

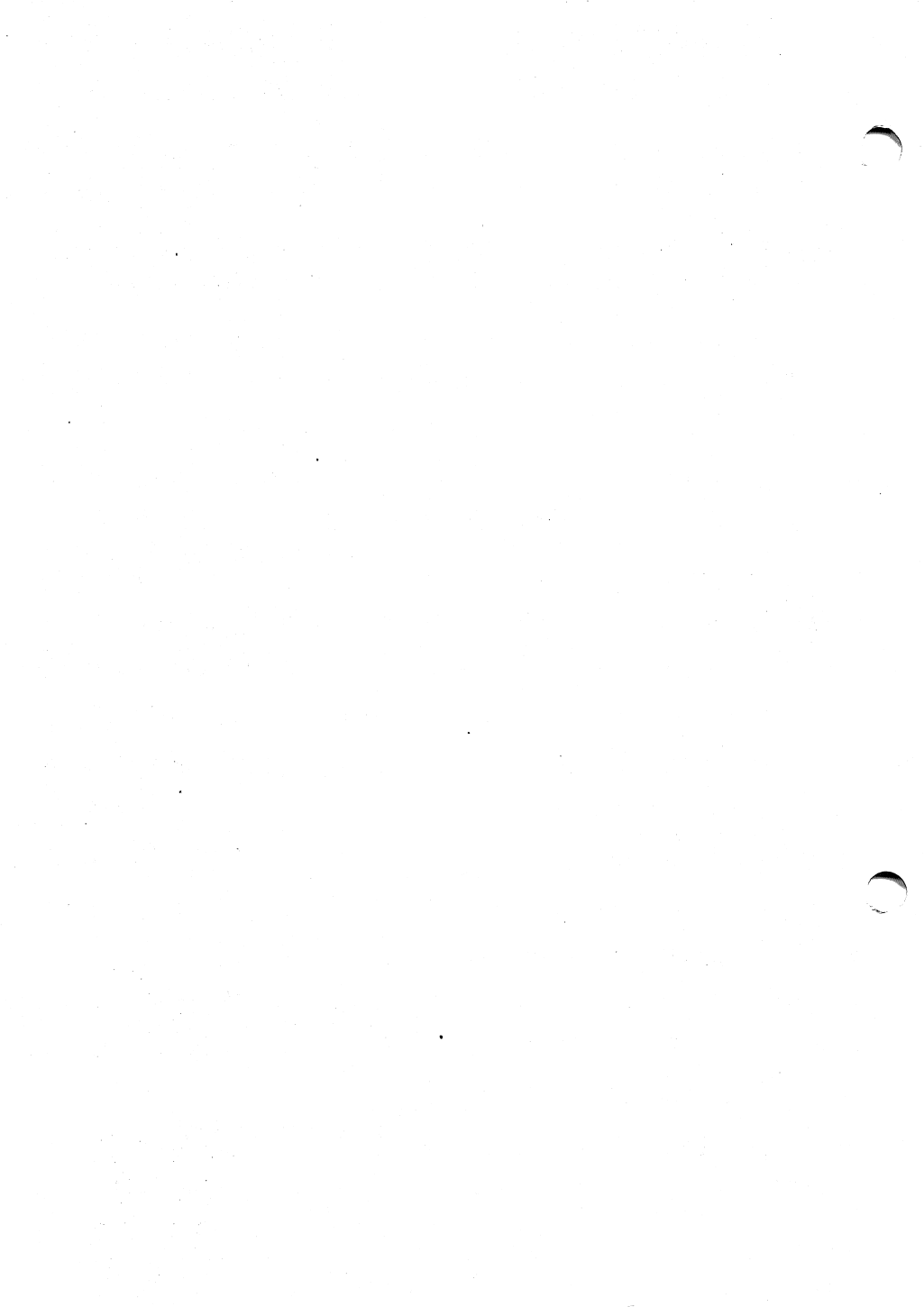
# ST SCAN

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## *INSTRUCTION MANUAL*





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# ST SCAN

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## IMAGE SCANNER

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# INTRODUCTION

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ST SCAN is the most powerful input device available for the Atari ST computer. ST SCAN is used with the Canon IX-12<sup>™</sup> high resolution image digitizer to input photographs, artwork or technical drawing into your computer. You can then edit, paint, cut and paste it, and reproduce the sharpest image your laser printer can handle. ST Scan software makes it very easy to use with simple drop down menu comands.

