

MICROTEK

ScanWizard EZ

Reference Manual





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To obtain optimal results from the Microtek scanning software and user's manual, you should be familiar with such Windows concepts as pointing, clicking, dragging, and selecting from menus and dialog boxes. If these things are new to you, refer to your Microsoft Windows User's Guide.

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Introduction

ScanWizard EZ is scanning software developed exclusively for Microtek scanners. ScanWizard EZ has three unique scan modes that novices and experienced users will find productive and easy to use.

The three scan modes of ScanWizard EZ are the EZ mode, the Advanced mode, and the Professional mode.

This *Reference* manual covers the various commands and features found in the ScanWizard EZ scanning software. The reference information is divided into three major parts, corresponding to the three scan modes of the scanning software:

- The EZ mode
- The Advanced mode
- The Professional mode



System Requirements

- Windows XP, Vista, Windows 7 or Windows 8
- 512 MB RAM required; 1 GB or more suggested for better performance
- Free hard disk space as required by the size of your scanned images and for additional working files
- CD-ROM drive (internal or external)
- “Thousands of colors” display or better
- Microtek scanners that support ScanWizard EZ




Launching ScanWizard EZ

ScanWizard EZ can be launched in either Stand-alone or Plug-in mode.

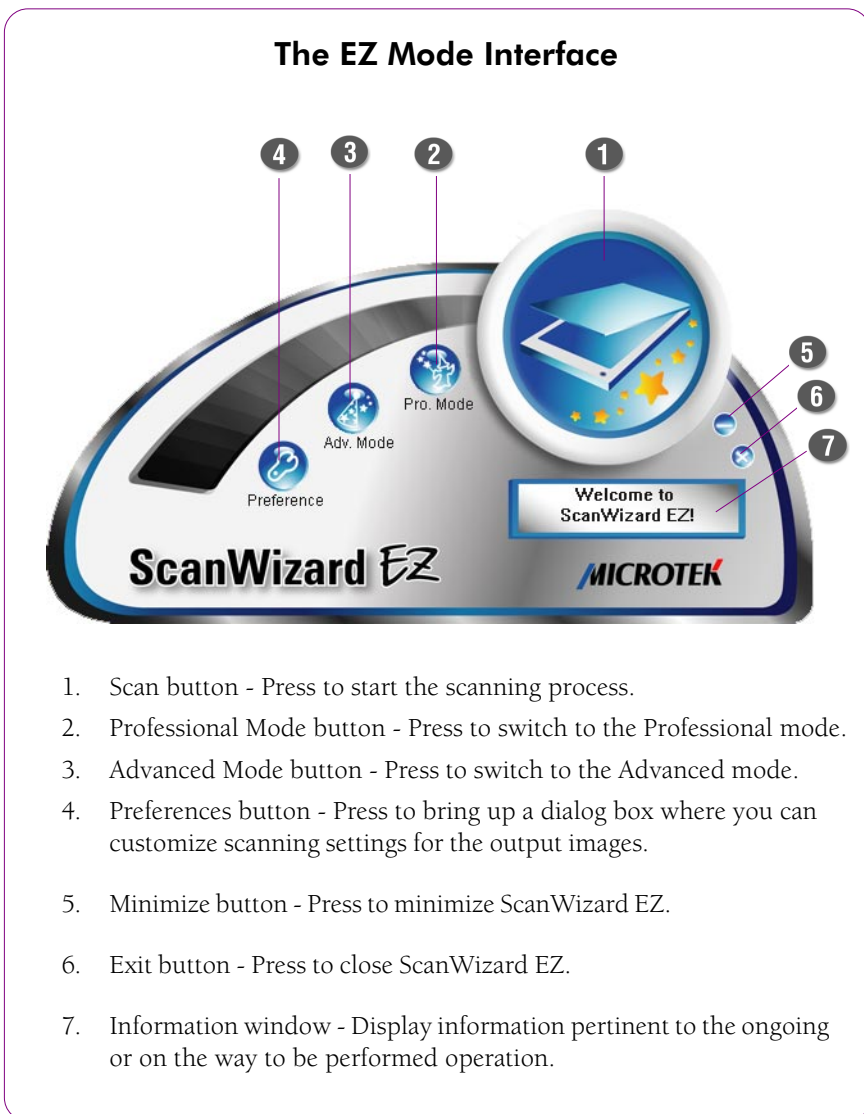
- From Stand-alone mode: Double-click the *ScanWizard EZ* icon on the desktop, or choose *Start, Programs, Microtek ScanWizard EZ for Windows*, and then *ScanWizard EZ*.
- From Plug-in mode: Choose the *Import* or *Acquire* command from the File menu of your image-editing software, then select *Microtek ScanWizard EZ*.

Exiting ScanWizard EZ

To exit ScanWizard EZ, click the Exit button () in the EZ mode, the button () in the Advanced mode, or the button () in the Preview window of the Professional mode.

The EZ Mode

The EZ mode is the default scan mode when the ScanWizard EZ is launched the first time. It is meant to offer you a direct, intuitive and fast way to access a scanning process and to get a satisfied image output. There are six buttons on the EZ mode interface. They are the Scan, Professional mode, Advanced mode, Preferences, Minimize and Exit buttons. Details on how to use these buttons are discussed in later chapters.



Scanning with the EZ Mode

This section provides the easiest and most basic scanning scenario with the EZ mode of the ScanWizard EZ scanning software.

1. Place the material to be scanned on the scan bed.
2. Launch ScanWizard EZ (either as a stand-alone by clicking on the program icon, or by using the File-Import or Scan command from an application program).
3. Click the *Scan* button to start scanning.

The ScanWizard EZ will automatically detect the material on the scan bed and calibrate the scanner first; then, crop the image, and at last carry out the final scan with scanning settings. When the scan is done, the output image can be saved in a file, delivered to the specified location or opened in your chosen application.

- If ScanWizard EZ is launched from an application program, the scanned image is delivered to your application, where the image can be saved, printed, or modified further.
- If ScanWizard EZ is launched as a stand-alone program, the scanned image can be saved as a file in your selected folder or opened in an application program.



Function Buttons on the EZ Mode



Scan Button

The Scan button performs a final scan of your image, executing the scanning settings specified under Preferences window.

When pressing the Scan button, the ScanWizard EZ automatically performs an image scan with some auto-function scanning settings, such as the Auto-crop, Auto-deskew, Auto Color Enhancement, etc. If you want to adjust those scanning settings, you need to activate the Preferences window, mentioned and explained in the later section of the manual.

To cancel an ongoing scanning job, press the *Cancel* button (where the position of the Scan button). The scanning job will be terminated immediately.



Professional Mode Button

The ScanWizard EZ Professional mode covers the various commands and features, including the Advanced Image Correction (AIC) tools for image enhancements. Press the *Professional* mode button to switch to the Professional mode. For more details, see the section “The Professional Mode”.



Advanced Mode Button

The ScanWizard EZ Advanced mode provides you with some basic and useful features for greater controls over the entire scanning process. Press the *Advanced* mode button to switch to the Advanced mode. For more details, see the section “The Advanced Mode”.

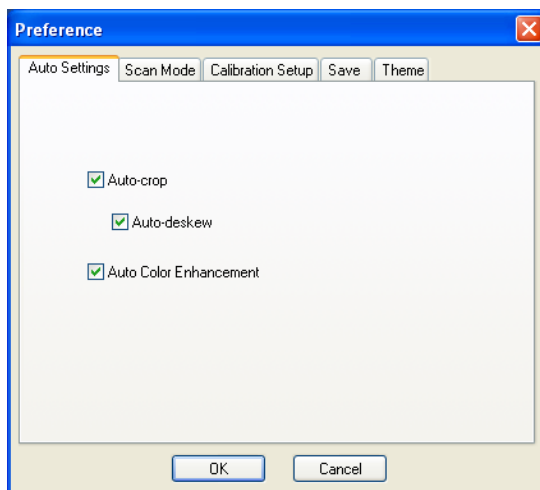


Preferences Button

Press the Preferences button to bring up the Preferences window, which allows you to change scanning settings for output images. You may see different function tabs appearing at the top of the window depending on which scan mode you are using. Click any of the tabs to customize the function settings according to your needs.

Auto Settings Panel

The Auto Settings panel contains several automatic functions, such as Auto-crop, Auto-deskew, and Auto Color Enhancement. These functions are checked by default when ScanWizard EZ is launched for the first time. You may uncheck the function by clicking the check box of each function in the panel.



Auto-crop

The Auto-crop function automatically detects the size of the original image, crops the full scan frame to fit the image, and removes unwanted black borders. It is disabled when the scan material is set as Negative or Positive Film in the Scan Mode panel of the Advanced mode.

Auto-deskew

The Auto-deskew function automatically rotates and corrects the distorted image for a proper alignment after scanning. It is disabled when the scan material is set as Negative or Positive Film in the Scan Mode panel of the Advanced mode.

Note: The Auto-deskew function is available only when the Auto-crop function is activated.

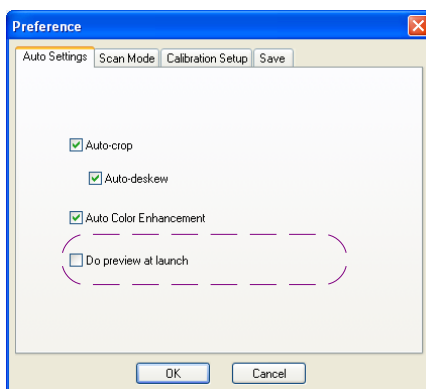
Auto Color Enhancement

The Auto Color Enhancement function improves the contrast and saturation of an image, resulting in more vibrant colors.

Do preview at launch (Advanced mode only)

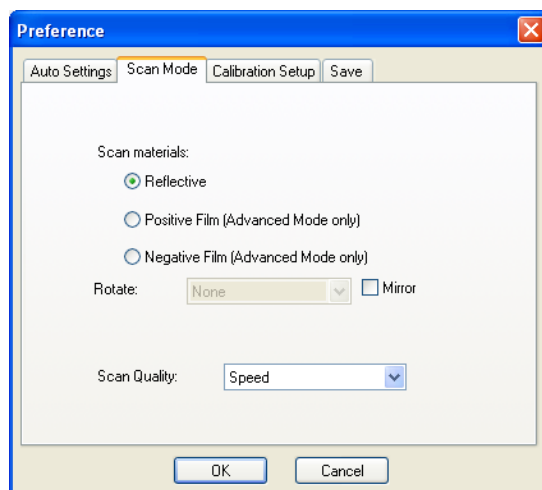
This function automatically detects and creates a preview image for your original material in the Preview area once when you activate the Advanced mode. This function appears only when you are in the Advanced mode.

If you disable the auto-preview function in the Preference window, you will need to click the Preview button manually to prescan and preview your material.



Scan Mode Panel

The Scan Mode panel allows you to choose scan material and desired resolution for the scanned images.



Scan Materials

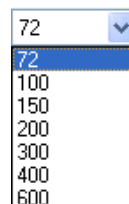
The Scan materials function allows you to select your scan material, which can be one of the following:

- Reflective, such as photographs, documents or prints.
- Positive Film, such as 35mm slides or X-ray films.
- Negative Film, such as 35mm filmstrips.

Note: The Positive Film and Negative Film are available only when you are in the Advanced mode.

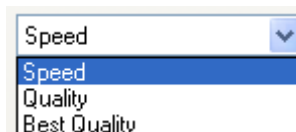
Image resolution (EZ mode only)

The Image resolution function allows you to specify a desired resolution for the scanned image. To choose a desired resolution, press the drop-down arrow next to the box and choose one value from a predefined list.



Scan Quality

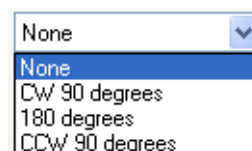
The Scan Quality function allows you to select the image quality by controlling the scanner hardware and the maximum image processing depth.



- **Speed:** This is the default setting. Choose this option if your primary concern during scanning is speed. Image data is delivered faster.
- **Quality:** Scanned data is delivered a little slower but in high quality, and the image data is processed in 8 bits per channel.
- **Best Quality:** This setting is available only to higher-depth scanners (10-, 12-bit, or higher). Scanned data is delivered a little slower but in high quality, and image data is processed in maximum bits per channel (i.e., 10-, 12-bit, or higher), and then converted to the desired output depth. This special operation results in the best image quality possible.

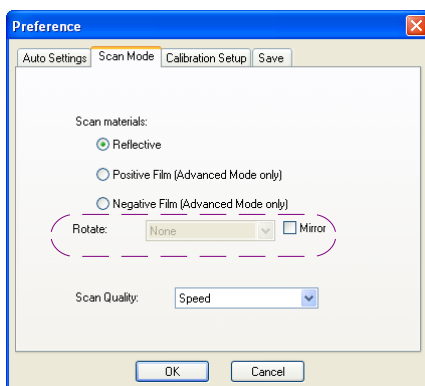
Rotate (Advanced mode only)

The Rotate function lets you rotate the image in increments of 90 degrees. This function appears only when you are in the Advanced mode.



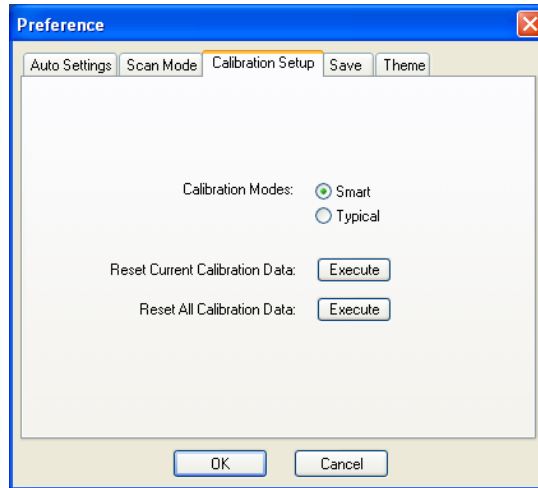
Mirror (Advanced mode only)

The Mirror function lets you flip the image horizontally. This function appears only when you are in the Advanced mode.



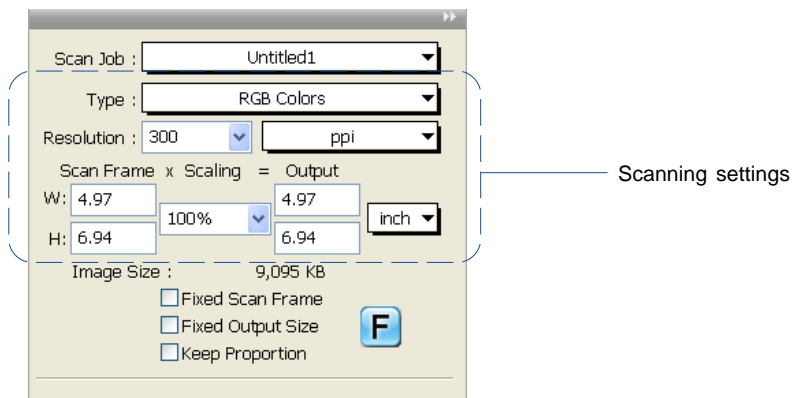
Calibration Setup Panel

The Calibration Setup panel allows you to choose if you want to calibrate your scanner before performing a scan job each time.



Calibration Modes

- **Smart:** This is the default setting of the program. If this option is checked, the ScanWizard EZ will memorize the calibration values generated by different scanning settings. Next time, when you perform a scan job with a same value of scanning settings, the scanner will skip the calibration step and directly perform a scan job. This mode enhances the scanning speed obviously when you often scan materials sharing same scanning settings.



Also, when the Smart mode is checked, you can also decide if you want to reset memorized calibration values.

- Typical: When you check this option, the ScanWizard EZ calibrates your scanner before performing a scan job if the scanning settings are changed. If not, the scanner will skip the calibration process and start scanning immediately.

