



User Manual

For PC

A3 Scanner

with

The TWAIN Driver (For PC)

English

User Manual

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Setting Up the Scanner

This chapter covers the scanner installation and has the following topics:

- System Requirements
- Unpacking the scanner
- Package contents
- The scanner parts
- Unlocking and locking the scanner
- Installing the scanner
- Installing TWAIN

System Requirements

The scanner and the bundled software comply with TWAIN for the PC platform. For the scanner and scanner software to perform suitably to task, you should at least have:

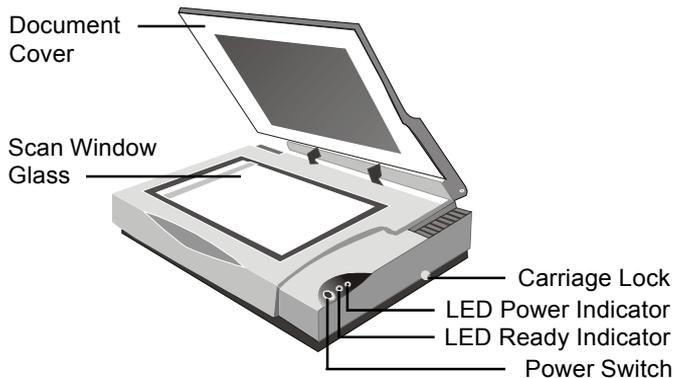
- IBM PC or compatible with Pentium III-based processor
- Windows® XP/Vista/7
- Available USB port
- SVGA color monitor
- CD-ROM or DVD-ROM drive
- At least 256 MB RAM
- 150 MB available hard disk space for software installation

Unpacking the Scanner

Carefully unpack the contents of the scanner package.

Inspect the items closely and if you find any item damaged or missing, please contact your Service Center. Also, save the box and packing material for in case you have to ship the scanner later.

The Scanner Parts



- **Document Cover**

The document cover holds the document in place during scanning. It can be raised when scanning objects such as books.

- **Scan Window Glass**

The scan window glass is where you lay down and position documents for scanning. Alignment marks and rulers are printed on the borders to help you position documents.

- **Carriage Lock**

The carriage lock prevents the scanner's internal mechanism from moving during shipment. Unlock the scanner before using and re-lock it when shipping the scanner.

- **LED Power Indicator**

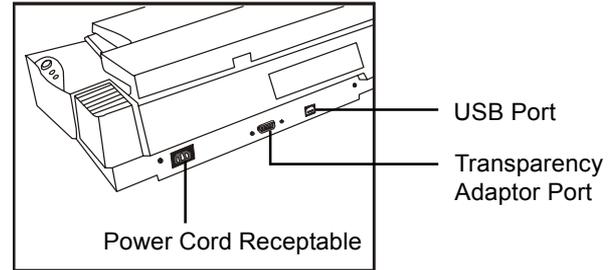
When you turn on the scanner, the LED power indicator flashes momentarily and then remains lit.

- **LED Ready Indicator**

When scanning or warming up, the LED ready indicator will keep flashing. When the scanner is available for scanning, the LED ready indicator will remain lit.

- **Power Switch**

Powers ON/OFF electrical power.



- **USB Port**

The Universal Serial Bus Port on the rear panel are true plug-and-play serial ports for attaching your scanner to your computer.

- **Transparency Adapter Port**

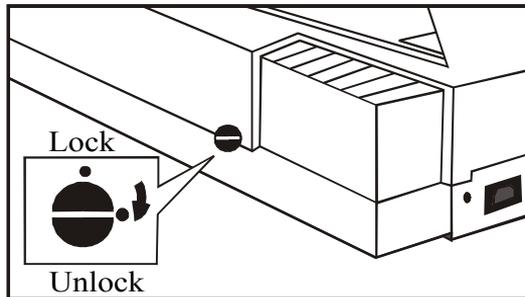
This port is for connecting an optional transparency adapter.

- **Power Cord Receptable**

Connect the scanner Power Cord to the Receptable. This is used for your scanner's power supply.

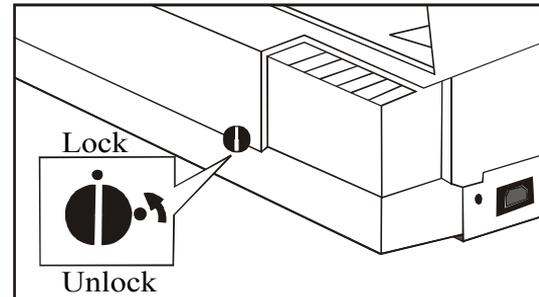
Unlocking the Scanner

In the rear of the scanner is a carriage lock that protects the scanning mechanism during shipping. To prevent causing damage to the scanner, you should unlock the carriage before operating the unit. As shown in the illustration, push the carriage lock down to release the carriage.



Locking the Scanner

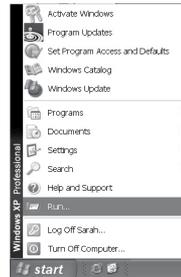
In case you need to ship the scanner once after installation, be sure to lock the carriage. Failing to do so may cause damage to the unit's scanning mechanism. To lock the scanner, first select Start, Programs, A3 scanner, "Scanner Lock". After successfully running the program, and the carriage has stopped moving, you can now lock the scanner by pushing the carriage lock up as shown in the illustration.



