete a group of files by depositing their multi-file ghost into the waste basket.

To move file icons to another page:

1: Select the file icons you need.

2: Drag the ghost or multi-file icon to the border and click to deposit the selected files there.

3: Go to the destination disk note pad page.

4: Select the file icons you deposited onto the border, and drag them up to the disk note pad page. Click to deposit them there.

Rearranging File Icons

If you have certain files you wish to appear earlier in a menu or a dialog box (e.g., fonts or document file names), you can do so by rearranging them on the disk note pad. If you have special files you use frequently, it is easier to gain access to them if you store them on the first page of the disk note pad. It is simply a matter of moving them to an earlier page of the disk note pad, so that they appear earlier in their file category.

For example, the font files are one type of file category. The first eight that are positioned on the disk note pad pages will appear in the **font** menu of geoWrite or geoPaint, even if these font files are interspersed with files of another category. Suppose you have a ninth font file (Berkeley Softworks

provides over 50 fonts in all). If you wish to have this font displayed in the font menu, you will need to have its file icon switch positions with one of the first eight font file icons on the disk note pad.

Suppose you wish to move File Icon B ahead of File Icon A. Both file icons are on different pages. (If File Icon A and File Icon B were on the same disk note pad page, you would simply swap their places by dropping the ghost of one file icon on top of the other file icon.)

To rearrange File Icons A and B on different pages of the disk note pad:

1: Locate File Icon B.

2: Click on File Icon B once, pause, then click on it again to display its ghost icon.

3: Move File Icon B to the border and click to deposit it there.

4: Now go to the disk note pad page containing File Icon A either by typing its page number or clicking on the dog-ear corner.

5: Locate File Icon A.

6: Click on File Icon A once, pause, then click on it again to display its ghost icon.

7: Move File Icon A's ghost icon to the border and click to deposit it alongside File Icon B.

8: Click on File Icon B once, pause, then click on it again to display its ghost icon.

9: Move File Icon B's ghost icon to the disk note pad, position it over the slot previously occupied by File Icon A, and click to deposit it.

10: Go to the border and click on File Icon B once, pause, then click on it again to display its ghost icon.

11: If you wish to place File Icon A on a specific disk note pad page, go to that page. Otherwise, you can move File Icon A's ghost icon up to the

current disk note pad and click to deposit it there. It will be placed in the first available slot. If there are no slots on that page, File Icon A will go to a slot on a subsequent page.

Copying a File to Another Disk

The methods for copying files to another disk (or to an REU) vary, depending on whether you have one disk drive or more than one. The disk from which you wish to copy is called the **source** disk and the disk onto which you wish to copy the file is called the **destination** disk. You can copy one file or you can copy a group of files. (If necessary, see "Moving File Icons," page 63.)

If you are using one disk drive:

1: Select each file to be copied by either clicking on the file icon or using the keyboard command.

2: Drag the file's ghost icon (or the multi-file ghost icon) to the border and click to deposit the file(s) there.

file icons on the border
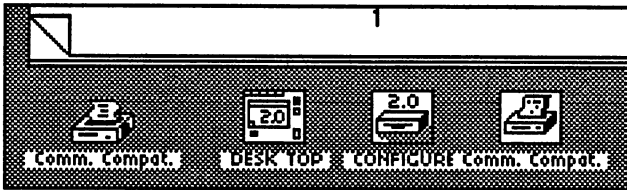
3: Close the source disk by clicking on its **close** icon (or pressing ⬡ C).

4: Remove the source disk from the disk drive.

5: Insert the destination disk into the disk drive and open the disk by clicking on its disk drive icon (or pressing ⬡ O).

6: Drag each file icon you deposited on the border onto the destination disk's note pad.

NOTE In a single drive set-up, the multi-file select feature cannot be used to copy a group of files to another disk.

7: For each file icon you drag up to the disk note pad, you will be asked to swap the source and destination disks back and forth. The more files you are copying, the more exchanges are required. When GEOS is finished copying, the file icons will disappear from the border and reappear on the disk note pad page.

NOTE Copying a file does *not* delete it from the source disk. If you re-open the source disk, the file will reappear on the border. When the copy procedure is complete, move the file icon back to the disk note pad. Files should not be left on the border.

If you are using more than one disk drive:

1: Insert the destination disk into the other disk drive, then select **RESET** from the **options** menu (or press C R).

NOTE The **RESET** command will enable GEOS to recognize a disk in another disk drive. Once you have selected **RESET**, the name of each disk will appear below its disk drive icon.

2: On the source disk, select the files to be be copied.

3: Drag the file's ghost icon (or the multi-file select ghost icon) to the disk icon representing the destination disk, then click. The files will be copied to that disk.

NOTE If you have two different disk drives and no RAM Expansion Unit, make sure the source disk contains a copy of the CONFIGURE 2.0 and DESKTOP 2.0 files.

Deleting a File

You can delete a file or a group of files using the waste basket or the **file delete** menu item. The name of the last file you deleted will appear under the waste basket icon. Note that the procedure for deleting files on a master disk is slightly different from a regular file deletion. If you delete a file by accident, you can retrieve it right away.

To delete using the waste basket:

1: Select each file to be deleted.

2: Drag the file's ghost icon (or the multi-file ghost icon) to the waste basket and click.

3: If you are deleting more than one file, a dialog box will enable you to cancel the procedure if desired.

Drop it in the waste basket.
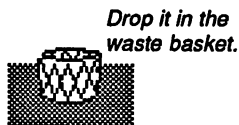
To delete using the file delete menu item:

1: Select each file to be deleted by clicking on it or using the keyboard.

2: Select **delete** from the **file** menu (or press [C=][D]).

3: If you are deleting more than one file, a dialog box will enable you to cancel the procedure if desired.

To delete a file from a master disk:

1: Deposit the file's ghost icon (or multi-file select ghost icon) onto the border.

2: Now drag the ghost icon to the waste basket and click to deposit it inside.

3: If you are deleting more than one file, a dialog box will enable you to cancel the procedure if desired.

Undoing a File Deletion

In most cases you can retrieve a file from the waste basket if you have deleted it by mistake. The undo feature should be used as soon as possible: if you have opened an application, exited GEOS, duplicated a file, performed a **RESET** operation, validated the disk, copied files onto the disk, or used a desk accessory in the meantime, you will not be able to undo the file deletion. *If you have deleted a group of files, the undo feature will save the last file you selected for the multi-file selection, but not the other files.*

To undo a file deletion, use one of the following methods:

• Select **undo delete** from the **file** menu (or press [C=][U]).

• Click on the waste basket.

In either case, the deleted file will be returned to the first available spot on the disk note pad.

Printing a Document

You can print a document from the deskTop or from within its application. Note that you can print only one file at a time (i.e., you cannot use the multi-file feature). Before you try to print, however, make sure that your printer is correctly connected and that the work disk containing the application contains the correct printer driver file. If they are not, a dialog box will inform you that "Can't find printer driver name." Make sure you have set up your printer properly. If necessary, refer to "Setting Up Your Printer," page 17.

To print a document from the deskTop, use one of the following methods:

- Select the document file icon so that it is highlighted, then select **print** from the **file** menu (or press ⌘ P).

- Drag the document's ghost icon over to the printer icon at the lower left corner and click to deposit the file icon on top.

If you had selected a geoPaint document, it will be printed right away. If you are printing a geoWrite document, a dialog box will enable you to set a variety of parameters regarding the document.

Disk Management

There are three categories of GEOS disks: Boot (the System and Backup
System disks), application, and work disks. (Boot and application disks
also are referred to as master disks.) Use the boot disk to start up GEOS.
The application disk contains the programs you use, such as geoWrite or
geoPaint. A work disk, described in Chapter 1, "Getting Started," is
reserved for everyday use and its contents are determined by you. It can
contain copies of the application, documents, and related files (such as desk
accessories or font files).

The following instructions describe how to open (activate) a disk, close a
disk, rename a disk, copy a disk using one disk drive, copy a disk using
more than one disk drive, validate a disk, erase a disk, format a disk, and
repaint the screen to re-read a disk.

Available Disk Drives

Each disk drive is represented by a letter:

Here is Drive A.

You can readily gain access to any disk
in Drive A or Drive B. The third disk
drive, Drive C, is inactive. If you wish
to open a disk in Drive C, refer to "Ac-
tivating Drive C," on page 83.

Here is Drive B.

Here is Drive C.

Opening a Disk

There are three ways to open a disk:

- Select **open** from the **disk** menu (or press ⬚⬚).

- Click on one of the disk drive icons at the right side of the screen.

- Hold down ⬚ and press the letter representing the disk drive you
  need. For example, to open the top disk drive, press ⬚⬚ .

  NOTE If you have improperly inserted a disk into a disk drive, an
  error message saying "Operation canceled due to disk error: missing or
  unformatted disk" will appear. If so, simply re-insert the disk into the
  disk drive and try opening the disk again.

IMPORTANT When a disk is open, do not remove it from the disk drive unless a dialog box prompts you to do so, or until you have properly closed the disk. Otherwise, damage to the files on the open disk may occur. For example, removing a disk when a document is displayed will prevent any changes you made to the file from being saved to the disk.

Closing a Disk

Before removing a disk from a disk drive, always close it by using one of the following methods:

- Select **close** from the **file** menu (or press $\boxed{\text{C}}\boxed{\text{C}}$).

- Click on the **close** icon at the upper right corner of the disk note pad.

Click here to close the disk.

Renaming a Disk

You can use spaces and punctuation in the names of your disks, if desired. You must have at least one character and no more than 16 characters.

To rename the currently open disk:

1: Select **rename** from the **disk** menu (or press $\boxed{\text{C}}\boxed{\text{N}}$).

2: A dialog box will ask you to "Please enter new disk name." Backspace over the current name as much as you need, type in a new name, and press $\boxed{\text{RETURN}}$.

   IMPORTANT Do not give disks the same name. This may cause confusion, since the deskTop relies on the disk name as one method of distinguishing files.

Copying a Disk Using One Disk Drive

In the following instructions, the **source** disk is the disk whose contents you wish to copy; the **destination** disk is the disk onto which you wish to copy those contents.

To copy a disk using one disk drive:

1: Insert the System disk into the disk drive.

2: Open the System disk by clicking on its disk drive icon.

3: Open the DISK COPY program by double-clicking on its file icon.

DISK COPY

NOTE An alternative is to click once on the DISK COPY file icon so that it is highlighted, then select **open** from the **file** menu.

4: The screen will turn blue and a message will instruct you to insert the disk to be copied into the disk drive. Remove the System disk from the disk drive and insert the source disk. Close the disk drive door and press RETURN .

NOTE You cannot copy the System or Backup System disk.

5: Next, you will be instructed to insert the destination disk into the disk drive. After you have done so, press RETURN .

NOTE If the destination disk is unformatted, the DISK COPY program will format it first before continuing with the copy procedure. Formatting a disk will destroy its contents.

6: Continue to follow the instructions on the screen until the disk copy procedure is complete. It should take about three swaps of the disk. When it is finished, you will have the option of copying another disk or returning to the deskTop. Press Y to copy another disk or N to return to the System deskTop.

Copying a Disk Using More than One Disk Drive

The methods for copying a disk on a multi-drive system vary, depending on whether the disks and disk drives you are using are of different formats. Disks can vary in format by being single-sided or double-sided, or by being 5 1/4 inch or 3 1/2 inch. You can perform a disk copy from a single-sided disk to a double-sided disk, but not from a double-sided disk to a single-sided disk.

Disk drives can vary by being set up for a 5 1/4 inch disk (1541, 1571 disk drives), double-sided 5 1/4 inch disk (1571 only), or 3 1/2 inch disk (1581 disk drive). Note that a RAM Expansion Unit can be configured as a 1541 or 1571 disk drive (it will be listed in the CONFIGURE screen as 1541 RAM or 1571 RAM). If the disk drives you own are the same (e.g., two 1541s), or if you are using two different disk drives with an REU, you can

use the regular disk copy method described below. If you wish to copy using different disk drive formats, use the procedure under "To copy if the disk and disk drive formats are different."

In the following instructions, the **source** disk is the disk whose contents you wish to copy, and the **destination** disk is the disk onto which you wish to copy those contents.

To copy if the disk and disk drive formats are the same:

1: Open the source disk by clicking on its disk drive icon.

   NOTE You cannot copy the System or Backup System disk.

2: Select **copy** from the **disk** menu (or press ⌖ K).

   NOTE If the destination disk is unformatted, a dialog box will enable you to format it if you wish or cancel the operation. To format the disk in this instance, enter a disk name when you are prompted and press RETURN. The disk will be formatted and you can continue copying. Remember that formatting a disk will destroy its contents.

   If the destination disk drive is a 1571, you will have the option of formatting the disk as single- or double-sided.

3: A dialog box will ask you to "Please insert destination disk in drive: #". Insert the destination disk into the drive indicated in the dialog box (e.g., Drive B if the dialog box specified Drive B). Click **OK**.

4: The next dialog box will ask you "Replace the contents of (destination disk name) with the contents of (source disk name)? Click **YES**.

5: A dialog box will ask you to "Please insert disk (source disk name) in drive: #". If the source disk is already in the disk drive, click **OK**. In a few moments the disk will be copied and you will be returned to the source disk deskTop.

To copy if the disk and disk drive formats are different:

1: Open the source disk by clicking on its disk drive icon.

2: Insert the destination disk into the other active disk drive and select **RESET** from the **options** menu (or press ⌖ R).

NOTE The **RESET** command will enable GEOS to recognize a disk in another disk drive. Once you have selected **RESET**, the name of each disk will appear below its disk drive icon.

3: Choose **all pages** from the **select** menu (or press $\boxed{\text{C=}}\boxed{\text{W}}$).

4: Click on one of the highlighted file icons to bring up the multi-file ghost icon.

5: Move the multi-file ghost icon to the destination disk drive icon and click to deposit it there.

NOTE If there is not enough room on the destination disk, the copying procedure will stop when the disk is full. A dialog box will tell you "Operation cancelled — disk full."

Validating a Disk

Use this command to check for possible errors on the currently open disk. If the damage is minor, the **validate** command will repair it. **Validate** will not change the file contents of the disk. After validating a disk, the disk will be reopened.

IMPORTANT Never validate a GEOS disk from BASIC. Only use the GEOS **validate** command when in the GEOS environment.

To validate a disk:

1: Open the disk you wish to validate.

2: Select **validate** from the **disk** menu (or press $\boxed{\text{C=}}\boxed{\text{V}}$).

Erasing a Disk

Use this feature to erase all the files from a disk. Erasing a disk is much faster than using the **format** command (which is described next). After you erase a disk, it will still be formatted.

To erase a disk's contents:

1: Open the disk whose contents you wish to erase.

2: Select **erase** from the **disk** menu (or press $\boxed{\text{C=}}\boxed{\text{E}}$).

3: A dialog box will ask you to "Please insert disk to erase in drive #." Remove the current disk and insert the disk whose contents you wish to erase into the currently active disk drive, then click **OK**. If you are erasing the current disk, simply click on **OK**.

NOTE Unformatted and master disks cannot be erased.

Formatting a Disk

Before a blank disk can be used to store files, it must be formatted. Use the following procedures to format either 3 1/2 inch or 5 1/4 inch disks. Formatting a disk will erase all of its contents and initialize it for use with GEOS. If you only wish to delete the contents of a disk, use the **erase** command (described above) instead; it is much faster than reformatting a disk.

If you are formatting a disk in a 1571 disk drive, you have the option of formatting it as single-sided or double-sided. 3 1/2 inch disks are always formatted as double-sided disks.

To format a 5 1/4 inch disk:

1: Select **format** from the **disk** menu (or press $\boxed{\text{€}}\boxed{\text{F}}$).

2: A dialog box will ask you to "Put disk to format in drive # and enter a name for it." Remove the current disk and insert the disk to be formatted.

3: Enter a name for the disk and press $\boxed{\text{RETURN}}$.

NOTE If the disk is double-sided and if its disk drive is a 1571, you will be given the option of formatting the disk as single- or double-sided.

IMPORTANT Do not give two disks the same name. This may cause confusion, since the deskTop relies on the disk name as one method of distinguishing files.

To format a 3 1/2 inch disk:

1: Open the System disk to its deskTop.

2: Insert the 3 1/2 inch disk into the 1581 disk drive and click on that disk drive's icon.

3: An error message will appear and let you know that the disk is unformatted. Click **OK**. The disk note pad for that disk drive will appear empty and a question mark will appear in the disk drive icon representing that disk drive.

4: Select **format** from the **disk** menu.

5: A dialog box will ask you to "Put disk to format in drive # and enter a name for it." Since you have already inserted the disk, just enter a name for the disk and press RETURN. The disk will be formatted. Note that 3 1/2 inch disks are formatted as double-sided disks.

   IMPORTANT Do not give two disks the same name. This may cause confusion, since the deskTop relies on the disk name as one method of distinguishing files.

Repainting the Screen and Re-reading Disks

Use this command if you wish to "clean up" the screen and re-read the disks in the disk drives. The **RESET** command will enable GEOS to recognize a disk in another disk drive (its name will appear below the disk drive icon) without actually opening that disk on the screen.

To repaint the screen and re-read disks:

• Select **RESET** from the **options** menu (or press C= R).

Using More than One Disk Drive

The disk note pad displays the contents of one disk drive at a time; the command menu acts on the currently selected disk drive. You can set up your Commodore to use up to three disk drives; however, only the top two, Drives A and B, can be used at a time. If you have a third disk drive (Drive C), refer to "Activating Drive C" on page 83 if you wish to use this disk drive.

IMPORTANT If you wish to use three disk drives, one of the disk drives *must* be a RAM Expansion Unit.

Available Disk Drive Types

The types of disk drives you can use with GEOS are the 1541, 1571, and 1581 disk drives. You also can use the RAM Expansion Unit as a disk drive. Note that the GEOS System disk, from which you need to boot GEOS, is a 5 1/4 inch disk and is accepted by either a 1541 or 1571 disk drive.

The 1541 Disk Drive
- Memory: 165K.
- Accepts disk type: Single-sided 5 1/4 inch.

The 1571 Disk Drive
- Memory: 331 K.
- Accepts disk types: Single- and double-sided 5 1/4 inch.

The 1581 Disk Drive
- Memory: 790 K.
- Accepts disk types: Double-sided 3 1/2 inch.

   NOTE The 1581 disk drive is much faster than a 1541 or 1571 disk drive; however, it is not as fast as a RAM Expansion Unit. Remember that GEOS does not supply a 3 1/2 inch boot disk.

The RAM Expansion Unit (REU)
- Memory: 165K (1541 RAM) and 331K (1571 RAM).

NOTE The RAM Expansion Unit acts as a disk drive, except that you cannot physically insert a disk into it. It is configured as a 1541 (165K) or 1571 (331K) disk drive. To use the RAM Expansion Unit, copy the files you need onto it. Note that when you turn off the computer, the RAM contents will not be saved. However, the RAM Expansion Unit is most advantageous in that it operates many times faster than an ordinary disk drive.

If You Have Different Disk Drive Types

IMPORTANT If you have different disk drive types (e.g., a 1541 and a 1581) and no RAM Expansion Unit, you will need to copy the CONFIG-URE 2.0 file program to any disk containing the DESKTOP 2.0 file. This is because the deskTop needs to read the CONFIGURE 2.0 file's settings when you exit an application.

If the CONFIGURE 2.0 file program is not on a disk containing the DESKTOP 2.0 file, the extra disk drive icons will disappear from the deskTop, since GEOS will not be able to recognize them. Their contents, however, will not be damaged. To bring the disk drive icons back, simply insert a disk containing the CONFIGURE 2.0 file and reconfigure the disk drives.

This procedure does not apply to RAM Expansion Units. For example, if you have a 1541 disk drive, a 1581 disk drive, and a RAM Expansion Unit, you need not copy the CONFIGURE 2.0 to a work disk containing the DESKTOP 2.0 file.

Adding or Changing a Disk Drive

Use the CONFIGURE program to add or change disk drives.

Whenever you boot GEOS, the disk drive from which you booted automatically will be recognized by GEOS. If you wish to add or change a disk drive, you will need to use the CONFIGURE 2.0 program, which will enable GEOS to recognize the new or changed disk drive type. The CONFIGURE 2.0 program is located on the System disk.
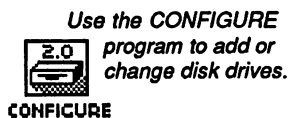
The following procedures describe how to change Drive A, how to add or change a disk drive for Drive B or C, and how to add a RAM Expansion Unit.

To change Drive A:

1: Go to the System disk deskTop and open the CONFIGURE 2.0 file by double-clicking on its file icon.

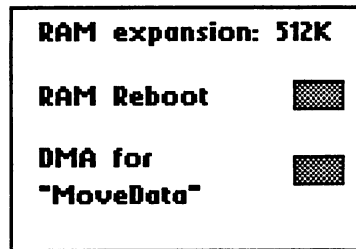*NOTE* Another method is to highlight CONFIGURE, then select **open** from the **file** menu (or press [C=][Z]).

2: The following screen will appear, depending on the current configuration of your disk drives:

```
┌─────────────────────────────────────────────┐
│ ┌─────┐                                      │
│ │file │    Drive A              Drive B      │
│ │     │  No Drive      ☐      No Drive    ☐  │
│ │     │  1571          ▓      RAM 1541    ▓  │
│ │     │                                      │
│ │     │            ↖                         │
│ │                                            │
│ │         Drive C           RAM expansion: 512K │
│ │     No Drive    ☐                          │
│ │     1541        ☐       RAM Reboot    ▓    │
│ │     Shadowed 1541 ▓                        │
│ │                         DMA for       ▓    │
│ │                         "MoveData"         │
└─────────────────────────────────────────────┘
```
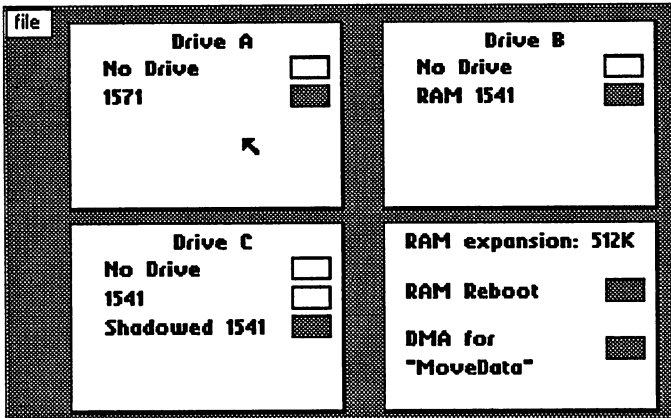
the main CONFIGURE screen

Go to the Drive A window and click on the **No Drive** option.

3: A dialog box will ask "If you are able to, please turn OFF and/or unplug drive A." Disconnect the cables from Drive A and turn off the disk drive. Once you have done so, click **OK** to continue.

4: The Drive A window will display a variety of disk drive types, depending on how you have set up your disk drives. Possible options are **1541, 1571, 1581, RAM 1541,** and **RAM 1571.** Select one.

5: The next dialog box will ask you to "Plug in and turn ON new disk drive." Hook up the new disk drive to your Commodore according to the instructions in its installation guide. Turn on the disk drive and click **OK** to continue. You will be returned to the main CONFIGURE

screen. The option you selected will appear below the **No Drive** option.

NOTE Once you return to the main CONFIGURE screen, and if you have hooked up a RAM Expansion Unit to your Commodore, a "Shadowed (disk drive type)" option will appear. Select this option. A shadowed disk drive will use some of the memory of a RAM Expansion Unit to speed up the performance of that disk drive.

```
┌─────────────────────────┐
│        Drive C          │
│  No Drive            ☐  │
│  1541               ☐   │
│  Shadowed 1541      ▨   │
│                         │
│                         │
└─────────────────────────┘
```

Use the shadowed disk drive for faster performance.

6: Select **save configuration** from the file menu to install the change to GEOS.

7: To return to the System deskTop, select **quit** from the **file** menu.

8: Copy the updated CONFIGURE 2.0 file to any disk containing the CONFIGURE 2.0 file.

To add or change a disk drive for Drive B or Drive C:

1: Go to the System disk deskTop and open the CONFIGURE 2.0 file by double-clicking on its file icon.

NOTE Another method is to highlight CONFIGURE, then select **open** from the file menu (or press 〔C〕〔Z〕).

2: The CONFIGURE screen will appear. Go to the Drive B or Drive C window, which will display one of the following:

• **A list of disk drive types.** If so, go to Step 4.

• **The No Drive** option. If so, go to Step 3.

3: Click on **No Drive**. A dialog box may ask you "If you are able to, please turn OFF and/or unplug drive #." Once you have done so, click **OK**.

4: The disk drive window will
   display a variety of disk drive
   types, depending how you have
   set up your disk drives. Pos-
   sible options are 1541, 1571,
   1581, RAM 1541 and RAM
   1571. Click on one.

Drive B

1541

1571

1581

RAM 1541
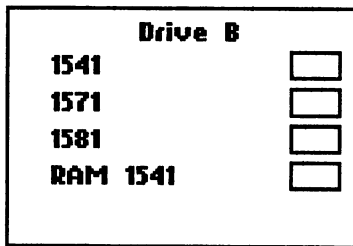
5: The next dialog box will ask you
   to "Plug in & turn ON new drive."

Select a disk drive type.

Hook up the new disk drive to your Commodore according to the in-
structions in its installation guide, and turn the disk drive on. Click **OK**
to continue. You will be returned to the main CONFIGURATION
screen.

NOTE If you have hooked up a RAM Expansion Unit to your Com-
modore, a "Shadowed (disk drive type)" option will appear in the disk
drive window. Click on this option. A shadowed disk drive will use
some of the REU's memory to speed up the performance of that disk
drive.

6: Select **save configuration** from the **file** menu to install the change to
   GEOS.

7: To return to the System deskTop, select **quit** from the **file** menu.

8: Copy the updated CONFIGURE 2.0 file to any disk containing the
   CONFIGURE 2.0 file.

To add a RAM Expansion Unit:

1: Before booting GEOS, hook up the RAM Expansion Unit to your
   Commodore as explained in the REU's instruction guide.

2: Boot GEOS and go to the System deskTop.

3: Open the CONFIGURE 2.0 program by double-clicking on its file icon.

NOTE Another method is to highlight the CONFIGURE file icon and
select **open** from the **file** menu (or press ⟨C=⟩⟨Z⟩).

4: The main CONFIGURE screen will appear. Go to the Drive B or
    Drive C window, which will display one of the following:

    • **A list of disk drive types.** If so, go to Step 6.

    • The **No Drive** option. If so, go to Step 5.

    NOTE If you have one disk drive and an REU, go to the Drive B
    window. If you have two disk drives and a RAM Expansion Unit, go
    to the Drive C window.

5: Click on **No Drive.** A list of disk drive types will appear, depending on
    the type of disk drive set up you are using. Possible options are **1541,
    1571, 1581, RAM 1541,** or **RAM 1571.**

6: Click on either **RAM 1541** or **RAM 1571.** You will be returned to the
    main CONFIGURE file screen. The option you selected will be
    displayed under the **No Drive** option.

7: Go to the RAM expansion
    window and make sure that
    RAM Reboot and **DMA** for
    "MoveData" are selected. The
    RAM Reboot option enables you
    to reboot using the
    LOAD"RBOOT",8,1 command
    without losing the contents of the
    REU, as long as the RBOOT file
    is on the disk from which you are
    rebooting. The **DMA for** "MoveData" option will enable GEOS to
    swap large amounts of data in the REU, thereby speeding up GEOS
    considerably.

```
┌─────────────────────────────┐
│  RAM expansion: 512K        │
│                             │
│  RAM Reboot        ▓▓       │
│                             │
│  DMA for           ▓▓       │
│  "MoveData"                 │
└─────────────────────────────┘
```
Make sure the options are selected.

9: Select **save configuration** from the file menu to install the change to
    GEOS.

10: To return to the System deskTop, select **quit** from the file menu.

11: Copy the updated CONFIGURE 2.0 file to any disk containing the
    CONFIGURE 2.0 file.

Once You Update the CONFIGURE 2.0 File

After you have changed the CONFIGURE 2.0 file, be sure to copy the updated CONFIGURE 2.0 file to any work disk containing the CONFIGURE 2.0 file.

Activating Drive C

Even though the disk note pad can display up to three disk drive icons, only the top two, Drives A and B, can be active at one time. If you wish to gain access to a file in a disk (or RAM Expansion Unit) in Drive C, you will need to activate it by having it switch positions with Drive A or B. (If you move a disk drive to the inactive Drive C position, the disk's contents will *not* be lost.) You can perform this procedure with an input device, or you can use the keyboard.

To activate Drive C (RAM 1541), move it to the Drive A or Drive B position.

To activate Drive C using an input device:

1: Open the current disk to its deskTop.

2: Click on the Drive C disk icon once. Its ghost icon will appear and become attached to the pointer.

3: Move the ghost icon up to either Drive A or Drive B and click to deposit it on either one. The Drive C disk drive will take the place of the disk drive you deposit it on and that disk drive will move to the Drive C position.

To activate Drive C using the keyboard:

1: Open the current disk to its deskTop.

2: Select Drive C by pressing [C⃞][C] . The disk note pad of the currently open disk will close and a question mark will appear in the disk drive icon representing that disk drive.

3: Move Drive C to an active position by pressing [C⃞] [SHIFT] [A] (to move it to Drive A) or [C⃞] [SHIFT] [B] (to move it to Drive B). The disk drive you deposit it on will move to the Drive C position. The disk note pad of the disk that was formally in the Drive C position will open.

Using Non-GEOS Disks

Although programs not specifically designed for GEOS cannot take advantage of GEOS's windows, icons, and pull-down menus, you can use the deskTop to examine the contents of a non-GEOS disk and rearrange non-GEOS file icons on the disk note pad. In some cases, you can run programs and create new files. Once you exit GEOS, you can use the non-GEOS disk in its original non-GEOS format (i.e., the non-GEOS disk will appear unchanged if you run it in its non-GEOS environment afterwards).

IMPORTANT It is recommended that you only convert *copies* (not originals) of non-GEOS system, application, or other disks to GEOS format. Never convert an original non-GEOS disk to GEOS format.

Using the deskTop with Non-GEOS Disks
To use the deskTop to open a non-GEOS disk:

1: Open GEOS to the deskTop.

2: Close the current disk by clicking on its close icon or selecting close from the disk menu (or pressing ⌹C). Remove it from the disk drive.

3: Insert the non-GEOS disk into the disk drive and select open from the disk menu (or press ⌹O).

4: A dialog box will ask you if you would like to convert the disk's directory to GEOS format. Select either Yes or No:

   • Yes: GEOS will expand the directory on the disk by one block. This additional directory area will be used to keep track of files that are moved from the disk note pad to the deskTop border.

   • No: GEOS will not allow you to move files from this disk off the disk note pad onto the deskTop border. You can, however, proceed to use the deskTop to work with the files on the disk.

5: Once you have selected Yes or No, you will be returned to the GEOS deskTop version of the non-GEOS disk. Each file on the disk will be represented by a C=64 icon with the file's name below. You can

rename, copy, and delete these files as if they were standard GEOS files.

Running a Non-GEOS Program on GEOS

Once you attempt to open a non-GEOS program on GEOS, GEOS will determine the type of program and if possible, run it. If you cannot open a non-GEOS file in GEOS, boot the system disk from which the document was created, then open the file.

To run a non-GEOS program on GEOS:

1: Double-click on the program file icon. Use the program as it is normally used.

2: When finished, reboot GEOS so that you can return to the deskTop.

NOTE If you have a RAM Expansion Unit and if you select the **RAM Reboot** option from the CONFIGURE program, you can reboot so that REU's contents will not be lost. However, make sure that the RBOOT file is on the System disk, and that the System disk is in an active disk drive. Exit to BASIC (by selecting **BASIC** from the **special** menu) and type **LOAD"RBOOT",8,1**. The GEOS deskTop will appear.

If the disk you have inserted is normally run using the **LOAD"*",8,1** command, double-click on the file icon at the upper left corner of the disk note pad to run that disk. (The **LOAD"*",8,1** command normally tells your Commodore to open the first file it finds on the disk.)

GEOS and BASIC

If you are a BASIC programmer, you can enter and use the BASIC environment directly from the GEOS deskTop.

To enter BASIC from the deskTop:

• Select **BASIC** from the **options** menu. You will enter the Commodore BASIC interpreter.

Using the BASIC Interpreter from the deskTop

Once you have entered the Commodore BASIC interpreter, your Commodore will run much as before except that the default NMI vector will be replaced with a vector to some reboot code for the deskTop in the $C000 memory space. This will allow the deskTop to be rebooted by inserting the original GEOS boot disk into the disk drive and pressing the |RESTORE| key on the keyboard.

Running BASIC Programs from the deskTop

Any BASIC program can be loaded and run from the deskTop. If the program is smaller than 26K, the GEOS diskTurbo software will fast-load the program into memory and automatically execute a RUN command. If the program is larger than 26K, it will be loaded by the normal Commodore DOS routines and a RUN command will be executed.

To run a BASIC program from the deskTop:

• Double-click on the program's file icon on the disk note pad page.

Returning to the deskTop

If the programs you have run while in the BASIC interpreter do not disturb the memory space between $C000 and $C080 (hex address values), and the NMI vector has not been changed, then you can reboot the deskTop.

To reboot from BASIC:

1: Place the System disk into Drive A.

> *NOTE* If the DESKTOP 2.0 file is on the REU, you need not insert the System disk into Drive A. All you would need to do to return to GEOS is press the |RESTORE| key.

2: Press the RESTORE key.

To reboot from BASIC without losing the contents of an REU:
- Type **LOAD "RBOOT",8,1.**
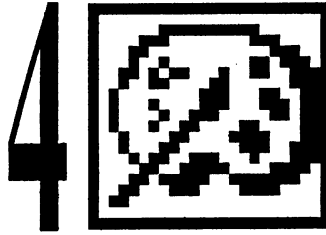
4 geoPaint

This chapter covers geoPaint, a full featured graphics editor. geoPaint enables you to create high resolution color graphic images on the display screen and print them. You also can copy images to other GEOS applications, such as geoWrite. This chapter explains how to:

- enter geoPaint.
- draw and paint images.
- create images using special measurement and constraining tools.
- use 32 different patterns.
- use 32 different brush styles.
- create patterns with overlaying effects.
- add text to the images you have drawn.
- magnify a work area in detail.
- use the cursor keys to move the pointer in small increments
- issue special commands to create images more precisely on the screen.
- use special features to enhance your graphics.
- stretch an image to different proportions.
- print a geoPaint document.
- exit geoPaint.

Unfamiliar terms are defined in Appendix A: Glossary. Menus are summarized in Appendix B: Menus.

Before You Try to Use geoPaint

geoPaint and Work Disks

Use the following instructions to set up work disks for using geoPaint, depending on the disk drive set-up you have.

The locations of files you may need are as follows:

Files: — *Disk:*

Files:	Disk:
geoPaint, DESKTOP, photo mgr, non-LW fonts	Applications
text mgr, LW fonts geoLaser	Write Utilities
CONFIGURE	System
printer driver	Applications & System

See Appendix D: Disk Contents (page 298) for a complete listing of the files on your disks and where these files are located.

If you wish to add special fonts, note that geoPaint does not support the use of megafonts.

If you have one disk drive:
- Copy geoPaint, your geoPaint documents, the printer driver, desk accessories, fonts, and text or photo albums and scraps to the same disk. If you have room, add the DESKTOP 2.0 file.

If you have one disk drive and a RAM Expansion Unit (REU):
- Copy geoPaint, the printer driver, desk accessories, fonts, the DESKTOP 2.0 file, and text or photo albums and scraps to the REU.

- Use the disk drive for the disk containing the documents.

If you have more than one disk drive:
- Copy geoPaint, the printer driver, desk accessories, fonts, and text or photo albums and scraps to one disk. If you have room, add the DESKTOP 2.0 file.

- Copy your geoPaint documents to another disk.

If you have different disk drive types (e.g., a 1541 and a 1571) and no REU:

- Copy the CONFIGURE 2.0 file to any disk containing the DESKTOP 2.0 file.

    NOTE So long as you have a RAM Expansion Unit, you need not copy the CONFIGURE 2.0 file to the work disks containing the DESKTOP, even if the disk drives are different.

geoPaint Documents and the 1581 Disk Drive

If you try to open a geoPaint document on a disk in a 1581 disk drive, an error message saying "geoPaint and data file must be on the same disk in a one-drive system" will appear if you do not have a RAM Expansion Unit, even though you are using a two-drive system or you have geoPaint and its documents on the same disk. To open the document, click **OK** in the error message dialog box. The Create/Open/Quit dialog box will appear, enabling you to gain access to your document.

