

# Scanner Software User's Guide

Version 2.2






*for  
Color Flatbed Scanners*






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# Table of Contents

<b>INTRODUCTION .....</b>	<b>1</b>
HOW TO USE THIS GUIDE .....	1
CONVENTIONS OF THIS GUIDE .....	1
A NOTE ABOUT ICONS .....	1
<b>CHAPTER I. THE TWAIN INTERFACE.....</b>	<b>2</b>
AN INTRODUCTION TO TWAIN .....	2
INSTANT DESCRIPTIONS: “TOOL TIPS” .....	3
CHOOSING TWAIN .....	3
TWAIN DIALOG BOX FEATURES .....	3
ADVANCED SETTINGS WINDOW .....	8
<i>Preferences Window</i> .....	9
ADVANCED WINDOWS FOR COLOR CORRECTION .....	13
<i>Color Channels</i> .....	13
<i>Histogram</i> .....	13
<i>Tone Map</i> .....	15
<i>Image Gamma</i> .....	17
SCANNING TIPS .....	18
<b>CHAPTER II. THE SCANNER SOFTWARE .....</b>	<b>19</b>
OVERVIEW .....	19
 THE ALBUM UTILITY .....	21
<i>About the Album Utility</i> .....	21
<i>Using the Album Utility</i> .....	22
<i>Album Utility Settings</i> .....	23
 THE COPY UTILITY .....	26
<i>About the Copy Utility</i> .....	26
<i>Using the Copy Utility</i> .....	26
<i>Copy Utility Settings</i> .....	28
 THE E-MAIL UTILITY .....	29
<i>About the E-mail Utility</i> .....	29
<i>Using the E-mail Utility</i> .....	30
<i>E-mail Utility Settings</i> .....	31
 THE WEB UTILITY .....	33
<i>About the Web Utility</i> .....	33
<i>Using the Web Utility</i> .....	34
<i>Web Utility Settings</i> .....	35
 THE OCR UTILITY .....	38
<i>About the OCR Utility</i> .....	38
<i>Using the OCR Utility</i> .....	38
<i>OCR Utility Settings</i> .....	40

<i>About the ABBYY FineReader OCR Program .....</i>	<i>40</i>
<i>Some key points about OCR.....</i>	<i>41</i>
 THE FAX UTILITY .....	42
<i>About the Fax Utility.....</i>	<i>42</i>
<i>Using the Fax Utility.....</i>	<i>43</i>
<i>Fax Utility Settings .....</i>	<i>44</i>
 THE NEGATIVE SCAN UTILITY .....	45
<i>About the Negative Scan Utility.....</i>	<i>45</i>
<i>Using the Negative Scan Utility.....</i>	<i>46</i>
<i>Negative Scan Utility Settings.....</i>	<i>47</i>
 THE SLIDE SCAN UTILITY .....	47
<i>About the Slide Scan Utility .....</i>	<i>47</i>
<i>Using the Slide Scan Utility .....</i>	<i>48</i>
<i>Slide Scan Utility Settings.....</i>	<i>49</i>
<b>CONTACTING PLUSTEK .....</b>	<b>51</b>

# Introduction

## How to Use This Guide

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This Software User's Guide provides instructions and illustrations on how to use your scanner. This guide assumes the user is familiar with the Microsoft Windows. If this is not the case, we suggest you learn more about Microsoft Windows by referring to your Microsoft Windows manual before using your scanner.

Chapter I discusses the scanner's TWAIN interface.

Chapters II provides an overview of the software bundled with your scanner and is a useful companion to the help menus found within the software applications themselves.

## Conventions of This Guide

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**Bold** — Important note or first use of an important term in a chapter.

**ALL CAPS** — Represents commands or contents on your computer screen.

## A Note about Icons

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This guide uses the following icons to point out information that deserves special attention.



**Danger**

**Danger:** A procedure that must be followed carefully to prevent injury, or accidents.



**Caution**

**Caution:** Information that, if not followed, may result in data loss or damage to the product.



**Attention**

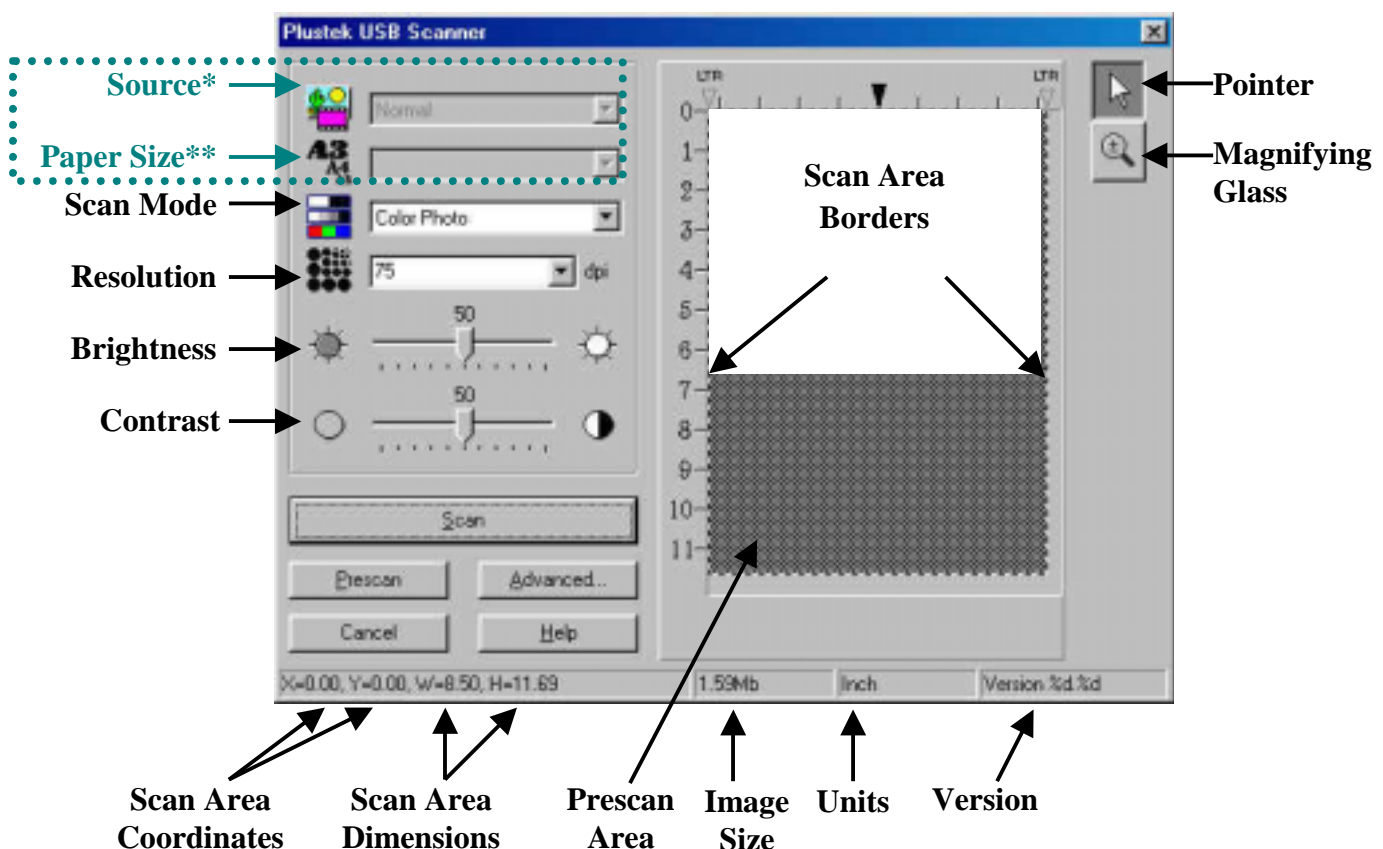
**Pay Special Attention:** Instructions that are important to remember and may prevent mistakes.

# Chapter I. The TWAIN Interface

## An Introduction to TWAIN

The TWAIN program is a very important piece of software that comes with your scanner. This program acts as an interface between the scanner hardware and the image-editing software you are using to view and edit images. The TWAIN program allows you to adjust a number of settings to define the quality of the scanned image. The following chapter describes the TWAIN interface (see Figure 1) which automatically opens when you click SCAN, or ACQUIRE from within a TWAIN compatible scanning program or image-editing application.

The TWAIN interface allows you to make important adjustments before scanning. For example, you can scan in different modes: black and white, grayscale or color; increase or decrease the resolution (dots per inch of an image), and adjust the brightness and/or contrast. The Prescan option allows you to adjust the borders of the scan area by increasing or decreasing the size of the crop box located inside the Prescan Area. The TWAIN interface also provides you with statistics such as how large an image will be after scanning, in terms of both file size and physical dimensions.



**Figure 1.** TWAIN Window

- \* Available only for scanners built with a transparency adapter or the Automatic Document Feeder (ADF).
- \* Available to scanners built with an ADF only.

## Instant Descriptions: “Tool Tips”

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Let the mouse pointer rest over any item within the TWAIN dialog box and a description of the item will instantly appear. However, for more information about the use and function of specific items, you can refer to the on-line TWAIN Help by clicking on the Help button towards the bottom of the window.

## Choosing TWAIN

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To select the TWAIN interface: From your TWAIN compatible program, locate the scanner setup or TWAIN source option usually listed under the FILE menu and choose the appropriate TWAIN source for your scanner.

## TWAIN Dialog Box Features

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This section describes all of the options available in the TWAIN interface. It is very important to correctly configure the first two items (**Source** and **Scan Mode**) in order to successfully perform a scan. All other items are optional and allow you to tailor the characteristics of the scanned image.



**Source** - Tells the scanner the method you will use to scan documents or images. **This option is available only for scanners built with a transparency adapter or an ADF (Automatic Document Feeder).**

**If your scanner comes with a built-in transparency adapter, there are three possible sources listed:**

- **Normal** - Use this setting to scan normal sheets of paper or any non-transparent material.
- **35mm Slide** - Use this mode for scanning slides.
- **35mm Negative** - Use this mode for scanning negatives.

**If your scanner comes with a built-in ADF (Automatic Document Feeder), there are three possible sources listed:**

- **Normal** - Use this setting to scan normal sheets of paper or any non-transparent material directly from the scanner glass.
- **ADF** - Use this mode for scanning text documents using the ADF.



**Paper Size-** This option is available only for scanners built with an ADF (Automatic Document Feeder), and only available when ADF is chosen as the SOURCE. Adjust this setting to tell the scanner the size of the paper loaded in the ADF. There are three settings to choose from:

- **A4**
- **Letter**
- **Legal**



**Scan Mode** - Tells the scanner the type of document you are scanning. There are five settings to choose from:

- **Text** - scans in black and white and is suitable for scanning text.
- **B/W Photo (grayscale)** - scans in 256 shades of gray, giving black and white images or photos depth and shadow.
- **16-bit B/W Photo (grayscale)** – scans in more than 65,000 shades of gray, improving the realism of b/w images.
- **Color Photo** - scans in millions of colors for photo-realism. Choose this mode when scanning color pictures or graphics.
- **48-bit Color Photo** – scans in billions of colors for professional imaging requiring precise uniformity of color.



**Resolution** - Resolution is measured in dots per inch (dpi). The higher the resolution, the more detailed the image, and the more memory and drive space the image will use.



**Brightness** - This is the amount of light that is concentrated onto a document while it is being scanned.



**Contrast** - Contrast adjusts the tonal range of an image by lowering mid-tone values and increasing values for high and low tones.



**Flip Horizontally** - This option will only appear when scanning transparencies or negatives, if your scanner is built with a transparency adapter. It will flip the scanned image around the central vertical axis. This feature will not show up on the prescanned image, but will only affect the final scanned image.





**Flip Vertically** - This option will only appear when scanning transparencies or negatives, if your scanner is built with a transparency adapter. It will flip the scanned image around the central horizontal axis. This feature will not show up on the prescanned image, but will only affect the final scanned image.



**Rotate 90° Clockwise** - This option will only appear when scanning transparencies or negatives, if your scanner is built with a transparency adapter. It will rotate the scanned image 90° clockwise. This feature will not show up on the prescanned image, but will only affect the final scanned image.



**Rotate 180°** - This option will only appear when scanning transparencies or negatives, if your scanner is built with a transparency adapter. It will rotate the scanned image 180°. This feature will not show up on the prescanned image, but will only affect the final scanned image.

