Bear Paw 1200
USER'S GUIDE
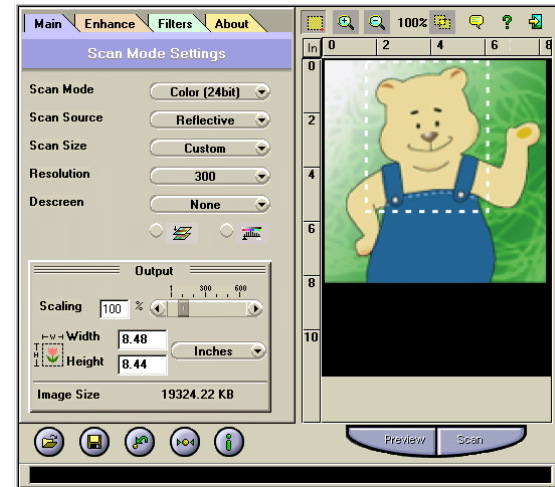
The TWAIN Dialog Box

Appendices

Scanning Methods

We provided two software tools for scanning. The BearPaw Panel which is ideal for quick and simple scans and the TWAIN dialog box which offers more control over the output. The following pages contain more details about these different scanning methods. Please refer to "*Introducing BearPaw*".

BearPaw Panel

TWAIN Dialog Box

The TWAIN Dialog Box

The TWAIN dialog box is a scanning option provided with your scanner. TWAIN is an industry standard that allows scanning directly into any TWAIN-compliant software. It eliminates most compatibility problems associated with software and input devices supplied by different vendors.

You can access the TWAIN dialog box from within most image editing software such as the application software bundled with the scanner (e.g., Photo Express™).
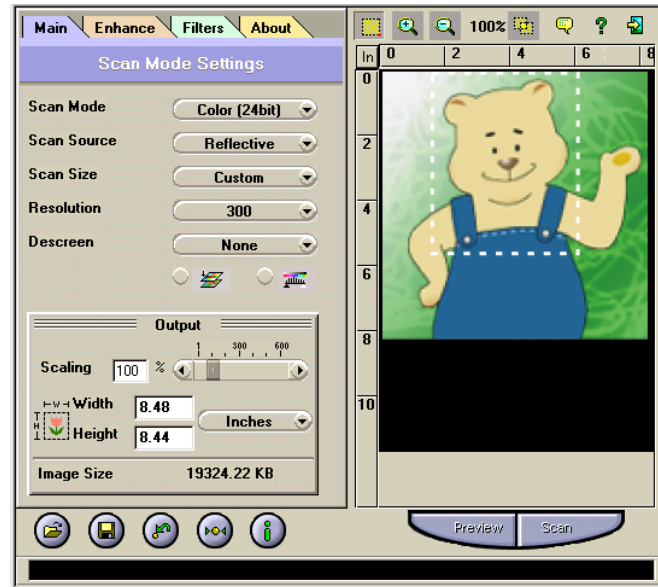
To Acquire the TWAIN Dialog Box

You can acquire the TWAIN dialog box from within any TWAIN-compliant software (i.e., Picture Publisher™). To acquire the TWAIN dialog box, using Photo Express as an example, the steps are:

1. Launch Windows®.
2. Launch Photo Express™ (TWAIN-compliant program).
3. Under the File menu, open the Acquire command and choose Scanner. The Select Data Source dialog box appears.
4. Choose your scanner model from the list.
5. Click the Acquire button. The Select Data Source dialog box closes. The TWAIN Dialog box appears.

To acquire the TWAIN dialog box in other TWAIN-compliant image editing software, please refer to the On-line Help System, Software Reference.

Performing a Simple Scan

You're using this scanner for the first time. We suggest you to test drive it by scanning the whole area. To scan the whole area, please take the following steps:

(1) Place the image or document to be scanned.
(2) Click Preview to see the image in the Preview Window.
(3) Select the scan size.
(4) Select the desired scan mode.
(5) Select the desired resolution.
(6) Click the Scan button.