Note that the Create/Open/Quit dialog box only displays the first 15 documents on the disk. If the document you need is not displayed, you will need to rearrange file icons on the disk note pad so that the document file you need appears among the first 15 on the disk. See "Rearranging File Icons" on page 64, if necessary.

If you are using a 1581 disk drive with a disk containing a geoPaint document, you can open the document by first opening the geoPaint application file, then selecting **Open existing document** from the Create/Open/Quit dialog box.

Entering geoPaint

Entering geoPaint from the deskTop

From the deskTop, there are two ways to enter geoPaint:

- Double-click on the geoPaint file icon.

- Click once on the geoPaint file icon so that it is highlighted, then select **open** from the **file** menu (or press ⬜Z).

In either case, geoPaint will load and display a dialog box on a blank screen. It will contain three options: **Create new document, Open existing document**, and **Quit to deskTop**. Select one.

Please Select Option:

Create new document

Open existing document

Quit to deskTop
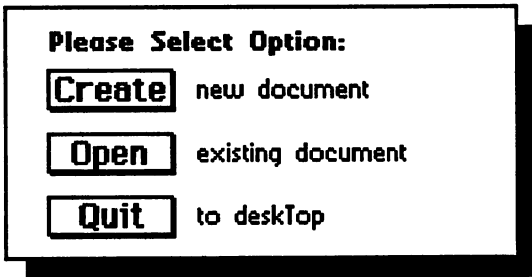
Creating a New Document

Select **Create** to create a new geoPaint document. A second dialog box will enable you to enter a file name and, if desired, create the document on a disk in another disk drive.

On disk: Work Disk

Please enter new filename:

My Drawing

Drive **Cancel**
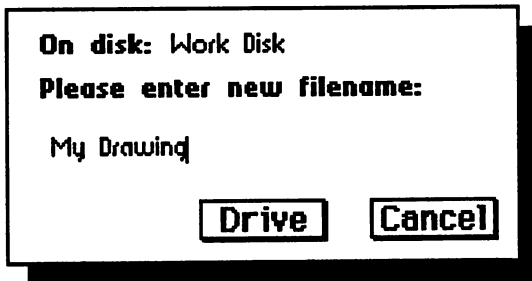
To create a new document on the currently open disk:

- Type in a name for the document and press $\boxed{\text{RETURN}}$.

To create a new document on a disk in the other active disk drive:

1: Click on **Drive.**

2: Type in a name for the document and press $\boxed{\text{RETURN}}$.

To create a new document on another disk entirely:

1: Click on **Drive,** then click on **Disk.**

2: Remove the disk from the disk drive and insert the disk you need.

3: Type in a name for your document and press $\boxed{\text{RETURN}}$.

Opening an Existing Document

Select **Open** to enter an existing geoPaint document. A second dialog box will display a list of documents on the currently open disk. If desired, you can open a document on a disk in another disk drive.

To open an existing document on the current disk:

- Click on the name of the document you need, then click **Open.**

To open a document on a disk in the other active disk drive:

1: Click on **Drive.** The dialog box will display the names of the files on the disk in the other disk drive.

2: Click on the name of the document you need, then click **Open.**

To open a document on another disk entirely:

1: Click on **Drive,** then click on **Disk.**

2: Remove the disk from the disk drive and insert the disk you need.

3: Click on the name of the document you need, then click **Open.**

Quitting to the deskTop

Select **Quit** to return to the deskTop. If the current work disk or a disk in another disk drive does not contain a copy of the DESKTOP file, a dialog box will ask you to insert a disk containing that file. Insert the System disk (which *does* contain the DESKTOP file) and click **OK**. You will be returned to the System deskTop. If you wish to avoid using this procedure every time you quit from geoPaint, copy the DESKTOP 2.0 file to your work disks.

Opening an Existing Document from the deskTop

Once you have created a geoPaint document, its file icon will appear on the deskTop. You can open it the same way you open geoPaint or any other application, using one of the following methods:

A geoPaint document file icon

- Double-click on the document file icon.

  My Drawing

- Click once on the document file icon so that it is highlighted, then select **open** from the file menu (or press ⌨ Z).
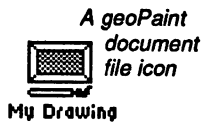
The geoPaint Screen
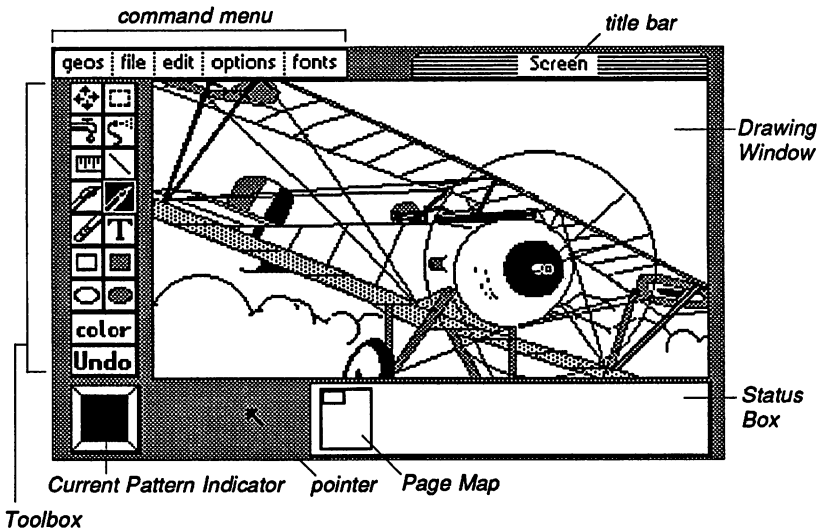
As shown above, the **Drawing Window** occupies most of the screen and serves as a window into a portion of the total page. In the "Normal Edit" mode, the Drawing Window allows you to work with an area up to 3.3 inches wide and 1.8 inches high (approximately 1/14 of the entire document). In the Pixel Edit mode, the Drawing Window actually magnifies a smaller portion of your document, enabling you to work in greater detail. In either case, you can move the Drawing Window to view other portions of your document.

Above the Drawing Window is the **command menu**, similar to that found on the deskTop. Clicking on one of the menu names displays another menu with several command options. Simply click on the command you need.

Along the left side of the geoPaint screen is the **Toolbox**. The icons in the toolbox give you access to the many drawing tools described later in this chapter.

The name of the document you are currently working on is displayed in the **title bar** in the upper right corner of the screen.

The **Status Box**, a rectangular box at the bottom right of the screen, displays different information and special prompts depending on the tool in use. When you use the **Ruler, Line, Ellipse**, and **Rectangle** tools, the Status Box will display measurement information. The Status Box is also used to display color options and the available brush shapes and patterns.

Directly to the left of the Status Box is the **Current Pattern Indicator**, which displays the patterns currently in use by the **Paint Brush, Faucet, Air Brush, Filled Rectangle**, and **Filled Ellipse** tools.

The **pointer**, which indicates your location on the screen, is used to select menus, drawing tools, or patterns. When the pointer is in the Drawing Window, it changes shape to indicate which tool you are using.

If you have not already done so, read Chapter 2, "Learning GEOS," before you continue.

Special Features

As you learn geoPaint, you will discover that most of the tools share a number of special design enhancing features, which are described in other sections of this chapter. These features are cross-referenced under a "Related Features" section under the applicable tools.

Drawing Tools and Shapes

The drawing tools and shapes covered in this section are the **Pencil**, the **Line**, **Filled** and **Hollow Rectangles**, **Filled** and **Hollow Ellipses**, the **Paint Brush**, the **Airbrush**, and the **Faucet**.

The Pencil

Use the **Pencil** to draw individual points and free hand lines.
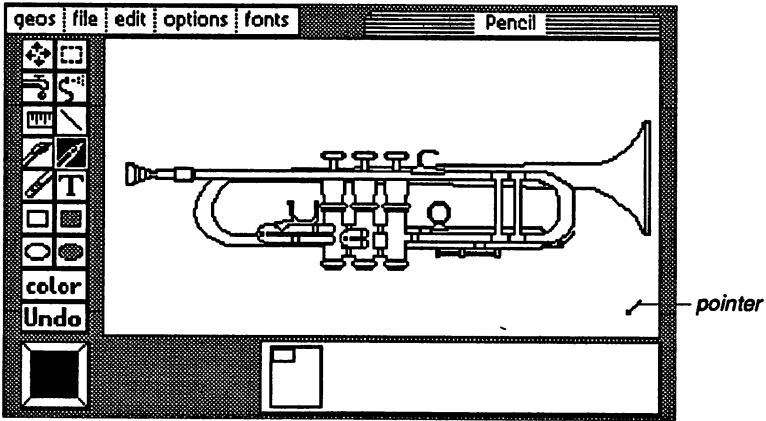
To use the Pencil:

1: Click on the **Pencil** tool in the Toolbox. The pointer will change to a pencil shape.

2: Move the pointer to a desired location and click to begin drawing.

3: When finished drawing, click again.

> *NOTE* If you double-click on the **Pencil** tool, you will enter Pixel Edit mode.

Related Features

Lines

There are two types of lines you can draw: independent lines or connected lines. To draw a line at a vertical, horizontal, or 45-degree angle, click on the **constrain** option in the Measure units box at the bottom of the screen beforehand, or press [K] to turn the constrained option off and on while you are in the middle of drawing.
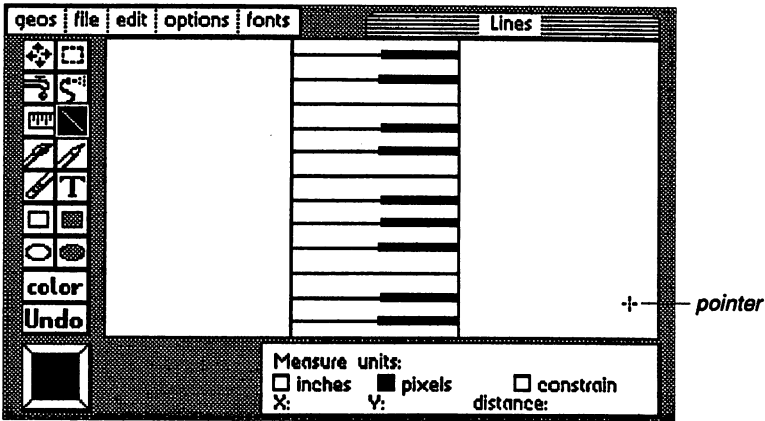
To draw an independent line:

1: Click on the **Line** tool in the Toolbox. The pointer will assume the shape of a cross-hair.

2: Position the cross-hair at a location in the Drawing Window, click, and stretch the line out in any direction.

3: When finished drawing, click again.

To draw a series of connected lines:

1: Click on the **Line** tool in the Toolbox. The pointer will assume the shape of a cross-hair.

2: Position the cross-hair at a location, click, and stretch the line out in any direction.

3: When you reach the end of a line, hold down [C=] and click.

4: Release the [C=] key and pull the next line out.

4: When finished, click again (but do not hold down [C=]).

> *NOTE* If you are using Pixel Edit mode, you cannot use both the **constrain** option and the connected lines procedure at the same time. You can use one or the other, however.

Related Features

See page:	*for:*
123	"Fine Movement with the Cursor Keys"
123	"Measuring Distances"
124	"Detailing with Pixel Edit"
104	"The Faucet" (to fill an enclosed shape with the current pattern)
110	"Using Color"
126	"Bitmap Scaling"
136	"Using the Grid"

Filled and Hollow Rectangles

You can draw two types of squares and rectangles: hollow and filled. The filled square or rectangle will contain the current pattern displayed in the Current Pattern Indicator. If you want to draw a square, use the **constrain** option (select this option by clicking on its box in the Measure units box before beginning to draw). While the square you draw may appear slightly elongated on the screen, it will print as a perfect square.
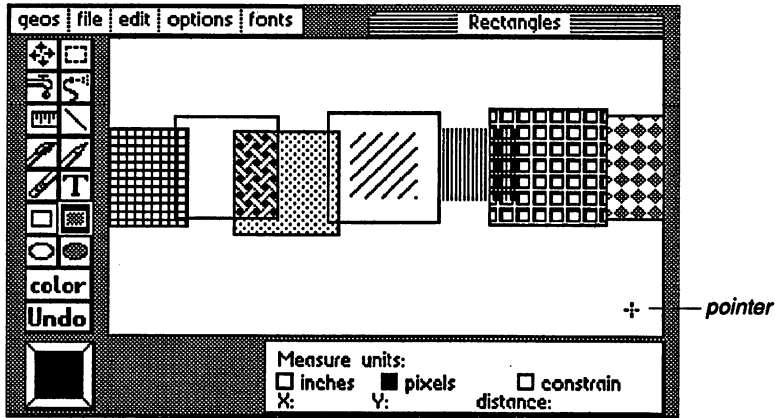
To draw squares or rectangles:

1: Click on the **Hollow** or **Filled Rectangle** tool in the Toolbox. The pointer will assume the shape of a cross-hair.

2: Position the pointer at the beginning point, click, and pull the shape diagonally in any direction.

3: When finished drawing, click again.

Related Features

Hollow and Filled Ellipses

geoPaint enables you to draw hollow or filled ellipses and circles as well. If you want to draw a perfect circle, use the **constrained**

option (select this option by clicking on its box in the Measure units box before you begin to draw). While the circle you draw may appear slightly elongated on the screen, it will print as a perfect circle.
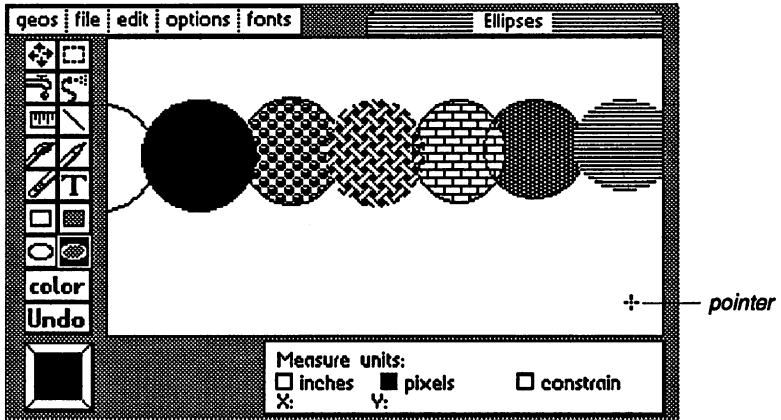
To draw a circle or ellipse:

1: Click on the **Hollow** or **Filled Ellipse** tool in the Toolbox. The pointer will assume the shape of a cross-hair.

2: Position the cross-hair at a location, and click to pull the circle or ellipse diagonally in any direction.

3: When finished drawing, click again.

Related Features

The Paint Brush

The **Paint Brush** paints with any of 32 different brushes using the pattern displayed in the Current Pattern Indicator.
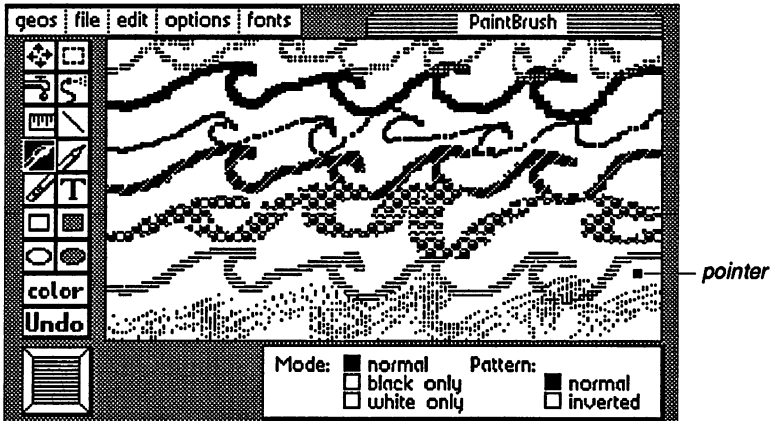
To use the Paint Brush:

1: Click on the **Paint Brush** tool in the Toolbox. The pointer will assume the shape of the current brush.

2: Position the brush at a desired location and click to begin painting.

3: When finished painting, click again.

To change the shape of the brush:

1: Select **change brush** from the **options** menu. The Status Box will display the 32 available brush shapes. The current brush will have a box around it.

    NOTE Another method of selecting **change brush** is to double-click on the **Paint Brush** icon.

2: Click on a desired brush shape. The pointer will assume that brush's shape and you can begin to paint with the new brush shape right away.

Related Features

The Airbrush

With the **Airbrush,** you can spray paint large areas with the current pattern in a variety of intensities. The longer you spray an area, the more defined the pattern will become.
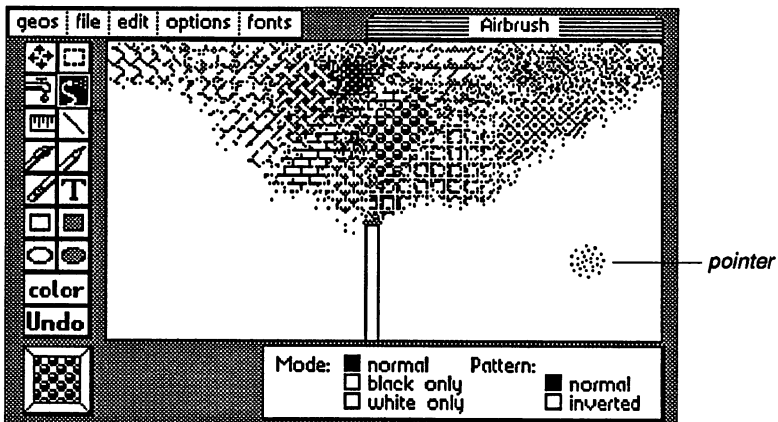
To use the Airbrush:

1: Click on the **Airbrush** tool in the Toolbox. The pointer will assume the shape of a circle of dots.

2: Move the pointer to a desired location and click to begin spraying.

3: When finished spraying, click again.

Related Features

The Faucet

Use the **Faucet** to fill in an enclosed image or a background with the current pattern, as in the following example:
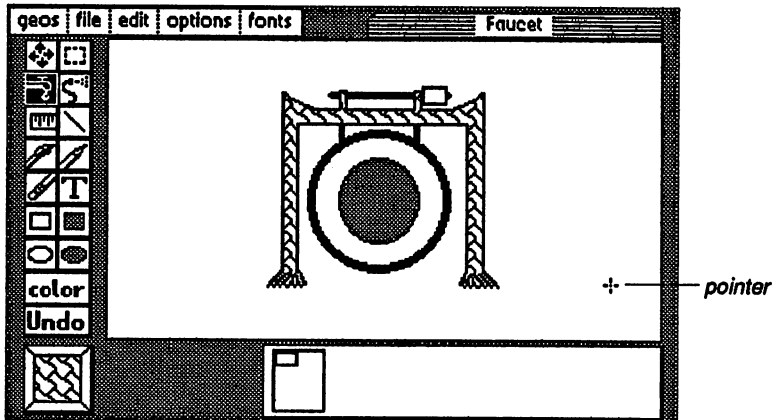
To use the Faucet:

1: Click on the **Faucet** tool in the Toolbox. The pointer will assume the shape of a cross-hair.

2: Position the cross-hair at a desired location and click. Depending on where you clicked (i.e., an enclosed image or the background), the area will fill with the current pattern.

NOTE If you are filling an enclosed image, make sure the image is truly enclosed, or the **Faucet** will "leak" onto your document (which you can undo by clicking on the **Undo** icon).

To stop a Faucet fill:

- Hold down RUN/STOP until the procedure stops.

Related Features

Adding Text

To add text to your geoPaint document, you will need to select the **Text** icon, define a text region in which to insert the text, then type your text. Vary fonts by copying the desired font files to your geoPaint work disk. Do not, however, try using megafonts; geoPaint does not support their use. Note that if you copy geoPaint text to a non-geoPaint document (such as geoWrite), the geoPaint text is treated as either a text scrap or a photo scrap, depending on the method you use to copy it.

Creating Text

While you are creating text, you can make a number of text and formatting changes. Once you exit Text mode, the text you entered cannot be changed; it will be considered a graphic.

To create text:

1: Click on the **Text** tool. The pointer will assume the shape of a cross-hair.

2: Define a text region: click once to select one corner, drag the pointer to the diagonal corner, and click again. Be sure the region is large enough to encompass all of the text you plan to enter.

3: When the text cursor (a flashing vertical line in the upper left corner of the text region) appears, type your text.

4: If desired, change the font use in the region by selecting a font from the **fonts** menu, or click on a style in the Status Box.

> **NOTE** To undo a style selection, click on its status box again. Note that a font or style change will affect all text in the text region.

> **IMPORTANT** All changes you make to the text (e.g., changing text, fonts, and styles, repositioning the text region, and moving or copying text) *must* be done before exiting Text mode.

5: When finished, click outside the text region or click on any tool in the Toolbox. You will exit from the Text mode and the text you create will be set in place.

> **NOTE** You can enter up to 253 characters (including spaces) into a text region.

Changing Text (While in Text Mode Only)

•   Move the pointer to the desired location in the Text Region and click to reposition the text cursor. You either can type more text or use the INST/DEL key to delete text.

Changing the Position and Layout of the Text

Once you open a text region, you will notice that the text region box contains two smaller boxes at diagonal corners. Use the Resize Box to change the position and layout of the text in the text region. Use the Move Box to move the text region to a new location.

Click here to move text.
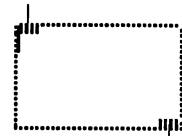
Click here to resize the text region.

To resize the Text Region:

1: While still in Text mode, click on the Resize Box. The Resize Box will become attached to the corner.

2: Drag the Resize Box to a new location and click to set the text region in place.

To move the Text Region:

1: While still in Text mode, click on the Move Box. The text region will become encompassed by the positioning handles; these handles will

```
┌─────────────────────────┐
│Move the text            │
│around the screen        │
└─────────────────────────┘
positioning handles ────┘
```
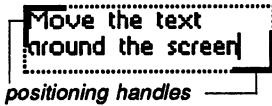
move as you move the input device.

2: Move the text region to a new location. If you wish to toggle the method for displaying the text as you move it across the Drawing Window, press R.

> NOTE You can have the text reformat itself when you click to set the text region in place, or you can have the text reformat as you move the positioning handles. The next time you move a text region, its reformatting status will be retained from the last time you pressed R while in this mode.

3: Click to set the text region in place.

Moving or Copying Text by Using the Text Scrap

Note that once you exit the text region (by clicking outside the text region or selecting a tool in the Toolbox) any text you create in geoPaint is considered a graphic image, not text (as with geoWrite text, for example). Therefore, if you cut or copy the geoPaint text, it will be placed into a photo scrap, not a text scrap. When it is placed into another document, it cannot be changed as you can change geoWrite text.

You can, however, copy the text into a text scrap (and into a text album, if desired). Once the geoPaint text is placed into a text scrap, it will be treated as geoWrite text: if you paste it into a geoWrite document, it will appear as regular text and you will be able to change it if desired.

To move or copy text:

1: With the text cursor in the current text region, select the **edit** menu.

2: When the **edit** menu options are displayed, select **cut** (to move) or **copy.**

3: Click on the **Text** icon (to exit the current text region).

> NOTE At this point, the text has been placed into a text scrap. You can move to another location of the document, or to another document (e.g., geoWrite) entirely.

4: Define a new text region: click to set one corner, drag the pointer to
    the diagonal corner, then click again. If the destination is a geoWrite
    document, select an insertion point.

5: Select **paste** from the **edit** menu (or **paste text** from the **edit** menu if
    the document is geoWrite). The text scrap contents will be copied into
    the new location.

    NOTE Once the text is pasted in place, you can change it any way you
    wish, so long as you do not exit Text mode. To paste the same piece of
    text into several places in your document, repeat Steps 4 and 5.

Related Features

See page:	*for:*
123	"Fine Movement with the Cursor Keys"
124	"Detailing with Pixel Edit" (Note that selecting Pixel Edit mode will exit Text mode.)
110	"Using Color"
126	"Bitmap Scaling"
136	"Using the Grid"

Using Color

color You have the option of displaying up to 16 colors on the screen. The colors you create can be used in two layers:

- **Foreground (paint) colors,** which appear when you use the **color on** item in the **options** menu to create text and images with the Toolbox tools.

- **Background (canvas) colors,** which you paint onto the screen using the **color** icon in the Toolbox.

When both paint and canvas colors are activated, the Status Box will display the following:

current foreground color   Paint Color Bar

Paint (Foreground) Color Indicator — paint

Canvas (Background) Color Indicator — canvas

current background color   Canvas Color Bar
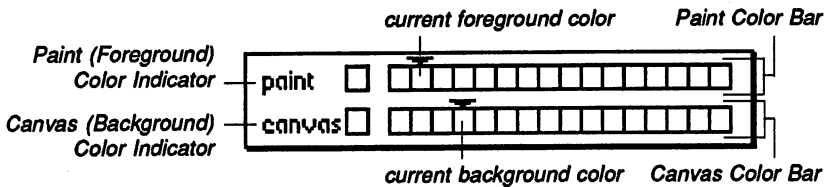
Using Paint (Foreground) Colors

You can use any tool that produces an image to create paint (foreground) colors. If you wish to make changes to the foreground colors, you can do so by selecting the **Color, Faucet, Scrolling Arrows, Pencil,** and **Eraser** tools; any of these will display the Paint Color options in the Status Box. You can create paint colors in Pixel Edit mode as well as Normal Edit mode.

To activate the paint colors:

1: Click on the **Color** tool in the Toolbox or select **color on** from the **options** menu.

NOTE If you selected the **Color** tool, the Paint Color Bar will appear in the status box. If desired, click on a different color in the Paint Color Bar. If you selected **color on** from the **options** menu, the Status Box will remain unchanged.

2: Go to the Toolbox and click on the tool you wish to use to create images. If the tool is already selected, you can begin to use it right away.

3: Use the tool as explained in "Drawing Tools and Shapes" or "Adding Text." The images you create will appear with the selected color.

Erasing a Paint Color

When you use the **Eraser** tool on an area that contains a canvas color, the canvas (background) color will not be affected. In other words, if you erase a drawing, the background canvas will not be erased.

Using Canvas (Background) Colors

The canvas color will not paint over a foreground color; it will remain in the background. When you turn off the color option, the background colors will disappear until you turn the color option back on again. You can create canvas colors in Normal Edit mode only, not Pixel Edit mode.

There are limitations on how much color you can put into any one area of your drawing. The limitations are imposed by the hardware of the Commodore, and are such that you may have only one canvas color and one paint color per each 8 x 8 pixel area on the screen. These 8 x 8 pixel areas are called "cards," and when you draw canvas color on the screen, you will notice that the movement of the color tool is limited to these card areas. In addition, you should be aware that depending on your monitor some paint/canvas combinations can be difficult to see, or may cause color changes due to color "bleeding." For instance, an image in yellow paint may *appear* to turn green if you should change the canvas to blue. This can sometimes be used to great effect, increasing the apparent range of colors on the Commodore.

To activate the canvas colors:

1: Click on the **Color** tool in the Toolbox or select **color on** from the **options** menu.

    NOTE If you selected the **Color** tool, the Canvas Color Bar will appear in the status box. If desired, click on a different canvas color in the Canvas Color Bar. If you selected **color on** from the **options** menu, the Status Box will remain unchanged.

2: Move the pointer to the Drawing Window. The pointer will assume the shape of a small rectangle.

3: Position the rectangular shaped pointer in the Drawing Window and click to begin coloring. The rectangular color tool will turn black to indicate that it is active. As you move it over an image, both the paint and the canvas colors will change to those you selected in the color bars in the Status Box.

4: When finished coloring an image, click again to turn off the color tool. The pointer will return to your normal pointer color to indicate that the color tool is no longer active.

Related Feature

See page: *for:*
123   "Fine Movement with the Cursor Keys"

Erasing a Canvas Color

You cannot use the **Eraser** tool to erase a canvas color. You can, however, color over a canvas color with another canvas color. Another option is to select the area with the **Edit Box** tool, then select **clear** from the Status Box options.

Erasing Colors in an Area

You can erase (not deactivate) colors from the Drawing Window by using the following procedure. This procedure will retain colors elsewhere in the document.

To erase colors:

1: Position the Drawing Window so that the area whose colors you wish to erase is displayed.

2: Select **color off** from the **options** menu.

3: Click on the **Edit Box** tool. If you wish to select a specific area within the Drawing Window, use the pointer to open an editing region. If you wish to select the entire Drawing Window, double-click on the **Edit Box** tool.

4: Select **cut** from the **edit** menu. The area you selected will disappear.

5: Select **color on** from the **options** menu.

6: Select the **Edit Box** tool again. If you wish to open a specific area within the Drawing Window, use the pointer to open an editing region. If you wish to select the entire Drawing Window, double-click on the **Edit Box** tool.

7: Select **paste** from the **edit** menu. The photo scrap will be pasted in the editing region you opened. Its colors will have been erased.

Correcting Your Creations

geoPaint enables you to correct what you have created by using the **Undo** and **recover** commands or the **Eraser** tool. With these tools, you can delete portions of a Drawing Window or the entire Drawing Window.

Undo *The Undo Tool*

If you make a mistake, don't panic! To reverse the most recent change you made, click on the **Undo** tool in the Toolbox.

Using Recover to Undo Changes

- Select **recover** from the **file** menu to reverse all the changes you have made in the current editing session, from the last time the document was saved to disk.

    NOTE The document automatically will be saved to disk whenever you scroll or move the Drawing Window, preview the document, use a desk accessory, print the document, or exit the document.

The Eraser

Use the **Eraser** tool to delete portions of the Drawing Window's contents.
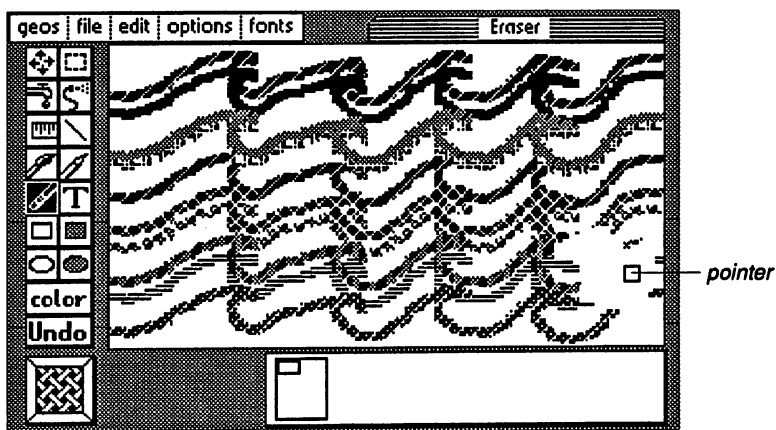
To erase an image:

1: Click on the **Eraser** icon in the Toolbox. The pointer will assume the shape of a small rectangle.

2: Move the pointer over the image you want to erase, and click once to activate the eraser.

3: When finished erasing, click again to deactivate the eraser.

NOTE Double-clicking on the **Eraser** tool will erase the Drawing Window's contents.

Related Features

See page:	*for:*
123	"Fine Movement with the Cursor Keys"
124	"Detailing with Pixel Edit"
110	"Using Color"

Clearing the Contents of an Editing Region

If you become disenchanted with an area in the Drawing Window, you can delete its contents with the Edit mode's **clear** option.

To clear a region:

1: Select the **Edit Box** icon from the Toolbox and use the pointer to create an editing box around the region.

NOTE If necessary, refer to "Selecting an Editing Region" on the next page.

2: Go to the Status Box and click **clear**.

To clear the entire Drawing Window contents:

• Double-click on the **Eraser** tool in the Toolbox.

Selecting, Copying, and Moving Regions

With geoPaint, you can perform several operations on selected rectangular regions of your document. After you select a region, you can copy or move it within the same document or to another document (even one created with a different application). Once you select an Editing Region, you also can use the options displayed in the Status Box to make some unusual changes (which are covered in the Special Features section of this chapter).

Selecting an Editing Region

You can select a portion of the Drawing Window, or you can select the entire Drawing Window. Selecting an editing region entails using the **Edit Box** tool to encompass the region in a rectangular editing box.
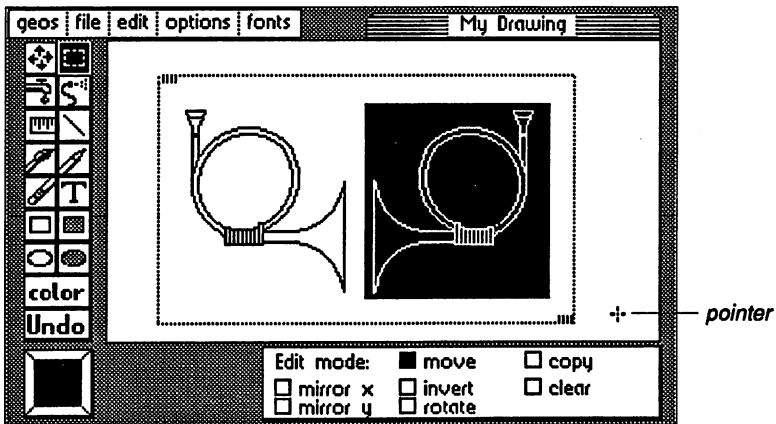
To open an editing region within the Drawing Window:

1: Click on the **Edit Box** tool in the Toolbox. The pointer will assume the shape of a cross-hair.

2: Position the cross-hair at one corner of the area you wish to select, and click.

3: Move the pointer to the diagonal corner of the area. A rectangular outline will appear as you pull the cross-hair out. Be sure to encompass all of the area you wish to select.

4: When you have encompassed the area within the editing region, click to set the region in place. Once you have opened an editing region, it will appear with two boxes, the Move/Copy Box and the Resize Box, at diagonal corners. These boxes will be explained shortly.

Move/Copy Box

Resize Box
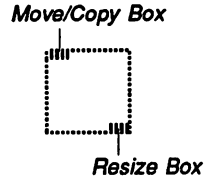
NOTE In Color mode, the editing region will expand to an even 8 x 8 card boundary. In non-Color mode, the editing region will remain the size you make it, unless you select **cut, copy,** or **paste** from the **edit** menu, in which case the editing region will expand to even 8 x 8 cards as in Color mode.

To select the entire Drawing Window:

1: Click once on the **Edit Box** tool to activate it.

2: Double-click on the **Edit Box** tool.

NOTE Once you select the entire Drawing Window, you can resize the editing region by clicking on the Resize Box at the lower right corner. However, the Move/Copy Box is inactive.

Related Features

See page:	*for:*
132	"Mirroring"
133	"Inverting"
133	"Rotating"
119	"Moving or Copying a Selected Region"
115	"Clearing the Contents of an Editing Region"
126	"Bitmap Scaling"

Resizing an Editing Region

Once you open an editing region, you have the option of using the options listed in the Status Box to change the appearance and location of the editing region's contents. You also can resize the editing region, if desired. Note that resizing an editing region will not change the region's contents (e.g., stretch the image).

To resize an editing region:

1: Select the **Edit Box** tool and use the pointer to create an editing box around the region.

2: Click on the Resize Box at the lower right corner of the editing region. The Move/Copy and Resize Boxes temporarily will disappear.

3: Position the pointer at a new location and click to define the new editing region. The Move/Copy and Resize Boxes will return and the editing region will be set.

Moving or Copying a Selected Region

A **photo scrap** is used to move or copy an image or geoPaint text when used with the **edit** menu's **cut** or **copy** commands. It works the same as the text scrap used in geoWrite: it is a temporary storage file into which you cut or copy selected images. You can paste the contents of a photo scrap into your current geoPaint document, another geoPaint document, or even another GEOS application document, such as geoWrite.

Note that the photo scrap only holds one selected area at a time. Each time you cut or copy a new region, you will *replace the current* contents of the photo scrap with the contents of the new region. If you wish to store a photo scrap permanently or insert more than one image at a time, you can do so by copying it into a photo album created with the Photo Manager desk accessory. (This feature is described in Chapter 11, "Desk Accessories.")

If desired, you can move or copy an area larger than the Drawing Window. To do so, you will need to use the Grid function, which is described on page 136.

To move or copy a region within the Drawing Window:

1: Select the **Edit Box** tool and use the pointer to create an editing box around the region.

   NOTE If necessary, refer to "Selecting an Editing Region" on page 116.

2: Go to the Status Box and select either **move** or **copy**.

   NOTE The image will *not* be placed in a photo scrap.

3: Go back to the editing region you created and click on the Move/Copy Box. The editing region will become encompassed by the positioning handles; these handles will move as you move the input device.

positioning handles
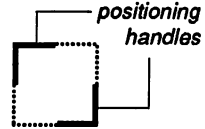
4: Move the pointer with the image to a new location. If you wish to toggle the method for reformatting the editing region as you move it across the Drawing Window, press ⬚R⬚.