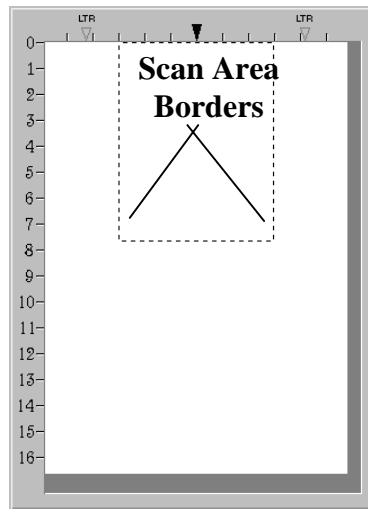


**Rotate 90° counter-clockwise** - This option will only appear when scanning transparencies or negatives, if your scanner is built with a transparency adapter. It will rotate the scanned image 90° counter-clockwise. This feature will not show up on the prescanned image, but will only affect the final scanned image.

**Prescan Window** - The Prescan Window (figure 2) is the large white area in the middle of the TWAIN window. Documents or images that are prescanned will be displayed there. **Note:** This feature is not available when the SOURCE is set to ADF.

Prescanning images is very useful as it gives you an idea of how a document or image will look after it is scanned. You can use the Magnifying Glass to zoom the view of the prescanned image by clicking on the magnifying glass button towards the upper right of the TWAIN window and then clicking on the part of the image you wish to view in detail.

**Note:** Using the magnifying glass to adjust the view of the prescanned image in no way affects the scanned image itself. In other words, zooming in on an image will not make the scanned image larger. Adjusting the size of an image must be done by scaling it in an image-editing application. Make sure to scan the image at a sufficiently high resolution when planning to enlarge it, so there are enough pixels to maintain image integrity after the scaling process.



**Figure 2. Prescan Window**

If you change any settings either in the TWAIN window or in any of the Advanced windows, the effects of the changes (except for Flip, Rotate, Filter and Descreen) will immediately appear on the prescanned image in the Prescan Area. This allows you to instantly judge the effects of almost any setting you change.

The Scan Area Border, designated by the dotted box in the Prescan Area, can be resized and moved. This is very important for keeping the image size (in terms of computer memory) as small as possible. To do this, first prescan the document or image you wish to scan by loading it in the scanner and clicking on the Prescan Button. After it appears in the Prescan Area, resize and move the dotted box so it fits snugly around the edges of the prescanned image. In this way, only the actual image, or the desired portion of an image will be scanned, and extraneous white spaces (which take up computer memory) will be removed. This feature is especially useful when scanning 3x5 photos, for example.



Placing the mouse pointer **INSIDE** the Scan Area Border box will change the cursor as shown to the left and allows you to move the entire frame by dragging the mouse.



Placing the mouse pointer at the **EDGE** of any side of the margin will change the cursor as shown to the left and allows you to reduce or expand the frame around the image.



**Pointer** - Changes the cursor from magnifying glass to pointer. The pointer must be used to adjust the Scan Area Border or change settings.



**Magnifying Glass** - Clicking on the magnifying glass button changes the cursor to a magnifying glass and lets you easily zoom in and out of the prescanned image in the Prescan Window.

To zoom in, click the left mouse button. To zoom out, click the right mouse button. To stop zooming in and out of the image, click on the Pointer button just above the Magnifying Glass button.

**Note:** The magnifying glass only affects the view of the prescanned image in the prescan area and in no way affects the scanning process or the final scanned image.

**Scan Button** - Accepts all settings and begins scanning.

**Prescan Button** - By clicking on the Prescan button, you can scan the source document into the Prescan Area in the middle of the TWAIN window. This allows you to modify the scan area (for smaller images such as photographs) and gives you a rough idea of what the scanned image will look like before you scan.

**Advanced Button** - Advanced controls for precision scans. See below for detailed explanations about the Advanced Settings window that appears when you click on this button.

**Cancel** - Clicking on the Cancel button saves your current settings and closes the TWAIN window

**Help** - Clicking on this button runs the on-line help program

**Status Bar** - The status bar (figure 3) contains important information about the settings in the TWAIN window.



**Figure 3. Status Bar**

**Scan Area Coordinates** shows the position of the Scan Area Border in terms of X and Y coordinates.

**Scan Area Dimension** shows the exact width and height of the Scan Area Border.

**Image Size** displays the amount of memory your image will use. The larger the image size, the longer it takes to actually scan the image. Larger images, due to their

memory requirements, will also take longer for your image-editing applications to process when making any corrections.



#### Attention

#### Tips for reducing the file size of an image:

- **Change the scan mode – Color mode collects the most amount of information and therefore requires more memory than grayscale or black and white.**
- **Reduce the resolution –See Scanning Tips later in this chapter for detailed information about selecting the proper amount of resolution.**
- **Reduce the scan area - When scanning images that are smaller than a full page, make sure you prescan the image and adjust the scan area borders in the Prescan Area window.**
- **Some file formats such as GIF and JPEG can compress image data, greatly reducing the amount of space an image takes up on your hard drive.**

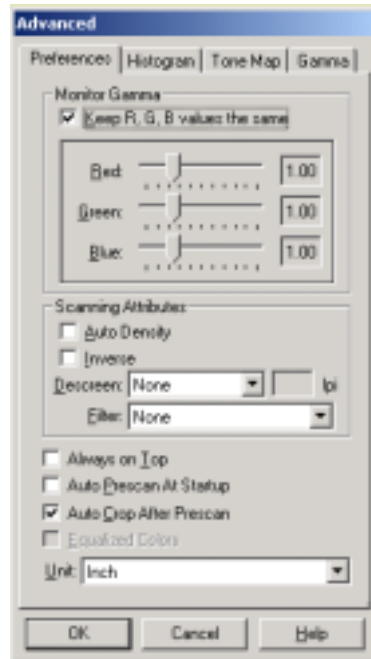
**Units** shows the measurement units used in the Prescan Area. The measurement units can be changed by clicking on the Advanced button.

**Version** displays the version of the TWAIN program you are using.

## Advanced Settings Window

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The Advanced Settings window (figure 4) has 4 tabs running along the top - Preferences, Histogram, Tone Map and Gamma, all of which will be explained in detail below. Click on one of the tabs to display settings. For additional instructions click on the Help button at the bottom-right of the window to view the on-line TWAIN help.



**Figure 4. Advanced Settings**

Most of the menu options are considered advanced features. We strongly suggest that you first become familiar with scanning and using the settings in the TWAIN window before attempting to use any of the following features. Many of these advanced features will also be available to you in your image-editing software after you scan.

## Preferences Window

The Preferences window (figure 4) has a number of settings that control how the image is scanned and how it is viewed in the Prescan Area.

### ***Monitor Gamma***

Monitor gamma defines how the colors in an image will be displayed on your monitor (not the color data in the image itself). The monitor gamma setting allows you to change the gamma values for your monitor.

**The monitor gamma only affects the prescanned image in the prescan area.** This is because image-editing applications have their own monitor gamma settings. The settings defined here should be exactly the same as the settings in the image-editing application you will use to view and edit the scanned image.

To correctly adjust the monitor gamma, you must first have your computer and working environment stable. This includes the lighting in the room, and making sure your monitor brightness, contrast and colors are properly adjusted. Next, drag the slider bars to alter the monitor gamma. When finished, click OK to exit.

Make sure that the monitor gamma values you set correspond to the monitor gamma values in your image-editing/graphics program. This ensures that colors in the prescanned image you see in the Prescan Area will be exactly the same as the colors in the final scanned image in the image-editing program.

When the monitor gamma in the TWAIN program and all your image-editing applications are the same, you will only need to adjust the Image Gamma to change the color brightness for scanned images in all applications.

Changing the image's gamma value (by clicking on the **Gamma** tab at the top right of the Advanced window) allows you to change the brightness of the colors **in the image itself**, and keeps all monitor gamma values in your programs consistent. This ensures that colors will always be displayed in the same way.

### ***Auto Density***

Checking this box automatically adjusts the Histogram to make the scanned image clearer. It does this by increasing the difference between color tones.

### ***Inverse***

When inverse is checked, the colors of an entire image will become reversed. A black and white image will look similar to a photo negative.



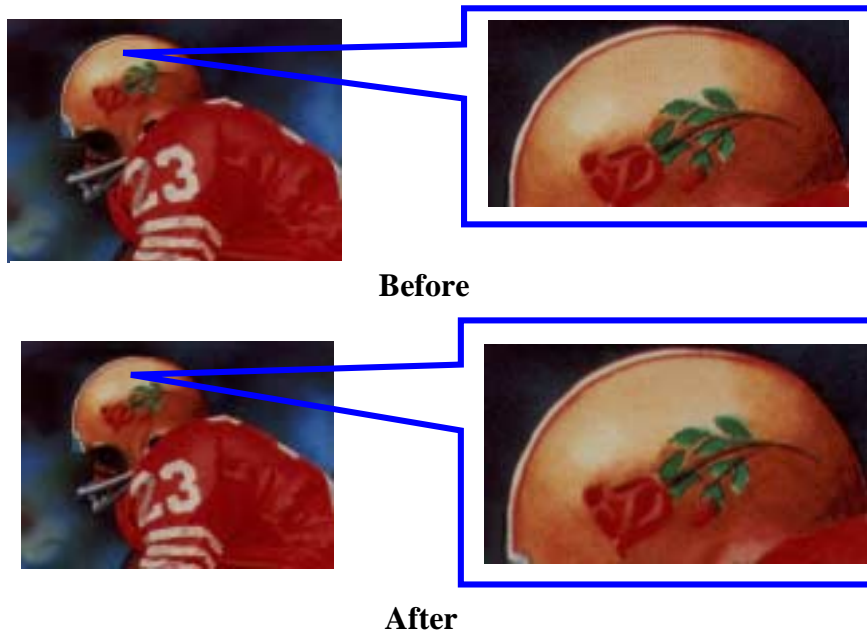
**Before**



**After**

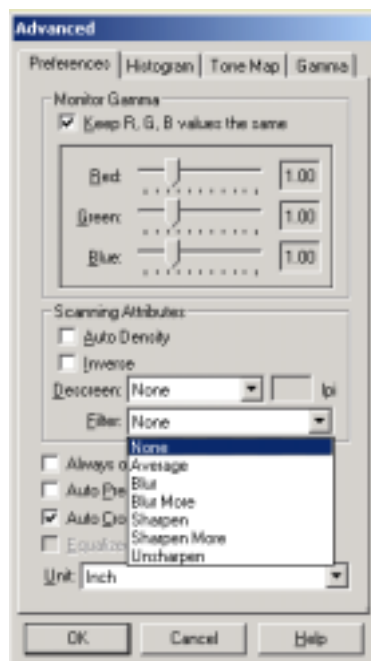
### ***Descreen***

Descreen applies filtering to images that contain moiré patterns (or herringbone). A moiré pattern is created from scanning pictures in magazines, or printed material that use color dithering. The descreen filter is not needed when scanning original photographs or black and white images and text, but is recommended when scanning any printed color graphics, such as a page from a magazine, in order to remove the unsightly interference patterns which may occur.



## Filter

There are five filter choices located under the **Filter** menu (Figure 5). Filters help you improve your scans by allowing you to sharpen images as well as remove excessive dots and distortion.

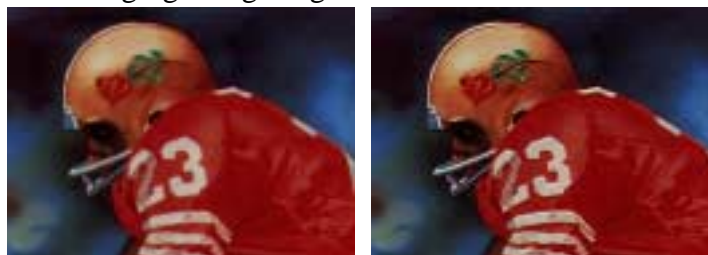


**Figure 5. Filter Menu**

**Average:** Determines the medium depth of an image and averages adjacent pixels to make images appear softer.

**Blur:** Lets you dull the edges within an image, and decreases the contrast by making dark edges lighter and light edges darker.

**Blur More:** Adds additional blurring.  
**Sharpen:** Allows you to sharpen the edges within an image by making the edges in an image more distinct. The Sharpen filter also increases contrast by making dark edges darker and surrounding light edges lighter.



**Before**

**After**

**Sharpen More:** Adds additional sharpening.  
**Unsharpen:** Sharpens the edges in an image to remove the blurriness.

### ***Always on Top***

When this box is checked, the TWAIN program will always be on top of the other windows open on your desktop.

### ***Auto Prescan at Startup***

Clicking this checkbox will cause the TWAIN program to perform a prescan immediately, whenever it is opened. Doing this allows the image to be automatically prescanned -- making settings adjustments quicker and easier, since any changes to settings made in the TWAIN window will immediately be shown on the prescanned image.