Installing the Scanner Driver

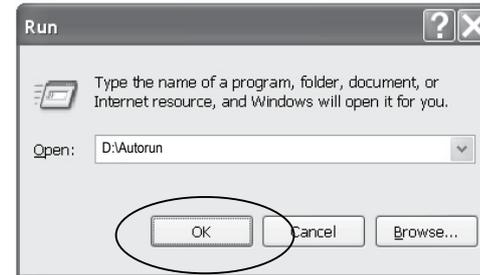
Please complete the software drivers installation before installing the scanner. Do not connect the power cord to the scanner at this stage.

1. Insert the Driver Installation CD into your disk drive.
2. Follow all on screen instructions.



If, after inserting the Driver Installation CD into your disk drive, the Driver Installation Welcome screen does not appear, do the following:

- a. Click on **Start** and select **Run**.
- b. In the **Run** dialog box, type **drive:\Autorun** where driver is your CD-ROM drive and click **OK**.



- c. Follow all on-screen instructions.

When presented with the option of whether to restart Windows after completing the software drivers installation, please choose **Yes**.

Note: Do not use the “add hardware” icon to install your scanner.



Configuring the Software

In order to scan with your scanner driver, you must first configure the TWAIN-compliant application software that came with your scanner or which was purchased separately.

The configuration process only has to be done once. After the configuration process is complete, the TWAIN driver will control all interactions between your scanner and the host program. To configure the software:

1. Make sure the scanner is still on.
2. Launch Windows.
3. Launch the host application software that came with the scanner.
4. Open the host application's **Select Source** command (usually under the **File** menu) and choose **Select Source** to display the **Select Source dialog box**.
5. From the list of sources, choose your scanner

as your image source and click **Select**. You will return to the main screen of the host application. Software configuration is now complete.

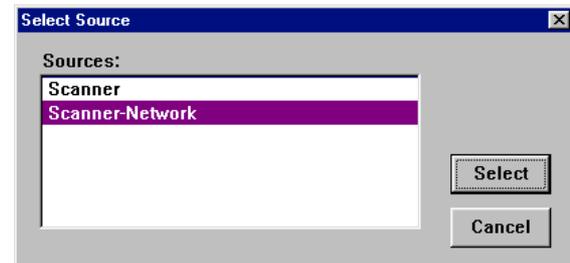
Network Scan

Enable users to search the installed A3 scanners in the network and acquire images from this network scanner.

Note: You must install TCP/IP Internet Protocol and complete its required installation and setting.

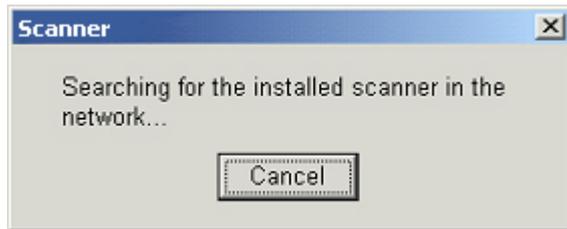
To use the Network Scan:

1. When using any application program to **Select Source**, choose **Scanner-Network**.



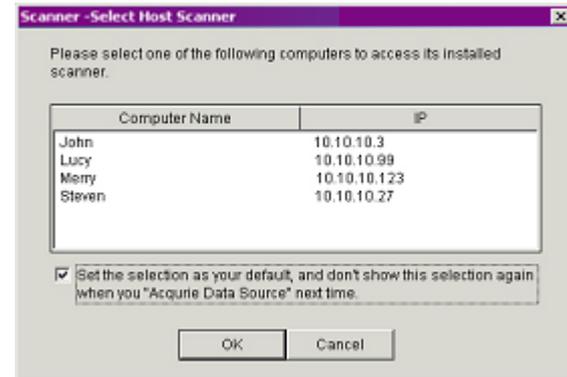
2. Select **Acquire** from the **File** menu (in some programs, the **Acquire** command will appear in a submenu under the **Import** command) and start scanning and acquiring the images from the host computer through the network.

Note: If you are acquiring the above source (Scanner-Network) for the first time, the software will process the search in the network so as to find the host computer that has installed this scanner. The dialog box representing searching process appears.



(Dialog Box 1)

Computers that have installed this scanner appear in the dialog box 2. You will be asked to select one of them to access its installed scanner.



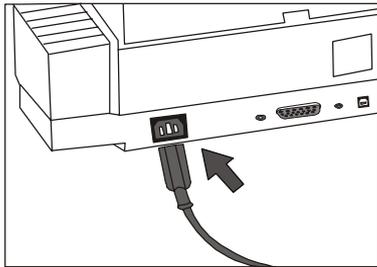
(Dialog Box 2)

You can also call out this dialog box by selecting Start, Programs, Scanner. When you run **Host Scanner for Network** Command, Dialog 1 appears first, and then Dialog 2.

