

# EPSON<sup>®</sup> Scan! II & EPSON<sup>®</sup> TWAIN

## Scanner Utility Program

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# Where to Find Information

## ***This User's Guide***

This guide leads you through the EPSON scanner software installation, tells you how to use the Start Button feature, and how to make basic software settings. It also offers troubleshooting tips and calibrating information.

## ***GT-7000/GT-7000 PHOTO/GT-7000 USB User's Guide***

This guide leads you through the scanner setup and options installation, tells you how to use the scanner, and how to make basic scans. It also offers troubleshooting tips and customer support information.

## ***Information on EPSON Scanner Software for Windows***

Online help provides you with detailed information on EPSON TWAIN and EPSON Scan! II. Access online help from the EPSON Scanner folder, or click the Help button in the EPSON TWAIN or EPSON Scan! II dialog box.

## ***Information on PageManager and other Software***

See the PageManager for EPSON, and other software documentation.



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# ***Introduction***

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## ***Features***

The CD-ROM that comes with your scanner contains the EPSON scanner software suite, which includes EPSON Scan! II and EPSON TWAIN, and is the perfect companion for your EPSON scanner. Using your scanner and software, you can scan images in color, grayscale, or black and white, and save them to disk as files. Other software such as EPSON Scanner Monitor and PageManager for EPSON provide full support of the Start Button feature to make scanning much easier.

- ❑ The software supports the following EPSON scanners: EPSON GT-7000/GT-7000 PHOTO/GT-7000 USB, and Perfection 636 and Perfection 636U.
- ❑ EPSON TWAIN directly controls all of the features of your EPSON scanner. This program is the core of EPSON Scan! II and the standard cross-platform interface for other application programs.
- ❑ EPSON Scan! II allows you to access all of the advanced features of EPSON TWAIN; to scan images, to save scanned images, and to export them into other applications.
- ❑ You can convert files into various formats, such as JPEG and TIFF, for use with your favorite desktop publishing or image-editing software.
- ❑ EPSON Scanner Monitor allows your scanner to access software that supports the Start Button feature.

- ❑ EPSON Screen Calibration utility allows you to calibrate your scanner and display monitor to reproduce images identical to the originals.
- ❑ PageManager for EPSON is TWAIN-compliant software that offers the Start Button feature. This feature allows you to scan and send data to a target application with a single push of the Start button. For more information on PageManager, see your PageManager documentation.
- ❑ The CD-ROM contains other useful application software that lets you use your scanner in various new ways.

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## About This Guide

The information in this guide is divided into seven chapters, with a glossary and index also provided for your reference.

- ❑ Chapter 1 contains information on installing the software. Be sure to read this chapter first.
- ❑ Chapter 2 explains the basics of scanning.
- ❑ Chapter 3 describes how to set up and use the scanner's Start Button feature.
- ❑ Chapters 4 and 5 provide a complete description of EPSON Scan! II and EPSON TWAIN features. Refer to Chapter 4 when making scanning settings.
- ❑ Chapter 6 explains how to calibrate your monitor with your EPSON scanner. If you notice that colors on your screen or in your printout do not match the original image, see this chapter.
- ❑ Chapter 7 contains troubleshooting information. If your software does not operate properly or scanned images are not what you expect, see this chapter.

*Notes contain important information and useful tips on operating your scanner or software.*

To set up and use the scanner itself, see your scanner's *User's Guide*. Online help can also provide you with information on making settings in EPSON TWAIN.



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## **System Requirements**

Before installing the scanner software, make sure that your system meets the following requirements.

### ***For Windows with SCSI model users***

Scanner:	EPSON GT- 7000/GT- 7000 PHOTO, or Perfection 636
System:	Microsoft® Windows® 95, Windows 98, Windows NT® 3.5x, or Windows NT 4.0
Interface:	Adaptec® SCSI adapter
Display:	VGA or higher resolution monitor 640 × 480 screen resolution (800 × 600 or higher recommended), and 256-color (65,000-color or higher recommended)

***Note:***

*Color and tone reproduction are subject to the display capability of your computer system, including the video card, display monitor, and software. See the product documentation for details.*

### ***For Windows with USB model users***

Scanner:	EPSON GT- 7000 USB, or Perfection 636U
System:	Microsoft <sup>®</sup> Windows <sup>®</sup> 98 preinstalled
Interface:	USBSB1 adapter
Display:	VGA or higher resolution monitor 640 × 480 screen resolution (800 × 600 or higher recommended), and 256-color (65,000-color or higher recommended)

Color and tone reproduction are subject to the display capability of your computer system, including the video card, display monitor, and software. See the product documentation for details.

### ***For Macintosh users***

Scanner:	EPSON GT- 7000/GT- 7000 PHOTO, or Perfection 636
System:	Apple <sup>®</sup> Macintosh <sup>®</sup> computer with Power PC processor (except Power Book 100) running system 7.5.x, or later
Interface:	Macintosh standard (SCSI)

***Note:***

*You cannot use a serial interface.*

Display: Color Monitor, 640 × 480 screen resolution (or higher recommended), and 256-color (32,000-color or higher recommended)

**Note:**

*Color and tone reproduction are subject to the display capability of your computer system, including the video card, display monitor, and software. See the product documentation for details.*

EPSON Scan! II supports the Apple ColorSync™2.0 color management system and QuickTime™. These extensions are automatically installed during EPSON Scan! II installation.

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## ***Installing the Scanner Software for Windows***

After connecting the scanner to your computer, install the scanner software from the CD-ROM. The installation steps differ depending on the version of Windows.

Find instructions for Windows 95 and NT 4.0 users in this section. Instructions for Windows 98 users can be found in “For Windows 98 and SCSI users” on page 1-10 or “For Windows 98 and USB users” on page 1-15, depending on your scanner model. Windows NT 3.5x users see “For Windows NT 3.5x users” on page 1-22.

### ***For Windows 95 and Windows NT 4.0 users***

1. Make sure that the scanner is turned on.
2. Turn on the computer, and start Windows.

If you are using Windows NT 4.0, insert the scanner software CD in the CD-ROM drive. Go to step 3.

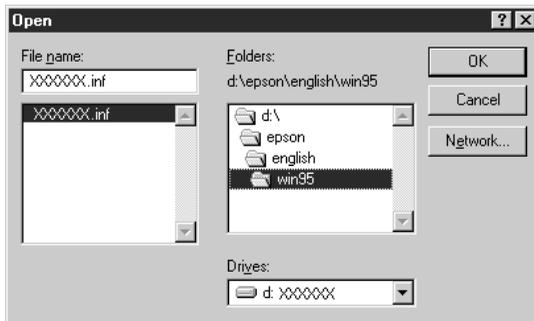
If you are using Windows 95, one of the following dialog boxes will appear.

- ❑ If the dialog box below appears, insert the scanner software CD in the CD-ROM drive.



Select Driver from disk provided by hardware manufacturer, then click OK, and Browse.

Select the CD-ROM drive, Epson folder, a folder for your language preference, and Win95 folder, then click OK. Go to step 3.



- ❑ If the dialog box below appears, insert the scanner software CD in the CD-ROM drive, then click Next.



When you are asked for the drive and folder, select the CD-ROM drive, Epson folder, your language preference, and Win95 folder. An example is shown below.



When the following dialog box or similar appears, click Finish.



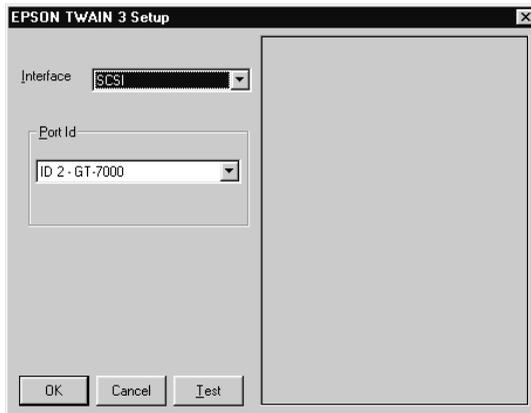
3. Double-click the My Computer icon.
4. Double-click the CD-ROM drive icon. A dialog box asking your preferred language appears on your monitor. If no dialog box appears, click the Cdsetup.exe icon.
5. Select your preferred language and click OK.
6. You will see the following dialog box. Click Add software.



7. You will see the list of software in the list box. Click to select the names of the software you want to install in your PC. Make sure EPSON TWAIN and EPSON Scan! II are selected. Descriptions of the software can be found in the software documentation, or on the CD-ROMs that come with your scanner.
8. Click OK. Then follow the instructions on the screen.

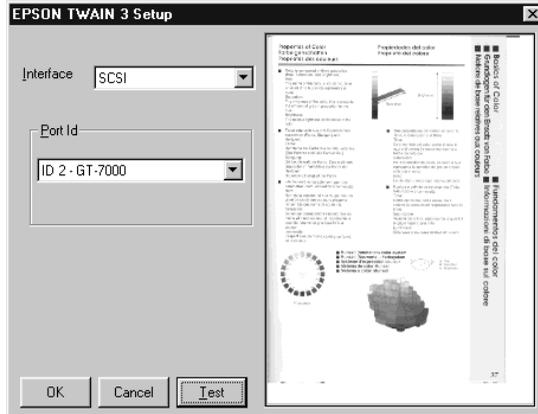
The setup program installs EPSON TWAIN and EPSON Scan! II.

9. After EPSON TWAIN is installed, the EPSON TWAIN Setup dialog box appears.



10. Make sure that SCSI is selected in the Interface pop-up list, and your EPSON scanner appears in the Port ID list. If not, see Chapter 7, “Troubleshooting.”
11. Place a document on the document table of the scanner.

- Click Test to check the connection. The scanner scans the document and if everything is properly installed and connected, a reproduction appears in the right window of the dialog box.



If no image appears, see Chapter 7, “Troubleshooting.”

- Click OK to close the EPSON TWAIN Setup dialog box.

The EPSON Screen Calibration utility automatically starts. Go to page 1-22.

**Note:**

*If the Film Adapter is installed, make sure it is switched off for the test scan to work properly.*

## **For Windows 98 and SCSI users**

### **Note:**

*If you are currently using Windows 95 and the scanner software is already installed, but you are upgrading from Windows 95 to 98, first uninstall EPSON TWAIN while running Windows 95. Then reinstall EPSON TWAIN as described in step 1 below on Windows 98. When uninstalling EPSON TWAIN see page 1-19 .*

1. Make sure that the scanner is turned on.
2. Turn on the computer, and start Windows.
3. When the dialog box below appears, insert the scanner software CD in the CD-ROM drive, then click Next.



4. Select the Search for the best driver for your device option, then click Next.



5. Make sure the CD-ROM drive and Specify a location check boxes are both selected, then browse and select or type in the CD-ROM drive letter, Epson folder, the folder of your preferred language, and Win98 folder as the location, as shown below, and click Next.



6. Follow the instructions on the screen. You may be asked to insert the Windows 98 CD-ROM.



7. The EPSON Screen Calibration utility automatically starts. Follow the instructions on the screen. For details, see page 1-22.

**Note:**

*If the EPSON Screen Calibration utility doesn't start automatically, see Chapter 6 to calibrate your screen after installing the scanner software.*

8. When the following dialog box is displayed, click Finish.



9. Double-click the My Computer icon.

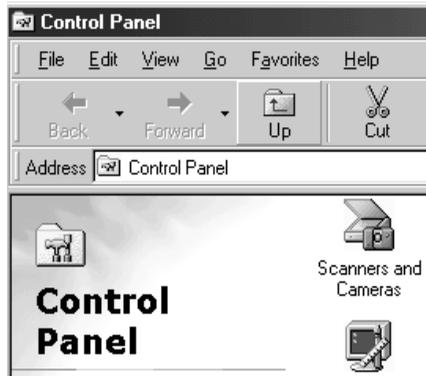
10. Double-click the CD-ROM drive icon. A dialog box asking for your preferred language appears on your screen. If no dialog box appears, click the Cdsetup.exe icon.
11. Select your preferred language and click OK.
12. You will see the following dialog box. Click Add software.



13. You will see the list of software in the list box. Click to select the names of the software you want to install in your PC. Descriptions of the software can be found in the software documentation, or on the CD-ROMs that come with your scanner. Make sure EPSON Scan! II is selected to be installed.
14. Click OK. Then follow the instructions on the screen.  
  
The setup program installs EPSON Scan! II.

**Note:**

- ❑ *If folders for the applications on the CD-ROM contain README files, double-click and read them as they contain up-to-date information regarding the software.*
  
- ❑ *You will find the **Scanners and Cameras** icon shown below in the Control Panel after EPSON TWAIN is installed.*



## For Windows 98 and USB users

1. Make sure that the scanner is turned on.
2. Turn on the computer, and start Windows.
3. When the dialog box below appears, insert the scanner software CD in the CD-ROM drive, then click Next.



4. Select the Search for the best driver for your device option, then click Next.



5. Make sure the CD-ROM drive and Specify a location check boxes are both selected, then browse and select or type in the CD-ROM drive letter, Epson folder, the folder of your preferred language, and Win98 folder as the location, as shown below, and click Next.