### ***Auto Crop after Prescan***

When this box is checked, the TWAIN program will identify the dimensions of the image you scanned and crop around the edges. The crop shape will be a square or rectangle and it will not trace the edges of oddly-shaped images. This command can be useful when scanning smaller images such as photographs.

### ***Equalized Colors***

This command is only available when scanning photo negatives. The Equalize command redistributes the brightness values of the pixels in an image so that they more evenly represent the entire range of brightness levels. When this box is checked, the TWAIN program finds the brightest and darkest values in the image and averages all the brightness values so that the darkest value represents black and the brightest value represents white. Use this command, for example, when a scanned image appears darker than the original and you want to balance the values to produce a lighter image, or vice versa.



## Unit

This area is used to choose the measurement units to be used in the Prescan Window.

## Advanced Windows for Color Correction

The Advanced window has 3 other tabs: **Histogram**, **Tone Map** and **Gamma** used for the TWAIN color correction options. These items are intended for users who are familiar with image editing tools and how they affect images. If you are just learning how to scan, then we strongly recommend not using these features until you become familiar with your scanner and its terminology. Many image-editing programs already have these features. However, if the need arises to adjust the color level of your scanned images, then click on the appropriate tab and perform the adjustments.

**Note: Before adjusting the Histogram, Tone Map and/or Gamma, perform a PRESCAN so you can view the changes before you scan.**

## Color Channels

Along the top of the Histogram, Tone Map and Gamma windows are the color channels (Figure 6). This can be useful in comparing color ranges between the color values, and in identifying methods when editing specific areas.



**Figure 6. Color Channels**

The first channel is the Master channel, the only active channel for gray images; and for color images it affects the three other channels evenly. The other 3 channels affect the Red, Green and Blue (RGB) colors in an image, respectively. Clicking on one of the color channels activates it in the graph in the center of the window.

**Note: Changes made to the individual color channels will be added on top of changes made to the Master channel.**

## Histogram

Histogram (Figure 7) is a representation of statistical data by rectangles: widths represent class intervals and heights represent similar frequencies. Make adjustments to the histogram only when the color balance of your scanned image does not match the original picture.



**Figure 7. Histogram**

However, if the colors in a scanned image appear unclear, the histogram can be used to make them more to your liking. A histogram shows how bright or dark colors in the image are, and can be used to adjust these levels.

When using the histogram, it is very helpful to prescan the image. Changes made to the histogram will instantly be shown on the image in the Prescan Area, allowing you to immediately judge the effects of the changes!

A histogram is a graphic representation of the tonal distribution (the brightness and darkness levels) in an image. It plots the number of pixels (dots) at each brightness level. The histogram displays these levels in the 4 color channels.

The x-axis of the histogram graph represents the color values from darkest (0) at the far left to the brightest (255) at the far right; the y-axis represents the total number of pixels at that value. A histogram for a dark image shows most of the pixels at the left side of the graph. A histogram for a bright image is more heavily weighted to the right side.

You can manipulate colors in the histogram by changing the values in the highlight, midtone and shadow slider bars towards the bottom of the window.



The highlight represents the high (bright) end of the color spectrum. If the highlight value of the Master channel is lowered to 245, all color values between 245 and 254 will be given the value of 255 (white). Thus, lowering the highlight of the Master channel brightens the whole picture. Doing this also increases the color contrast because all the remaining pixels between the midtone and the highlight will be automatically redistributed over the midtone

to 255 range. This redistribution serves to increase the difference between shades of color.

If the highlight for one of the Red, Green or Blue channels is adjusted then the results will only affect pixels of that color or containing combinations of that color (i.e. Yellow contains Green and Blue and would thus also be affected by changes to one of these channels).



The midtone is used to adjust the mid-range of color values. Raising the midtone darkens the image and lowering the midtone brightens the picture. For balanced color, the midtone should be set at 50%.



The shadow represents the low (dark) end of the color spectrum. If the shadow value on the Master channel is raised to 10, all color values between one and ten will be given the value of zero (black). Thus, raising the shadow darkens the entire image and raising the shadow in a specific color channel darkens pixels of that color. Raising the shadow also increases the color contrast of darker tones (the range between the midtone and the shadow).

The **Default** button at the bottom of the window sets the shadow to 0, the highlight to 255 and the midtone to 50% - the lowest contrast settings.



**Attention**

**Note: Checking the Auto Density box in the Preferences window will automatically adjust the histogram to give high quality images without needing to manually adjust the settings in the Histogram window.**

## Tone Map

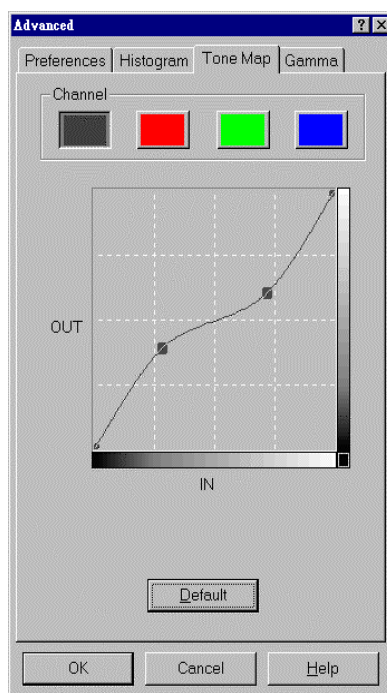
Like the histogram, the tone map (Figure 8) lets you adjust the tonal range of an image. However, instead of making the adjustments using just three variables (shadows, midtones and highlights, in the histogram), you can adjust any point along the tonal scale, and up to 20 points in all.

The x-axis of the graph represents the original brightness values of the pixels (input levels); the y-axis represents the new brightness values (output levels). The diagonal line that appears by default shows the current relationship between the input and output values; no color tones have been changed, so all pixels have the identical input and output values.

The curve moves from shadows on the left (black with a value of 0) to highlights on the right (white with a value of 255). All color tones appear somewhere in between.

When you move the cursor onto the map you will notice the **IN** and **OUT** values showing specific numbers. The in value represents the original value of the color tone.

The out value represents the new value of the color tone if you were to click on the graph and thus redefine it.



**Figure 8. Tone Map**

Before adjusting color tones on the tone map, it is a good idea to prescan the image. When this is done and the image appears in the Prescan Area, any changes made to the tone map will immediately appear on the prescanned image. This enables you to see the effects of the changes you make. When you are satisfied with the results and finally click on the Scan button to scan the image, the scanned image will contain the color properties you have defined.

There are two ways to adjust tones on the tone map:

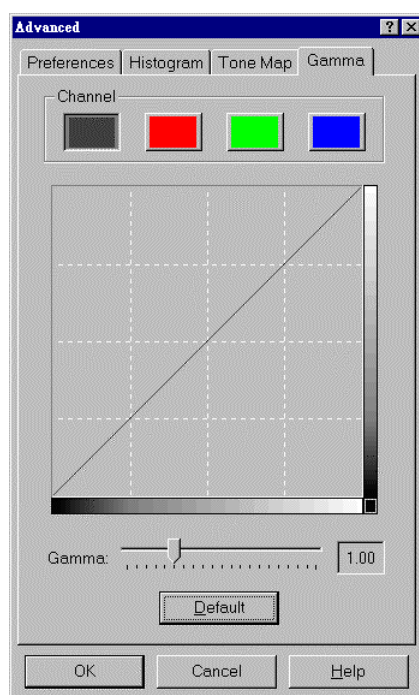
Clicking with the left mouse button on the graph as mentioned above, remaps the color values to the numbers shown in the In and Out boxes. All other color tones will also be remapped to create a smooth curve in order to keep the color of the image smooth.

The second way to alter the tone map (and possibly the most useful) is to click on the diagonal line on the graph and while keeping the mouse button pressed, move the mouse. Let the cursor hover over a single point on the graph while keeping the button pressed to give your computer time to recalculate the changes, and the results will show up on the prescanned image in the Prescan Area. All other color tones will also be remapped to create a smooth curve in order to keep the color of the image smooth. Release the mouse button when you are satisfied with the results. This action provides the most flexibility in adjusting the tone map and can be repeated on other parts of the line to create up to 20 remapping points.

Clicking on the **Default** button removes any changes you have made and resets the tone map to the original values.

## Image Gamma

Image Gamma is used to adjust the colors in the image that will be scanned into the computer. Gamma values follow a smooth curve, as seen below in Figure 9. By adjusting the gamma, you can change the tonal range of the selected color channel. Gamma values are primarily a measure of the brightness of a color. The larger the gamma value, the brighter the color becomes. Adjusting the gamma on the Master channel affects the tonal range for all colors equally. And adjusting the gamma for the individual Red, Green or Blue channels only affects pixels containing that color. Click on a color channel and then drag the slider bar near the bottom of the window to adjust the image gamma.



**Figure 9. Gamma settings**

Remember, you can immediately view the effects of any changes you make in the Prescan Area by first prescanning the image.

Clicking on the **Default** near the bottom of the window causes the gamma values in all color channels to be reset at 1.00.

**Note: By changing the gamma values you affect the image data, and influence how the image displays on your computer's monitor, and printer.**

# Scanning Tips

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## Determining the Correct Amount of Resolution

- **More is not always best.** Determine what your final application will be BEFORE you scan. In many cases a high resolution image will do nothing more but dramatically increase the file size, take up more disk space, and slow down the process.
- **Internet Applications:** For e-mailing color photos or pasting images on Web sites, a resolution of 75 dpi is the best choice. This is because the actual viewable resolution of the average monitor is 72 dpi. Additionally, download times are dramatically reduced.
- **Printing to Ink Jet Printers:** Check your printer documentation for recommended printer resolution settings. We recommend ranges between 75-300 dpi in general. Only use a higher scanning resolution (301 dpi and above) for smaller images when detail must be captured in a small area because it will be enlarged later.
- **Laser and Commercial Printers:** When printing an image to a laser printer or commercial printing press, it is important to understand the process in terms of line screen (a.k.a., LPI). Line screens are the number of screen lines per inch when an image is halftoned. Halftoning is the process of breaking the image down into a series of dots to reproduce continuous-tone art when printing on a press. A general rule when printing in one of these two manners is to scan one and a half to two-times the amount of the line screen. Laser printers that have resolution ranges of 300 and 600 dpi will have line screens between 50 and 100. Typical commercial printing is done at an average line screen of about 150. Therefore, an optimal scanning resolution would be from 225 to 300 dpi.

# Chapter II. The Scanner Software


## Overview

The Action Manager 32 interface provides you with quick access to the faxing, copying, image editing, e-mailing, and optical character recognition (OCR) features of the scanner.

Double-click the Action Manager 32 icon  in the Windows taskbar to display the Action Manager 32 menu:



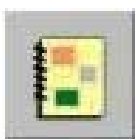
**Figure 10. Action Manager 32**

If Action Manager 32 is not set to automatically load with Windows, the Taskbar icon is not available. To start Action Manager, click START, PROGRAMS, PLUSTEK USB SCANNER, and then click the Action Manager 32 icon .



- The two buttons at the right (the Negative Scan Utility and the Slide Scan Utility) are only available on scanners built with a transparency adapter.
- The first six buttons from the left will be disabled (grayed out) if the corresponding software (e.g., printer driver for Copy Utility) has not been properly installed in Windows. To add those programs after the scanner CD software has been installed, close all open applications, install the appropriate software and then reboot the system for the software to be loaded into the system.

Figure 10 shows the eight buttons that comprise Action Manager 32 when all bundled software is installed with the scanner software. Clicking the buttons opens the programs described below:



The Album Utility enables you to scan documents or images and send them to Presto! PageManager for cataloguing into albums, creating presentations, making slide shows, designing screensavers and wallpaper, and saving images and documents to be used in Web publishing.



The Copy Utility enables your scanner and printer to emulate a typical office copier. Click this button to send scanned documents and images to your printer.



The E-mail Utility enables you to scan a document or image and automatically include it in an e-mail as an attachment. Click this button to send a scanned image to your e-mail client, attached to a blank e-mail, ready to be addressed and sent.



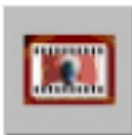
The Web Utility enables you to scan documents or images and send them to Page abc for creating and managing personal Web pages. Page abc enables you to create a Web page using photographs, images and sounds, and provides an easy way to upload the page to the Page abc site for online viewing.



The OCR Utility is used to convert images of text documents that are created by the scanner into text files that can be edited within a word processor.



The Fax Utility enables your scanner and fax machine to emulate a typical office fax machine. Click this button to fax scanned documents and images to your fax modem.