(1) Place the Document/Image

To scan a document, place your original face down on the scanner's glass plate and then please follow these steps:

a. Lift the document cover.
b. Place the document face down on the glass and in the upper right corner pointed by the arrow.
c. Slowly lower the document cover, making sure the document remains in place.
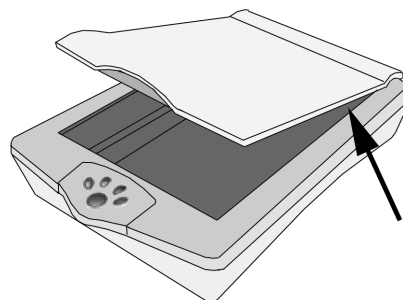
NOTE: Remove the document after scanning is complete.

(2) Preview the Image

A Preview is a quick scan of the original. From this rough scan you learned how the image will look like after it is scanned.

(3) Select the Scan Size

From the list of available paper sizes, select the size of the document you wish to scan. If you want to scan the whole area, select A4. Custom will automatically be selected when you use the Crop Frame to change the image area to be scanned.

(4) Set the Scan Mode

The Scan Mode determines how the scanner will view the image. Select **Color** to capture images in color. Select **Gray** to capture images in shades of gray. When you wish to scan line art or text for OCR (**O**ptical **C**haracter **R**ecognition), select **Line Art**.

(5) Set the Resolution

The Resolution, which is measured in dots per inch (dpi), determines the effect of the image as it is displayed or printed. Images scanned at a high resolution capture more information. However, high-resolution images require more memory.
See Scan Tips on Appendix A.

(6) Execute the Scan

The scan button is used once you have completed the preview, determined the scan region and have selected the final scan settings to be used for the scan.
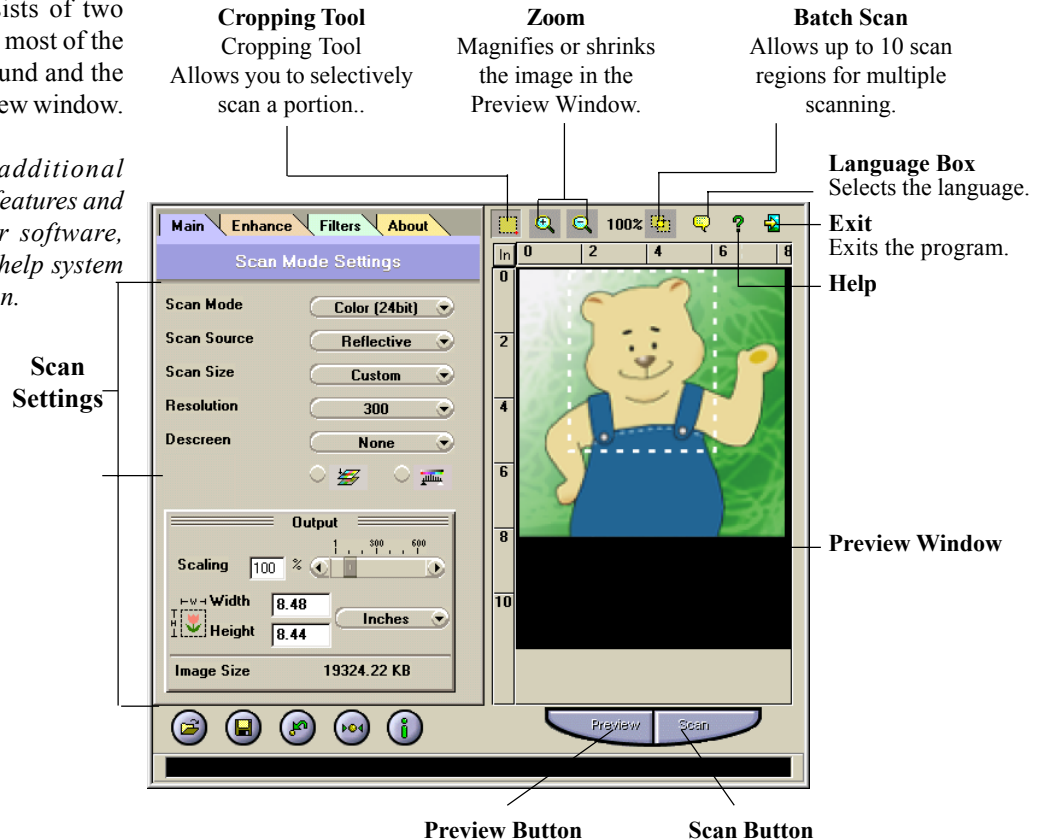
Congratulations! You've scanned your first image. In the following sections. We'll show you how to modify settings so this scanner meets your needs better.