6. Follow the instructions on the screen. Depending on your system, you may be asked to insert the Windows 98 CD-ROM.



7. The EPSON Screen Calibration utility automatically starts. Follow the instructions on the screen. For details, see page 1-25.

**Note:**

*If the EPSON Screen Calibration utility doesn't start automatically after installing the scanner software, see Chapter 6 to calibrate your screen.*

- When the following dialog box is displayed, click Finish.



- Double-click the My Computer icon.
- Double-click the CD-ROM drive icon. A dialog box asking for your preferred language appears on your screen. If no dialog box appears, click the Cdsetup.exe icon.
- Select your preferred language and click OK.
- You will see the following dialog box. Click Add software.

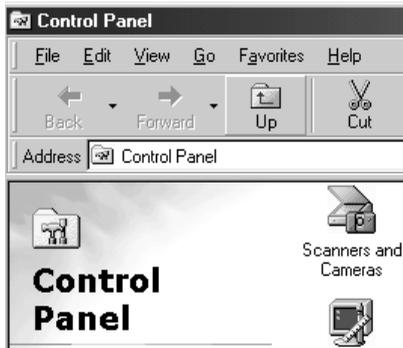


13. You will see the list of software in the list box. Click to select the names of the software you want to install in your PC. Make sure EPSON Scan! II is selected to be installed. Descriptions of the software can be found in the software documentation, or on the CD-ROMs that come with your scanner.
14. Click OK. Then follow the instructions on the screen.

The setup program installs EPSON Scan! II.

**Note:**

- If folders for the applications on the CD-ROM contain README files, double-click and read them as they contain up-to-date information regarding the software.*
- You will find the **Scanners and Cameras** icon shown below in the Control Panel after EPSON TWAIN is installed.*

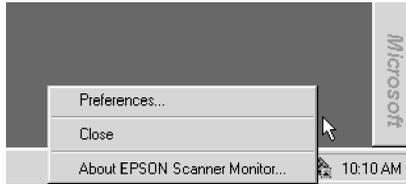


## ***If you are upgrading from Windows 95 to Windows 98***

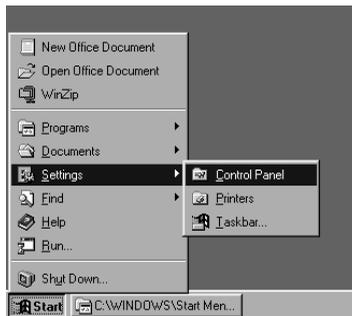
**1**

Before you upgrade from a Windows 95 operating system to Windows 98, you need to uninstall EPSON TWAIN. Follow the steps below.

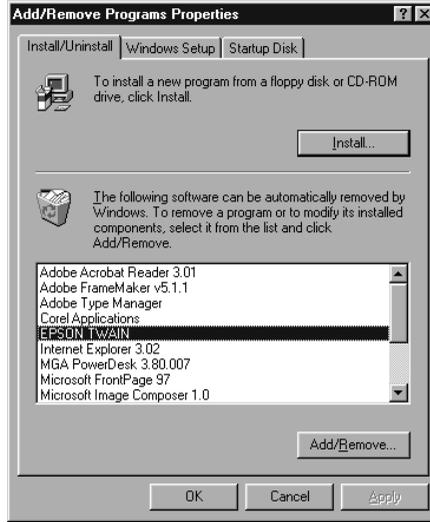
1. Click the EPSON Scanner Monitor icon in the task bar and select Close to close EPSON Scanner Monitor.



2. Click the Start button, highlight Settings, and then select Control Panel.



3. Double-click Add/Remove Programs. Select EPSON TWAIN and click the Add/Remove button. Then follow the instructions on the screen.



After you upgrade to Windows 98, install EPSON scanner software as described on page 1-10 for SCSI users or page 1-15 for USB users.

## ***For Windows NT 3.5x users***

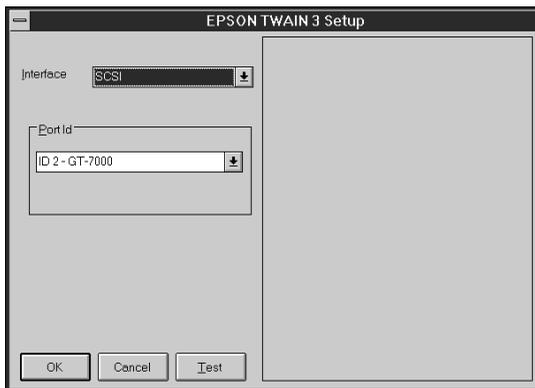
1. Make sure that the scanner is turned on.
2. Turn on the computer and start Windows.
3. Insert the scanner software CD in the CD-ROM drive.
4. Choose Run from the File menu.
5. Click Browse. Then select the CD-ROM drive.
6. Choose CDSETUP.EXE, then click OK.
7. A dialog box asking for your preferred language appears on your monitor.
8. Select your preferred language and click OK.
9. You will see the following dialog box. Click Add software.



10. You will see the list of software in the list box. Click to select the names of the software you want to install in your PC. Make sure EPSON TWAIN and EPSON Scan! II are selected. Descriptions of the software can be found in the software documentation, or on the CD-ROMs that come with your scanner.
11. Click OK. Then follow the instructions on the screen.

The setup program installs EPSON TWAIN and EPSON Scan! II.

12. When the following dialog box appears, follow the steps on page 1-8 from step 10.



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## ***Installing the Scanner Software for Macintosh***

After connecting the scanner to your Macintosh computer, install the EPSON scanner software; EPSON Scan! II, EPSON TWAIN, EPSON Scanner Monitor, PageManager for EPSON and other application software from the CD-ROM. Follow the steps below.

1. Make sure your scanner is on. Then turn on the computer.
2. Insert the CD in the CD-ROM drive.
3. Double-click the CD-ROM icon to open it.
4. Double-click the EPSON Scan! II folder.

Depending on country of purchase, the EPSON Scan! II folder may contain multiple-language versions of the software. Double-click the folder of your preferred language.

5. Double-click the EPSON TWAIN Installer icon.



EPSON TWAIN Installer

6. The installer software shows a dialog box. Click Install in the dialog box that appears, and follow the instructions on the screen.



When you have finished the entire installation, the EPSON Screen Calibration utility automatically starts. Go to page 1-25 for instructions, then continue from step 7 below to install other software.

7. Double-click the folder that contains the software you want to install.

The Software folder may contain multiple-language versions of the software. Double-click the folder of your preferred language.

8. Double-click the installer icon to start the installation program. Then follow the instructions on the screen.

## **For Macintosh and USB users**

### *Note for iMac users:*

❑ *If you are using Mac OS 8.1, you need to install iMac Update before installing the scanner software. This is available online from the Apple Web site, where complete information on the software is provided.*

❑ *You do not need to install iMac Update with Mac OS 8.5.*

1. Turn on the computer.
2. Insert the CD in the CD-ROM drive.
3. Double-click the EPSON TWAIN USB folder.

Depending on the country of purchase, the EPSON TWAIN USB folder may contain multiple-language versions of the software. Double-click the folder of your preferred language.

4. Double-click the EPSON TWAIN Installer icon.
5. The installer software shows a dialog box. Click Install in the dialog box that appears, and follow the instructions on the screen.

When EPSON Scan! II, EPSON TWAIN and EPSON Scanner Monitor for USB installation is complete, the EPSON Screen Calibration utility automatically starts. See "Calibrating Your Screen" for instructions, then continue from step 6 below to install other application software.

6. Double-click the folder that contains the software you want to install.

The Software folder may contain multiple-language versions of the software. Double-click the folder of your preferred language.

7. Double-click the installer icon to start the installation program. Then follow the instructions on the screen.

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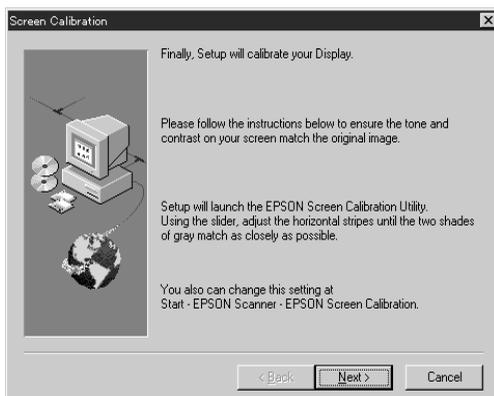
## Calibrating Your Screen

You must calibrate your screen and scanner to reproduce images identical to the originals.

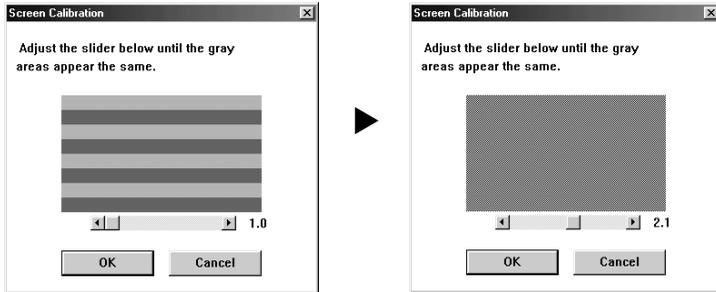
**Note:**

*The introductory Screen Calibration dialog box will not appear on Windows 98. Calibrate your screen by following the instructions from step 2 below.*

During the EPSON scanner software installation on Windows, the following dialog box appears.



1. Click Next.
2. In the following window, move the slider to the right or left until the two shades of the gray horizontal stripes match.



**Note:**

*View the screen from a distance. The gray stripes will not perfectly blend together; however, try to make the two tones match as closely as possible.*

3. Click OK to register the calibration setting.
4. The message, "Setup is complete" appears. Click OK.

You will not need to change the screen calibration again so long as you continue to use the same display.

## Chapter 2

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# Scanning Basics

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## Starting the Software

After installing the scanner software, either the EPSON Scanner folder (or group) containing the EPSON Scan! II32 icon appears on your PC, or the EPSON Scanner folder containing the EPSON Scan! II icon appears on your Macintosh HDD. If one of these does not appear, install the software as described on page 1-4 (Windows) or 1-20 (Macintosh).

There are three ways to scan; with EPSON Scan! II, with an application that supports TWAIN, or with the ] Start button and preassigned application software.

### *If you ..*

- want to use EPSON Scan! II features to improve the scanned output, open EPSON Scan! II (see “Starting EPSON TWAIN through EPSON Scan! II” on page 2-3).
- do not have suitable scanning software or your software does not support EPSON TWAIN, open EPSON Scan! II (see “Starting EPSON TWAIN through EPSON Scan! II” on page 2-3).
- use an application that supports EPSON TWAIN to scan, open your application (see “Starting EPSON TWAIN through your application software” on page 2-4).
- want to scan an image directly to your application but do not want to have to open EPSON TWAIN or the TWAIN-compliant application every time, setup the ] Start button and the application to work with (see Chapter 3 “Using the Start Button”). Then simply press the ] Start button.

*Even if your application supports TWAIN, some features of EPSON TWAIN may not be available depending on the application software.*

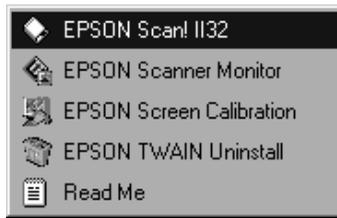
## Starting EPSON TWAIN through EPSON Scan! II

Before you start EPSON Scan! II, turn on the scanner and place a document on the document table. For instructions on how to place documents, see your scanner manual.

*If you start your PC and EPSON Scan! II before turning on your scanner, you may not be able to scan properly.*

### 1. For Windows 95, 98, and NT 4.0 users:

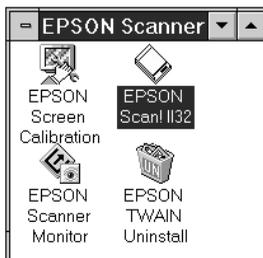
Click Start, Program, EPSON Scanner, then choose EPSON Scan! II32, which is the 32-bit version of the scanning software.



### For Windows NT 3.5x, and Macintosh users:

Open the EPSON Scanner group (folder). Then double-click the EPSON Scan! II32 icon (on Windows NT) or the EPSON Scan! II icon (on Macintosh).

on Windows NT 3.5x



on Macintosh



2. Choose Select Source from the File menu. Make sure that EPSON TWAIN 3 (32-bit) on Windows, or EPSON TWAIN 3 on Macintosh is selected in the Data Source list box, then click Select.

*You usually need to perform this step only the first time you use the scanner with EPSON Scan! II.*

3. Choose Acquire from the File menu to open EPSON TWAIN.



To scan the image placed on the document table of your scanner, go to “Scanning an Image” on page 2-5.

## ***Starting EPSON TWAIN through your application software***

Application programs that support the scanning interface standard TWAIN, allow you to scan images while an application is running. To verify whether your application is compatible with TWAIN, see your application documentation.

How you should open EPSON TWAIN and scan varies depending on the application. Read the following to find out how to access EPSON TWAIN.

1. Start your application.
2. Select TWAIN Source from the File menu, and then select EPSON TWAIN 3 (32-bit) on Windows, or EPSON TWAIN 3 on Macintosh. If your Macintosh is connected through the USB interface, select EPSON TWAIN 3U in the Data Source list box.