The Negative Scan Utility enables you to scan color or black and white 35-mm negatives. After scanning your pictures, you can choose to send the images to the PageManager, Presto! Mr. Photo or Presto! ImageFolio applications for editing. This feature is available only if your scanner is equipped with a transparency adapter.



The Slide Scan Utility enables you to scan color or black and white 35-mm positives. After scanning your pictures, you can choose to send the images to the PageManager, Presto! Mr. Photo or Presto! ImageFolio applications for editing. This feature is available only if your scanner is equipped with a transparency adapter.



For more information on Page abc, Presto! Mr. Photo, and Presto! ImageFolio, refer to the online help in the respective application.

### **Attention**

### ***Action Manager 32 Popup Menu***

Right-clicking the buttons opens a pop-up menu that contains the following options:



**Properties:** The Properties item is available for the Slide Scan, Negative Scan, and OCR Utility buttons. Selecting **Properties** opens the utility and enables you to set parameters for the utility.

**Always on Top:** Selecting this item keeps the Action Manager 32 window on top of all other windows on your desktop.

**Button Detection:** This option appears if your scanner has the one-touch action buttons on the front panel. When this option is checked, the buttons are activated. Unchecking this option deactivates the buttons.

**Help:** Clicking this option runs the online help, which gives detailed explanations of the functions and use of the Action Manager program.

### ***The One-Touch Scanner Button***

Some scanner models are equipped with four buttons located on the front panel. Pressing the buttons runs the corresponding Action Manager 32 Utility.



## **The Album Utility**

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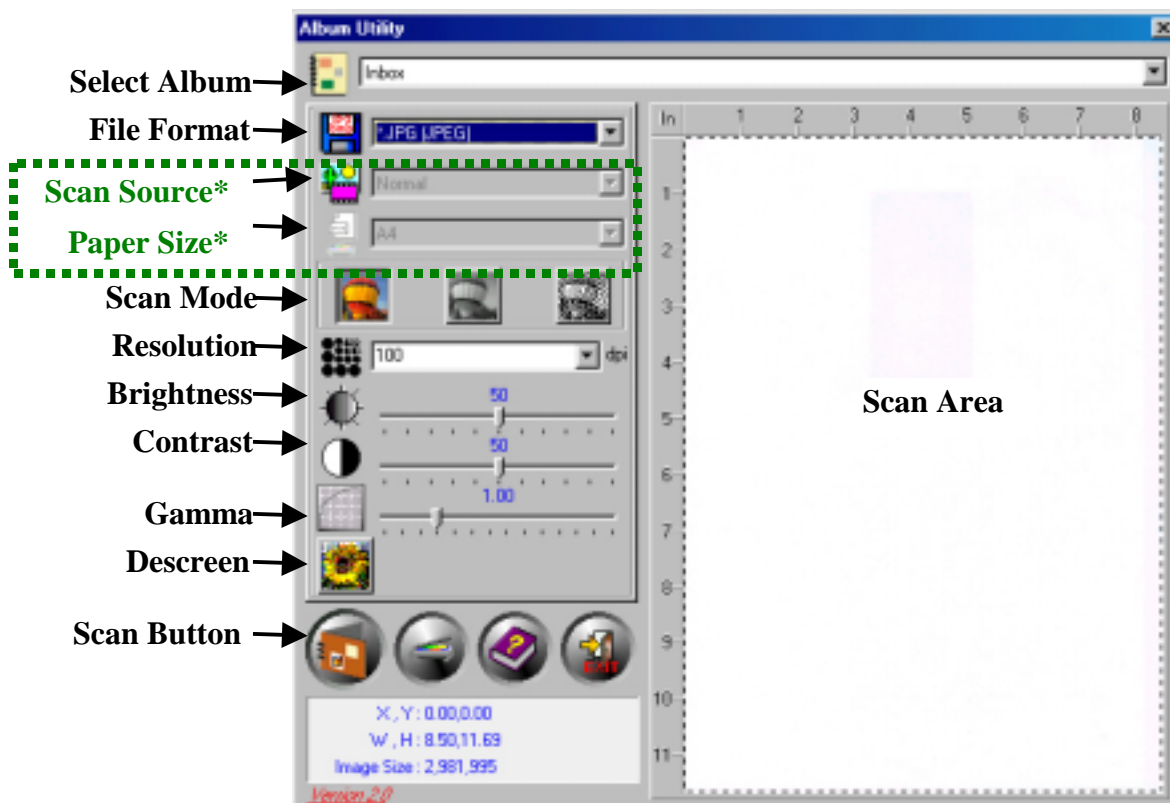
### **About the Album Utility**

The Album Utility scans images and opens them in the Presto! PageManager program for cataloguing into albums, creating presentations, making slide shows, designing screensavers and wallpaper, and saving images and documents to be used in Web publishing. Presto! PageManager supports lots of popular applications, including Microsoft Word, Corel WordPerfect, Microsoft Excel, Adobe PhotoShop, Eudora Mail, Lotus cc:Mail, Microsoft Mail, Internet Explorer and Netscape Navigator. Presto! PageManager automatically searches for installed programs and adds them to the Application Bar, enabling you to drag-and-drop documents and photos to your printer, fax, e-mail, and frequently used applications.



#### **Attention**

Use the Album Utility for scanning reflective media only. To scan negative film and slides, use the Negative Scan Utility and the Slide Scan Utility.





**Figure 11. Album Utility**

*\* This feature is available only for scanners built with an Automatic Document Feeder.*

## Using the Album Utility

The following describes how to scan a document with the Album Utility.

1. Place a document or image on the scanning glass.
2. Click the Album Utility button  in the Action Manager 32 Window.
3. Once the Album Utility (see Fig. 11) is opened, the scanner automatically starts the calibration and prescan process. Afterwards, the scanned image appears in the Scan Area of the Album Utility window. To define the margins and crop out sections of the image you don't want scanned, use the mouse to click and drag the corners or sides of the scan area borders.
4. Select which Album you wish the image to be scanned to.
5. Select the File Format from the drop-down menu.

6. If your scanner is not equipped with an ADF<sup>1</sup>, skip to Step 7. If your scanner comes with an ADF, make appropriate selections from the Scan Source and Paper Size fields.
7. Choose the desired Scan Mode by clicking the appropriate button: Color Photo Mode, B/W Photo Mode, or Text Mode.
8. Select the desired Resolution.
9. Adjust the Brightness to make an image or document darker or lighter.
10. Adjust the Contrast to increase or decrease the difference between the lightest and darkest areas on an image or document.
11. Adjust the Image Gamma, if necessary.
12. Click the Descreen button if desired.
13. Click the Scan to Album button  to begin scanning the document or picture.

After you have scanned the image, the Presto! PageManager program opens, and you can perform other image editing tasks.



Refer to the Presto! PageManager online help to guide you through any questions you may have while using this document management software. You may also consult the Presto! PageManager User's Manual automatically installed to your computer with the scanner software.

## Album Utility Settings



**SELECT ALBUM** enables you to choose which album you want to send the scanned image to. Presto! PageManager enables you to manage your scanned images by storing the images into online Albums, which is synonymous with the term Folders within which a collection of images (papers) is held. This Album option displays the various default folders within Presto! PageManager.



**FILE FORMAT** enables you to select an image data format to save the scanned document to. The following File Formats are available:

- **JPG (JPEG) – (Joint Photographic Experts Group) JPEG (pronounced "jay-peg") is a format that is commonly used for color images displayed on the Internet. JPEG reduces the file size of an image by discarding some of**

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<sup>1</sup> ADF (Automatic Document Feeder) – an attachment to the scanner that automatically inserts pages into the scanning area. It is available to particular models only. Consult the specifications on your scanner package box, quick guide, or user's guide if you are not sure whether your scanner is equipped with an ADF or not.

the non-critical data of the image. JPEG retains all of the color information of an image and offers varying degrees of compression.

- TIF (Aldus Tiff) – (Tagged Image File Format) is a widely-used bitmapped graphics file format developed by Aldus and Microsoft that handles monochrome, gray scale, and 8/24-bit color.
- PCX (Paintbrush) – PCX is a popular bitmapped graphics file format that handles monochrome, and 2-, 4-, 8-, and 24-bit color. PCX uses Run Length Encoding (RLE) to achieve compression ratios of approximately 1.1:1 to 1.5:1. RLE is best used with images that have large blocks of solid colors.
- BMP (Windows Bitmap) – (BitMaP file - also known as a "bump" file) is a Windows and OS/2 bitmapped graphics file format. BMP is the Windows native bitmap format. BMP files provide formats for 2, 16, 256 or 16 million colors (1-, 4-, 8-, and 24-bit color).
- TIF (Multiple Pages TIFF) – Multiple pages TIFF format.



**SCAN SOURCE** is available only for scanners built with an Automatic Document Feeder (ADF). The following selections are available from the drop-down menu:

- Normal – Use this setting to scan normal sheets of paper or any non-transparent material from the scanning glass.
- ADF – Use this setting if you want text documents to be automatically scanned via the ADF (Automatic Document Feeder). This feature is especially useful for scanning multiple pages.




**PAPER SIZE** is available only for scanners built with an Automatic Document Feeder (ADF) and ADF is chosen as the SCAN SOURCE. Adjust this setting to tell the scanner the size of the paper loaded in the ADF. It is preferable to scan the exact area of the document or image so the file size is the smallest possible and there are no large blank areas on the page. The following selections are available from the drop-down menu:


- A4
- Letter
- Legal


**SCAN MODE** tells the scanner what type of document you are scanning. The following options are available:




- **Color Photo Mode** – Color photo mode scans the document in 24-bit, RGB color. This mode takes the longest time and uses the most memory but results in the highest quality images.
-  **B/W Photo Mode** – Black and white photo mode scans images in black and white and can simulate 256 different shades of gray using dithering. This mode is best used when color isn't necessary for the scanned image since color images take so much time to scan and process, or when no color printer is available. Using this mode, even to scan color images, will result in high-


quality black, white, and gray output (the color will automatically be converted to gray).


-  **Text Mode** – Text mode is preferable when scanning text documents. It results in clear black and white documents suitable for printing and faxing.


 **RESOLUTION** measured in dots per inch (dpi), refers to the degree of sharpness of a displayed or printed character or image. The higher the resolution, the more detailed the image. However, MORE IS NOT ALWAYS BETTER! In many cases a high-resolution image will do nothing more but dramatically increase the file size, occupy more memory resources and disk space, and slow everything down. Determine what your final application will be BEFORE you scan.

For images viewed on a monitor only, or for Web and Internet use, a resolution of 75 dpi is the best choice. For color scans that will be printed on an inkjet printer, we recommend a range of 75-300 dpi. Reserve higher resolution scans (above 300 dpi) for scanning smaller images that will later be enlarged to maintain detail.

 **BRIGHTNESS** is used to lighten or darken the output. Lower the brightness to improve the legibility of fine text or handwritten documents. Increase the brightness to bring out dark areas in pictures.

 **CONTRAST** is used to increase or decrease the difference between the lightest and darkest areas on the image. Contrast adjusts the tonal range of an image by lowering mid-tone values and increasing values for high and low tones.

 **GAMMA** enables you to set the image gamma. Use the slider to adjust the image gamma for the scanned image. Gamma values are primarily a measure for the color brightness. The larger the gamma value, the brighter the color becomes. You can immediately view the effects of the gamma value you change in the Prescan Window by prescanning the image. Changing the image's gamma value allows you to change the brightness of the colors IN THE IMAGE ITSELF.