The TWAIN Dialog Box (Details)

The TWAIN dialog box consists of two sections- the left section where most of the TWAIN control settings are found and the right section, which is the Preview window.

*For more detailed or additional information regarding the features and functions of your scanner software, please refer to the on-line help system by clicking on the **Help** icon.*

Cropping Tool
Cropping Tool Allows you to selectively scan a portion..

Zoom
Magnifies or shrinks the image in the Preview Window.

Batch Scan
Allows up to 10 scan regions for multiple scanning.

Language Box
Selects the language.

Exit
Exits the program.

Help

Scan Settings

Preview Window

Preview Button

Scan Button

The Preview Window & Buttons

The Preview window is where the preview image appears. It is recommended that you preview each document/image before scanning. Using the preview image, you can specify the final image area to be included in the scan and/or apply the enhance and filters features.
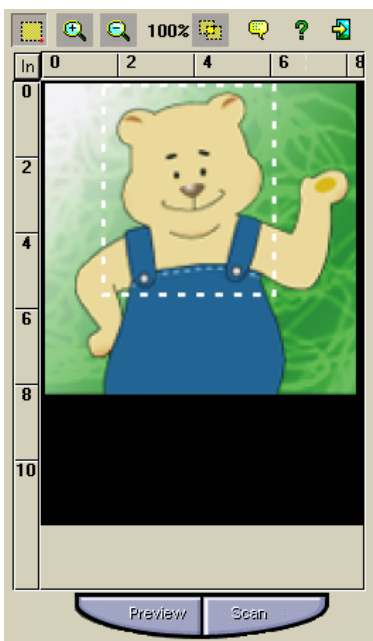
• Preview

Preview (a quick low-resolution scan of the entire original image) the image in order to get a clearer idea of the image area you want to include in your final scan. To preview, the steps are:
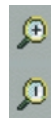
1. Place the document face down on the scan window glass;

2. Click on the Preview button. After the scanner has scanned the document, the scanned image will appear in the Preview Window.

• Cropping Tool
You can select an area, if you don't want to scan the whole document. This is optional.

• Zoom Tools
The Zoom In tool increases the magnification (multiple levels) of the image area. In magnified view, you can drag the Crop Frame to the exact area you want to scan. Use the Zoom Out tool to shrink the image.

• Batch Scan Button

Clicking this button allows you to create multiple scan areas using different scan settings on the image shown in the Preview Window. For more details, please refer to the topic *Using Batch Scan*.

• Scan

After determining the exact image area you wish to scan and selecting your desired scan settings, click the **Scan** button to perform the scan. When scanning is complete, the image will be displayed on the main screen of the host software behind the TWAIN dialog box.

• Help

Provides on-line help for the scanner and software functions.

• Language Icon

Selects the language you would like to view the TWAIN interface in.

• Exit Icon

Exits the program.

The Image Setting Buttons

The Image Setting buttons allow you to create your own convenient scan settings. Saving image settings allows you to use the same settings again and again without resetting the image options.

• Load Button

Loads previously saved settings.

• Save Button

Saves current image settings to a specified location.

• Previous Button

Reloads the last saved image settings.

• Reset Button

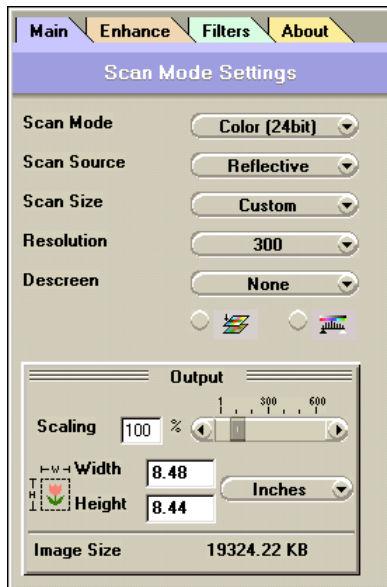Returns the image settings to their default values.

• Information Button

Displays all the current control settings of the TWAIN dialog box.

Scan Settings

The Main Tab

The Main tab allows you to control the scanning parameters, such as scan mode, scan source, resolution, etc. These parameters determine how the original image or document will be scanned.