*You usually need to perform this step only the first time you use the scanner with your application.*

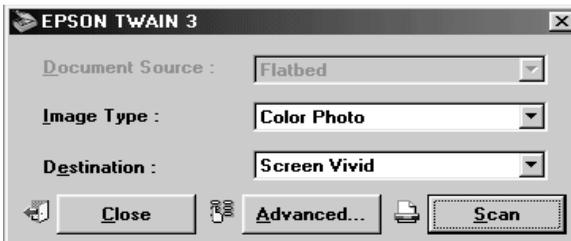
3. Choose Twain Acquire from the File menu to open EPSON TWAIN.

To scan, see the next section.

---

## Scanning an Image

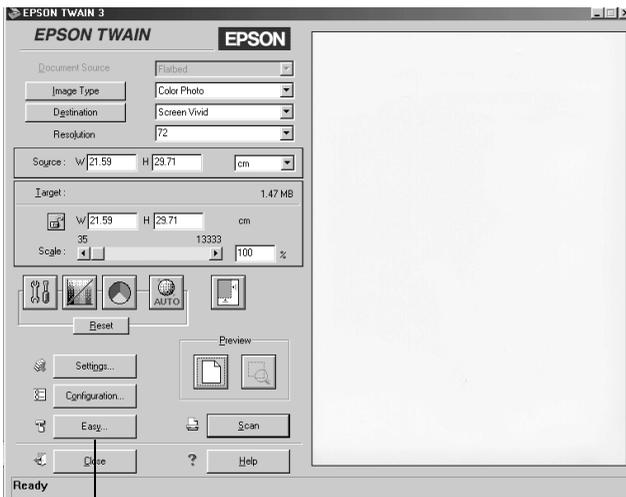
When you open EPSON TWAIN, the Easy menu appears. This section shows you the easiest way to scan by using the Easy menu. For detailed information about the settings on the Easy and Advanced menus, see Chapter 4.



*Note for Macintosh users:*

Most illustrations shown in this chapter are for Windows, so they may vary from the actual dialog boxes that appear on your screen. You can use the dialog boxes following for both Macintosh and Windows reference however, as all the settings and functions are the same for both.

If the following menu appears, click Easy to see the Easy menu. The menu below is the Advanced menu of EPSON TWAIN. For details, see Chapter 4.



click

Follow these steps to scan an image:

1. Select the Document Source.  
You can select Flatbed, or ADF (for the optional Automatic Document Feeder), or TPU for Neg. Film or TPU for Pos. Film (for the optional Film Adapter) depending on whether you have installed options. For complete descriptions of Document Source settings, see “Document Source” in Chapter 4.

2. Select the Image Type.

You can select the type of image you will scan:

Color Photo, 256 Colors, Black & White Photo, Line Art, OCR, or Copy&Fax. For complete descriptions of Image Type settings, see “Image Type” in Chapter 4.

3. Select the Destination.

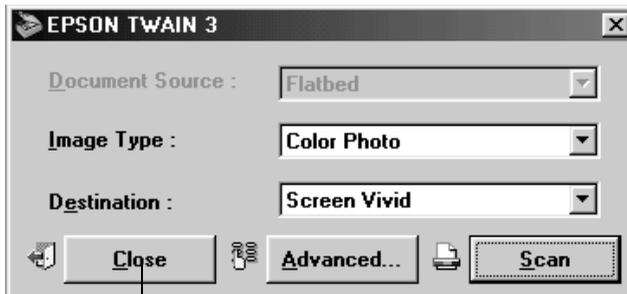
You can select an output device for image reproduction from: Screen, Screen Vivid, Inkjet Printer, Laser Printer, Fax, OCR, and certain EPSON printers.

4. Click Scan.

The scanned image is displayed on the screen.

The scanner scans your image according to the Image Type and Destination settings you select. If you want more control over the settings, use the Advanced menu. See Chapter 4 or online help for complete descriptions of the settings.

To exit from the EPSON TWAIN window, click the Close button in the Easy Menu.



Click

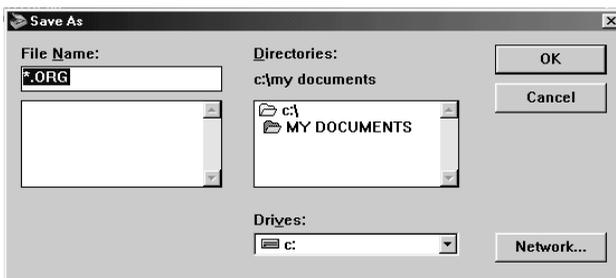
---

## ***Saving the Scanned Image***

- ❑ To save a scanned image in your application, choose Save or Save As from the File menu. For details, see your application documentation.
- ❑ To save a scanned image in EPSON Scan! II, follow the steps below.

*Parenthesized words in the following steps apply to Macintosh users.*

1. Choose Save As from the File menu. The following dialog box appears on the screen.



2. Select the directory (or folder) where the image will be saved.
3. Type a filename for your image in the File Name (Save Image as) field.
4. Click OK (Save).

The image is saved in EPSON's original file format. You can open this saved file in EPSON Scan! II and export it in a different format.

*EPSON Scan! II can only save and open images in EPSON's original file format; however, you can export the image to another application in a different file format, as described in the next section.*

---

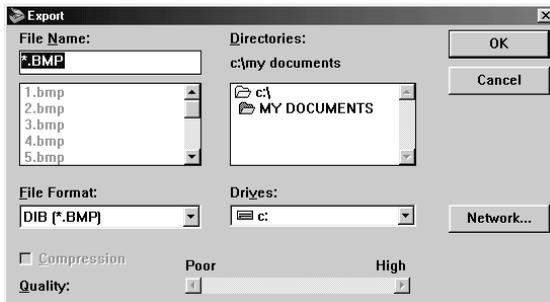
## **Exporting a Scanned Image From EPSON Scan! II**

After scanning an image in EPSON Scan! II, you need to export the image to use or edit it.

- ❑ *The images saved in the EPSON Scan! II original file format cannot be opened or imported in other application software.*
- ❑ *For information on the file formats your software can open, see your software manual.*
- ❑ *EPSON Scan! II cannot open an exported image file. Always save an image in the EPSON original format before exporting.*

Follow these steps to export the scanned image from EPSON Scan! II:

1. Choose Export from the File menu. The following dialog box appears on the screen.



2. Select the directory (folder) where the image will be saved.
3. Type a filename for your image in the File Name (Export Image as) field.
4. Select the format in the File Format (Export File Format) menu. Click the arrow to see a list of available formats.

*Formats available*

**Windows:**

*TIFF 5.0, EPS, DIB, PCX, TIFF 6.0  
(includes JPEG compression), and JPEG.*

**Macintosh:**

*PICT, TIFF 5.0, EPS, TIFF 6.0  
(includes JPEG compression), and JPEG.*

- For more information on file formats and other features in this dialog box, see "Export" on pages 5-4.*

5. Click OK (Export).

The image is saved in the selected file format. For information on importing the image into your application software, see your software documentation.

---

## Scanning by Pressing the Start button

You can open EPSON TWAIN, start scanning, and have the scanned image sent to a certain application, simply by pressing the ↵ Start button on your scanner. To use this feature, you need to install PageManager for EPSON, or other Start button compatible software. The following occurs:

- Windows 98, or EPSON Scanner Monitor software on an operating system other than Windows 98, detects when the ↵ Start button is pressed and sends information to the Start button compatible application, such as PageManager for EPSON.
- The Start button compatible application will automatically open EPSON TWAIN, scan the image and process it in the way the application is designed.
- *You need to setup the Start button compatible software before using this feature. See Chapter 3 and the documentation that comes with the application.*
- *The scanned image will be handled by the software to its maximum capability. For example, using PageManager for EPSON, you can send the scanned image to a printer to print, or convert your scanned OCR image to text format and paste it in a wordprocessing application—all by simply pressing the ↵ Start button.*

---

## ***Getting Information From Online Help***

### ***For Windows users:***

If you are using EPSON Scan! II, choose Help from the menu bar. The status bar (at the bottom of the window) also gives you information on the features of EPSON Scan! II and EPSON TWAIN when you move the mouse over a button or menu item.

If you are using EPSON TWAIN, click Help on the advanced menu.

### ***For Macintosh users:***

If you are using EPSON Scan! II, choose Help from the Apple menu. Balloon Help also gives you information on the features of EPSON Scan! II and EPSON TWAIN.

If you are using EPSON TWAIN, click Help on the advanced menu.

## Chapter 3

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# **Using the Start Button**

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PageManager for EPSON .....	3-2
Target applications in the Scan Buttons bar .....	3-2
Assigning an application to the Start button.....	3-3
Adding Applications to the Scan Buttons Bar.....	3-5
Setting up EPSON Scanner Monitor .....	3-7
Setting Up the Start Button Feature for Windows 98 .....	3-12

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## **The Start Button Feature**

The Start Button feature allows you to scan and send data to a target application with a single push of your scanner's  Start button. The following sections will help you set up your PageManager for EPSON and EPSON Scanner Monitor software, or Windows 98 system, so you can begin to use the Start Button feature.

### ***Note for Windows 98 users:***

*The Start Button feature is supported by Windows 98, therefore you do not need to install EPSON Scanner Monitor software onto Windows 98. See page 3-12 for the instruction of the Start Button feature.*

---

## **PageManager for EPSON**

PageManager allows you to scan and send data directly to an assigned application with a single push of your scanner's  Start button. You can also scan to any target application by simply clicking on the application icon in PageManager's Scan Buttons bar. This section will help you set up PageManager so you can begin to scan using the  Start button. For more detailed information on PageManager settings, see your PageManager documentation.

*For information on PageManager installation, see Chapter 1.*

### **Target applications in the Scan Buttons bar**

When PageManager is started, the Scan Buttons bar will appear on your screen. The icons in this bar represent target applications or peripheral devices that can be accessed by your scanner. This means that you can scan and send data directly to these applications or devices by clicking on their icons.

PageManager for EPSON also allows you to assign any one of the applications or devices on the Scan Buttons bar to the  Start button. This means that an image can be scanned and sent straight to your selected application with one simple push of the  Start button.



*The application button showing the Start button icon represents the application that is assigned to the Start button.*

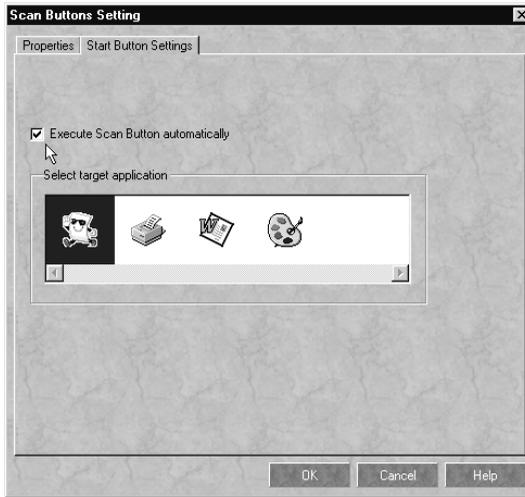
### **Assigning an application to the Start button**

To assign an application on the Scan Buttons bar to the  Start button, follow the steps below.

1. Select the Scan Buttons Setting from the File menu.



2. Click the Start Button Settings tab in the Scan Buttons Setting dialog box. The following dialog box appears.



3. Select an application from the Select target application box and click OK.

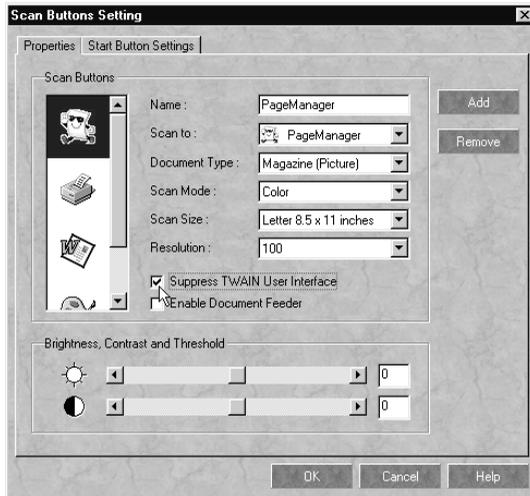
### ***Execute Scan Button automatically check box***

When this check box is selected, the assigned application will automatically open and the scanned image is sent to the application when you press the  Start button. When this check box is clear, no application is assigned to the  Start button and only the Scan Buttons bar will appear when the  Start button is pressed. Then you can select an application from the Scan Buttons bar.

## Adding Applications to the Scan Buttons Bar

You can add applications appearing in the Application bar at the bottom of the PageManager window to the Scan Buttons bar. Follow the steps below.

1. Select Scan Buttons Setting from the File menu. You will see the following dialog box.



2. Click the arrow next to the Scan to box and select an application you want to add to the Scan Buttons bar. Make the appropriate scanning settings for the application and click OK.

### ***Suppress TWAIN User Interface check box***

When this check box is selected, the EPSON TWAIN dialog box does not appear when you scan, and the scanner works according to the settings in PageManager. When this check box is clear, the EPSON TWAIN dialog box appears when you scan, and the scanner works according to the settings in EPSON TWAIN.