You can use ST SCAN to digitize images in special halftone mode for photographs, or line art mode for drawings, Logos or any high contrast image. You can choose the resolution from 75 dots per inch (DPI) up to 300 DPI. The ST SCAN software allows you to scan selected areas from a sheet thereby enabling only the desired part of the page to be scanned.

**A WORD OF CAUTION:** Scanning images at high resolution can consume tremendous amounts of memory. The software automatically limits the size of the scan area according to the memory available on your computer.

You may choose to save your scanned images in several file formats. ST SCAN will not print the image to a printer. The only way to printout your scanned image is to use a program that supports your printer to print the image file.

The format you choose to save your image will also be used to determine the size of scan area allowed. If you choose the DEGAS<sup>™</sup> file format then you will be limited to an area which will be no larger than a screen display. You can increase the scan area by selecting a lower resolution number. This is because the number of dots which make up your scanned image will determine how large of area can be shown and edited using the DEGAS<sup>™</sup> program. Other art and graphic editing programs are

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being written to allow editing scanned images at higher resolutions. Such a program will soon be available from Navarone called ST LASERPAINT™.

## **HOW TO USE THIS MANUAL**

ST SCAN is very easy to use. If you read the section on USING ST SCAN, you will probably have no trouble using the ST SCAN system. The HELP function will most likely provide all the assistance you need.

So, if you are eager to start, go right on to WHAT YOU WILL NEED. Read USING ST SCAN, and have fun!

## **WHAT YOU WILL NEED**

1. An Atari ST computer with a minimum of 512K of RAM.
2. A Monochrome or Color monitor.
3. At least one floppy disk drive.
4. The ST SCAN Program disk.
5. The ST SCAN Interface unit and cable.
6. The Cannon IX-12 image scanner.
7. A formatted work disk for saving scanned images.

## **STARTING THE SYSTEM**

Before applying power to the computer system, make sure that all cable and power connections are inserted properly. If you do not have the TOS operating system in ROM, you will need to insert a disk containing TOS into the disk drive. Turn on your monitor, your disk drive and then your computer. When the computer has finished loading information into its memory, the GEM Desktop will appear on the monitor screen.

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## MAKING A BACKUP COPY

Before using the ST Scan program, you should make a backup copy of your original ST SCAN floppy disk. (*You can buy extra disks at most computer retail stores*). Use the backup disk and store the original away in a safe place. Then, if anything happens to the backup while you're using it, you can just make another copy from the original. With the computer turned on, follow these steps and read the prompts that appear in the Dialog Boxes.

1. There is a small plastic write-protect tab on most floppy disks which can be moved to either of two positions. A disk is write-protected when the tab is placed to leave the write-protect notch open (you can see through it). While the tab is in this position, the disk cannot be formatted, erased, or written to. Sliding the tab to the closed position allows information to be recorded on the disk, the original disk should be write-protected (with the notch open) and the blank backup disk should have the notch closed.

2. If you have one disk drive, insert the blank backup disk into the disk drive and place the original ST Scan disk aside. When the ST Computer requires a disk change, it will display the message in a Dialog Box. NOTE: If you have two disk drives, insert the original ST Scan disk into Drive A and the backup disk into Drive B. With two drives, always keep the original disk in Drive A, the backup disk in Drive B, and follow the prompts.

3. To format the backup disk, click on the icon for Floppy Disk B and select the Format option from the File menu. The first Format Box will appear, giving the options OK and Cancel. Click on the OK button. The second Format Box will appear.



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Make sure the option "Single- sided" is shaded, then click on the Format button. If you have one drive, Disk B (the Backup disk) is already in Drive A, so continue on.

When the disk is finally formatted, a message will appear showing the amount of information which it can hold. Click on the OK button, and you will be returned to the Format Box. Then click on the Exit button.