Scan Mode

The Scan Mode determines how the scanner reads the original image or document. When choosing a scan mode, it is recommended to consider what purpose the resulting scanned image will be used for.

- **LineArt**
  Use this mode to scan text documents for use in OCR (**O**ptical **C**haracter **R**ecognition) or when you wish to scan black-and-white drawings.

- **Gray**
  Select **Gray** to capture images in shades of gray.

- **Color**
  Select **Color** to capture images in color.

Scan Source

The Scan Source setting is used to select the type of document you will be scanning.
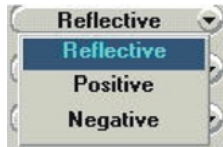
• Reflective

Use Reflective when scanning paper-based documents such as photographs or text.

With the optional Transparency Adapter, you can also scan Positive and Negative transparencies.

- **Positive**
  Select Positive when scanning slides or transparencies.

- **Negative**
  Select Negative when scanning film negatives or similar negative transparencies.

Scan Size

From the list of available sizes, select the size of the document you wish to scan. Custom will automatically be selected when you use the Crop Frame to change the image area to be scanned.

Resolution

The Resolution, which is measured in dots per inch (dpi), determines the appearance of the image as it is displayed or printed. Images scanned at a higher resolution capture more information and therefore require more disk space for storage. You can select from a wide range of preset resolutions.
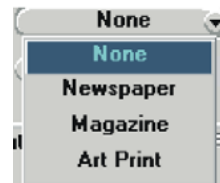
75 dpi (400%)   *300 dpi* (400%)

Descreen

A tool for reducing moiré patterns in scanned images of originals that were created by a halftone process. Moiré patterns appear as unpleasant interference patterns.

- **None**
  Choose **None** if you want to scan images of photographic quality.
- **Newspaper**
  Choose **Newspaper** when the image is made up of coarse dot patterns commonly found in newspaper photos.

- **Magazine**
  Choose **Magazine** when scanning images whose quality is similar to images found in glossy or wax-coated magazines.
- **Art Print**
  Choose **Art Print** when scanning images from very high quality art prints that show only very fine dots.

Color Match

This is an effective tool for ensuring that the colors captured by the scanner more accurately reflect the actual colors of the original image. Without color matching the scanner captures a wider range of colors but these colors may not accurately match the true colors of the original image, making the scan appear different from the original.

Color Balance

This tool balances the lightest and darkest areas of an image so that they are evenly distributed.

Without Color Balance   With Color Balance

Output Scaling

Output scaling allows you to enlarge/shrink the size of the final output image. Adjust the scaling by using the slide bar or typing the desired setting in the Output Scaling box. For example, setting the Output Scaling to 200% will double the amount of pixels contained in the image.

Width and Height

The Width and Height values show the dimensions of the image area inside the Crop Frame. You can change the measurement unit to centimeters or inches.

Image Size

Image Size displays the amount of disk space needed to display or save the image outlined by the Crop Frame. The Image Size information is automatically updated anytime you change any of the scan settings or resize the Crop Frame.

The Enhance Tab

The Enhance tab contains preprocessing controls that can be applied to the image before making the final scan. To access the Enhance tab, click Enhance.

The Enhance tab contains two picture thumbnails (Original and Sample) of the preview image, several control settings, and a histogram of the image. Alterations made to the enhance settings appear in the sample thumbnail.

The image that appears in the thumbnails will automatically be replaced with the Preview image.

Thumbnails
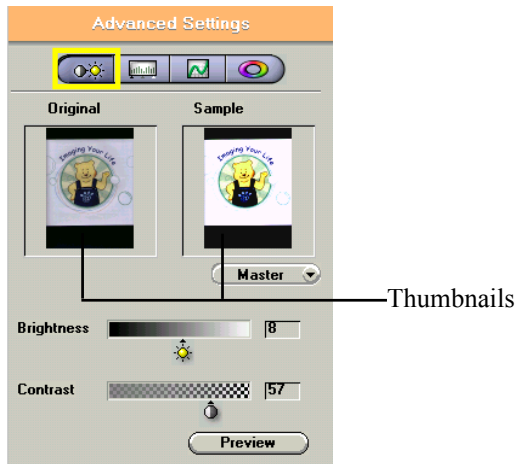
If you wish to see the effects of your changes in the Preview Window, click on the Preview button.