NOTE You can have the editing region redraw itself when you click to set the editing region in place, or you can have the editing region redraw as you move the positioning handles. The next time you move an editing region, its redrawing method will be retained from the last time you pressed ⬚R⬚ while in this mode.

5: Click again to deposit the moved or copied image.

NOTE Repeat Steps 3–5 for each time you want the image moved or copied. (If desired, in the Status Box, you can first change move to copy or vice versa before repeating Steps 3–5.) In this manner, you can copy an image several times:
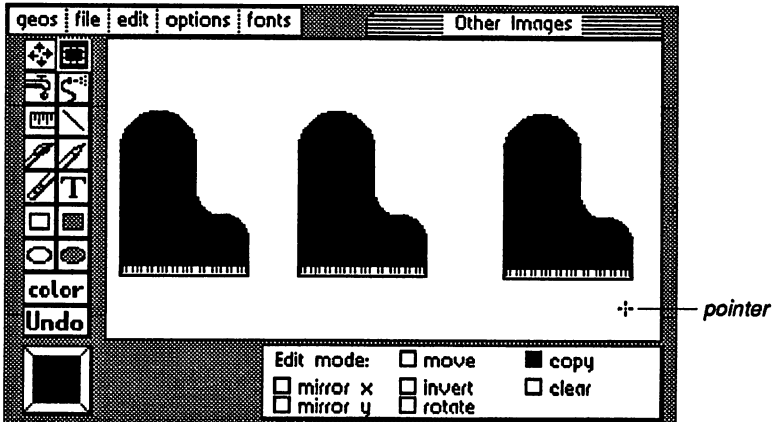
pointer

To move or copy a selected region to another Drawing Window in the same document:

1: Select the **Edit Box** tool and use the pointer to create an editing box around the region, or double-click on the **Edit Box** to select the entire Drawing Window.

2: Go to the command menu and select **edit.**

3: When the **edit** menu options appear, select either **cut** (to move) or **copy.** The image will be placed into a photo scrap.

4: Scroll to another location. Either use the **Scrolling Arrows** tool in the Toolbox, or use the Page Map.

   NOTE The Page Map will appear in the Status Box if you click on the **Pencil** tool.

5: When you reach the new location, use the **Edit Box** to open a new region.

6: Go to the command menu and select **paste** from the **edit** menu.

To move or copy a selected region to another geoPaint document on the same disk:

1: Select the **Edit Box** tool and use the pointer to create an editing box around the region, or double-click on the **Edit Box** to select the entire Drawing Window.

2: Go to the command menu and select **edit.**

3: When the **edit** menu options appear, select either **cut** (to move) or **copy.**

4: Select **close** from the **file** menu. The Please Select Option dialog box will appear. You can create a new geoPaint document or open an existing geoPaint document. (You also can exit to the deskTop.)

5: Select one of the options in the Please Select Option dialog box.

6: When the geoPaint document is displayed, use the **Edit Box** to open a region in which to insert the image.

7: Select **paste** from the **edit** menu.

To move or copy an image into a non-geoPaint document on the same disk:

1: Select the **Edit Box** tool and use the pointer to create an editing box around the region, or double-click on the **Edit Box** to select the entire Drawing Window.

2: Go to the command menu and select **edit**.

3: When the **edit** options appear, select either **cut** (to move) or **copy**.

4: Select **quit** from the **file** menu. You will be returned to the deskTop.

5: Open the destination document.

6: When the document is displayed, select an insertion point, then select **paste** from the **edit** menu. If it is a geoWrite document, select **paste picture** from the **edit** menu (or press $\boxed{\text{C=}}\boxed{\text{W}}$). If you placed geoPaint text into a text scrap, select **paste text** from the **edit** menu (or press $\boxed{\text{C=}}\boxed{\text{T}}$). Note that geoPaint text from a text scrap *can* be changed once you place it in the document.

To move or copy an image to another disk:

1: Select the **Edit Box** tool and use the pointer to create an editing box around the region, or double-click on the **Edit Box** to select the entire Drawing Window.

2: Go to the command menu and select **edit**.

3: When the **edit** menu options appear, select either **cut** (to move) or **copy**.

4: Select **quit** from the **file** menu. You will be returned to the deskTop.

5: Copy the photo scrap file to the disk containing the destination document. If you copied geoPaint text into a text scrap, copy the text scrap to the destination disk.

6: Open the destination disk, then open the destination document.

7: If the document is a geoPaint document, use the **Edit Box** to open an editing region. If it is a non-geoPaint document, select an insertion point.

8: Select **paste** (or **paste picture**) from the **edit** menu. (The geoWrite keyboard shortcut is ⌘W.) The image will be copied in place. If you copied geoPaint text into a text scrap for a geoWrite document, select **paste text** from the **edit** menu (⌘T).

NOTE If the document is a geoPaint document, the Bitmap Scaling dialog box will appear after you select paste. If needed, see "Bitmap Scaling" on page 126.

Images in geoWrite

Once you place an image into a geoWrite document, you cannot copy or move it by using the **edit** commands. You can, however, delete it and, if the scrap still contains the image, paste it in another location.

If you wish to crop an image or change the horizontal placement of an image placed in a geoWrite document, you can do so by highlighting the image and moving the margin markers in the ruler. The instructions for highlighting an image and moving margin markers are found in Chapter 5, "geoWrite 2.1."

Special Features

Fine Movement with the Cursor Keys

If you wish to move the pointer pixel by pixel, you can do so by using the cursor keys. Use this feature with any tool that entails the use of the pointer. If you wish to use the cursor keys to move the canvas color tool, it will move card by card, not pixel by pixel. You can use the cursor keys for fine movement in both Normal Edit and Pixel Edit modes.

To move the pointer using the cursor keys:

1: After you have selected the desired tool, position the pointer in the Drawing Window.

2: Press the cursor keys as follows:

To move:	*press:*
right	⌜CRSR⌝ ⇆
left	⌜SHIFT⌝ ⌜CRSR⌝ ⇆
down	⌜CRSR⌝ ↑↓
up	⌜SHIFT⌝ ⌜CRSR⌝ ↑↓

Measuring Distances

If you select the **Line, Rectangle, Ellipse,** and **Ruler** tools, the Status Box will display the Measure Units Box, which enables you to measure an area in pixels or inches, and displays the measurement in X and Y coordinates. The **constrained** option is used to create lines at a vertical position, horizontal position, or 45-degree angle, and to create circles and squares.

The **Ruler** tool, which resembles a tape measure, is strictly a measuring device that leaves no permanent image on the screen. You can use it in Pixel Edit mode as well as Normal Edit mode, if desired.
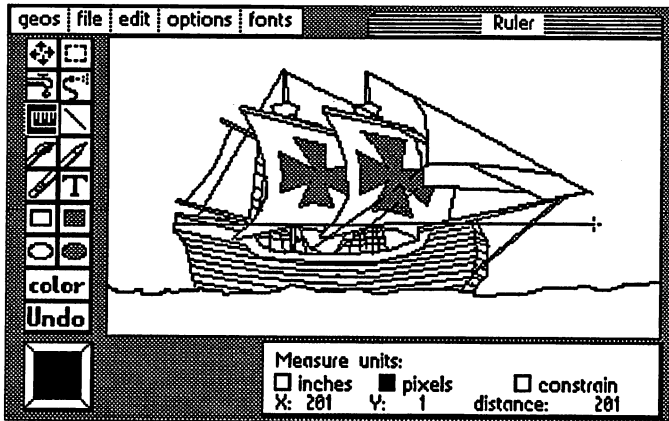
The ship is 201 pixels long.

To measure an area:

1: Select the **Line, Rectangle, Ellipse,** or **Ruler** tool. The Status Box will display the Measure Units Box.

2: Go to the Measure Units Box and select a unit of measure: **inches** or **pixels.** If you have selected the **Line, Rectangle** or **Ellipse** tool, click on **constrained** to create horizontal or vertical lines, or circles or squares.

3: Go back to the Drawing Window and click to create the image, or use the **Ruler** to measure an area. As you move the pointer, its X and Y coordinates and the total distance will be displayed in the Measure Units Box.

   NOTE If desired, you can turn on and off the **constrained** option by pressing $\boxed{\text{K}}$.

   The pixel measurement is in actual dots on the screen. Inches are measured in "printed" inches, not "screen" inches, of 80 dots to the inch. The accuracy of any printed document depends, therefore, on the resolution of your printer. For example, on an 80-dots per inch printer, a 1-inch line created in geoPaint will print out 1 inch long. On a 60-dots per inch printer, that same line would print 1.3 inches long.

Detailing with Pixel Edit

The images in your Drawing Window are composed of tiny dots called pixels. Pixel Edit mode magnifies a selected portion of your document to

enable you to use the **Pencil** to add or delete fine detail by clicking on the pixels that compose an image. You also can use the **Airbrush, Paint Brush, Faucet, Pencil, Line, Hollow** and **Filled Rectangles, Ruler,** and **Eraser** in Pixel Edit mode. Note that you can change foreground colors (but not background colors) in Pixel Edit mode. Pixel Edit mode appears as follows:

pointer
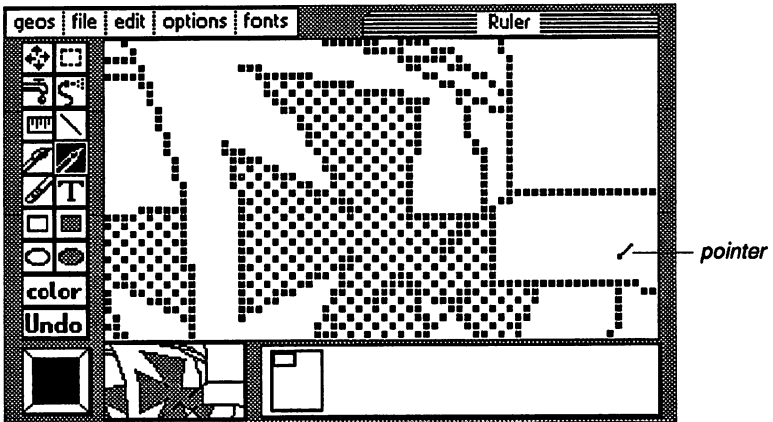
To enter Pixel Edit mode:

1: Enter Pixel Edit mode by selecting **pixel edit** from the **options** menu.

   NOTE Another method is to double-click on the **Pencil** tool.

2: An editing box will appear at the upper left corner of the Drawing Window. Position the editing box over the area you wish to magnify, and click once to zoom into the region.

   NOTE An actual size representation of the area you selected will appear to the left of the Status Box.

3: Use the **Airbrush, Paint Brush, Faucet, Pencil, Line, Hollow** and **Filled Rectangles, Ruler,** and **Eraser** as needed. To delete pixels, click on them with the **Pencil** tool.

4: When finished, select **normal edit** from the **options** menu.

   NOTE Another method is to double-click on the **Pencil** tool.

To move to another area from Pixel Edit mode:

1: Click on the **Scrolling Arrows** tool in the Toolbox.

2: Follow Steps 2–4 under "To enter Pixel Edit mode," on the previous page.

To exit Pixel Edit mode, use one of the following methods:

• Select **normal edit** from the **options** menu.

• Select **color on** or **color off** from the **options** menu.

• Select **draw grid lines** or **erase grid lines** from the **options** menu.

• If you are in Black and White mode, select the **Color** tool from the Toolbox. This will activate both the Color mode and Normal Edit mode.

Bitmap Scaling

Bitmap scaling enables you to stretch an image out to almost any proportion, smooth out its edges, superimpose the image onto another image, and superimpose a pattern onto the image. In brief, you need to copy the image into a photo scrap (even if you don't plan to move it) and open an editing region. When you select **paste** from the **edit** menu, the bitmap scaling dialog box will appear and you can begin to make changes to the image's appearance.

If you are in Color mode, the photo scrap you paste will retain its original colors if you select the **Centered in region** option in the Bitmap Scaling dialog box. If you select **Scaled to fit** or **Stretched & scaled to fit**, the photo scrap will lose its original colors; however, it will assume the current foreground colors of the area into which you are pasting.

Remember that bitmap scaling may be used for all photo scraps, including text that has been placed into a photo scrap.
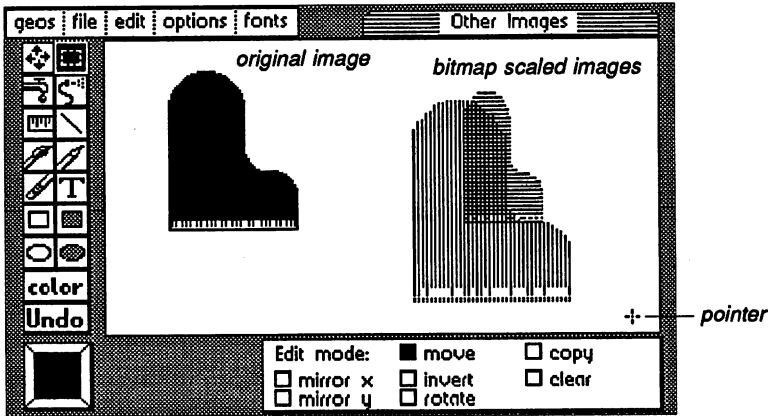
To use bitmap scaling:

1: If you plan to use the **Scaled to fit** or **Stretched & scaled to fit** options in the Bitmap Scaling dialog box, and if you are in Color mode, select a foreground color from the Paint Color Bar.

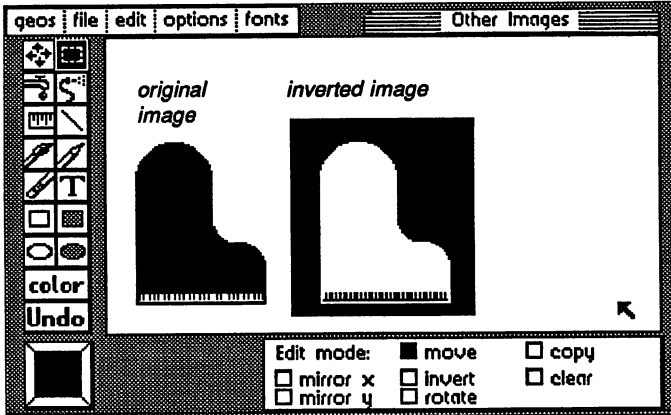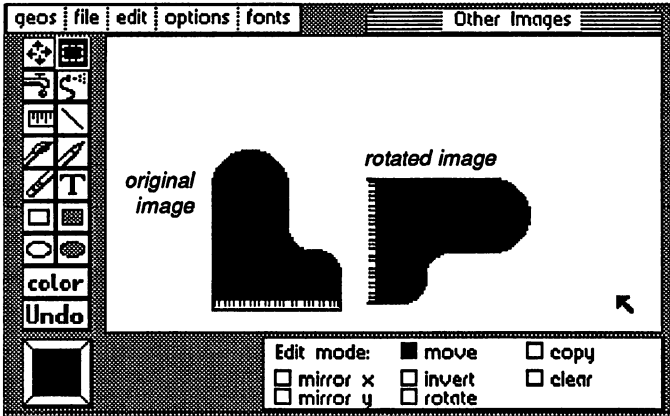2: Select the **Edit Box** tool and use the pointer to create an editing box around the region, or double-click on the **Edit Box** to select the entire Drawing Window contents.

3: Select the **edit** menu, then click on either **cut** or **copy.** The image will be placed into a photo scrap.

   NOTE If desired, scroll to another area of the document. You can also exit the current document and go to another geoPaint document.

4: Make sure the **Edit Box** tool is still selected, and use the pointer to define a region in which to move or copy the image.

5: Select **paste** from the **edit** menu. The Bitmap Scaling dialog box will appear.

```
┌─────────────────────────────────────┐
│ ►[ ~~ ] Centered in region          │
│ [~~~~] Scaled to fit                │
│ [▒▒▒] Stretched & Scaled to fit     │
│                                      │
│   Pattern      □ Smoothed            │
│  [◆]    [◆]    □ Transparent         │
│  ┌──────────┐        ┌────────┐      │
│  │   OK     │        │ Cancel │      │
│  └──────────┘        └────────┘      │
└─────────────────────────────────────┘
```
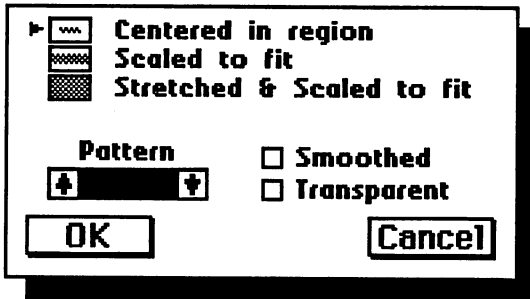
6: Click on any of the following options:

- **Centered in region** pastes the image in its same proportions when
  you first placed it in a photo scrap. If the region in which you are
  pasting the photo scrap is smaller than the photo scrap's dimen-
  sions, only a section (starting with the center) of the photo scrap
  will appear. Clicking on this option will retain the colors in the
  photo scrap you are pasting.

- **Scaled to fit** will enlarge or shrink the image to fit the editing
  region, but will not distort the image's proportions. (This may
  result in an image that fits the editing region in one dimension but
  not the other.) Clicking on this option will not retain the colors of
  the photo scrap you are pasting; however, the photo scrap will
  assume the colors of current paint foreground color.

- **Stretched & scaled to fit** will stretch the image to fill the editing
  region both horizontally and vertically. This may cause the image
  to change proportionally. Clicking on this option will not retain
  the colors of the photo scrap you are pasting; however, the photo
  scrap will assume the colors of current paint foreground color.

- **Pattern** will display any of the 32 patterns found in the Pattern
  Options Box. The bitmap will be drawn using the pattern dis-
  played in this box.

- **Smoothed** will try to smooth out the jagged edges that sometimes
  appear with images.

- **Transparent** will superimpose the patterns of the photo scrap
  onto the image in the Drawing Window background. In other

words, the photo scrap will appear transparent whereas the images in the background will remain unaffected. Compare the following:

scrap   background   result
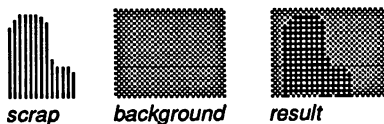
NOTE When pasting in Black and White mode, white areas of a photo scrap are always transparent. If you don't want the background to show up, choose the **clear** option.

7: Click **OK** when finished.

If you wish to rescale an image immediately after you have used the bitmap scaling feature:

1: Use the bitmap scaling procedure above to paste the photo scrap in place.

2: Once the image is in place, click on the Resize Box at the lower right corner of the editing region. The Move/Copy and Resize Boxes temporarily will disappear, and the lower right corner of the editing region will become attached to the pointer.

Resize Box

3: Move the pointer to a new location and click to define the new region. The image will reformat itself depending on the scaling options you selected in the Bitmap Scaling dialog box.

Changing the Current Pattern

geoPaint provides you with 32 different patterns from which to choose. The **Airbrush, Paint Brush, Faucet, Filled Rectangle,** and **Filled Ellipse** tools all display the current pattern. You can change a current pattern in both Normal Edit and Pixel Edit modes.

Pattern Options Box

To select a pattern:

1: Click on the **Current Pattern Indicator** at the lower left corner of the screen. The Pattern Options will appear in place of the Status Box.

2: Click on a pattern. The Current Pattern Indicator will display the pattern you selected.

3: Use the current pattern with the **Airbrush, Paint Brush, Faucet, Filled Rectangle**, and **Filled Ellipse** tools.

Altering Drawing Modes and Patterns

When you are using the **Paint Brush** or **Airbrush**, you can vary the appearance of the pattern you are using in a variety of ways, such as creating an overlaying effect or reversing the pattern. You can alter drawing modes and patterns in both Normal Edit and Pixel Edit modes.

To change the drawing mode and pattern:

1: Select the **Paint Brush** or **Airbrush** from the Toolbox.

2: Go to the Status Box and click on one of the drawing modes. **Normal** (the default setting) will draw both black and white pixels of a pattern. **Black only** will draw the black pixels of a pattern, essentially painting transparently, as in the following example:
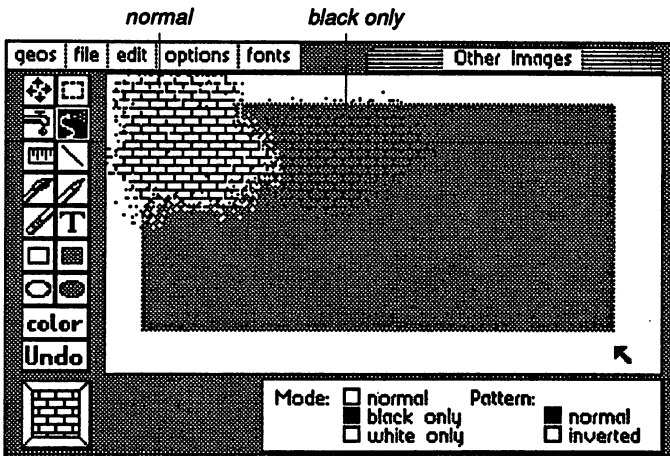
Selecting **white only** will draw the white pixels of a pattern, changing anything that is black to the appearance of the current pattern, as in the following example:
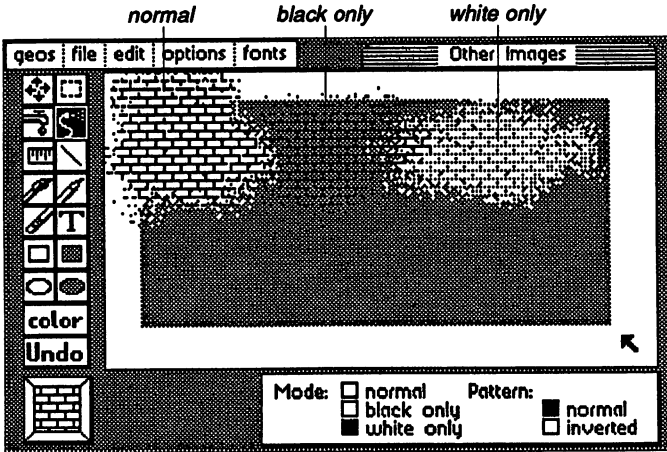
3: Now select whether you wish the current pattern to appear **normal** (the default setting) or **inverted** (the pattern reversed). **Inverted** will appear as follows:
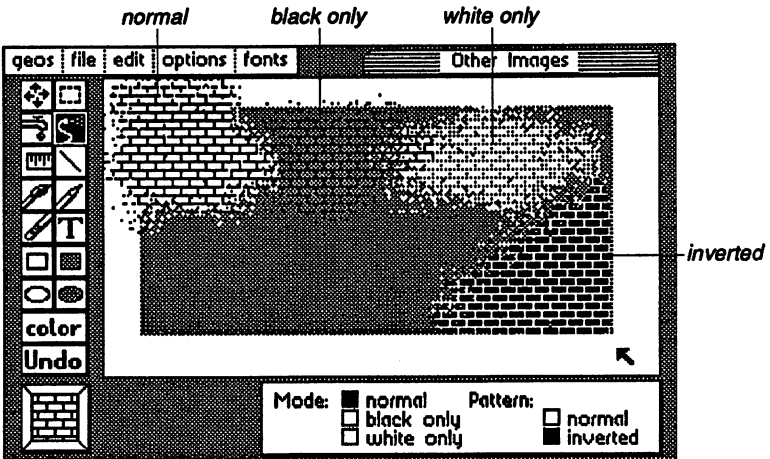
Mirroring

The **mirror** commands let you flip an image either horizontally (**mirror x**) or vertically (**mirror y**):
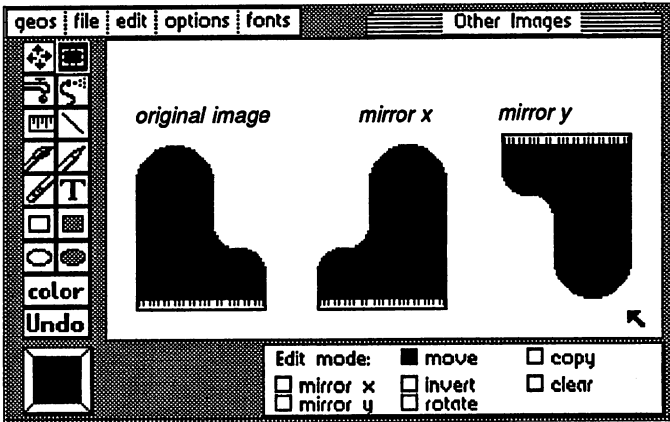
To flip an image:

1: Select the **Edit Box** tool and use the pointer to create an editing box around the region, or double-click on the **Edit Box** to select the entire Drawing Window.

2: Go to the Status Box, which will display the Edit Mode options. Click on either **mirror x** for a horizontal flip, or click on **mirror y** for a vertical flip.

NOTE To flip the image back to its original position, click the **mirror x** or **mirror y** box again.

Inverting

Use the **invert** command to reverse a pattern of a selected region, as in the following example:

To invert an image:

1: Select the **Edit Box** tool and use the pointer to create an editing box around the region, or double-click on the **Edit Box** to select the entire Drawing Window.

2: Go to the Status Box, which will display the Edit Mode options. Click on **invert**.

   NOTE To reverse the image back to its original appearance, click **invert** again.

Rotating

The **rotate** command will revolve a selected region 90 degrees. Each additional click will rotate the image another 90 degrees. Be careful when rotating an image, though. If you cause it to flip off the edge of the Drawing Window, it will be lost. (Click on **Undo** in case this happens.)

original image

rotated image

Edit mode:	■ move	□ copy
□ mirror x	□ invert	□ clear
□ mirror y	□ rotate	

To rotate an image:

1: Select the **Edit Box** tool and use the pointer to create an editing box around the region, or double-click on the **Edit Box** to select the entire Drawing Window.

2: Go to the Status Box, which will display the Edit Mode options. Click on **rotate**.

NOTE Rotated images may appear slightly elongated on the screen. If you print the image, its proportions will be correct.

Viewing the Entire Document

Use the **preview** command to view the entire page of your document. Note that while you cannot make changes to a document in this mode, **preview** does enable you to make decisions about the overall placement and proportions of your document. **Preview** will display your images in black and white, even if you are in Color mode.
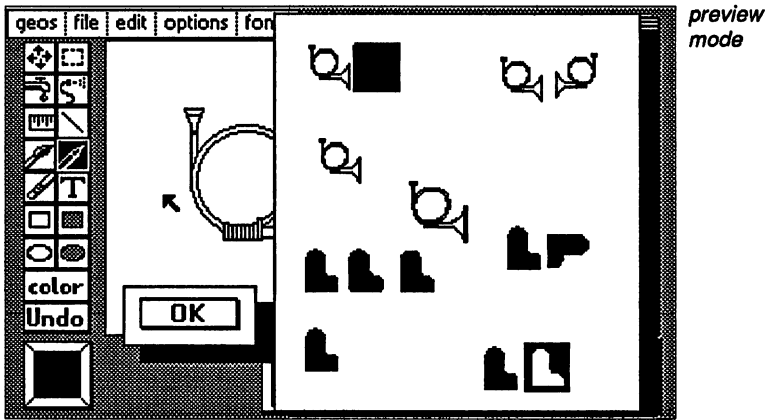
To view the entire document:

1: Select **preview** from the **file** menu. The entire page of the document will appear over the screen.

2: When finished viewing, click **OK** or press RETURN .

Moving the Drawing Window

There are two ways to move the Drawing Window to a different section of your document. One lets you move precisely; the other lets you move quickly to another, distant part.

For accurate positioning and fine movement:

1: Click on the **Scrolling Arrows** tool in the Toolbox. The pointer will assume the shape of the **Scrolling Arrows** icon.

2: Move the pointer to a new location. As you do so, the Drawing Window will move and the Page Map in the Status Box will display your new position on the page.

3: Click again to set the new location of the Drawing Window.

   NOTE When used in Pixel Edit mode, the **Scrolling Arrows** will reselect Pixel Edit mode.

To move quickly from one part of the page to another:

1: Click on one of the following tools to display the Page Map in the Status Box: the **Faucet, Pencil,** or **Eraser.**

> *NOTE* Clicking on the **Scrolling Arrows** tool *will* display the Page Map. However, you will not be able to click on the Page Map if the **Scrolling Arrows** tool is active.

2: Position the pointer on the Page Map and click. The box inside, which represents the Drawing Window's current location, will become attached to the pointer.
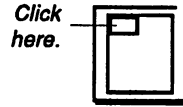
3: Point to a new location in the Page Map and click to set the Drawing Window in place.

Click here.

Using the Grid

The **draw grid lines** command will draw grid lines at one inch intervals in the current Drawing Window. If you draw or erase the grid while in Pixel Edit mode, you automatically will be returned to Normal Edit mode. The grid lines displayed by the grid will be printed when you print the document, so you may want to remove them before you print.

If you are in Color mode, sometimes the grid lines will appear in the current foreground color.

You will find the grid extremely helpful if you wish to copy or move an area larger than the Drawing Window. The procedure for doing so is covered in this section.

IMPORTANT The grid is designed to be used when you are *planning* a drawing, *not* once you have completed a lot of detail! When you erase the grid, the pixels that were covered by the guidelines will be deleted. To replace them, you will need to redraw the the deleted pixels of that image. Ideally, the grid should be used to give you an idea where to place elements in a drawing.
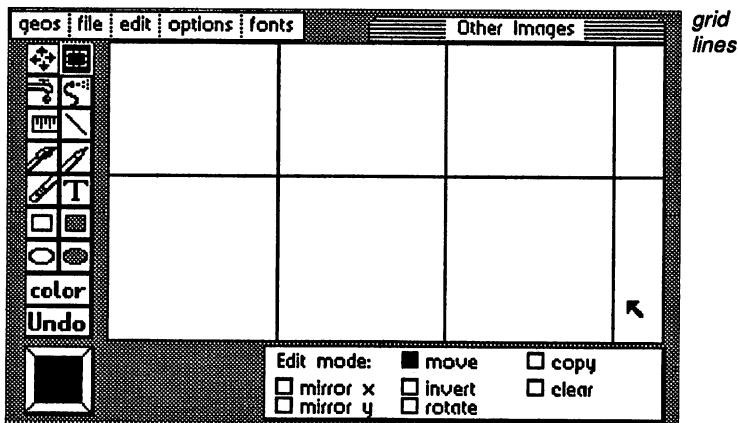
To draw the grid:

• Select draw grid **lines** from the **options** menu.

NOTE The grid lines will appear in the current Drawing Window. If you scroll the Drawing Window and wish the new Drawing Window to display grid lines, reselect **draw grid lines** from the **options** menu. Note also that the grid lines will appear on a printed document, so you may wish to remove them before you print.

To erase grid lines without altering your drawing:

• Select **Undo** from the Toolbox immediately after you selected the **draw grid lines** command.

To erase the entire grid:

1: Select **erase grid lines** from the **options** menu.

2: A dialog box will warn you that "Data underneath the grid line locations will be erased." Click **OK** to continue or **Cancel** to abort.

IMPORTANT Never select **erase grid lines** if the grid function is already inactive. The program will attempt to erase data even though there is no grid. If you select erase grid lines by mistake, click on **Cancel** in the dialog box to prevent data from being lost. Another alternative is to click on the **Undo** tool in the Toolbox.

To erase parts of the grid:

- Use the **Eraser** tool to erase sections of the grid.

To move or copy an area larger than the Drawing Window:

1: Activate the grid by selecting **grid on** from the **options** menu.

2: When the grid appears, copy each section within the grid lines into a photo scrap, then into a photo album.

   NOTE If necessary, refer to "The Photo Manager" on page 269.

3: Open the destination geoPaint document. Activate the grid and copy the drawing section by section in place.

4: Once all the sections of the drawing are in place, deactivate the grid by selecting **grid off** from the **options** menu.

5: Fill in any missing detail.

Printing Your Document

You can print a geoPaint document two different ways: from within the document itself or from the deskTop.

In order to print your document, the correct printer driver must be active. Make sure that you copied the printer driver you need onto the work disk that contains the geoPaint application. The procedure for setting up your printer is covered in Chapter 1, "Installing GEOS."

Note that the printed resolution of a geoPaint document is based on 80 dots per inch on an 8-inch wide screen (640 dots). Printers that support less than this resolution (60 dots per inch — 480 total, for example) may produce only a portion of the geoPaint document.

Note also that some printer configurations will require that the printer be turned on before you can turn on the computer itself.

To print from within the document:
• Select **print** from the **file** menu. To cancel, click on the **Cancel** button.

   NOTE Printing from within the document will update the document file to disk.

To print from the deskTop:
• Drag the document file ghost icon over to the printer icon at the lower left corner and click once to deposit it. The document will be printed. To cancel, click on the **Cancel** button.

• Click once on the document file icon so that it is highlighted, then select **print** from the **file** menu (or press ⌐◄ P).

Managing Documents

Updating and Saving Changes to Your Document

geoPaint saves your recent changes to the disk when you move the Drawing
Window, use a desk accessory, print the document, or exit. Updating on a
regular basis is recommended if you have just made an important change,
created something you particularly like, or as a safeguard against an
unexpected power outage.

To update a document:

• Select **update** from the **file** menu.

Recovering Your Document

If you need to reverse changes since the last time you updated the document
by exiting, using a desk accessory, or moving the Drawing Window, you
can do so easily.

To recover a document:

• Select **recover** from the **file** menu.

Renaming Your Document

1: Select **rename** from the **file** menu.

2: A dialog box will ask you to "Please enter new filename." Type in a
new name and press RETURN .

NOTE To cancel, either press RETURN or click **Cancel**.

Exiting geoPaint

When you leave a geoPaint document, you have the option of opening another geoPaint document or exiting directly to the deskTop. Note that leaving a document automatically updates it to the disk.

To go to another geoPaint document:

1: Select **close** from the **file** menu.

2: A dialog box will give you three options: **Create new document, Open existing document,** and **Quit to deskTop**. Select one.

   NOTE If you select either **Create** or **Open,** you will have the option of creating or opening a document on a disk in the other disk drive.

To go directly to the deskTop:

• Select **quit** from the **file** menu.

   NOTE The message "Please insert a disk with the DESKTOP 1.5 or higher" may appear. If so, remove the current disk from the disk drive and insert your System disk (which contains the DESKTOP 2.0 file). In the dialog box, click **OK**. You will be returned to the deskTop of the System disk. To avoid having to perform this procedure each time you exit geoPaint, copy the DESKTOP 2.0 file to your work disks.

5

geoWrite 2.1

This chapter covers geoWrite 2.1, an enhanced version of the original geoWrite word processor. In this chapter you will learn how to:

- create and open geoWrite documents.
- widen your document's dimensions.
- enter and change text.
- create and change headers and footers.
- add page numbers and the date and time to headers and footers.
- format the text in a variety of ways.
- move the Writing Window.
- use different fonts and styles.
- search for and replace text.
- use text and graphics from other documents.
- print documents using a variety of print parameters.

Unfamiliar terms are defined in Appendix A: Glossary. Menus are summarized in Appendix B: Menus.

Before You Try to Use geoWrite 2.1

Is geoWrite 2.1 Installed?
- Make sure you have installed geoWrite as explained in the instructions in "Installing GEOS" in Chapter 1, "Getting Started." Do not attempt to use geoWrite or copy it to a work disk before you install it to your system.

geoWrite and Work Disks
Use the following instructions to set up work disks for using geoWrite, depending on the disk drive set-up you have.

The locations of files you may need are as follows:

Files:	*Disk:*
geoWrite, DESKTOP photo mgr, non-LW fonts	Applications
CONFIGURE	System
geoLaser, Text Grabber LW fonts	Write Utilities
printer driver	Applications & System

See Appendix D: Disk Contents (page 298) for a complete listing of the files on your disks and where these files are located.

If you wish to add special fonts, note that geoWrite 2.1 does not support the use of megafonts.

If you have one disk drive:
- Copy geoWrite, the printer driver, font files, desk accessories, text or photo albums and scraps, and documents onto one disk. If you have room, add the DESKTOP 2.0 file.

If you have one disk drive and a RAM Expansion Unit (REU):
- Copy geoWrite, the printer driver, the DESKTOP 2.0 file, font files, desk accessories, and text or photo albums to the REU.

- Use the disk drive for the disk containing the documents.

If you have more than one disk drive:

- Copy geoWrite, the printer driver, the DESKTOP 2.0 file, font files, desk accessories, and text or photo albums and scraps to one disk.

- Copy the documents to another disk.

If you have different disk drive types (e.g., a 1541 and a 1571) and no REU:

- Copy the CONFIGURE 2.0 file to any disk containing the DESKTOP 2.0 file.