4. To copy the original ST Scan disk to the backup disk, insert the original disk into Drive A, select Floppy Disk A with the mouse pointer, drag it on top of the Floppy Disk B icon, and release the mouse button. A dialog box will appear with the options OK and Cancel. Click on the OK button. The Diskcopy Box will appear. Click on the Copy button and follow the prompts to complete the copying process. When the disk has been copied, the Diskcopy Box will appear again. Click on the Exit button.

5. Use this backup disk and store the original away in a safe place. Then, if anything happens to the backup while you're using it, you can just make another copy from the original.

# USING ST SCAN

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## LOADING THE PROGRAM

First, start your computer system by following the directions given above under "Starting the System". If you're using a color monitor, select Set Preferences from the Options menu, make sure the *Medium Resolution* option is shaded, and click on the OK button.

Insert the backup ST Scan disk into Drive A. Move the mouse cursor over the icon for Floppy Disk A and click the mouse button two times in rapid succession. The disk icon should open into a window which contains an icon for each file on the disk. To enter the ST Scan program, double-click (click twice rapidly) on the icon or filename STSCAN.PRG. The ST Scan program is not copy protected.

**WARNING: Don not insert paper into scanner until after you have loaded the ST SCAN Program.**

## SETTING UP

To setup the ST SCAN image scanner and program.

1. Turn your computer and the Cannon IX-12 OFF.
2. Plug the ST SCAN Interface unit into the cartridge port on the left hand side of the Atari ST Computer.
3. Connect the cable from the Cannon IX-12 image scanner to the ST SCAN interface unit.
4. Insert your working copy of ST SCAN program disk into your disk drive and turn on the computer and the Cannon IX-12 scanner. **DO NOT INSERT PAGE INTO SCANNER UNTIL REQUESTED BY PROGRAM.**
5. Run the program STSCAN.PRG.

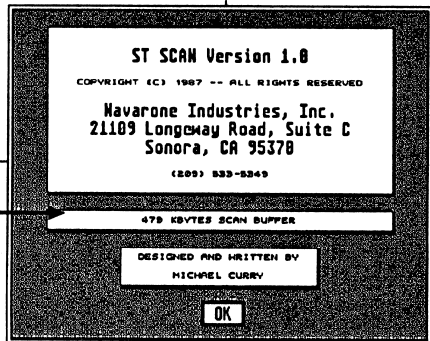
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## STARTING UP

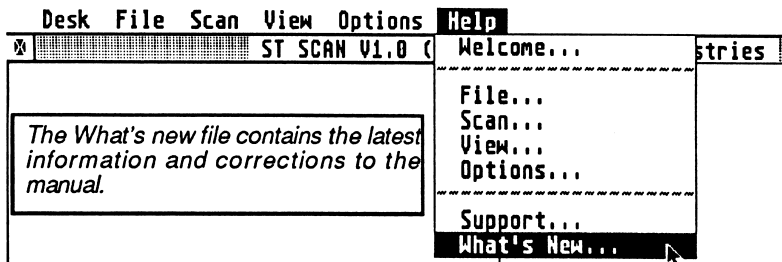
The program will display the title screen shown below. You must click on "OK" in the dialog box before continuing.

Notice the number of Kbytes is displayed to show how much room is available for your image buffer.



## DROP DOWN MENUS

All commands are initiated from the drop down menus as shown here. If this is the first time you are using the ST SCAN program then please read the latest updates and revisions by clicking on the box as shown below.

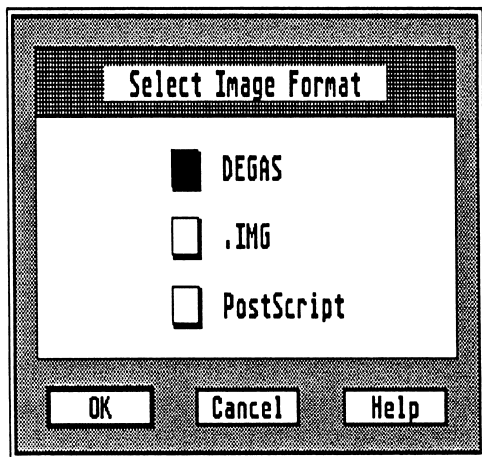
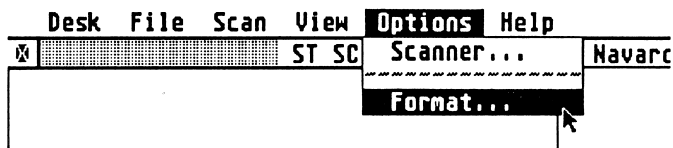


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## OPTIONS

The options menu has two items, Scanner and Format. select the FORMAT option and click on it with the left mouse button.



