

ImageReader ISA

Compact Flatbed Color Scanner

User's Guide

Info

580 Division Street

Campbell CA, 95008

Phone (408) 538-2500 • Fax (408) 538-2577

Copyright © 1997 All rights reserved. No portion of this document may be reproduced without prior written authorization.

InfoCenter Lite

Copyright © 1994 - 1998 All Rights Reserved

The material in this document is for informational purposes only and is subject to change without notice. The manufacturer assumes no responsibility for errors or omissions in this document, nor any damages resulting from the use of the information contained herein.

Info, ImageReader and ImageReader ISA are trademarks of Info Peripherals. Any other trademarks, registration marks, or brand names mentioned within this publication are the property of their respective owners.

Table of Contents

Chapter 1

Introduction	1-1
Installation Tip	1-1
Using this manual	1-2
Assistance	1-2
Product Overview	1-3
Package contents	1-3
System requirements	1-3

Chapter 2

Scanner Installation	2-1
Installing the interface card	2-1
Connecting the scanner to your computer	2-2
Installing or reinstalling the 16-bit driver	2-3
Installing the 32-bit (Win 95 only)	2-4
Installing the driver	2-4

Chapter 3

Using your scanner	3-1
A note about application software	3-1
Scanning features and controls	3-2
Hardware features	3-2
Software controls	3-2
What is TWAIN?	3-3
Executing the first scan	3-4
TWAIN interface settings	3-5
Toolbar	3-8
Basic scan settings	3-8
Brightness/Contrast settings	3-10
Job Manager settings	3-10
Gamma Curves settings	3-11

Shadow/Highlight settings	3-11
Other software features	3-12
Auto Settings	3-12

Appendix A

Troubleshooting A-1

Installing the 32-bit driver.....	A-1
Scanner memory address conflicts.....	A-3
Adjusting the interface card's jumpers.....	A-5

Appendix B

Scanner care	B-1
Limited two year warranty	B-2
FCC radio frequency interference statement.....	B-2

Chapter 1

Introduction

Congratulations! you've made a great investment.

Thank you for selecting an Info Peripherals product. Info's goal is to provide high quality, affordable computer peripherals that produce an excellent "Out of Box Experience" for every computer user.

About Info's Warranty

Info understands that a great "out of box" experience extends beyond quick installation and ease of use. We stand behind the quality of our product and demonstrate this with a two year warranty and 90 days of free technical assistance which includes the scanner setup, software installation and use of InfoCenter Lite. Calls regarding defective product issues are also toll free.

Installation Tip

All personal computers are truly "Personal" and each has its own combination of software and hardware. Our computer peripheral devices are designed to ensure hassle-free compatibility with most systems. However, due to the uniqueness of each individual computer system, some compatibility issues may arise that are beyond our control. If you do encounter a problem during installation, please verify that all of the installation steps contained in the quick start guide were followed. If a problem persists, be sure to consult the trouble shooting section of this User Guide before calling Info's Technical Support department. This guide contains detailed instructions for resolving common installation and compatibility problems.

Although Info provides scanning software for use with the ImageReader scanner, this scanner is designed to work with any TWAIN compliant application software (refer to page 3-3 for information about the TWAIN standard). Therefore, use of applications in conjunction with your ImageReader scanner (other than software provided with the scanner) is the responsibility of the user. In order to get the best results from your ImageReader scanner it is highly recommended that the user have a good understanding of basic

image editing and word processing applications. For example, it is important for the user to understand how to transfer a scanned graphics file between software applications. Technical assistance for issues involving software other than that provided with the scanner can be obtained from Info Peripherals at the cost of \$30.00 for the first 15 minutes and \$2.00 per minute thereafter. Visa & Mastercard are accepted.

Assistance

Info Peripherals works hard to provide the best support possible for our products. We offer many convenient options for obtaining technical support some of which are available 24 hours a day.

For Technical assistance:

- **Fax** (408) 538-2577
- **email** tech@infoconnection.com
- **Access** Info's web site: www.infoconnection.com/tech
- **Call** Info's fax on demand system at (408)538-2585 to receive technical help for specified issues via fax.
- **Download** the latest software upgrades and/or patches by dialing our BBS line from your modem at
- **Call** (800) 777-3280 between 8 a.m and 4:30 p.m

Using This Manual

This manual includes complete instructions for scanner installation, use, and maintenance. Note that "use," in this context, refers to scanner operation independent of tasks performed in conjunction with application software. This guide is organized in a "do as you read" format. For best results, perform the tasks as they are presented.

This manual assumes that you have a basic understanding of your personal computer and its operating system. As a convention, this guide presents all references to guide names or sections in *italics*, and commands you must type at a command line are presented in a **different** typeface.

Product Overview

Package contents

Please verify that all materials have been received before setting up and using your scanner. The package contents are listed in the Quick Start Guide.

System requirements

System requirements are largely dependent on the “work” performed. By work, we are referring to the task or operation performed using the scanner in conjunction with application software.