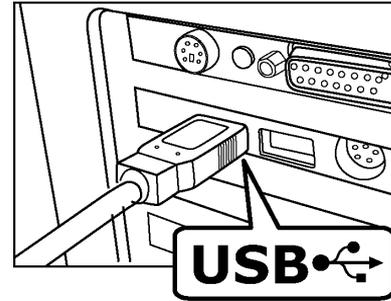
Installing Hardware

Refer to the following illustration and steps to connect your scanner:

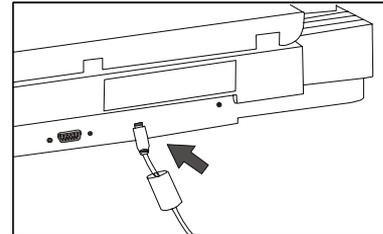
1. Connect the power adapter to the scanner and plug it into an appropriate power outlet.



2. With the power to your computer on, connect the scanner's USB cable to the USB port of your computer.



3. Connect the other end of the scanner's USB cable to the scanner's USB port.



Upon connecting the USB port, the Windows Operating system would automatically detect your scanner and update your system configuration.

Setting Up the Scanner

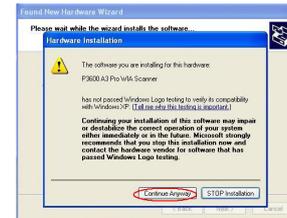


Just in Case it Happens

Upon installing the software drivers and connecting the power adapter, if the **Found New Hardware Wizard** dialog box appears, perform the following steps:



1. Click on the **Next** button.
2. Follow on screen instructions to complete the installation procedures.
3. Found New Hardware Wizard will remind you when the hardware installation is complete.





Scanning Tutorial

Power Up the Scanner

1. First, power up the scanner by pushing the power button.



The LED power indicator on the front panel of the scanner lights up and flashes for about a minute and then remains lit, signifying that the scanner is ready.

2. Power up the computer and wait until the computer finishes booting.

Position the Document

For the best possible image scans, it is important that you position your documents correctly and carefully. For this tutorial, use a paper-based document such as a color photograph. Procedures for document positioning are as follows:



1. Lift the scanner document cover.
2. Place the document face down on the glass and in the upper center corner.
3. Slowly lower the scanner document cover, making sure the document remains in position.

Scanning Methods

There are two separate methods to scan an image. The **Scanner Panel** is ideal for quick and simple scans, while the **TWAIN Driver** offers more control over the output.

Using the Scanner Panel

The **Scanner Panel** is a useful tool for users to scan in a quick and easy way. With its user-friendly interface, you can perform scanning within seconds and create your personal style with the scanned images by using the bundled softwares, including the following:

Batch Fax, Multi-Page Scan, Multi-Page OCR, Scan to Save, Image Enhancement, JPEG 2000, Smart Image Merge, Smart Photo Refresh, JPEG 2000 Viewer, Calibration Toolkit and Network Scan.

Following are the basic functions of the panel:

Status and Progress Bar Area

Shows the current state of operation on the Panel.

Scan

Click to start scanning.

Note: Status and Progress Bar Area shows warning automatically when nothing is put on the scanner glass.

Copy

Click to call out a Panel and start copying.

Note: you can perform basic functions of copy machines by changing the settings on the Setting Panel.

Fax

Click to first scan the document. Upon completion, a panel appears on screen to fax.

Note: Advanced fax tools are provided for final retouching. (e.g. move, rotate, add lines or texts and more.)

Email

Clicks to email the document with the image you put on your scanner window glass.

The Scanner Panel



OCR (Optical Character Recognition)

Clicks to recognize the document with the images/ characters you put on your scanner window glass.

Exit

To exit (or close) the Panel, simply click on the Exit icon.

Help

Help allows you to get information about the various topics and procedures enabling you to use and have a clearer understanding about your scanner and its functions.

Personal Style

Allows you to make changes to your systems.

Link

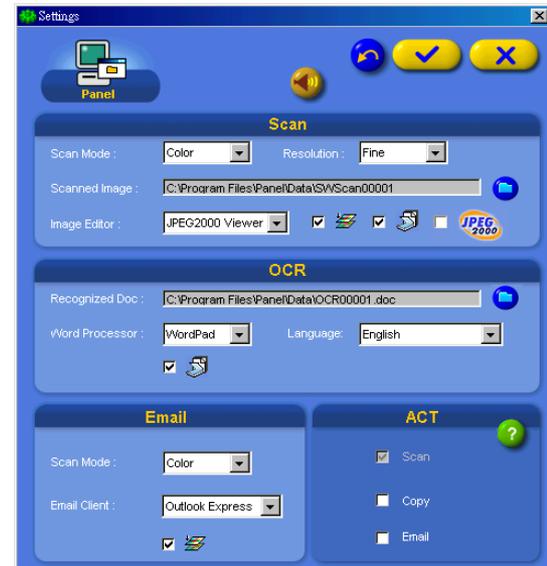
To use the additional programs bundled with your scanner, click on this button to call out the following items:

Bundled Software and Bonus features -

Additional programs bundled with your scanner to enhance your image editing process.

Settings

Clicks to call out **Settings** dialog box and do your favored settings.



For detailed information of how to use these functions, please click the **Help** button on the panel.

Acquire the Scanner TWAIN Driver

The TWAIN driver is the scanning module provided with your scanner. It is easily accessed from within the bundled scanner software or from within any TWAIN-compliant program. Before you start with the steps below, be sure you have installed and configured the bundled scanner software. Refer to *Chapter 1* for details.