   NOTE So long as you have a RAM Expansion Unit, you need not copy the CONFIGURE 2.0 file to the work disks containing the DESKTOP, even if the disk drives are different.

geoWrite Documents and the 1581 Disk Drive

If you try to open a geoWrite document on a disk in a 1581 disk drive, an error message saying "geoWrite and data file must be on the same disk in a one-drive system" will appear if you do not have a RAM Expansion Unit, even though you are using a two-drive system or you have geoWrite and its documents on the same disk. To open the document, click OK in the error message dialog box. The Create/Open/Quit dialog box will appear, enabling you to gain access to your document.

Note that the Create/Open/Quit dialog box only displays the first 15 documents on the disk. If the document you need is not displayed, you will need to rearrange file icons on the disk note pad so that the document file you need appears among the first 15 on the disk. See "Rearranging File Icons" on page 64, if necessary.

If you are using a 1581 disk drive with a disk containing a geoWrite document, you can open the document by first opening the geoWrite application file, then selecting **Open existing document** from the Create/Open/Quit dialog box.

Entering geoWrite

If you have not already done so, read Chapter 2, "Learning GEOS."

Entering geoWrite from the deskTop

From the deskTop, there are two ways to enter geoWrite:

- Double-click on the geoWrite application icon.

- Click once on the geoWrite icon so that it is highlighted, then select **open** from the **file** menu (or press ⌖ Z).

In either case, geoWrite will load and display a dialog box on the screen. It will contain three options: **Create new document, Open existing document**, and **Quit to deskTop.** Click on one.
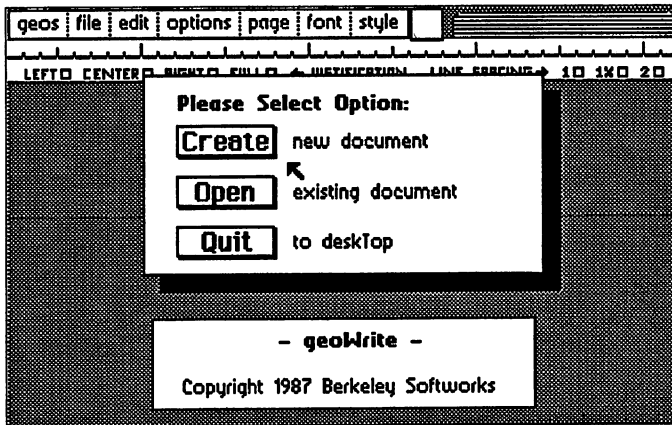
Use this dialog box to create or open a geoWrite document.

Creating a New Document

If you select **Create new document,** a second dialog box will appear, displaying the name of the currently open disk and asking you to enter a new filename.
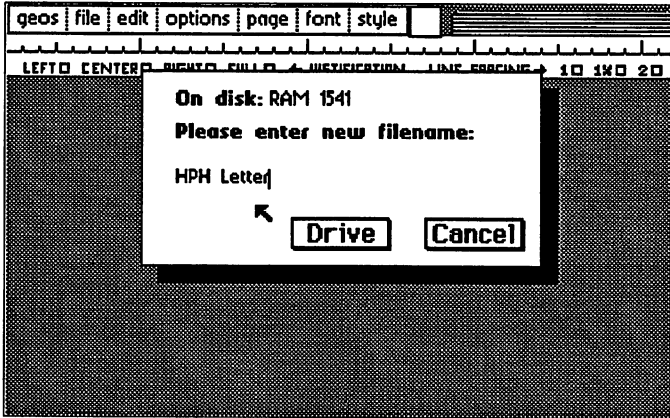
| geos | file | edit | options | page | font | style |

LEFT☐ CENTER☐ RIGHT☐ FULL☐ ↓ JUSTIFICATION LINE SPACING↓ 1☐ 1½☐ 2☐

On disk: RAM 1541

Please enter new filename:

HPH Letter|

[**Drive**]   [**Cancel**]

To create a new document on the currently open disk:

• Type in a name for your document and press $\boxed{\text{RETURN}}$.

To create a new document on a disk in the other active disk drive:

1: Click on **Drive.**

2: Type in a name for your document and press $\boxed{\text{RETURN}}$.

To create a new document on another disk entirely:

1: Click on **Drive**, then click on **Disk.**

2: Remove the disk from the disk drive and insert the disk you need.

3: Type in a name for your document and press $\boxed{\text{RETURN}}$.

Opening a Document

If you select **Open existing document**, a second dialog box will appear,
displaying the name of the currently open disk and a list of the first five
geoWrite documents on that disk. If there are more than five geoWrite
documents on the disk, click on the lower scrolling arrow at the bottom of
the box to view the rest.
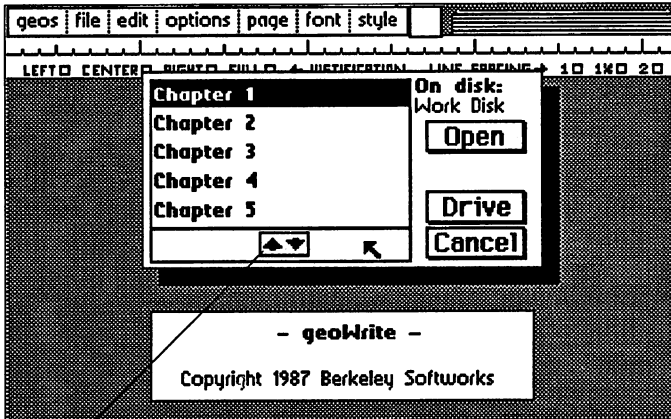
Open a document in either drive.

Click on the scrolling arrows to move through the list.

To open a document on the currently open disk:

• Click on the name of the document you need, then click on **Open**.

To open a document on a disk in the other active disk drive:

1: Click on **Drive**. The dialog box will display the names of the geoWrite files on the disk in the other disk drive.

2: Click on the name of the document you need, then click on **Open**.

To open a document on another disk entirely:

1: Click on **Drive**, then click on **Disk**.

2: Remove the disk from the disk drive and insert the disk you need.

3: Click on the name of the document you need, then click on **Open**.

Only the first 15 documents on the disk can be displayed in the Open Existing Document dialog box window. It is unlikely you will have more than this on a single disk. If you do, you will need to rearrange the files on the deskTop to be able to view the files through the Open Existing Document dialog box window. If necessary, refer to "Rearranging Files on the deskTop," page 64.

Quitting to the deskTop

- Click on **Quit to deskTop** to exit geoWrite and return to the deskTop. If the current work disk or a disk in another disk drive does not contain a copy of the DESKTOP 2.0 file, a dialog box will ask you to insert a disk containing that file. Insert the System disk (which *does* contain the DESKTOP file) and click **OK**. You will be returned to the System deskTop. If you wish to avoid using this procedure every time you quit from geoWrite, copy the DESKTOP 2.0 file to your work disks.

Opening an Existing Document from the deskTop

Once you have created a document, its icon will appear on the deskTop. You can open it the same way you open geoWrite or any other application, using one of the following methods:

- Double-click on the document icon.

- Click on the document icon so that it is high- lighted, then select **open** from the **file** menu.

geoWrite
document
file icon

HPH Letter

Opening Files from an Earlier Version of geoWrite

If you have files created from an earlier version of geoWrite, they automatically will be converted to geoWrite 2.0 files when they are opened. A dialog box will tell you that the file is being converted. If you widen the document's dimensions (see "Widening Your Document's Dimensions," page 152) it will be converted to a 2.1 version.

The geoWrite Screen
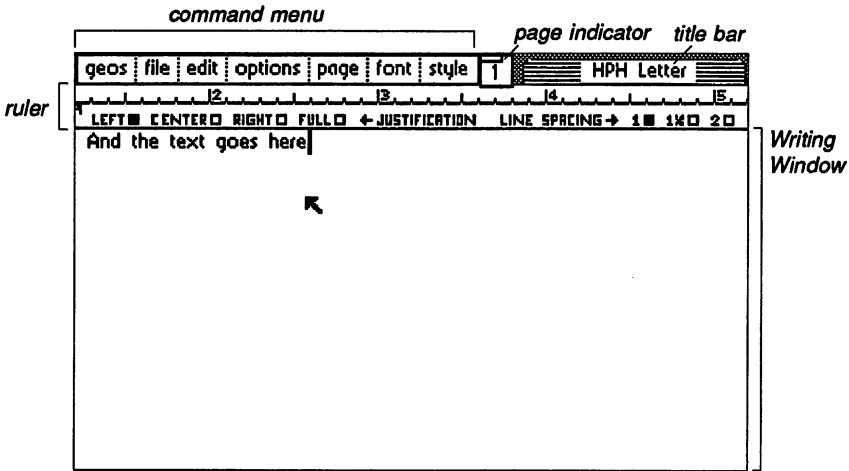
As shown above, the geoWrite **Writing Window** occupies most of the screen and serves as a window into each page of your document. The **command menu** lies across the top of the screen. This menu gives you access to some of geoWrite's more specialized commands. The commands are divided into seven groups: **geos, file, edit, options, page, font,** and **style.** Click on one of these menu names to display a menu of additional commands. Then simply click on the command option you need.

To the right of the command menu you will find the **page indicator.** This indicator has two uses: it displays the page number of the page visible in the Writing Window, and it can be used to move the Writing Window to a different position on the current page.

The **title bar** in the upper right corner displays the name of the document with which you are working.

The **ruler** is located directly below the command menu. It enables you to change the format of your document.

Inside the Writing Window you will notice the **text cursor** and the **pointer.** The text cursor (a small flashing vertical bar) indicates your active position in the Writing Window — i.e., where the next typed character will appear. With the pointer you can move around the entire screen area (using your

input device — mouse, joystick, Koala Pad, or Inkwell light pen), select (click on) the commands you want to activate, or move the text cursor to another location.

The Writing Window and Its Dimensions

The 2.1 version of geoWrite's Writing Window has been upgraded to enable you to widen your document's dimensions by two inches. As with earlier versions of geoWrite, the Writing Window displays two thirds of the document's width; as you move the pointer to the right and left, the Writing Window will flip to that side of the screen. This is called "side flipping."
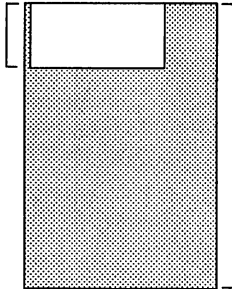
Writing Window

Full Page

Widening Your Document's Dimensions

The first time you open a new document, you will note that the document width does not span the entire 8.2 inches of the page. It begins at 1.2 inches and ends at 7.2 inches. If you wish to widen that span so that the document begins at .2 inches and ends at 8.2 inches, select **make full page wide** from the **options** menu. A dialog box will let you know that geoWrite will convert that file to a 2.1 version. Select **OK** to continue.

Once you have widened the page, side flipping remains. However, because the Writing Window covers a wider area this time, it displays only a third of the document at a time.

Move the pointer to the far left...
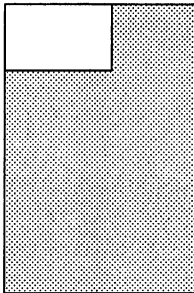
Then move it once to the right...
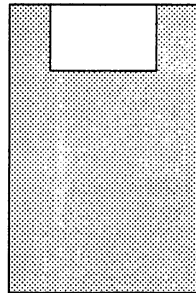
Now move it to the far right.
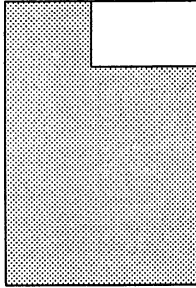
Once you have selected **make full page wide** from the **options** menu, you cannot revert the document's dimensions to its original width.

Entering Text

Avoiding Side-Flipping

Before entering text, you can adjust the margins so that you can view the entire width of your text at once, without having to use side flipping. (See "Setting Left and Right Margins," on page 164.) When you are ready to print your document, you can move the margin markers back again to their original place.

Moving the Text Cursor

There are two ways to move the text cursor on the screen. You can use the input device or the keyboard.

To use the input device:

•   Move the pointer to another location on the page and click. The text cursor will be repositioned on that point. If you click the pointer to the right of the last character in a line of text, the cursor will appear right after that character.

To use the keyboard:

•   Use the |CRSR| keys at the lower right corner of the keyboard.

To move:	*press:*
right	|CRSR| ⇆
left	|SHIFT| |CRSR| ⇆
down	|CRSR| ↑↓
up	|SHIFT| |CRSR| ↑↓

Deleting Characters

•   If you make a mistake typing, you can delete one or more characters on the line by pressing the |INST/DEL| key. This moves the text cursor backwards on the line, deleting characters as it goes.

   NOTE   You can delete larger portions of text easily by using the highlighting feature, which is described in "Selecting Text to Move, Copy, Delete, or Change Formats," page 158.

Using Word-Wrap

If you reach the right margin of the page while typing a word, geoWrite will pick up the entire word and move it to the beginning of the next line and allow you to continue typing. In most word processing using geoWrite you should let the word-wrap create new lines within paragraphs, rather than pressing RETURN. If you follow this guideline, paragraphs will automatically reformat when you delete words or sentences.

Ending a Paragraph

• Press RETURN. This will move the text cursor to the paragraph margin of the next line.

Inserting a Page Break

geoWrite enables you to insert a page break at any point in your document. The text immediately following a page break will appear at the top of the next page.

To insert a page break:

1: Position the text cursor where you want the new page to begin.

2: Select **page break** from the **page menu** (or press C= L).

Deleting a Page Break

1: Position the cursor at the top left corner of the page following the page break, and press INST/DEL.

2: A dialog box will ask "Delete last character of the prev page?" Click **OK** to continue or **Cancel** to abort.

Viewing the Entire Page at Once

Since the standard geoWrite Writing Window only allows you to view a portion of a page at a time, you can use the **preview** command to get a full-screen view of the entire page (including any headers or footers you create). Though you cannot make changes in this mode, **preview** does enable you to make decisions about the overall appearance of your page.

To preview a page:

1: Select **preview** from the **file menu**. The entire page will appear on top of the Writing Window.
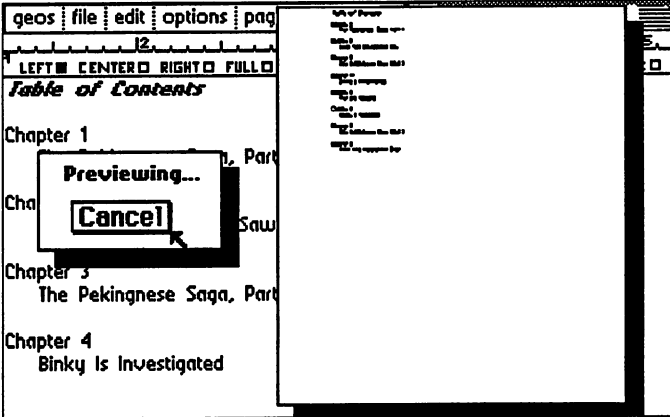
preview mode

2: When you are finished previewing the page, a dialog box will display an **OK** icon; click on it to return to the Writing Window.

NOTE To stop the preview mode at any time, click **Cancel**.

Moving the Writing Window

"Side-flipping" the Writing Window was discussed under "The Writing Window and Its Dimensions," page 152. Other methods of moving the Writing Window are as follows:

Scrolling One Line at a Time

- Move the pointer to the top or bottom of the screen. The Writing Window will move line by line.

Using the Page Indicator

The page indicator, located at the top of the screen, serves two functions. One function is that it displays the current page number. The other function is a way to move the Writing Window.

To move to another portion of the page:

1: Click once inside the page indicator. The small box within will become attached to the pointer.

Writing Window

entire page

page indicator
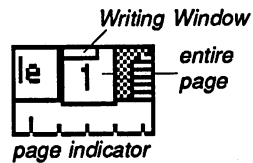
2: Select a place and click to move the Writing Window there.

Moving Forward or Backward One Page

- Select **next page** from the **page** menu (or press $\boxed{\text{C}}\boxed{+}$).

- Select **previous page** from the **page** menu (or press $\boxed{\text{C}}\boxed{\leftarrow}$).

Moving to Any Page

1: Select **goto page** from the **page** menu (or press $\boxed{\text{C}}\boxed{\text{G}}$).

2: A dialog box will ask you to "Enter page to go to." Type in a page number and press $\boxed{\text{RETURN}}$.

Editing Your Document

Inserting Text

*   Inserting text into your document is similar to entering text: simply point to where you want to add the text and click once to position the text cursor. Now you can begin typing.

Inserting Text into a Multi-Page Document

It is important to realize that when you insert text into a multi-page document, the pagination following the text you have inserted may also be affected. When you move to another page, use a desk accessory, or close the document, geoWrite will update the following pages. You can minimize the amount of time needed for additional page reformatting by inserting page breaks at appropriate pages, e.g., the end of sections or chapters.

Deleting Text

*   Move the text cursor to a point immediately following the characters you wish to delete, then press INST/DEL to backspace over the characters.

> *NOTE* To remove larger portions of text, use the "select" feature, which is described below.

Selecting Text to Move, Copy, Delete, or Change Formats

Before you can change several characters, sentences, paragraphs, or the current page you must first select (i.e., highlight or put in reverse video) the text.

To select more than one character:

*   Point to the first character, hold the input device button down, and while continuing to hold the button down, move the pointer to the last character. Release the input device button. The text will be highlighted as you go along:

LEFT■ CENTER□ RIGHT□ FULL□ ←JUSTIFICATION   LINE SPACING→ 1■ 1X□ 2□

Dear Preston,

A *Fox Hunter's Anthology* is a delight. From **Henry V,** ◄
Shakespeare: "When I bestride him, I soar, I am a hawk: he trots
the air; the earth sings when he touches it: the basest horn of his
hoof is more musical than the pipe of Hermes."
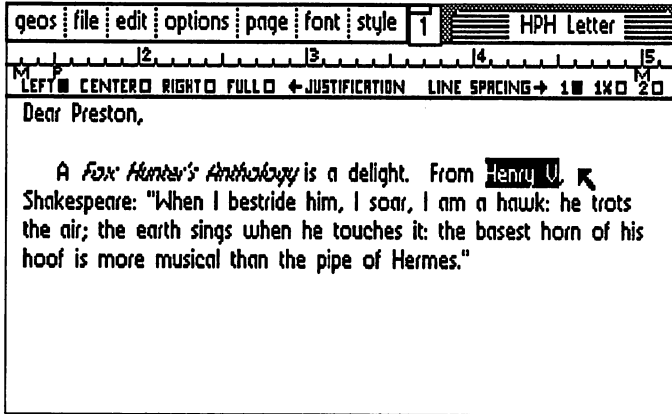
To select a word:

- Double-click on the word.

To select the entire page:

- Choose **select page** from the **options** menu (or press ⟨C=⟩⟨V⟩).

Options Involving Selected Text

You can perform several operations on a selected block of text. You can
replace, delete, change the style or formatting of, and cut or copy selected
text.

To replace text:

1: Highlight the text to be replaced.

2: Type in the new text. The highlighted text will disappear and the new
text will be inserted in its place.

To delete text:

1: Highlight the text to be deleted.

2: Press |INST/DEL| once. The text will be removed.

To change the font (typeface) or style of text:

1: Highlight the text to be changed.

2: Select the desired font and font size from the **font** menu. If you wish to change a style, highlight the text and select a style from the **style** menu.

   NOTE See "Using Different Fonts and Styles" on page 169 for details. See also Appendix C: "Font Samples," page 295.

To change the formatting of text:

1: Highlight the text to be formatted.

2: Use the ruler to change the formatting of the text.

   NOTE See "Formatting," page 164, for details.

To cut or copy text:

1: Highlight the text to be cut or copied.

2: Select **cut** or **copy** from the **edit** menu to move or copy the text to a new location.

   NOTE See "Moving or Copying Text," below, for details.

Moving or Copying Text

You can move or copy text within the same document or to another document by using the **cut** (to move) and **copy** commands in the **edit** menu. When you select text and use the **edit** commands to move or copy it, it is placed into a special file called a **text scrap**. Using the **paste** command copies the text from the text scrap to the new location. Since the text scrap contents remain as is until you move or copy other text, you can use **paste** to insert a piece of text as often as you like.

If you wish to save the text scrap contents permanently, you can do so by using the Text Manager desk accessory, which is described on page 275, "The Text Manager."

In addition to moving and copying text, you can also move and copy graphics in the same manner, whether you are using geoWrite or geoPaint. See "Using Graphics from geoPaint," page 179.

To move text:

1: Highlight the text to be moved.

2: Select **cut** from the **edit** menu (or press ⌐ X). The text will be removed from the document and placed into a text scrap.

3: Position the cursor at the new location.

> *NOTE* The "new location" can be another document, if desired, including a geoPaint document. Close the current document and open the destination document. If the destination document is on another disk, you will need to copy the text scrap file icon (which appears on the deskTop) onto that disk.

4: When you have positioned the cursor at the new location, select **paste, then text** from the **edit** menu (or press ⌐ T).

To copy text:

1: Highlight the text to be copied.

2: Select **copy** from the **edit** menu (or press ⌐ C). The text will be copied into a text scrap.

3: Position the cursor at the new location.

> *NOTE* The "new location" can be another document, if desired, including a geoPaint document. Close the current document and open the destination document. If the destination document is on another disk, you will need to copy the text scrap file (which appears on the deskTop) onto that disk.

4: When you have positioned the cursor at the new location, select **paste, then text** from the **edit** menu (or press ⌐ T).

To move or copy text to another document on the same disk:

1: Highlight the text to be moved or copied.

2: Select the **edit** menu, then select **cut** or **copy**. The keyboard shortcut is to press ⌐ X to cut or ⌐ C to copy.

edit
cut   ⌐X
copy ⌐C
paste

Use the edit menu to cut, copy, or paste text.

3: Exit the document by selecting close from the file menu.

NOTE If you wish to paste the text into a geoPaint document, select quit from the close menu. Open the geoPaint document you need and go to Step 5, below.

4: The Please Select Option dialog box will appear. Click on **Create** or **Open**.

NOTE If you are pasting the text into a geoPaint document, you will have returned to the deskTop. Find the document you need and open it, or create a new one.

5: When the destination document appears on the screen, select the place where you wish to paste the text. If it is a geoWrite document, click to position the cursor at the insertion point; if it is a geoPaint document, open an editing region by using the **Edit Box** tool.

6: Select **paste**, then **text** from the **edit** menu (or press ⌨T).

To move or copy text to another disk:

1: Highlight the text to be moved or copied.

2: Select the **edit** menu, then select **cut** or **copy**. The keyboard shortcut is to press ⌨X to cut or ⌨C to copy.

3: Exit the document by selecting **quit** from the **file** menu.

4: When the deskTop appears, copy the text scrap file icon to the destination disk.

If you have one disk drive:

a: Click on the text scrap file icon and drag it to the border.

b: Close the current disk and insert the disk containing the destination document.

c: Activate the disk, then open the destination document.

d: Select an insertion point in the document, then select **paste text** from the **edit** menu (or press ⌨T).

If you have more than one disk drive:

a: Insert the disk containing the destination document into a disk drive and activate it.

b: Activate the disk containing the source document.

c: Click on the text scrap file icon and drag its ghost to the destination disk drive. Click to deposit it there.

d: Activate the destination disk drive, then open the destination document.

e: Select an insertion point in the document, then select **paste text** from the **edit** menu (or press $\boxed{\text{C}}\boxed{\text{T}}$).

Formatting

To change the formatting of existing text, you must first select (highlight) the text you wish to change. If necessary, refer to "Selecting Text to Move, Copy, Delete, or Change Formats," page 158.

Using the Ruler

The ruler enables you to change the margins, tab positions, justification, and line spacing for the text you are about to enter or text you have selected. It also enables you to shift an image to the right or left sides of the screen and to crop the image if you wish. As shown below, the ruler appears across the top of the screen:

Margin, paragraph, and tab markers appear above the justificaton and line spacing options.

justification options

line spacing options
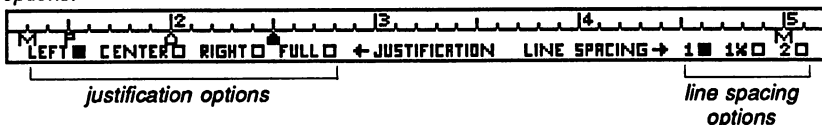
There are several indicators displayed on the ruler. If any two of the indicators (such as the tab, paragraph, or margin markers) are located on the same spot, one will cover the other. If you are having trouble finding a particular marker, remember that it may be overlapped by another.

Setting Left and Right Margins

On the left and right sides of the ruler, you will find two margin markers which resemble the letter **M**. These two markers define the left and right margins for your text:

left margin marker

right margin marker

Here is a partial list of Villere's evaluation of Grandmother's furniture:
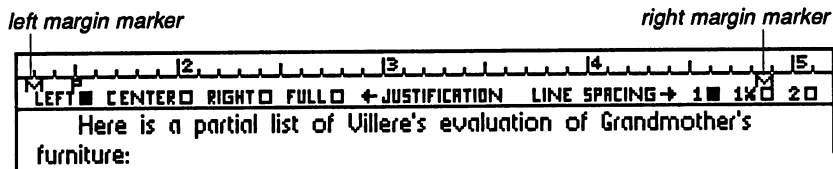
To set margins:

1:   Click on an **M** marker once. It will become attached to the pointer.

2: Position the pointer at a new location (hence moving the **M** marker) and click to deposit it.

> *HINT 1* If you wish to avoid side-flipping while working with a document, make the margins narrower so that you can view the entire width of your document at once. When you are ready to print the document, move the markers back to their original positions.

> *HINT 2* You can change the horizontal position of a selected image by moving the **M** markers. If you make the margins narrower than the current width of the image, you can crop the image.

Setting the Paragraph Margin

On the left side of the ruler you will find a paragraph marker, which resembles the letter **P**. This marker sets where the first line of each paragraph should start.

paragraph margin marker

| geos | file | edit | optio |

LEFT■ CENTER□ RIGHT□

Here is a partial furniture:
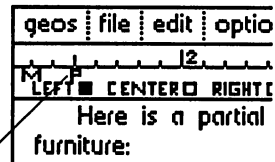
To set a paragraph marker:

1: Click on the **P** marker once. It will become attached to the pointer.

2: Position the pointer at a new location (hence moving the **P** marker) and click to deposit it.

Setting Tab Stops

geoWrite allows you to set up to eight separate tab stop positions on each page. For each tab stop position there is a corresponding tab marker on the ruler. Remember that if you wish to change the tab stops of existing text, you need to select the text before you change its tab stops.

The Quantity column is aligned with this tab marker.

LEFT■ CENTER□ RIGHT□ FULL□ ←JUSTIFICATION LINE SPACING→ 1■ 1½□ 2□

Here is a partial list of Villere's evaluation of Grandmother's furniture:

Item:	Quantity:	Evaluation:
bookcases	2	$600.00
dining room chairs	6	$1400.00
bureau	1	$280.00

To set a tab:

• Point to the desired spot on the ruler and click once.

To move to the next tab stop:

• Press CONTROL I .

To move a tab:

1: Click on the tab marker once. It will become attached to the pointer.

2: Position the pointer at a new location (hence moving the tab marker) and click to deposit it.

To delete a tab:

1: Click on the tab once. It will become attached to the pointer.

2: Drag the tab marker up to the ruler and click. It will be deleted.

Setting Decimal Tabs

Use decimal tabs to align the decimal points of a column of numbers.

Decimal tabs look like regular tabs, except that they are filled in. When you enter a list of numbers containing decimals, they will align as in the above example.

Create a decimal tab to line up decimals.

To create a decimal tab:

1: Create a normal tab by clicking on the ruler once.

2: Click on the tab as if you were picking it up.

3: Press the space bar. The tab will fill in and become a decimal tab.

4: Click again to deposit the tab.

To change a decimal tab into a regular tab:

1: Click on the decimal tab so that it becomes attached to the pointer.

2:   Press the space bar . The decimal tab will turn into a regular tab. (It will become clear.)

3:   Click again to deposit the tab in place.

Moving or deleting decimal tabs is the same as moving or deleting regular tabs.

Formatting with the Margin, Paragraph, and Tab Markers

You can use the margin, paragraph, and tab markers in a variety of ways. For example, setting the **P** marker to the right of the left **M** marker will indent a paragraph just as this paragraph is indented.

If you move the **P** marker to the left of the left **M** marker, you will create a hanging indent, as in this paragraph. This method is handy for creating indented lists of numbered items, as in the example below:

1:   Move the left **M** to a point to the right of the **P**. For example, move the **P** to inch mark 1, then move the **M** to inch mark 1.5.

2:   Click on the ruler to create a tab marker, then place the tab marker at inch mark 1.5, on top of the **M**.

3:   Go back to the text, click to position the cursor at inch mark 1, and begin to enter your numbered list: type 1, press CONTROL I , then type the text for item 1. As you type the text, it will format to align with inch mark 1.5, as in this example. When you press RETURN , the formatting will stop for that paragraph, and the cursor will go to inch mark 1 on the next line so that you can enter item 2 on your list.

Setting Justification

Justification refers to the layout of each paragraph. geoWrite gives you four justification options: **left**, **center**, **right**, and **full**.

Here the
text is
flush left.

Here the
text is
centered.

Justification options
are in the ruler.

LEFT■ CENTER□ RIGHT□ FULL□ ←JUSTIFICATION

Here the
text is
flush right.

Here the
text is fully
justified.
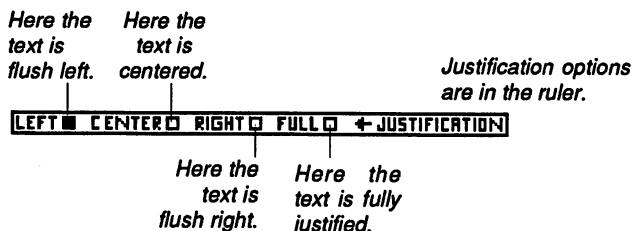
To set justification:

1: Place the cursor anywhere in the paragraph whose justification you wish to change. If you wish to change the justification of more than one paragraph, highlight the paragraphs you wish to change.

2: Click on one of the justification buttons on the ruler.

Setting Line Spacing

geoWrite gives you three options for line spacingof paragraphs: **single spacing** (1), **one and a half spacing** (1 1/2), and **double spacing** (2).

To set line spacing:

1: Place the cursor anywhere in the paragraph whose line spacing you wish to change. If you wish to change the line spacing of more than one paragraph, highlight the paragraphs you wish to change.

2: Click on one of the line spacing buttons on the ruler: **1, 1 1/2,** or **2.**

Here is
single
spacing.   *Here is*

| LINE SPRCING → 1 ■ 1½ ▯ 2 ▱ |—— *double*

Here is   *spacing.*
one and
a half
spacing.
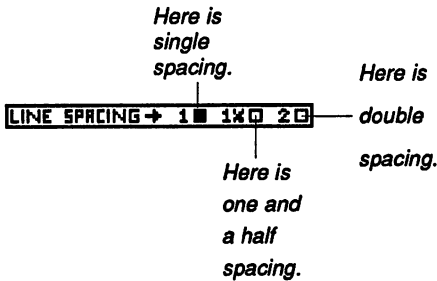
Using Different Fonts and Styles

To change the font and style of existing text, you must first select (high-light) it. If necessary, refer to "Selecting Text to Move, Copy, Delete, or Change Formats," page 158. A font refers to a typeface (e.g., this typeface is Times Roman). A style refers to the font's appearance, such as plain, *italic*, **bold**, oⅈuℓⅈne, u̲n̲d̲e̲r̲l̲i̲n̲e̲, superscript, and subscript. You can combine styles, if you like.

Refer to Appendix C, "Font Samples," page 295, if you wish to see available fonts.

Choosing a Font

- Select the **font** menu and click on one of the fonts displayed.

    NOTE If you have more than eight fonts on your work disk and wish to use a font not displayed in the **font** menu, return to the deskTop and rearrange the font file icons so that the desired font is displayed among the first eight font files on that disk. If necessary, refer to "Rearranging File Icons," page 64.

Available fonts on the current work disk

font
* BSW
California
Cory
Dwinelle
Roma
University
Commodore
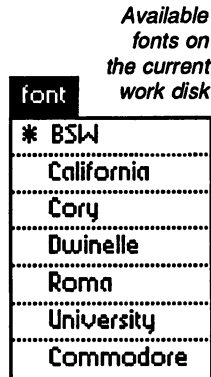
Choosing a Style

- Use the keyboard shortcuts, or go to the **style** menu and click on one of the following styles:

    plain text (or press [C=][P]).
    bold (or press [C=][B]).
    italic (or press [C=][I]).
    outline (or press [C=][O]).
    underline (or press [C=][U]).
    superscript (or press [C=][>]).
    subscript (or press [C=][<]).

Using Headers and Footers

geoWrite enables you to create a section of text (and/or graphics) to be placed at the top of each page (a **header**) or at the bottom of each page (a **footer**).

When to Create a Header or Footer

- Create the header or footer as soon as you can, since adding it will reformat your entire document. The larger your document is, the longer this reformatting will take.

Creating a Header

1: Select **open header** from the **options** menu (or press $\boxed{\text{C=}}\boxed{\text{H}}$).

2: A new screen will appear, with **HEADER** at the bottom of the screen. Type the text for the header. You can use different fonts and styles, the ruler, and graphics just as in the rest of your document.
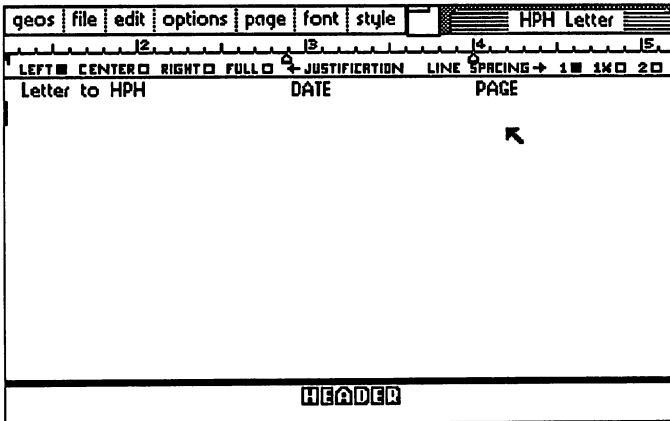
In headers and footers, you can add text, the date, the time, the page number, and graphics.

3: When finished, select **close header** from the **options** menu (or press $\boxed{\text{C=}}\boxed{\text{H}}$ again).

   NOTE When you return to the main body of your document, the header will not appear on the screen. It will, however, appear in **preview** mode.

Creating a Footer

1: Select **open footer** from the **options** menu (or press Ⓒ F).

2: A new screen will appear, with **FOOTER** at the bottom of the screen. Type the text for the footer. You can use different fonts and styles, the ruler, and pictures just as in the rest of your document.

3: When finished, select **close footer** from the **options** menu (or press Ⓒ F again).

 NOTE When you return to the main body of your document, the footer will not appear on the screen. It will, however, appear in **preview** mode.

Changing or Deleting a Header or Footer

1: Select **open header** (Ⓒ H) or **open footer** (Ⓒ F) from the **options** menu.

2: Make the changes as needed. To delete a header or footer, simply delete its contents.

3: Select **close header** (Ⓒ H) or **close header** (Ⓒ F) from the **options** menu to return to the main body of your document.

Removing a Header or Footer from the First Page

It is often useful not to have a header or footer appear on the first page (i.e., the **title page**) of a document.

To create a title page:

• Select **title page** from the **page** menu.

 NOTE An asterisk (*) will appear next to the **title page** menu item; it indicates that the first page of the document is a title page.

To remove a title page:

• Select *** title page** from the **page** menu.

 NOTE The asterisk (*) indicating the first page is a title page will disappear.

Putting the Date into a Header or Footer

- Type the word **DATE** (all capital letters) into the header or footer. If desired, use the **font** and **style** menus to change the date's font and style. When the document is printed, the word **DATE** will be replaced with the current date as set by the Preference Manager desk accessory.

  NOTE If no date is set in the Preference Manager, the words **NO DATE** will appear in the printed document.

Putting the Time into a Header or Footer

- Type the word **TIME** (all capital letters) into the header or footer. If desired, use the **font** and **style** menus to change the time's font and style. When the document is printed, the word **TIME** will be replaced with the current time as set by the preference manager.

  NOTE If no time is set in the preference manager, the words **NO TIME** will appear in the printed document.

Putting the Page Number into a Header or Footer

- Type the word **PAGE** (all capital letters) into the header or footer. If desired, use the **font** and **style** menus to change the page number's font and style. When the document is printed, the word **PAGE** will be replaced with the current page number.

Setting the First Page Number for a Document

This feature is handy when you have to break up a very large project, such as the novel you are writing, into several smaller files, each containing, for example, one chapter.