Because scanners are capable of inputting large amounts of data in relatively short periods of time, they commonly push computer systems to the limits of their capabilities. Before beginning any scanning task or operation, carefully consider your system’s processing capabilities, especially processor speed, RAM, and available hard disk space. OCR processes, fax operations, and the processing of simple black & white graphics are least demanding. High resolution scanning of large images in full color creates an extreme demand for processor time and memory.

When you are scanning with the TWAIN interface, the number labeled image size (calculated in bytes) provides the working file size that is the result of the selected scanning mode, resolution, and image size. Take careful note of this information.

system requirements

- 486 Intel processor or better (Pentium recommended)
- MS DOS 6x or later with Windows 3.1x or later
Windows 95 recommended
- 8 MB RAM, 16 MB recommended
- 25 MB available hard disk space; 50 MB recommended
- VGA/SVGA monitor with at least 256 color capability recommended
- Available 16-bit ISA slot
- CD-ROM drive (installation may be obtained on floppy disk by calling (800) 538-2500)

Chapter 2

Scanner Installation

Successful installation of your ImageReader scanner requires that the hardware (scanner and interface card) and software (applications that enable the computer and scanner to communicate) are installed correctly. The next few pages contain a more detailed discussion of the installation steps described in your Quick Start Guide.

Installing the Hardware

The hardware provided with your scanner includes:

- The Scanner
- 8-bit interface card

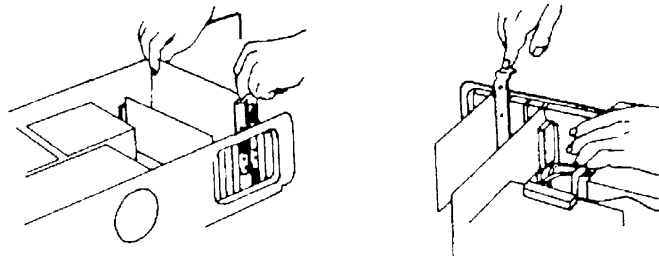
Insert the Interface card

Caution! As a safety precaution, the power to the computer and all peripheral equipment should be off and disconnected from the power source. Touch a grounded object before making contact with any components. Electrostatic discharge can damage the interface card and computer components.

To the novice computer user, the idea of opening the computer and inserting an interface card may seem daunting. However, you will soon discover that this task is much simpler than it seems. Computers are designed to work with add-on peripherals, if you need more help, your computer manual will include specific instructions for exactly this task. These instructions are designed to supplement the information in your computer manual.

1. Remove the computer's outer casing.
2. On the computer's mother board locate an available 16-bit interface slot and remove it's slot cover (retain the screws removed). The slot must be free of dust and dirt to ensure a good connection.
3. Holding the scanner interface card by the upper edge, align the gold-striped connector with the expansion slot. Press the card firmly into the **16-bit** slot as displayed in the diagram (the card will only occupy part of the slot space).

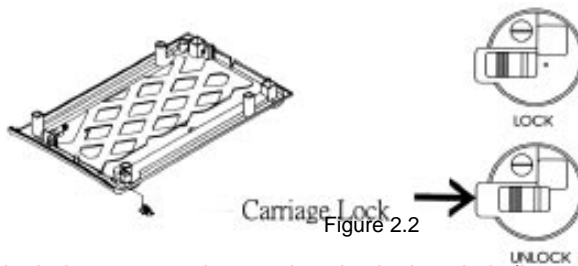
Replace the slot cover's screws to secure the card in place.



4. Leave computer casing off until entire installation is complete (adjustments to the interface card may be required to ensure compatibility).
5. Reconnect the power source to your computer and any other peripheral equipment.

Connecting the scanner to your computer

The scanner is locked during transportation to prevent damage to the assembly and must be unlocked before connecting it to the computer.



Unlock the scanner by moving the lock switch (located under front right foot of scanner) to the right (fig. 2-2). Running the scanner while in locked position will prevent the scanner from scanning. If this occurs, shut down and turn off your computer and unlock the scanner using the instructions above. After scanner is unlocked, turn on computer and perform test scan as described in Quick Start Guide.

Place the scanner unit in the desired location, allow at least 2' on all sides of scanner to prevent the cord from damage due to pinching or crimping. Plug the female 25-pin cable connector into the newly installed 25-pin port of the ISA interface card (located in the rear of your computer). The cable can only be inserted one way — do not force a connection. When connection is made, tighten the screws.

Important: The scanner will not function until the device driver is installed. Power for scanner operation is delivered from the newly installed interface card, which is controlled by the device driver. This is loaded by the installation CD-ROM, described in the next section.

Installing or Reinstalling the Scanner driver

Please Note: These instructions are for installing the scanner driver only. If this is your first installation refer to the Quick Start Guide for installing the InfoCenter Lite software also.