Reset Current Calibration Data

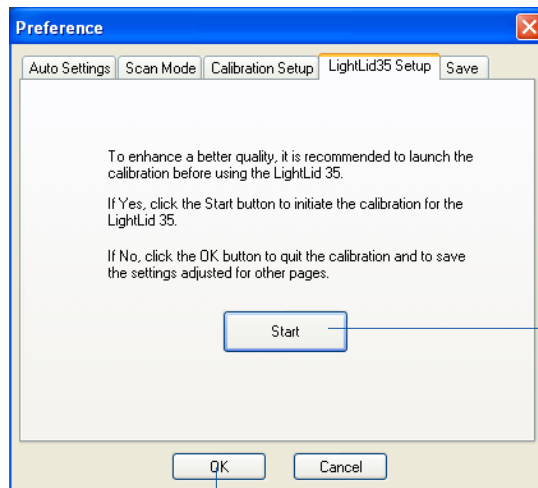
By clicking the Execute button after this option, the ScanWizard EZ clears the calibration data you made with current scanning settings, which means that the program will need to re-calibrate your scanner and to re-memorize the calibration value if your next scan job carries the same scanning settings as the current values are using. This option only delete the calibration data you are using presently. Other saved calibration data are not affected.

Reset All Calibration Data

By clicking the Execute button after this option, the ScanWizard EZ clears all saved calibration data; therefore, the program will need to re-calibrate your scanner and to re-memorize the calibration value when you perform the next scan job. Also, when you click the Execute button, a pop-up window appears to remind you if you are sure to clear all the saved calibration data.

LightLid 35 Setup Panel (Advanced mode only)

The LightLid 35 Setup panel allows you to calibrate your LightLid 35 before using it to perform a scan of negative or positive film. This panel will appear only when the scanner you are using supports the LightLid 35 and the scan materials are set as Positive or Negative Film in the Scan Mode Panel.



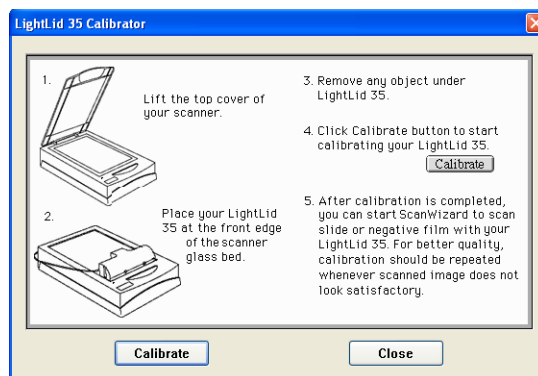
Click to start the calibration for your LightLid 35

Click to skip the calibration and save settings made for other panels

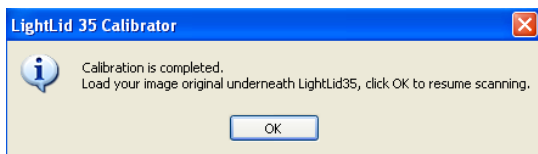
After the LightLid 35 Setup panel is clicked, follow the instructions in the window to proceed the next stage.

To start a calibration for the LightLid 35.

Click the Start button. “LightLid 35 Calibrator” window will appear on the screen where there are detail steps about how the program will proceed the calibration for your LightLid 35. Click the Calibrate button to start the calibration.



The calibration procedure may take a while. Please wait patiently. When the calibration is done, a notifying window will appear on the screen. Click the OK button to go back to the main page of the LightLid 35 Setup panel.

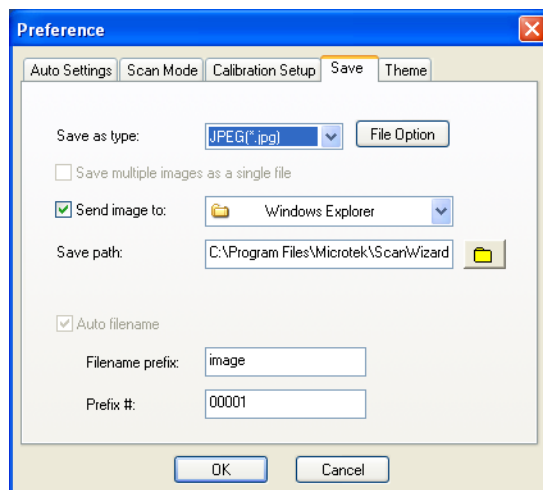


If you do not want to calibrate your LightLid 35, click either one of OK or Cancel button. If you choose the OK button, the program will skip the calibration for your LightLid 35; however, it will memorize settings or changes made for other panels.

If the Cancel button is selected, the program will skip the calibration and will not memorize settings or changes made for other panels.

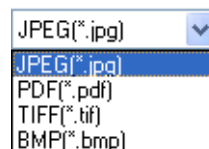
Save Panel

The Save panel allows you to choose a file format for the scanned images, to specify the desired folder for storing the images, and to name the images as desired. Also, it allows you to open the output image in your preferred application.



Save as type

This option allows you to choose a file format when saving a file. The selectable file format includes JPEG, PDF, TIFF and BMP. "JPEG" is the default file format.



Save multiple images as a single file

This option allows you to save the scanned images to a single file. You can enable this function if the output image file format is PDF or TIF.



Save path

This option allows you to assign the preferred folder into which the scanned images are saved. If you use the default folder "C:/Program Files/Microtek/ScanWizard EZ/My Images/" as your preferred folder, you can access it directly by clicking the "EZ Images" icon on the desktop of the Windows.

Auto filename

If Auto filename is checked, the file name consists of the file prefix, plus the file serial number. By default, this option is grayed out and users are not allowed to uncheck it.

Filename prefix

This edit box lets you enter a root file name. “Image” is the default.

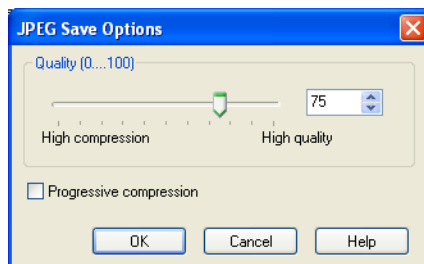
Prefix

This edit box lets you enter a starting number to be appended to the file name. “00001” is the default.

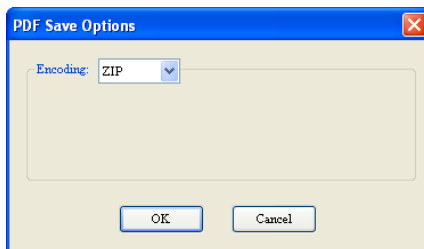
File Option

When the file format for the scanned image is selected, you are allowed to change the image compression ratio depending on the file format chosen.

- JPEG format: When “JPEG” is selected and then you click the *File Option* button, the “JPEG Save Options” window will appear. You are allowed to adjust image compression quality from a range of 0 to 100.



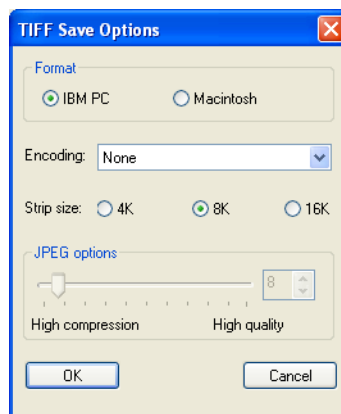
- PDF format: When “PDF” is selected and then you click the File Option button, the “PDF Save Options” window will appear.



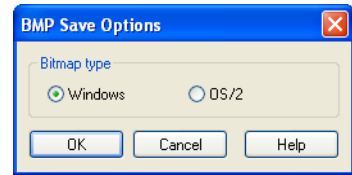
ZIP and JPEG options are available for Encoding. If ZIP is selected, image compression control will not be available for adjustment.

- TIFF format: When “TIF” is selected and then you click the File Option button, the “TIF Save Options” window will appear.

You are allowed to adjust settings based on your preferences. If “None” is selected for Encoding, the JPEG image compression control will not be available for adjusting; if “JPEG” is selected, the Strip size options are grayed out and not being used.

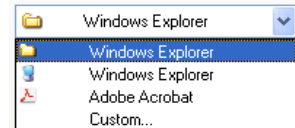


- BMP format: When “BMP” is selected and then you click the File Option button, the “BMP Save Options” window will appear. Two options are available for users to save a BMP file.



Send image to

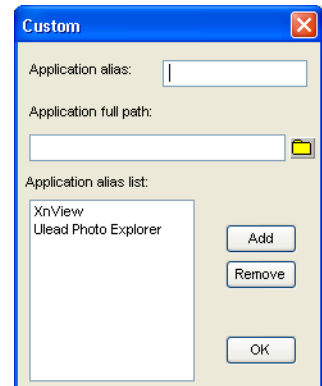
This option allows you to deliver the scanned images to the chosen application. You can choose a desired application from a list of predefined applications. The default application is Windows Explorer.



You may also add your own application to the list of applications and assign it as your desired application.

To add your own application, press the drop-down arrow next to the box and choose *Custom*. When a Custom dialog box appears, do the following:

1. Key in the application name as desired in the *Application alias* column.
2. Assign the path where the application can be found in the *Application full path* column.
3. Press the *Add* button to add the new application.
4. You can see the added application name appearing inside the *Application alias list* column.
5. Repeat the step 1-4 until done, then press the *OK* button to save.

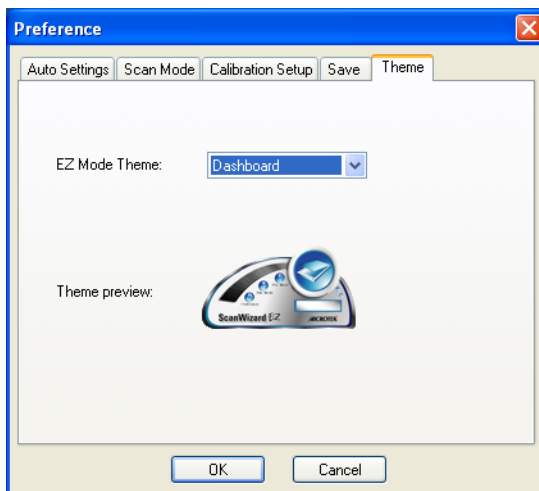


Next time, when expanding the list of the predefined applications, you can see the added application in the list. Then you can assign it as your favorite for use in subsequent scans.

To remove an application, highlight the application name in the Application alias list, then press the *Remove* button to remove it.

Theme Panel (EZ mode only)

The Theme panel appears only when you are in the EZ mode. This setting allows you to change the appearance of the control panel for the EZ mode and therefore adds more fun on using the ScanWizard EZ.



EZ Mode Theme

This option allows you to alter the appearance of the control panel for the EZ mode. Three themes are available for you to choose. They are Dashboard, Clock, and Remote Control. The “Dashboard” is the default appearance when the EZ mode is launched for the first time.

To choose your desired appearance, click the drop-down arrow next to the box and choose one setting from the list.

Theme Preview

This area is where the theme image will be displayed after you choose one theme as your desired appearance of the control panel.



Dashboard Theme



Clock Theme



Remote Control Theme



Minimize Button

When clicking the Minimize button, ScanWizard EZ will be shrunk down to the Windows task bar.

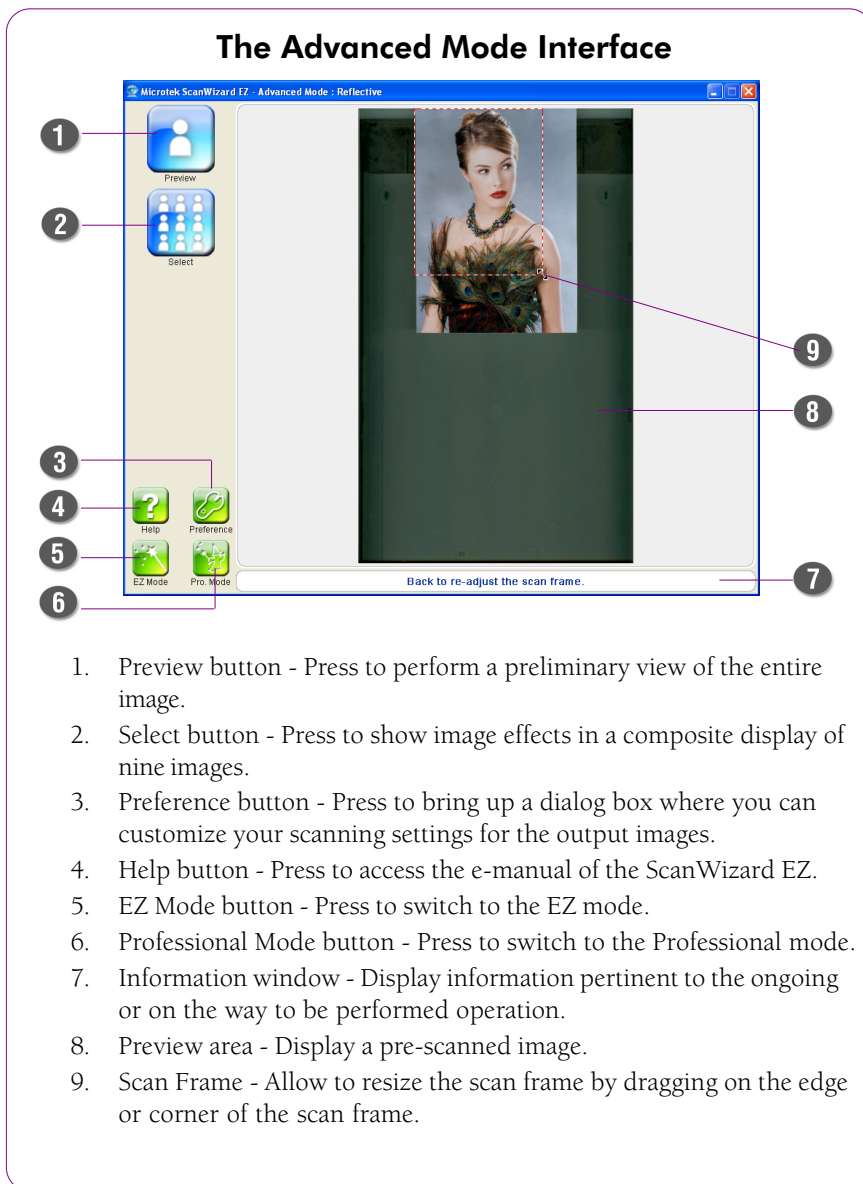


Exit Button

When pressing the Exit button, ScanWizard EZ will be terminated and users exit the ScanWizard EZ program immediately.

The Advanced Mode

The Advanced mode offers you more choices when outputting your scanned images, including modifying output sizes, resolutions, and a variety of image effects, based on the purpose dealing with your image. Details on how to use this mode is discussed in later chapters.



Switching to the Advanced Mode

When you launch ScanWizard EZ for the first time, the EZ mode is the default scanning mode shown on your screen. Press the *Advanced mode* button on the EZ mode interface, and the EZ mode is immediately switched to the Advanced mode.

If you are in the Advanced mode and quit ScanWizard EZ, the Advanced mode will remain same and reappear again when you launch ScanWizard EZ in the next time.



Scanning with the Advanced Mode

This section helps you to start the use with the Advanced mode of the ScanWizard EZ scanning software.

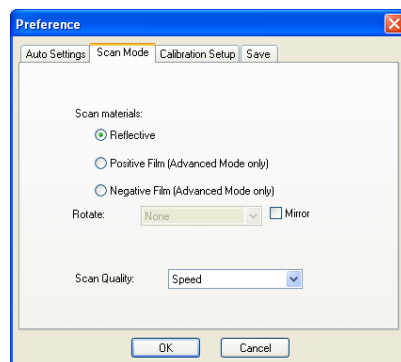
1. Place the material to be scanned on the scan bed.
2. Launch ScanWizard EZ (either as a stand-alone by clicking on the program icon, or by using the File-Import or Scan command from an application program).

When you launch ScanWizard EZ for the first time, click the *Advanced mode* button (🔑) on the EZ mode interface to switch to the Advanced mode. The Advanced mode interface appears.