### ***Enable Document Feeder check box***

When this check box is selected, the scanner feeds your documents through the Automatic Document Feeder. When this check box is clear, the scanner scans your documents from the document table.

*To remove applications from the Scan Buttons bar, select the icon of the application you want to remove in the box on the left of the dialog box, then click Remove.*

---

## Setting up EPSON Scanner Monitor

EPSON Scanner Monitor is software that recognises when the  Start button is pressed and sends information to assigned application software supporting the Start Button feature and EPSON Scanner Monitor, such as PageManager for EPSON.

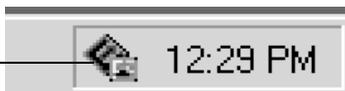
Once EPSON TWAIN is installed on an operating system other than Windows 98, EPSON Scanner Monitor is active and identifies PageManager for EPSON as the application that allows you to use the Start Button feature. If you need to turn off Scanner Monitor, or select another application that supports the Start Button feature, access Scanner Monitor as described below.

- Application software other than PageManager for EPSON which supports both EPSON Scanner Monitor and the Start button feature may be limited.*
- Windows 98 supports the Start Button feature; therefore, EPSON Scanner Monitor is not installed automatically when you install EPSON TWAIN on Windows 98.*

*For Windows 95 or NT 4.0 users*

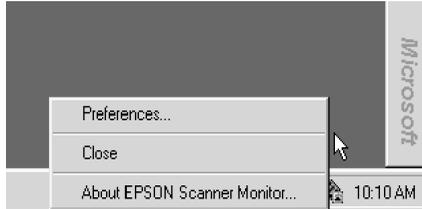
Click the Scanner Monitor icon located in the task bar on your desktop.

Scanner Monitor icon



## ❑ Turning off Scanner Monitor

If you want to turn off Scanner Monitor, select **Close**. However, this will disable the scanner's Start Button feature.



*After you turn off Scanner Monitor, it will turn back on automatically the next time you start Windows.*

To activate Scanner Monitor, select Programs from the Start menu and click EPSON Scanner; then select EPSON Scanner Monitor. The Scanner Monitor icon appears in your taskbar.

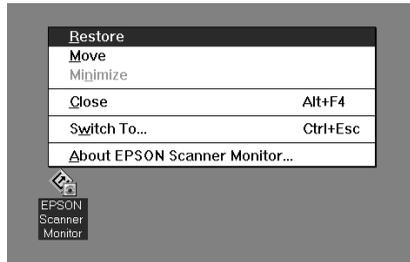
## ❑ Assigning an application to Scanner Monitor

Select **Preferences**. The EPSON Scanner Monitor dialog box appears. You can select an application that supports the Start button feature and EPSON Scanner Monitor, such as PageManager for EPSON.



For Windows NT 3.5x users

Click the Scanner Monitor icon on the desktop.

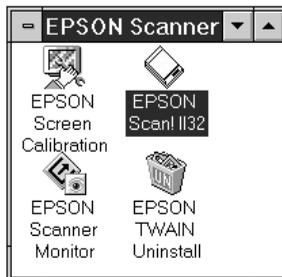


❑ Turning off Scanner Monitor

If you want to turn off Scanner Monitor, select Close. However, this will disable the scanner's Start Button feature.

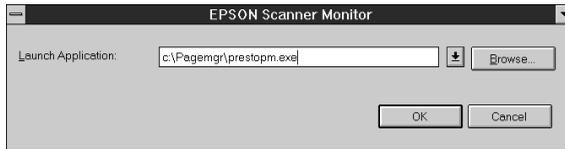
*After you turn off Scanner Monitor, it will turn on again automatically the next time you start Windows NT 3.51.*

To activate Scanner Monitor, open EPSON Scanner group, and double-click the Scanner Monitor icon. The Scanner Monitor icon appears on your desktop.



## ❑ Assigning an application to Scanner Monitor

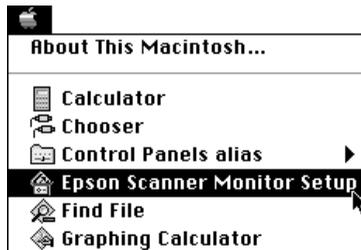
Select **Restore**. The EPSON Scanner Monitor dialog box appears. You can select an application that supports the Start Button feature and EPSON Scanner Monitor, such as PageManager for EPSON.



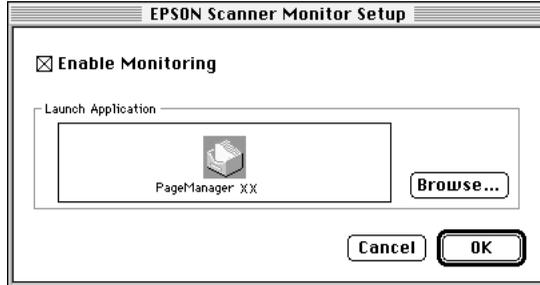
### *For Macintosh users*

Select **Epson Scanner Monitor Setup** from the Apple menu.

## ❑ Turning off Scanner Monitor



If you want to turn off Scanner Monitor, clear the Enable Monitoring check box. However, this will disable the scanner's Start Button feature.



To re-activate Scanner Monitor, select the Enable Monitoring check box.

#### ❑ Assigning an application to Scanner Monitor

Click Browse. Select a folder and an application that supports the Start Button feature and EPSON Scanner Monitor, such as PageManager for EPSON.

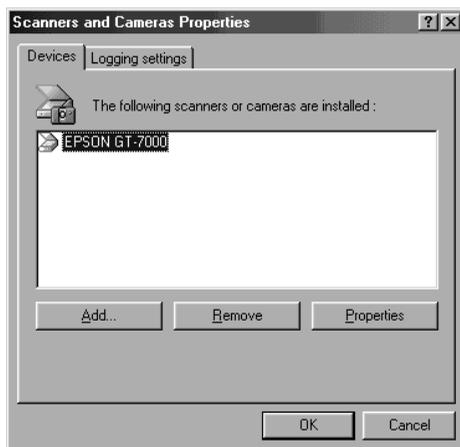


---

## ***Setting Up the Start Button Feature for Windows 98***

Without having EPSON Scanner Monitor installed, Windows 98 allows you to use the ⚡ Start button on your scanner without having to open an application that supports the Start Button feature. When you press the ⚡ Start button, you can have a scanned image automatically sent to your application, such as PageManager for EPSON, as long as it is installed.

Once EPSON TWAIN is installed on Windows 98, the Scanners and Cameras icon appears on the control panel, and your scanner is listed in the Scanners and Cameras Properties dialog box as shown below.

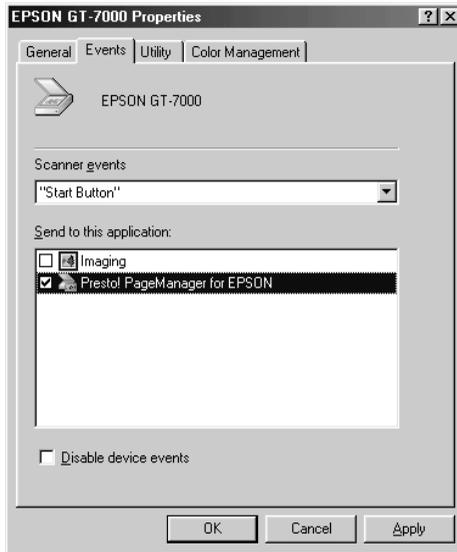


### ***Assigning an application to the Start button***

After you install applications that support “Scanner events”, such as PageManager for EPSON, you need to select one of those applications for the scanner event.

If you want to use your scanner’s ⚡ Start button with PageManager for EPSON as the supporting application, follow the steps below.

1. Select your scanner from the installed scanners and cameras list in the Scanners and Cameras Properties dialog box. Click Properties, and then click the Events tab.



2. You can see the Start Button is listed as the scanner event. Make sure the check box of the application you want to assign to the  Start button is selected and all other application check boxes are clear in the Send to this application list.
  - If more than one application is selected, a dialog box appears prompting you to select an application when the Start button is pressed.*
  - Some applications do not support linkage to scanners and digital cameras. Linkage is available only with the applications that appear in the Send to this application list.*
3. Close the dialog box by clicking the OK button.

### ***Disabling the Start button***

If you need to disable the Start Button feature, select the Disable device event check box in the EPSON GT-7000 Properties dialog box. When this check box is clear, Windows 98 will detect if the  Start button is pressed and launch the application you selected in the Send to this application list.

## Chapter 4

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# **Understanding EPSON TWAIN Features**

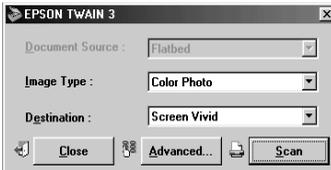
Scanning From the Easy Menu.....	4-3
Scanning From the Advanced Menu.....	4-4
Previewing images .....	4-5
Document Source .....	4-7
Image Type.....	4-8
Destination.....	4-12
Source and Target image sizes .....	4-15
Image Controls .....	4-17
Tone Correction.....	4-19
Color Adjustment .....	4-22
Auto Exposure.....	4-24
Reset Button.....	4-24
Auto Locate .....	4-25
Settings .....	4-27
Configuration.....	4-28

When you start EPSON TWAIN through EPSON Scan! II or a compatible application, one of the following windows appears on the screen:

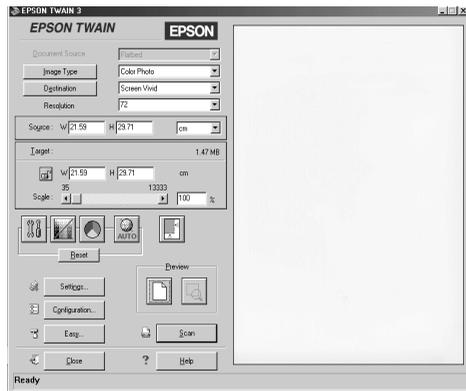
**Note for Macintosh users:**

*Most illustrations shown in this chapter are for Windows, so they may vary from the actual dialog boxes that appear on your screen. You can use the dialog boxes following for both Macintosh and Windows reference however, as all the settings and functions are the same for both.*

Easy menu



Advanced menu



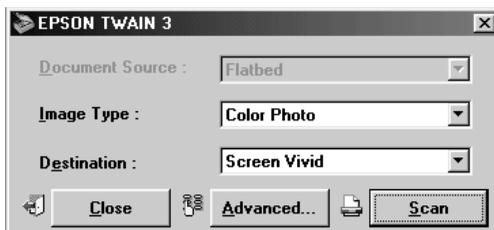
The following sections describe all of the features of EPSON TWAIN.

*Some settings may appear dimmed and cannot be selected because of incompatibility with your scanner or your choice of settings.*

---

## Scanning From the Easy Menu

Easy menu



4

The Easy menu displays the minimum required settings only, allowing you to scan easily and quickly. Just select the relevant Document Source, Image Type, and Destination settings, then click Scan.

EPSON TWAIN automatically locates the target image on the scanner, adjusts the exposure, and starts scanning. See page 4-7 through 4-14 for details about Document Source, Image Type, and Destination settings.

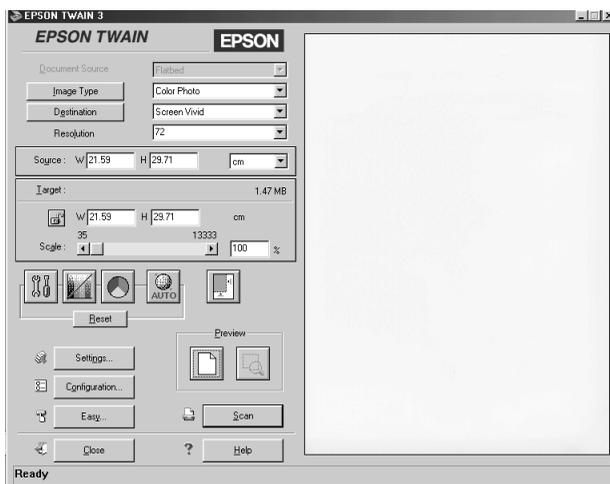
- ❑ *You cannot scan an image that exceeds available memory or disk space. If you attempt to scan an image that is too large, an alert appears on the screen.*
- ❑ *Before you begin scanning, you should calibrate your screen. For details, see Chapter 6, “Calibrating Your System.”*
- ❑ *After an image is scanned, be sure to save or export it. See pages 2-7 and 2-9 for details.*

If you want greater choice with your settings, or want to make more settings, click Advanced to open the Advanced menu.

---

## Scanning From the Advanced Menu

Advanced menu

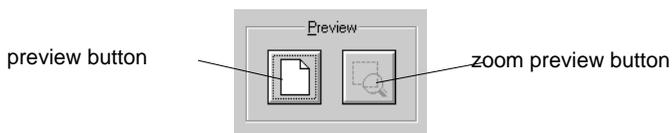


The Advanced menu allows you to make detailed settings. You can set parameters for a setting or select special functions provided with EPSON TWAIN to attain the highest quality scanned images.