Channel Selector

Channel refers to the red, green, and blue colors that make up a color image. You can choose to change the channels individually or choose Master to change all channels equally and simultaneously. An image in Gray Mode has one channel.

Brightness Control

Using 255 steps, this tool allows you to adjust the overall amount of light in the image. A value of –127 will make the image appear very dark, whereas, a value of +127 will make the image appear very bright.

Brightness –50   Brightness 0   Brightness 50

Contrast Control

Using 255 steps, this tool controls the disparity in tone between the dark and light areas of an image. Positive values create greater differences between dark and light areas of the image, whereas, negative values create greater similarities between the dark and light areas of the image.

Contrast –50   *Contrast 0*   *Contrast 50*

Preview Button

Click the Preview button to see any changes made to the image. The changes will appear in the Preview window.

Level

You can easily use the level slider to adjust an image's contrast and brightness. You can drag the little white triangle to control the amount of hightlights, and the black triangle to the shadows, if you haven't set the two values using the eyedroppers. The gray triangle in the middle controls the image's midtone. After the highlight and shadow values are determined, use the gray triangle to roughly control an image's contrast.

You can control each channel's levels if you scan in RGB.
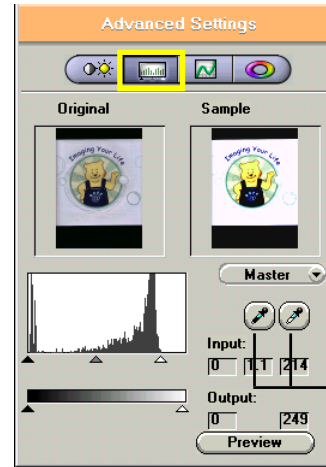
Eyedroppers

Eyedropper tools

Eyedroppers are used to identify an image's hightlights and shadows. Click on the darkest area that still contains detail with the black eyedropper to set the shadow value. Any darker parts will be regarded as black. And then the lightest area with the white eyedropper to set the hightlight. This is the first step to control an image's overall tonal range.

Curve

If your original is too dark or too light, you lose vital detail after scanning. You can fix them up using curves.
Curve function is applicable to grayscale and 24/48-bit color images. Simply put, if you knew how to use Adobe® Photoshop® or any other equivalent softwares' curve function, you can safely skip this section.

add/remove anchors
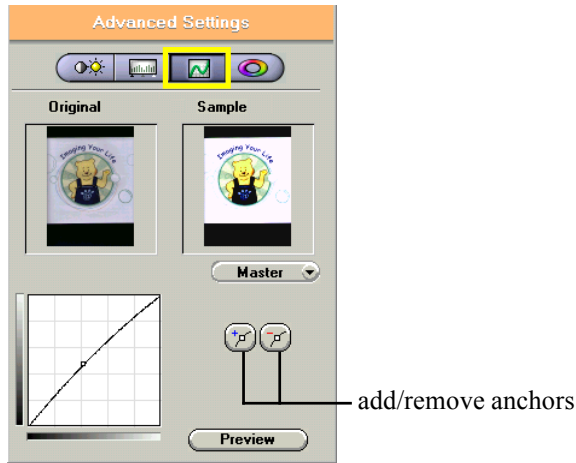
Applying a curve to an image is to enhance favored brightness ranges at cost of others. Like you can enhance the shadow at cost of the highlight and midtone. If done properly, you can energize a dull image using curves without sacrificing the overall image quality. To write a curve, simply place an anchor on the diagonal line and adjust its position. Add more anchors if you have to write a more complex curve. You can also remove anchors.

To emphasis shadow, raise the anchor; to emphasis highlight, lower the anchor; to emphasis midtone, write an S-shaped curve; to decrease contrast, write an inverted S-curve.

Experts apply curves to individual channels to color-correct an image. Usually this is done to a CMYK image to be printed.

Hue/Saturation

If you knew HSB colorspace, you can also skip this section. But if you don't know it, there's nothing wrong with you.

In plain English, hue roughly means color: red, yellow, green, blue, purple; and saturation means a color's purity. When a maple leaf turns red, it changes hue. If you place a bright blue cardboard outdoors, its color will fade, it will be less and less saturated.