Before you can begin scanning with your ImageReader ISA scanner, the scanner driver and software must be installed on your hard drive. If you're installing your scanner for the first time, then you will want to follow the instructions in your Quick Start Guide. (This covers the complete installation the InfoCenter Lite and scanner drivers.) Otherwise if you need to reinstall your 16-bit scanner drivers or need to install the 32-bit scanner drivers, please use the instructions below. **Note: Since the InfoCenter Lite software is a 16-bit application, only the 16-bit scanner driver is installed with a normal setup.**

If you only need to install the 32-bit scanner drivers for this unit, you can bypass the following information. Refer to the section labeled **32-bit scanner driver installation** later in this chapter. Otherwise if you need to reinstall your 16-bit scanner drivers, please use the information below.

Note: Some Windows 95 computers will start the installation automatically immediately after the CD has been inserted. If this happens and you need to install the 16-bit drivers only, disable the **InfoCenter Lite** option by clicking its check box so that it is not selected. Then start the installation. If the driver installation does not start, use the information below to install the 16-bit driver.

Windows 95 & Windows 3.x

1. Insert the InfoCenter Lite CD into your CD-ROM drive.
2. Click **Start** then select **Run**. (Windows 95)
Click **File** then select **Run** (Windows 3.1x)
3. Type in **D:\driver\31\setup.exe** and press **enter**. (**16-bit scanner driver**). Use the appropriate drive letter if it is something else other than **D**.
4. Follow the on-screen prompts as they are presented to you.
When the installation is complete, restart your computer.

To Install the 32-bit scanner driver:

Repeat step 1 from the section above. As mentioned above, the installation will attempt to start automatically for some Windows 95 users. If so just click **Exit** to close that window.

1. Click **Start** then select **Run**. (Windows 95 only)
2. Type in **D:\driver\95\setup.exe** and press **enter**. (**32-bit scanner driver**). Use the appropriate drive letter if it is something else other than **D**.
3. Follow the on-screen instructions as they are presented to you.
When the installation is complete, restart your computer.

Using Other Scanning Applications

Although scanning software is provided for your scanner, you are not limited to using the InfoCenter Lite program. If you are curious about other scanning programs, contact the developer or company who published the software. Support for those programs are the responsibility of that companies support staff.

Chapter 3

Using your scanner

A note about application software

The scanner hardware by itself is not very useful. It takes a combination of the scanner hardware and application software to perform any task. Before you begin scanning, you need to choose the appropriate application to use for the task at hand. Please read this section to gain an understanding of the types of scanning software that are available.

Scanning software generally falls into two groups, Graphics (image editing), or OCR (Optical Character Recognition). Each type has specific features designed to address the technical challenges faced in the scanning of graphics or of text.

Graphics: Software in this category provides the user with image editing tools for performing extensive modifications to art, photographs, or other continuous tone images. While having the ability to scan text, it is not designed to specifically identify individual characters as does OCR software. Any image scanned using a graphics program can only be saved in a graphics file format. It cannot be saved as an editable text file.

OCR: Software in this category is designed to recognize alphanumeric characters in preparation for export to word processing and desktop publishing applications. In other terms, it creates text files. OCR software will not provide image editing capabilities. If there is no intention of editing a given piece of text (with or without graphics), it may be simpler to scan and save it as a graphic.

Additional types of applications are available that offer solutions for special or unique tasks. These include document storage, form scanning, fax utilities, copy utilities, custom screen saver creation, photo album creation, and so on. If applications are intended to link directly to the scanning device, look for the TWAIN-compliant specification. If compliant, they are compatible with Info ImageReader scanners.

Scanning features and controls

Before scanning images, it is important to understand the scanner's basic hardware features as well as the software controls.

Hardware features

Power

This scanner receives power through the computer bus (the cable is permanently attached to the scanner), and the unit has no on/off power switch. Therefore, if your computer is on and the scanner is connected, the scanner will be on also.

Loading documents

Place the document to be scanned *face down* on the scanning glass. Books, magazines and other 3-dimensional objects can be easily scanned as well, by laying them on the scanning glass. With bound materials and other objects, simply close the cover as far as it will go. Do not force the cover down when scanning these items, it may break or scratch.

Paper size

The scanner will handle documents ranging in size from a postage stamp to a letter size document (8.5" x 11"), including A4 (8.3" x 11.6").

Paper condition

If the sheet to be scanned has any of the following conditions, please take the following precautions before scanning.

- Remove paper clips, pins or staples
- Let wet paper dry first
- Avoid scanning documents with correction fluid (dry or otherwise)

This avoids scratching or marring the scanning glass, and ensures years of beautiful scans.

Software Features

Scanning is initiated from within the application software. All scanning activities are controlled from the user interface window titled ImageReader ISA. The interface window's Preview command

is used to adjust the scanning area, contrast, and intensity before executing the actual “working” scan. The actual scan is then placed into the application software for viewing, editing, printing, or storage. In this section, the components and controls of the scanning interface window are explained.

Preview Window

The interface window’s right side displays Prescan images. The Crop Box around the perimeter is used to select the area you want to scan. Position the pointer over a square, click, hold, and drag the border to adjust the scanning area. The slider bar on the vertical ruler is also a convenient tool. This slider tells the scanner how far down the page to scan. You can shorten the time it takes to prescan by adjusting this slider to approximately the length of the document you are scanning.