To set the first page number:

1: Select **set first page** from the **page** menu.

2: A dialog box will ask you for a page number. Enter a number from 0 to 999, then press RETURN. When you return to the main body of your document, the page indicator will reflect the change.
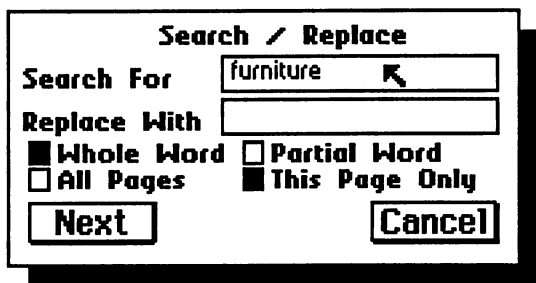
Using the Search For and Replace Text Commands

geoWrite enables you to search for words or phrases and replace these with other words or phrases. When you select this feature, geoWrite will begin the search and replace operation at the current location of the text cursor. The search and replace operation distinguishes between upper and lower case. For example, if you search for **fish**, it will ignore instances of **Fish**.

Searching for a Word or Phrase

To search for a word or phrase:

1: Position the cursor at the beginning of the text where you wish to perform the search.

2: Select **search** from the **options** menu (or press $\boxed{C}$ $\boxed{S}$).

3: A dialog box will appear. After the **Search For** prompt, type the word or phrase you need to find.

Search ╱ Replace
Search For `furniture`
Replace With
■ **Whole Word** ☐ **Partial Word**
☐ **All Pages** ■ **This Page Only**
Next **Cancel**

Hint:
Clicking on
This Page Only
will avoid slow
searches in
large documents.

4: Click on **Whole Word** to search for complete words, or **Partial Word** to search for any match, regardless of word boundaries. For example, clicking on **Whole Word** would display each instance of the word **the** and ignore words containing **the**, such as **nonetheless**.

5: Click on **All Pages** to perform the search on the entire document, or click on **This Page Only**.

NOTE Since geoWrite must load each page from the disk, clicking on **This Page Only** will avoid slow searches if the document is large.

6: Press $\boxed{\text{RETURN}}$ or select **Next**. The dialog box will disappear, and the first instance of the word you are searching for will be highlighted.

7: To find the next occurrence of the word or phrase, select **find next** from the **options** menu (or press $\boxed{\text{C=}}\boxed{\text{N}}$).

Replacing One Word or Phrase with Another

1: Position the cursor at the beginning of the text where you wish to perform the search.

2: Select **search** from the **options** menu (or press $\boxed{\text{C=}}\boxed{\text{S}}$).

3: A dialog box will appear. After the **Search For** prompt, type the word or phrase you need to find.

4: Move to **Replace With** by clicking on its entry field. Now type the new word or phrase.

```
        Search / Replace          Hint:
 Search For   [furniture      ]    Clicking on
                                   This Page Only
 Replace With [antique furniture↲] will avoid slow
 ■Whole Word □Partial Word         searches in
 □All Pages   ■This Page Only      large documents.
  [ Next ]   [  All  ]   [Cancel]
```

5: Click on **Whole Word** to search for complete words, or **Partial Word** to search for any match, regardless of word boundaries. For example, clicking on **Whole Word** would display each instance of the word **the** and ignore words containing **the**, such as **nonetheless**.

6: Click on **All Pages** to perform the search on the entire document, or click on **This Page Only**.

NOTE Since geoWrite must load each page from the disk, clicking on **This Page Only** will avoid slow searches if the document is large.

7: Select **Next** to decide on each change individually, or select **All** to make the replacements all at once. Afterwards, you will be returned to the main body of the document.

NOTE If you selected **Next**, you can select **change, then find** from the options menu ([⇦] [Y]) to change the current instance and move to the next. To skip the current instance (i.e., leave it unchanged), select **find next** ([⇦] [N]).

Editing Tips

Using Word-Wrap

Be sure to allow the word-wrap to occur for all new lines, and only press $\boxed{\text{RETURN}}$ at the end of each paragraph. This will make formatting much easier since geoWrite will fill out paragraphs to match the margin boundaries. (Pressing $\boxed{\text{RETURN}}$ will set the paragraph's margin boundary.)

Columns and Elaborate Graphics

If you wish to format a geoWrite document so that it has columns and elaborate graphics from geoPaint, you can do so by using the Paint Drivers application. Refer to Chapter 10, "Paint Drivers."

Using Page Breaks in Large Documents

A geoWrite document can grow to 62 pages, assuming enough disk space is available. In large documents, you should insert page breaks wherever appropriate. This will maximize the performance of geoWrite. If, however, you have a large document with no page breaks and you insert a character on the first page, it might push the last character on the first page down to the second page, and so on, causing a ripple down effect that may affect every subsequent page of your document. This can be time consuming. By inserting a page break, the software only has to ripple the changes down to the next page break.

Spell-Checking Large Documents

It is also a good idea to insert page breaks into a large document if you plan to use geoSpell to spell-check it. If not, a message saying "Page too long to read" will appear on the screen. You will need to exit geoSpell and insert page breaks into your document.

Saving Your Document

•   Select **update** from the **file** menu. This will write (save) your current changes to the disk and protect against losing data. Use **update** at regular intervals or after making important changes.

•   Make backups of your file on other disks.

Recovering Your Document

- Select **recover** from the **file** menu. Use **recover** if you have acciden-
tally deleted text or wish to undo all of your recent editing changes.
This will "recover" the last saved version of your document. (A
document is "saved" whenever you go to another page, open a desk
accessory, or exit a document.)

   NOTE You cannot use **recover** after inserting or deleting graphics.

Renaming the Document

You can rename the document on which you are working at any time.

To rename the document:

1: Select **rename** from the **file** menu.

2: A dialog box will ask you to "Please enter new filename." Type in a
name and press RETURN .

Using Text from Other Documents

You can move or copy text from one document to another, even if the documents are on separate disks. If the document you wish to move or copy text into is on another disk, you will need to copy the text scrap onto that disk.

Using the Text Manager

The text scrap file holds only one section of text at a time. If you have several text sections that you wish to copy from one application to another, or if you have a text scrap you wish to save permanently, you can use the Text Manager desk accessory.

The Text Manager will let you save the text into a **text album**, which acts as a permanent text scrap. Unlike text scraps, you can name text albums and have several albums per disk. A text album can be opened, using the Text Manager desk accessory, while you are working on a geoWrite document, allowing you to cut or copy text from the text albums into a geoWrite or geoPaint document. To use a text album, copy one of its pages into a text scrap, then paste the text scrap contents into the document.

To learn more about the Text Manager, see "The Text Manager," on page 275.

Using Graphics from geoPaint

As mentioned earlier, geoWrite enables you to mix geoPaint images with your text.

Using the Photo Manager

When you paste a picture into a document, the current contents of the photo scrap are pasted into the document. If you have several pictures you wish to create in geoPaint and later paste elsewhere, you can use the Photo Manager desk accessory, which works the same as the text manager.

The photo manager gives you access to any of the photo albums stored on that disk. Photo albums are used to store several photo scraps. Unlike photo scraps, you can name photo albums and have several albums per disk. To use a photo album, copy one of its pages into a photo scrap, then paste the photo scrap contents into the document. If the destination document is on another disk, you will need to copy the photo scrap file onto that disk.

To learn more about the Photo Manager, see "The Photo Manager," page 269.

Repositioning or Cropping a Picture

After you select an image in geoWrite, you can move the image to the left or right side of the page by adjusting its right and left margins. If you make the margins narrower than the current width of a selected image, you will crop the image. If necessary, refer to "Setting Left and Right Margins," page 164.

Showing and Hiding Pictures

Whenever geoWrite displays a page containing a picture, the pixel-by-pixel image data for the picture must be loaded from the disk. Since this will slow geoWrite slightly, you may wish to "hide" the picture temporarily, replacing each one with a gray box. If you print a document with the pictures hidden, the pictures will still be printed. They only are hidden on the screen.

To hide the pictures in a document:

- Select **hide pictures** from the **options** menu.

To bring them back again:

- Select **show pictures** from the **options** menu.

Text from geoPaint

Note that if you copy or move text from geoPaint before exiting geoPaint's text mode, the text you copy into a geoWrite document will be considered text. If you wish to change the text once it has been placed into the geo-Write document, you can. If you copy geoPaint text *after* you have exited text mode, the text will be considered a graphic, and you will not be able to change it.

Printing Your Document

In order for your document to be printed, the correct printer driver must first be selected. If you have not already done so, return to the deskTop and select the correct printer driver, then make sure you have copied the printer driver to the backup copy you made of the geoWrite application disk before you made a geoWrite work disk from that disk. If necessary, refer to "Setting Up Your Printer," page 17.

Printing a Document

1: Select **print** from the **file** menu.

> *NOTE* If you have exited the document and if the deskTop is displayed, you can print the document in one of two ways:

> • Highlight the document file icon and select **print** from the **file** menu (or press ⌐C P).

> • Drag the document file ghost icon to the printer icon at the lower left corner and click to deposit it on top.

2: A dialog box will appear, displaying several options:

```
            Print...
   ▓▓  High  □  Draft  □  NLQ
 From Page [ 1    ] To Page [ 1 ]
   □ Single Sheet ▓▓ Tractor Feed
   [   OK   ]       [Cancel]
```
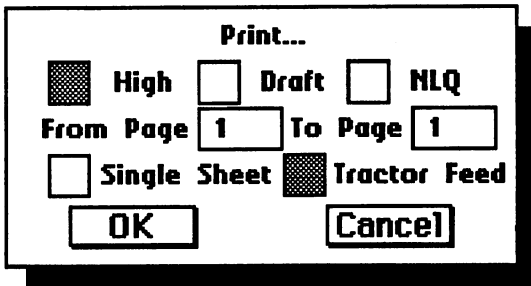
3: Select one of the following printing modes:

> • **High** quality mode produces all of the fonts and styles shown in the same format as they appear on the screen. This is the default and recommended mode for printing.

- **Draft** quality mode does not produce different fonts and styles nor the same formatting as that which appears on the screen. It will print much faster than **High** quality mode and is good for quick, rough drafts.

- NLQ (near letter quality) does not produce different fonts, but does produce the same formatting that appears on the screen. NLQ produces several styles, depending on the printer you are using. Bold, italic, and underline usually are available; superscript and subscript sometimes are available, depending on the type of printer you own. NLQ uses the printer in its near letter quality mode. To use this mode, all text *must* be in the Commodore 10 font. Graphics cannot be printed in this mode. If your text is not in the Commodore 10 font, choose **select page** from the **options** menu, then select the Commodore 10 font from the **font** menu. Be sure to perform this operation for each page of your document, including headers and footers.

  A few printers have different page lengths for **NLQ** printing than for graphics (high quality) printing. Select **NLQ** spacing from the **page** menu to cause **NLQ** page length to be used. You always should select **NLQ** spacing so that geoWrite can display the correct number of lines on the screen.

4: If needed, change the page range: click on the **From Page** and **To Page** buttons and enter the page numbers you wish to print. Otherwise, the entire document is printed.

5: Click on **Single Sheet** to print each page individually (a separate dialog box will let you know when to insert the next sheet of paper), or click on **Tractor Feed** for continuous (i.e., computer) paper.

  NOTE Printers vary as to the amount of the printed page on which they can print. For this reason, geoWrite will produce slightly longer pages on some printers than on others. When geoWrite opens a file that was created on a printer with a different page length, geoWrite will reformat the file. This reformatting can take a considerable amount of time.

6: After you have selected the printing modes, click on **OK** to print or **Cancel** to abort.

Keyboard Shortcuts

Rather than use your mouse or joystick, you can use keyboard shortcuts to select frequently needed menu and ruler items directly from the keyboard, and to move around the Writing Window.

To select menu and ruler items, hold down the ⬚ key and while continuing to hold down the ⬚ key, press the particular key for the shortcut needed. To move around the Writing Window, press the CRSR keys located just below the RETURN key.

	To use the feature:	*Press ⬚ and:*
Edit Menu	cut	X
	copy	C
	paste (text)	T
	paste (picture)	W
Options Menu	search	S
	find next	N
	change, then find	Y
	open header	H
	open footer	F
	select page	V
Page Menu	previous page	←
	next page	+
	goto page	G
	page break	L
Style Menu	plain text	P
	bold	B
	italic	I
	outline	O
	underline	U
	superscript	> or .
	subscript	< or ,

	To use the feature:	*Press* ⌨ *and:*
In the Ruler	left	[A]
	center	[E]
	right	[R]
	full	[J]
	single space (1)	[K]
	one and a half space (1 1/2)	[M]
	double space (2)	[D]
Additional	{	[or :
Characters	}	] or ;
	\	[/]
	|	[↑]
	_	[-] (hyphen)
	~	[*]
	'	[@]

The following shortcuts do not require the use of the ⌨ key:

Moving the	right one character	CRSR ⇆
Text Cursor	left one character	SHIFT CRSR ⇆
	down one line	CRSR ↑↓
	up one line	SHIFT CRSR ↑↓

Exiting geoWrite

When you leave geoWrite, you have the option of moving to another document or directly to the deskTop. Note that leaving a document automatically saves the file to disk.

To go to another geoWrite document:

1: Select **close** from the **file** menu.

2: A dialog box will give you three options: **Create new document, Open existing document,** or **Quit to deskTop.** Select one.

To go directly to the deskTop:

• Select **quit** from the **file** menu.

> *NOTE* The message "Please insert a disk with the DESKTOP V1.5 or higher" may appear. If so, remove the current disk and insert your System disk (which contains the DESKTOP 2.0 file). In the dialog box, click **OK.** You will be returned to the deskTop of the System disk. To avoid having to perform this procedure each time you exit geoWrite, copy the DESKTOP 2.0 file to your work disks.

geoSpell

This chapter covers geoSpell, a powerful spell-checking program, whose features enable you to:

- check for misspelled words in any version of geoWrite, whether the document was created in 40- or 80-column mode.
- search for words in a dictionary.
- create and alter personal dictionaries.
- use a personal dictionary alongside the geoDictionary.
- use the personal dictionary during the spell-check process to add, delete, change, and search for words.
- switch dictionaries at any time.

Unfamiliar terms are defined in Appendix A: Glossary. Menus are summarized in Appendix B: Menus.

Before You Try to Use geoSpell

Is geoSpell Installed?

- Make sure you have installed geoSpell as explained in the instructions in "Installing GEOS" in Chapter 1, "Getting Started." Do not attempt to use geoSpell or copy it to a work disk before you install it to your disk.

geoSpell and Work Disks

Use the following instructions to set up work disks for using geoSpell, depending on the disk drive set-up you have.

The locations of files you may need are as follows:

Files:	*Disk:*
geoSpell, geoDictionary	geoSpell
DESKTOP	
CONFIGURE	System

See Appendix D: Disk Contents (page 298) for a complete listing of the files on your disks and where these files are located.

If you have one disk drive:

- Copy geoSpell, the geoDictionary, personal dictionaries, and geoWrite documents to one disk. If you have room, add the DESKTOP 2.0 file.

If you have one disk drive and a RAM Expansion Unit (REU):

- Copy geoSpell and the geoDictionary to the REU. If you have room, add the DESKTOP 2.0 file.

- Use the disk drive for the disk containing the documents and personal dictionaries. Add the DESKTOP 2.0 file if you could not copy it to the REU.

If you have more than one disk drive:

- Copy geoSpell and the geoDictionary to one disk. If you have room, add the DESKTOP 2.0 file.

- Copy the personal dictionaries and geoWrite documents to another disk.

If you have different disk drive types (e.g., a 1541 and a 1571) and no REU:

- Copy the CONFIGURE 2.0 file to any disk containing the DESKTOP 2.0 file.

   NOTE   So long as you have a RAM Expansion Unit, you need not copy the CONFIGURE 2.0 file to the work disks containing the DESKTOP, even if the disk drives are different.

Using geoSpell

Documents You Can Spell-Check

You can spell-check documents produced with any version of the geoWrite application, whether the document was created in 40- or 80-column mode. Note, however, that geoSpell operates only in 40-column mode.

If the Document Is Large

If you are spell-checking a large document, make sure that you have inserted page breaks where possible. If not, a message saying "Page too long to read" may appear.

Entering geoSpell

1: Open geoSpell by double-clicking on its file icon. A dialog box will appear, listing all the geoWrite documents you copied onto the work disk.

   NOTE Another method is to click once on its file icon so that it is highlighted, then select **open** from the **file** menu (or press ⌨Ⓩ).

   NOTE If you have two disk drives and if the documents you wish to have spell-checked are on a disk in the other drive, click **Drive** and go to the next step. If you wish to insert another disk, click on **Disk** and follow the instructions in the subsequent dialog box.

2: Click on the name of the document you wish to have spell-checked so that it is highlighted, then click **Open**.

3: Another dialog box will appear, asking you to "Check Page Range." If necessary, change the displayed page numbers by clicking on the box, backspacing over the current number, and typing a new page number. When finished, click OK.

4: The next dialog box will appear, asking whether you wish to use a personal dictionary. Select one of the following options: **Create new personal dict, Open existing dict**, or **None no personal dict**.

Please Select Option:

[Create] new personal dict

[Open] existing personal dict

[None] no personal dict

– geoSpell –

Copyright (c) 1988 Berkeley Softworks
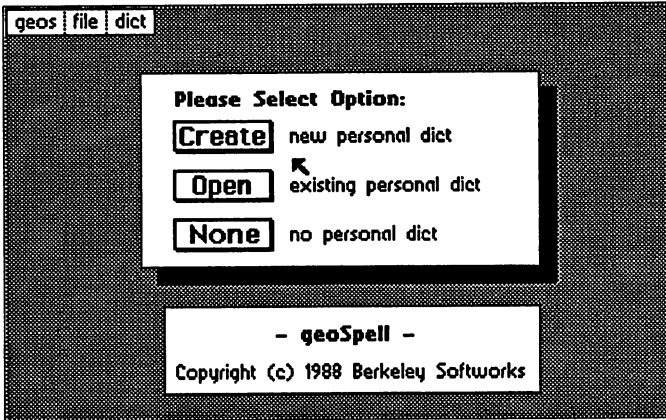
Use this dialog box to create or open a personal dictionary.

- **Create new personal dict** A dialog box will prompt you to enter a new name and press RETURN . If you have a second disk drive, you can click **Drive** to store the personal dictionary on the disk in the other disk drive.

- **Open existing dict** A dialog box will prompt you to click on a name in the dialog box, then click **Open**. If you have a second disk drive, you can click Drive to open a dictionary stored on a disk in the second disk drive.

- **None no personal dict** Click on this option to bypass the use of a personal dictionary, and to begin spell-checking the document you selected in Step 3.

NOTE If you decide to use a personal dictionary, that dictionary will be used alongside the geoDictionary once you enter the geoSpell program. If you decide to use a different personal dictionary, you will need to close the file you are spell-checking and begin again.

5: The geoSpell screen will appear, and geoSpell will immediately begin to check your document for misspelled words.

NOTE If there are no misspelled words, geoSpell will display a message telling you so. Press the input device button. You will be returned to Step 2.

The geoSpell Screen

current word field
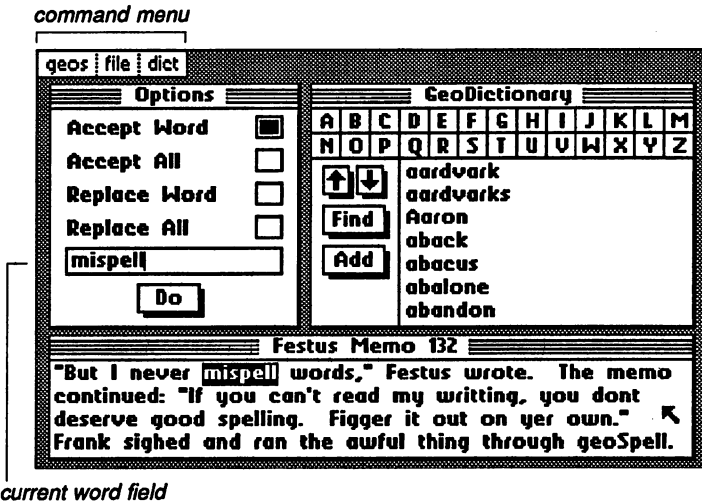
As shown above, the geoSpell screen is divided into three sections: the Options box, the Dictionary box, and the Document box.

Once your document has been spell-checked, sections containing misspelled words are displayed in the **Document** box. The name of the document is located in the title bar at the top of the box.

Once geoSpell finds a misspelled word, it displays it in the **current word field** in the **Options** box. You can enter a new spelling, or use the Dictionaries to find the correct word. From there you have the option of using **Accept Word** to bypass the word, **Accept All** to bypass all instances of that word, **Replace Word** to replace it with the word in the current word field, or **Replace All** to replace all instances of the word. Once you are ready to move on to the next word, select **Do**.

The **Dictionary** box contains either your personal dictionary or the **geoDictionary**. Use the alphabet keys to search for any word that may be listed in the current dictionary. Another way to search for a word is to type it in the current word field in the **Options** box, then click **Find**. The words geoSpell finds are highlighted and displayed to the right of the **Find** command. Use the **scrolling arrows** above **Find** to scroll the list of displayed words in the

current dictionary. **Add** and **Cut** allow you to add a word to — and any variations of that word — or delete a word from the personal dictionary.

The **command menu**, which lies at the top of the screen, enables you to switch dictionaries by using the **dict** menu, and to exit by using the **file** menu. Simply click on a menu item to pull down a menu of additional commands. Then click on the desired command.

Once Your Document Has Been Spell-Checked

Once the checking process is complete and if geoSpell has found misspelled words, the text in which the misspelled words appear is displayed in the document box. The first misspelled word will be highlighted and in the current word field. At this point, you can alter the spelling or add the word to your personal dictionary.

After geoSpell has checked your document, it will display the first misspelled word in the current word field in the **Options** box. From there you can perform a number of operations:

Correcting Misspellings

There are a variety of operations you can perform to correct misspelled words in your document. Note that you can switch dictionaries by selecting **switch** from the **dict** menu.

```
═══ Options ═══
Accept Word      ■
Accept All       □
Replace Word     □
Replace All      □
┌─────────────┐
│mispell│     │  ← current
└─────────────┘     word field
    ┌────┐
    │ Do │
    └────┘
```
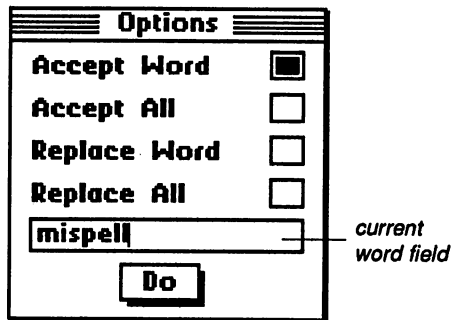
To bypass a current word:

•   Go to the **Options** box.
    Make sure **Accept Word** is selected, then click **Do**.

To bypass all instances of the current word throughout the document:

•   Go to the **Options** box, click **Accept All**, then click **Do**.

To replace the current word, use one of the following methods:

•   In the current word field, retype the new word. Click **Replace Word**, then click **Do**.

•   Go to the **Dictionary** box and click **Find**. geoSpell will display all similar spellings of the word in the current dictionary. Click on a suitable replacement word so that it is highlighted. The new word will

appear in the current word field. Go to the **Options** box (where geoSpell has selected **Replace Word** for you) and click **Do**.

To replace all instances of the current word throughout the document, use one of two methods:

- In the current word field, retype the new word. Click **Replace All**, then click **Do**.

- Go to the **Dictionary** box and click **Find**. geoSpell will display all similar spellings of the word in the current dictionary. Click on a suitable replacement word so that it is highlighted. Go to the **Options** box, click **Replace All**, then click **Do**.

To find a similar spelling of the current word:

- If needed, use the **dict** menu to switch dictionaries. Go to the **Dictionary** box and click **Find**. geoSpell will display all similar spellings of that word in the current word field box.

Switch personal dictionaries using the dict menu.
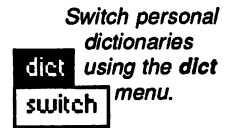
To find a word not in the current word field:

- If needed, use the **dict** menu to switch dictionaries. Go to the current word field in the **Options** box and type the needed word. (If necessary, use the INST/DEL key to delete the current word.) Then go to the **Dictionary** box and click **Find**.

To delete a word in the current word field:

- Press the left arrow key in the upper left corner of the keyboard (above the CONTROL key).

To move the cursor in a word in the current word field:

- Use the cursor keys below the RETURN key on the keyboard. Another way is to select a place in the word, point and click.

Searching for a Word in a Dictionary

To search for a word in either a personal dictionary or the geoDictionary, use one of two methods:

- Go to the alphabet displayed at the top of the **Dictionary** box. Click on

the first three letters of the word you wish to find. geoSpell will search for all words beginning with the three letters you clicked, and display as many as can fit in the dictionary area. If needed, use the scrolling arrows to move through the displayed list.

- Go to the current word field and type in the word. Then click **Find** in the **Dictionary** box.

Using Your Personal Dictionary

When geoSpell finds a word not in the geoDictionary, such as the name "Festus," it will count it as misspelled and display it in the current word field. However, you may wish to add Festus in your personal dictionary so that it will be automatically bypassed every time you spell-check a document. Note that you cannot add or delete words in the geoDictionary. You can add variations of Festus if you wish, such as "Festusnik" or "Festusable." Later on, if you become disenchanted with Festus, you can delete it from the personal dictionary.

The maximum number of words you can add to a personal dictionary is approximately 10,000.

Capitalization of Words Added

When you add words to a personal dictionary, the capitalization you use will affect how geoSpell searches for words when you do a spell-check later on:

- **ALL LETTERS CAPITALIZED** geoSpell will recognize only the fully capitalized version of the word you entered in a personal dictionary. It will not recognize the same word if it is lowercase or has the first letter capitalized.

- **First Letter Capitalized** geoSpell will recognize the word if it is both fully capitalized or has the first letter capitalized.

- **all letters lowercase** geoSpell will recognize all cases of capitalization, whether the word is lowercase, has the first letter capitalized, or has all letters capitalized.

To add a word to your personal dictionary:

1: If the word is already displayed in the current word box, go to the
    Dictionary box and click **Add.** If the word is not displayed, backspace
    over the current word, retype the desired word into the current word
    box, then click **Add.**

```
╔══════════════ Add Root ══════════════╗
║  ┌─────────────────────────────────┐  ║
║  │ Festus                          │  ║
║  └─────────────────────────────────┘  ║
║  │Only│   -- Add ONLY root word        ║
║  │Vars│   -- Add ROOT and VARIATIONS   ║
║  │Done│   -- Return to main screen     ║
╚═══════════════════════════════════════╝
```
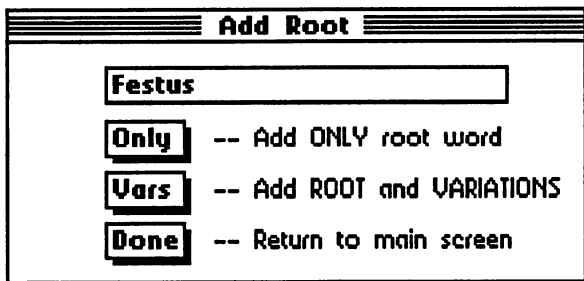
The
Add Root
dialog
box

2: The Add Root dialog box will appear on the screen, listing three
    options. Select one:

    •   **Only — Add ONLY root word** If desired, you can alter the
        spelling of the word as it is displayed in the Add Root dialog box.
        Backspace over it and retype a new variation. After you select this
        option, geoSpell will add the new word to your personal diction-
        ary, even if the current dictionary is the geoDictionary. After-
        wards, when you return to the geoSpell screen, your personal
        dictionary will be displayed.

        Vars — Add ROOT and VARIATIONS When you select this
        feature, another dialog box will display possible variations of the
        word. You can alter the spelling of the word in the following
        ways:

        To use one of the displayed suffixes, simply click on the suffix you
        need, then click **Add.** The new word will be displayed in the
        Added Words window.

```
╔═══════════ Add Words ═══════════╗
║  ┌──────────────────────────┐   ║
║  │ Festusmania              │   ║
║  └──────────────────────────┘   ║
║   ┌────┐ ┌────┐ ┌────┐ ┌────┐   ║
║   │Add │ │Root│ │Undo│ │Done│   ║
║   └────┘ └────┘ └────┘ └────┘   ║
╠══════╤═════╤══════╤═════╤══════╤═════╣
║ able │  d  │  es  │ ic  │ ity  │ness ║
║ ally │ ed  │ est  │ ies │ ly   │ s   ║
║ ation│ er  │ ible │ ing │ ment │tion ║
╠══════╧═════╧══════╧═════╧══════╧═════╣
║ ═══════════ Added ═══════════════   ║
║  Festus          Festusible         ║
║  Festusable      Festusies          ║
║  Festusness      Festusmania        ║
║  Festusment                         ║
╚═════════════════════════════════════╝
```

Use the suggested suffixes or create your own word variations.

To use your own variation, backspace over as much of the word as you need, retype it, then click **Add**. It will be displayed in the Added Words window.

To revert the displayed word back to its root, click **Root**.

To undo the most recent addition, click **Undo**.

When finished, click **Done**. You will be returned to the geoSpell screen, and whatever word variations you created will be added to the personal dictionary.

- **Done — Return to main screen** Select this option if you have selected the **Add** feature by mistake, and wish to return to the geoSpell screen.

To delete a word from the personal dictionary:

1: Make sure the personal dictionary is displayed. If necessary, select **switch** from the **dict** menu.

2: Select one of the following methods:

- If the word is displayed in the current word field, go to the **Dictionary** box and click **Cut**.

- If the word is not displayed in the current word field, backspace over the current word, retype the word you want deleted, then click on **Cut**.

- If the word is listed in your personal dictionary, click on it once so that it is highlighted, then click **Cut**. (If necessary, use the **Find** feature or the scrolling arrows to display the word.)

Exiting geoSpell

Once your document has been spell-checked, you can exit at any time while correcting spellings. There are two ways to do this:

To spell-check another document:

- Click **close** from the **file** menu. A dialog box listing all the documents on the currently open disk will appear. Use Steps 2–5 of "Entering geoSpell" beginning on page 190 to spell-check another document.

To go directly to the deskTop:

- Select **quit** from the **file** menu.

> *NOTE* The message "Please insert a disk with the DESKTOP V1.5 or higher" may appear. If so, remove the current disk and insert your System disk (which contains the DESKTOP 2.0 file). In the dialog box, click **OK**. You will be returned to the deskTop of the System disk. To avoid having to perform this procedure each time you exit geoSpell, copy the DESKTOP 2.0 file to your work disks.

IMPORTANT Do not exit from the middle of a document if you have used the **Replace All** feature. If you do, the words which you selected to be replaced with a **Replace All** word will not be changed in the remainder of the document.

When You Are Finished

When you reach the end of your document and all the spelling has been corrected, geoSpell will give you the option of spell-checking another document — and using a different personal dictionary — or returning to the deskTop. Click to continue. You will be returned to Step 2 of the procedure described under "Entering geoSpell" beginning on page 190. At this step, you can select another document to spell-check. If you wish to return to the deskTop, click on **Quit**.
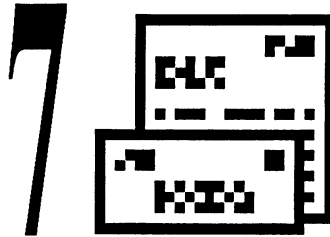
geoMerge

This chapter describes geoMerge, a GEOS based application that lets you produce multiple copies of a document. In each copy of the document, geoMerge will insert unique names, addresses, or other data that you define. You can either type in the data yourself, or import it from geoWrite.

This chapter contains a tutorial on geoMerge. In addition, you will learn how to:

- create a merge form document.
- use special commands to vary text.
- create a merge data file with geoWrite.
- use a merge data file with a merge form document file.
- print your geoMerge documents.

Unfamiliar terms are defined in Appendix A: Glossary.

Before You Try to Use geoMerge

Is geoMerge Installed?

- Make sure you have installed geoMerge as explained in the instructions in "Installing GEOS" in Chapter 1, "Getting Started." Do not attempt to use geoMerge or copy it to a work disk before you install it to your system.

geoMerge and Work Disks

Use the following instructions to set up work disks for using geoMerge, depending on the disk drive set-up you have.

The locations of files you may need are as follows:

Files:	*Disk:*
geoMerge, DESKTOP	Write Utilities
LW fonts, geoLaser	
non-LW fonts	Applications
CONFIGURE	System
printer driver	Applications & System

See Appendix D: Disk Contents (page 298) for a complete listing of the files on your disks and where these files are located.

If you have one disk drive:

- Copy geoMerge, the printer driver, the documents, and the fonts to the same disk. If desired, add geoWrite (for editing documents) and the DESKTOP 2.0 file.

If you have one disk drive and a RAM Expansion Unit (REU):

- Copy geoMerge, the printer driver, the DESKTOP 2.0 file, and the fonts to the REU.

- Use the disk drive for the disk containing the documents.

If you have more than one disk drive:

- Copy geoMerge, the printer driver, and the fonts to one disk. If desired, add geoWrite (for editing documents) and the DESKTOP 2.0 file.

- Copy the documents to another disk.

If you have different disk drive types (e.g., a 1541 and a 1571) and no REU:

- Copy the CONFIGURE 2.0 file to any disk containing the DESKTOP 2.0 file.

  NOTE So long as you have a RAM Expansion Unit, you need not copy the CONFIGURE 2.0 file to the work disks containing the DESKTOP, even if the disk drives are different.

How geoMerge Works

Essentially, you will use two geoWrite documents: **a merge form document** and **a merge data file**. The merge form document contains the text of the document you wish to duplicate; in the places where you wish to have unique information (such as names) you will insert special commands which you will learn about in the following tutorial. The merge data file contains a listing of all the unique information you need, such as names, addresses, or special pieces of text.

Once you have created the merge form document and the merge data file, use geoMerge to feed the unique information you listed in the merge data file into the places in the merge form document where you instructed it to go. geoMerge will create multiple copies of the merge form document, each with individualized data.

geoMerge provides you with the option of using both the merge form document and the merge data file to create your individualized documents, or you can use the merge form document only, and enter the data manually. In the following tutorial, you will enter the data manually.

Using geoMerge: a Quick Tutorial

This tutorial is designed to help you quickly learn the basics of geoMerge.
Later sections in this chapter will explain in more detail the procedures
outlined in the tutorial.

For now, follow the steps in the tutorial exactly; type in all characters as
they appear when directed to do so. Soon you will be creating your own
customized merge forms.

IMPORTANT Before you try the geoMerge tutorial, make sure that the
correct printer driver has been placed the work disk containing geoMerge,
and that this printer driver is the default printer driver. If necessary, refer to
"Setting Up Your Printer," in Chapter 1, "Getting Started."

Step 1: Create a Merge Form Document

To enter and practice with geoMerge, you must first create a merge form
document. To do this:

1: Open the geoWrite application from the deskTop by double-clicking on
the geoWrite icon.

NOTE Another method of opening an application is to click once on its
icon so that it is highlighted, then select **open** from the file menu (or
press ⌨Z).

2: Create a document called **test memo**.

3: Enter the following data into the document:

<<firstName>>, meet me at 2PM in the stairwell. Mau Z.

NOTE The << >> symbols identify **firstName** as a label in this merge
form document. A label is used to indicate where data from the merge
data form is to be inserted.

After typing in the form above, check it for accuracy. Then:

4: Exit geoWrite by selecting **quit** from the file menu.

Step 2: Open geoMerge and Select a Merge Form Document

1: Open geoMerge from the deskTop by double-clicking on its icon. A dialog box will appear asking you to choose a merge form document.

Choose form document:

test memo

geoMerge doc

On disk:
Work 1

Open

Drive

Cancel
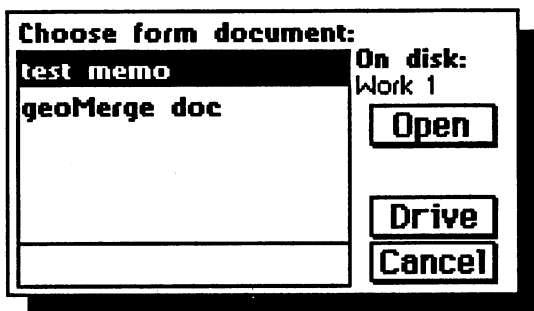
Select a form document in either disk drive.

NOTE If desired, you may select a merge form document from another disk by clicking on **Drive**. geoMerge will let you switch disks as long as the disk currently in the disk drive does not contain the needed the merge form document.

2: Click on **test memo**. It will become highlighted.