The 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 shifts its overall coloring. This function mostly affects loud colors, less on mute colors. It does not change black, whte and gray.

The Saturation Slider lets you to adjust an image's color purity. Slide it to the left, the image becomes dull, like a black and white photo. Slide it to the right, the image becomes more colorful.

These two functions are disabled when scanning in grayscale or 48-bit color.

The Filters Tab

The Filters tab contains special effect controls that allow you to alter the image before making your final scan. To access the Filters tab, click Filters.
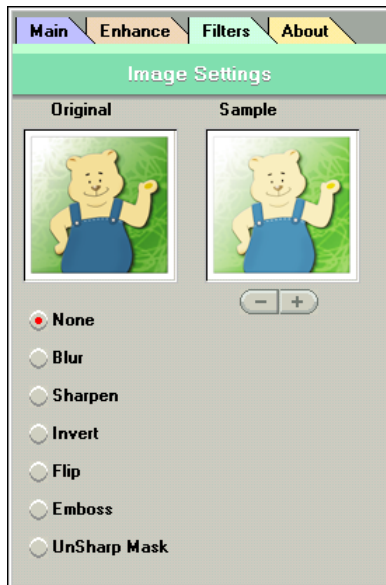
The Filters tab also contains two thumbnails of the previewed image. Any filter you choose will immediately show its effect in the sample thumbnail.

None
No filter is applied if None (default setting) is selected.

Blur
The Blur filter smoothes the image by lightening the pixels that are in sharp contrast to their neighboring pixels. The amount of blur applied is controlled with the plus and minus buttons.

Sharpen
The Sharpen filter enhances the detail in blurry images by improving the focus and increasing the contrast in the image. The amount of sharpness applied is controlled with the plus and minus buttons.

Invert

The Invert filter transforms an image to its negative by converting all color values to their opposites: whites become black, blues become yellow, etc.

Flip

The Flip filter creates a mirror image of the original by flipping the image horizontally.

Unsharp Mask

The Unsharp Mask filter detects sharp edges and color boundaries and then emphasizes them.

Emboss

The Emboss filter makes the elements in an image appear raised or sunken by reducing the color within the image and tracing its edges with black.


About Tab

The About tab contains the current driver version number, information about the interface device, and the copyright notice. To access the About tab, click About.
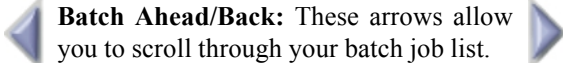
Using Batch Scan

Batch scanning is an easy way to multi-scan any part of your document using a variety of scan settings (Certain application programs do not support this function). Using Batch Scan you can specify up to 10 scan regions or scan a single region several times using different scan modes, resolutions, filters, and more.
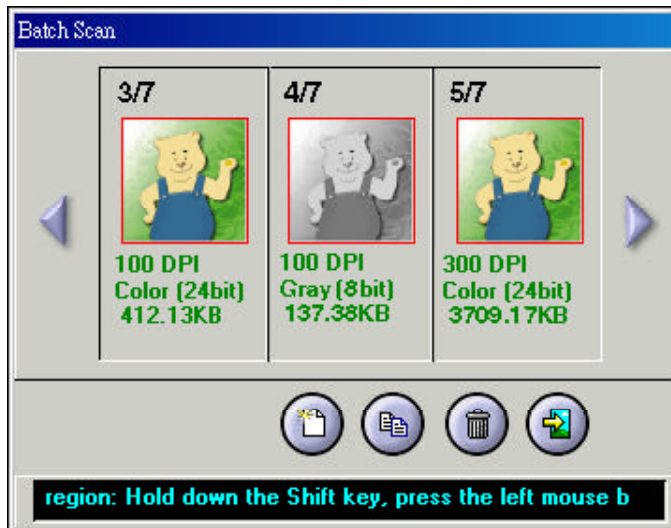
Batch Scan Controls

 Create Batch Scan: allows the user to create a new batch scan.

 Duplicate Batch Scan: duplicates the selected batch scan settings.

 Delete Batch Scan: deletes a batch scan.

 Exit Batch Scan: exits the batch scan box.