What is TWAIN?

TWAIN is the interface that links the scanner with scanning software applications. TWAIN is an industry standard that enables you to use the ImageReader with any TWAIN-compliant software application.

With the introduction of Windows 95, the TWAIN specification has been overhauled to take advantage of the 32-bit architecture. When you install our scanner driver under Windows 95, you will automatically have the option of selecting the 16-bit scanning source for scanning with 16-bit applications (i.e. InfoCenter Lite). You may also choose to install the 32-bit scanning driver from your installation CD for scanning with 32-bit applications. Refer to Chapter 2 of this manual for instructions on installing the 32-bit scanning source. Use the following as a guide to select the appropriate source when scanning.

16-bit applications are legacy Windows 3.x programs that you are running under Windows 95. InfoCenter Lite is a 16-bit application.

32-bit applications are programs specifically designed for Windows 95, to take advantage of performance enhancements

provided by the new architecture. Examples of 32-bit programs are: Adobe Photoshop and Ulead's iPhoto Express.

You may experience scanning problems if you do not use the appropriate source.

Executing the First Scan

The InfoCenter Lite viewer will be your primary starting point for most scanning tasks. The viewer contains all the tools you need to view, scan and fax, copy and paste a scanned image into other applications. The viewer is also customizable, so you can place other frequently used applications in the application bar for convenient drag and drop capability. Chapter four of your InfoCenter Lite User Guide provides detailed descriptions of the options available in the viewer as well as how to perform specific tasks.

To Scan an image:

1. Open InfoCenter Lite

Windows 95 user's select **InfoCenter Lite** from the programs menu on your desktop.

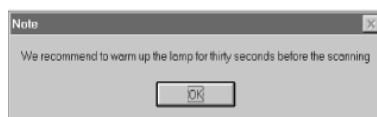
Windows 3.1x user's select **InfoCenter Lite** from your programs manager.

2. Select your scanner

Should your system include more than one scanner, you may switch between them by using the Select Source command repeatedly prior to scanning with the newly selected scanner. You may also select whether you will be scanning with the 16-bit or 32-bit scanner source.

Click on **File > Select Source**. After selecting your source click **OK**.

3. Select New Scan from the viewer's File menu (or click once on the new scan button shown at the top of this page). You will receive a message reminding you to warm up the scan lamp for 10 seconds prior to scanning(fig. 3-1). Click OK.



(Figure 3-1)

4. Set your scan settings Selecting “New Scan” will prompt the TWAIN window to appear (Fig. 3.2). Select the appropriate scan settings (descriptions of the TWAIN interface scan settings can be found later in this Chapter).

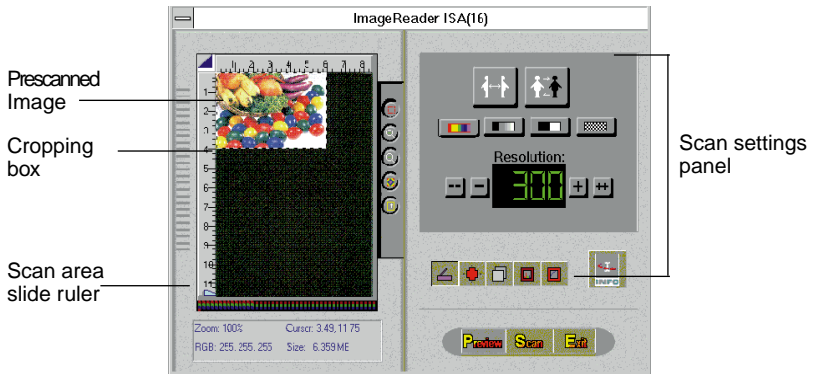


Fig. 3-2

5. Click “Preview” to perform a pre-scan. Preview allows you to view the scan results on screen and adjust the scan area and scan settings prior to performing final scan.
6. Click “Scan”

When the scan is complete, a thumbnail of your scanned image will appear on the viewer desktop. From here you can manipulate your scanned image by dragging the thumbnail to any of the application icons in the application bar. Manuals for each of the InfoCenter Lite bundled applications are can be read and printed. To access the help files select InfoCenter Lite Applications ReadMe Files from your programs menu or manager. Then select the desired application Readme file.

TWAIN Interface Settings

When you select to Acquire (scan) an image or text document, the TWAIN screen will appear on the viewer desktop (figure 3-2). From

this TWAIN screen you may select the desired scan settings and preview your scan before performing a final scan. The title of your TWAIN screen will vary according to the scanner being used.

In order to achieve the best possible results from your scans, and keep the file size of your scans to a minimum (higher resolutions = larger file size) you should understand how to set the appropriate scanning mode and resolution for each task. This is performed in the TWAIN interface window (illustrated above).

The chart below represents recommended scan settings for some common scanning tasks. The rest of this chapter explains how to use the TWAIN interface to achieve these settings.