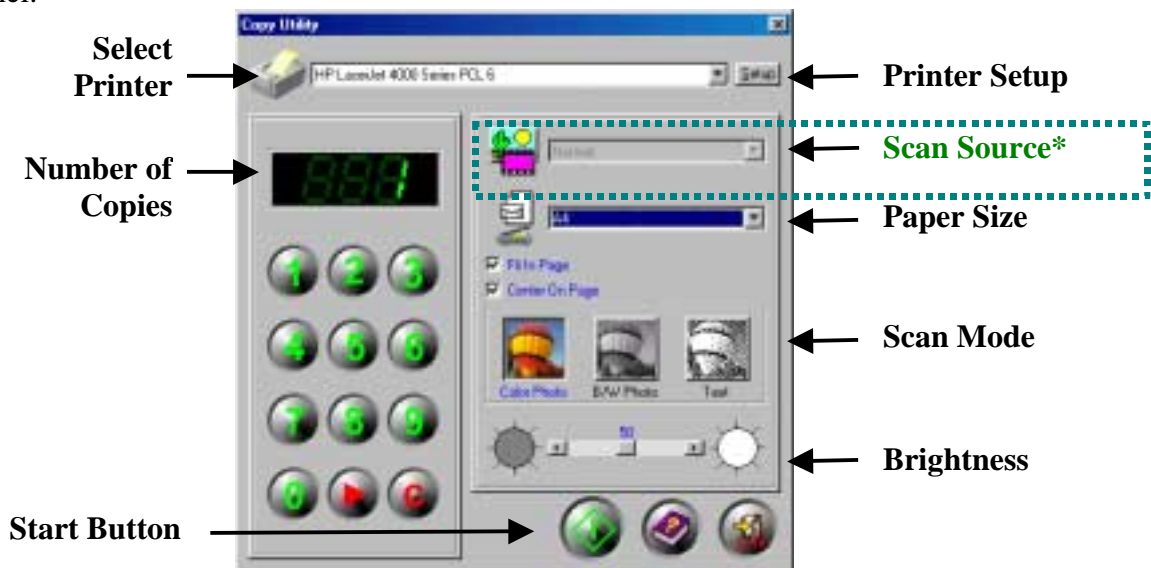
 **DESCREEN** applies filtering to images that contain moiré patterns (or herringbone). A moiré pattern is created from scanning pictures in magazines, or printed material that use color dithering. The descreen filter is not needed when scanning original photographs or black and white images and text, but is recommended when scanning any printed color graphics, such as a page from a magazine, in order to remove the unsightly interference patterns which may occur.



## The Copy Utility

### About the Copy Utility

Use the Copy Utility to scan documents and images and send them directly to the printer. The Copy Utility interface emulates a typical office copy machine control panel:



**Figure 12. Copy Utility**

*\* This feature is available only for scanners built with an Automatic Document Feeder.*



#### Attention

The Copy Utility is only for making quick copies of documents or images. It does not save the scanned image to your computer and does not give you a preview of what the output will look like. For more control over the scanning and printing process, including previewing, resizing, color control, use an image editor (e.g., Presto! ImageFolio) to scan and print the document or image.

### Using the Copy Utility

The Copy Utility works seamlessly with your scanner and printer to copy documents and images (as long as your scanner and printer are installed correctly in Windows). The Copy Utility interfaces with the Windows Print Manager and is compatible with almost all printers supported by Windows.





#### Attention

The scanner and printer must be installed correctly in Windows for the Copy Utility to work properly.

Because all printers have their own printing characteristics and no two printers will give the exact same output (especially where colors and images are concerned), the Copy Utility provides a number of options or settings in the Copy Utility window, allowing you to adjust the scanning process to tailor the output to your particular printer. You will need to experiment with the settings to optimize the quality of the printed image.

The following describes how to use the Copy Utility:

1. Place a document or image on the scanning glass.
2. Click the Copy Utility button  in the Action Manager 32 Window.
3. Select a printer from the drop-down menu.
4. Click the Setup button to configure the printer.
5. If your scanner is not equipped with an ADF<sup>2</sup>, skip to Step 6. If your scanner comes with an ADF, make appropriate selections from the Scan Source field.
6. Select the appropriate Paper Size to define the area to be scanned.
7. Check the Fit in Page or Center on Page options if appropriate.
8. Choose the desired Scan Mode by clicking the appropriate button: Color Photo Mode, B/W Photo Mode, or Text Mode.
9. Adjust the Brightness to make an image or document darker or lighter.
10. Key in the Number of Copies you want to make using the keypad.
11. Click the Start button  to begin scanning the document or picture. The document is sent to your printer.



***For scanners built with an ADF*** - Remove any documents from the ADF tray if you are attempting to use the flatbed portion of this scanner. Leaving a document on the ADF tray will cause the scanner to scan that document instead of your intended flatbed source.

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<sup>2</sup> ADF (Automatic Document Feeder) – an attachment to the scanner that automatically inserts pages into the scanning area. It is available to particular models only. Consult the specifications on your scanner package box, quick guide, or user's guide if you are not sure whether your scanner is equipped with an ADF or not.



## Copy Utility Settings



**SELECT PRINTER** displays a list of all printers that are currently installed in Windows.



**SETUP PRINTER** This option appears in the Printer Setup window. **Note:** the scanning resolution for the Copy Utility will always be the same as the printer resolution defined here.



**SCAN SOURCE** is available only for scanners built with an Automatic Document Feeder (ADF). The following selections are available from the drop-down menu:

- **Normal** – Use this setting to scan normal sheets of paper or any non-transparent material from the scanning glass.
- **ADF** – Use this setting if you want text documents to be automatically scanned via the ADF (Automatic Document Feeder). This feature is especially useful for scanning multiple pages.



**PAPER SIZE** enables you to alter the scan area. It is preferable to scan the exact area of the document or image so the file size is the smallest possible and there are no large blank areas on the page. The following selections are available from the drop-down menu:

- **A4**
- **Letter**
- **Legal (Only available when ADF is chosen as the SCAN SOURCE)**





**FIT IN PAGE** is used to reduce or enlarge the scanned document or image to fit the printer paper size.




**CENTER ON PAGE** centers a copied document.

**SCAN MODE** tells the scanner what type of document you are scanning. The following options are available:

-  **Color Photo Mode** – Color photo mode scans the document in 24-bit, RGB color. This mode takes the longest time and uses the most memory but results in the highest quality images.
-  **B/W Photo Mode** – Black and white photo mode scans images in grayscale and can simulate 4096 different shades of gray using dithering. This mode is best used when color isn't necessary for the scanned image since color images take so much time to scan and process, or when no color printer is available. Using this mode, even to scan color images, will result in high-quality black, white, and gray output (the color will automatically be converted to gray).



-  **Text Mode** – Text mode is preferable when scanning text documents. It results in clear black and white documents suitable for printing and faxing.



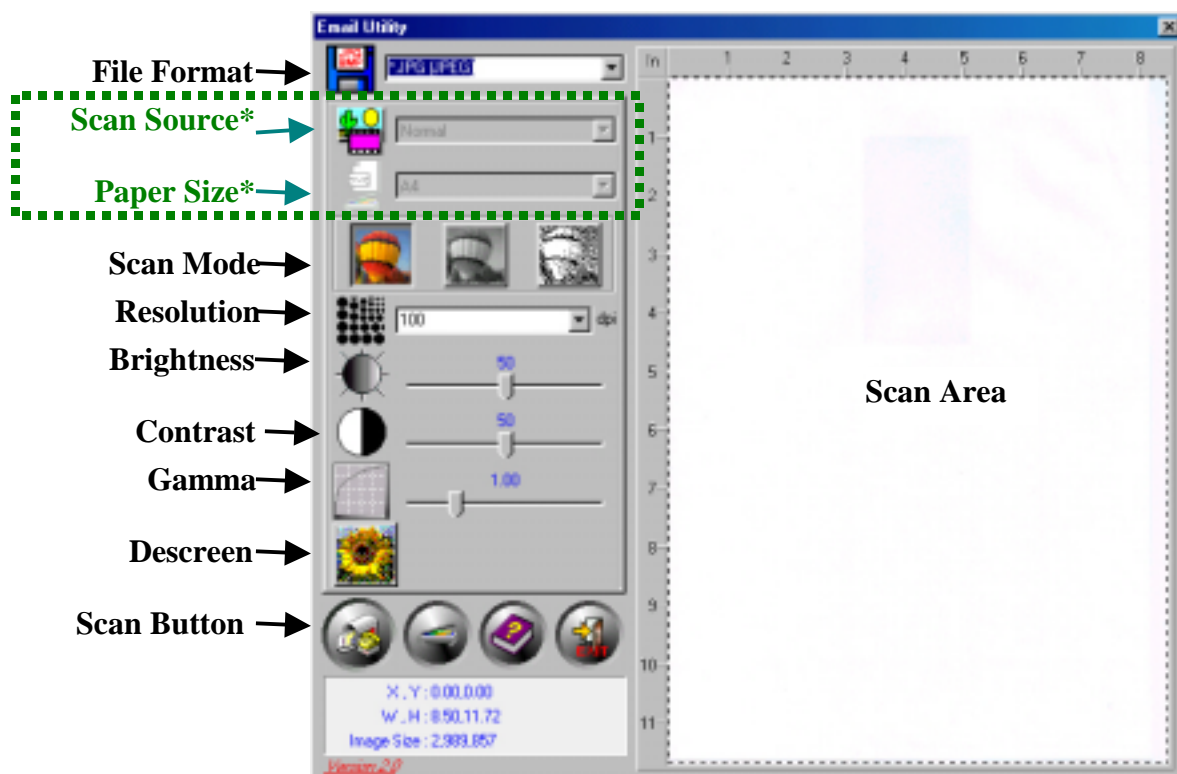
**BRIGHTNESS** is used to lighten or darken the output.



## The E-mail Utility

### About the E-mail Utility

Use the E-mail Utility to send scanned documents or images via E-mail. The E-mail Utility only works with MAPI-based E-mail programs (which currently include Microsoft Outlook, Netscape Mail and Eudora) that have already been installed on your computer.



**Figure 13. E-mail Utility**

*\* This feature is available only for scanners built with an Automatic Document Feeder.*



## Using the E-mail Utility



### Attention

Ensure MAPI-based E-mail software is installed on your computer. If Action Manager doesn't detect a MAPI-based E-mail program, the E-mail Utility will not run.

The following describes how to set up and use the E-mail Utility:

1. Place a document or image in the scanner.
2. Click the E-mail Utility button  in the Action Manager 32 Window.
3. Once the E-mail Utility (see Fig. 13) is opened, the scanner automatically starts the calibration and prescan process. Afterwards, the scanned image appears in the Scan Area of the E-mail Utility window. To define the margins and crop out sections of the image you don't want scanned, use the mouse to click and drag the corners or sides of the scan area borders.
4. Select the File Format from the drop-down menu.
5. If your scanner is not equipped with an ADF<sup>3</sup>, skip to Step 6. If your scanner comes with an ADF, make appropriate selections from the Scan Source and Paper Size fields.
6. Choose the desired Scan Mode by clicking the appropriate button: Color Photo Mode, B/W Photo Mode, or Text Mode.
7. Select the desired Resolution.
8. Adjust the Brightness to make a copy darker or lighter.
9. Adjust the Contrast to increase or decrease difference between the lightest and darkest areas on a display screen.
10. Adjust the Image Gamma.
11. Click the Descreen button if desired.
12. Click the E-mail button  to begin scanning the document or picture.

After you have scanned the document or image, your e-mail program opens with the image or document attached to an e-mail, ready to send.

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<sup>3</sup> ADF (Automatic Document Feeder) – an attachment to the scanner that automatically inserts pages into the scanning area. It is available to particular models only. Consult the specifications on your scanner package box, quick guide, or user's guide if you are not sure whether your scanner is equipped with an ADF or not.

**Attention**

*For scanners built with an ADF* - Remove any documents from the ADF tray if you are attempting to use the flatbed portion of this scanner. Leaving a document on the ADF tray will cause the scanner to scan that document instead of your intended flatbed source.

## E-mail Utility Settings



**FILE FORMAT** enables you to select an image data format to save the scanned document to. The following File Formats are available:

- **JPG (JPEG)** – (Joint Photographic Experts Group) JPEG (pronounced "jay-peg") is a format that is commonly used for color images displayed on the Internet. JPEG reduces the file size of an image by discarding some of the non-critical data of the image. JPEG retains all of the color information of an image and offers varying degrees of compression.
- **TIF (Aldus Tiff)** – (Tagged Image File Format) is a widely-used bitmapped graphics file format developed by Aldus and Microsoft that handles monochrome, gray scale, and 8/24-bit color.
- **PCX (Paintbrush)** – PCX is a popular bitmapped graphics file format that handles monochrome, and 2-, 4-, 8-, and 24-bit color. PCX uses Run Length Encoding (RLE) to achieve compression ratios of approximately 1.1:1 to 1.5:1. RLE is best used with images that have large blocks of solid colors.
- **BMP (Windows Bitmap)** – (BitMaP file - also known as a "bump" file) is a Windows and OS/2 bitmapped graphics file format. BMP is the Windows native bitmap format. BMP files provide formats for 2, 16, 256 or 16 million colors (1-, 4-, 8-, and 24-bit color).
- **TIF (Multiple Pages TIFF)** – Multiple pages TIFF format.



**SCAN SOURCE** is available only for scanners built with an Automatic Document Feeder (ADF). The following selections are available from the drop-down menu:




- **Normal** – Use this setting to scan normal sheets of paper or any non-transparent material from the scanning glass.
- **ADF** – Use this setting if you want text documents to be automatically scanned via the ADF (Automatic Document Feeder). This feature is especially useful for scanning multiple pages.