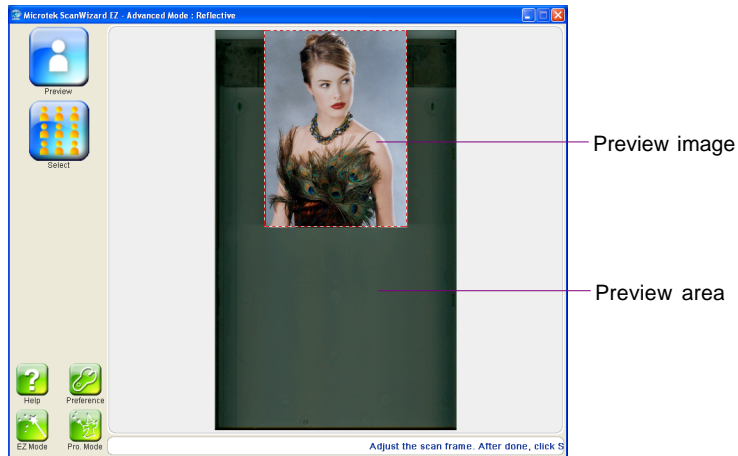
3. Click the *Preference* button to activate the Preference window. Then, click the *Scan Mode* tab at the top of the window to select the correct scan material for your scan target.

- Reflective, such as photographs, documents or prints.
- Positive Film, such as 35mm slides or X-ray films.
- Negative Film, such as 35mm filmstrips.

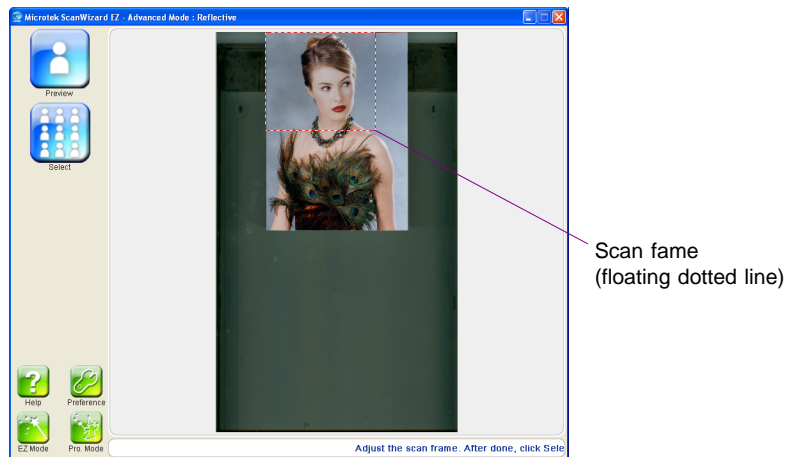




4. Click the *Preview* button. The program will automatically detect and create a preview image for your original material in the Preview area with some auto function settings, such as Auto-crop and Auto-deskew.



5. After a preview image is shown in the Preview area, if necessary, you can resize the scan frame (floating dotted line) around the image by dragging on the edge or corner of the scan frame to determine the final size of the actual scan.





6. When the desired area to be scanned is chosen, click the *Select* button to enter the image effects window.

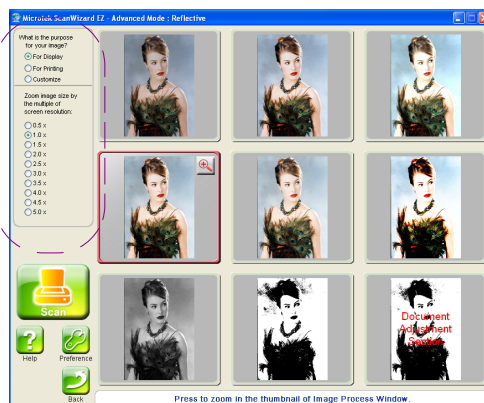
In the image effects window, the program will automatically apply nine different images effects to the original image and display the results on the screen immediately in a composite display of nine images.



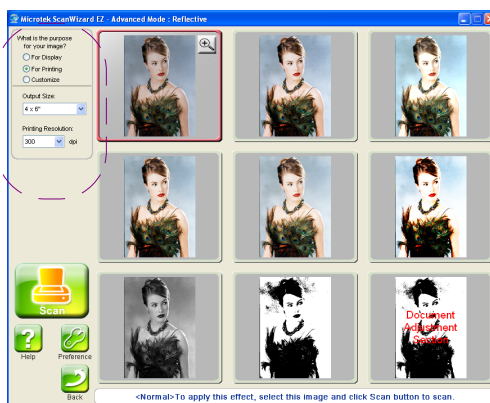
At this stage, the program allows you to decide how your scanned image will be manipulated based on two purposes. Choose a desired purpose from the purposes below.

- **For Display:** Choose “For Display” if your scanned image is intended for an on-screen display. This option allows you to set the dimensions (viewing size) of the image; the maximum viewing size can be set up to 5 times bigger than the size of the original one.

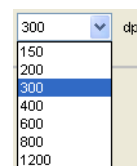
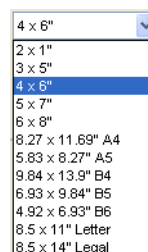
The size adjustment can be set from 0.5x to 5.0x in an 0.5 step-up increment. The default size is 1.0x.



- **For Printing:** Choose “For Printing ” if your scanned image is intended to be printed. This option allows you to set the dimensions (output size) and resolution of the image based on your own preferences.



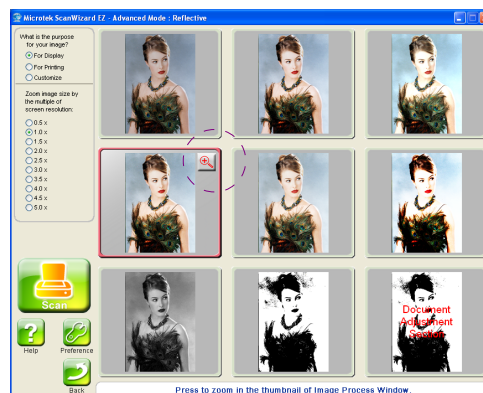
- **Output Size:** You can choose an desired output size from a predefined list. To do this, press the drop-down arrow next to the box and choose one output size from the list. The default size is 4" x 6".
- **Printing Resolution:** You can choose an desired resolution from a predefined list. To do this, press the drop-down arrow next to the box and choose one value from the list. The maximum resolution value will be the value which is supported by the scanner model. The default resolution is 300 dpi.



7. If you like to check how image effect is more closely and detailed, you can use the Zoom In and Zoom Out buttons to zoom in and out the image.

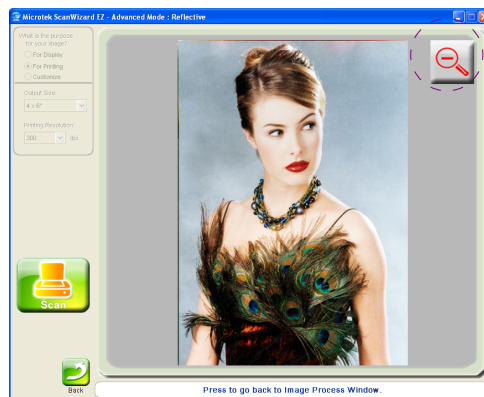


- Point your mouse to the thumbnail image of the image effect you desired, and click the **Zoom In** button on the top right corner of the image. The chosen image will be enlarged and fit into the whole Preview area.



- When an image is magnified, you can use the mouse wheel to toggle through different image effects and display them consequently on the screen directly.

To return to the display of nine-image effects, click the Zoom Out button.



8. Choose a desired image effect to be applied, click the Scan button to start scanning.

The ScanWizard EZ will calibrate the scanner and perform the final scan with the scanning settings you made in the previous steps. When the scan is done, the output image can be saved in a file, delivered to the specified location or opened in your chosen application.

- If ScanWizard EZ is launched from an application program, the scanned image is delivered to your application, where the image can be saved, printed, or modified further.
- If ScanWizard EZ is launched as a stand-alone program, the scanned image can be saved as a file in your selected folder or opened in an application program.

Function Buttons on the Advanced Mode



Preview Button

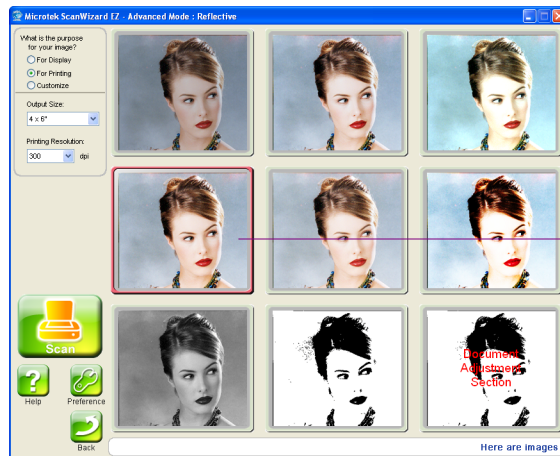
The Preview button performs a preview scan of the entire image and displays the result in the Preview window. When pressing the Preview button, the ScanWizard EZ automatically and immediately performs a preview scan for your image with some automatic settings, such as Auto-crop and Auto-deskew. They help you to get a better viewing experience.

Select Button



The Select button performs a preliminary view of the scan frame with different image settings and shows all effects in a composite display of nine images on the screen.

When pressing the Select button, it takes a while for the system to generate and apply various image effects to the original image. When done, you will see nine thumbnail images with the same content of the original image on the screen, which is that each one contains one specific image processing effect.



To choose a desired image effect, simply move your cursor (mouse) up on the thumbnail and click it. The chosen image effect will be applied to your original image after scan.

Nine Types of Image Effects

One major advanced feature offered by the ScanWizard EZ program is that the system automatically provides a pre-screened parameter of image effects to scan materials, which help you to exactly get what they see on the screen. It means that no more fuzzy and tedious steps are required when you want to apply some image effects to your scan materials. The nine types of image effects include the followings:



Normal

This is the default setting presented by your scanner. It represents the original status of scan image.



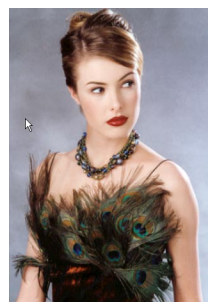
Auto Shadow/Highlight

This effect balances light/dark shades of scan image.



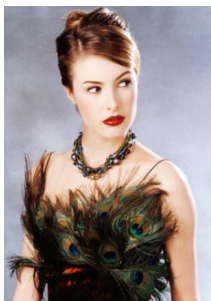
Auto Shadow/Highlight/Lightness

This effect balances light/dark shades of scan images. Also, it dims the brightness of the light shades of scan image.



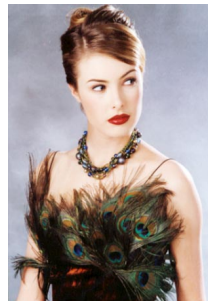
Auto Color Restoration (ACR)

This effect restores faded colors of scan image back to life.



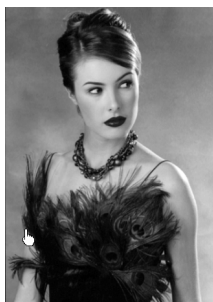
ACR + Auto Shadow/Highlight

This effect restores faded colors of scan image back to life. Also, it balances light/dark shades of scan image.



ACR + Auto Shadow/Highlight/Lightness

This effect restores faded colors of scanned materials back to life. Also, it balances light/dark shades and dims the brightness of the light shades of scan image.



ACR Gray

This effect presents images use shades of gray to simulate gradations of color or tonal values, and contain 8 bits per pixel.



ACR Line Art

This effect presents images made up of one bit of color (black or white) per pixel. It is useful for images consisting purely of black and white or even single colors, such as mechanical drawings or blueprints.



Document Adjustment Section

This effect is specifically designed for your scan material which is paper document. You can adjust image settings from its control panel based on the characteristics of scan document. To enter the control panel move and click the cursor (mouse) up on the thumbnail image.



Scan Button

Press the Scan button to start the final scanning process, based on the scanning settings you have made to the current image.



Cancel Button

Press the Cancel button to stop the scanning process and to cancel an ongoing scan job.



Help Button

Press the Help button to access an electronic help document for ScanWizard EZ and to give you information on the ScanWizard EZ scanning software.



Preference Button

Press the Preference button to bring up the Preference window, which allows you to change scanning settings for the output images. You may see different function tabs appearing at the top of the window depending on which scan mode you are using. Click any of the tabs to customize the function settings according to your needs. For more details, see the topic “Preference Button” in the “Function Buttons on the EZ Mode” section.



EZ Mode Button

Press the EZ mode button to activate the EZ mode on the screen. To shift back to the Advanced mode again, press the Advanced mode button on the EZ mode interface.



Professional Mode Button

Press the Professional mode button to activate the Professional mode on the screen. To shift back to the Advanced mode again, press the Advanced mode button in the Preview window of the Professional mode.



Return Button

Press the Return button to back to the previous user interface.



Zoom In Button

Press the Zoom In button to magnify the chosen image effect and to fit it into the whole Preview area.



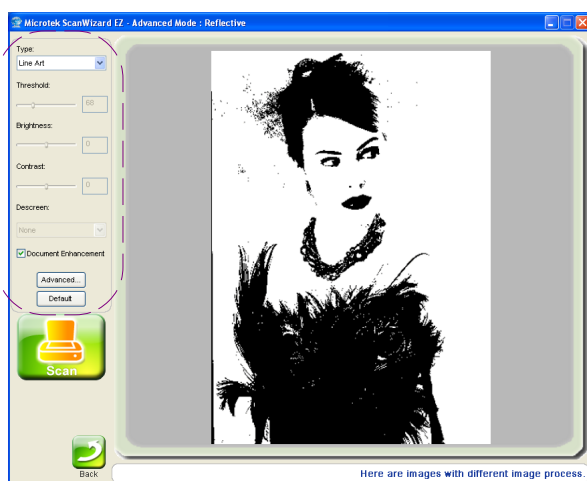
Zoom Out Button

Press the Zoom Out button to return from the magnified image to the display of nine-image effects.

Image Correction Controls for Document Adjustment Section

The Document Adjustment Section contains some advanced image correction controls for you to adjust for your output images, such as Brightness, Contrast, etc. By selecting different type as your image output type, you may see different image correction controls on the screen.

Image correction controls (for Document Adjustment Section only)



	Color	Gray	Line Art
Threshold / Auto Threshold			v
Brightness	v	v	
Contrast	v	v	
Descreen	v	v	
Auto Color Restoration	v	v	
Document Enhancement			v
Shadow / Highlight	v	v	v
Gamma	v	v	
Lamp Filter		v	v

Type

This allows you to select the appropriate image type (e.g., Color) as your image output type.

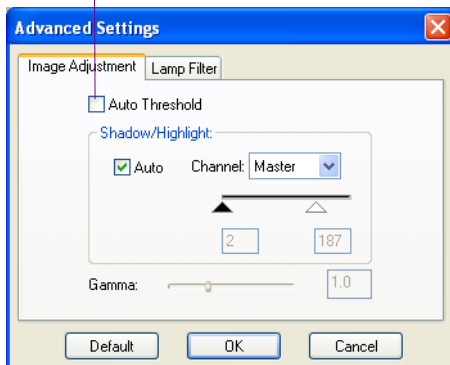
- Select Color to scan the image in color.
- Select Gray to scan the image in grayscale.
- Select Line Art to scan the image in black-and-white.

Threshold

The Threshold control is active only when the Type setting is "Line Art" and the "Auto Threshold" is unchecked in the Advanced Settings window. The default Threshold is preset to 127.