Function	Scan Mode, Resolution
Scan 'n Fax	B&W line art, 200 DPI
OCR	B&W line art, 300 DPI
Color Picture on Monitor	True Color, 72-100 DPI
Color Picture to Print	True Color, 150 DPI
Copier Function	Color, 200 DPI
Document Images	Color, GS, B&W, 72 DPI
Word Processor, Scan to Clipboard	Color, GS, B&W, 72 DPI
High Resolution Images	Color, up to 4800 DPI
Color Image Editing	Color, up to 4800 DPI

Recommended Settings for Specific Tasks

On-line

When using scanned images on-line, such as in multimedia presentations, web pages or desktop wallpaper, you should scan at no greater than 100 dpi. This is due to the resolution that your monitor can display, 72 dpi on Macs, 96 or 120 dpi on PCs. If you scan an image at higher than 100 dpi, say at 300 dpi, the image is displayed at three times its actual size.

Print

If you are printing scanned images to your black and white laser printer, scan at the same resolution as your printer to avoid distorting the image. Also set the scan mode appropriately. For example, do not scan in color, instead select gray scale to achieve the continuous tone feel and detail of the original image. If you are printing a color image to your color printer, set the resolution to no more than twice the printer's line screen frequency. **Please refer to**

your printer's user guide for more information about printing options.

Fax

When scanning images to fax, scan at 200 dpi and in line art or gray scale only. Fax machines can only receive images at 200 dpi, and some programs may fault if you try to scan at a higher resolution.

OCR

When scanning text to OCR, scan at either 300 or 400 dpi and in line art mode only. Most OCR programs cannot recognize text scanned in gray scale or color, and scanning at a higher resolution than 400 dpi is not necessary.

Line Art

When scanning single color images in line art mode, it is unnecessary to scan at a higher resolution than 400 dpi. The image is crisp and detailed at 400 dpi, and scanning at higher resolutions improves the image very little - it simply creates a larger file size.

TWAIN Interface buttons

Scan

A scan is the actual image captured at the selected settings. The scan does not appear in the preview window, it is displayed in the application's workspace.

Preview

A preview is a low resolution scan of your image displayed in the scanning interface window only. You perform a preview scan to make adjustments for size, and to make any necessary image adjustments.

Information

Displays information regarding the image to be scanned such as file size (image size), available disk space (Disk Free), and scan dimensions. Use this as a guide when determining what scan mode and resolution you want to scan at. Dimensions, resolution, and scan mode directly effect the file size of your scanned image.

Reset

This button restores any recent image adjustments to their original settings and restores the previewed image to its unaltered appearance.

Toolbar

The bar of buttons just to the right of the preview window allows you to make some basic selections before and after you prescan an image. See below for a description of each button.



Frame: Use this tool to select specific areas of your previewed image.

Zoom in: Click on this button then the previewed image to magnify view of entire previewed image or selected area.

Zoom out: Click this button then image to Decrease magnification of a selected area or entire previewed image.

Gray Prescan: Click this button before performing a preview scan to prescan in grayscale.

Paper size: This refers to the size of the document you are scanning. Click this button to select from a choice of 2" x 3", 3" x 5", 4" x 6", maximum or custom size paper.

Scanning Mode Options

Just below the scan settings panel in the TWAIN window, you will find five buttons. Each of these buttons will change the scan settings panel to a different set of choices. These choices are:

Basic • Brightness/contrast • Job manager • Shadow/highlight • Gamma curve

The following section describes the options available in each panel.



Basic Setting

Click the button shown above to view your Basic scanning mode options. These options are Resolution, Color, Gray, Line Art, and Half Tone . These selections indicate the type of data you want to capture for the image. Follow these guidelines when selecting a basic scan mode:

Resolution

Resolution is measured in dots per inch (dpi). The higher the

resolution is set, the more detail in your image is captured. Follow the guidelines on previous page when determining the resolution to scan at.



Color Mode: Scan color images and photographs in Color mode when you want to capture and reproduce all the color data. To manage file sizes efficiently, take careful note of the guidelines for resolution (described later) when scanning in True Color. The combination of True Color and a high dpi can create an extremely large file size.



Gray Scale: Black and white photographs are actually gray scale images. Different shades of gray are used to make up the whole picture. When you scan these types of images, you should scan using the gray scale mode. Also use this mode to convert color photographs to black and white. Scanning a color photograph in gray scale will capture the continuous tones.



Line Art: This mode captures black and white only. Use this mode when scanning single color (usually black) images, such as drawings or sketches, business logos, or text. This mode is also used when scanning a document you want to OCR.



Half Tone: As discussed in the section on Resolution, images are made up of dots. More dots per square inch means a higher resolution and crisper picture. Half tone images are composed of different sized dots which creates a more continuous toned image. A good example of half tone can be found in newspaper pictures. If you are scanning a picture from a newspaper you should use the Half Tone setting.



Invert

This command reverts an image's display. Black pixels will be white, and white pixels will become black. The resulting image is like a photo negative of the original.