## FORMAT

The format option allows you to select the type of file format in which to save the scanned image. Presently three formats are used. DEGAS (normal), .IMG (Gem standard), and POSTSCRIPT.

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## **DEGAS™ Format**

is used if you wish to save the image in a file which can be loaded into the DEGAS™ or DEGAS ELITE™ program. This format is popular if your image is to be edited with graphic programs capable of reading DEGAS™ files. It also limits the size of the scanned image area to only that which can be shown on the monitor display. If greater resolution is required use the POSTSCRIPT™ or .IMG format. A DEGAS format will be saved with the current screen resolution.

## **.IMG Format**

Use the .IMG format when saving images for use with the following programs. PUBLISHING PARTNER, ST LASERPAINT™ and EASY DRAW™ with SUPERCHARGER™. This format is useful for saving images that are to retain their original scanned resolution.

## **Postscript™**

The postscript™ format is used when the file is to be printed on a postscript device like a LASERWRITER™ or QMS PS-800™ laser printer.

When a Postscript™ or .IMG format is selected, the program will allow you to set up the scan area window according to available memory. If the DEGAS™ format is selected, the scan window is pre-defined according to the resolution you select. A resolution of 75 dpi will allow a larger scan area than the 300 dpi setting. This is because the display on the monitor is limited to 72 dots per inch and as the number of dots per inch increase, the larger the screen must be to display the image. Since the screen is a fixed size we can only adjust the size of the scan area to compensate for the change of resolution.

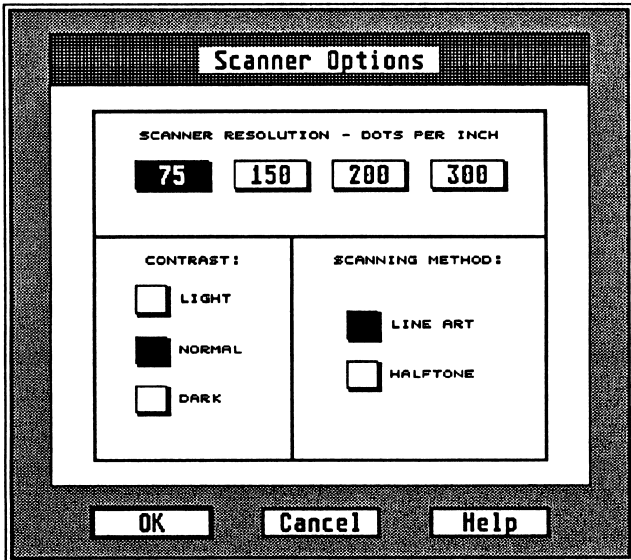
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Programs like ST LASERPAINT™ will allow large scan areas to be edited and saved in .IMG files with the same resolution. Programs using the .IMG format can display the image in lower resolutions while retaining the high density for outputting to laser printers. The real power of scanned images are best demonstrated when printing on laser printers. To select a format simply click on the box next to the desired format then click on the OK box to activate.

## SCANNER OPTIONS

Set up the resolution, mode and density from this menu. Use the halftone option when scanning photographs. Use Monochrome is scanning line art. The resolution you select will affect the size of scanned image.

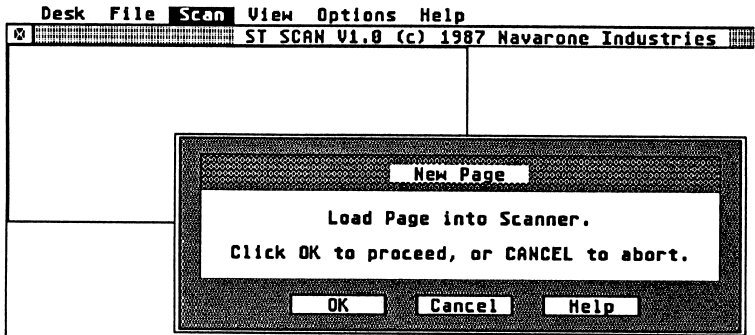


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## SCANNING THE IMAGE

Place the image to be scanned into the Cannon IX-12™ face down. Be sure the page is positioned as far forward as it will go. The Cannon IX-12™ should "grab" the page and start it feeding a few inches, then stop. At this time, select the SCAN menu.