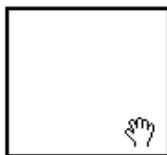
- ❑ *Online help also provides you with information on settings. See Chapter 2, "Getting Information From Online Help".*
- ❑ *You cannot scan an image that exceeds available memory or disk space. If you attempt to scan an image that is too large, an alert appears on the screen.*
- ❑ *Before you begin scanning, you should calibrate your screen. For details, see Chapter 6, "Calibrating Your System."*
- ❑ *After an image is scanned, be sure to save or export it. See pages 2-7 and 2-9 for details.*

## Previewing images

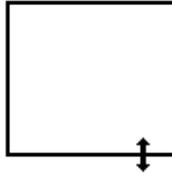
Before you scan and save an image, you can preview it in the Preview window located on the right of the Advanced menu. Use the preview feature to check the results of your settings.



- To preview the entire image, click the preview button.
- To preview a part of the image that is already in the Preview window, click and drag the mouse over the area you want to see in detail, and click the zoom preview button.
- You cannot preview an image that exceeds available memory or disk space. If you attempt to preview an image that is too large, an alert appears on the screen.*
- When the mouse pointer is placed within the marquee (the frame of the selected image area), the mouse pointer changes to a hand icon. You can click and drag the marquee anywhere in the Preview window.*

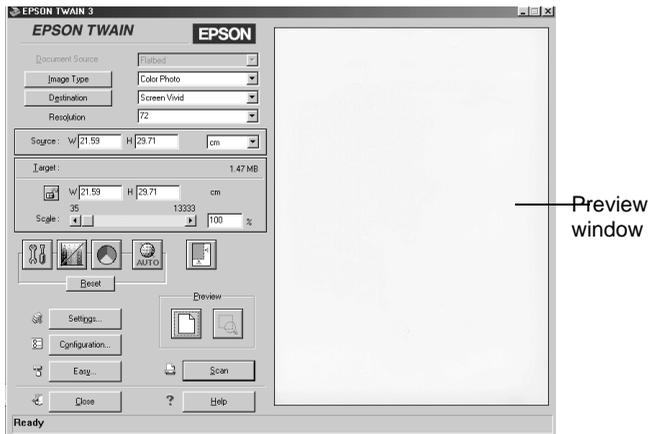


- ❑ When the mouse pointer is placed on the edge of the marquee, it changes to an arrow allowing you to resize the marquee.



- ❑ To remove or delete a marquee, double-click the preview image.

## Modifying the preview image



You can see the effects of the following settings in the preview image.

- ❑ Pixel Depth, Halftone, and Dropout in the Image Type dialog box
- ❑ Exposure, Gamma, Highlight, Shadow, and Threshold in the Image Controls dialog box
- ❑ Tone Correction in the Tone Correction dialog box

- ❑ Gray Balance Intensity, and Saturation in the Color Adjustment dialog box
- ❑ Auto Exposure

*Although the image in the Preview window changes as you make settings, the settings do not affect the actual image until you scan, or rescan, the image.*

## **Document Source**

When using the document table of the scanner, leave the Document Source set to Flatbed. Other selections which may also be available are ADF (for the optional Automatic Document Feeder), and TPU for Neg. Film or TPU for Pos. Film (for the Film Adapter optional for GT-7000 PHOTO), depending on whether you have installed these options.

*Uninstalled options are not displayed.*



### **Flatbed:**

Select this setting to use the document table of the scanner.

### **ADF:**

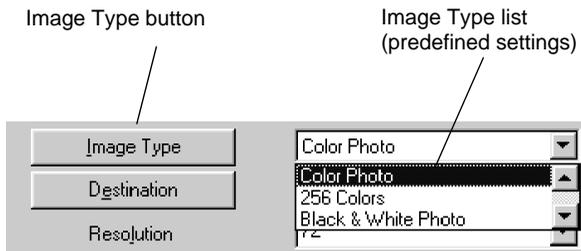
Select this setting to use the optional Automatic Document Feeder.

## TPU for Neg. Film, TPU for Pos. Film:

Select one of these settings when using the Film Adapter. If you are scanning negative film, select TPU for Neg. Film, and if you are scanning positive film (or slides), select the TPU for Pos. Film setting.

## Image Type

Use the Image Type list or button to select the type of image to be scanned.



## Image Type list

The Image Type list provides the following predefined settings. EPSON recommends you use the predefined settings first, then later improve the quality of the scanned image manually by making the detailed settings described in the next pages, if necessary. Click the arrows on the right to view all of the available settings.

### Color Photo:

24-bit Color, best quality, and 1-pass scanning sequence

### 256 Colors:

256 Colors and best quality

**Black & White Photo:**

8-bit Gray and best quality

**Line Art:**

Black and white, and draft quality

**OCR:**

Black and white, best quality, and Text Enhancement Technology

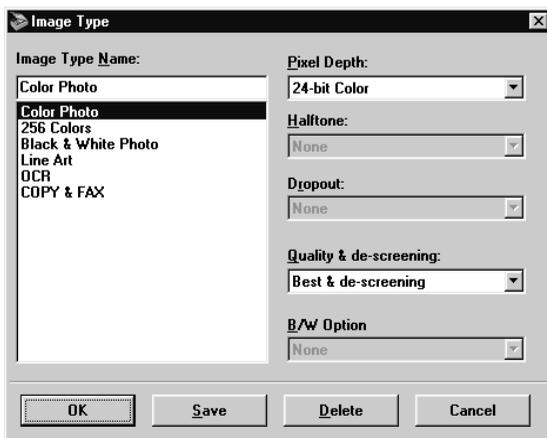
**Copy/Fax:**

Black and white, hard halftone, draft quality, and Auto Area Segmentation

***Image Type button***

The Image Type button allows you to customize the Image Type settings. If you want to make many detailed settings manually, use this feature.

Click the Image Type button, and the following dialog box appears.



### **Image Type Name:**

Names of predefined settings and custom settings you have saved appear in the Image Type Name list.

### **Pixel Depth:**

Select scanning colors from:

24-bit Color, 256 Colors, 8-bit Gray, and Black & White.

### **Halftone:**

Select a halftone or dither setting to reproduce images using special dot patterns:

Mode A (Hard Tone), Mode B (Soft Tone), Mode C (Net Screen), Dither A (4 x 4 Bayer), Dither B (4 x 4 Spiral), Dither C (4 x 4 Net Screen), Dither D (8 x 4 Net Screen), or None.

*Halftone is available only when Pixel Depth is set to Black & White.*

### **Dropout:**

Select a color to subtract from the scanned image. Available dropout options are:

None, Red, Green, and Blue.

- Dropout is available only when Pixel Depth is set to 8-bit Gray or Black & White.*
- Depending on the image you scan, you may need to adjust the Threshold setting in the Image Controls dialog box to enable this feature.*

## Quality & de-screening:

Select a scanning quality:  
Draft & fast or Best & de-screening.

When the Quality & de-screening option is selected, unwanted moiré patterns are automatically removed from scanned images.

## B/W Options:

Select from :  
Text Enhancement Technology, Auto Area Segmentation, or None.

### **Text Enhancement Technology**

To raise the recognition accuracy during OCR (Optical Character Recognition) scanning, select this radio button. This function eliminates the document's background.

### **Auto Area Segmentation**

To make grayscale images clearer and text recognition more accurate, select this radio button. This function separates text from graphics.

- The B/W Option setting is available only when **Black & White** is selected as the Pixel Depth setting.*
- When you need neither TET nor AAS, select **None**.*
- Default is set to None.*

To apply the settings you made, click OK. The Preview window displays the effects of the current settings except for TET (Text Enhance Technology) and AAS (Auto Area Segmentation) settings.

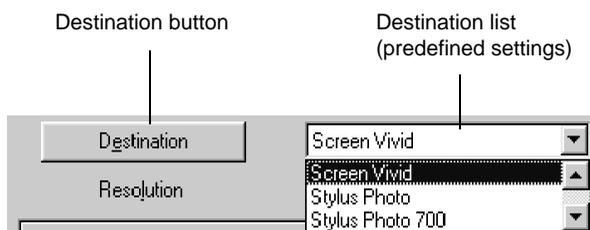
To cancel the settings, click Cancel.

To save the settings you made as a group of custom settings, type a new name in the Image Type Name box, then click Save.

To delete an Image Type setting, select the setting name to be deleted in the Image Type Name menu, then click Delete.

## Destination

Select the destination, or output device, where the scanned image is to be printed or displayed using the Destination list or button.



## Destination list

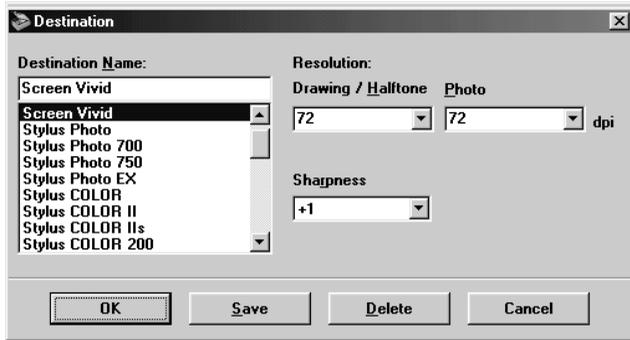
The Destination list provides the following predefined settings and any custom settings you have saved in the Destination dialog box. Click the arrows on the right to view all the available settings.

Destination name	Resolution		Sharpness
	Line drawings and halftone images	Photos	
Screen	72 dpi	72 dpi	0
Screen Vivid	72 dpi	72 dpi	1
InkJet Printer	720 dpi	360 dpi	1
Laser Printer	600 dpi	200 dpi	1
Fax	200 dpi	200 dpi	1
OCR	300 dpi	300 dpi	0
EPSON Printers	600 - 720 dpi	200 - 360 dpi	1

The effects of the Destination settings cannot be viewed in the Preview window.

## Destination button

The Destination button allows you to customize the Destination settings. To make your own settings, such as scanning resolution, click this button. The following dialog box appears.



### Destination Name:

Names of the predefined and custom settings appear in the Destination menu.

### Resolution:

Select a scanning resolution for line drawing and halftone images, or photos.

- ❑ *When the Pixel Depth setting in the Image Type dialog box is set to 8-bit Gray or Black & White, the Drawing/Halftone setting takes effect and the Photo setting becomes irrelevant. For other Pixel Depth settings, the Photo setting takes effect and the Drawing/Halftone setting becomes irrelevant.*
- ❑ *To print your scanned document when Resolution is set to Drawing/Halftone, select the same resolution setting from the list as you select in the printer driver. To print your scanned document when Resolution is set to Photo, select the resolution setting that is approximately 1/3 of the resolution you select in the printer driver; otherwise the Photo setting requires longer to print, but does not improve the output quality.*
- ❑ *The Resolution setting is closely related to the Image Size and Scale settings. If you change them arbitrarily, the resulting image may not be what you expected.*
- ❑ *The availability of the resolution value depends on your scanner.*

### **Sharpness:**

You can select from -2 (soft focus) to 2 (sharp focus) in the list.

To apply the settings you made, click OK. To cancel the settings, click Cancel.

To save the settings you made, type a new name in the Destination Name box, and then click Save.

To delete a Destination setting, select the target setting name to be deleted in the Destination Name menu, then click Delete.

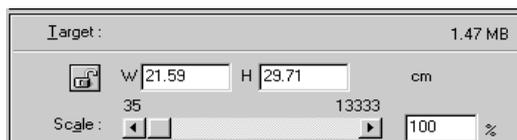
## Source and Target image sizes

The Source fields indicate the size of the image that is displayed or selected in the Preview window.



A horizontal control panel with a light gray background. It contains the text "Source:" followed by a "W" label and a text input field containing "21.59". To the right is an "H" label and a text input field containing "29.71". Further right is a unit selection dropdown menu currently showing "cm".

The Target fields indicate what size the image will be when it is output.



A control panel with a light gray background. At the top left is the text "Target:" and at the top right is "1.47 MB". Below this is a small icon of a document with a magnifying glass, followed by a "W" label and a text input field containing "21.59". To the right is an "H" label and a text input field containing "29.71". Further right is a unit selection dropdown menu currently showing "cm". Below these fields is a "Scale:" label followed by a small icon of a document with a magnifying glass, a text input field containing "35", a large number "13333", and a percentage sign "%". To the right of the "35" field are two small square buttons with left and right arrows.

- The image size values are determined automatically when you scan from the Easy menu.*
- The image size setting is closely related to the Resolution. If you change them arbitrarily, the resulting image may not be what you expected.*

### Width and Height menu:

The width and height of an image are indicated in the selected unit of measure. You can type new values directly in the indicator fields, or you can change the image area in the Preview window by creating a marquee, or frame. Do this by dragging the mouse over a certain area. See the notes on page 4-5 for more information on marquees.

**Units menu:**

Select a unit of measurement. You can select from pixels, inches, and cm.

**Storage size indicator:**

The storage size of an image is indicated in KB or MB. As you change the image area in the Preview window, this value also changes.