Brightness/Contrast Settings

Click this button on your TWAIN interface screen to adjust the brightness and contrast of the image you are about to scan. Increasing the contrast will sharpen the image, but cause it to look dark. Increase the brightness to lighten the image and compensate for the contrast selection. Experiment with these controls to determine the look you prefer. Usually these controls are adjusted together in a 2:1 ratio of brightness to contrast. You may select to adjust the brightness/contrast of the whole previewed image or adjust each channel of Red, Green or Blue separately by clicking on the corresponding red, green or blue button before making adjustments.



Job Manager

The job manager (fig. 3-3) panel is a very useful method of performing batch scanning. Batch scanning allows you to create more than one thumbnail of a scanned image while only performing one scan. You may specify different scan mode settings and a different title for each thumbnail and/or select to scan separated parts of an image multiple times. See below for instructions on using the e Job Manager.

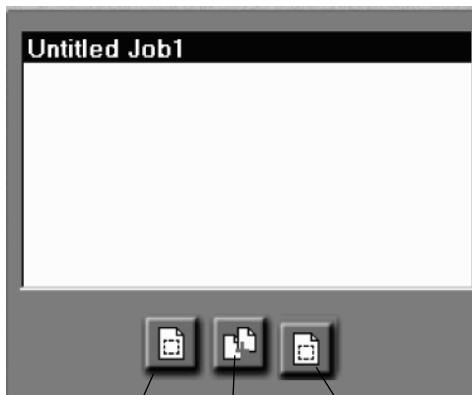


Figure 3-3
New job Duplicate job Delete current job

After performing a preview scan, the image will be automatically listed as “untitled job” in the job manager window. Each job will appear as a separate thumbnail. Double click on this title to view its properties and change its title.

To create a new job or duplicate:

1. Perform a preview scan. Click on Job manager button
2. The previewed scan will be listed as Untitled Job 1. Make any desired adjustments to the image settings, then double click the title to rename it.
3. Click on the “Create new job” button. Untitled 2 will appear in list of jobs, or click on duplicate job to create an exact match to the original job with the same selected area. (adjustments to color etc... can be made later).

Note: Changes made to the scan mode (i.e grayscale, color, halftone etc...) will not be visible until after final scan.

4. With the second job highlighted, make any desired adjustments to color, gamma etc... Then double click on Untitled job 2 and change its title. You may delete any unwanted jobs by selecting them and clicking the delete job button.
5. Repeat steps 2 - 4 according to the number of jobs you need. When all necessary setting adjustments are complete, click scan. Each job will appear in the viewer as a thumbnail with corresponding titles and settings.



Shadow/Highlight Settings

This control allows you to improve the look of your image, while retaining the detail as you adjust the color levels in the shadows and highlights.



Gamma Curves

The gamma curves function allows you to alter the way different pixel values in your image are adjusted. The diagonal line shows a

Gamma function of input to output pixel values. The default is a straight line, which makes no adjustments to the pixels. All the pixels that fall below the line are darkened, and those above the line are lightened. You may also store specific gamma settings and select to apply them to future scans.



Auto Settings

In the TWAIN interface, click the button illustrated above to select from five predefined scan modes explained below.



Business card scan mode: Click on this button prior to scanning a business card. Resolution = 400 dpi, scan size = 3.5"x2"



Color Photo mode: Click this button to scan a 4"x 3" color photo at a resolution of 300dpi



Black and White photo mode: Click this button to scan 4" x 3" a black and white photo at 300dpi



Text mode: Click this button to scan a 8.5" x 11" text document at 300 dpi



User Defined Mode: Defaults to last used setting. Can be adjusted to desired settings

Other scanning features

The ImageReader ISA scanner is capable of scanning all types of documents and images. The scanning instructions provided here are to ensure the installation is complete and your scanner is working properly. For more detailed instructions about manipulating images once they are scanned, or for using your scanner for OCR, document archiving/retrieval, and faxing, refer to your software manual, as well as the ReadMe files contained on your InfoCenter Lite CD.

Appendix A

Troubleshooting

This section contains help for specific problems you may be experiencing while using your ImageReader ISA scanner.

Scanner does not turn on

Confirm that the scanner is connected to its interface card. Also make sure that your interface card was inserted properly. The scanner is designed to draw power via the interface card.

Scanner turns on but does respond to scan commands

The drivers for your scanner may not be loaded. By default the install process will allow you to install your scanner drivers. It may be necessary to repeat the driver installation.

32-bit scanning applications can't see the scanner

Because InfoCenter Lite is 16-bit software, only the 16-bit scanner drivers were installed during the scanner installation. 32-bit scanner drivers are supplied with your scanner also. The 32-bit driver can be installed if needed.