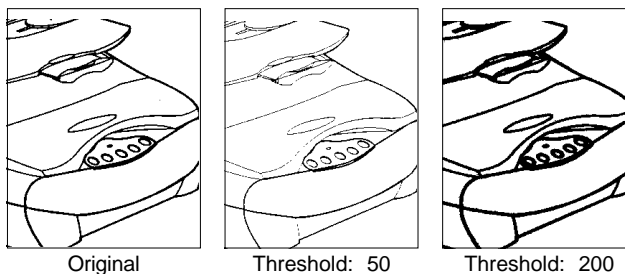
To change the default Threshold setting, you should disable the "Auto Threshold" setting in the Advanced Settings window. To do this, click the Advanced... button to open the Advanced Settings window, uncheck "Auto Threshold", and click OK. Then return to the control panel to drag the slider, or enter a desired value in the Threshold edit box.

Uncheck the Auto Threshold to set up the Threshold manually



Threshold is the dividing point between black and white; the range is 0 to 255, and the default is 127. Thus, gray levels below the Threshold are converted to black, while gray levels equal to or above the Threshold are converted to white, resulting in a high-contrast, black-and-white representation of the image.

- To darken the original, drag the slider to the right or enter a value in the edit box. This increases the Threshold value so that more pixels are turned to black, resulting in a darker image.
- To lighten the original, drag the slider to the left or enter a value in the edit box. This lowers the Threshold value so that more pixels are turned to white, resulting in a lighter image.



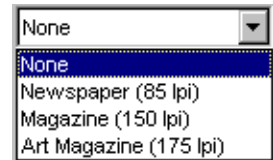
Brightness/Contrast

The Brightness/Contrast feature lets you control the brightness and contrast levels of the selected frame image.

Increasing the brightness makes all tones in the image lighter. Contrast, on the other hand, is the range between the darkest and lightest shades in the image, and increasing the contrast makes for greater separation between the darkest and lightest areas of the image. Levels of brightness or contrast are from -100% to 100%, where 0 means no brightness/contrast is applied.

Descreen

The Descreen feature lets you remove moiré patterns from printed materials. Moirés occur when you scan a screened original (mostly reflective or previously printed material, such as pictures from a newspaper or magazine). These patterns appear to the naked eye like a series or grid of dots or as shown in the example below.



To set the screen for your needs, press the drop-down arrow next to the box and choose one setting from a predefined list.

Auto Color Restoration

The Auto Color Restoration feature brings faded colors back to life and to their near-original colors. This feature is active only when the Type setting is “Photo” or “Gray”.

Document Enhancement

The Document Enhancement feature enables you to bring out and improve readability of text in a document that includes other elements such as pictures or graphs. This feature is active only when the Type setting is “Line Art”.

Default Button

The Default button cancels the changes you have made with the image correction controls and restores all settings to their default values.

Advanced... Button

Comparing with the image correction controls, Document Adjust Section provides a few additional optional features for scanner control such as Image Adjustment and lamp filter. When you press the Advanced ... button, the Advanced Settings window will appear. The variety of the tabs for optional functions appearing is determined by the scanner you are using.

Click any of the tabs to customize the function settings according to your needs.

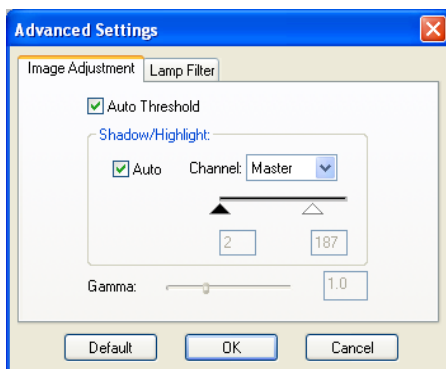



Image Adjustment

This layer allows you to change the shadow/highlight and gamma points of an image. It also let you enable the Auto Threshold setting.

- **Auto Threshold:** This feature is active only when the Type setting is “Line Art”. When you check this option, the Threshold value is automatically given according to your preview image. To manually adjust Threshold, uncheck the “Auto Threshold” option, and then assign a customized Threshold setting.
- **Shadow/Highlight:** This lets you manipulate shades so that the Shadow point becomes the new darkest value and the Highlight point becomes the new lightest value.

Shades that are darker than the shadow then become black, and shades lighter than the highlight become white. For example, if you set the highlight point to 200, all points in the image with a value greater than 200 will be mapped to a value of 255, since 255 represents the “whitest” white.

- 
- **Auto:** When you check Auto, the Shadow/Highlight value is automatically given according to your preview image. To manually adjust Shadow/Highlight, uncheck the “Auto” option and give value to the .
 - **Shadow:** Drag the black (left) triangle, or enter the value in the edit box to control the shadows. Moving this triangle to the right will emphasize shadows and create a darker image. Acceptable ranges are from 0 to 252. The default is “0”.
 - **Highlight:** Drag the white (right) triangle, or enter the value in the edit box to control the highlights. Moving this triangle to the left will emphasize highlights and create a lighter image. Acceptable ranges are from 3 to 255. The default is “255”.
 - **Gamma:** This lets you adjust the intensity of the midtones of an image, making them consistent between the preview image and the final scanned image. To change the Gamma of an image, drag on the Gamma slide bar. Dragging the slider to the left decreases intensity; dragging it to the right increases intensity. Acceptable ranges are from 0.1 to 3.0. A value of 1.0 means that no gamma value is applied; default is 1.0.

Lamp Filter

The Lamp Filter tab appears only when all of the following conditions have been met:

- The scanner you are using implements the lamp filter function.
- The “Gray” or “Line Art” image type is selected as your image output type.

The Lamp Filter function allows you to remove an unwanted color cast (i.e., green, red, or blue) from your originals. For example, to eliminate a greenish color cast, select *Green* as your lamp filter. For some scanner models, only the green and red filter options are available for you to choose.

Microtek ScanWizard EZ Reference Manual

For Professional Mode



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Important

Documents that you scan may be protected under copyright law. The unauthorized use of such documents could be a violation of the rights of the copyright holder. Microtek bears no responsibility for the unauthorized use of copyrighted materials.

To obtain optimal results from the Microtek scanning software and user's manual, you should be familiar with such Windows concepts as pointing, clicking, dragging, and selecting from menus and dialog boxes. If these things are new to you, refer to your Microsoft Windows User's Guide.

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The Professional Mode

The ScanWizard EZ - Professional mode is an alternative scanning mode, which provides you with additional features for greater control over the entire scanning process, including the Advanced Image Correction (AIC) tools for image enhancement, and special features, such as Auto Color Enhancement, Auto Sharpness Correction and Automatic Color Restoration. It also allows batch scanning of multiple images in a single pass.

This manual covers the various image controls found in the ScanWizard EZ - Professional mode for the Windows system. The manual information is divided into four major sections, corresponding to the four major windows of the program:

- Preview
- Settings
- Information
- Scan Job Queue

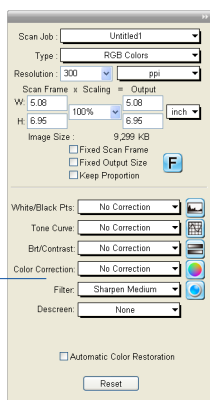
The Professional Mode Interface

ScanWizard EZ - Professional mode consists of four major windows: Preview, Settings, Information, and Scan Job Queue.

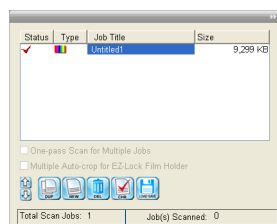
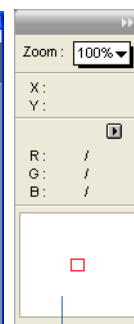
Three windows appear automatically after ScanWizard EZ - Professional mode is started up the first time. You may hide or show the Scan Job Queue and Information windows by clicking on the Hide/Show toggle commands in the View menu of the Preview window.

The next time you start up the ScanWizard EZ - Professional mode, the main screen will look exactly like the last time you exited the program. This means that if you had all four windows open the last time you quit the Professional mode, the same four windows will appear the next time you start it up.

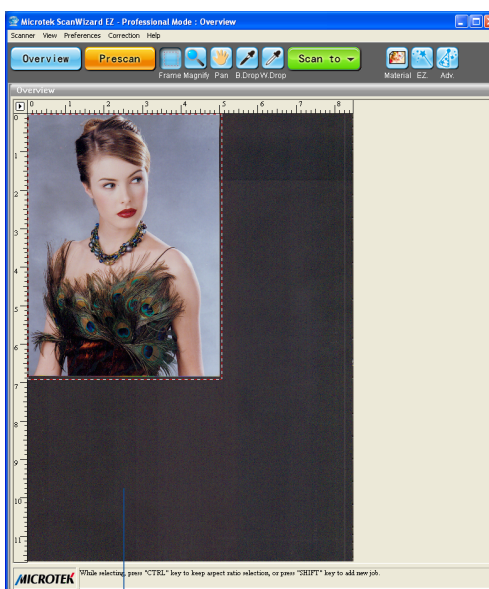
Settings window contains scanning parameters for outputting the image and includes image correction tools



Information window provides information on the overview or prescan image



Scan Job window provides key functions in managing scan jobs



Preview window has commands and tools for controlling the scanner, and a floating window (Overview window) for displaying the overview or prescan image

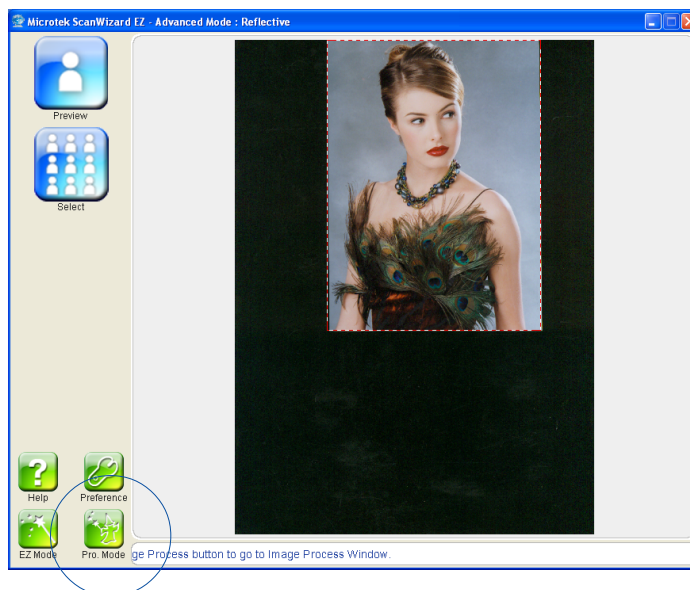
Switching to the Professional Mode



When you are in the ScanWizard EZ - EZ mode, click the *Professional Mode* button on the panel to switch to the ScanWizard EZ - Professional Mode.



When you are in the ScanWizard EZ - Advanced mode, click the *Professional Mode* button on the panel to switch to the ScanWizard EZ - Professional Mode.



Toggle among EZ, Advanced, and Professional Modes

When the ScanWizard EZ - Professional Mode is activated, you may toggle among the EZ mode, Advanced mode, and Professional mode by simply clicking on the corresponding button in the Preview window of the Professional mode.



Click on the *EZ Mode* button, which is the 2nd button counted from the right side in the Preview window, to switch to the ScanWizard EZ - EZ Mode.



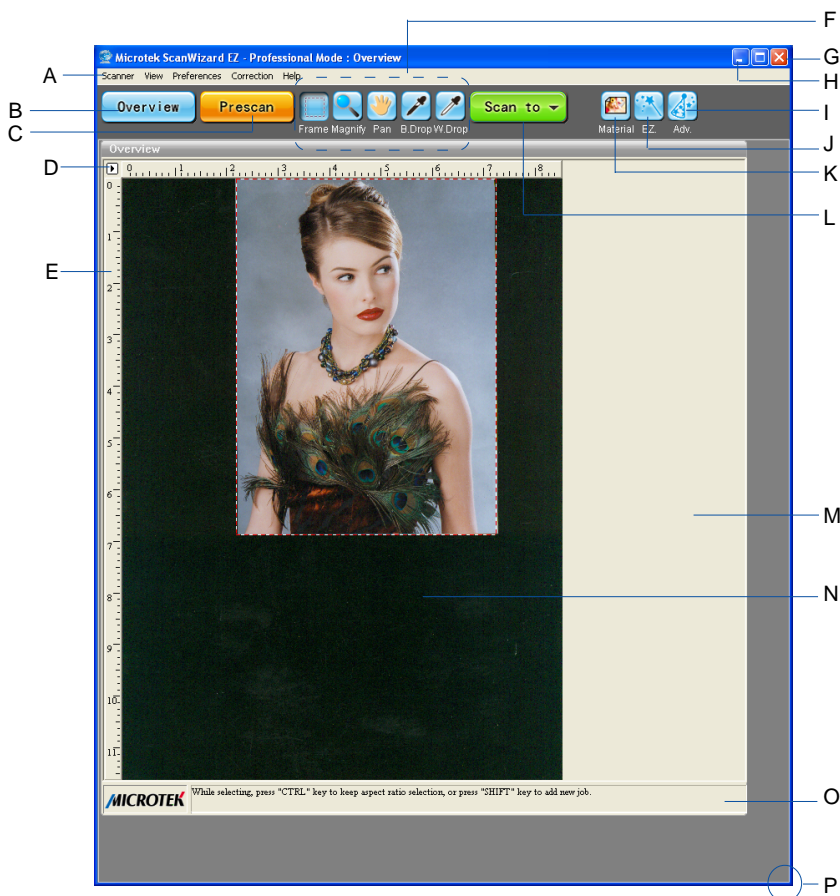
Click on the *Advanced Mode* button, which is the 1st button counted from the right side in the Preview window, to switch to the ScanWizard EZ - Advanced Mode.




The Preview Window

The Preview window is the prominent window, which includes the various commands and tools for controlling the scanner and a floating window (Overview window) for displaying overview or prescan image. Details on how to use these controls and buttons are discussed in later chapters.

Elements of the Preview window



- 
- A. Menu bar: The Menu bar includes the different menus for setting up the scanner (Scanner menu), controlling view options (View menu), customizing the software (Preferences menu), Image Correction function (Correction menu), and accessing on-line help (Help menu).
 - B. Overview button: This button previews the specified or entire scan bed.
 - C. Prescan button: This button previews one or more detailed images of the area(s) selected by the Frame (Scan Frame) tool.
 - D. Unit of Measurement: Select the unit of measurement for the rulers by clicking the arrow button at the 0,0 point of the rulers and choosing from the drop-down menu.
 - E. Rulers: Rulers are located on both sides of the Preview window to help you with measurement and alignment.
 - F. Toolbar: The buttons in the Toolbar perform specific actions on the overview or prescan image. Tool buttons include the Scan Frame (Frame) tool, Zoom (Magnify Glass) tool, Move (Pan) tool, and Pickers tool.
 - G. Exit button: Click to close the user interface of the ScanWizard EZ - Professional mode and quit the ScanWizard EZ scanning software.
 - H. Minimize button: Click it to minimize ScanWizard EZ - Professional mode.
 - I. Advanced Mode button: Click to switch to ScanWizard EZ - Advanced mode.
 - J. EZ Mode button: Click to switch to ScanWizard EZ - EZ mode.
 - K. Scan Material button: This shows the type of your scan material – *Reflective* (photos and prints), *Positive*, or *Negative*.
 - L. Scan to button: This button starts the final scanning process.
 - M. Overview window: This is a floating window with a fixed size, which appears on the screen whenever the Professional mode is activated.
 - N. Overview area: The overview or prescan image is displayed in this area after you perform a scan.
 - O. Status bar: This area shows you information pertinent to the operation underway or being performed.
 - P. Resize: To increase or decrease the Preview window, drag the bottom right corner of the window to resize.