3: Now click on the **OPEN** icon to select this file as your merge form document. (Clicking on the **Cancel** icon will return you to the desk-Top.)

Step 3: Type in Merge Data Manually

Once **test memo** has been selected, the program will ask you "Use data file for merge information?"

document: test memo

Use data file for merge information?

YES   **NO**
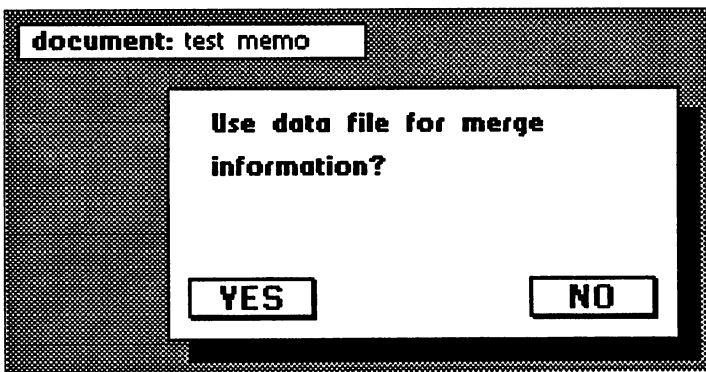
1: Click on the **NO** icon, since you will be entering data manually. Another dialog box will appear asking you to choose print options:
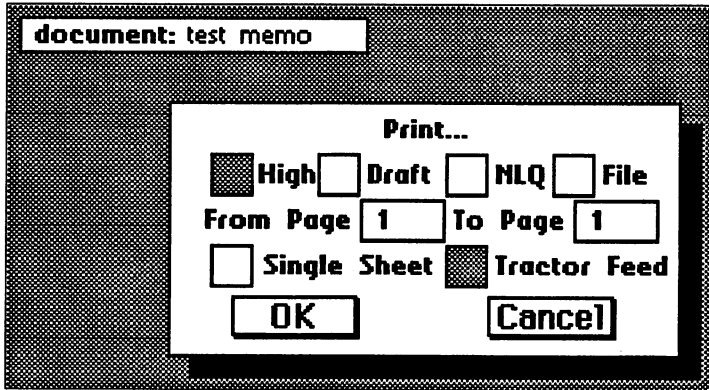
2: Click on the **OK** icon. (An explanation of Print Options for use with geoMerge can be found in "geoMerge Printing Options" on page 221.

Since you are typing in the merge data manually, the program will now start asking you to supply data each time it encounters a label in the merge form document. In this example, when geoMerge encounters <<firstName>> a dialog box will ask you "Enter data to substitute for label "firstName".

3: Type in the name that will be substituted for the label <<firstName>>. You can type in any name. For this example, type in the name **Payton G**, then press RETURN .

Step 4: Print Your Document

Once geoMerge has asked for, and you have typed in all of the proper replacements, your printout will be of the form document test memo with all of the substitutions made for the labels, provided that:

- your printer is turned on,
- it is hooked up correctly,
- the printer driver is on the geoMerge work disk, and
- you have the correct printer driver selected.

While geoMerge prints, you will see a **Cancel** icon on the screen. Click on this icon if you wish to stop printing for any reason.

If you have gone through all of the above steps correctly your printout should look like this:

Payton G, meet me at 2PM in the stairwell. Mau Z.

Step 5: Do Another Merge

When geoMerge has printed the document (or you have canceled the printing process), you will be asked if you wish to do another merge.

If you click on the **YES** icon, the program will again ask you to supply a substitution for the label "firstName". You then can type in a different name and geoMerge will print another document with the new name in place of the <<firstName>> label. Try this with the merge form document that you have created in this tutorial. Type in a different **firstName**, press |RETURN| and see what is now printed out.

When you have made as many stairwell invitations as you wish to make, go on to the next paragraph.

Step 6: Quit

If you click on the **NO** icon, you will return to the initial file dialog box, where you can:

- load and print a different merge form, or
- exit the geoMerge program and return to the deskTop.

NOTE If you are using a multi-disk drive system you can click on the **Drive** icon to look at a list of the files that are on the disk in the other disk drive. If the file you want is on a different disk than the one that is currently in the other disk drive, click on the **Disk** icon. (The **Disk** icon will appear after you have clicked on the **Drive** icon.) A dialog box will ask you to insert the correct disk into the disk drive.

NOTE The message "Please insert a disk with the DESKTOP V1.5 or higher" may appear. If so, remove the current disk and insert your System disk (which contains the DESKTOP 2.0 file). In the dialog box, click **OK**. You will be returned to the deskTop of the System disk. To avoid having to perform this procedure each time you exit Merge, copy the DESKTOP 2.0 file to your work disks.

Merge Form Documents

This section will explain how you can make merge form documents using geoWrite.

Labels

Any geoWrite document can be used as a merge form document. Wherever you want a word, or group of words to vary from printing to printing, add a label with a suitable name. The format for a label is as follows:

<<labelName>>

The <<...>> symbols indicate to the program that this is a label, and **labelName** represents any name that you choose to be the name for that particular label.

The label name cannot contain more than 20 characters, and there cannot be any formatting, such as font changes, within the label name itself. However, you can set the *whole* label, including the brackets, all in one style (e.g., boldface or italic), if you wish the data to appear in a certain style.

In addition, you may not use spaces within a label name. For example, you cannot use **last name** as a label name. Use **lastName** instead.

Any one label name can be repeated as often as you wish throughout the merge form document; geoMerge will ask you only once to supply the data to be substituted for the label in your printout, and will then use that data each time that the label appears in your merge form document.

<<IF>>...<<ENDIF>> Statements

In addition to replacing labels with data, you may wish to have words or groups of words included, or not included, depending on some "key text" contained in a label. For example, if you are writing cover letters to prospective employers, you may want to include a specific portion of text if you have previously spoken with them before, and exclude the text if you have not. This can be done with an <<IF>>...<<ENDIF>> statement.

<<IF>> statements cannot begin on one geoWrite page and end on the following page.

The format for an IF statement is as follows:

<<IF labelName = "key text">>text<<ENDIF>>

What this means is "If the data typed in for **labelName** is exactly equal to **key text**, then leave **text** in the printout; otherwise leave **text** out of the printout.

NOTE The quote marks ("...") in the example above are a necessary part of the <<IF...>> statement. They indicate that what is contained inside of them is key text. Note also that IF and ENDIF are always capitalized. Furthermore, the key text cannot be longer than 200 characters.

Text with Quotes
Let's say that you want geoMerge to search for a key text that has quote marks in it such as:

Joe said "hello" to me.

You will need to enter an ! exclamation mark before each inside quote when you type your <<IF>> statement. In the example above you would type:

<<IF greeting = "Joe said, !"hello!" to me.">>"Hi Joe!"<<ENDIF>>

in order to search for data in the label greeting which is equal to:

Joe said "hello" to me.

and then to print the statement:

"Hi Joe!"

Text with Brackets
If you wish the text to contain <<>> brackets, you can do so easily by inserting an ! mark before the first set of brackets. For example, entering:

!<<It's a secret, Joe.>>

will print as:

<<It's a secret, Joe.>>

Never Forget the <<ENDIF>>

The <<ENDIF>> label tells the program that this is the end of this particular <<IF>> statement. After an <<ENDIF>> label you could start a new <<IF...>> statement if you want.

Example of <<IF>>...<<ENDIF>> Statement

If you have the following merge form document:

Dear <<interviewer>>:

    <<IF talkedAlready = "true">> I enjoyed speaking with you on <<date>>. <<ENDIF>> I look forward to interviewing with your company in the future.

And when asked to supply data, you type in:

Mr. Tibbs   for <<interviewer>>
false   for <<talkedAlready>>
June 9th   for <<date>>

geoMerge will print the following:

Dear Mr. Tibbs:

    I look forward to interviewing with your company in the future.

If you type in true instead of false when you are asked to supply data for the label <<talkedAlready>>, your printout will look like this:

Dear Mr. Tibbs:

    I enjoyed speaking with you on June 9th. I look forward to interviewing with your company in the future.

<<IF>>...<<ELSE>> Statements

You may also want to print one portion of text if a label is the same as the key text, and a different portion if it is not. This can be accomplished with an <<IF>>...<<ELSE>> statement.

An <<IF>>...<<ELSE>> statement cannot start on one page of a geoWrite document and end on a following page. Also, these statements cannot be "nested"; that is, an <<IF>> or <<IF>>...<<ELSE>> statement could not have appeared in either text 1 or text 2 in the previous examples. However, labels could appear within text 1 or 2.

The <<IF>>...<<ELSE>> statement has the following format:

<<IF labelName = "key text">>text1<<ELSE>>text2<<ENDIF>>

What this means is, "If the data that you type in for **labelName** is exactly the same as the **key text**, then print the text (**text 1**) that immediately follows the <<IF..."**key text**">> statement. If it does not exactly equal the key text, then print the text (**text 2**) that follows the <<ELSE>> statement.

Note that IF and ELSE are always capitalized.

NOTE Again, the <<ENDIF>> statement indicates the end of the <<IF...>> statement, or in this case the <<IF>>...<<ELSE>> statement.

Example of <<IF>>...<<ELSE>> Statement
If your form contains:

Dear <<interviewer>>:

<<IF talkedAlready = "true">> I enjoyed speaking with you <<date>>. <<ELSE>> I have heard great things about the salaries you offer. <<ENDIF>> I look forward to interviewing with your company in the future.

And when you are asked to supply the data to be used you type in:

Mr. Tibbs   for   <<interviewer>>
false   for   <<talkedAlready>>
June 9th   for   <<date>>

geoMerge will print the following:

Dear Mr. Tibbs:

 I have heard great things about the salaries you offer. I look forward to interviewing with your company in the future.

If you type in **true** instead of **false** when you are asked to supply data for the label <<talkedAlready>>, your printout will look like this:

Dear Mr. Tibbs:

 I enjoyed speaking with you on June 9th. I look forward to interviewing with your company in the future.

Merge Data Files

Manually typing in the data to be substituted for each label is not the only way to merge data with a merge form document. The data can also come from a "merge data file," which is created with a geoWrite file.

Merge data files are simply geoWrite documents. These files can be converted from geoDex or geoFile as well, by using a special command in those applications.

Creating a Merge Data File with geoWrite

A merge data file is composed of one label record followed by one or more data records.

Label Records

A merge data file begins with the label records. This is a list of all of the labels to be "substituted for" in the merge form document. Each label must appear on a line by itself. For example, the label record for a form letter might be:

firstName   *Labels contain*
lastName   *alphanumeric*
address   *characters only*
city   *and no spaces.*
state
zipCode
talkedAlready
*   *The record ends*
                   after the asterisk.

Labels in geoMerge may be up to 20 characters in length. Labels can contain alphanumeric characters only (letters and numbers) and no spaces. The asterisk at the end of the label list indicates the end of the label record. Also, the program will automatically insert a page break after this first asterisk.

IMPORTANT There is only one label record in a merge data file, and it must always be the first record.

Data Records

The next line after the asterisk is the first line of the first data record, which lists the actual data you want substituted for the labels in your merge form document. Each data entry in the data record is separated by a RETURN . A data record might be:

Molly
Thrush
2424 Mockingbird Lane
Birdville
VA
22203
true
*

A data entry may be up to 200 characters long, and may include several lines of text, so long as the RETURN key is not pressed within the data entry. For long data entries let the word-wrap create new lines.

Data entries can contain any type of character (alphanumeric and non-alphanumeric) and also can contain spaces. geoMerge enables you to create up to 60 unique labels in a single form document.

As with the label record, each data record must be followed by an * asterisk and a RETURN .

Your data file may contain as many data records as you like. If desired, you can insert page breaks after an asterisk instead of a RETURN , but avoid using them elsewhere.

IMPORTANT The last data record in your merge data file must be followed by an asterisk and a RETURN before you close and save the merge data file (a geoWrite document) on your disk.

How Data Records and the Label Record Must Correspond

Each line of the data record *must* correspond with each line of the label record.

These two entries correspond.

firstName	Molly
lastName	
address	2424 Mockingbird Lane
city	Birdville
state	VA
zipCode	22203
talkedAlready	true
*	*

Enter a RETURN *if there is no data record entry.*

Each record ends here.

Each data entry line will be substituted for each label that appears in the merge form document. In the above example, **Molly** will appear in the place of **«firstName»**. If Molly decides not to use her last name anymore, enter a RETURN to enter a blank line in the merge data file for the **«lastName»** data record entry.

Sample geoMerge Documents

The following sample files and the printout examples demonstrate using a merge data file with a merge form document file.

Form Letter for Use with geoMerge

Merge Form Document:

<<firstName>> <<lastName>>
<<address>>
<<city>>, <<state>> <<zipCode>>

Dear <<firstName>>,

    <<IF metThurs = "true">>It was a pleasure meeting with you last Thursday. <<ENDIF>>Thanks for the check.

Merge Data File:

firstName
lastName
address
city
state
zipCode
metThurs
*
John
Smith
1234 Main Street
Any Town
PA
19152
true
*

Carl
Greenskeeper
141 Country Club Drive
Chicago
IL
60610
false
*

Printouts

First Document:

John Smith
1234 Main Street
Any Town, PA 19152

Dear John,

It was a pleasure meeting with you last Thursday. Thanks
for the check.

Second Document:

Carl Greenskeeper
141 Country Club Drive
Chicago, IL 60610

Dear Carl,

Thanks for the check.

geoMerge Printing Options

In order for you to use the geoMerge printing options, make sure that the correct printer driver is on the work disk containing the geoMerge application, and that the printer driver has been selected as the default printer driver.

Select either **high, draft,** or NLQ printing mode depending on the format that you want to use. A fourth mode, **File Output Mode,** will enable you to direct your document to a geoWrite document first for further editing or for use with geoLaser.

Printing a Merge Form Document

1: Go to the deskTop of the work disk containing geoMerge.

2: Double-click on the geoMerge application file icon.

   NOTE   An alternative is to click once on the geoMerge file so that it is highlighted, then select **open** from the **file** menu (or press $\boxed{C}\,\boxed{Z}$).

3: The Choose Form Document dialog box will appear. Click on the name of the form document you wish to use, then click **Open.**

   NOTE   If the form document is on another disk, click **Drive.** This will display a list of documents on the disk in the other disk drive. If you wish to use a different disk, click **Disk** and insert the disk you need.

4: The next dialog box will ask you if you wish to "Use data file for merge information?" Click either **YES** or **NO**:

   • **YES** will enable you to select a data file that contains all the label information you wish to have inserted into the form document. Go to Step 5.

   • **NO** will enable you to enter manually the information for each label in the form document. Go to Step 6, which begins the printing options procedure. After you have selected the print options you need, go to Step 11.

5: If you selected **YES** in Step 4, the Choose Merge Data File dialog box
    will appear. Click on the name of the merge file you need, then click
    Open.

> *NOTE* If the merge data file is on another disk, click **Drive**. This will
> display a list of documents on the disk in the other disk drive. If you
> wish to use a different disk, click **Disk** and insert the disk you need.

6: The Print Options dialog box will appear:

```
                    Print...
  ▓▓High  Draft   NLQ   File
  From Page  1     To Page  1
    Single Sheet  ▓▓Tractor Feed
     OK              Cancel
```
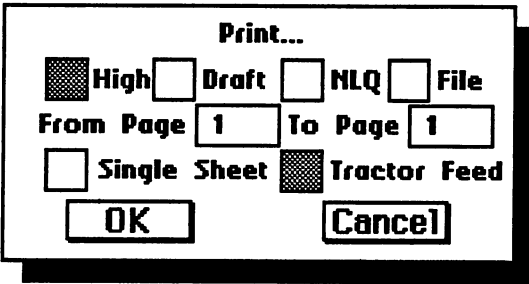
7: Select one of the following printing modes:

- **High** (High Quality Mode) is the "default" and recommended
  mode for geoWrite (geoMerge) output. High Quality mode will
  produce all of the fonts and styles in the same format as they
  appear to you on the screen.

- **Draft** (Draft Quality Mode) does *not* produce different fonts and
  styles and will not produce the same formatting as that which
  appears on the screen. The draft quality will, however, print much
  faster than the high quality mode. Use this mode to get quick,
  rough drafts of your document. Pictures or graphics cannot be
  printed in this mode.

- NLQ (Near Letter Quality Mode) can be used with near letter
  quality printers. It does not produce different fonts and styles but
  it will produce the same formatting that appears on the screen.
  Pictures or graphics cannot be printed in this mode. If your printer
  driver supports style changes, they will appear in the NLQ output.

  To use this mode, all text must be in the Commodore 10 font,
  which is supplied on the Applications disk.

A few printers have different page lengths for NLQ printing than for high quality printing. In geoWrite, selecting the NLQ spacing option from the **page** menu will cause the NLQ page length to be used. The only time that you should use NLQ spacing is when you print in the NLQ mode.

- **File** (File Output Mode) will have geoMerge send its output to a geoWrite file rather than directly to a printer. This feature will enable you to add final touches to a merge form document, or use geoLaser to print your merge form document.

  After you select this option, geoMerge will ask you for a filename. Enter the new filename and press RETURN. (You have the option of creating the file on another disk.) When creating multiple output files, geoMerge will assign a number to the name of the document (e.g., "DocumentName1," "DocumentName2").

  NOTE Before you use this feature, be sure you have enough room on the disk on which you plan to store the output files.

  If you have more than one disk drive, you can save the output files to another disk. geoMerge will allow you to change disks so long as the disk currently in the other drive is not being used for either the merge form document or merge data files.

8: If needed, change the page range: click on the **From Page** and **To Page** boxes allow you to print a part of the document. Normally the entire document is printed. To change the pages that are printed out, click inside either of the boxes and enter a new value.

9: Click on **Single Sheet** to print each page individually (a separate box will let you know when to insert the next sheet of paper) or click on **Tractor Feed** for continuous (i.e., computer) paper.

10: After you have selected the printing modes, click on **OK** to print or **Cancel** to abort.

11: If you selected NO in Step 4 (to enter the data information manually rather than use a merge data file), a dialog box will appear for each unique label in the merge form document. Enter the information as needed and press RETURN.

Merging Your Documents

In summary, you will use the following steps to merge documents:

1: Create a merge form document.

2: If desired, create a merge data file.

3: Go to the deskTop and open the geoMerge application.

4: A dialog box will ask you to select a form document. Click on the desired form document and then click **Open** to select it.

5: Another dialog box will give you the option of using a merge data file or manually inserting the information you wish to have inserted into the merge form document.

6: If you selected **YES** in Step 5, you will be able to select a merge data file. If you selected **NO**, the printing options will appear.

7: The print options dialog box will appear. Make the necessary choices and click **OK** when finished. geoMerge will merge your selected documents, and in a moment your merged documents will be printed. If you selected **NO** in Step 5, a dialog box for each label in the merge form document will appear. Enter the information as needed and press ⌐RETURN⌐.

8: After your documents are printed, you will be returned to the Choose Form Document dialog box (see Step 4). Either do another merge, or select **Quit** to return to the deskTop.

9: If you did not copy the DESKTOP 2.0 file to your work disk, the message "Please insert a disk with the DESKTOP V2.0 or higher" will appear. Remove the work disk from the disk drive and insert your System boot disk, which does contain the DESKTOP 2.0 file. Once you have done so, click on **OK**. You will be returned to the deskTop.
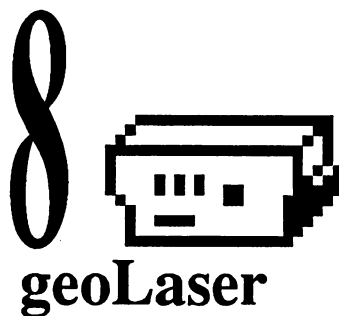
geoLaser

This chapter describes geoLaser, a powerful tool for producing near typeset quality output of geoWrite files using the Apple LaserWriter printer.

Unfamiliar terms are defined in Appendix A: Glossary.

Before You Try to Use geoLaser

geoLaser and Work Disks

Use the following instructions to set up work disks for using geoLaser, depending on the disk drive set-up you have.

The locations of files you may need are as follows:

Files:	*Disk:*
geoLaser, DESKTOP	Write Utilities
LW fonts	
non-LW fonts	Applications
CONFIGURE	System
printer driver	Applications & System

See Appendix D: Disk Contents (page 298) for a complete listing of the files on your disks and where these files are located.

If you have one disk drive:

- Copy geoLaser, the printer driver, the font files, and the documents to one disk. If you have room, add the DESKTOP 2.0 file.

If you have one disk drive and a RAM Expansion Unit (REU):

- Copy geoLaser, the printer driver, the font files, and the DESKTOP 2.0 file to the REU.

- Use the disk drive for the disk containing the documents.

If you have more than one disk drive:

- Copy geoLaser, the printer driver, the font files, and the DESKTOP 2.0 file to one disk.

- Copy the documents to another disk.

If you have different disk drive types (e.g., a 1541 and a 1571) and no REU:

• Copy the CONFIGURE 2.0 file to any disk containing the DESKTOP 2.0 file.

> *NOTE* So long as you have a RAM Expansion Unit, you need not copy the CONFIGURE 2.0 file to the work disks containing the DESKTOP, even if the disk drives are different.

Connecting Your Commodore to a LaserWriter

In order to print using a LaserWriter, you will need an RS-232 interface for your computer (connected to the user port). Only the Jameco JE-232CM and Deluxe RS-232 interface cards have been tested. Its switch settings are: 1-OFF, 2-ON, 3-ON, 4-OFF. Use a modem cable to connect the interface card and the LaserWriter.

IMPORTANT Make sure your LaserWriter contains the PostScript language. geoLaser will not operate on a LaserWriter without the use of PostScript.

If You Don't Have Ready Access to a LaserWriter

LaserDirect, an independent laser printing service using the Apple Laser-Writer, is accessible over Q-Link. Using this service, you can get professional quality output by mail. You can learn more about LaserDirect from the GEOS Arena section of the Commodore Software Showcase in Q-Link.

Using geoLaser

Entering geoLaser

Once you have set up the LaserWriter to your Commodore and prepared
work disks, you will be ready to print a file using geoLaser.

To print a file using geoLaser:

1: Open geoLaser by double-clicking on its file icon.

> *NOTE* Another method is to click once on its file icon so that it is
> highlighted, then select **open** from the **file** menu (or press $\boxed{C}\boxed{Z}$).

2: A dialog box will ask you to "Choose RS-232 Serial Transfer Rate."
    On the back of the LaserWriter next to the RS-232 connector is a metal
    dial with four settings. **9600 baud** is the normal setting for use with
    geoLaser, since it is eight times faster than the **1200 baud** rate. Select
    the proper baud rate on the LaserWriter dial, then click on the correct
    baud rate in the dialog box. Click on **OK**.

```
 ┌──────────────────────────────────────┐
 │                                        │   Make sure 9600
 │   Choose  RS-232  Serial  Transfer  Rate │   is selected.
 │                                        │
 │  ■  9600  Baud  (Blanks  Screen)       │
 │                                        │
 │  ☐  1200  Baud  (Blanks  Screen)       │
 │                                        │
 │   ┌───────────┐      ┌───────────┐     │
 │   │    OK     │      │   Quit    │     │
 │   └───────────┘      └───────────┘     │
 └──────────────────────────────────────┘
```
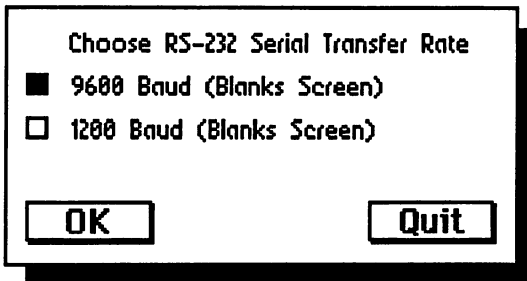
3: The next dialog box will enable you to select a file to print. Click on
    the file's name, then click **Open**.

> *NOTE* If you are using a two disk drive system, the dialog box will
> enable you to print a file on a disk in the other disk drive. Click **Drive**
> to move to the other disk drive. To print a file on another disk entirely,
> insert the disk into the disk drive and click **Disk**.

4: The Print Options dialog box will appear:

```
┌─────────────────────────────────────┐
│  Current file: Festus Memo 132       │
│  ┌───────────────────────────────┐   │
│  │          Print...             │   │
│  │ ▓▓ Scale Largest Point Size   │   │
│  │ From Page │ 1 │ To Page │ 1 │ │   │
│  │ │ 1 │ Copies  □ Overlay       │   │
│  │  │    OK    │    │ Cancel │    │   │
│  └───────────────────────────────┘   │
└─────────────────────────────────────┘
```
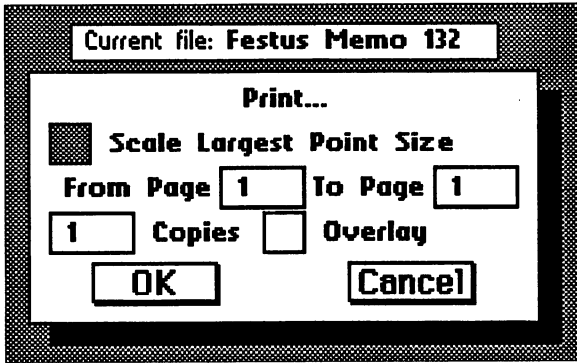
Select from the following, depending on your printing needs:

- **Scale Largest Point Size** controls the printing of non-LaserWriter fonts. This option is explained in detail in "Non-Resident Fonts," page 232.

- **From Page** and **To Page** enables you to print just part of a file. Normally, the entire file is printed. To change the pages printed, click on either of the boxes and type in a new value.

- **Copies** enables you to print multiple copies of a file. Normally, a single copy is printed. To change the number of copies, click on the box and enter a new value.

- **Overlay** enables you to combine or "overlay" separate pages of the file onto one page. For example, a three column page could be created by putting each column on a separate page of the file selected. Each column (or portion of text or graphic) must be positioned in the place where it will appear on the printed page. This can be done by careful use of the ruler, page indicator, preview page, and by counting lines on the file's pages. You can produce striking results with this feature.

  Note that you *can* overlay a range of pages in a document (e.g., pages 1 and 2 of a six page document). Print pages 1 and 2 with the overlay option selected, then print the remaining pages with the overlay option not selected. geoLaser starts with the overlay option turned off.

5:   Once you have completed Step 4, click on **OK** to print the document.

6:   After the file has been printed, you can select another file to print, if desired. If so, return to Step 3. If not, click on **Quit** to return to the deskTop.

   NOTE   The message "Please insert a disk with the DESKTOP V1.5 or higher" may appear. If so, remove the current disk and insert your System disk (which contains the DESKTOP 2.0 file). In the dialog box, click **OK**. You will be returned to the deskTop of the System disk. To avoid having to perform this procedure each time you exit geoLaser, copy the DESKTOP 2.0 file to your work disks.

How Files Are Printed

The LaserWriter is a very high resolution (300 dots per inch) printer and can print all geoWrite files (version 1.2 or later). Both text and graphics can be printed.

Page Length

All geoWrite files before version 2.0 have the same page length, 720 pixels. Files using geoWrite 2.0 and above have varying page lengths depending on the printer driver used when the file is printed. This is due to the inherent mechanical differences between printers. The LaserWriter has one of the longest page lengths (840 pixels) of all the printers supported by GEOS. When geoLaser prints a document created with a shorter page, the extra space is divided evenly between the top and bottom margins. The Laser-Writer 2.1 printer driver on the System disk has the correct LaserWriter page length so that files that have been created with geoWrite 2.0 and above can use the entire LaserWriter page.

Resident Fonts

The LaserWriter contains several internal fonts that can be printed with a high resolution. These fonts are: Times Roman, Helvetica, Symbol, and Courier, as well as the bold, italic, and bold-italic versions of these (except for Symbol). It is these internal LaserWriter fonts (referred to as resident fonts) that produce the best printed output. geoLaser instructs the Laser-Writer to use these internal fonts in place of certain GEOS fonts. The following table summarizes this substitution:

LaserWriter Fonts:		*GEOS Fonts:*
Times Roman:	substituted for	LW_Roma (also Roma)
Helvetica:	substituted for	LW_Cal (also California)
Symbol:	substituted for	LW_Greek
Courier:	substituted for	LW_Barrows

NOTE There is a difference between Roma and LW_Roma, and between California and LW_Cal. Roma and California (used for Times Roman and Helvetica) do not produce as fine results as the other fonts above (including LW_Roma and LW_Cal).

The GEOS fonts (LW_Roma, LW_Cal, LW_Greek, and LW_Barrows) are found on the Write Utilities disk.

Non-resident Fonts

geoLaser prints text in non-resident fonts (fonts not supported by the LaserWriter) by sending the LaserWriter a pixel-by-pixel picture of each character. Since GEOS resolution is 80 dots per inch, non-resident fonts appear jagged and broken compared to resident fonts. Non-resident fonts also take considerably longer to print than resident fonts.

geoLaser improves the appearance of non-resident fonts by substituting a larger version of the font if one is available. For example, geoLaser will send University 24 point in place of University 10 point (or any other smaller size of University) to the LaserWriter. The LaserWriter then reduces this larger font to the correct size. This font substitution can only happen if the font file contains a larger point size than the one being printed. To turn off this automatic substitution, click on (i.e., make the box appear blank) the **Scale Largest Point Size** box in the Print Options dialog box so that this option is deselected.

Text Grabber

The GEOS Text Grabber utility application expands the usefulness of geoWrite. Using it, you can take a document that was created with any of the supported Commodore word processors and convert it to a geoWrite document. Once you have created a geoWrite version of a non-geoWrite document, you can use geoWrite's features to change the document's formatting. The original document will remain unchanged. Most formatting directions from the original word processor document will be preserved when you convert to a geoWrite format (i.e., margins, justification, etc.). If you own a word processor that is not supported, the file can still be converted to a geoWrite document, but the formatting information will not be saved.

Unfamiliar terms are defined in Appendix A: Glossary.

Before You Try to Use Text Grabber

Text Grabber and Work Disks

Use the following instructions to set up work disks for using Text Grabber, depending on the disk drive set-up you have.

The locations of files you may need are as follows:

Files:	*Disk:*
Text Grabber,	Write Utilities
DESKTOP, EasyScript	
PaperClip, SpeedScript,	
WordWriter, Generic I,	
Generic II, Generic III	
word processor files	
CONFIGURE	System

See Appendix D: Disk Contents (page 298) for a complete listing of the files on your disks and where these files are located.

If the word processor format file you need is not listed on the disk above, copy the three **Generic Form** word processor files to your work disks instead. A **Generic Form** file will read in all the characters from the document, ignoring non-printable characters. After the document has been converted, you can reformat it in geoWrite.

If you have one disk drive:

- Copy Text Grabber, the word processor format files you need, and the non-GEOS word processing data files onto a disk. If you have room, add the DESKTOP 2.0 file.

If you have one disk drive and a RAM Expansion Unit (REU):

- Copy Text Grabber, the word processor format files you need, and DESKTOP 2.0 file to the REU.

- Use the disk drive for the disk containing the documents.

If you have more than one disk drive :

- Copy Text Grabber, the word processor format files you need, and the DESKTOP 2.0 file onto one disk.

- Copy the non-GEOS word processing data files onto another disk.

If you have different disk drive types (e.g., a 1541 and a 1571) and no REU :

- Copy the CONFIGURE 2.0 file to any disk containing the DESKTOP 2.0 file.

    NOTE So long as you have a RAM Expansion Unit, you need not copy the CONFIGURE 2.0 file to the work disks containing the DESKTOP, even if the disk drives are different.

Using Text Grabber

Word Processor Format Files

The word processor format files that accompany Text Grabber are as follows:

Generic I Form
Generic II Form
Generic III Form
EasyScript Form
PaperClip Form
SpeedScript Form
WordWriter Form

*A word processor
file icon from
the deskTop*

PaperClip Form

*A non-geoWrite
file icon from
the deskTop.*

LIMERICKS

Entering Text Grabber

Suppose you have a PaperClip document entitled LIMERICKS. Here is how you would create a geoWrite version:

To convert a non-geoWrite file to geoWrite format:

1: Open Text Grabber by double-clicking on its file icon.

   NOTE Another method is to click once on its file icon so that it is highlighted, then select **open** from the **file** menu (or press $\boxed{\text{C=}}\boxed{\text{Z}}$).

2: Once you open Text Grabber, the Please Choose Word Processor dialog box will appear:

Please choose word processor:

Generic I Form
PaperClip Form
WordWriter Form
EasyScript Form
Generic II Form

On disk:
Work 1

Open
Disk
Drive
Quit
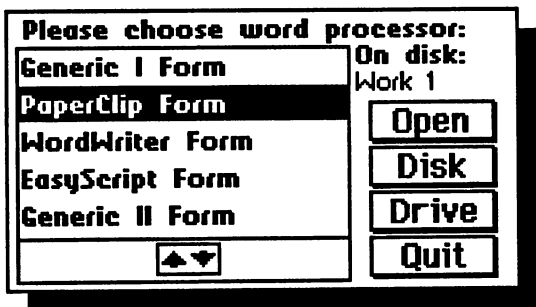
*You can search
for a word processor
on another disk,
if needed.*

Select **PaperClip Form** and click on **Open**.

NOTE If PaperClip Form is on a disk in another disk drive, click on
Drive. If it is on another disk not yet in another drive, insert the disk
containing it and click **Disk.**

NOTE If you are using one of the Generic Form word processor files,
try Generic I Form first (preferably on a small file). Generic I has the
ability to convert a wider range of non-geoWrite documents that
Generic II or III. It Generic I does not work, try Generic II or III
instead.

3:   The Please Choose Source File dialog box will appear next:

Please choose source file:

SUMMER VACATION	On disk:
RANDOM NOTES	Work 1
TERM PAPER	**Open**
FINAL DRAFT	**Disk**
LIMERICKS	**Drive**
▲▼	**Cancel**

*You can search
for a source file
on another disk,
if needed.*
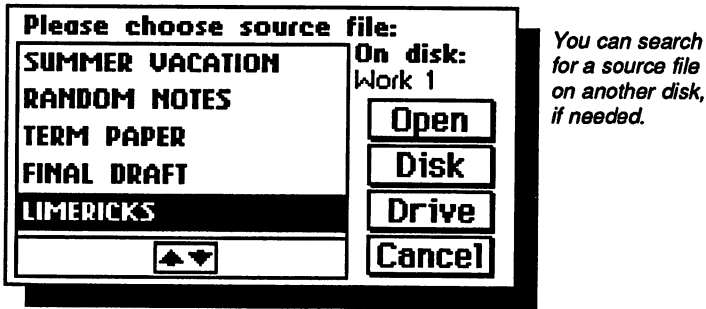
Select LIMERICKS and click on **Open.**

IMPORTANT Be sure that the non-GEOS file you select is a word
processor document file, since not all the files listed in this dialog box
are word processor files.

NOTE If LIMERICKS is on a disk in another disk drive, click on
Drive. If LIMERICKS is on another disk not in any drive, insert the
disk containing it and click **Disk.**

4:   Text Grabber is now ready to create a geoWrite version of LIMER-
ICKS. A dialog box will ask you to enter a name for the new file.

To create the new file in the current disk drive:
•   Type in a name and press RETURN .

To create the new file in another disk drive:
•   Click on **Drive,** type in a name, and press RETURN .

To create the new file on another disk entirely:
a: Click on **Disk.**

b: Insert the disk into the disk drive.

c: Type in a name and press $\boxed{\text{RETURN}}$.

5:   Would you like to have the converted text previewed on the screen?
Click either **YES, NO,** or **Cancel.**

NOTE   If you are trying out different Generic Form word processor
files, click **YES.**

HINT   At this point, Text Grabber will begin converting your docu-
ment. If you choose YES, then just the text of that document will
appear in a preview box as it is being converted.

Unrecognized Characters
At this point, it is possible that Text Grabber will encounter characters
it does not recognize. Refer to "? Unrecognized Characters," page 239.

"File not found" Error Message
This error message refers to a series of files that have been linked to
one another. Refer to "Files That Are Linked," page 239.

6:   Text Grabber will let you know when it has converted LIMERICKS.
Click **OK.** You will be returned to the Please Choose Word Processor
dialog box.

7:   If you wish to convert another non-GEOS document, go back to Step 2.
If you are finished converting files entirely, click on **Quit** to return to
the deskTop.

NOTE   The message "Please insert a disk with the DESKTOP V1.5 or
higher" may appear. If so, remove the current disk and insert your
System disk (which contains the DESKTOP 2.0 file). In the dialog
box, click **OK.** You will be returned to the deskTop of the System
disk. To avoid having to perform this procedure each time you exit
Text Grabber, copy the DESKTOP 2.0 file to your work disks.