**Lock button:**

The current ratio of width-to-height of the target image can be locked, allowing the ratio of width-to-height of the Source image to change according to the scale value, or the scale value to change according to the ratio of width-to-height of the Source image. This is especially useful in cases where the size of an image does not fit the paper size you want to print the image on, but you want to keep the image's original proportions. Enter the size of the paper in the Width and Height fields of the Target box and then click the lock button. The scale value is automatically changed, maintaining the current ratio of width-to-height to fit the paper.

**Scale bar:**

An image can be reduced or enlarged by moving the Scale slider. You can also click the left or right arrow to change the image size in 1% increments.

The range of possible reduction or enlargement varies depending on the current resolution setting.

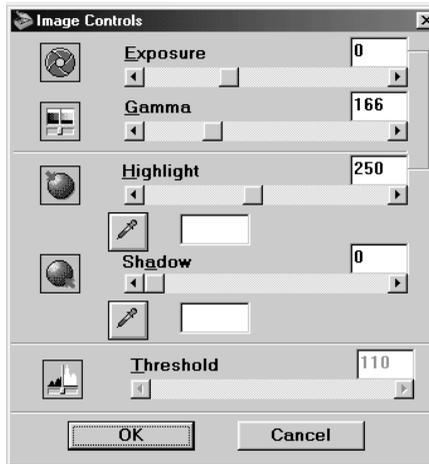
**Scale indicator:**

The percentage of enlargement or reduction is shown in the Scale indicator field. You can type a new value directly into this field, or use the Scale slide to determine the value.

## Image Controls



Click the Image Controls button on the Advanced menu to view the following dialog box.



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- ❑ *The Image Controls button appears dimmed and is not available when TET (Text Enhancement Technology) is selected in the Image Type dialog box.*
- ❑ *The Image Controls settings are optimized automatically when you scan from the Easy menu.*
- ❑ *If Pixel Depth is set to Black & White and Halftone is set to None in the Image Type dialog box, all the settings except Threshold appear dimmed and cannot be selected.*
- ❑ *You can see the effects of the Image Controls settings in the Preview window.*

### **Exposure:**

The Exposure setting lightens or darkens an image. You can select from -10 (darkest) to 20 (brightest) by moving (clicking and dragging) the slider.

The Exposure and Highlight controls are related. When the Exposure setting is changed, the Highlight value is automatically set.

### **Gamma:**

Gamma is the contrast between the light tones and the dark tones in an image. You can select from 50 (lowest) to 500 (highest) by moving the slider.

### **Highlight:**

The Highlight control allows you to adjust the brightness level of the brightest parts of an image. You can select from 61 to 490 by moving the slider.

Click the eyedropper button beneath the slider, and the mouse pointer changes to an eyedropper icon. Then move the eyedropper over the preview image, and click a bright area. The eyedropper “picks up” the color from that area, and uses it as the highlight for the entire image. This effect shows up immediately in the preview image. Click Cancel to restore the original image.

### **Shadow:**

The Shadow control allows you to adjust the darkness level of the darkest parts of an image. You can select from 0 to 60 by moving the slider.

Click the eyedropper button beneath the slider, and the mouse pointer changes to an eyedropper icon. Then move the eyedropper over the preview image, and click a dark area. The eyedropper “picks up” the color from that area, and uses it as the shadow for the entire image. This effect shows up immediately in the preview image. Click Cancel to restore the original image.

### **Threshold:**

Available only when Pixel Depth is set to Black & White and Halftone is set to None in the Image Type dialog box. The scanner scans gray shades as either black or white using this setting.

You can select from 0 (lightest) to 255 (darkest) by moving the slider.

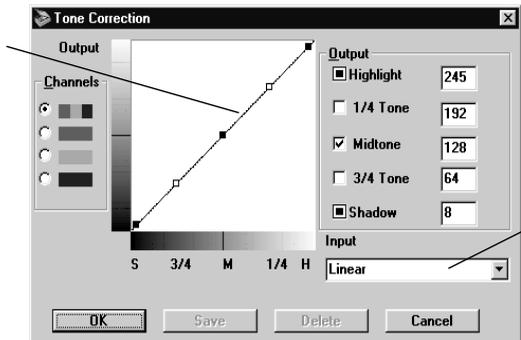
**4**

### ***Tone Correction***



Click the Tone Correction button on the Advanced menu to view the following dialog box.

tone curve editor



tone correction list

- ❑ *The Tone Correction settings are determined automatically when you scan from the Easy menu.*
- ❑ *The Tone Correction button appears dimmed and is not available when Pixel Depth is set to Black & White, Halftone is set to None, and TET (Text Enhancement Technology) is selected in the Image Type dialog box.*
- ❑ *You can see the effects of the Tone Correction settings in the Preview window.*

The tone value represents the contrast in the tonal relationship between an original image and its reproduction on the display monitor or printer.

#### **Tone Curve editor:**

The editor allows you to customize tone correction. Drag points on the tone curve to adjust the tone value. You can edit up to five tonal elements.

#### **Output options:**

If you select the check box for a specific point, such as 1/4 Tone or Midtone, you can move that point and it will remain in place; it will not be affected by the movement of other points on the curve. If the check box is clear, the point will be affected by the movement of other points.

#### **Channels options:**

You can select the combined red, green, and blue (RGB) channel to modify all colors, or select these colors separately.

*If Pixel Depth is set to Black & White or 8-bit Gray in the Image Type dialog box, you can only select the combined RGB channel option.*

### **Tone correction list:**

Select a tone correction setting from this list. The custom settings you have saved appear in this list.

### **OK/Save/Delete/Cancel buttons:**

To accept the defining Tone Correction or close the dialog box, click OK.

After you correct tone, type a name for your custom settings in the tone correction list and click Save.

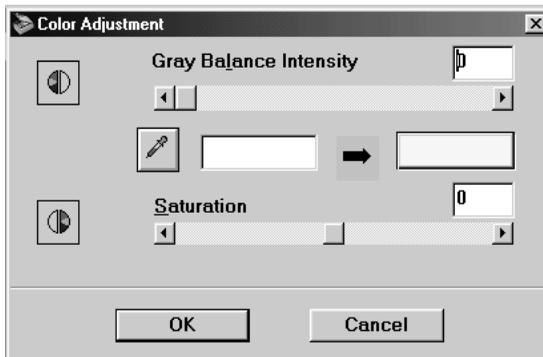
To delete a setting, select the name of the setting you want to delete in the tone correction list and click Delete.

To cancel the operation, click Cancel.

## ***Color Adjustment***



Click the Color Adjustment button on the Advanced menu to view the following dialog box.



- ❑ *The Color Adjustment settings are determined automatically when you scan from the Easy menu.*
- ❑ *If Image Type has been set for other than 24-bit Color or 256 Colors, or Pixel Depth is set to 8-bit Gray or Black & White, the Color Adjustment button appears dimmed and these settings cannot be selected.*
- ❑ *You can see the effects of the Color Adjustment settings in the Preview window.*

### **Gray Balance Intensity:**

Adjust the gray balance of a color combination that appears neutral gray by removing color casts from the selected color.

Click the eyedropper button beneath the slider, and the mouse pointer changes to an eyedropper icon. Then click the color you want to modify. The eyedropper “picks up” the color and displays it in the box beside the eyedropper button. You can then correct the cast level for that color from 0 to 100 by moving the slider. The corrected color appears in the box on the right, and the effect shows up immediately in the preview image. Click **Cancel** to restore the original image.

### **Saturation:**

Saturation is the property that defines color as pale or rich. Select the saturation level for color from -100 (less color) to 100 (more color) by moving the slider.

The scanner scans the strength of color using this saturation setting.

## ***Auto Exposure***



Click the Auto Exposure button on the Advanced menu to automatically optimize the exposure for an image. The Highlight and Shadow settings in the Image Controls dialog box are automatically set.

- The Auto Exposure button appears dimmed and is not available when TET (Text Enhancement Technology) is selected in the Image Type dialog box.*
- The Auto Exposure feature is automatically activated when scanning from the Easy menu.*

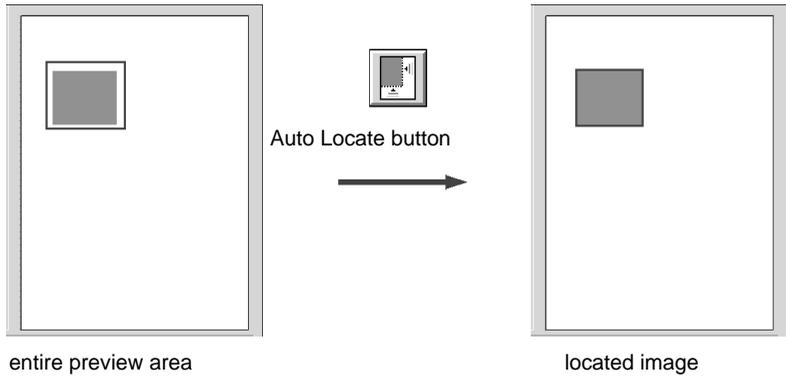
## ***Reset Button***

Use the Reset Button to change the image control settings you made back to their default settings. If you do not alter any image control settings, this button appears dimmed and is not available.

## Auto Locate

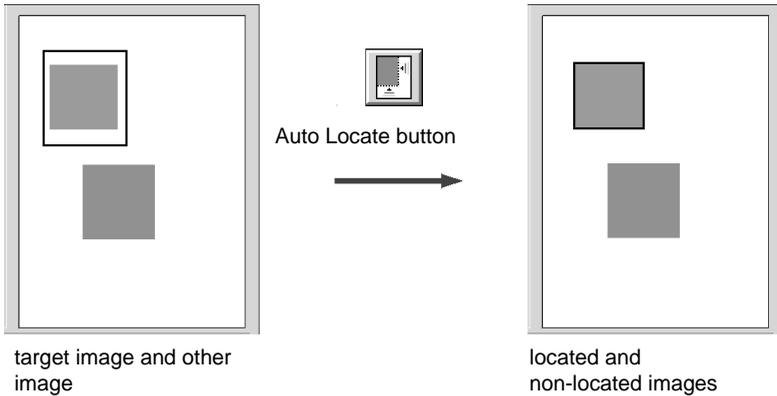


Click the Auto Locate button on the Advanced menu to cause the scanner to automatically locate and select the target image. The image appears without white borders in the Preview window.



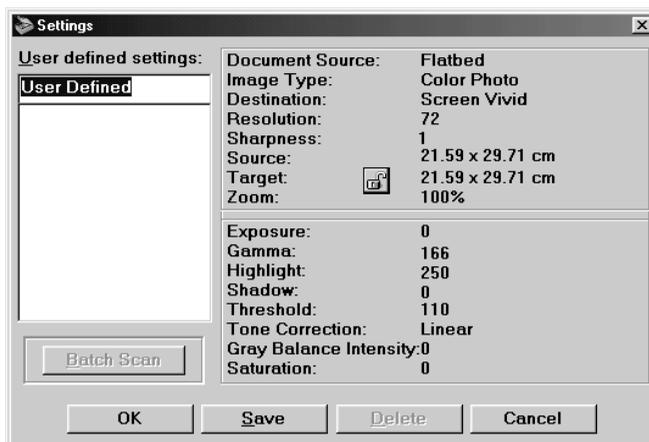
- ❑ *The Auto Locate button appears dimmed and is not available when TET (Text Enhancement Technology) is selected in the Image Type dialog box.*
- ❑ *The Auto Locate feature is automatically activated when scanning from the Easy menu.*

If a document contains more than one image, select a target image by dragging the mouse pointer over the image and clicking the Auto Locate button. The selected target image is located automatically.



## Settings

Click the Settings button on the Advanced menu to view the following dialog box. You can view all the settings for the current preview image in this dialog box. Also, you can apply any custom settings you have saved.



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To save the currently selected settings, type a new name in the User defined settings field, then click Save.

To apply saved settings, select a setting name from the list, then click OK. The preview image will reflect the settings you saved.

To restore the prior settings, click Cancel.

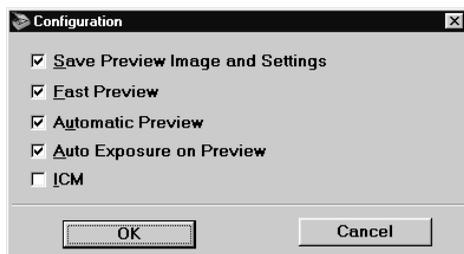
To delete a setting, select the setting name in the list, then click Delete.

To scan a single image using several variations of settings, make and save each group of settings as described above. Then hold down the Shift key while clicking the custom settings you want to select in the User defined settings list. After selecting all the settings you want to use when scanning, click Batch Scan. The scanner scans the image once for each group of settings you have selected.

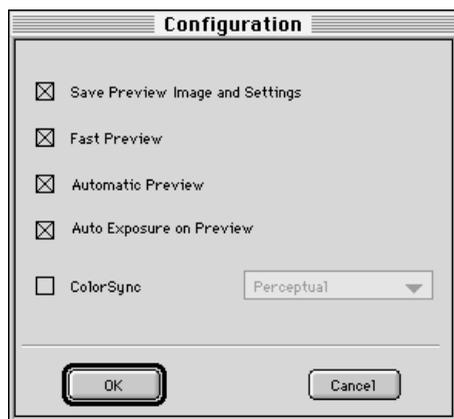
## Configuration

Click the Configuration button on the Advanced menu to view the following dialog box. You can make settings that affect the Preview window.