There are two selections on the SCAN menu. *FULL PAGE* and *WINDOW*. The *FULL PAGE* option is used as a kind of pre-scan. You can use the pre-scan (*FULL PAGE*) to give a position display that can be used to locate the window scan area. You do not have to use a pre-scan but it is helpful in lot of cases.

To use the pre-scan option, select the *FULL PAGE* from the scan menu. The display above should appear.

When you have loaded the page into the scanner click on the OK button to start the scan. Once the image is scanned (*about 12 seconds*), the entire page is displayed on the screen.

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The screen should now contain a condensed image of the entire page that was scanned. This first pass was just to show the full page so you can position the window over only the section you wish to scan.

## SELECTING SCAN WINDOW

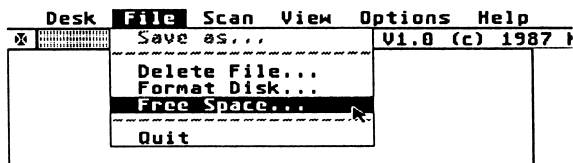
Place the window over the area you wish to scan. If you are using the .IMG or Postscript™ formats ( *see options*), you can also adjust the shape of the window. To adjust the window shape simply place the mouse pointer inside the square handle attached to the right bottom corner of window. Hold down the left mouse button while dragging the window to it's desired shape. The program will automatically "drop" the window if you exceed the available memory for the size of window you are shaping.

Now select the window selection from the scan menu. Again the dialog box from the previous page appears. Load the paper and click on the OK button to start the final scan.

## VIEW MENU

This allows you to view the full page (first scan), or the window which was scanned under "Window Scan" option. You can use the window view to see the results of the final scan before saving to disk.

## FILE MENU



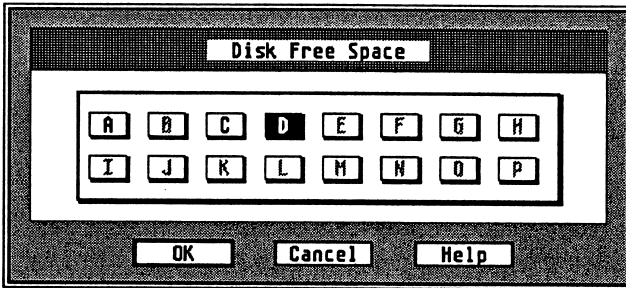


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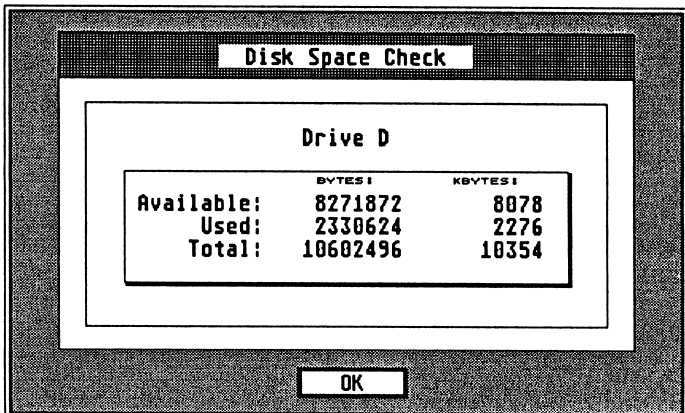
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## Free space

Selecting this option allows you to display the free space remaining on your disk. The following dialog box will appear.



You can select any drive from the above display. Click on the appropriate button and click OK to display the free space on that disk as shown here. Then click on OK to return.