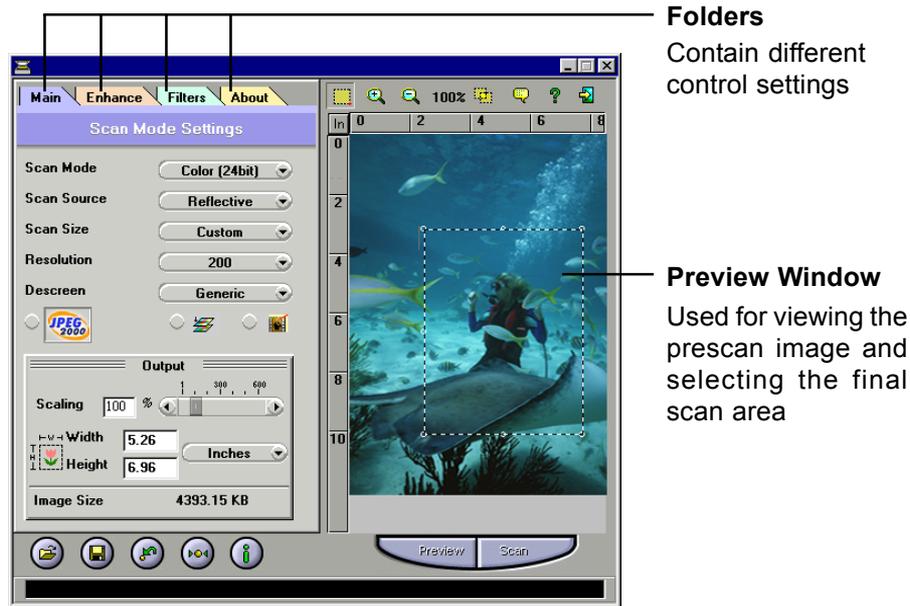
1. Launch Windows.
2. Run the host TWAIN-compliant software (e.g. Photoshop)
3. Call up the TWAIN Data Source by selecting **Acquire** from the **File** menu. (In some programs, the **Acquire** command will appear in a submenu under the **Import** command.) The TWAIN dialog box will appear in a submenu under the **Import** command.

The TWAIN dialog box contains control settings, which you must set prior to scanning a document. The basic steps to scan a document are:

1. Prescan the document.
2. Set the desired image area to be scanned.
3. Select the scan source.
4. Select the desired scan mode.
5. Select the desired resolution.
6. Click on the **Scan** button.

The Dialog Box

The TWAIN dialog box is divided into two sections: the left section where most of the control settings are located, and the right section, which is the Preview Window.



The Main Folder

Scan Mode

Determines how the scanner will read the image and refers to how the image will be reproduced after it is scanned.

Scan Source

Sets the media type of the document to be scanned.

Scan Size

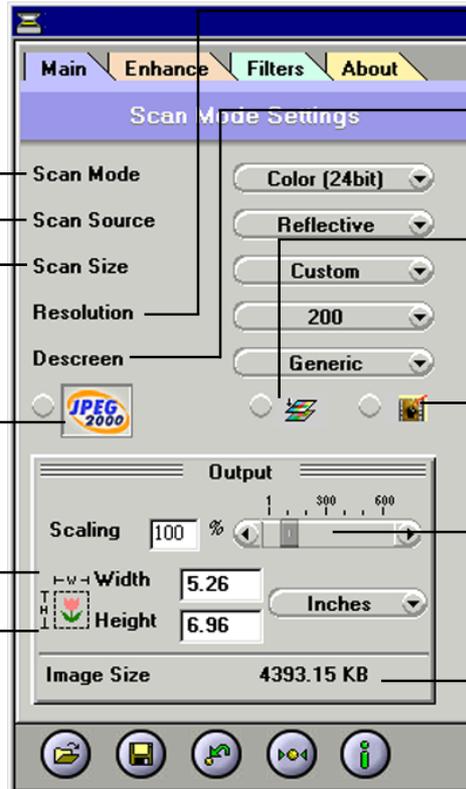
Refers to the size of the image or document that you are about to scan.

JPEG2000 Scan

The latest image compression standard that usually provides smaller file size and higher image quality than the original JPEG.

Width and Length

Show the dimensions of the image area inside the Crop Frame.



Resolution

Sets the resolution in dots per inch (dpi).

Descreen

Sets the media type of the document to be scanned to reduce image noise.

Color Matching Control

Color Matching allows the scanner to more accurately reflect the actual colors of the original image.

Photo Refresh

Photo Refresh allows you to automatically lighten and sharpen the scanned image by clicking on its icon. This function is applicable when you are scanning images in Color 24bit.

Output Scaling

Changes the dimensions of the final output.

Image Size

Displays the amount of computer space needed to display or save the selected image area.

The Enhancement Folder: Brightness/Contrast Control

Brightness/Contrast Control

Brightness Control

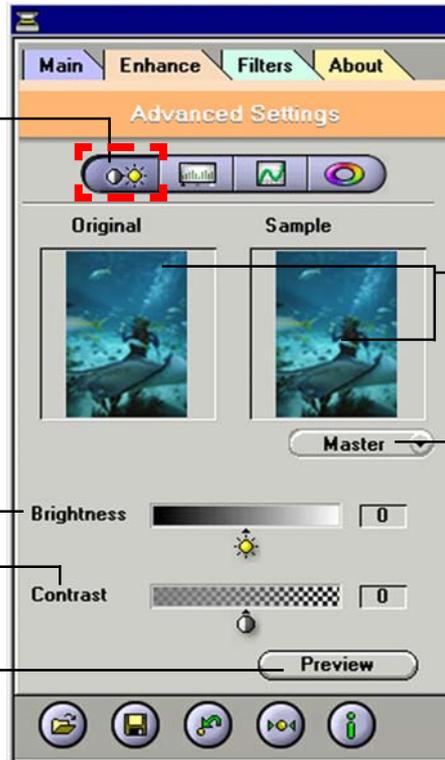
Allows you to adjust the overall amount of light in the image through a range of values (-127 ~0~+127).