 Batch Ahead/Back: These arrows allow you to scroll through your batch job list.
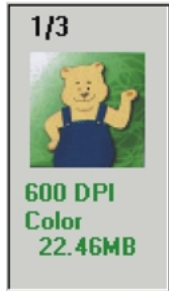
The Batch Box contains the thumbnail image, DPI, scan mode and image size of each batch scan. The batch number (e.g., 1/3, number 1 out of three) is always displayed at the top of the batch box along with the Batch Scan Status.

To Perform a Batch Scan

1. Click on the Batch Scan button. The Batch Scan dialog box appears.

2. In the TWAIN dialog box, set the desired scan mode and resolution for the current scan region.

3. Repeat steps 2 if you wish to create additional scan regions.

NOTE: Using the Batch Scan arrows allows you to view different batch jobs.

4. Click **Scan**. The scanner will begin to scan the batch jobs one after the other.

NOTE: You can assign different scan sizes (A4, A5 or custom) to each image separately.

Appendices

Appendix A: Scanning Tips

The following tables provide helpful information you can use when setting the scan mode and/or resolution. Recommended scanning resolutions for various output devices are listed as follows:

PRINTER TYPE	INPUT MATERIAL	SUGGESTED SCAN MODE	RESOLUTION
600-dpi Laser Printer	Color Grayscale Line Art/Text	Grayscale Grayscale Line Art/Text	150 dpi 150 dpi 600 dpi
Color Inkjet Printer	Color Grayscale Line Art/Text	Color Grayscale Line Art/Text	1/3 ~ 1/2 of printout resolution
Dye Sublimation or Color Laser Printer	Color Grayscale Line Art/Text	Color Grayscale Line Art/Text	Equal to your preferred printout resolution

Space requirements for different scan modes:

4" x 6" Image Scan	100 dpi	150 dpi	300 dpi	600 dpi
Gray	234 KB	527 KB	2.06 MB	8.24 MB
Color	703 KB	1.54 MB	6.18 MB	24.7 MB

A4 Size Document Scan	200 dpi	300 dpi	400 dpi
Line Art/Text	472 KB	1.04 MB	1.84 MB

IMPORTANT

Certain newer functions were supported by our bundled softwares only. Other scanner-compatible softwares are supported via the standard software interface (TWAIN). They are compatible with this scanner, but do not support our latest functions. Fully compatible softwares are listed below:

- **SCAN** – PhotoExpress™ SE 3.0

- **FAX** – only compatible with our provided fax utility software when you installed the software drivers

- **OCR** – TextBridge™ OCR

- **EMAIL** – Microsoft® Internet Explorer 4.0, Netscape® Communicator 4.5, Lotus cc:Mail 8.2 or higher.

Make sure to setup your email client properly. Refer to the documentation that came with your email client or consult your system administrator if any problem exists.

Appendix B: Troubleshooting

NOTES:
• It is not possible to print and scan at the same time.
• Do not disassemble the device to fix problems!
• When not using the scanner for long periods of time, you should unplug the power adapter from the wall socket.

1. The computer fails to recognize the scanner.
Check to ensure the scanner is correctly connected to the computer. *Power off your computer and the scanner, and reconnect them by carefully following our hardware installation instructions.*

2. The scan command is not executed.
The scanner cable may be connected loosely. *Check to ensure the scanner is correctly connected to the computer.*

3. Why do my images look blotchy or blurry?
If your scans are looking bad on screen, but printing out satisfactorily, it could be your video driver that is causing the problem. Try changing the resolution and color settings in the "Display" portion of your Windows® control panel (after first making sure that you have the proper driver disks to restore your system to the original settings). You should be using a driver that provides 16+million colors, and a resolution of at least 800 x 600.

4. What resolution should I scan at?
a. You should scan at the resolution of your output device.
b. If you plan to display your scans on a computer monitor (Internet), which has a resolution of 72DPI, we recommend scanning at 72 DPI.
c. If your output device is an inkjet printer:
 • For color images,
  scan at 1/3 the allowable resolution of the printer.
 • For Gray Mode or Line Art images,
  scan at the full resolution of the printer.

5. The scanned picture is not clear.
We recommend that you keep the scan window glass and the document cover clean. They should be cleaned on a regular basis. The cleaning steps are:
a. Turn off the scanner and unplug the power cord.
b. Open the document cover and use a cloth dampened with alcohol to clean the scan window glass and the cover separately.
c. Use a lint-free dry cloth to dry the glass and cover.