Possible Occurrences

? Unrecognized Characters

If Text Grabber encounters any characters or commands that are unknown to geoWrite, a dialog box warning you that Text Grabber has encountered an unrecognized character may appear.

If you click **OK**, Text Grabber will continue to convert LIMERICKS, but will insert a ? in the place of each unrecognized character or command in the text. (The above dialog box will appear for each unrecognized item it finds.) When this dialog box appears, check the information box in the upper portion of the screen to make sure that the correct word processor format file is being used.

If you wish the conversion process to continue without your having to answer a dialog box for each unrecognized character, select **Ignore**.

If Text Grabber encounters too many unrecognized items, you can click **Cancel**, which will return you to the Please Choose Word Processor dialog box (Step 2 on page 236), where you can try the **Generic I, II, or III Form** file. Clicking on **Cancel** will stop the text conversion procedure.

Files That Are Linked

Some word processing programs enable you to "link" a series of documents for a specific purpose (e.g., if you wish to create one index for several documents). If you do not copy the complete series of linked documents to your Text Grabber work disk and while you are converting one of the linked documents, a dialog box may saying "File Not Found" will appear during the conversion process.

This means that Text Grabber has encountered a "link" command (a command attaching one file to another) in the file that you are trying to convert, and the program cannot find the "linked" file on your disk.

If you wish to link a file:

1: Select **OK** to return to the Please Choose Source File dialog box. (Go to Step 3 on page 237.)

2: Choose a file name to be linked to the file being converted. Use the
    Disk and **Drive** icons, if needed, to search for the file on another disk.
    Follow Steps 3–7 to convert the file in the normal manner.

If you don't wish to link a file:

•   Click on **Cancel.** Text Grabber will ignor the file link command and
    continue to convert the current file.

Disk Errors

In the event a "Disk Error" message appears, note the error so that you can
repair the error if possible (e.g., formatting a new disk). The conversion
will be cancelled and you will be returned to Step 2 on page 236. Exit Text
Grabber to fix the problem, if necessary.

Leaving Text Grabber

To exit Text Grabber during the text conversion process, simply select
Cancel from the current dialog box until you return to the Please Choose
Word Processor dialog box. Once this dialog box is displayed, click on
Quit to return to the deskTop.

10 Paint Drivers

This chapter covers the Paint Drivers application. This application is used to create special effects with a geoWrite document. With the Paint Drivers application, you can create a mini-newsletter: use it to create a document in columns, for example, and then use geoPaint's graphic tools to enhance the document's appearance. For example, you can add headlines, borders, and graphics.

Unfamiliar terms are defined in Appendix A: Glossary.

Before You Try to Use Paint Drivers

Paint Drivers and Work Disks

Use the following instructions to set up work disks for using the Paint Drivers application, depending on the disk drive set-up you have.

The locations of files you may need are as follows:

Files:	*Disk:*
Paint Drivers,	System
DESKTOP,	
CONFIGURE	
geoLaser, LW Fonts	Write Utilities
text mgr	
geoPaint, geoWrite	Applications
non-LW fonts, photo mgr	
printer driver	Applications & System

See Appendix D: Disk Contents (page 298) for a complete listing of the files on your disks and where these files are located.

If you have one disk drive:

- Copy the Paint Drivers application, the fonts used to create the geoWrite file, any additional fonts, your current printer driver, geoPaint, geoWrite, and the geoWrite documents to one disk. If you have room, add the DESKTOP 2.0 file. If you plan to use geoLaser, copy it to the disk as well.

If you have one disk drive and a RAM Expansion Unit (REU):

- Copy the Paint Drivers application, geoPaint, geoWrite, the fonts used to create the geoWrite file, any additional fonts, your current printer driver, and the DESKTOP 2.0 file to the REU.

- Use the disk drive for the disk containing the documents.

If you have more than one disk drive:

- Copy the Paint Drivers application, geoPaint, geoWrite, the fonts used to create the geoWrite file, any additional fonts, your current printer driver, and the DESKTOP 2.0 file onto one disk drive.

- Copy the geoWrite documents onto another disk.

If you have different disk drive types (e.g., a 1541 and a 1571) and no REU:

- Copy the CONFIGURE 2.0 file to any disk containing the DESKTOP 2.0 file.

  NOTE   So long as you have a RAM Expansion Unit, you need not copy the CONFIGURE 2.0 file to the work disks containing the DESKTOP, even if the disk drives are different.

How the Paint Drivers Application Works

The Paint Drivers application will create two special printer drivers, **Paint PAGES** and **Paint OVERLAY**. These drivers do not act as regular GEOS printer drivers; instead, they are used to create a geoPaint version of a geoWrite document. The original geoWrite document will not be changed. Once the geoPaint document is created, you can use geoPaint's many tools to enhance the document's appearance.

The Paint Drivers application also can be used with geoWrite to preview the OVERLAY feature of geoLaser.

What Paint PAGES Does

Use the Paint PAGES printer driver if you wish to preserve each page of a document, rather than overlaying all the pages into one geoPaint document. Paint PAGES will take a two page geoWrite document and create two separate geoPaint documents. The first page of that document will be named PAGE 1 and the second page PAGE 2.

If you plan to use the Paint PAGES driver procedure and if there are already Paint PAGES documents on the disk (e.g., PAGE 1, PAGE 2, and so on), it is important that you rename the existing PAGES documents first. If you do not, the next set of Paint PAGES documents will overwrite the current set.

Use Paint PAGES if you do not wish to use any special overlaying effects on a geoWrite document, but still want to use geoPaint's tools to enhance the document's appearance.

What Paint OVERLAY Does

Use the Paint OVERLAY printer driver if you wish to create a document with columns. Paint OVERLAY will take a two page geoWrite document and overlay its two pages into a one page geoPaint document. The geoPaint document will be named OVERLAY. (Note that you *can* control which pages of the document will be overlaid. For example, if you have a four page document and wish to overlay pages 1 and 2, you can; they will both be converted to a geoPaint document. Then, if you wish, you can use either

the Paint PAGES or Paint OVERLAY procedure for the remaining two pages.)

If you plan to use Paint OVERLAY, it is important to check the margins of each page in the geoWrite document to make sure that the columns will not overlap (unless you intend for them to do so). For example, suppose you wish to create a two columned document with columns 2 inches wide. You could set the left and right margins on page 1 of the original geoWrite document at the 1 and 3 inch marks, then you could set the margins on page 2 at the 4 and 6 inch marks.

For example, the geoWrite document could appear as follows:
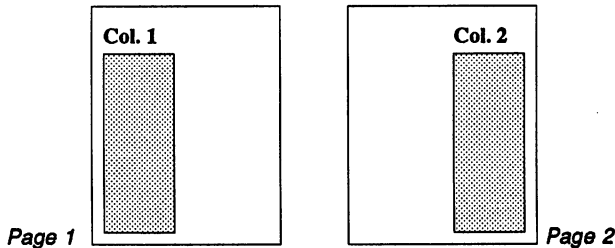
Here is how the resulting geoPaint document would appear:

Pages 1 and 2 are overlaid.
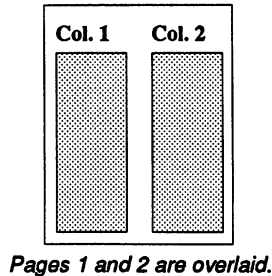
The Paint OVERLAY driver will enable you to overlay graphic images and patterns as well. Once you import a geoPaint image into the geoWrite document, position the image where you would like it to be overlaid. After you use the Paint OVERLAY procedure described under "Using Paint Drivers" (page 249) you can produce some stunning page layouts.

Special Considerations

Before you try out the Paint Drivers application, note the following:

- You will need to have plenty of disk space on your disk in order for a new geoPaint file to be created (at least 5 K). If not enough space is available, the geoPaint document will be incomplete.

- Do not use these drivers on source files that are named PAINT and OVERLAY. Rename your source file first.

- Each time you use the Paint Drivers procedure, be sure to rename the resulting geoPaint documents. If you do not, the next time you use the procedure, the current documents (i.e., any files named OVERLAY, PAGE 1, PAGE 2, etc.) will be overwritten by the next set of converted Paint Drivers files.

- The Paint Drivers application can be used with a geoPublish document, just as with a geoWrite document. Doing so will enable you to take advantage of geoPaint's many features. Note, however, that if you use the Paint Drivers application on a geoPublish document, the conversion process may take a little longer than expected.

Using Paint Drivers

The following section will explain how to create a Paint Drivers document, how to alter it in geoPaint, and how to print the geoPaint version once it is complete.

Setting Up the Paint Drivers

1: Open the Paint Drivers application by double-clicking on its file icon.

   NOTE An alternative is to click once on its file icon so that it is highlighted, then select **open** from the **file** menu (or press [C=][Z]).

2: A dialog box will ask you to "Choose real printer driver type." This refers to the printer driver you normally use to print GEOS documents (e.g., the Comm.Compat. printer driver). Click on the printer driver you want and select **OK**. You will be returned to the deskTop. The Paint OVERLAY and the Paint PAGES printer drivers will appear in the first available file icon slots.

   NOTE The Paint OVERLAY and Paint PAGES printer drivers will be compatible with the printer driver you select in this step.

3: Choose **select printer** from the **geos** menu. The Select Printer dialog box will list your normal printer driver along with the Paint OVERLAY and Paint PAGES drivers. Click on either Paint OVERLAY or Paint PAGES:

   • **Paint OVERLAY** is used if you wish to create a document with columns: it will overlay a range of pages in the geoWrite document into one geoPaint document called OVERLAY.

   • **Paint PAGES** will create a geoPaint document for each individual page of the geoWrite document. If you have a four page geoWrite document, four separate geoPaint documents will be created and named for each page ("PAGE 1," PAGE 2," etc.).

4: Click **OK**. You will be returned to the deskTop and the printer driver you selected in Step 3 will have moved to the default printer position.

Creating a Paint Drivers Document

Once you have created the Paint Drivers and selected one as the default printer, you are ready to convert a geoWrite document into a geoPaint version. Note that the Paint Drivers application will convert a *copy*, not the *original*, of a geoWrite document.

To convert a geoWrite document into geoPaint:

1: Click on the geoWrite document file icon so that it is highlighted, then select **print** from the **file** menu (or press [⊂] [P]).

   NOTE Because one of the Paint Drivers is the default printer driver and not your regular printer driver, the geoWrite document will not be sent to an actual printer to be printed. The geoWrite document will be converted to a geoPaint document (or a series of geoPaint documents if you are using Paint PAGES).

2: The Print Options will appear. If you selected Paint PAGES in Step 3 when you were setting up the Paint Drivers, click **OK** and go to the next step. If you selected Paint OVERLAY, you may wish to overlay a specific range of pages in the document. If so, enter the page numbers in the **From Page** and **To Page** boxes. Click **OK** after you have made your selections.

3: When you return to the deskTop, a geoPaint document (or series of geoPaint documents) will appear. If you plan to do future conversions on the current disk, it is advisable to rename the converted files (i.e., any files named OVERLAY, PAGE 1, PAGE 2, etc.), or the current files will be overwritten by the next set of converted files.

   NOTE You may wish to reselect your regular printer driver at this point to return to normal printing.

Altering the geoPaint Version of Your geoWrite Document

Once a geoWrite document has been converted to a geoPaint document, you can use any of the tools in the Toolbox to add graphics. Note that the geoWrite text cannot be altered; it is considered a foreground graphic.

Bitmap Scaling

The Bitmap Scaling option in geoPaint can be used to create a wide variety of unusual effects with a Paint Drivers document. Bitmap scaling enables you stretch an image to different proportions, paste the image in a different patter, or superimpose the image onto another image. Using it, you can change the appearance of the text from the original geoWrite document in a variety of unusal ways. The Bitmap Scaling option transparent feature works equally well text. The Bitmap Scaling feature will also enable you to create a headline (using a large geoWrite font) that is wider than the geoPaint window. To use Bitmap Scaling, see page 126.

Printing a Paint Drivers Document

If you wish to print your Paint Drivers document on a printer, remember to change the default status of the printer drivers first.

To print a Paint Drivers document:

1: Go to the deskTop of your Paint Drivers work disk.

2: Choose **select printer** from the **geos** menu.

3: When the Select Printer dialog box appears, click on the printer driver you normally use to print documents, then click **OK**. When you return to the deskTop, that printer driver will be in the default position. (Its name will be displayed below the printer icon in the lower left corner of the border.)

4: Click once on the Paint Drivers document so that it is highlighted, and select print from the file menu (or press ⌘ P).
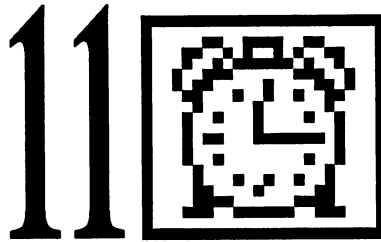
Desk Accessories

GEOS offers a range of desk accessories, which are small programs you can use from within an application or from the deskTop. When you select a desk accessory from the geos menu, the desk accessory will appear over the current application or the deskTop; when you exit the desk accessory, it will disappear from the screen and you will be returned to the previous program. The desk accessories available with GEOS are the **Calculator**, the **Preference Manager**, the **Alarm Clock**, the **Note Pad**, the **Pad Color Mgr**, the **Photo Manager**, and the **Text Manager**.

The Photo Manager, Calculator, and Note Pad desk accessories are located on the Applications disk. The Preference Manager, Pad Color Manager, and Alarm Clock desk accessories are on the System disk. The Text Manager can be found on the Write Utilities disk.

Desk accessories can be copied to work disks and arranged so that they appear in any order you wish in the geos menu.

Unfamiliar terms are defined in Appendix A: Glossary. A summary of the Text Manager's and Photo Manager's command menus can be found in Appendix B: Menus.

The Calculator

The Calculator desk accessory gives you the ability to do quick arithmetic while running any GEOS application or while you are on the deskTop. It operates in the same fashion as a typical four-function calculator.

calculator

Entering the Calculator

To enter the Calculator:

- From an application or the deskTop, select **calculator** from the **geos** menu.

- From the deskTop, double-click on the Calculator file icon.

- From the deskTop, click once on the Calculator file icon and select **open** from the **file** menu (or press ⟨**C=**⟩⟨**Z**⟩).

Once you open the Calculator, it will appear as follows:
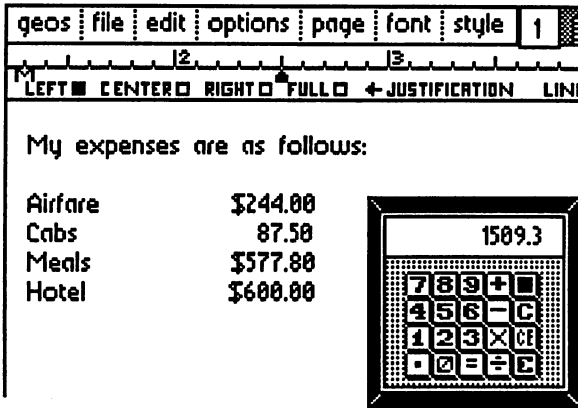
Use the Calculator in an application or on the deskTop.

Entering Values

To enter values and execute functions, enter the values from the top row of numbers on your keyboard and use other keys to execute the functions. Another way is to use the pointer and click on the Calculator keys. The keys you need to use are as follows:

	Calculator Key:	Keyboard Key:
Add:	+	+
Subtract:	-	-
Divide:	÷	/
Multiply:	X	*
Decimal:	.	.
Exponential:	E	E
Equal:	=	=
Clear:	C	C
Clear Entry:	CE	INST/DEL
Close:	■	SHIFT Q
Copy to text scrap		⌫ C

Numbers in Scientific Notation

In addition to supporting the basic arithmetic functions of addition, subtraction, multiplication, and division, the Calculator supports handling numbers in scientific notation. To enter very large (or very small) numbers, use scientific notation. Type the mantissa (the decimal part of the logarithm), then E, then the power of 10. For example, to calculate the equation $3.2 \times 10^{11} \div 2.1 \times 10^{-5}$, you would input the following:

1: Type: **3.2E11**

2: Click on the division key: ÷

3: Type: **2.1E-5**

4: Click on the equal sign: =

The correct answer, 1.5238E+16, is displayed in the calculation window. Note that the maximum exponent that may be displayed or used in a calculation is 10^{-37} or 10^{37} (E-37 or E37).

Copying into a Text Scrap

If desired, you can copy an answer into a text scrap for use in a document.

To copy an answer elsewhere:

1: If necessary, make sure the answer is correct.

2: Hold down ⌫ and press C.

3: When you open the destination document, select an insertion point.

4: Select **paste text** from the **edit** menu (or press $\boxed{\mathbf{C=}}\,\boxed{\mathsf{T}}$). If you are pasting into a geoPaint document, open an Editing Region and select **paste** from the **edit** menu.

Exiting the Calculator

- Click on the **close** icon (the black key in the upper right corner) or press $\boxed{\mathsf{SHIFT}}\,\boxed{\mathsf{Q}}$ on the keyboard. You will be returned to the previous application or to the deskTop.

Click here to exit.

The Preference Manager

preference mgr

The Preference Manager desk accessory enables you to set a variety of parameters regarding the color of the screen or pointer, the speed and shape of the pointer, the date, and the time.

Entering the Preference Manager

To enter the Preference Manager:

• From an application or the deskTop, select **preference mgr** from the **geos** menu.

• From the deskTop, double-click on the Preference Manager file icon.

• From the deskTop, click once on the Preference Manager file icon to highlight it and select **open** from the **file** menu (or press ⌨ Z).

NOTE You cannot enter the Preference Manager by trying to open the Preferences file on the disk note pad.

Once you open the Preference Manager, it will appear as follows:
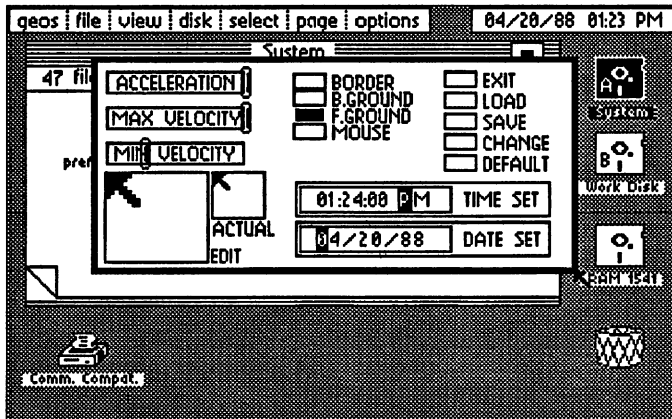
Use the Preference Manager in an application or on the deskTop.

By changing the settings displayed in these areas, you can customize the way GEOS works to your own particular preferences.

Setting the Pointer Movement Characteristics

The three bars in the upper left corner of enable you to control the speed of the pointer. **MIN VELOC-ITY** and **MAX VELOCITY** set the minimum and maximum speed the pointer will achieve. **ACCEL-ERATION** controls how quickly the pointer will achieve maximum speed.
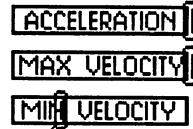
Click on the knob.

To determine the pointer's movement:

1: Point to the knob in one of the three bars and click. The knob will become attached to the pointer.

2: Drag the knob to a new location. Moving the knob to the left will slow the pointer down; moving it to the right will speed it up.

3: Click again to set the knob in place.

> *NOTE* Refer to "Using, Saving, and Recalling Your Changes," page 260, for how to save the changes temporarily, until the next time you boot GEOS, or permanently.

Changing the Pointer's Shape

The two boxes in the lower left corner, entitled **ACTUAL** and **EDIT**, display a bitmapped image of the pointer. The pointer is composed of small dots called **pixels**.

To change the pointer's shape:

1: Position the pointer over the bitmapped image of the pointer in the larger **EDIT** box. It will assume the shape of a small line.

2: Click to create new pixels. If you click on an existing pixel, you will delete it. Change the shape of the pointer by clicking on the pixels that make up its image.

A pointer becomes a mouse.

NOTE Refer to "Using, Saving, and Recalling Your Changes," page 260, for a variety of options for saving or recalling changes to the Preference Manager.

Changing the Pointer's Color

You can change the pointer to any of 15 different colors.

To change the pointer's color:

• Click on the **MOUSE** box in the list of options in the middle of the page to cycle through the available colors for the pointer. Look at the **ACTUAL** box to see the pointer's new color.

BORDER
B.GROUND
F.GROUND
MOUSE

Click here.

NOTE Refer to "Using, Saving, and Recalling Your Changes," page 260, for a variety of options for saving or recalling changes to the Preference Manager.

Changing the Border, Background, and Foreground Colors

Changing the colors displayed in the border, background, and foreground is as easy as changing the color of the pointer. You have 16 colors from which to choose. The background color may be any of these colors except the current foreground and pointer colors. If you wish to change the colors of the deskTop disk note pad or its file icons, use the Pad Color Manager desk accessory.

To change the colors of the border, background, and foreground:

1: Click on the **BORDER, B.GROUND,** and **F.GROUND** boxes in the list of options in the middle of the page to cycle through the selection of colors.

Use these options.

BORDER
B.GROUND
F.GROUND
MOUSE

2: Go to the list of options at the right and click on the **CHANGE** box.

NOTE Refer to "Using, Saving, and Recalling Your Changes," page 260, for how to save the changes temporarily, until the next time you boot GEOS, or permanently.

Changing the Date or Time

For accurate date/time stamping of your data files, you will need to set the date and time whenever you boot GEOS and before you start working with the applications. Changes you make to the date and time will be reflected in the Alarm Clock and deskTop clock as well.

If you open the Preference Manager on the deskTop, you will notice that the deskTop clock time will freeze while you are working with the Preference Manager. Once you exit the Preference Manager, the deskTop time will readjust to the correct time.

To set the date or time:

1: Click on the **DATE SET** or **TIME SET** box.

| 01:24:00 PM | TIME SET |
| 04/20/88 | DATE SET |

Look for these boxes.

2: If the cursor is positioned over a digit, type the new time or date. (Note that the cursor will bypass the colons and slashes.) Press the spacebar to bypass correct entries. (The time will freeze after you press the first key on the keyboard.)

3: When you are satisfied with the date or time, press RETURN.

NOTE Moving the pointer outside the **DATE SET** or **TIME SET** boxes before pressing RETURN will cause the values to revert to their original settings.

NOTE Refer to "Using, Saving, and Recalling Your Changes," below, for a variety of options for saving or recalling changes to the Preference Manager.

Click on these boxes.

☐ EXIT
☐ LOAD
☐ SAVE
☐ CHANGE
☐ DEFAULT

Using, Saving, and Recalling Your Changes

The list of options at the right of the Preference Manager dialog box enable you to save the changes you make in a variety of ways:

To install the change temporarily:

• Click on the **CHANGE** box. If you exit the Preference Manager dialog box at this point, the changes you made will remain in effect while you

use the application. However, the default parameters will be reset upon quitting the application and returning to the deskTop.

To install the change permanently on a disk:

1: Click on the **CHANGE** box.

2: Click on the **SAVE** box. The new settings will appear as a Preference file on the disk and will be loaded each time you open that disk.

3: To return to the previous application or to the deskTop, click on the **EXIT** box.

To recall the last "saved" changes after making additional changes:

1: Click on the **LOAD** box. (This option works the same as the **recover** command found in the **file** menu of other GEOS applications.)

NOTE This command will load the Preference file into the Preference Manager. The controls then will display the previous settings.

2: Click **CHANGE** to activate the new settings.

To recall the default settings:

• Click on the **DEFAULT** box. This will eliminate all changes you have ever made and load the standard GEOS colors, shapes, and settings.

To exit the Preference Manager:

• Click on the **EXIT** box to return to the previous application or to the deskTop. Selecting **EXIT** without first selecting **LOAD, SAVE, CHANGE,** or **DEFAULT** will cancel any changes you have made to the Preference Manager in that editing session.

The Alarm Clock

The Alarm Clock desk accessory can be called up to display the current time (if it has already been set), set the correct **alarm clock** time, or set an alarm time. Once set, the clock and alarm are active no matter where you are working in GEOS. Changes you make to the time will be reflected in the time set in the Preference Manager and deskTop clock as well. Setting the alarm will cause a tone to sound at the specified time.

Entering the Alarm Clock

To enter the Alarm Clock:

• From an application or the deskTop, select **alarm clock** from the **geos** menu.

• From the deskTop, double-click on the Alarm Clock file icon.

• From the deskTop, click once on the Alarm Clock file icon to highlight it and select **open** from the **file** menu (or press ⧉ Z).

Once you open the Alarm Clock, it will appear as follows:

Use the Alarm Clock in an application or on the deskTop.

For each of the three buttons used, there is a corresponding key: M for **Mode,** RETURN for SET, and SHIFT Q for **close.** In the above illustration, the Alarm Clock is set at **Clock Mode.**

Setting the Clock Time

1: Switch to **Clock Mode:** press M or click on the **Mode** icon until a clock face appears.

Clock Mode

2: Click the pointer on the first time digit. The digit will become highlighted and the clock time will freeze.

3: Type the new time. The cursor will skip the colons and the letter **M**.
   Press the space bar to bypass correct entries.

4: When finished, press RETURN or click on **SET**.

Setting the Alarm

1: Switch to **Alarm Mode**: press M or click on
   the **Mode** icon until a bell appears.   *Alarm Mode*

2: Click the pointer at the first time digit. The digit will become high-
   lighted and the clock time will freeze.

3: Enter the alarm time. The cursor will skip the colons and the letter **M**.
   Press the spacebar to bypass correct entries.

4: When finished, press RETURN or click on
   SET. The new bell displayed next to the **close**
   icon will signify that you have set an alarm.   *The alarm is set.*

   NOTE The bell will disappear after the alarm has sounded and you
   have exited the Alarm Clock.

Exiting the Alarm Clock

- Click on the **close** icon or hold down SHIFT   *Click here*
  and press Q. You will be returned to the   *to exit.*
  previous application or the deskTop.

The Note Pad

note pad With the Note Pad desk accessory you can jot down short notes while you are using any GEOS application. Your notes will automatically be saved to a Notes file on the deskTop. Any text that was saved in the Notes file will be displayed each time you use the Note Pad. You can store up to 127 pages of notes, with about 250 characters on each page.

NOTE The term "Note Pad" should not be confused with the "disk note pad" (the area of the deskTop containing files on the currently open disk).

Entering the Note Pad
To enter the Note Pad:

- From an application or the deskTop, select **note pad** from the **geos menu**.

- From the deskTop, double-click on the Note Pad file icon.

- From the deskTop, click once on the Note Pad file icon to highlight it and select **open** from the **file menu** (or press [C=][Z]).

   NOTE You cannot enter the Note Pad by trying to open the Notes data file. On the deskTop, this file appears as the Notes file icon.

Once you open the Note Pad, it will appear as follows:
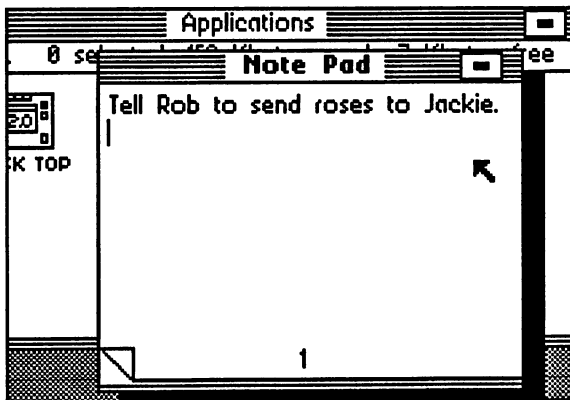
Use the Note Pad in an application or on the deskTop.

Adding Notes

- When the Note Pad appears, begin to type a note. Insert characters by clicking the pointer at the desired insertion point; delete characters by positioning the cursor and pressing the |INST/DEL| key or the left or right |CRSR| key.

Appending a Page

- Press |C=||A|. The new page, which will be inserted after the current page, will be displayed.

Deleting a Page

- Press |C=||X|. The current page contents will be moved into a text scrap and the page itself automatically will be deleted.

Moving to Another Page

- To go to pages 1–9, hold down |C=| and press the page number.

- To go to the next page, click on the dog-ear corner of the lower left corner of the note pad, or press the down |CRSR| key.

- To go to the previous page, click on the part of the page just below the dog-ear corner, or press the up |CRSR| key.

Click here to go to the next page.

Click here to go to the previous page.
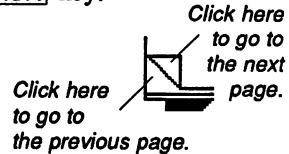
Moving or Copying the Note Pad Page to a Text Scrap

1: Select the desired Note Pad page.

2: Press |C=||X| (to cut or move) or |C=||C| (to copy). The current Note Pad pages will be moved or copied into a text scrap.

3: Exit the Note Pad by clicking on its close icon, or pressing |C=||Q|.

4: Open the destination document.

5: Select an insertion point in the document.

6: Select **paste text** from the **edit** menu (or press |C=||T|). If you are pasting the Note Pad page into a geoPaint document, open an Editing Region and select **paste** from the **edit** menu.

Deleting the Note Pad Contents

1: Exit the current application or desk accessory and return to the desk-
    Top.

2: Look for the file icon entitled Notes (*not* note pad).

    Look for
    this file icon.

    Notes

3: Delete the Notes file icon from the deskTop. This will remove the
    existing notes and give you a fresh Note Pad with which to work.

Exiting the Note Pad

•   Click on the **close** icon at the upper right corner
    of the Note Pad (or press ⬛ Q).

    Click on
    the *close*
    icon to exit.

Once you have exited the Note Pad, you will be
returned to the previous application or to the deskTop.

The Pad Color Manager

The Pad Color Manager desk accessory enables you to color code file icons, the background, and the foreground of the **pad color mgr** disk note pad on the deskTop. You have 16 colors from which to choose. The colors you assign file icons are based on file categories, such as data files, desk accessories, and System files.

Entering the Pad Color Manager
To enter the Pad Color Manager:

• From an application or the deskTop, select **pad color mgr** from the **geos** menu.

• From the deskTop, double-click on the Pad Color Manager file icon.

• From the deskTop, click once on the Pad Color Manager file icon to highlight it and select **open** from the **file** menu (or press $\boxed{\text{C=}}$ $\boxed{Z}$).

Once you open the Pad Color Manager, it will appear as follows:

```
■ Non Geos    ■ Printer      □ EXIT
                             □ SAVE
■ BASIC        ■ Input Device □ RECOVER
■ Assembly     ■ Disk Device
                             □ COLOR OFF
■ Data         ■ System Boot  □ DEFAULT 1
                             □ DEFAULT 2
■ System       ■ Temporary    □ DEFAULT 3
■ Desk Acc     ■ Auto Exec
■ Application  ■ Input 128
■ Appl Data    ■ Pad Background
■ Font         ■ Pad Foreground
```
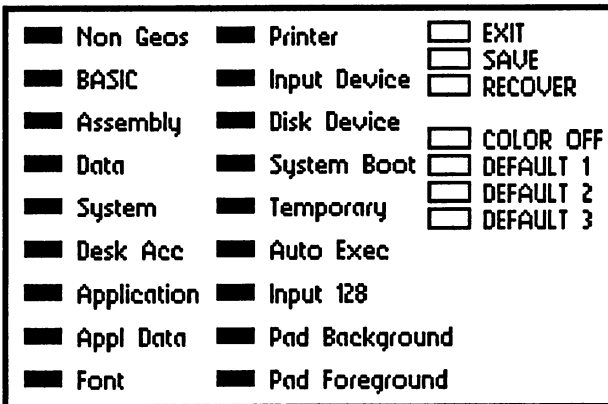
Use the Pad Color Manager in an application or on the deskTop.

Changing the Colors of File Icon Types

1: Click on the box next to the file icon type whose color you wish to change. You will scroll through the 16 same colors that are used in geoPaint's Paint and Canvas color bars.

2: When you find a color you like, go to the list of options at the right and click on **SAVE**.

Changing the Colors of the Pad Background and Foreground

1: Click on the boxes next to **PAD BACKGROUND** and **PAD FORE-GROUND**. You will scroll through the same 16 colors that are used in geoPaint's Paint and Canvas color bars.

> *NOTE* Changing the foreground color will change the color of the lines and lettering on the disk note pad page. Changing the background color will change the color of the disk note pad.

2: When you find a color you like, go to the list of options at the right and click on **SAVE**.

Moving Back to the Previous Color in a Color Options Box

•   Hold down the [C=] key and click on the desired box.

Reverting to the Last Saved Colors

•   Go to the list of options at the right and click on **RECOVER**.

Use these options before you exit. ☐ EXIT ☐ SAVE ☐ RECOVER

Reverting to the Default Colors

•   Go to the list of options at the right and click on one of the three **DEFAULT** color combinations.

Deactivating the Color Mode

•   Go to the list of options at the right and click on **COLOR OFF**.

Exiting the Pad Color Manager

•   Click on **EXIT** to return to the previous application or the deskTop.

> *NOTE* If **SAVE** was selected prior to **EXIT**, the color selections you made will take effect. If it was not, the colors that were in effect before the last time **SAVE** was selected will remain intact.

The Photo Manager

Use the Photo Manager desk accessory to store and handle graphic images created with geoPaint. Graphic images are stored in special files called photo albums. Each photo album may contain up to 60 pages of graphic images. For example, one photo album may contain charts and graphs for a business proposal; another album may contain illustrations for your upcoming novel.

photo manager

The Photo Manager enables you to select graphics from any of the photo albums and insert them into other GEOS applications, such as geoWrite.

The Photo Manager and Graphics Grabber

You can use the upgraded version of the Photo Manager with earlier versions of Graphics Grabber (version 2.0 or less). However, do not have Graphics Grabber try to place more than 60 pictures at a time, since the maximum capacity of the upgraded photo album is 60.

Photo Scraps and Photo Albums

There is a distinct relationship between the "photo files." Whenever you cut or copy a picture (graphic image), it is placed into a photo scrap file, which is a temporary storage file. Photo albums are a means of saving the image you placed in the photo scrap and turning it into a permanent file. The Photo Manager allows you to cut and paste images to and from a photo album. A photo album may contain many separate pages. When you need to place an image from a photo album into a document, copy the photo album contents into a photo scrap and paste the photo scrap contents into the document.

Remember that the photo scrap is a temporary file; each time you move or copy an image into it, the new image will replace the current contents of the photo scrap.

Entering the Photo Manager

When you open the Photo Manger desk accessory, one of two things will happen. If there are no photo albums on that disk, you will be prompted with the Create/Open/Quit dialog box. If you already have photo albums on the current disk, the Photo Manager will automatically open the first photo

album it finds. (Note that photo album file icons can be rearranged on the disk, if necessary.)

You cannot enter the Photo Manager by trying to open a photo album file icon.

photo album file icon

Landscape

If there are no photo albums on the disk:

1: Open the Photo Manager by using one of the following methods:

- From an application or the deskTop, select **photo manager** from the **geos** menu.

- From the deskTop, double-click on the Photo Manager file icon.

- From the deskTop, click once on the Photo Manager file icon so that it is highlighted, then select **open** from the **file** menu (or press C̲ Z̲).

2: When the dialog box appears, select **Create new photo album** (or **Quit** to exit).

3: The next dialog box will ask you to "Please enter new filename". Type in a name and press RETURN .

The new photo album will be created. From there, you can use the photo album's **edit** commands to insert photo scraps, if desired.

If there are photo albums on the disk:

1: Open the Photo Manager by using one of the following methods:

- Select **photo manager** from the **geos** menu in either an application or the deskTop.

- From the deskTop, double-click on the Photo Manager file icon.

- From the deskTop, click once on the Photo Manager file icon, then select **open** from the **file** menu (or press C̲ Z̲).

2: The first photo album on the disk will be opened. If this is not the photo album you want, select **close** from the photo album's **file** menu.

A dialog box will enable you to create a new photo album or open an existing one. To create a new album, select **Create new photo album**, enter a name, and press ⌐RETURN⌐. To open an existing album, select **Open existing photo album**, click on the name you need, then click on **Open**. If there are more than five names on the list, click on the scrolling arrows at the bottom of the dialog box until you find the album you want.

NOTE The album name dialog box will display the first 15 albums names on the disk. If you have more than 15 albums and wish to display a different set of names, you will need to move, delete, or rearrange the file icons on the deskTop. Refer to "Rearranging File Icons," page 64.

The Photo Album Screen

Once inside the photo album, use the two items in the command menu, **file** and **edit** (located at the top of the album screen), to work with the images you copied or moved into the album.