Windows



Macintosh



### Save Preview Image and Settings:

Select this check box to automatically save the preview image and all the image settings when you exit EPSON TWAIN (quit scanning). The next time you restart EPSON TWAIN, the last preview image and settings will reappear.

**Fast Preview:**

Enables high-speed loading of the preview image. If this is selected, the preview image is scanned in Draft & fast mode. If this is not selected, the preview image is scanned in Best & de-screening mode, and you can get accurate values of the Highlight, Shadow, and Gray Balance Intensity by sampling using the eyedropper in the preview image.

Do not use this feature (do not select the check box) when quality is more important than speed.

**Automatic Preview:**

Previewing automatically starts when you acquire an image with EPSON TWAIN (if this check box is selected).

**Auto Exposure on Preview:**

Displays the preview image having automatically optimized exposure settings. The result is the same as if you clicked the Auto Exposure button.

**ICM, ICM/sRGB (for Windows)**

Depending on the Windows version, this setting may not be available or the caption is different.

Select this check box to reproduce the colors in your image using the Windows ICM color management system. This setting appears only in Windows.

- If your output devices (printer and monitor) do not support ICM, leave this check box clear.*
- See page 6-4 for more details.*

## **ColorSync (for Macintosh)**

Select this check box to reproduce the colors in your image using the ColorSync color management system. This setting appears only with Macintosh.

*If your output devices (printer and monitor) do not support ColorSync, leave this check box clear.*

## Chapter 5

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# Understanding EPSON Scan! II Features

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EPSON Scan! II is software that allows you to access EPSON TWAIN to scan images. You can then save the scanned images and export them into other formats.

The following sections describe how to use the advanced features of EPSON Scan! II.

*Parenthesized words following apply to Macintosh users.*

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## **File Menu**

This section describes the commands located on the File menu and the functions those commands perform. To access these commands, open EPSON Scan! II and click File.

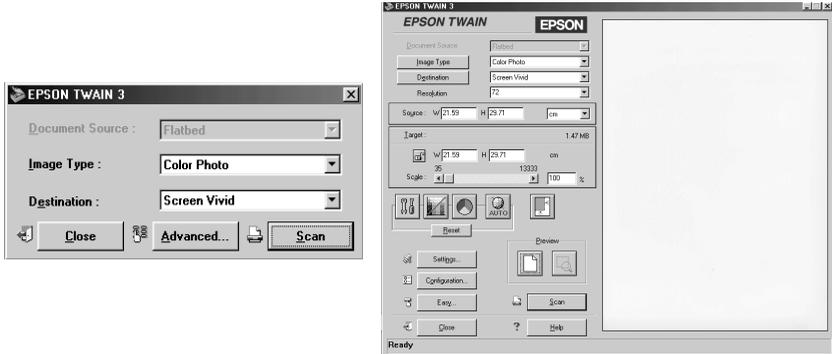
For detailed information about the settings in the EPSON TWAIN window, see Chapter 4.

## **Select Source**

Before using the scanner, choose Select Source and select EPSON TWAIN 3(32-bit) on Windows, or EPSON TWAIN 3 on Macintosh from the Data Source name box. This procedure only needs to be performed the first time you start scanning.

## Acquire

To scan an image, choose Acquire. EPSON TWAIN opens and one of the following menus appears.



Click Scan, and a scanned image of the document on the document table will appear on your screen. Be aware that it may appear behind the menu.

## Save As

To save the scanned image in the EPSON Scan! II original file format, choose Save As. Type a name for the file in the File Name (Save image as) field, and then click OK (Save).

To save the scanned image in a file format that other applications can open, see the section below.

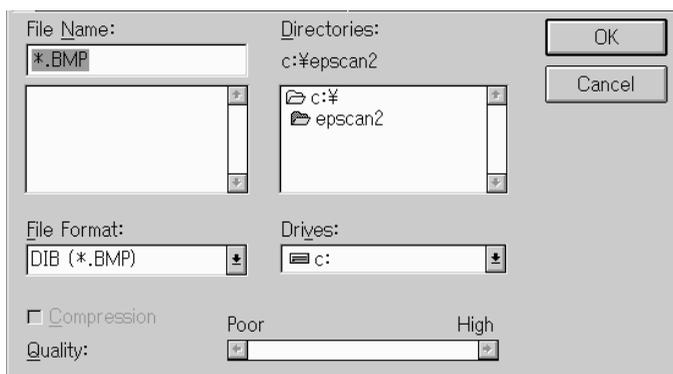
## Export

The files saved in the EPSON Scan! II original format (\*.org) cannot be opened by other application software. To use the scanned image in other application software, you must save it in an appropriate file format by exporting it. Follow the steps below.

### Note:

*EPSON Scan! II can only open files saved in the EPSON original file format. Therefore, it is recommended that you first save your image in the EPSON format in case there is a problem opening the image in your application.*

1. Choose Export. The following dialog box appears.



2. Select the directory (folder) where the file is to be saved.
3. Type a name for the file in the File Name (Export image as) field.
4. Select the desired file format from the File Format (Export File Format menu and then click OK (Export).

The following file formats are available:

**TIFF 5.0:** Standard Tagged Image File Format version 5.0. Black-and-white images can be exported with G3 compression.

**EPS:** Encapsulated PostScript file format.

**TIFF 6.0 (JPEG):** Tagged Image File Format version 6.0 with JPEG compression.

*TIFF 6.0 (JPEG) can only be selected for 16-million color or 256-gray level images.*

**JPEG:** Joint Photographic Experts Group format for data compression.

*JPEG can only be selected for 16-million color or 256-gray level images.*

**DIB:**  
(Only for Windows) Device-Independent Bitmap format for Windows version 3.0 or later. 4-bit/pixel images can be exported with RLE4 compression and 8-bit/pixel images can be exported with RLE8 compression. RLE stands for run-length encoding.

**PCX:**  
(Only for Windows) PC Paintbrush file format.

*PCX cannot be selected for 16-million color images.*

**PICT:**  
(Only for Macintosh) Standard QuickDraw™ picture format for Macintosh. Black & white images can be exported with G3 compression and 16-million color or 256-gray level images can be exported with JPEG compression.

Your software probably supports many of these formats. For information on supported formats, see your software manual.

The DIB (256 color, 256 gray, 8 color, 16 gray) and TIFF 5.0 (Black & White) formats allow you to compress the file to be exported. To compress the file, click the Compression check box.

If you select JPEG, TIFF 6.0 (JPEG), or PICT (JPEG compression), you can adjust the image quality level from 1 (poorest) to 5 (highest) by moving the Quality slide at the bottom of the dialog box.

## ***Acquire & Export***

To scan and save the image directly in a file format that your application can open, choose Acquire & Export. Because the scanned image does not appear on the screen, you can carry out scanning operations more quickly using this method.

1. Choose Acquire & Export. EPSON TWAIN opens.
2. Click Scan to open the Export dialog box.

*If you have selected ADF as the Document Source in EPSON TWAIN, a dialog box appears that prompts you to select the number of pages to be scanned. Click OK with All Pages selected to scan all pages loaded in the ADF. Select Single Page for scanning one page at a time.*

3. Select the directory (destination folder) where you want to save the file.

4. Type a file name and set other options if desired. Click OK to start scanning and save the image in the selected file format.

*If you have selected ADF as the Document Source in EPSON TWAIN, and type a file name with more than 6 letters in the file name box, the last 2 letters may be changed into a number that indicates the page order of scanning.*

## **Close**

Choose Close to close an image window.

## **Open**

To open files that have been saved in the EPSON Scan! II original format (\*.org), choose Open.

*EPSON Scan! II can only open files saved in the EPSON original file format. Therefore, it is recommended that you first save your image in the EPSON format in case there is a problem opening the image in your application.*

## **Exit**

Choose EXIT (Quit) to close EPSON Scan! II.

---

## ***Edit Menu***

This section describes the commands located on the Edit menu and the functions those commands perform. To access these commands, open EPSON Scan! II and click Edit.

### ***Copy (and Select All)***

You can copy and paste scanned images into other software.

1. Select the area of the scanned image to be copied by clicking and dragging the mouse over that area, or click **Select All** on the Edit menu to copy the entire image.
2. Click **Copy** on the Edit menu. The selected image will be copied to the Clipboard.
3. In your application, choose **Paste** (or a similar command).

---

## ***View Menu***

This section describes the commands located on the View menu and the functions those commands perform. To access these commands, open EPSON Scan! II and click View.

### ***All Dots[1:1]***

Shows a scanned image with each pixel, or picture element, corresponding to one display dot in the active window. The higher the image resolution, the larger the display image.

### ***Fit in Window***

Modifies the size of the scanned image to match the current size of the active window. The smaller the active window size, the smaller the display image. This will center an image if the window is larger than the image.

---

## ***Window Menu***

Lists all the images that have been scanned and opened.

To see all the names of the images that are currently open, click Window. Choosing a window name makes that window active and brings it to the front of the screen.



## Chapter 6

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# **Calibrating Your System**

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When you install EPSON Scan! II & EPSON TWAIN, the EPSON Screen Calibration utility is automatically installed.

EPSON Screen Calibration calibrates your monitor to ensure the tone and contrast on your screen closely match the original image. Be sure to calibrate your screen before starting to use your scanner.

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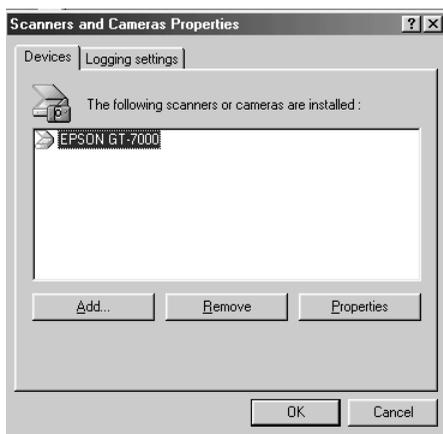
## ***Calibrating Your Screen***



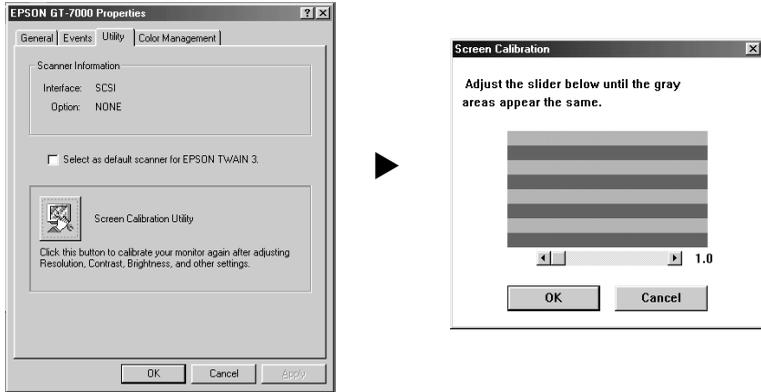
You need to calibrate your screen when you first install the scanner software, and anytime you switch to a different monitor.

### ***For Windows 98 users***

1. Double click the Scanners and Cameras icon in the Control Panel. The Scanners and Cameras Properties dialog box appears. Click the Properties button.



2. Click the Utility tab, then click the Screen Calibration Utility icon. The Screen Calibration dialog box appears.



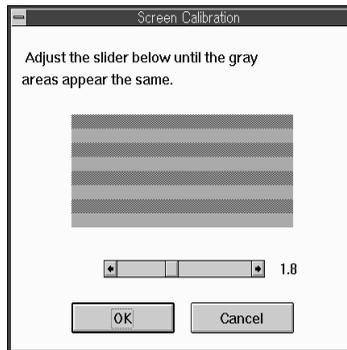
3. Click OK to finish calibrating your scanner and monitor.

*The gray stripes will not perfectly blend together; however, try to make the different tones match as closely as possible.*

The setting is automatically saved as the Screen profile in the Calibration list in EPSON TWAIN's Destination dialog box. Screen profile contains calibration information for the preview image as well as the scanned image.

## ***For other operating system users***

1. Click the EPSON Screen Calibration icon in the EPSON scanner window (EPSON Scan! II folder) to view the Screen Calibration dialog box.



2. Look at the screen from a distance and move the slider right or left until the two tones closely match.
3. Click OK to finish calibrating your scanner and monitor.

*The gray stripes will not perfectly blend together; however, try to make the different tones match as closely as possible.*

The setting is automatically saved as the Screen profile in the Calibration list in EPSON TWAIN's Destination dialog box. Screen profile contains calibration information for the preview image as well as the scanned image.

---

## ***Using ICM, ICM/sRGB (For Windows 95, 98 Users)***

If you use Windows 95 or 98 and your output devices (printer and monitor) support the ICM color management system, you can use the ICM calibration method.

## ***For Windows 95 users***

*If your output devices do not support ICM, leave the check box clear.*

Follow the steps below:

1. Run EPSON Scan! II and select Acquire or Acquire & Export to start EPSON TWAIN.
2. Click Configuration. Select ICM in the Configuration dialog box.
3. Make any other settings you desire.
4. Click Scan. The scanner scans an image using the ICM profile.