**PAPER SIZE** is available only for scanners built with an Automatic Document Feeder (ADF) and ADF is chosen as the SCAN SOURCE. Adjust this setting to tell the scanner the size of the paper loaded in the ADF. It is preferable to scan the exact area of the document or image so the file size is the smallest possible and there are no large blank areas on the page. The following selections are available from the drop-down menu:


- **A4**
- **Letter**
- **Legal**


**SCAN MODE** tells the scanner what type of document you are scanning. The following options are available:


-  **Color Photo Mode** – Color photo mode scans the document in 24-bit, RGB color. This mode takes the longest time and uses the most memory but results in the highest quality images.
-  **B/W Photo Mode** – Black and white photo mode scans images in grayscale and can simulate 4096 different shades of gray using dithering. This mode is best used when color isn't necessary for the scanned image since color images take so much time to scan and process, or when no color printer is available. Using this mode, even to scan color images, will result in high-quality black, white, and gray output (the color will automatically be converted to gray).
-  **Text Mode** – Text mode is preferable when scanning text documents. It results in clear black and white documents suitable for printing and faxing.

 **RESOLUTION** measured in dots per inch (dpi), refers to the degree of sharpness of a displayed or printed character or image. The higher the resolution, the more detailed the image. However, **MORE IS NOT ALWAYS BETTER!** In many cases a high-resolution image will do nothing more but dramatically increase the file size, occupy more memory resources and disk space, and slow everything down. Determine what your final application will be **BEFORE** you scan.

For images viewed on a monitor only, or for Web and Internet use, a resolution of 75 dpi is the best choice. For color scans that will be printed on an inkjet printer, we recommend a range of 75-300 dpi. Reserve higher resolution scans (above 300 dpi) for scanning smaller images that will later be enlarged to maintain detail.

 **BRIGHTNESS** is used to lighten or darken the output. Lower the brightness to improve the legibility of fine text or handwritten documents. Increase the brightness to bring out dark areas in pictures.

 **CONTRAST** is used to increase or decrease the difference between the lightest and darkest areas on the image. Contrast adjusts the tonal range of an image by lowering mid-tone values and increasing values for high and low tones.

 **GAMMA** enables you to set the image gamma. Use the slider to adjust the image gamma for the scanned image. Gamma values are primarily a measure for the color brightness. The larger the gamma value, the brighter the color becomes. You can immediately view the effects of the gamma value you change in the Prescan Window by prescanning the image. Changing the image's gamma value allows you to change the brightness of the colors **IN THE IMAGE ITSELF**.



**DESCREEN** applies filtering to images that contain moiré patterns (or herringbone). A moiré pattern is created from scanning pictures in magazines, or printed material that use color dithering. The descreen filter is not needed when scanning original photographs or black and white images and text, but is recommended when scanning any printed color graphics, such as a page from a magazine, in order to remove the unsightly interference patterns which may occur.

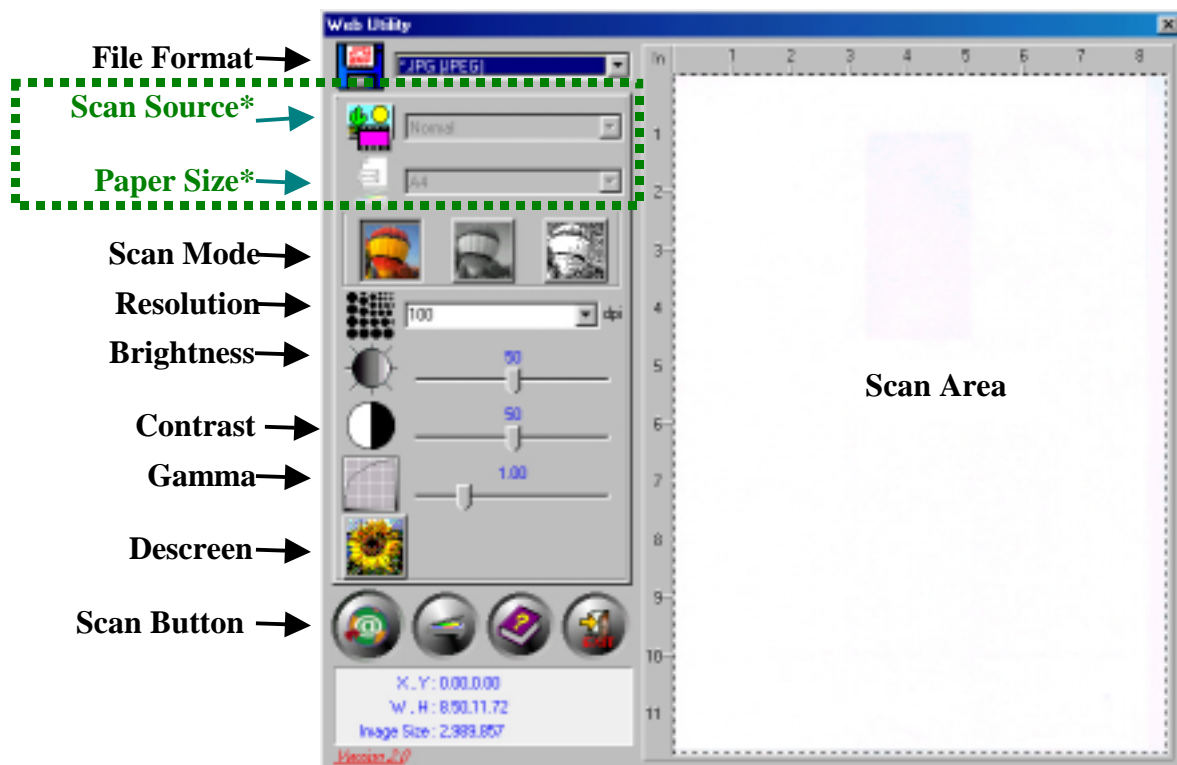


## The Web Utility

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### About the Web Utility

The Web Utility provides a way to scan pictures and send them to the Page abc program. Page abc enables you to create a Web page using photographs, images and sounds, and provides an easy way to upload the page to the Page abc site for online viewing. Page abc has over 800 artistically designed pictures, backgrounds, borders, and decorations for use in your Web page. You can record music or voice audio to accompany the pictures. Page abc lets you set the privacy limits and decide for yourself who can view your Web page. With the Page abc, you do not have to insert links or HTML code. All you have to do is insert your photos, images and text and your Web page will be complete in less than three minutes. With the convenient notification feature, your friends will always be kept informed of updates to your Web page.





**Figure 14. Web Utility**

*\* This feature is available only for scanners built with an Automatic Document Feeder.*

## Using the Web Utility

The following describes how to scan a document with the Web Utility.

1. Place a document or image on the scanning glass.
2. Click the Web Utility button  in the Action Manager 32 Window.
3. Once the Web Utility (see Fig. 14) is opened, the scanner automatically starts the calibration and prescan process. Afterwards, the scanned image appears in the Scan Area of the Web Utility window. To define the margins and crop out sections of the image you don't want scanned, use the mouse to click and drag the corners or sides of the scan area borders.
4. Select the File Format from the drop-down menu.

5. If your scanner is not equipped with an ADF<sup>4</sup>, skip to Step 6. If your scanner comes with an ADF, make appropriate selections from the Scan Source and Paper Size fields.
6. Choose the desired Scan Mode by clicking the appropriate button: Color Photo Mode, B/W Photo Mode, or Text Mode.
7. Select the desired Resolution.
8. Adjust the Brightness to make an image or document darker or lighter.
9. Adjust the Contrast to increase or decrease the difference between the lightest and darkest areas on an image or document.
10. Adjust the Image Gamma.
11. Click the Descreen button if desired.
12. Click the Scan to Web button  to begin scanning the document or picture.

After you have scanned the image, the Page abc program opens enabling you to create with your image.



#### Attention

Refer to the Page abc online help to guide you through any questions you may have while using this document management software.

## Web Utility Settings



**FILE FORMAT** enables you to select an image data format to save the scanned document to. The following File Formats are available:

- **JPG (JPEG)** – (Joint Photographic Experts Group) JPEG (pronounced "jay-peg") is a format that is commonly used for color images displayed on the Internet. JPEG reduces the file size of an image by discarding some of the non-critical data of the image. JPEG retains all of the color information of an image and offers varying degrees of compression.
- **TIF (Aldus Tiff)** – (Tagged Image File Format) is a widely-used bitmapped graphics file format developed by Aldus and Microsoft that handles monochrome, gray scale, and 8/24-bit color.
- **PCX (Paintbrush)** – PCX is a popular bitmapped graphics file format that handles monochrome, and 2-, 4-, 8-, and 24-bit color. PCX uses Run Length

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<sup>4</sup> ADF (Automatic Document Feeder) – an attachment to the scanner that automatically inserts pages into the scanning area. It is available to particular models only. Consult the specifications on your scanner package box, quick guide, or user's guide if you are not sure whether your scanner is equipped with an ADF or not.

Encoding (RLE) to achieve compression ratios of approximately 1.1:1 to 1.5:1. RLE is best used with images that have large blocks of solid colors.

- **BMP (Windows Bitmap)** – (BitMaP file - also known as a "bump" file) is a Windows and OS/2 bitmapped graphics file format. BMP is the Windows native bitmap format. BMP files provide formats for 2, 16, 256 or 16 million colors (1-, 4-, 8-, and 24-bit color).
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**SCAN SOURCE** is available only for scanners built with an Automatic Document Feeder (ADF). The following selections are available from the drop-down menu:

- **Normal** – Use this setting to scan normal sheets of paper or any non-transparent material from the scanning glass.
- **ADF** – Use this setting if you want text documents to be automatically scanned via the ADF (Automatic Document Feeder). This feature is especially useful for scanning multiple pages.



**PAPER SIZE** is available only for scanners built with an Automatic Document Feeder (ADF) and ADF is chosen as the SCAN SOURCE. Adjust this setting to tell the scanner the size of the paper loaded in the ADF. It is preferable to scan the exact area of the document or image so the file size is the smallest possible and there are no large blank areas on the page. The following selections are available from the drop-down menu:

- **A4**
- **Letter**
- **Legal**

**SCAN MODE** tells the scanner what type of document you are scanning. The following options are available:



- **Color Photo Mode** – **Color photo mode scans the document in 24-bit, RGB color. This mode takes the longest time and uses the most memory but results in the highest quality images.**



- **B/W Photo Mode** – Black and white photo mode scans images in grayscales and can simulate 4096 different shades of gray using dithering. This mode is best used when color isn't necessary for the scanned image since color images take so much time to scan and process, or when no color printer is available. Using this mode, even to scan color images, will result in high-quality black, white, and gray output (the color will automatically be converted to gray).
- **Text Mode** – Text mode is preferable when scanning text documents. It results in clear black and white documents suitable for printing and faxing.





**RESOLUTION** measured in dots per inch (dpi), refers to the degree of sharpness of a displayed or printed character or image. The higher the resolution, the more detailed the image. However, **MORE IS NOT ALWAYS BETTER!** In many cases a high-resolution image will do nothing more but dramatically increase the file size, occupy more memory resources and disk space, and slow everything down. Determine what your final application will be **BEFORE** you scan.

For images viewed on a monitor only, or for Web and Internet use, a resolution of 75 dpi is the best choice. For color scans that will be printed on an inkjet printer, we recommend a range of 75-300 dpi. Reserve higher resolution scans (above 300 dpi) for scanning smaller images that will later be enlarged to maintain detail.



**BRIGHTNESS** is used to lighten or darken the output. Lower the brightness to improve the legibility of fine text or handwritten documents. Increase the brightness to bring out dark areas in pictures.



**CONTRAST** is used to increase or decrease the difference between the lightest and darkest areas on the image. Contrast adjusts the tonal range of an image by lowering mid-tone values and increasing values for high and low tones.



**GAMMA** enables you to set the image gamma. Use the slider to adjust the image gamma for the scanned image. Gamma values are primarily a measure for the color brightness. The larger the gamma value, the brighter the color becomes. You can immediately view the effects of the gamma value you change in the Prescan Window by prescanning the image. Changing the image's gamma value allows you to change the brightness of the colors **IN THE IMAGE ITSELF**.