***Please note: Because Win 3.1x does not support 32-bit applications, the 32-bit driver can only be used with Win 95 or later.**

To install the 32-bit driver: (For Windows 95 only*)

1. Insert installation CD-ROM in CD-ROM drive (if installation screen appears, click on Exit).
2. Click **Start** then select **Run**.
3. Type in **D:\driver\95\setup.exe** and press **enter**. (**32-bit scanner driver**). Use the appropriate drive letter if it is something else other than **D**.
4. Follow the on-screen prompts as they are presented to you. When the installation is complete, restart your computer.

InfoCenter Lite software locks up or crashes during scanning

Try to close the InfoCenter Lite software if possible. Then restart your computer normally. When you open the InfoCenter Lite software again, it should be reset. This usually solves the problem. If the problem persists, you may be dealing with corrupted data files. Try deleting the data files from the following directory:

C:\windows\twain\info\data. Delete all files in that directory with the extension **job**. Also you will want to delete the file if it is present

on your system. (If you have it, the file will be located in your **windows** directory.

The scanner produces a grinding noise. Scan head doesn't move when attempting to scan

Your scanner is locked at the factory. This is done to prevent the scan head from moving and possibly damaging the scanner. You need to turn off your computer and refer to the insert you found on the scanner surface or your Quick Start Guide for the unlocking scanner instructions.

Scanning or data errors

If you have installed both the 16-bit & 32-bit scanning sources, then you need to make sure you select the correct source for the program you are using to scan. Normally when you select a source in a scanning application, only the sources you can use will appear. For example, InfoCenter Lite (a 16-bit application) will only show the **ImageReader ISA (16)** source when you select your source prior to scanning. If you have other 16-bit sources on your computer (such as other 16-bit scanner drivers), they will display as well. Adobe Photoshop 3.0.5 and later would show the **ImageReader ISA (32)** source. Also other 32-bit sources on your computer would be displayed. If you aren't sure if a program is 16-bit or 32-bit, consult the documentation for that software.

Grainy Images

Check your video card setup. The average computer displays 256 colors. This produces a image that is reasonably smooth. If your image seems grainy, change your monitor video setup to display more than 256 colors. Common selections are different depending on your version of windows. Consult your computer manual for instructions on adjusting your video setup: Below is a reference for use when changing your video settings:

Windows 3.x

16 Colors
256 Colors
65k Colors
16M Colors

Windows 95

16 Colors
256 Colors
16-bit Color
24-bit True Color

Specs or lines across scanning area

Lift the lid of the scanner and clean the glass with a soft lens or glass cloth.

I need to adjust my scanner memory address setting if due to a conflict or system problem.

****CAUTION!****

We strongly recommend that you consult your computer support personnel or documentation before making adjustments to your computer's address settings. Since computers tend to have unique settings, some of the memory settings/information contained in your system maybe reserved for other devices.

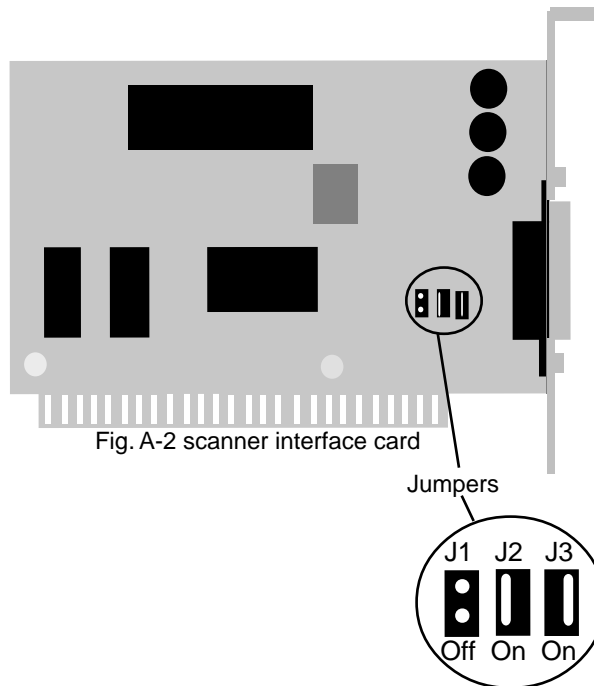
You will need to adjust the memory address setting for your scanner, if you receive the following screen when attempting to scan:



Fig. A-1 Memory Address window

If you receive this screen (fig A-1) when attempting to scan, you will need to adjust the jumper positioning on your newly installed interface card. Use the following instructions and diagrams to make the necessary changes.

The address memory window (fig. A-1) lists all available and occupied addresses in the computer. By default the memory address setting for the scanner is **D0000**. The appearance of the address memory screen indicates that the default setting is unavailable. In this case, you will see the word **Occupied** to the right of the **D0000** memory information. There should be 2 or 3 other settings **Available**. You will need to adjust the scanner's interface card (the card that you installed into your computer during the scanner installation) so that the card's jumpers are set to one of the available addresses. Note the jumper setting information to the left of each available memory address. Below is a list of the jumper positions and corresponding address settings (fig.A-2).