Contrast Control

The Contrast Control allows you to adjust the overall amount of **black** areas or white areas in the image through a range of values (-127~0~+127).

Preview Button

This button allows you to see the effect of any changes made to the image prior to scanning. Any changes will appear in the preview window.



Thumbnails

Are used to see the effects of any changes in the control settings.

Channel Selector Control

Allows you to select the channel layers (red, green and blue) that make up a color image. You can choose to change the channels individually or choose master to change all channels equally and simultaneously.

The Enhancement Folder: Level Control

Level Control

Histogram

Shows the distribution of the brightness levels in the image.

Eyedropper tools

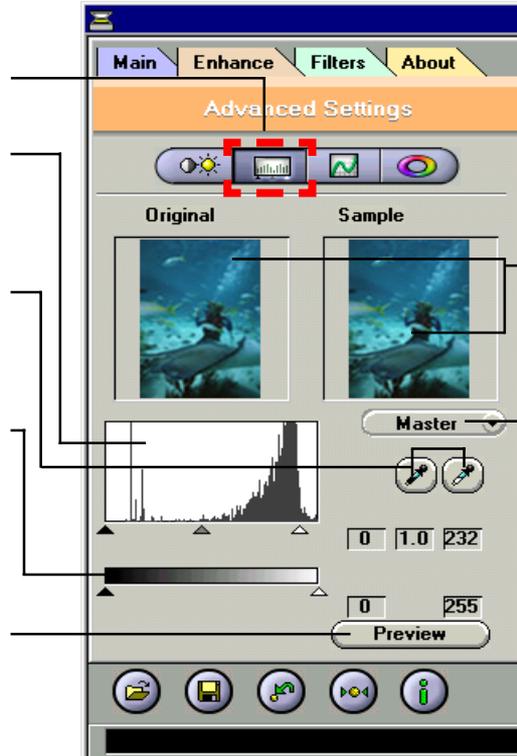
Eyedroppers are used to identify an image's highlights and shadows.

Level Control

Use the level slider to adjust an image's contrast and brightness.

Preview Button

This button allows you to see the effect of any changes made to the image prior to scanning. Any changes will appear in the preview window.



Thumbnails

Are used to see the effects of any changes in the control settings.

Channel Selector Control

Allows you to select the channel layers (red, green and blue) that make up a color image. You can choose to change the channels individually or choose master to change all channels equally and simultaneously.

The Enhancement Folder: Curve Control

Curve Control

Curve Control

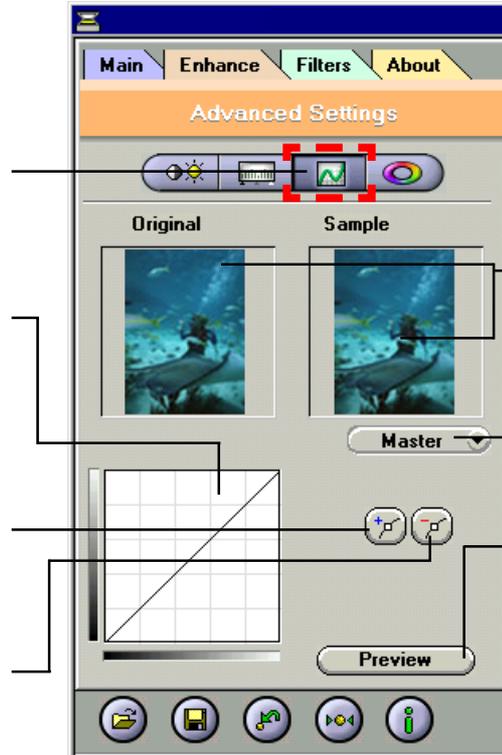
Applying a **curve** to an image enhances favored brightness ranges at the cost of others.

Add Anchor

To make a curve, simply place an anchor on the diagonal line and adjust its position. Add more anchors if you have to make a more complex curve.

Remove Anchor

You can also remove anchors.



Thumbnails

Are used to see the effects of any changes in the control settings.

Channel Selector Control

Allows you to select the channel layers (red, green and blue) that make up a color image. You can choose to change the channels individually or choose master to change all channels equally and simultaneously.

Preview Button

This button allows you to see the effect of any changes made to the image prior to scanning. Any changes will appear in the preview window.