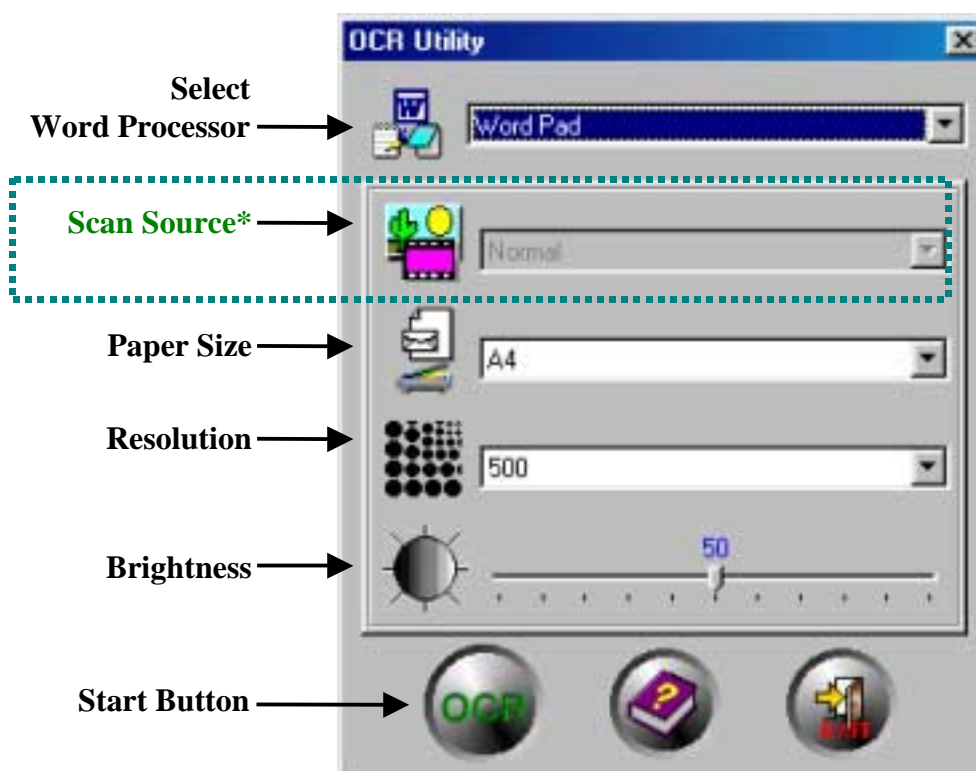
**DESCREEN** applies filtering to images that contain moiré patterns (or herringbone). A moiré pattern is created from scanning pictures in magazines, or printed material that use color dithering. The descreen filter is not needed when scanning original photographs or black and white images and text, but is recommended when scanning any printed color graphics, such as a page from a magazine, in order to remove the unsightly interference patterns which may occur.



## The OCR Utility

### About the OCR Utility

The OCR Utility enables you to scan documents and send them to a word processors or text editor installed in Windows via the ABBYY FineReader OCR program:



**Figure 15. OCR Utility**

*\* This feature is available only for scanners built with an Automatic Document Feeder.*

### Using the OCR Utility

All documents or photos that are scanned are treated by the computer as graphic images. Optical Character Recognition (OCR) programs recognize letters on a page and write them into text files, which are fundamentally different than graphics files.



The bundled ABBYY FineReader OCR program takes the scanned image and sends it to a word processor or text editor which you may have installed in your Windows (e.g., WordPad, Microsoft Word, Microsoft Excel, WordPro, or WordPerfect), enabling you to instantly view, correct, and edit the converted image as a text document.



**Attention**

Refer to the ABBYY FineReader 4.0 Sprint online help to guide you through any questions you may have. The ABBYY FineReader user's guide is also available under the subdirectory \SOFTWARE\FINEREAD\GUIDE\ of the Setup/Application CD-ROM shipped with the scanner.

The following describes how to scan a document with the OCR Utility.

1. Place a document or image on the scanning glass.
2. Click the OCR Utility button  in the Action Manager 32 Window.
3. Select a text editor from the drop-down menu.
4. If your scanner is not equipped with an ADF<sup>5</sup>, skip to Step 5. If your scanner comes with an ADF, make appropriate selections from the Scan Source field.
5. Choose the Paper Size.
6. Select the desired Resolution.
7. Adjust the Brightness to make a copy darker or lighter.
8. Click the OCR button  to begin scanning the document.

After you have scanned the document or image, the text editor you selected in step 3 opens with the document in the editing window. Remember to save the text document you have created!



**Attention**

Due to the limits of current technology, the OCR process (for all programs) is rarely perfect in its attempts to recognize letters, but the accuracy can be improved based on the font of the document scanned, the size of the font, the scanning resolution, and the scanning brightness among other things. Therefore, you may need to adjust the scanner settings to improve the accuracy of OCR results. For help with these settings, click the Help button in the OCR Utility window.

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<sup>5</sup> ADF (Automatic Document Feeder) – an attachment to the scanner that automatically inserts pages into the scanning area. It is available to particular models only. Consult the specifications on your scanner package box, quick guide, or user's guide if you are not sure whether your scanner is equipped with an ADF or not.

## OCR Utility Settings



**SELECT WORD PROCESSOR** enables you to choose which text editor you want to send the scanned document to for post processing.



**SCAN SOURCE** is available only for scanners built with an Automatic Document Feeder (ADF). The following selections are available from the drop-down menu:

- **Normal** – Use this setting to scan normal sheets of paper or any non-transparent material from the scanning glass.
- **ADF** – Use this setting if you want text documents to be automatically scanned via the ADF (Automatic Document Feeder). This feature is especially useful for scanning multiple pages.



**PAPER SIZE** enables you to select the scanning page size. The following selections are available from the drop-down menu:

- **A4**
- **Letter**
- **Legal (Only available when ADF is chosen as the SCAN SOURCE)**



**RESOLUTION** measured in dots per inch (dpi), refers to the degree of sharpness of a displayed or printed character or image. The higher the resolution, the more detailed the image. However, MORE IS NOT ALWAYS BETTER! In many cases a high-resolution image will do nothing more but dramatically increase the file size, occupy more memory resources and disk space, and slow everything down. The typical setting for scanning OCR documents is 300 dpi. Reserve higher resolution scans (above 300 dpi) for OCR documents with limited legibility.



**BRIGHTNESS** is used to lighten or darken the output.

## About the ABBYY FineReader OCR Program

The ABBYY FineReader OCR program is used to scan printed text documents and convert them into characters readable by your word processor, saving you the time usually needed for retyping.

To scan and convert your text document by using ABBYY FineReader OCR program, two convenient ways are offered:



1. By using the OCR icon on the Action Manager 32 quick menu which is automatically installed with your scanner software.

2. From within the ABBYY FineReader program directly by clicking on the Windows START button. Choose PROGRAMS, ABBYY FineReader and then ABBYY FineReader 4.0 Sprint. The following window opens:



#### Attention

Refer to the ABBYY FineReader 4.0 Sprint online help to guide you through any questions you may have. The ABBYY FineReader user's guide is also available under the subdirectory \SOFTWARE\FINEREAD\GUIDE\ of the Setup/Application CD-ROM shipped with the scanner.

## Some key points about OCR

- The ABBYY FineReader program is one of the best OCR applications in the industry and comes with its own documentation. Please refer to this for help in using the program.
- OCR stands for Optical Character Recognition and is designed to read text characters only. ABBYY FineReader will **NOT** recognize forms.

### *Tips for improving the accuracy of the OCR*

1. Do not attempt to scan handwritten pages; OCR cannot read handwritten pages with much accuracy.
2. Raise the scanning resolution to 300 ~ 400 dpi.
3. Ensure that the scan mode is set to Text.
4. If you are scanning text from a thin page such as the page of a magazine, put a black paper in the back of the page so that the text in the other side is not read.

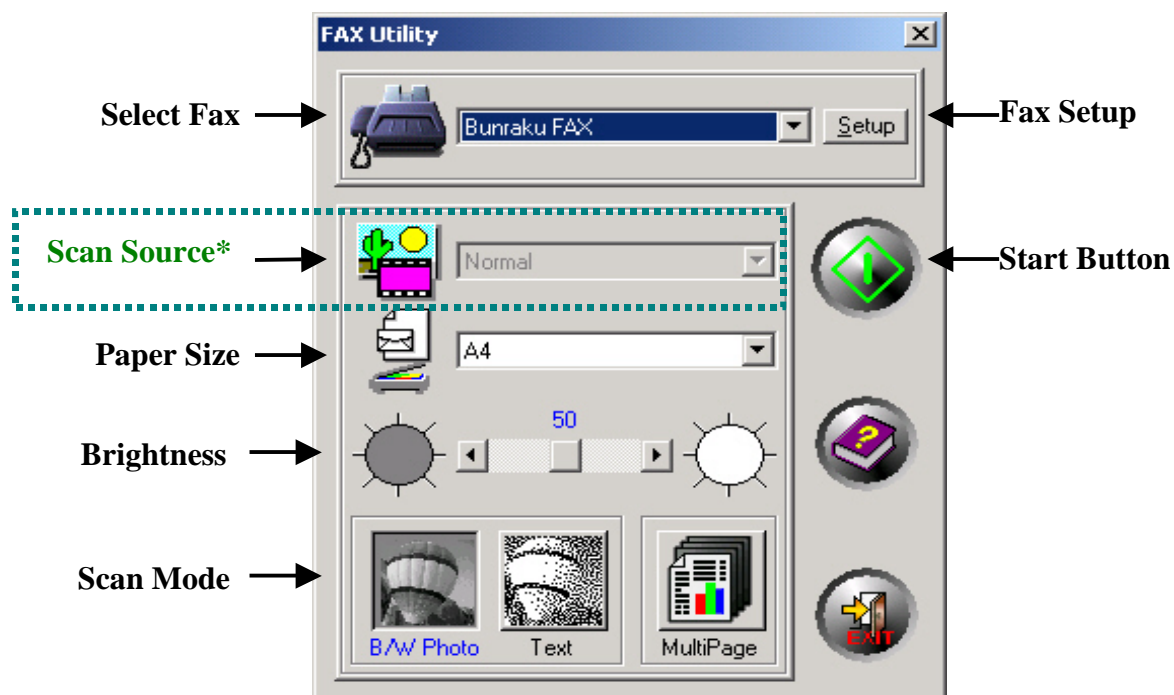
5. If the text in the original document is thick and dark, set the brightness of the scanner to a lighter value before you scan.
6. If the text in the original document is thin and light, set the brightness of the scanner to a darker value before you scan.
7. Use black text; colored text might not be read properly by the OCR program.
8. Adjust scanning brightness (depending on the quality of the original, brightness may need to be increased or reduced).



## The Fax Utility

### About the Fax Utility

The Fax Utility allows you to scan images directly to your fax software (such as Windows Exchange), without saving them to your hard drive, making it ideal for sending a quick fax of a document or image. The Fax Utility interface emulates a typical office fax machine control panel:



**Figure 16. Fax Utility**

*\* This feature is available only for scanners built with an Automatic Document Feeder.*



**Attention**

The Fax Utility does not save the scanned image to your computer and does not give you a preview of what the output will look like. For these and other advanced features, you should use an image editor (e.g., Presto! ImageFolio) to scan and fax the document or image.



## Using the Fax Utility



**Attention**

Before using the Fax Utility, please make sure that your fax/modem and fax software is properly installed and working. Refer to Windows help for information on installing the fax/modem or fax software.

The following describes how to set up and use the Fax Utility:

1. Place a document or image on the scanning glass.
2. Click the Fax Utility button  in the Action Manager 32 Window.
3. Choose the fax software you want to use from the drop-down menu.
4. Click the Setup button to configure the fax driver.
5. If your scanner is not equipped with an ADF<sup>6</sup>, skip to Step 6. If your scanner comes with an ADF, make appropriate selections from the Scan Source field.
6. Select the appropriate Paper Size to define the area to be scanned.
7. Adjust the Brightness to make an image or document darker or lighter.
8. Choose the desired Scan Mode by clicking the appropriate button: B/W Photo Mode or Text Mode.
9. Click the MultiPage button if you want to include more than one scanned page in the fax.
10. Click Start  to begin scanning the document or picture.
11. Follow the instructions of your fax software.

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<sup>6</sup> ADF (Automatic Document Feeder) – an attachment to the scanner that automatically inserts pages into the scanning area. It is available to particular models only. Consult the specifications on your scanner package box, quick guide, or user's guide if you are not sure whether your scanner is equipped with an ADF or not.

## Fax Utility Settings



**SELECT FAX SOFTWARE** allows you to select between different fax software that may be installed on your computer. The Fax Utility sends the scanned image to your fax software and NOT directly to your fax modem. After you click the Start button, the document is scanned and then the fax software (driver) you define here will run with the scanned image already loaded into it. Any fax software previously installed in Windows can be used. The fax software is primarily used to address the fax and adjust modem settings.