Use the Photo Manager in an application or on the deskTop.
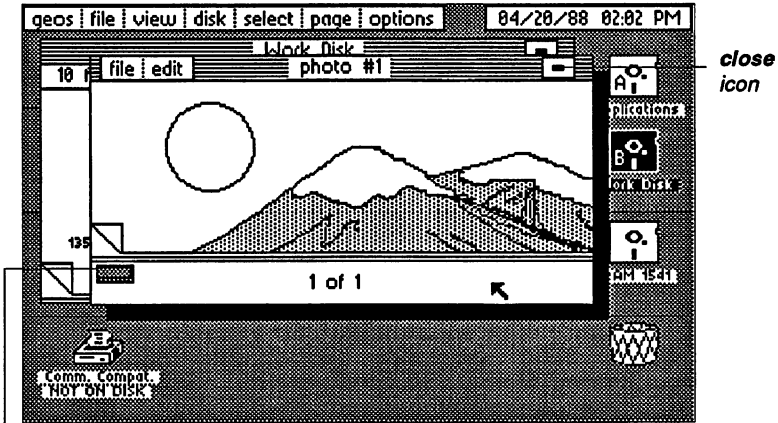
close
icon

window indicator

To return to the previous application, click on the **close** icon at the top right of the album screen. At the lower left corner of the album screen is the **window indicator**, which enables you to move the photo album window to another part of the photo album's current page.

Placing an Image into a Photo Album

If you wish to place an image into a photo album, you first need to move or copy it into a photo scrap. Images that have been placed into a geoWrite document cannot be placed into a photo album.

To place an image into a photo album:

1: In geoPaint, select the **Edit Box** icon and define the region that contains the image to be placed into the photo album.

   NOTE You cannot place an image that is in a geoWrite document into a photo album.

2: Select **cut** (to move) or **copy** from the **edit** menu. The image will be placed in a photo scrap.

3: Select **photo manager** from the **geos** menu. (You need not be in the document in which you originally created the photo scrap.)

4: Select an option: **Create new photo album, Open existing photo album,** or **Quit.**

5: In the next dialog box, enter a name for a new photo album and press RETURN , or select an existing album and click **Open.**

6: When the album appears, note that it has its own command menu: **file** and **edit.** Select **edit,** then select **paste.** The image that you placed in the photo scrap will be copied into the album.

   NOTE You can use the above commands to move or copy images in the existing photo album to another photo album. For example, create a photo album, insert an image into it, cut or copy the image, then select **close** from the **file** menu to exit that album. Next, create or open another album, and insert the cut or copied image from the first photo album into this second album.

   Remember that only a *copy* of the photo scrap has been pasted into the album. If you wish, you may use the same scrap in another album.

Searching for Photos in a Photo Album

There are two ways you can search for photos in an album: one lets you select the photo name from a dialog box; the other lets you type in a name. Use the latter procedure if you have a particularly long list of photo names on the disk and do not wish to scroll to find the photo name you want.

To select the photo from a dialog box:

1: Open the photo album that contains the photo you need.

2: Select **search** from the **edit** menu.

3: A dialog box will display the names of the photos on that disk. Double-click on the photo name you need, or click once on the photo name and select **Open**. The photo will be opened.

> *NOTE* If needed, click on the scrolling arrows below the list of names to move through the list.

If the list of photo names is long and you know the name of the photo you want:

1: Open the photo album that contains the photo you need.

2: Select **search** from the **edit** menu.

3: Type in the name of the photo you need and either press RETURN or click **Open**. The photo will be opened.

> *NOTE* If you enter the name of a photo that does not exist, the procedure will be canceled.

Renaming a Photo

Though photos automatically are assigned names (photo #1, photo #2, etc.), you can change the name of a photo, if desired.

To rename a photo:

1: Open the photo album that contains the photo you wish to rename.

2: Move to the photo you wish to rename so that it is currently displayed on the screen.

3: Select **rename** from the **edit** menu.

4: A dialog box will ask you to "Enter the new picture name." Enter a new name and press RETURN. (If the name is displayed, press INST/DEL to backspace over it.)

> *NOTE* To cancel, either press RETURN before you have changed the name, or click on **Cancel**.

If the Image is Too Big for the Photo Album Screen

Below the dog-ear corner of the photo album is the **window indicator**. The grey (filled in) box represents the area encompassed by your photo. The hollow rectangle on top represents the photo album window. To view another portion of the current photo, you can move the photo album window much as you would using geoPaint's Page Map to move the Drawing Window.

To move the photo album window:

1: Click on hollow rectangle representing the photo album window. It will become attached to the pointer.

— *album window*
— *entire photo*

2: Position the photo album window over a new location and click to deposit it. The new photo album window will be displayed on the screen.

Exiting a Photo Album
Use one of the following methods:

• Select **close** from the **file** menu if you wish to open another album or create a new one.

• Select **quit** from the **file** menu or click on the **close** icon to return to the previous application or to the deskTop.

Click here to exit.

The Text Manager

The Text Manager desk accessory is useful for storing scraps of text permanently. As the Photo Manager manages graphic **text manager** images, the Text Manager handles text stored in special files called text albums on the disk. Each text album may contain up to 60 pages of text collected from your geoPaint or geoWrite documents. Typically, text albums are organized by the type of text they contain. For example, you may have one text album that contains headers and footers for a business proposal; another album may contain poetry samples for an English term paper.

The Text Manager enables you to select text from any of the text albums and use them in other GEOS applications, such as geoWrite.

Text Scraps and Text Albums

There is a distinct relationship between the "text files." Whenever you cut or copy text, it is placed into a text scrap file, which is a temporary storage file. Text albums are a means of saving the text you placed in the text scrap and turning it into a permanent file (i.e., a text album). The Text Manager enables you to cut and paste scraps to and from a text album. The Text Manager works much like the glossary feature found in other word processing programs. When you need to place text from a text album into a document, copy the text album contents into a text scrap.

Remember that the text scrap is a temporary file; each time you move or copy an image into it, the new image will replace the current contents of the text scrap.

Entering the Text Manager

When you open the Text Manger desk accessory, one of two things will happen. If there are no text albums on that disk, you will be prompted to create a text album. If you already have text albums on the current disk, the Text Manager automatically will open the first text albums it finds. (Note that text album file icons can be rearranged on the disk, if desired.)

You cannot enter the Text Manager by trying to open a text album file icon.

text album file icon

If there are no text albums on the disk:

1: Open the Text Manager by using one of the following methods:

- From an application or the deskTop, select **text manager** from the **geos** menu in either an application or the deskTop.

- From the deskTop, double-click on the Text Manager file icon.

- From the deskTop, click once on the Text Manager file icon so that it is highlighted, then select **open** from the **file** menu (or press C= Z).

2: When the dialog box appears, select **Create new text album** (or **Quit** to exit).

3: The next dialog box will ask you to "Please enter new filename". Type in a name and press RETURN .

The new text album will be created. From there, you can use the text album's **edit** commands to insert text scraps, if desired.

If there are text albums on the disk:

1: Open the Text Manager by using one of the following methods:

- Select **text manager** from the **geos** menu in either an application or the deskTop.

- From the deskTop, double-click on the Text Manager file icon.

- From the deskTop, click once on the Text Manager file icon so that it is highlighted, then select **open** from the **file** menu (or press C= Z).

2: The first text album on the disk will be opened. If this is not the text album you want, select **close** from the text album's **file** menu. A dialog box will enable you to create a new text album or open an existing one. To create a new album, select **Create new text album**, enter a name, and press RETURN . To open an existing album, select **Open existing text album**, click on the name you need, then click on **Open**. If there

are more than five names on the list, click on the scrolling arrows at the bottom of the dialog box until you find the album you want.

NOTE The album name dialog box will display the first 15 albums names on the disk. If you have more than 15 albums and wish to display a different set of names, you will need to move, delete, or rearrange the file icons on the deskTop. If necessary, refer to "Rearranging File Icons," page 64.

The Text Album Screen

Once inside the text album, use the two items in the command menu, **file** and **edit** (located at the top of the album screen), to work with your text. To exit quickly to the previous application, click on the **close** icon at the top right of the screen album.

Use the Text Manager in an application or on the deskTop.

close icon
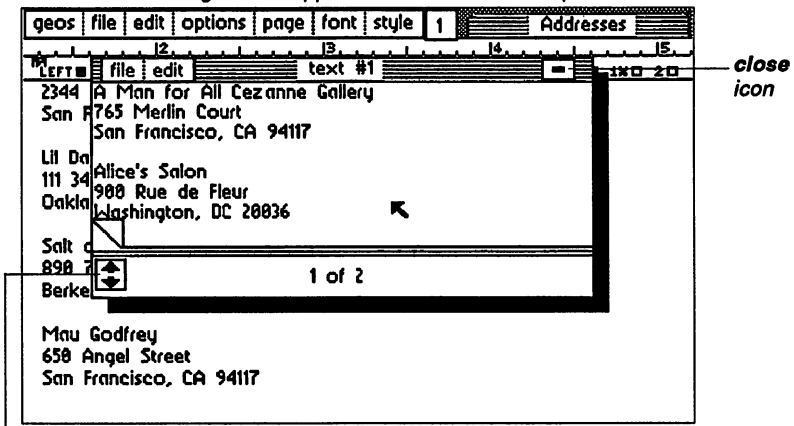
scrolling arrows

If the text is larger than the text album window, use the **scrolling arrows** at the bottom of the screen to view another area of the text. To move to the next page, click on the dog-eared corner at the lower left of the page; to move to the previous page, click on the page area just below the dog-eared corner.

Placing Text into a Text Album

If you wish to place text into a text album, you first need to move or copy it into a text scrap. If you place geoPaint text into a text scrap, you also can place it into a text album.

To place text into a text album:

1: In geoWrite, highlight the text that you want to cut or copy. In geoPaint, create the text using the **Text** tool, but do not exit Text mode. (This is so that the geoPaint text will be placed in a text scrap, not a photo scrap.)

2: Select **cut** (to move) or **copy** from the **edit** menu.

3: Select **text manager** from the **geos** menu. (You need not be in the document in which you originally created the text scrap.)

4: Select an option: **Create new text album, Open existing text album,** or **Quit.**

5: In the next dialog box, enter a name for a new text album and press RETURN , or select an existing album and click **Open.**

6: When the album appears, note that it has its own command menu containing the items **file** and **edit.** Select **edit,** then select **paste.** The text you placed in the text scrap will be copied into the album.

> *NOTE* You can use the above commands to move or copy text in the existing text album to another text album. For example, create a text album, insert text into it, cut or copy the text, then click on the close icon to exit that album. Next, create or open another new album, and insert the cut or copied text of the first text album into the second text album.

> Remember that only a *copy* of the text scrap has been pasted into the album. If you wish, you may use the same scrap in another album.

Searching for Text Pages in a Text Album

There are two ways you can search for text pages in an album: one lets you select the text page name from a dialog box; the other lets you type in a name. Use the latter procedure if you have a particularly long list of text page names on the disk and do not wish to scroll through the entire list to find the text name you want.

To select the text page from a dialog box:

1: Open the text album that contains the text you need.

2: Select **search** from the **edit** menu.

3: A dialog box will display the names of the text on that disk. Double-click on the text name you need, or click once on the text name and select **Open**. The text will be opened.

   NOTE If needed, click on the scrolling arrows below the list of names to move through the list.

If the list of text pages is long and you know the name of the text page you want:

1: Open the text album that contains the text page you need.

2: Select **search** from the **edit** menu.

3: Type in the name of the text page you need and either press RETURN or click **Open**. The text will open.

   NOTE If you enter the name of a text page that does not exist, the procedure will be canceled.

Renaming a Text Page

Though text pages automatically are assigned names (text #1, text #2, etc.), you can change the name of a text page, if desired.

To rename a text page:

1: Open the text album that contains the text you wish to rename.

2: Move to the text page you wish to rename so that it is currently displayed on the screen.

2: Select **rename** from the **edit** menu.

3: A dialog box will ask you to "Enter the new picture name." Enter a new name, and press RETURN. (If the name is displayed, press INST/DEL to backspace.)

NOTE To cancel, either press RETURN before you have changed the name, or click on **Cancel**.

If the Text is Too Long for the Text Album Screen

- Scroll the text by clicking on the **scrolling arrows** below the dog-ear.

Click here for the previous page.

Click here for the next page.

Exiting a Text Album
Use one of the following methods:

- Select **close** from the **file** menu if you wish to open another album or create a new one.

- Select **quit** from the **file** menu or click on the **close** icon to return to the previous application or to the deskTop.

Click here to exit.
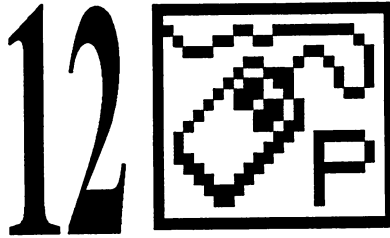
12 Appendices

This chapter contains the following appendices:

- A: Glossary
- B: Menus
- C: Font Samples
- D: Disk Contents
- E: GEOS Demos

Appendix A
Glossary

Terms in *italics* are defined elsewhere in this glossary.

application   A program that operates in GEOS. *geoWrite*, *geoPaint*, *geoSpell*, *geoMerge*, *Text Grabber*, and *Paint Drivers* are all applications.

backup copy   A copy of an *application* or a *work disk*. You can create a backup by using the **copy** command in the **disk** menu of the *deskTop*.

boot   Turning on the computer and opening GEOS.

| C= | The Commodore key, which appears on the keyboard. It is used to carry out certain keyboard commands. To use the | C= | key, hold it down, and while continuing to hold it down, press the key you need to carry out the command. Keyboard commands are located in the **command** menu after the items that apply. The | C= | key also enables you to create special characters depending on the *font* you are using. See also *keyboard shortcut*.

Calculator   A *desk accessory* that enables you to perform quick mathematical calculations.

clicking   Pressing the *input device* button to cause the *pointer* on the screen to move or select a menu item or an icon. See also *double-clicking*.

close   To de-activate or exit a *file* or *disk*.

command menu   The horizontal list of options that appears across the top left portion of the screen. **geos**, **file**, etc. are all part of a command menu.

cursor	A blinking vertical line indicating the position of the next typed character. It also determines the placement of copied or moved text or graphics.
data file	Any *file* that contains information for use by a GEOS program. See also *document*.
default file	A file driver that is automatically selected by GEOS. If necessary, you can change a file's default status.
desk accessory	A small utility program you can use from within an *application*.
deskTop	The first screen you see after you boot GEOS, which will display the file *icons* of the *files* on that *disk*. It enables you to work with the GEOS system. Use the deskTop to manipulate your files and disks. See also *disk note pad*.
dialog box	A special box that pops up on the screen to convey information or query the user.
disk	A device that contains the software you use with GEOS.
disk drive icon	*Icon* on the *deskTop* which represents a disk drive. The currently open *disk* appears in reverse video.
disk note pad	On the *deskTop*, the large rectangular area containing the *files* of the currently open *disk*.
document	A *file* created by you by way of the *geoPaint* and *geoWrite applications*.
double-clicking	Pressing the *input device* button twice in rapid succession, usually to open a document. Double-clicking is the same as selecting an item, then selecting open from the file menu.

driver	See *interface driver*.
file	A collection of information on a *disk*, including *applications*, *documents*.
font	Typeface used when you create text. (The text on this page is Times Roman.)
font file	A *data file* containing the typeface you are using for the text of a *document* in a variety of sizes.
geoLaser	A GEOS *application* that enables you to print your *documents* on the Apple LaserWriter™ printer.
geoMerge	A GEOS *application* that enables you to produce multiple copies of a document in which each copy can contain unique names, addresses, and other data.
geoPaint	A GEOS *application* that enables you to create graphic images.
geoSpell	A GEOS *application* that enables you to search for and correct misspelled words in a *geoWrite document*.
geoWrite	A GEOS *application* that enables you to create word processing *documents*.
ghost icon	On the *deskTop*, the outline of an *icon* that appears after you click on it once, then *click* again (but not *double-click*) to move a file to another place.
highlight	To select a *file icon* by *clicking* on it. Once you have done so, the file icon will appear in reverse video. You can highlight text or an image by clicking on it, dragging the *pointer* so that the area appears in reverse video, then

	releasing the *input device* button. Once you have done so, the area will appear in reverse video.
icon	A picture representing an operation or option. Icons appear on the *deskTop*, in *dialog boxes*, and in *applications*. Clicking on an icon will instruct GEOS to perform some action.
icon mode	On the *deskTop*, the viewing mode that displays files as pictures. In this mode, you can select more than one item at a time. See also *multi-file ghost icon*.
Inkwell light pen	See *input device*.
input device	The device that lets you move a *pointer* on the screen. To use an input device, move the device (or its handle) in the direction you wish the pointer to go and press the input device button when needed (e.g., to select an item). See also *clicking* and *double-clicking*.
interface driver	A special program that acts as a go-between with GEOS and the hardware that accompanies your computer (e.g., a printer or an *input device*).
joystick	See *input device*.
Koala Pad	See *input device*.
keyboard shortcut	Using the keyboard to perform an action on the screen without using an *input device*. See also 🄲.
master disks	The three disks that come with your GEOS 2.0 package.
mouse	See *input device*.

multi-file ghost icon	On the *deskTop*, the outline representing a group of file *icons* you have highlighted. It appears after you have clicked on one of the highlighted icons. It enables you to perform multiple file operations, rather than upon each item separately. See also ghost *icon*.
Note Pad	A *desk accessory* that enables you to write memos to yourself (not to be confused with the *deskTop's disk note pad*).
open	To activate a *document* or *disk*. See also *clicking* and *double-clicking*.
Paint Drivers	A GEOS *application* that enables you to convert a *geoWrite document* to a *geoPaint* document in one of two ways: PAINT PAGES will convert each page to one geoPaint document. PAINT OVERLAY will overlay a range of pages to one geoPaint document, thereby enabling you to create pages with columns or other overlay effects.
photo album	A *file* containing a number of images you import from *geoPaint*. Unlike a *photo scrap*, a photo album is permanent and has its own name. You can use it to store a collection of photo scraps. See also *Photo Manager*.
Photo Manager	A *desk accessory* that enables you to manage *photo scraps* and *photo albums*.
photo scrap	A temporary *file* containing an image you import from *geoPaint*. You can place the photo scrap contents into either a *geoPaint* or *geoWrite document*.
pixels	The small dots that compose the images you create.

pointer 🡔	The small arrow that indicates your position on the screen. It is used to select menu items and *icons*, to select, move, and resize regions, and determine the placement of a *cursor*.
printer icon Comm. Compat.	On the *deskTop*, the *icon* shaped like a small printer at the lower left corner of the screen. It represents the current printer and is used to print *files* from the *deskTop*.
point size	A measurement unit for type. One point equals 1/72 of an inch.
RAM Expansion Unit (REU)	Device that adds up to 256K–512K memory to a Commodore. When installed, it acts much like an extra disk drive (an *icon* for it will appear on the *deskTop* screen), except that you cannot insert a *disk* into it. Instead, you copy the contents of a disk to it. When you turn off the computer, the contents of the REU are lost. The advantage of an REU is that it operates GEOS programs much faster than normal.
save	To update a *file's* contents to *disk*.
scrap	A *file* containing either graphics or text taken from a *geoWrite* or *geoPaint document*. Scraps are used to transport text or graphics from one document to another. See also *photo album*, *text album*, *Photo Manager*, and *Text Manager*.
scrolling	The ability to move through a list of names in a *dialog box*, or to move the Drawing or Writing Window to another position. See also *scrolling arrows*.
scrolling arrows	The arrow *icons* that appear at the bottom of a *dialog box*. Clicking on them enables you to move through a list of names in the dialog box.

shadowed disk drive	The ability of the CONFIGURE 2.0 program to use some of the memory from a RAM Expansion Unit to speed up the performance of a 1541, 1571, or 1581 disk drive.
System disk	The *master disk* that enables you to start up GEOS.
system file	Special files necessary for the operation of GEOS. The DESKTOP 2.0 is a system file, for example.
text album	A small file containing text you import from *geoWrite*. Unlike a text scrap, a text album is permanent and has its own name. You can use it to store several text scraps at a time.
text cursor	See *cursor*.
Text Grabber	A GEOS *application* that enables you to create a *geoWrite* version of a non-GEOS Commodore word processing document.
waste basket	On the *deskTop*, the *icon* shaped like a waste basket at the lower right corner of the screen. It is used to delete a *file* or a group of files.
window	In a *document*, any rectangular region that contains information. Windows are used to divide sections of the screen into easily distinguishable areas. For example, *geoPaint* provides a Drawing Window into the body of the *document*.
work disk	A *disk* you copy *files* onto for your own needs. Work disks are for everyday use.
write protection	The condition determining whether a *file* can be modified or deleted. You can change an item's write protect status by using the info option in the file menu.

Appendix B
Menus

The following command menu summaries are from the deskTop, geoPaint, geoSpell, geoWrite, the Photo Manager, and the Text Manager.

deskTop

geos

geos info Displays copyright information and authors of GEOS.
deskTop info Displays copyright notice and authors of deskTop.
select printer: moves a selected printer driver to the default position.
select input ([C][I]) Moves a selected input device (mouse, joystick, light pen, or Koala Pad) to the default position.
calculator A desk accessory for quick calculations.
note pad A desk accessory for creating memos.
photo mgr A desk accessory for managing photo albums.
text mgr A desk accessory for managing text albums.
preference mgr A desk accessory for determining the input driver speed and color, screen background and foreground colors, file icon colors, and system time and date.
pad color mgr A desk accessory for determining the color of the disk note pad components (file icons, foreground, and background).

file

open ([C][Z]) Loads and executes the currently selected file on the deskTop.
duplicate ([C][H]) Creates a duplicate copy of the selected files.
rename ([C][M]) Renames the selected files.
info ([C][Q]) Displays information about the selected files; also lets you change a file's write protect status.
print ([C][P]) Prints the selected application file.
delete ([C][D]) Deletes the selected files.
undo delete ([C][U]) Retrieves a file from the waste basket.

view

by icon Displays files in icon mode.

by size Displays files sorted by size, largest file first.

by type Displays files groups by type.

by date Displays files in order of last modification, most recent file modification first.

by name Displays files in alphabetical order.

disk

open (⌘⟦O⟧) Opens disk in current disk drive and displays disk files on disk note pad.

close (⌘⟦C⟧) Closes currently open disk.

rename (⌘⟦N⟧) Renames currently open disk.

copy (⌘⟦K⟧) Copies contents of currently open disk to another disk.

erase (⌘⟦E⟧) Erases contents of currently open disk without formatting.

validate (⌘⟦V⟧) Checks currently open disk for errors and makes minor repairs.

format (⌘⟦F⟧) Formats disk in any disk drive. Formatting will erase the contents of that disk.

select

all pages (⌘⟦W⟧) Selects all file icons on every page of the disk note pad.

page files (⌘⟦X⟧) Selects all file icons on the current note pad page.

border files (⌘⟦Y⟧) Selects all file icons on the border.

page

append (⌘⟦S⟧) Adds a disk note pad page after the current page.

delete (⌘⟦T⟧) Deletes current note pad page.

options

set clock Lets you change the date and time of the deskTop clock.

RESET (⌘⟦R⟧) Re-initializes the deskTop.

BASIC Enables you to enter BASIC mode.

geoPaint

geos

geoPaint info Displays copyright and author information. Click to exit dialog box.
Lists desk accessories currently on disk.

file

close Closes document and enables you to create or open another geoPaint document.
update Saves changes to disk.
preview Displays entire document page in black and white.
recover Reverses changes from last time document was saved to disk.
rename Enables you to rename document.
print Prints document.
quit Closes document and returns user to deskTop.

edit

cut Removes an area within an **Edit Box** or Text mode region and places that area in a photo or text scrap.
copy Copies an area within an **Edit Box** or Text mode region into a photo or text scrap.
paste Copies the contents of a scrap into an **Edit Box** or Text mode region.

options

pixel edit Enables you to magnify portion of Drawing Window.
normal edit Returns you from pixel edit mode to entire Drawing Window screen.
change brush Displays brush types in Status Box so that user can change a brush shape.
color on/off Enters/exits color mode.
grid on/off Displays/removes grid function.

fonts

Lists fonts currently on disk.

geoSpell

geos

geoSpell info Displays copyright and author information. Click to exit dialog box.
Lists desk accessories currently on disk.

file

    close Closes current document and enables you to select another document to be spell-checked.

    quit Closes current document and returns to deskTop.

dict

    switch Activates the other personal dictionary.

geoWrite

geos

    geoWrite info Displays copyright and author information. Click to exit dialog box.

    Lists desk accessories currently on disk.

file

    close Closes document and enables you to create or open another geoWrite document.

    update Saves changes to disk.

    preview Displays entire document page.

    recover Reverses changes from last time document was saved to disk.

    rename Enables you to rename document.

    print Prints document; displays dialog box with printing options.

    quit Closes document and returns user to deskTop.

edit

    cut ($\boxed{\textbf{C=}}\boxed{\text{X}}$) Removes selected portion of document and places the area into a scrap.

    copy **edit** ($\boxed{\textbf{C=}}\boxed{\text{C}}$) Copies selected portion of document into a scrap.

    paste Pastes scrap into document at insertion point. Options: text ($\boxed{\textbf{C=}}\boxed{\text{T}}$) for text scrap contents, and picture ($\boxed{\textbf{C=}}\boxed{\text{W}}$) for photo scrap contents.

options

    search ($\boxed{\textbf{C=}}\boxed{\text{S}}$) Opens search/replace operation.

    find next ($\boxed{\textbf{C=}}\boxed{\text{N}}$) Finds and highlights next instance of item entered in Search For dialog box.

    change, then find ($\boxed{\textbf{C=}}\boxed{\text{Y}}$) Changes Search For entry to Replace With entry.

    hide/show pictures Hides/displays all pictures in document. Hidden pictures are covered with a grey box.

    open/close header ($\boxed{\textbf{C=}}\boxed{\text{H}}$) Opens/closes header screen.

    open/close footer ($\boxed{\textbf{C=}}\boxed{\text{F}}$) Opens/closes footer screen.

select page (⌘ V) Highlights current document page.

make full page wide Widens document span to 8.2 inches.
Appears when you first create a document; disappears after you select it.

page

previous page (⌘ ←)
next page (⌘ +)
goto page (⌘ G)
page break (⌘ L)

set first page Changes the first page number of a document.

title page Sets the first page of a document as a title page (i.e., no page number will be set for that page).

NLQ spacing Produces the same formatting as that on the screen. For use wtih NLQ printers only.

font

Lists the first eight fonts currently on the disk.

style

plain text (⌘ P) Sets text in plain type style.
bold (⌘ B) Sets text in boldface.
italic (⌘ I) Sets text in italics.
ⓞⓤⓣⓛⓘⓜⓔ (⌘ O) Sets text in outline.
underline (⌘ U) Sets text with underline.
superscript (⌘ >) Sets text in superscript.
subscript (⌘ <) Sets text in subscript.

Photo Manager

file

close Closes current photo album and enables you to create or open another photo album.

quit Exits to previous application or to deskTop.

edit

cut Moves currently displayed photo page to a photo scrap.

copy Copies currently displayed photo page to a photo scrap.

paste Pastes contents of photo scrap into photo album.

search Enables you to search for another photo album page.

rename Enables you to rename currently displayed photo album page.

Text Manager

file

close Closes current text album and enables you to create or open another text album.

quit Exits to previous application or to deskTop.

edit

cut Moves currently displayed text page to a text scrap.

copy Copies currently displayed text page to a text scrap.

paste Pastes contents of text scrap into text album.

search Enables you to search for another text album page.

rename Enables you to rename currently displayed text album page.

Appendix C
Font Samples

GEOS 2.0 is supplied with ten font files and one resident font. When you use fonts, note that the first eight on the currently active disk are displayed in the font menu of geoWrite and geoPaint. If you wish to use a font that is not displayed in the font menu, you can do so by rearranging the order of font files on the deskTop so that the font you need is among the first eight font files on that disk. If necessary, refer to "Rearranging File Icons" on page 64.

Note that megafonts are not supported by GEOS 2.0.

The fonts and their disk locations are as follows:

Font: *Disk:*

BSW   Built-in (i.e., not a file icon on any disk)
California, Commodore,   Applications
Cory, Dwinelle, Roma,
University
LW_Barrows, LW_Cal,   Write Utilities
LW_Greek, LW_Roma

Here is how fonts appear:

BSW: **9 point**
                                 ABCDEFGHIJKLMNOPQRSTUVWXYZ
                                 abcdefghijklmnopqrstuvwxyz
                                 1234567890 !"#$%&'()+-@*^:;=,./
                                 []=<>?_`~|()\

California: **10, 12, 14, 18 point**
                                 ABCDEFGHIJKLMNOPQRSTUVWXYZ
                                 abcdefghijklmnopqrstuvwxyz
                                 1234567890 !"#$%&'()+-@*^:;=,./
                                 []=<>?_`~|()\

Commodore: 18 point

ABCDEFGHIJKLMNOPQRSTUVWXY
Z
abcdefghijklmnopqrstuvwxy
z
1234567890
!"#$%&'()+-@*↑:;=,./
[]=<>?_`~|<>\

Cory: 12, 24 point

ABCDEFGHIJKLMNOPQRSTUVWXY
Z
abcdefghijklmnopqrstuvwxyz
1234567890
!"#$%&'()+-@*":;=,.↵
[]=<>?_~|{}↳

Dwinelle: 18 point

𝔄𝔅ℭ𝔇𝔈𝔉𝔊ℌ𝔍𝔎𝔏𝔐
𝔑𝔒𝔓𝔔ℜ𝔖𝔗𝔘𝔙𝔚𝔛𝔜ℨ
abcdefghijklmnopqrstu
vwxyz
1234567890
!"#$%&'()+-@*^:;=,./
[]=<>?_'~|{}\

LW_Barrows: 9, 10, 12, 14, 18, 24 point

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 !"#$%&'()+-@*^:;=,./
[]=<>?_`~|<>\

LW_Cal:

9, 10, 12, 14, 18, 24 point
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 !"#$%&'()+-@*^:;=,./
[]=<>?_`~|{}\

LW_Greek:

9, 10, 12, 14, 18, 24 point
ΑΒΧΔΕΦΓΗΙϑΚΛΜΝΟΠΘΡΣΤΥςΩΞΨΖ
αβχδεφγηιφκλμνοπθρστυϖωξψζ
1234567890 !∀#∃%&∍()+−≅∗⊥:;=,./
[]=<>?_ ~|{}∴

LW_Roma:

9, 10, 12, 14, 18, 24 point
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 !"#$%&'()+-@*^:;=,./
[]=<>?_`~|{}\

Roma:

9, 12, 18, 24 point
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 !"#$%&'()+-@*^:;=,./
[]=<>?_`~|{}/

University:

6, 10, 12, 14, 18, 24 point
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 !"#$%&'()+-@*^:;=,./
[]=<>?_'~|{}\

Appendix D
Disk Contents

The contents of the disks in your GEOS 2.0 package are as follows:

Disk 1

System Disk

KBytes Used: 139
KBytes Free: 27

Page 1   GEOS, GEOS BOOT, GEOS KERNAL, DESKTOP 2.0, CONFIGURE 2.0, default input device, default printer. (System files)

Page 2   preference mgr, pad color mgr, and alarm clock desk accessories, PAINT DRIVERS application, RBOOT system file, DISK COPY program.

Pages 3+ Printer drivers and input devices.

DEMO Disk

KBytes Used: 85
KBytes Free: 80

Page 1   GEOS DEMO program.

Disk 2

Backup System Disk

Same as System Disk contents.

Applications Disk

Kbytes used: 155
Kbytes free: 10

Page 1   DESKTOP 2.0, GEOWRITE, GEOPAINT.

Page 2   photo manager, calculator, note pad desk accessories.

Page 3   California, Cory, Dwinelle, Roma, University, Commodore fonts.

Disk 3

Write Utilities

Kbytes used: 139
Kbytes free: 26

Page 1   DESKTOP 2.0, TEXT GRABBER, GEOLASER, GEOMERGE applications, text manager desk accessory.

Page 2   EasyScript Form, PaperClip Form, Generic I Form, SpeedScript Form, WordWriter Form, Generic III Form, Generic II Form word processor files for use with Text Grabber.

Page 3   LW_Roma, LW_Cal, LW_Greek, LW_Barrows LaserWriter fonts.

geoSpell

Kbytes used: 115
Kbytes free: 11

Page 1   DESKTOP 2.0, GEOSPELL application, GeoDictionary.

Appendix E
GEOS Demos

Once you have loaded GEOS and have your input device working, you will be ready to run the GEOS demonstration programs. These programs will introduce you to other products from Berkeley Softworks:

- **geoFile** is a database program that manages records easily.
- **FontPack** *Plus* contains 53 typefaces. Also included is geoFont, which enables you to create your own typefaces.
- **geoPublish** is a full-featured desktop publishing program.
- **DeskPack** *Plus* contains applications to enhance your other GEOS applications.
- **geoCalc** is a spreadsheet that supports advanced mathematical functions.

Once you begin a GEOS demonstration program, it will continue until it completes its performance, then return you to the deskTop afterwards. You can interrupt the program at any time.

If you wish to:	*Do the following:*
Move to the next dialog box	Press the spacebar.
Stop a screen	Hold down ⬚ and press ⬚S⬚ .
Continue after stopping	Hold down ⬚ and press ⬚C⬚ .
Exit to deskTop	Hold down ⬚ and press ⬚Z⬚ .

To open the demonstration program:

1: Boot GEOS as explained on page 22.

2: Insert the GEOS DEMOS disk into the disk drive.

3: Open the GEOS DEMOS disk by clicking on the disk drive icon representing the disk drive containing GEOS DEMOS.

4: On the deskTop, the GEOS DEMOS disk note pad will appear. Double-click on the INTRODUCTION file icon. This program will begin. Afterwards, open the other demonstration files. Enjoy!

  NOTE When a demonstration ends, you may be asked to insert a disk containing the deskTop V1.5. Insert your System disk and click **OK**.

Index

W

waste basket 53
window indicator 274
    photo albums 271
windows 32
word-wrap 176
work disks 36
    general theory of 25
    geoLaser 226
    geoMerge 204
    geoPaint 90
    geoSpell 188
    geoWrite 144
    Paint Drivers 244
    standard files 26
    Text Grabber 234
    with REU 28
write protect status 61
Writing Window 150
    dimensions 152
    moving 157
    widening 152

GEOS 2.0 Registration Card

Please complete this card to register for product support and new product information.

Your Name _____ Dealer's Name _____

Company Name _____ Address _____

Address _____ City _____ State _____ Zip _____

City _____ State _____ Zip _____ Phone _____

Purchase Date _____ Phone _____

To assist us in serving you better, please take a moment to answer the following questions.

1. Computer system: ☐ Commodore 64 ☐ 64c ☐ 128
   Additional hardware: ☐ monitor ☐ printer _____
   ☐ joystick ☐ mouse ☐ Koala Pad ☐ Inkwell light pen
   disk drives: ☐ 1541 ☐ 1571 ☐ 1581 ☐ 1750 REU ☐ 1764 REU

2. What do you use your computer for? (Check all that apply. Circle primary use.) ☐ home ☐ work ☐ school ☐ other _____

3. Primary user's age: ☐ under 18 ☐ 18–24 ☐ 25–34 ☐ 35–49 ☐ over 50
   Primary user's sex: ☐ male ☐ female

4. Please indicate your level of computer expertise:
   ☐ novice ☐ beginning ☐ intermediate ☐ advanced

5. Please rate your initial impressions with GEOS 2.0 on a scale of 1 to 5 (5 being the highest):
   ____ ease of use ____ quality of printed output ____ performance
   ____ quality of user's manual ____ overall satisfaction

6. How do you find out about new software products?
   ☐ magazines ☐ work ☐ TV ☐ newspapers ☐ friends
   ☐ user group/computer club ☐ computer/other retail store

7. Please check all GEOS-based application products that you own:

   ☐ GEOS   ☐ GEOS 128
   ☐ geoWrite Workshop*   ☐ geoWrite Workshop 128
   ☐ geoFile   ☐ geoFile 128
   ☐ geoCalc   ☐ geoCalc 128
   ☐ DeskPack1   ☐ Deskpack *Plus*
   ☐ FontPack1   ☐ Fontpack *Plus*
   ☐ geoPublish   ☐ geoProgrammer
   ☐ geoDex
   * formerly Writer's Workshop

8. Which magazines do you read?
   ☐ Commodore Magazine   ☐ Run
   ☐ Ahoy!   ☐ Info
   ☐ Compute!s Gazette   ☐ Compute!
   ☐ Family & Home Office Computing ☐ BYTE

9. Additional comments/suggested improvements: _____
   _____
   _____
   _____
   _____
   _____

Part No.: 14-0101-0120

Berkeley Softworks
Commodore Division
2150 Shattuck Avenue
Berkeley, CA 94704