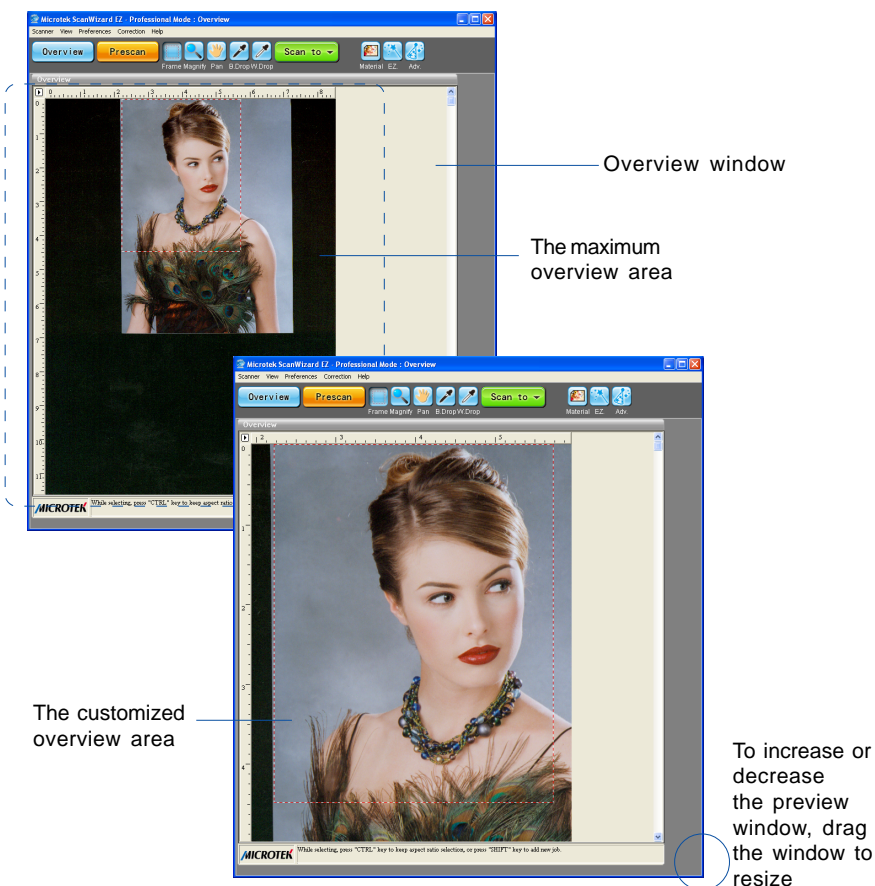
Overview Area

It is an area where the overview or prescan image displays. You can increase the size of the overview area to see more detail in your image.

Take note of the following:

- When you perform an overview, the overview image size is determined by the current preview area dimension. The bigger the preview area, the higher the preview resolution.
- When you perform a prescan, the prescan image detail is determined by the settings in the Prescan Setup dialog box.

For details on how to change the actual preview area of the scan bed, refer to the *Overview Setup* command in the Preferences menu section.



Scan Material

The Scan Material icon, located to the left of the EZ Mode button, accesses the Scan Material menu. The appearance of the Scan Material icon changes, depending on whether your scan material is reflective, positive, or negative.



If you are scanning reflective materials (such as photos or printed material), this is the appearance of the Scan Material icon. When you click the icon and hold down the mouse, you will see the Reflective option checked.



If you are scanning a positive transparency or filmstrip, this is the appearance of the Scan Material icon. When you click the icon and hold down the mouse, you will see the Positive Film option checked.



If you are scanning a negative transparency or filmstrip, this is the appearance of the Scan Material icon. When you click the icon and hold down the mouse, you will see the Negative Film option checked.


Unit of Measurement/Rulers

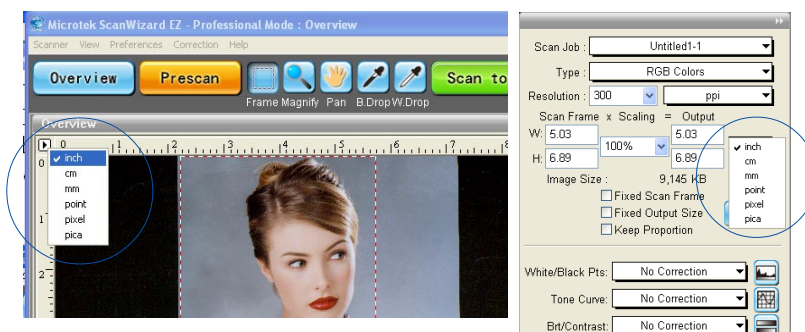
The rulers on both sides of the Overview window assist you in measurement or in checking the alignment of your image.

The unit of measurement in the ruler can be selected in two ways: in the Image Dimension controls located in the Settings window, or by clicking the ruler unit button at the 0,0 point of the rulers in the Overview window.

Depending on your selection, the rulers can mark off measurement in these units: inch, centimeter, millimeter, point, pixel, and pica. The pixel option is dimmed if the selected resolution unit is lpi, and vice versa.

To select the unit of measurement for the rulers:

Click the unit box in the Settings window, or click the ruler unit button () at the 0,0 point of the rulers in the Overview window. When the submenu appears, select the unit of measurement.



Overview, Prescan, Scan to

The Scan to button is one of ScanWizard EZ - Professional mode's great features, which functions the productivity tools under it. Click and hold the mouse button to activate Scan to options menu, you can select Scan to, Copy, E-mail, OCR, To Web or Text to Speech (TTS).

Overview

Overview

The Overview button offers a preliminary and low-resolution overview of the image on the scan bed. By the default, the entire scan bed is previewed when you click the Overview button. You are not allowed to change the area size to be previewed in the Preview window.

Prescan

Prescan

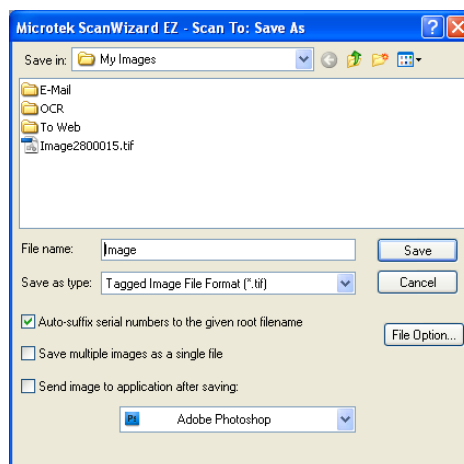
The Prescan button offers a high-resolution preview image of the area selected by the scan frame tool. Multiple prescans can be done if you have several selected scan jobs. The prescans are performed one by one in an order that they are listed in the Scan Job Queue window.

Scan to

Scan to button

This is the default button when ScanWizard EZ - Professional mode is launched as a stand-alone program. It performs the final scan and delivers the scanned images to your selected folder or application.

When the “Scan To: Save As” dialog box appears, key in a file name, then select .tif, .bmp, .pcx, .dcx, .pdf, or other as the export file format, and click Save to perform the final scan.





Scan button

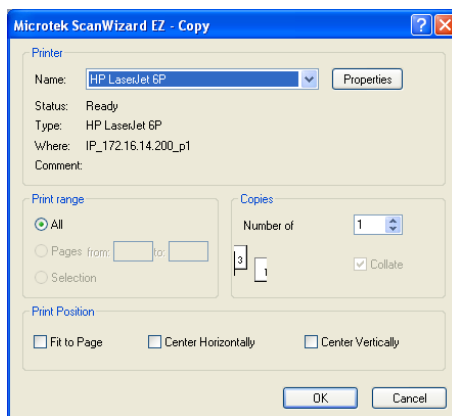
This is the default button when the ScanWizard EZ - Professional mode is launched from an image-editing application. The scan button performs the final scan and sends the scanned image (output) to the application that you are using.



Copy button

Click the Scan To button and hold down the mouse until the options menu appears, then select Copy.

When the “Copy” dialog box appears, select a default printer or any alternative printer from the options. Specify the number of copies to be made, then click OK. A scan is then performed, and the scanned image is sent to the specified printer.

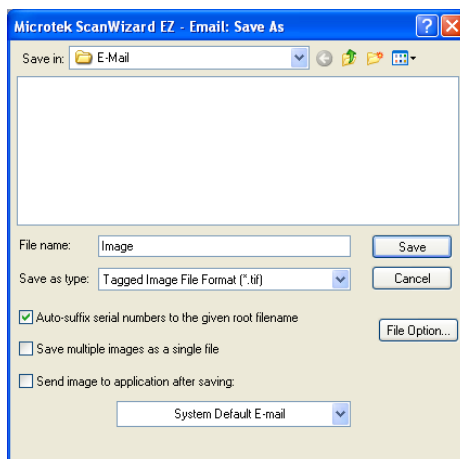


E-mail button

Click the Scan To button and hold down the mouse until the Options menu appears, then select E-mail.

When the “E-mail: Save As” dialog box appears, key in a file name. It is recommended that you use either .jpg or .bmp as the file format.

Make sure that the check box “Send image to application after saving” has been checked. Then choose your preferred E-mail application from the options, and click Save. The saved file can now be attached to your E-mail message automatically.



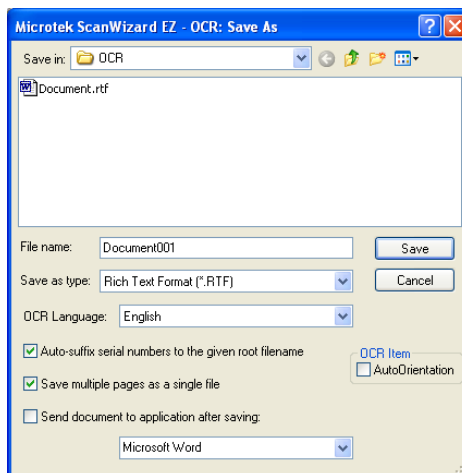
A green rectangular button with the text "OCR" and a small downward-pointing arrow.

OCR button

Click the Scan To button and hold down the mouse until the Options menu appears, then select OCR.

When the “OCR: Save As” dialog box appears, key in a file name, then select .rtf, .txt, xls, .htm, or .pdf as the export file format. Choose the language used as a recognition criterion from the drop-down OCR Language menu.

Make sure that the check box “Send document to application after saving” has been checked. Then choose your word processing application from the options, and click Save. The saved file can now be opened from your chosen application and is ready to be edited.

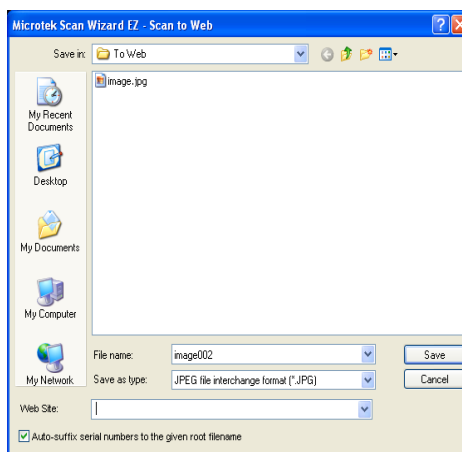
A green rectangular button with the text "To Web" and a small downward-pointing arrow.

To Web button

Click the Scan To button and hold down the mouse until the Options menu appears, then select To Web.

When the “Scan to Web” dialog box appears, save the file in your preferred folder, key in a file name, and specify a file type.

Key in and assign your image-sharing website address where you will be directly linked to for uploading the scanned images. When done, click Save. When the assigned website is activated automatically, you can upload the scanned images to your on-line sharing folder after when you successfully sign into the website.



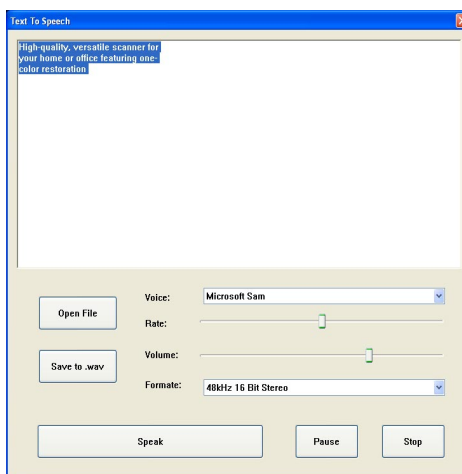
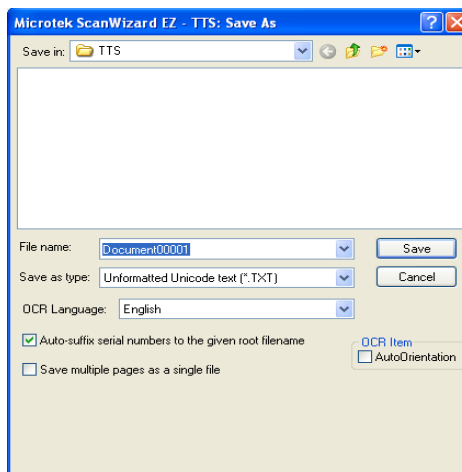
Note: Make sure that you are connected to the Internet (connection is active/operational) before you try to link to your assigned website.



Click the Scan To button and hold down the mouse until the Options menu appears, then select Text to Speech (TTS).

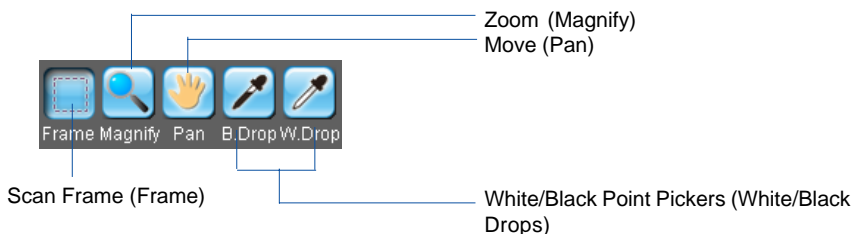
When the “TTS: Save As” dialog box appears, key in a file name, then select .txt as the export file format. Choose the language used as a recognition criterion from the drop-down OCR Language menu, and click Save.

The scanned and recognized file will be opened in “Text to Speech” window. Click the Speak button to hear the scanned text. The recognized text will be read out and highlighted by orders. The default and supported language is English. If you have needs towards other languages, please purchase the copyrights from the relevant retailers.



Toolbar

The Toolbar commands simplify the performance of certain tasks. The Toolbar commands include Scan Frame (Frame), Zoom (Magnify), Pan (Move), and Pickers (White/Black Drops).



Scan Frame (Frame) tool

The Scan Frame tool lets you select the area to be scanned or prescanned. You can have multiple scan frames, but only one scan frame can be current at a time; the current scan frame is indicated by a flashing marquee. Multiple scan frames can be more easily distinguished if you turn on the *Smoked Glass Background* command (in the Preferences menu).

Zoom (Magnify) tool

The Zoom tool lets you zoom in (magnify) and zoom out (reduce) your view of the image. Only your view of the preview image is changed; the actual size of the image remains unaffected.

Each click of the zoom tool magnifies or reduces by a factor of 2. Thus, the magnification levels increase from 100% to 200%, to 400%, and to the maximum 800%. When you reach the maximum magnification factor, the center of the Zoom tool will appear empty.

To zoom out (reduce), hold down the Shift key and with the Zoom tool selected, click the image. A minus sign will be in the middle of the lens to indicate the image is being zoomed out.


Note: If the Info window is open, the zoom level will be indicated. This means you can also zoom in by selecting the appropriate zoom level in the Info window.


Pan (Move) tool

The Pan tool lets you scroll through an overview or prescan image, allowing you to move parts of the image into view quickly without using the scroll bars. You can use the Pan tool for scrolling through zoomed-in images that were enlarged through the Zoom tool, or for scrolling through parts of an image not included completely within the frame of the preview window.

White / Black Point Picker (White / Black Drop) tool

The Picker tools allow you to sample color from a particular area in an image, and are useful for designating shadow or highlight point.

The White Point Picker () lets you define the whitest reference point in the preview image. Once you have picked the whitest point, excessive white points are clipped off.

The Black Point Picker () lets you define the darkest reference point in the preview image. Once you have picked the darkest point, excessive black points are clipped off.