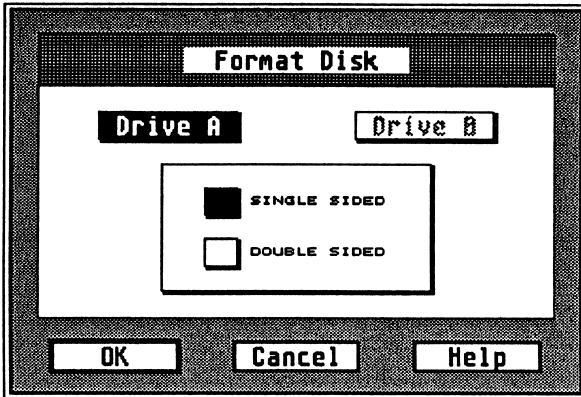


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## FORMAT DISK

Select the Format disk option from the File menu panel. The following dialog box will be displayed.



Select the appropriate drive by clicking on the drive box. Select single or double sided, then click on OK when ready.

**NOTICE:** Formatting a disk will erase the entire contents of the disk. Be very certain you have the correct disk inserted in the selected drive prior to clicking on the OK button.

*This format command cannot be used to format a hard disk. To format the hard disk you must use a special format program provided with your hard disk.*

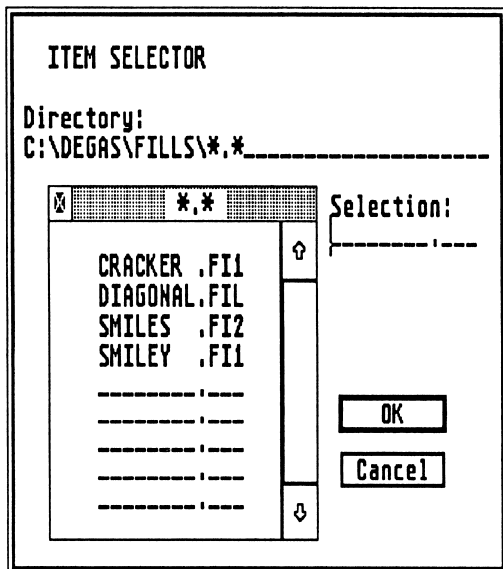
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## DELETE FILE

This option is provided to allow you to delete a file from your disk if you need to make room to save the current scanned image.

When you select this option the following display prompting you to select the file you wish to delete. This works like most GEM programs. That is, you enter the name of the file to delete, click on the OK button and the file will be deleted.



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## USING SCANNED IMAGES

Once you have scanned an image into the computer it may be used by other application programs or printed out directly on a Postscript printer such as the QMS PS-800 or Apple LaserWriter printers. If you wish to print on other printers you must use a program that supports the printer and import the scanned image into that program.

### Editing scanned images

Until now, most graphic editors and drawing programs operate on screen sized images. Now that you can scan images that are larger than a single screen size you will need a way to edit those images. We have provided a simple *cheap and dirty* way to use existing graphic products by breaking down a large image into several screen sized pictures. Once you have edited the image segments you can re-assemble these files into a single large image file suitable for importing or printing.

To convert a large image file it must first be stored as a .IMG file. The conversion program is supplied on the ST SCAN Distribution disk. Run the conversion program to segment the .IMG file into several DEGAS files. You will notice the conversion program any resolution to be used as the output file. Once you have segmented the .IMG file you can use the DEGAS ELITE program to edit any or all image segments.

After you edit the segments, run the conversion program to reverse the process and combine the multiple screen files back into the single (*.IMG*) file.

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## Printing images on Laserwriter

To print a scanned image you must first save the image in the POSTSCRIPT format. (see section on *File Formats*).

Once an image is saved in the Postscript format it can be printed directly on any postscript printer or high resolution Linotronic 100 or 300 typesetters.

Prior to printing with GEM desktop you must make sure your printer is installed and the proper port is selected. To set up your printer port you must use the ***CONTROL Panel (CONTROL.ACC)*** program provided with your computer. Please refer to the manual provided with the Computer for information in setting up the ***RS232 configuration and Installing the printer.***

Exit the ST SCAN program by selecting the QUIT option under the *FILE* menu.

With the Desktop *file directory* displayed, double click on the postscript file you saved your image into earlier. A dialog box will instruct you to either *show, print or cancel*. Click on *PRINT*.

The image will be sent to the printer and printed in the same location on the page as it was originally scanned from the source page.

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