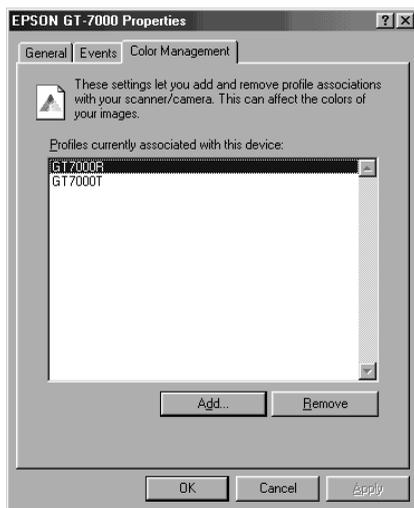
## For Windows 98 users

*If your output devices do not support sRGB, leave the check box clear.*

Follow the steps below:

1. Run EPSON Scan! II and select Acquire or Acquire & Export to start EPSON TWAIN.
2. Click Configuration. Select ICM/sRGB in the Configuration dialog box.
3. Make any other settings you desire.
4. Click Scan. The scanner scans an image using the sRGB profile.

*Adding or removing profiles on the Color Management menu of your scanner's properties dialog box will not affect the colors of your scanned images.*



---

## Using ColorSync (For Macintosh Users)

If your output devices (printer and monitor) support the Apple ColorSync color management system, you can use the ColorSync calibration method.

*If your output devices do not support ColorSync, leave the check box clear.*

Follow the basic steps below:

1. Run EPSON Scan! II and select Acquire or Acquire & Export to start EPSON TWAIN.
2. Click Configuration. Check ColorSync in the Configuration dialog box, then select Perceptual, Colorimetric, or Saturation from the drop-down list.

*Select Perceptual for photographs, Colorimetric for spot color, and Saturation for color charts or graphs.*

3. Make any other settings you desire.
4. Click Scan. The scanner scans an image using the ColorSync profile.

When the scanned image is printed or displayed with the output device calibrated for the scanner, the image reproduced is identical to the original.



## Chapter 7

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# **Troubleshooting**

Problems and Solutions. . . . . 7-2

---

## **Problems and Solutions**

Most problems you encounter while operating your scanner and software have simple solutions. This section divides the problems into three categories:

Setup problems . . . . .	7-3
Software operation problems . . . . .	7-5
Scanning problems . . . . .	7-6

Read the appropriate section to find your problem; then follow the recommended steps.

*If some settings appear dimmed in EPSON TWAIN, they cannot be selected because of the capability of your scanner or your choice of other settings.*

If you cannot solve a problem after reading and following the information in this chapter, contact your dealer or a qualified customer support person for assistance.

## Setup problems

---

### You cannot install EPSON TWAIN.

---

Cause	What to do
System is configured incorrectly.	Check your computer and operating system meets the system requirements on page 1-2.
	Make sure your computer has enough memory to run the application.

---

### The scanner does not appear in the Port list of the EPSON TWAIN Setup dialog box when you connect the SCSI model to your PC running Windows other than Windows 98.

---

Cause	What to do
The SCSI connection is not made properly.	Turn off the computer and scanner and check the connection between your hardware.
SCSI ID number is unsuitable.	Change the SCSI ID number to one that is not being used by any other SCSI device.
Connection sequence is incorrect.	Check the connection sequence and make sure the scanner's terminator switch is set correctly. See the scanner manual for details.

---

### No image appears after you click Test in the EPSON TWAIN Setup dialog box when using a PC.

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Cause	What to do
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No document on the document table.	Turn on the scanner and place a document on the document table.
The interface cable is unsuitable.	Make sure the interface cable meets the requirements of your interface board. See the manual that comes with the interface board.
The connection is not made properly.	Turn off the scanner and computer and check the connection between the scanner and computer.
Interface board is not installed properly.	Make sure the interface board is installed correctly.
Power on sequence is incorrect.	Turn off the scanner and computer. Turn on the scanner and then turn on the computer.
(For SCSI model users only) SCSI driver is not installed correctly.	Make sure the SCSI driver is properly installed.
SCSI ID number is unsuitable.	Change the scanner's SCSI ID number to one that is not being used by any other SCSI device.
Connection sequence is incorrect.	Check the connection sequence and make sure the scanner's terminator switch is set correctly. See the scanner manual for details.
Film Adapter is not switched off.	If the Film Adapter is installed, make sure it is switched off.

## **Software operation problems**

---

### **You cannot start up EPSON TWAIN**

---

<b>Cause</b>	<b>What to do</b>
The scanner is switched off.	Turn on the scanner and then turn on the computer.
The interface cable is unsuitable.	Make sure the interface cable meets the requirements of your interface board. See the manual that comes with the interface board.
The connection is not made properly.	Turn off the scanner and computer and check the connection between the scanner and the computer.
The interface board is not installed properly.	Make sure the interface board is installed correctly.
The software is not installed properly.	Make sure that EPSON TWAIN is selected properly in your application software. See "Starting EPSON TWAIN through your application software" on page 2-4.

---

### **You can't select optional equipment (Auto Document Feeder or Film Adapter)**

---

<b>Cause</b>	<b>What to do</b>
The option is not installed properly.	Make sure the optional equipment is installed correctly. See your scanner manual.

# Scanning problems

---

## Image is dark, with little or no detail.

---

Cause	What to do
The screen is not calibrated.	Calibrate the screen as described in "Calibrating Your Screen" on page 6-3.
Destination setting is incorrect.	Select Screen as the Destination setting (pagex-xx). Selecting a printer may cause onscreen colors to be different from the colors of the original, however colors will be reproduced correctly when it is printed.

---

## You cannot scan an image or you only get a few dots for the scanned image.

---

Cause	What to do
There is no document on the document table.	Make sure you have placed a document on the document table of the scanner.
Threshold setting for OCR scanning needs changing.	When OCR is selected as the Image Type, try changing the Threshold setting in the Image Controls dialog box. See "Image Controls" on page 00.

---

## Moiré (cross hatch) patterns appear in the scanned image during halftone scanning

---

Cause	What to do
Image Type setting is unsuitable.	Select the Quality & de-screening setting in the Image Type dialog box.

---

---

Transparent sheet was not used.	Place a transparent sheet between the document and document table to defocus the image.
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Document is not positioned correctly	Move or angle the document slightly.
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Sharpness setting is unsuitable.	Change Sharpness to a softer focus setting.
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Image size setting is unsuitable.	Change the image size smaller slightly.
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### **Scanned image is too large.**

---

<b>Cause</b>	<b>What to do</b>
Destination setting	Select Screen as the Destination setting. <hr/> Selecting a printer as the Destination setting, the print size will appear in the correct size even if the image is enlarged on the screen in some application .

---

### **Colors differs from the original or look strange.**

---

<b>Cause</b>	<b>What to do</b>
The screen is not calibrated.	Calibrate the screen. See Chapter 6.
Image Type and Destination settings are incorrect.	Make sure the Image Type and Destination settings are correct.

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---

Printed colors will not exactly match the colors on your monitor, since printers and monitors use different color systems: monitors use RGB (red, green, and blue), while printers typically use CMYK (cyan, magenta, yellow, and black).

---

### **Poor character recognition during OCR scanning**

---

<b>Cause</b>	<b>What to do</b>
Image Type setting is unsuitable.	Select OCR as the Image Type setting.
Threshold setting is unsuitable.	Try adjusting the Threshold setting in the Image Controls dialog box.
There is background noise on the document	Select Text Enhancement Technology from the B/W Option in the Image Type dialog box.

---

### **Scanning does not start by pressing the Start button.**

---

<b>Cause</b>	<b>What to do</b>
The Scanner Monitor software is not installed properly. (For Windows 95, NT 4.0 or NT 3.51 )	Make sure the Scanner Monitor software is running and check the Scanner Monitor's Launch Application path is set correctly.

---

---

The Scanner Event is not selected properly. (For Windows 98 )

Click the Events tab in your scanner's Properties dialog box and make sure the Disable device events check box is clear. And make sure the Start button is selected as the Scanner events, and at least one scanner event recognizable application in the Send to this application box is selected.



---

# Glossary

## ***additive primary colors***

Primary colors which produce white when mixed in certain proportions. These are red, green, and blue—the colors of the scanner lamps and color monitor displays.

## ***bi-level data***

Image data that is composed of 1 bit/pixel. A pixel is represented by a single bit of digital data that can express only 1 (light) or 0 (dark). See *bit/pixel*.

## ***bit***

Short for binary digit. The smallest unit of data in computer processing. A bit can represent two values, on and off, or 1 and 0.

## ***bit/pixel***

The unit that indicates the number of bits allocated for a pixel. The larger the value, the more detail a pixel can represent.

## ***browser***

A program which allows a person to read hypertext. The browser gives some means of viewing the contents of nodes (or "pages") and of navigating from one node to another.

## ***byte***

A unit of information consisting of eight bits. A byte can represent a control code or character.

## ***carriage***

A component of the scanner that contains the optical sensor and light source for scanning.

## ***color correction***

A method of adjusting the color image data for a particular type of device so that the reproduction results come close to the original colors.

## ***color separation***

A process to convert full-color images into a limited number of primary colors. The additive primary colors (red, green, and blue) are used by the scanner and the subtractive primary colors (cyan, magenta, and yellow) plus black are used for printing press separations.

## ***ColorSync***

Color management system for Macintosh that is designed to help you get WYSIWYG (what you see is what you get) color output. This software displays colors on your screen as they are on the scanned documents, or prints colors as you see them on your screen.

**default**

A set of values used when no other selections have been made.

**dithering**

A process in which software or an output device simulates continuous tones with groups of dots.

**document**

The physical item, such as a sheet of paper or a book, that you place on the document table for the scanner to read.

**dpi**

Short for dots per inch. A unit of measurement for resolution. The higher the value, the higher the resolution.

**dropout color**

A color you set the scanner not to recognize.

**ESC/**

Abbreviation for EPSON Standard Code for Image scanners, a system of commands that is used to control image scanners.

**ESC/P**

Abbreviation for EPSON Standard Code for Printers, a system of commands that is used to control printers.

**exposure**

A scanner function that lightens or darkens the scanned image data.

**halftoning**

Methods of using dot patterns to represent an image.

**home position**

The position at the back of the scanner where its carriage rests before a scanning operation.

**ICM**

Image Color Matching. Windows color management system designed to help you get WYSIWYG (what you see is what you get) color output. This software displays colors on your screen as they exist on the scanned documents, or prints colors as you see them on your screen.

**imagesetter**

A device that uses computer files to produce high-resolution text and graphics output on film or paper. These are usually found in service bureaus and printing companies.

**impact dot printer**

A printer that transfers ink onto the paper by striking an ink ribbon with a number of small pins.

***ink jet printer***

A printer that sprays ink onto paper through a number of small nozzles.

***interface***

A piece of hardware, a method, or a standard used for connection between or among computer devices and peripherals.

***laser printer***

A printer that uses a laser and the electrophotographic method to print a full page at a time. The laser is used to "paint" a charged drum with light, to which toner is applied and then transferred onto paper.

***line sequence***

A type of color scanning that separates primary colors line by line. The carriage makes only one pass.

***marquee***

A moveable and adjustable frame that marks the area of an image that will be previewed or scanned.

***monochrome***

Black and white images, or images represented only by the intensity of luminosity.

***OCR***

Optical Character Recognition. The technology that allows computers to "read" the text from physical objects. It requires a graphical representation of text to interpret. This usually comes from a scanned image.

***page sequence***

The type of color scanning in which the entire image is scanned once for each separation color.

***pixel***

Short for picture element. Every image is composed of a number of pixels. Pixels are also counted in units of dots.

***plain bi-level***

Bi-level image data without the halftoning process.

***port***

An interface channel through which data is transmitted between devices.

***primary colors***

Basic colors. See *additive primary colors* and *subtractive primary colors*.

***resolution***

Indication of how finely an image is resolved into pixels. Measured in dots per inch (dpi), pixels per inch (ppi), or samples per inch (spi).

***scan***

An operation performed by the sensor and the carriage. The sensor “reads” the colors in an image, and sends the color information to the computer or an output device as digital data.

***scanning area***

The physical size of the area that will be scanned by the scanner.

***sRGB***

A standard color space used as the default color space within the Windows 98 color management system (ICM 2.0).

***subtractive primary colors***

Primary colors that produce black when mixed in certain proportions. These are cyan, magenta, and yellow. In printing, black is often added to give more definition because the mixing of color inks cannot produce pure black.

***threshold***

A value that is referenced to determine how data is represented; for example, data is represented as 1 (or on) if the value of the data is larger than the threshold value, and data is represented as 0 (or off) if the value of the data is smaller than the threshold value. Scanners use a number of thresholds to convert images into digital data.

***tone correction***

Methods of adjusting the tone curve that make sure the reproduced image is as close to the original as possible. The method varies depending on the output device.

***tone curve***

The graph that shows the contrast between the input (original image) and output (image data) in image processing.

---

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