The Enhancement Folder: Hue/Saturation Control Control

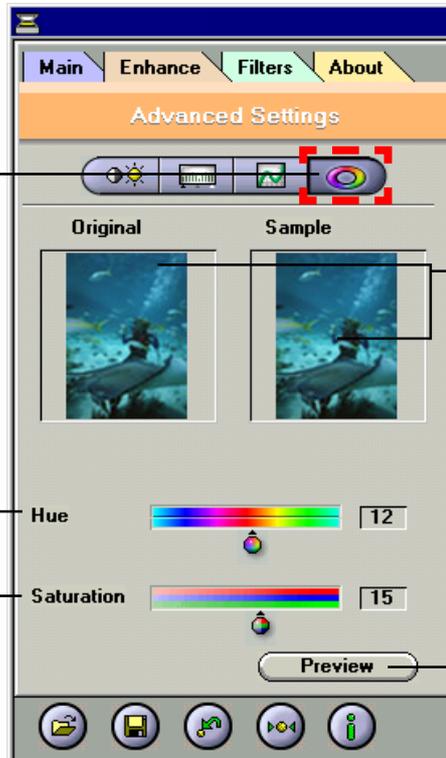
Hue/Saturation Control

Hue Slider

is composed of two color bars. The upper one is static and the lower one movable. Slide the latter, and you will see the image shift its overall coloring.

Saturation Slider

Lets you adjust an image's color purity.



Thumbnails

Are used to see the effects of any changes in the control settings.

Preview Button

This button allows you to see the effect of any changes made to the image prior to scanning. Any changes will appear in the preview window.

The Filters Folder

The Filters Tab allows you to adjust the individual effects of the scanned image by applying various filters to the image, prior to scanning.

None

No filter is applied.

Blur

Smooths or softens the image.

Sharpen

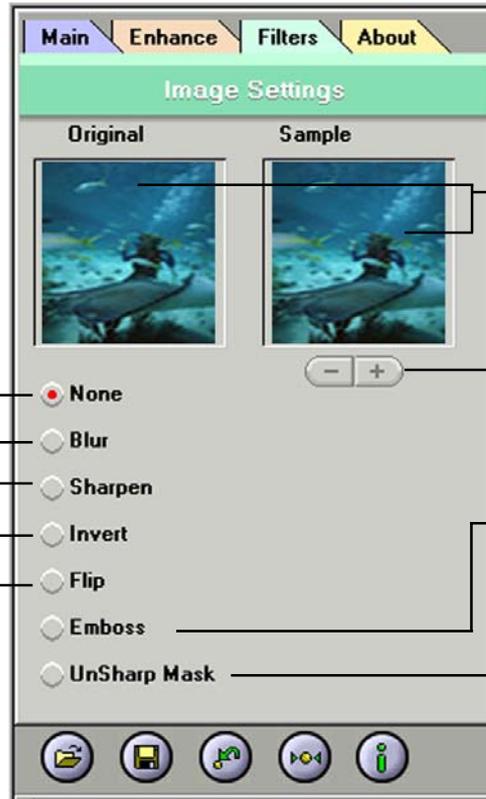
Enhances the detail in the image.

Invert

Reverses an image to its negative or compliment.

Flip

Creates a mirror image of the original.



Thumbnails

Are used to see the effects of the selected filter.

Filter Control Buttons

Use these buttons to add /subtract a degree of the Blur or Sharpen filter.

Emboss

Makes the elements in the image appear raised or sunken.

Unsharp Mask

Emphasizes shape edges and color boundaries.

The Preview Window

Cropping Tool

Selects the area in the Preview Window that will be used as the final scan.

Zoom Tool Button

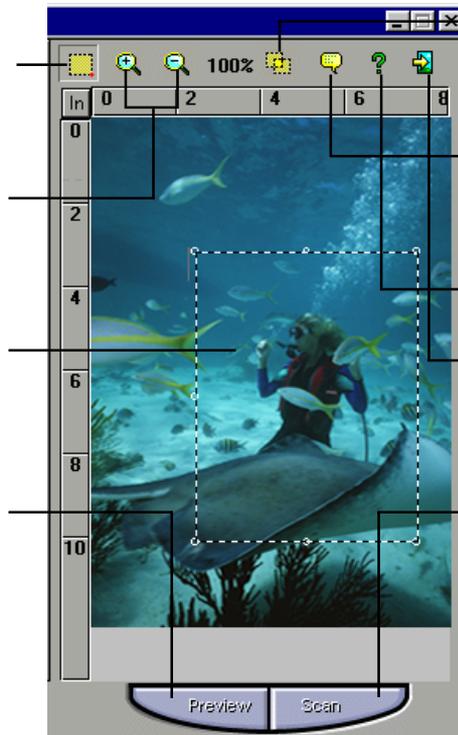
Allows you to **enlarge/shrink** an area of the image in the preview window

Crop Frame

Outlines the scan area or region that will be included in the final scan.

Preview Button

Allows you to see the effect of any changes made to the image prior to scanning.



Batch Scan Button

Allows creation of up to 30 scan regions (or Crop Frames) for multiple scanning.

Language Setting

Allows you to select the desired language that the dialog box will be displayed in.

Help Button

Provides On-line Help.

Exit Button

Click to exit (or close) the TWAIN or Batch Scan Dialog boxes.

Scan Button

processes the pre-scanned image, and displays it in the host software (where you opened up the TWAIN dialog box).



Load Button

Loads previously saved image settings.



Save Button

Saves the current image settings.



Previous Button

Returns the most recent selection to its previous setting. (Reloads the last saved image settings.)



Reset Button

Returns settings to their default values.



Info Button

Lists information about the current settings being used.