With the Picker tools, you can determine the color values for any pixel in an image. When you click the White/Black Point Picker and pan over a pixel, the value for that pixel is displayed in the Info window, based on the sample size selected in the Info window. Pixel value information is useful especially when you are making color adjustments based on color value.

To change the sample size of the Picker tool:

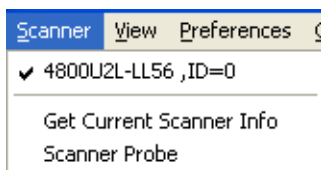
1. Open the Info window by choosing the Show Info Window command in the View menu.
2. Click the Color Meter Options button located to the right of the K values in the Info window.
3. Choose your options.

Select the sample size options from the drop-down list. For instance, the 1 by 1 option will display the value of one pixel — the pixel in the middle of the Color Output Meter. The 3 X 3 option reads the average value of a 3-pixel by 3-pixel area.

To display color information for a pixel or an averaged area:

1. Click the Picker tool.
2. As you pass over a point in the image, observe the Info window — the K values will be displayed in the Color Output Meter. These values are in turn based on the sample size you selected.

The Scanner Menu



The Scanner Menu lets you:

- Show your scanner model or select a scanner if you have multiple scanners
- Get information about current scanner
- Get scanner information on the interface chain
- Set idle time for saving power

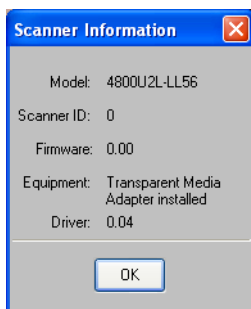
Scanner Model

The scanner model and its scanner ID is shown at the top of the scanner. If you have multiple scanners on your system, all the scanners are shown with their respective IDs, and the current scanner is indicated by a check.

Only one scanner can be accessed at a time. To switch among various scanners, select the scanner to be used.

Get Current Scanner Info

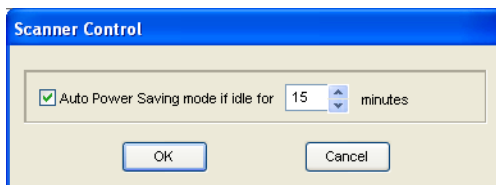
This command provides information about your current scanner. When you choose this command, a dialog box appears showing the scanner model, Scanner ID number, and firmware version.



Scanner Control (Power Saving Control)

The power-saving feature of the scanner lamp to save energy and extend the life cycle of the lamp. By default, the lamp turns off automatically if the scanner is idle for 15 minutes. You can change the lamp idle time in your preferences or disable this feature completely by unchecking the *Auto Power Saving Mode* check box.

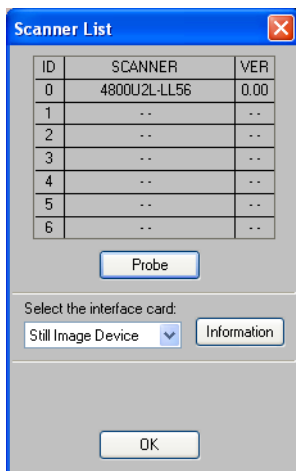
Note: Not all scanner models support these features. If your scanner model is not supported, the Scanner Controls command will be grayed out in the Scanner menu.



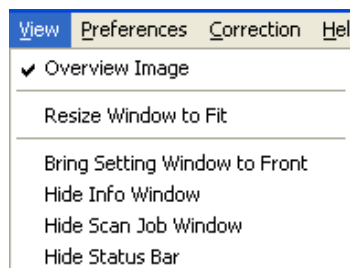
Scanner Probe

This command shows the scanner information on your SCSI, USB, or FireWire chain. If your scanner does not show in the Scanner List dialog box, make sure your scanner is properly installed, connected, and turned on, and then click the *Probe* button.

For details on connecting your scanner, refer to your scanner hardware installation guide.



The View Menu



The View menu lets you:

- Resize the Preview window
- Show/hide the Information and Scan Job Queue window
- Show/hide Status Bar

Overview Image/Prescan Image

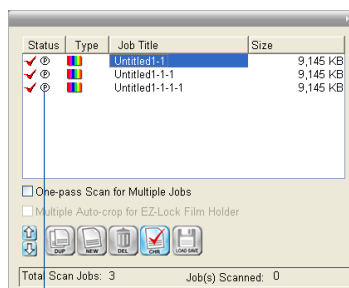
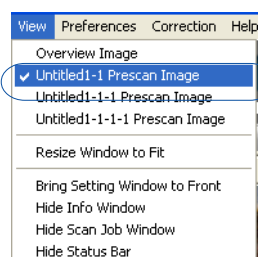
These commands allow you to switch between Overview or Prescan viewing modes.

- Overview image: This is an image obtained when you click the Overview button in the Preview window. The image shows you whatever is on your scan bed.

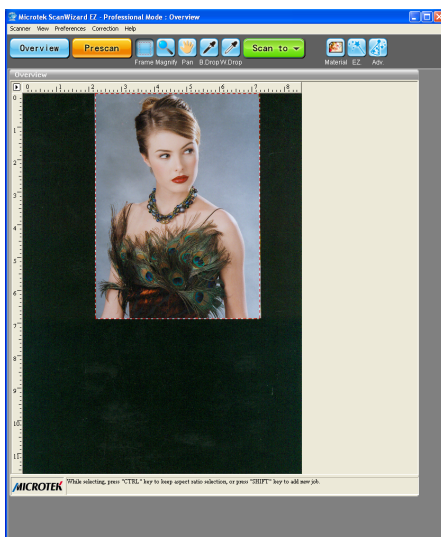
The Overview image is always checked automatically whenever you launch the ScanWizard EZ.

- Prescan image: This is a detailed image obtained from selecting an area in the Overview image and then clicking the Prescan button in the Preview window.

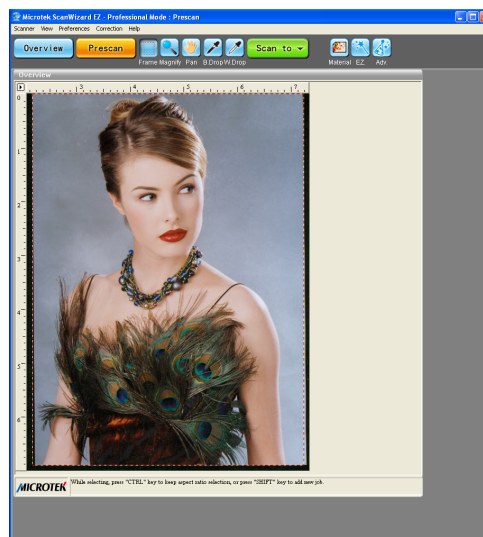
The Prescan image is available only for viewing when you are in Reflective mode. Overview image and Prescan image



Click the Prescan button. The Prescan image will then be available for viewing in the View menu, and a "Ⓟ" thumbnail will appear in the Scan Job Queue window.



Overview viewing mode



Prescan viewing mode

Resize Window to Fit

This command resizes the Preview window, which you may find helpful to do for conserving space on your desktop monitor (especially after you have enlarged the Preview window).

To verify the zoom level, open the Info window (choose Show Info Window command from the View menu), and look up the zoom level.

Bring Settings Window to Front

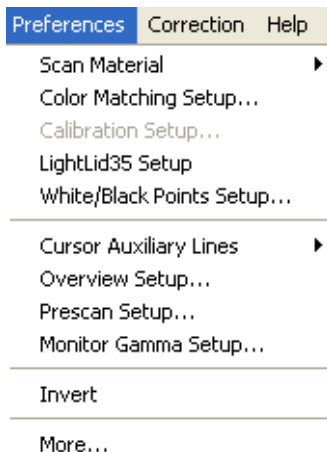
This command brings the Settings window to the forefront, which is useful if you have the Settings window hidden behind other windows or if you have expanded your Preview window such that it hides the Settings window in the background.

Show/Hide windows

These commands allow you to switch between showing or hiding the Scan Job Queue window, Information window, and Status bar on your screen.

To use this feature, choose the correct command from the View menu for viewing a window. When the window appears, you can hide it by choosing the particular Hide command for it.

The Preferences Menu



The Preferences menu lets you:

- Choose the correct scan material
- Specify color matching parameters
- Decide when to calibrate your scanner
- Set up the calibration for your LightLid 35
- Set up White/black point parameters
- Show/hide auxiliary cursor lines
- Control Overview and Prescan settings
- Fine-tune monitor gamma values
- Create the invert effect
- Activate the smoked glass effect
- Set other options, such as specifying a working directory for files

Scan Material

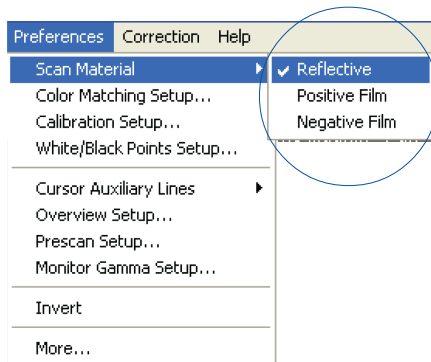
This command allows you to select your scan material, which can be one of the following:


- Reflectives, such as photographs or prints.
- Positives, such as slides.
- Negatives, such as the negative film you use for your camera.

The default scan material depends upon the scanner you are using, and the choices available to you in the Scan Material submenu will also depend on your equipment.

To choose your scan material:

- Choose the *Scan Material* command in the Preferences menu. From the submenu that appears, select your scan material; a check will appear next to the selected option.



- Alternatively, you can click the *Scan Material* () button and then choose the correct scan material from the drop-down menu that appears.



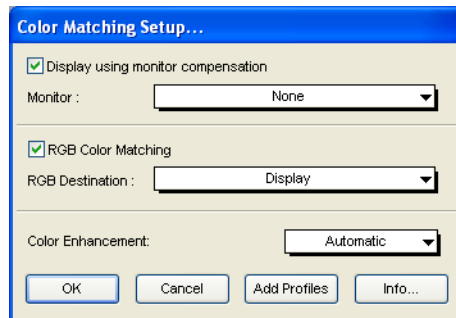
If you are scanning negatives or positives, make sure you specify the correct scan material, or you will get inaccurate scanning results.

Color Matching Setup

Color Matching is an important feature of ScanWizard EZ - Professional mode that ensures color is displayed consistently — from the initial input stage when an image is captured by the scanner, to the final output stage when the image is output to your monitor or printer (through the Kodak CMS technology). Color matching was developed to allow an equivalent “mapping” of colors from one device or from one color space to another, ensuring that no major color shifts occur in the transference process.

To use the color matching function of ScanWizard EZ - Professional mode:

1. Set up the Kodak CMS feature correctly at the time that ScanWizard EZ is installed. For more information on this procedure, refer to your Kodak documentation.
2. The first time you launch ScanWizard EZ, you will be prompted to set up color matching for your scanner. You may also access the color matching parameters for ScanWizard EZ at any time in the future, by choosing the Color Matching Setup command in the Preferences menu. ScanWizard EZ includes several industry-standard ICC color profiles.



Display using monitor compensation

This box pertains to how your monitor displays color, relative to the RGB Destination color space. It is best to have this box checked so that there are no unexpected color shifts between your selected RGB Destination space and your monitor.

Monitor

This feature lets you select the type of color monitor that is used for displaying RGB data. The monitor profile will be applied only when “Displaying using monitor compensation” option is checked.

Note: If the available monitor types do not include the one you have, select Generic P22 or Generic EBU. These two profiles are suitable for most monitors.

RGB Color Matching

This box should generally be checked unless you want to scan raw color data, in which case you lose the compensatory effects of the Color Matching system. On the other hand, if this box is unchecked, all images will be scanned without any color matching processing.

Note: It is not desirable to scan in raw data and then perform ColorSync data conversion, which will not generate the correct CMS effect.

RGB Destination

This feature lets you select the RGB output device (e.g. display monitor, or RGB-based printer) for matching RGB-Color-family images (including RGB colors, 48-bit RGB colors, and 256 colors image types).

Color Enhancement

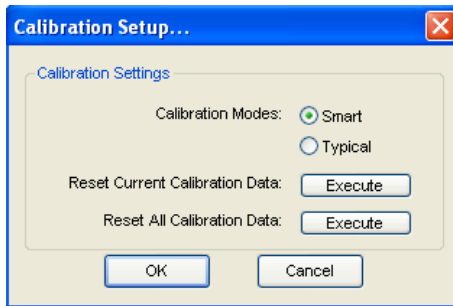
This box has two options: Automatic and None. Before selecting the Automatic option, the RGB Color Matching option should be checked first. If the Automatic option is selected, a color enhancement algorithm applies to the scanned image, and the resulting image appears sharper and brighter and with more saturated colors. If the “None” option is selected, the scanned image will appear like the original, with no color enhancement applied.

Info/Profile Information button

This lets you get information on currently used ICC profiles.

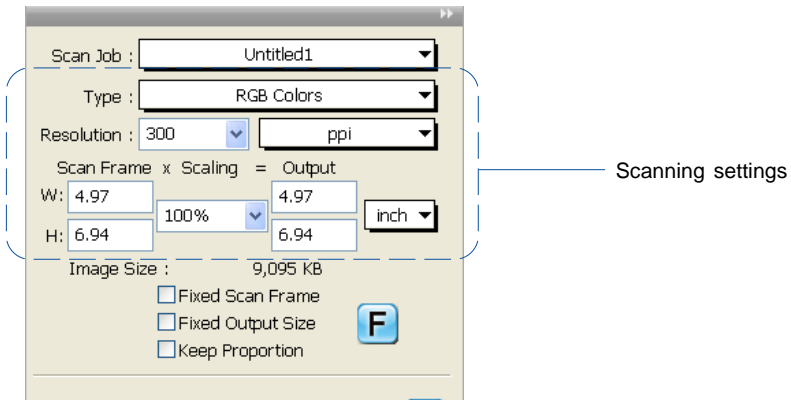
Calibration Setup

This command allows you to choose if you want to calibrate your scanner before performing a scan job each time.



Smart Calibration

This is the default setting of the program. If this option is checked, the ScanWizard EZ will memorize the calibration values generated by different scanning settings. Next time, when you perform a scan job with a same value of scanning settings, the scanner will skip the calibration step and directly perform a scan job. This mode enhances the scanning speed obviously when you often scan materials sharing same scanning settings.



Also, when the Smart mode is checked, you can also decide if you want to reset memorized calibration values.

Typical Calibration

When you check this option, the ScanWizard EZ calibrates your scanner before performing a scan job if the scanning settings are changed. If not, the scanner will skip the calibration process and start scanning immediately.

Reset Current Calibration Data

By clicking the Execute button after this option, the ScanWizard EZ clears the calibration data you made with current scanning settings, which means that the program will need to re-calibrate your scanner and to re-memorize the calibration value if your next scan job carries the same scanning settings as the current values are using. This option only delete the calibration data you are using presently. Other saved calibration data are not affected.

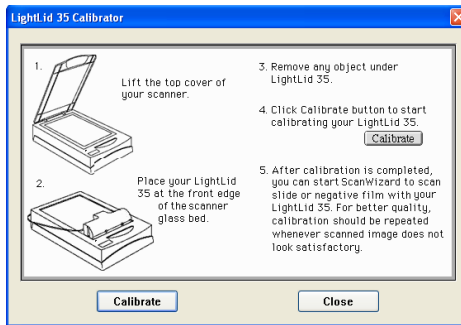
Reset All Calibration Data

By clicking the Execute button after this option, the ScanWizard EZ clears all saved calibration data; therefore, the program will need to re-calibrate your scanner and to re-memorize the calibration value when you perform the next scan job. Also, when you click the Execute button, a pop-up window appears to remind you if you are sure to clear all the saved calibration data.

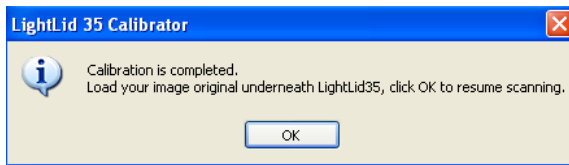
LightLid 35 Setup

This command allows you to calibrate your LightLid 35 before using it to perform a scan of negative or positive film. It will appear only when the scanner you are using supports the LightLid 35 and the scan materials are set as Positive or Negative Film in the Scan Material command.