Memory Address and corresponding jumper positions

J1	J2	J3	Available Setting
OFF	ON	OFF	E8000
ON	ON	OFF	E0000
OFF	OFF	ON	D8000
ON	OFF	ON	D0000 — Default setting
OFF	ON	ON	C8000

Fig. A-3

To Change Your Interface Card's Jumper Positions:

1. Shut down and unplug your computer.
2. Unplug scanner cable from computer and remove the computer casing (if it was replaced after installation).
3. Carefully remove ISA interface card
4. Locate the cards jumpers (see diagram A-1) and move the appropriate jumpers to reflect the correct setting (see chart A-2) . Move the interface card's jumpers to the position specified for the address that you have available (listed as available in the address memory screen). For example, if the address memory screen that you received when attempting to scan lists Address E8000 as an available setting - you need to remove jumpers J1 and J3 but leave jumper J2 on. To move the jumpers, simply grip the jumpers with thumb and forefinger and firmly pull upwards and away from card to expose metal prongs, then push into new position.

****WARNING! - Retain all unused jumpers for possible future address changes****

5. After adjusting jumper positions, replace card (refer to Quick Start Guide for instructions if necessary) and reconnect cable.
6. Turn on computer and attempt to scan
7. If your setting is correct, you will receive the following reminder to warm the scan lamp when you select "new scan".



Note: The message above appears when one of the following events occurs:

- a. First attempt to use scanner after a successful installation.
- b. If it has been longer than 15 minutes since last use and lamp is already off.

At this point you can click **OK** and continue with using your scanner. Refer to the Quick Start Guide for scanning steps.

8. If you still receive a memory address conflict, change the jumpers settings to another available address if possible. If you have no other available addresses refer to next step.

If after trying at least one or all of the available settings, you still receive the memory information box when trying to scan.

This situation indicates that other devices are using all possible scanner settings. This may require you to access your computer BIOS/CMOS setup. (Check your computer documentation for instructions on how to do this.) Normally computers BIOS/CMOS setup has a section or option labeled **Advanced** or **Chipset features**. This is where you will find the feature to enable/disable memory addresses. In order to free-up the address that your scanners interface card is set to, disable the memory address that matches the current setting of your scanner interface card.

You may also need to make the following entries to your **Config.sys** and **System.ini** files if the problem persists. To enter your Config.sys and System.ini files

Add the following line to the beginning of your Config.sys file:

Device=c:\windows\emm386.exe x=d000-dfff

for example. Add the following statement to your System.ini file at the very bottom of the **[386Enh]** section: **EMMExclude=d000-dfff**.

Below is a list of possible exclusions based on the settings your scanner can use. (The exclusions on your computer may be slightly different.)

Memory Address	Exclusion
C8000	x=c000-cfff
D0000	x=d000-dfff
D8000	x=d000-dfff
E0000	x=e000-efff
E8000	x=e000-efff

Once all the changes have been made, restart your computer and attempt to use your scanner again. If the address is set correctly, the message **“We recommend to warm lamp for thirty seconds before scanning”** will be displayed. Click **OK**.

Appendix B

Scanner care

Info ImageReader scanners are designed to provide years of trouble free service. To assist in realizing this end, follow the guidelines listed below.

1. Avoid using the scanner in a dusty environment, and keep it as dust-free as possible.
2. If necessary, clean the scanner glass with a soft lens cloth.
3. Do not scan documents with correction fluid. This will cause spotting on the scanner glass.
4. Do not scan documents with paper clips or staples. The glass may become scratched.
5. Don't touch the scanner glass. Fingerprints or scratches will show up as unwanted marks on your scanned image.
6. Don't remove the scanner case. There are no consumer serviceable parts inside. There is a danger of electric shock, and the warranty will be void.
7. Don't move the scanner excessively or subject it to excessive vibration, as the lens focus may become distorted.
8. The scanner operates best in temperatures of 10°C to 40°C (50°F to 104°F).

Limited two year warranty

Info warrants this scanner to be free of manufacturing defects, both materials and workmanship, for a period of two years from the date of original purchase. This warranty applies only to the original purchaser. In the event of a defect, Info will repair this product free of charge, including parts, labor, and return postage.

This warranty does not cover damage, loss, abuse, misuse, unauthorized repair, shipping damage, natural phenomena, or effects of use other than intended. Info is not responsible for consequential damages, including but not limited to, lost profits, lost sales, loss of use, or injury to property.

For scanner service, contact us at (800) 777-3280, and request a Return Authorization (RA) number. Repackage the product in its original packing container (for protection), and return postage prepaid to:

Info Service Center
580 Division Street
Campbell, CA 95008

Include an address, phone number, the RA number, and a description of the scanner's defect. Enclose a copy of the original purchase receipt to verify warranty eligibility. Write the RA number legibly on the outside of the package.

FCC radio frequency interference statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment off and on), the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that which the receiver is connected.
- Shielded interconnect cables and shielded power cord which are supplied with this equipment must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device.
- Consult the dealer or an experienced radio/TV technician for help if the conditions persist.
- Changes or modifications not expressly approved by the manufacturer or authorized service center could void the user's authority to operate this equipment.