Prescan the Image

A Preview is a quick low-resolution scan of the entire original image. From this low-resolution scan you can get a clearer idea of the image area you want to include when you click **Scan**. To Preview, the steps are:



1. Place the document face down on the scan window glass.
2. Click the **Preview** button in the dialog box. After the scanner has scanned the document, the scanned image will appear in the Preview Window. From the Preview image, you can now set the exact image area you wish to include in your final scan.

Set Up the Scan Parameters

1. Set the desired image area to be scanned.

Use the Crop Frame in the Preview Window to outline the image area you wish to scan. Click one of the sides or corners of the Crop Frame and drag it out or in to the desired length and width.

To move the entire Crop Frame, position the mouse cursor inside it and drag with the left mouse button.

Crop frame —



Only the area inside the Crop Frame will be included in the resulting scanned image when you click **Scan**. The size information at the bottom of the dialog box is automatically updated when the Crop Frame is resized.

2. Select the scan source.

Since we are going to scan a color photograph, choose Reflective.

Reflective:

when scanning paper-based documents such as photographs or text (magazines, books, or images).

Negative/Positive:

when scanning positive film or transparencies, or Negative as a source for scanning negative film. (usually works with transparency adapter)

3. Select the desired scan mode.

The Scan Mode determines how the scanner will read the image.

- 48-Bit Color captures images in 281 trillion colors
- 24-Bit Color captures images in 16.7 million colors
- CMYK captures images for output to a color printer
- 256 Color captures images in its optimum palette
- 256Gray captures images in 256 grayscale

- Gray (16 bit) captures 16 bits of grayscale image information for every pixel in the screen image
- Text/Line Art is used for text documents or black-and-white images

4. Select the desired resolution.

Resolution is a measure of how much image detail information the scanner is to capture in a scan. A higher resolution results to a sharper image but requires more disk space for file saving. For this session, set the resolution to 300 dpi.

Execute the Scan Command

When you are finished with the control settings, click on the **Scan** button. The scanner



begins to scan the document and a message box appears on the screen displaying the progress of the scan.

When the scan is finished, the image will be displayed in the main screen of the host software.

Using Batch Scan

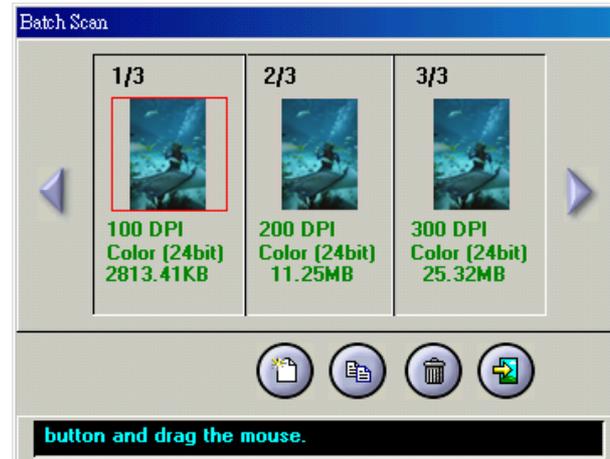
Batch scanning is an easy way to multi-scan any part of your document using different scan modes and resolutions. In batch scanning, you can specify up to a maximum of 30 scan regions, or you can scan a single region several times using different combinations of scan modes and resolutions.



To activate batch scanning, click on the **Batch Scan** button. This will bring up the Batch Scan dialog box.

The Batch Scan Dialog Box

The Batch Scan dialog box contains several controls that make batch scanning simple and easy to use. It will also display the number of batch jobs that you make when you create the scan regions.





- **New Batch Button**

Click on this button to create a new scan region on the image in the Preview Window.



- **Duplicate Batch Button**

Click on this button to duplicate a batch job. You can then specify different control settings for this particular batch job.



- **Trash Batch Button**

Click on this button to delete the selected or highlighted batch job.



- **Cancel Batch Button**

Click on this button to cancel batch scan and exit the Batch Scan dialog box.

Calibrator

Contents and Requirements

Contents Checklist:

Before proceeding, please insure that all of the contents from the list below have been included in your package.

1. A3 Scanner User Manual
2. IT8 Target Image Color Card

If anything from the list above is missing or damaged, please contact customer service to have it replaced.

System Requirements:

Pentium III Processor or higher
CD-ROM Drive
Windows XP/Vista/7
24-bit Video Card (or higher)
At least 256MB RAM
Minimum 150 MB available hard drive space

Introduction

Using the Calibrator

The Calibrator is a color calibrating program provided with your scanner. It allows you to adjust the color of the scanned images so that the appearance of the image closely matches the colors of your original document.

All of the Calibrator's functions are contained in easy to use graphical interfaces based on the traditional Windows format. Calibrating the scanner (or scanner plus transparency adapter) is a simple task that takes only minutes to complete.

About the Target Image

The target image included with this package is to be used to create a scanner profile. The target image is very important and must be handled with care, or the calibration of your scanner may be adversely affected.

We provide you the target image that can be used to calibrate your scanner, the **Reflective IT8**. It allows color matching for photographs and documents and is used in conjunction with your scanner.