When this command is selected, "LightLid 35 Calibrator" window will appear on the screen where there are detail steps about how the program will proceed the calibration for your LightLid 35. Click the Calibrate button to start the calibration.

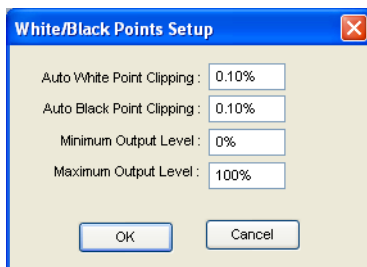


The calibration procedure may take a while. Please wait patiently. When the calibration is done, a notifying window will appear on the screen. Click the OK button to close the window. At the same time, ScanWizard EZ will be closed too. Restart the program to proceed your scan jobs by clicking the icon on the desk [of your computer](#).



White/Black Points Setup

The White Point is a reference point that specifies the lightest area in an image. The Black Point is the darkest reference area.



To use this feature:

1. Choose the *White/Black Points Setup* command from the Preferences menu.
2. As an alternative, you can click this command from the Color Correction Menu. This is also the same thing as clicking the White/Black points tool in the Settings window and then clicking the Setup button from the dialog box that comes up. When the dialog box comes up, specify your preferences.

Auto White Point Clipping/Auto Black Point Clipping

The *Auto White Point Clipping* and *Auto Black Point Clipping* fields allow you to specify the percentage by which the white and black points, respectively, can be clipped from the histogram. The clipping is done after you click the Auto button in the AIC White/Black Points dialog box.

For example, if you specify 10 percent as your White Point clipping value and then click the Auto button, the white point on the histogram is adjusted so that 10 percent of the color information is “clipped” or ignored. The resulting 90 percent information leftover is then remapped, resulting in an image with less highlight detail.

The same principle above applies to the Auto Black Point Clipping feature, which governs the black point for shadows.

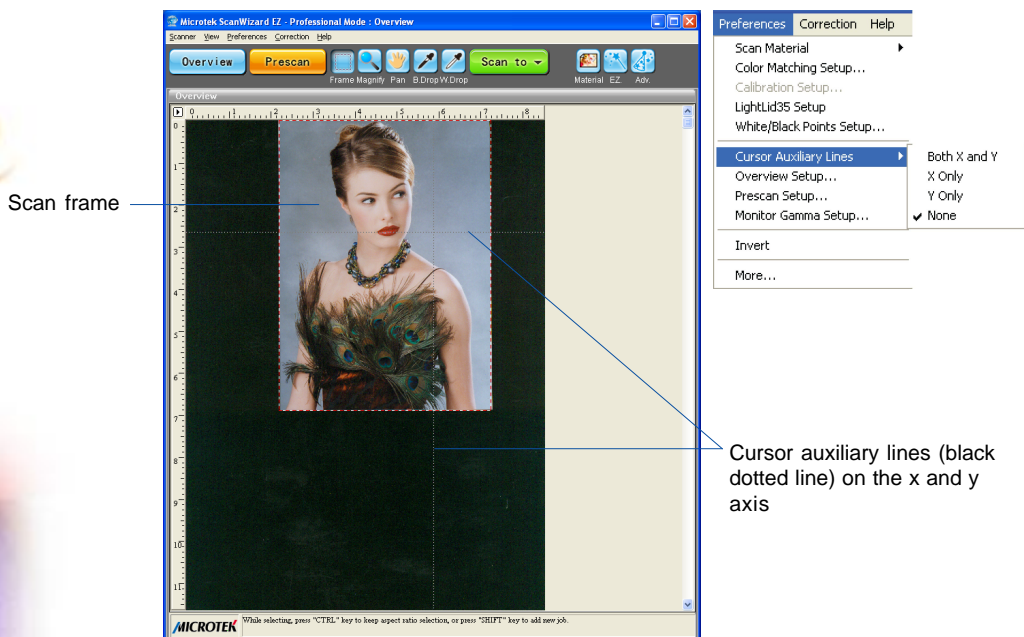
Minimum Output Level/Maximum Output Level

The *Minimum Output Level* lets you set the minimum output level of the black point. The higher the percentage value, the lower the contrast will be.

The *Maximum Output Level* lets you set the output level of the white point. The lower the percentage value, the lower the contrast will be.

Cursor Auxiliary Lines

This command allows you to show or hide cursor auxiliary lines to help you define a scan frame or measurement off the rulers more precisely. Using the cursor auxiliary lines, you can also read the measurements of your ruler more easily.



To use this feature:

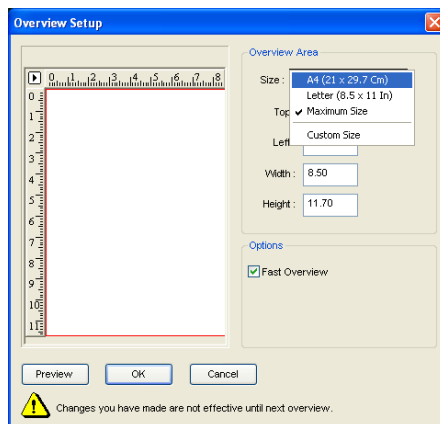
1. Choose the Cursor Auxiliary Lines command in the Preferences menu. From the submenu that appears, select how the cursor lines will appear.
 - On both x (horizontal) and y (vertical) axes
 - On x axis only
 - On y axis only
 - None (no cursor lines)
2. Click the Scan Frame tool.

To see how the cursor auxiliary lines work, draw a scan frame. Click on the top left corner of the image as your starting point, then drag down diagonally to form a scan frame. As you draw the scan frame, cursor lines will appear to help you draw the scan frame precisely. When you release the mouse, your scan frame will be aligned with the cursor lines.

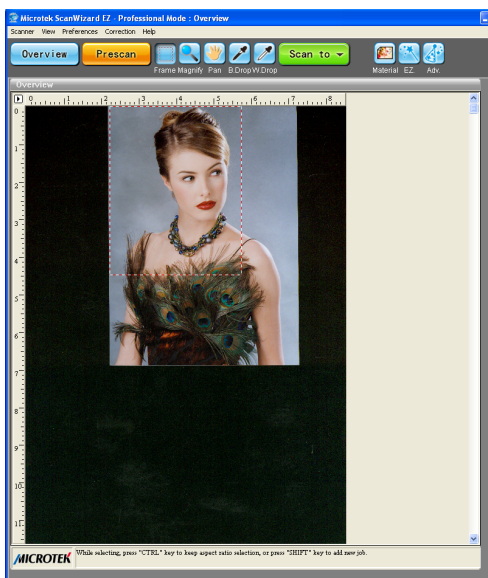
Overview Setup

This command lets you set the area you want to be overviewed of the scan bed, and provides some overview options as well.

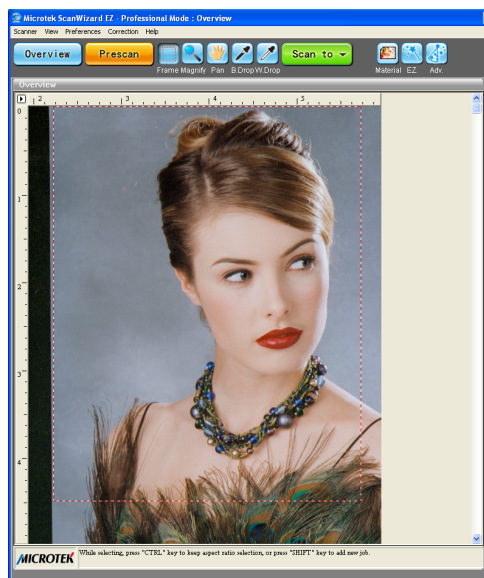
By default, ScanWizard EZ overviews the maximum scan area as determined by your scanner model's bed size. You can, however, customize the overview area so that the scanner consistently overviews only the specific dimensions you have in mind. For example, if your maximum scan area is A4 size (210 mm x 297 mm), you can customize the overview area so that it consistently overviews, say, 4" x 5" of the bed size.



As a rule of thumb, it is best to use the default maximum settings. You should change the overview area only if your subsequent overview is too large to be shown in entirety, or too small for reliable previewing. A smaller overview area will increase the overview resolution for clearer image viewing. You may also wish to change the size of your overview to improve performance. Generally, a shorter overview time results from the scanner motor travelling at a lesser distance.



Maximum scan area



Custom scan area



Fast Overview

The Fast Overview option supports faster scanning. If Fast Overview is unchecked, the Overview scanning speed is slow, but a better overview image quality is obtained.

Overview Area

Choose Maximum Size, other fixed dimensions, or choose Custom Size, then enter the required dimensions. You may also set the Overview Area by dragging the dotted borders.

Unit

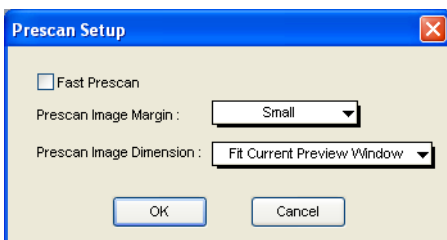
This lets you set the units for the ruler, such as inch, cm, and mm.

Preview button

Click this button to get a scanning preview, or to do a new overview. This is helpful if you have specified custom settings or changed the dimensions.

Prescan Setup

This command allows you to set the parameters for scanning a prescan image. The major difference between Overview and Prescan is that the Overview button scans the area specified in the Overview Setup command for getting a low-resolution preview image, whereas the Prescan button only scans the selected scanning frame, resulting in a more detailed preview image. When the Prescan Setup dialog box comes up, click the option you need or specify your parameters.



Fast Prescan

If checked, a coarser or lower-quality image is obtained but at a faster scanning speed. If unchecked, a better-quality image is obtained but at a slower scanning speed.

Prescan Image Margin

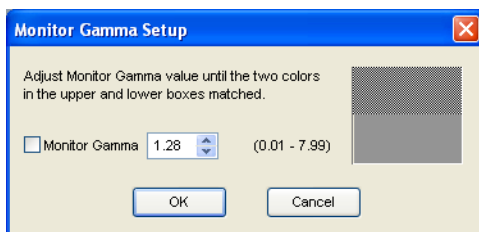
This option allows you to specify the margin around the scan job and subsequently to adjust the scan frame in the Prescan mode. Available options are: None, Small, Medium (default), and Large.

Prescan Image Dimension

This option allows you to specify the size of the prescan image. Available options are: Full screen, 75% screen, 50% screen, and Fit Preview Window. The size of the Prescan image does not necessarily fit into the specified option, as it is based only on the height/width ratio to get the maximum covered area.

Monitor Gamma Setup

The Monitor Gamma Setup command lets you compensate for the linear intensity of the monitor, allowing for consistency between the preview image and the final scanned image.



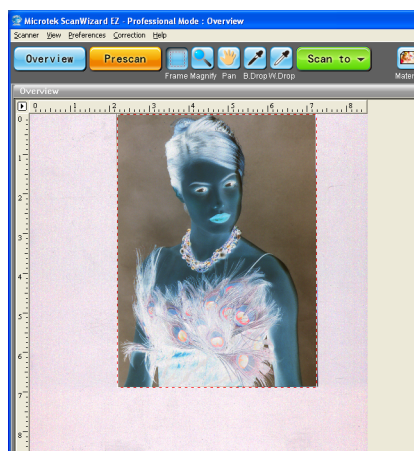
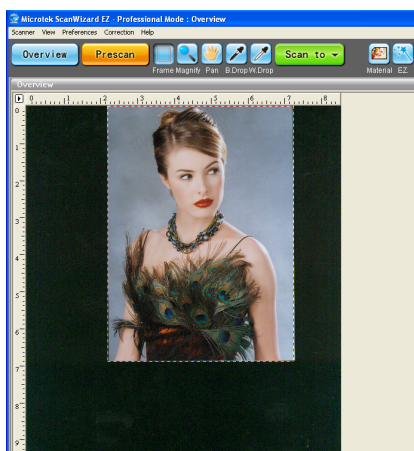
Monitor Gamma

Check this box to enable monitor gamma value setting. When the monitor gamma option is checked, click the up/down arrow buttons to make the gray level of the boxes as close as possible. Click OK to confirm.

Invert

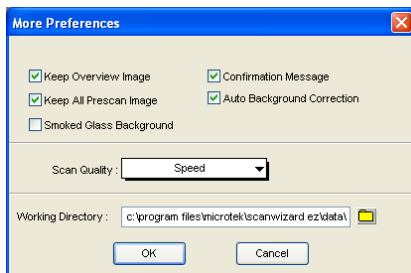
This command creates a negative effect to an image. The Invert effect is applied to all scan jobs, not just the selected scan job.

When an image is inverted, the brightness value of each pixel is converted to its inverse value. In the case of 12-bit image, for example, a pixel in a positive image with a value of 255 is changed to 0, and a pixel with a value of 5 is changed to 250.



More... command

The *More...* command shows the More Preferences dialog box, where you can specify other options for ScanWizard EZ.



Keep Overview Image

If checked, the image that is scanned in the Overview or Smart-Scan command remains on the screen until the next image is acquisition is performed. If unchecked, the overview image is deleted when you exit ScanWizard EZ.

Keep All Prescan Images

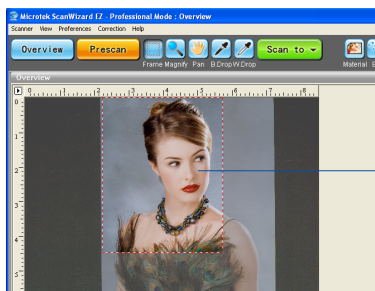
If checked, the image that is scanned in the Prescan command remains on the screen until the next image is acquisition is performed. If unchecked, the prescan image is deleted when you exit ScanWizard EZ.

Confirmation Message

If checked, a confirmation message appears when image effects such as Rotate or Flip are applied. If unchecked, no confirmation message appears.

Smoked Glass Background

This option lets you apply a smoked glass background that makes your scan jobs stand out more clearly and allows you to focus on the scan jobs. This feature can also be used for multiple scan jobs to show their respective image modes, as well as their image editing settings.



The framed part of the image (inside the marquee) stands out clearly.

Applied to the rest of the image is the smoked glass background (shaded gray area surrounding the selection or framed area).



Scan Quality

This option allows you to select the image quality by controlling the scanner hardware and the maximum image processing depth.

Speed: Choose this option if your primary concern during scanning is speed. Image data is delivered faster and the image data is processed in 8 bits per channel.

Quality: This is the default setting. Scanned data is delivered a little slower but in high quality, and the image data is processed in 8 bits per channel.

Best Quality: This setting is available only to higher-depth scanners (10-, 12-bit, or higher). Scanned data is delivered a little slower but in high quality, and image data is processed in maximum bits per channel (i.e., 10-, 12-bit, or higher), and then converted to the desired output depth. This special operation results in the best image quality possible.

Working Directory

This lets you specify a place to store temporary working files (e.g., scan job files) during a scanning session. If the directory you specify is not found or does not exist, a warning message appears, and ScanWizard EZ will create one automatically for you.

If the computer is shared by several users, each user may specify a particular working directory to use.

The working directory is the folder where ScanWizard EZ creates temporary files, with the temporary files deleted at the end of an operation. You should change to a different folder only if the working directory is located in a disk volume that is too small for scanning operations. To specify a new working directory, click the yellow folder beside this option, and assign a new directory to use.

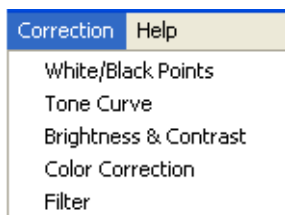
Auto Background Correction (for Reflective mode only)

This command enables you to bring out and improve readability of text in a document that includes other elements such as pictures or graphs.