**SETUP FAX** enables you to configure the fax software settings. Clicking the Setup button opens the Properties window for the fax software you have selected.



**SCAN SOURCE** is available only for scanners built with an Automatic Document Feeder (ADF). The following selections are available from the drop-down menu:

- **Normal** – Use this setting to scan normal sheets of paper or any non-transparent material from the scanning glass.
- **ADF** – Use this setting if you want text documents to be automatically scanned via the ADF (Automatic Document Feeder). This feature is especially useful for scanning multiple pages.



**PAPER SIZE** lists all possible paper sizes for your scanner. The size you set here defines the area to be scanned. Choosing a different paper size for faxing must be done by clicking the Setup Fax button. In other words, make sure that the paper size chosen here matches the paper size chosen in your fax software. The following selections are available from the drop-down menu:

- **A4**
- **Letter**
- **Legal (Only available when ADF is chosen as the SCAN SOURCE)**




**BRIGHTNESS** is used to lighten or darken the output.

**SCAN MODE** tells the scanner what type of document you are scanning. The following options are available:



- **B/W Photo Mode** – Black and white photo mode scans images in grayscale and simulates 4096 shades of gray to give the resulting black and white images shadow and depth. This mode is best used when faxing black and white photos or images. Using this mode—even to scan color images—results in high-quality black and white output (the color is automatically converted to grayscale).



-  **Text Mode** – Text mode is preferable when scanning and faxing text documents.



**MULTI-PAGE** enables you to send faxes containing more than one scanned page. Click the Multi-page button, and proceed with scanning. You are prompted to insert another page after each page is scanned. The Setup Fax settings you define affect all pages of a multi-paged fax.



### Attention

The Fax Utility is only for sending quick faxes. For more control over the scanning process, including previewing, resizing, advanced brightness and dithering control, you should use an image editor (e.g., Presto! ImageFolio) to scan and fax the document or image.

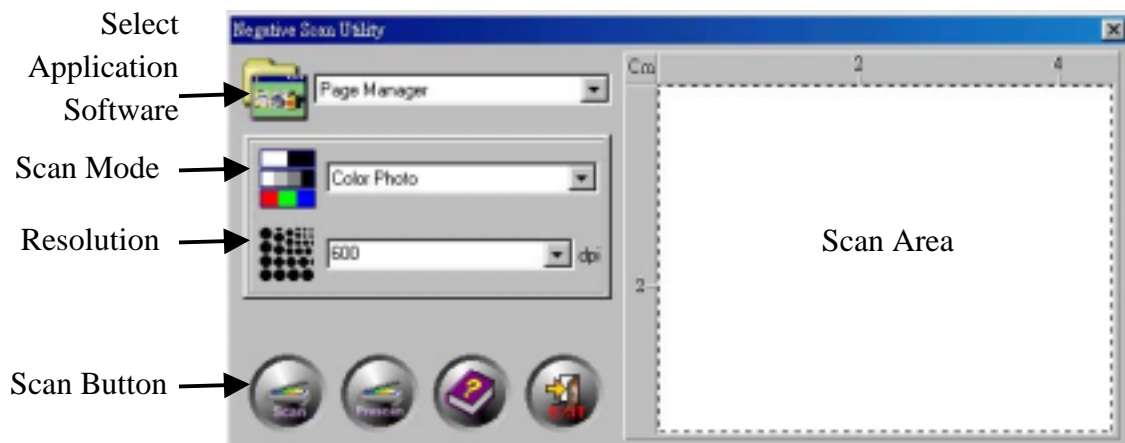


## The Negative Scan Utility

### About the Negative Scan Utility

The Negative Scan Utility enables you to scan color or black and white 35-mm negative film, and then send them directly to one of the image editing programs that come bundled with the scanner.

**NOTE:** This feature is available only if your scanner is equipped with a transparency adapter.

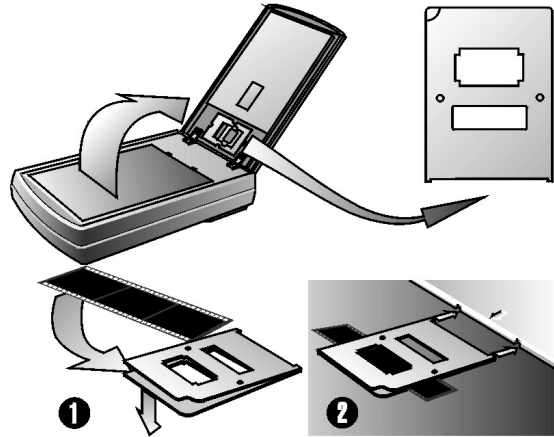




**Figure 17. Negative Scan Utility**

## Using the Negative Scan Utility

The following describes how to scan a negative film with the Negative Scan Utility.

1. Press the two halves of the negative holder apart slightly and then position the negative strip so that the desired image appears in the view window.



2. Place the negative holder on the scan window and align it to fit into the indentations at the rear of the scan window.
3. Click the Negative Scan Utility button  in the Action Manager 32 Window.
4. Once the Negative Scan Utility is opened, the scanner automatically starts the calibration and prescan process, and then the scanned image appears in the Preview Window. To define the margins and crop out sections of the image you don't want scanned, use the mouse to click and drag the corners or sides of the scan area borders.
5. From the drop-down menu, select which application software you want to send the scanned image to for post processing.
6. Choose the desired Scan Mode from the drop-down menu: Color Photo Mode or B/W Photo Mode.
7. Select the desired Resolution.
8. Click Scan  to begin scanning the negative film.

After you have scanned the image, the program you selected in step 5 opens with your image in the document window.



### Attention

Refer to the online help of the respective image editing applications for information on using the Presto! Mr. Photo, Presto! ImageFolio, or Presto! PageManager.

## Negative Scan Utility Settings



**SELECT APPLICATION SOFTWARE PROGRAM** enables you to choose which application software program you want to send the scanned image to. If you installed the complete package, three software suites are available:

- **PageManager**
- **Mr. Photo**
- **ImageFolio**



**SCAN MODE** tells the scanner what type of document you are scanning. The following options are available:

- **Color Photo Mode** – Color photo mode scans the document in 24-bit, RGB color. This mode takes the longest time and uses the most memory but results in the highest quality images.
- **B/W Photo Mode** – Black and white photo mode scans images in black and white and can simulate 256 different shades of gray using dithering. This mode is best used when color isn't necessary for the scanned image since color images take so much time to scan and process, or when no color printer is available. Using this mode, even to scan color images, will result in high-quality black, white, and gray output (the color will automatically be converted to gray).



**RESOLUTION** measured in dots per inch (dpi), refers to the degree of sharpness of a displayed or printed character or image. The higher the resolution, the more detailed the image. However, **MORE IS NOT ALWAYS BETTER!** In many cases a high-resolution image will do nothing more but dramatically increase the file size, occupy more memory resources and disk space, and slow everything down. Determine what your final application will be **BEFORE** you scan.

For images viewed on a monitor only, or for Web and Internet use, a resolution of 75 dpi is the best choice. For color scans that will be printed on an inkjet printer, we recommend a range of 75-300 dpi. Reserve higher resolution scans (above 300 dpi) for scanning smaller images that will later be enlarged to maintain detail.



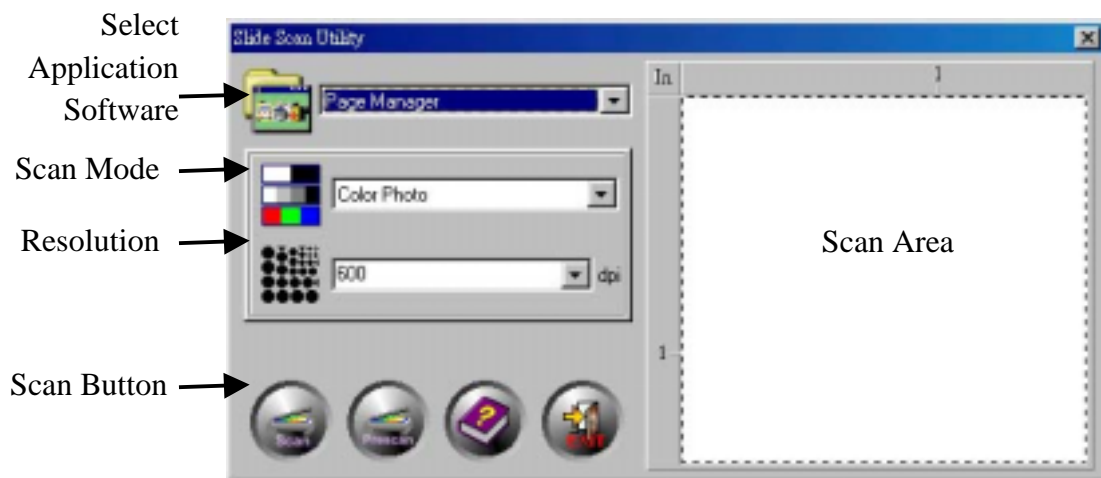
## The Slide Scan Utility

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### About the Slide Scan Utility

The Slide Scan Utility is used to scan color or black and white pictures and slides, then send them directly to one of the image editing programs that come bundled with the scanner.

NOTE: This feature is available only if your scanner is equipped with a transparency adapter.

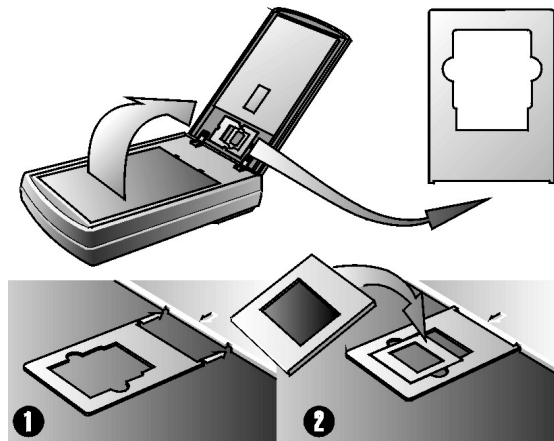



**Figure 18. Slide Scan Utility**


## Using the Slide Scan Utility

The following describes how to scan a slide with the Slide Scan Utility.

1. Align the slide holder to fit into the indentations at the rear of the scan window:



2. Insert your slide into the holder.
3. Click the Slide Scan Utility button  in the Action Manager 32 Window.
4. Once the Slide Scan Utility (see Fig. 18) is opened, the scanner automatically starts the calibration and prescan process and the scanned image appears in the Preview Window. To define the margins and crop out sections of the image you don't want scanned, use the mouse to click and drag the corners or sides of the scan area borders.

5. From the drop-down menu, select which application software you want to send the scanned image to for post processing.
6. Choose the desired Scan Mode from the drop-down menu: Color Photo Mode or B/W Photo Mode.
7. Select the desired Resolution.
8. Click Scan  to begin scanning the slide.

After you have scanned the image, the program you selected in step 5 opens with your image in the document window.



#### Attention

Refer to the online help of the respective image editing applications for information on using the Presto! Mr. Photo, Presto! ImageFolio, or Presto! PageManager.

## Slide Scan Utility Settings



**SELECT APPLICATION SOFTWARE PROGRAM** enables you to choose which application software program you want to send the scanned image to. If you installed the complete package, three software suites are available:

- **PageManager**
- **Mr. Photo**
- **ImageFolio**



**SCAN MODE** tells the scanner what type of document you are scanning. The following options are available:

- **Color Photo Mode** – Color photo mode scans the document in 24-bit, RGB color. This mode takes the longest time and uses the most memory but results in the highest quality images.
- **B/W Photo Mode** – Black and white photo mode scans images in grayscale and can simulate 4096 different shades of gray using dithering. This mode is best used when color isn't necessary for the scanned image since color images take so much time to scan and process, or when no color printer is available. Using this mode, even to scan color images, will result in high-quality black, white, and gray output (the color will automatically be converted to gray).



**RESOLUTION** measured in dots per inch (dpi), refers to the degree of sharpness of a displayed or printed character or image. The higher the resolution, the more detailed the image. However, **MORE IS NOT ALWAYS BETTER!** In many cases a high-resolution image will do nothing more but dramatically increase the file size, occupy more memory resources and disk space, and slow

everything down. Determine what your final application will be BEFORE you scan.

For images viewed on a monitor only, or for Web and Internet use, a resolution of 75 dpi is the best choice. For color scans that will be printed on an inkjet printer, we recommend a range of 75-300 dpi. Reserve higher resolution scans (above 300 dpi) for scanning smaller images that will later be enlarged to maintain detail.

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