Target Image Handling:

- Do not touch the image with your fingers. Handle it by the edges.
- Keep the image away from light when not in use. This includes sunlight, interior light and light from the scanner lamp. Long exposure to light will fade the colors and affect accurate calibration.
- Return the calibration image to its protective sleeve immediately after use.
- Store the calibration image by placing it face-down, away from light, in a cool, dry place. A good place to store it (both for protection and ease of memory) is inside the scanner box itself.

Calibrating and Applying

Calibrating the Scanner

Once you have successfully installed the calibration software, you are ready to calibrate your scanner and create a scanner profile.

To Create a Scanner Profile:

In Advance:

To ensure the quality of calibration, please do not open the document cover during calibrating.

1. Make sure that your scanner is properly connected and powered on.
2. Turn on the PC and launch Windows.
3. Place the appropriate target image face down in the top center portion of the scanner glass. Make sure that the target image is correctly aligned on the scanner glass with the IT8 indicators and TA indicators.

IT8 Card

Note: It is very important that you use the proper Target Image Color Card.

4. Access the Calibrator Wizard dialog box, which can be done in two ways:
 - I) Selecting Calibrator from the Programs Group under the **Start** menu.
 - II) Selecting the **Calibrator** icon from the **Bonus Features** menu on the Scanner Panel.

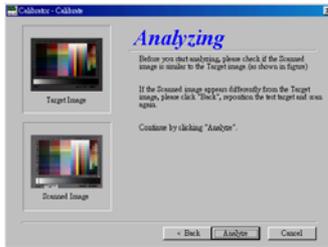
5. Click on the **Calibrate** button. The Calibration Wizard dialog box will be displayed. Click **Next**.



6. Click the **Scan** button to start scanning.

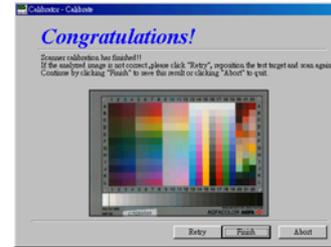


- After the scanning is done, a Dialog box appears, asking you to start analyzing the scanned picture (i.e. IT8 card).



Note: This dialog box shows whether you've put the card in the right position. If not, go back, reposition the card and scan again.

- A scanner profile appears and shows the result of calibration. You can choose whether to **Finish**, **Retry** or **Abort**.



The image will be scanned and a profile of the calibration information will be saved to your hard disk. This profile will be used by the computer to automatically match the colors between scanned images and the monitor.

Note: After you have successfully created a scanned profile, you can match the colors of your scanned images with this profile by checking the “**Color Match**” box on the scanner TWAIN interface (located in the Main Folder.)

Appendix A: Specifications*



Scanner Type:	Color CCD Flatbed	Interface:	USB 2.0
Light Source:	Cold Cathode lamp	Dimensions:	27.0" (L) x 17.3" (W) x 6.4" (H)
Color Mode:	true 48-bit/pixel	Power Consumption:	26.6 W
Gray Mode:	true 16-bit/pixel	Weight:	15.5 kg (34.21bs)
Text/Line Art:	1-bit/pixel (2 levels)	Support OS:	Windows XP/Vista/7
Resolution			
Optical:	1800 dpi (H) x 3600 dpi (V)		
Software			
Enhanced:	19200 dpi x 19200 dpi	Option	
Scan Area:	11.7" x 17" (297 mm x 431.8 mm)	TA/scan area:	11.7" x 17" (297 mm x 431.8 mm)

Appendix B: Maintenance

B

Ensure that your flatbed scanner operates at optimum performance by observing the following:

- Cover the scanner when it's not in use to avoid dust contamination
- Avoid environments where the scanner would be exposed to direct sunlight (or any other source of excessive heat) for long periods of time
- Protect the scanner from potential liquid spills such as soda, coffee, tea, etc.
- Operate the scanner on a level, well-grounded work surface, free of excessive vibration
- Be careful to avoid scratching the glass when placing multi-page documents (bound by sharp staples or paper clips) on the scan window glass. Scratches on the glass will show up as unwanted marks in scanned images.
- Don't open the scanner case because there is danger of electrical shock and there are no customer-serviceable parts inside. For servicing needs, call your scanner dealer for assistance.

Cleaning Procedures

1. Power off the scanner and disconnect the power cord.
2. Gently wipe the scan window glass with a soft lint-free cloth and mild liquid detergent to remove fingerprints, smudges, or loose particles. Do not use a spray detergent as this may get inside the case and damage the unit's internal components.
3. Wipe off the detergent with a soft cloth damp with water.
4. Finally, dry the surface by wiping it with a clean soft cloth.



Appendix C: Troubleshooting

C

Determining Error Messages

When the scanner is turned on, it will automatically perform a series of self-diagnostic tests. The LED power indicator located on the scanner's front panel should tell you if there is something wrong with the unit. Upon power up, the LED ready indicator lights up and flashes for about a minute and then remains lit. The scanner lamp will also be on and will remain on until you power off the scanner.

LED Ready Indicator Messages

1. If the LED ready indicator light continues to flash beyond one minute, call Technical Support.
2. If the LED ready indicator remains lit but the scanner lamp is dim, call Technical Support.

Other Troubleshooting

1. Check to make sure all cable connections are correct:
 - The USB cable is firmly plugged into the scanner and the computer.
 - The power cord is firmly connected to the scanner, plugged into an appropriate power outlet, and the power switch is turned on.

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