The Correction menu

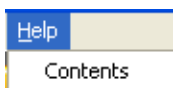
The Correction Menu lets you use the Advanced Image Correction (AIC) features of ScanWizard EZ. The commands in the Correction menu correspond to the AIC buttons in the Settings window.

For more information, see the section of the manual on Advanced Image Correction



The Help menu

The Help menu lets you access on-line help for ScanWizard EZ, and gives you information on the ScanWizard EZ scanning software.

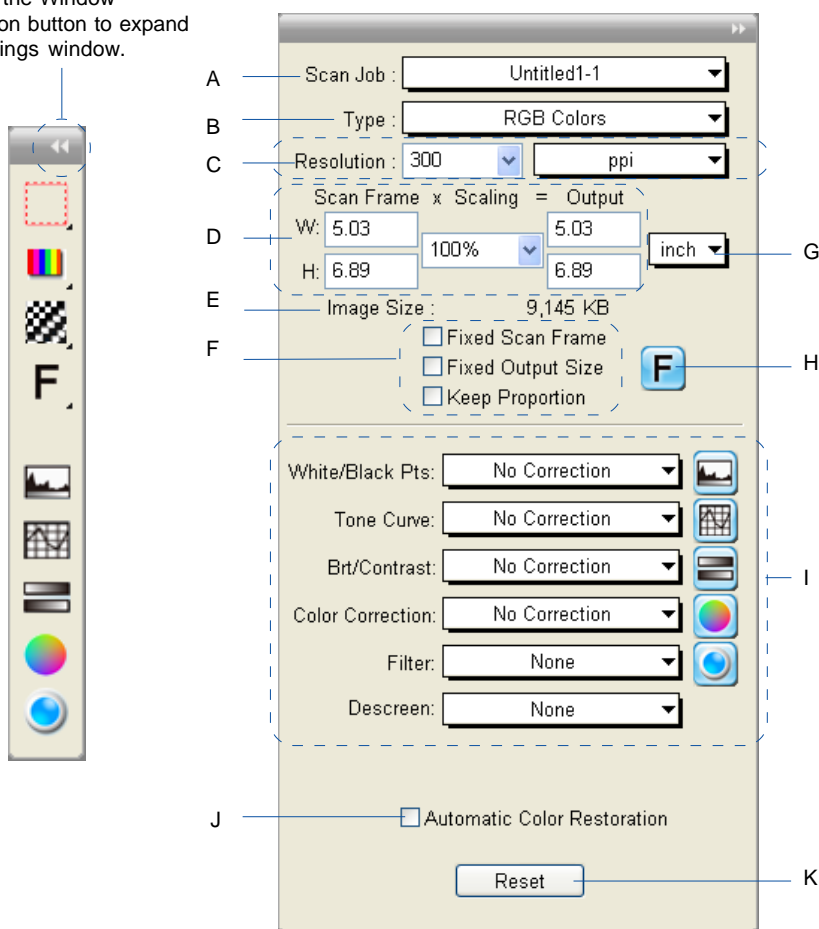


The Settings Window

The Settings window contains the parameters for outputting your scanned image for the current scan job and includes the advanced image correction tools of the program.

Elements of the Settings window

Clicking the Window Expansion button to expand the Settings window.



- A. Scan Job: This shows the current scan job as indicated by the Scan Job Queue window and by the selected image in the Preview window.
- B. Type: This shows the image type of the current scan job.
- C. Resolution settings: This area includes the following: the Resolution box for specifying your output resolution; the Resolution list box (with the arrow button) that provides predefined resolution values for easier selection of the resolution setting; and the Resolution unit, which lets you choose from ppi and several lpi options.
- D. Scan Frame options: This area includes the Scan Frame settings which represent the dimensions of the image that you wish to scan; the Scaling factor for creating larger or smaller images from the original source image; and the Output settings, which represent the dimensions of the image when it is output.
- E. Image size: This shows the size of the file when the image is scanned.
- F. Scan Frame options: Includes Fixed Scan Frame, Fixed Output Size, and Keep Proportion.
- G. Unit of measurement: This lets you chose your desired unit of measurement, which will then be reflected in the rulers along side the Preview window. Choose from inch, cm, mm, point, pica, or pixel.
- H. Flip/Transform: This lets you flip the image horizontally or rotate the image in increments of 90 degrees. This appears only when you are prompted to perform the film scan without film holder.
- I. Advanced Image Correction (AIC): The Advanced Image Correction (AIC) tools let you adjust and enhance the image, and image corrections are displayed in real time. The AIC tools available for use will vary, depending on the scan material chosen in the Preview window.
- J. Automatic Color Restoration: Restores faded colors in photos and/or film, bringing hues back to their original luster and brilliance for more vibrant images.
- K. Reset button: This button lets specify which settings in the Advanced Image Correction (AIC) controls to be restored to their default values.

Scan Job/Job

The Scan Job box shows the currently selected scan job, which is also shown in the Scan Job Queue window and the Preview window.

There is always at least one scan job in existence (by default). If you have multiple scan jobs, not only are these reflected as multiple entries in the Scan Job Queue window and as multiple images in the Preview window, they will also be shown as multiple entries in the Scan Job box of the Settings window.

To select from multiple scan jobs, choose the scan job you wish in the Scan Job box; this will automatically select the corresponding scan job in the Preview and Scan Job Queue windows as well. Conversely, selecting a scan job in either the Preview or Scan Job Queue window will automatically show that selection in the Job box.

This means that a quick look at the Scan Job box, the Preview Window, or the Scan Job Queue window can show you which is your currently selected scan job.

Correspondence between the Scan Job box in the Settings window and the current scan job in the Preview and Scan Job Queue windows

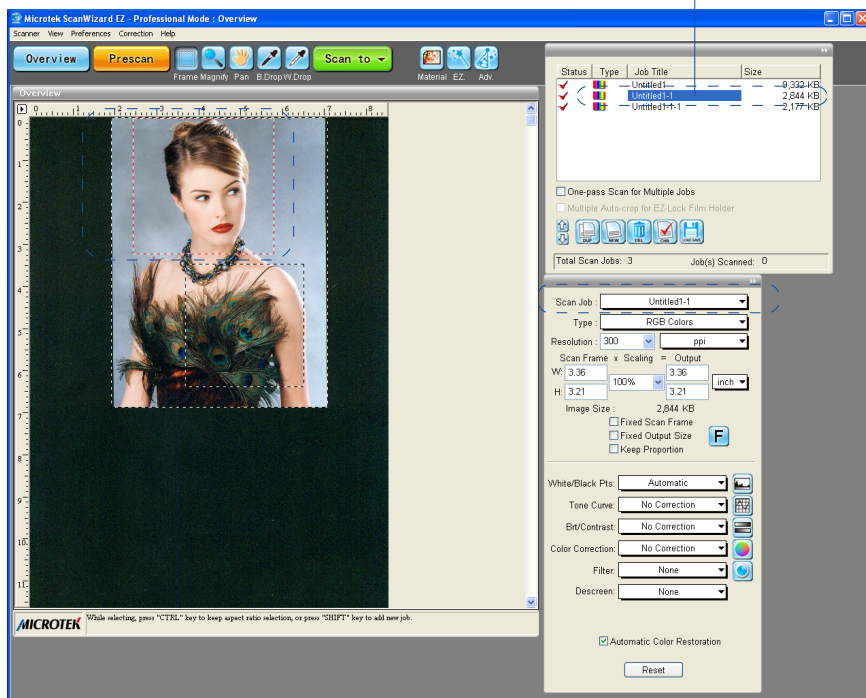
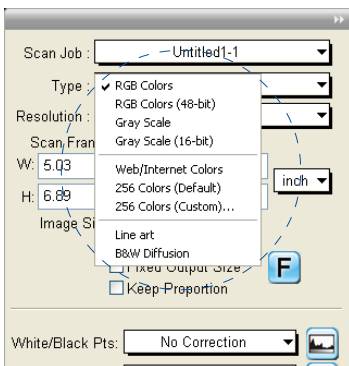


Image Types

The Type box shows you the image type of the current scan job. ScanWizard EZ allows direct scanning in the following color spaces described below.



RGB Color

RGB images use three colors (Red, Green, and Blue) to reproduce up to 68.7 billion colors. Because scanners and monitors are RGB devices, the RGB color space is the most commonly used space for capturing and displaying images. ScanWizard EZ offers standard RGB and 48-bit RGB color selection, with the 48-bit option available for the Microtek professional pre-press scanners.

Grayscale

Grayscale images use shades of gray to simulate gradations of color or tonal values, and contain 8 bits per pixel. The Grayscale 16-bit option is provided in ScanWizard EZ for professional pre-press scanners.

Web/Internet Colors

This mode is useful for displaying images on the Web or Internet. Output for the Web/Internet color mode in ScanWizard EZ is 8-bit, 256 indexed color images.

Line Art

Line Art images are made up of one bit of color (black or white) per pixel. Few editing options are available in this mode, but this mode is useful for images consisting purely of black and white or even single colors, such as mechanical drawings, blueprints, or fine-line illustrations.



Black-and-White Diffusion

This is a single-bit black-and-white image dithered with error diffusion. The black and white pixels are arranged in a way as to “fool” the eye into seeing gray.

256 Colors (Default)/256 Colors (Custom)

These are single-channel images (8 bits per pixel) that use a color lookup table containing up to 256 colors. The file size is smaller for images in this mode. As an initial setting, selecting 256 Colors (Default) uses an Adaptive palette with Diffusion. If the 256 Colors (Custom) option is selected, the dialog box will appear.

Palette: The Palette option lets you choose the method for creating the color palette table. Uniform uses a 6-6-6 fixed color palette table. Adaptive (default) creates a color palette table from the more commonly used areas of the color spectrum that appears in the image.

Dither: The Dither option can improve the color quality of the 256-indexed color image for photographs or continuous-tone images, using a technique of mixing available colors to simulate missing colors. None provides no dithering. Pattern uses a structured pattern to simulate missing colors. Diffusion (default) uses the error diffusion technique to dither colors and produces the best quality for 256 colors.

Resolution Settings

Resolution/Res is the sampling of image pixel per measurement unit or the amount of pixel information stored in an image. Together, the image resolution and dimensions determine the file size of the image, which is measured in kilobytes (KB) or megabytes (MB).

The resolution of an image is important in determining the quality of the output image. Resolution is also directly related to file size, and the higher the resolution, the larger the resulting file size will be.

When dealing with resolution, remember to distinguish between optical resolution and interpolated resolution.

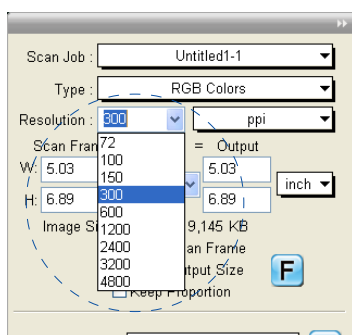
Optical resolution is the “real” resolution as measured by the scanner’s optics. Interpolated resolution is software-enhanced resolution and can be useful for enlarging very small images or for printing line art to obtain superior results.

Resolution List Box

This provides predefined resolution values for easier selection of the resolution setting.

The default resolution depends upon the scanner you are using, and the choices available to you in the resolution list box will also depend on your scanner. After you select your resolution value, this value is then recorded for subsequent use, until a new value is selected and takes over.

To choose your resolution, click the arrow button next to the Resolution box, and choose your setting from the list box.



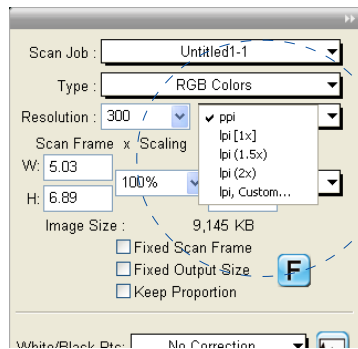
Resolution Unit

The unit of measurement for resolution is in *ppi* (pixels per inch) or *lpi* (lines per inch). Take note that *lpi* settings are dimmed if the ruler unit is in pixels.

To choose your resolution unit, click the arrow button next to the box, and choose your setting from the list box.

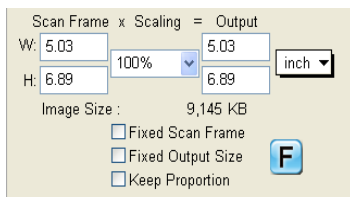
- Choose *ppi* if your scanned images are intended for on-screen display. In this case, you need not go higher than the target resolution of your monitor. A higher resolution value will simply increase the file size of your image without any perceptible improvement in image quality.
- Choose *lpi* if your scanned images are to be printed. If you choose 1x, for instance, your scanned image will be printed at 133 lines per inch, resulting in a 133-dpi image. At 1.5x, the image will be printed at 199.5 dpi; and at 2x, the image will be printed at 266 dpi. The Custom option allows you to set an *lpi* value of your own specification.

In choosing an appropriate *lpi* value, keep in mind that if the resolution is too low, the image becomes pixelized, resulting in a deterioration of image quality. (Pixelization is the process in which the Postscript language uses a single pixel's color values to create more than one halftone dot.) Conversely, if the resolution is too high, the file size becomes unwieldy, and your file ends up containing more information than the printer needs, slowing down the file transfer and the printing process.



Scan Frame and Related Settings

These settings allow you to adjust the various factors that affect your image, including the width and height of your image when it is first scanned (Scan Frame settings), the Scaling factor (how big or how small the resulting scanned image will be), and the dimensions of the image when it is output (Output settings).



Scan Frame settings

The Scan Frame settings (width and height) provide controls relating to the output image dimensions.

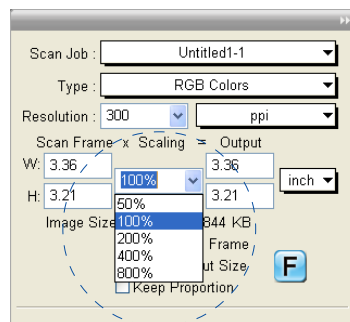
To specify your settings, enter the dimensions manually in the width and height edit boxes; or use the Scan Frame tool to define or resize your scan frame. Changes made in the Preview window are automatically displayed in the Scan Frame setting edit boxes.

Scaling

Scaling lets you create larger or smaller images from the original image. Take note of the following:

- Keep the scaling at 100% if you are outputting at the same size (e.g., a 4" x 5" original to be output at the same size).
- Reduce the scaling if you are outputting your image at a smaller size (e.g., a 4" x 5" original to be output to 2" x 2.5"). Increase the scaling if outputting at a larger size.

To choose the scaling percentage, click the arrow next to the scaling box, or enter a value in the scaling edit box.





Output Settings

The Output settings (width and height) represent the dimensions of the image when it is output (to either monitor or printer). If the size of the image to be output is different from the size of the original image, adjust the scaling

Scan Frame options

The Scan Frame options include Fixed Scan Frame, Fixed Output Size, and Keep Proportion.

Fixed Scan Frame

This option lets you lock in the settings of your scan frame, so that the width and height dimensions of the frame are always fixed no matter where you move the frame in your preview image.

If you know the exact input size for your image, or if you wish to “lock” the settings of your scan frame to a particular size, enter the Scan Frame width and height values first, then check Fixed Scan Frame. Your scan frame will be fixed at those values. So even if you move the scan frame around the preview image, the dimensions of the frame itself will remain unchanged.

Fixed Output Size

When the Fixed Output Size option is checked, the values specified for output width and height remain fixed. If any of the input values are changed, the scaling will be automatically adjusted proportionally to maintain the output dimensions as defined.

If you know the exact output size for your image, enter the output width and height values first, then check Fixed Output Size. The image will then be scanned and output at the values specified.

Keep Proportion

When the Keep Proportion option is checked, the width and height values of the image are kept in proportion despite changes made to either setting. This preserves the aspect ratio of the image.

This option is automatically checked when either “Fixed Scan Frame” or “Fixed Output Size” is selected.

Image Size

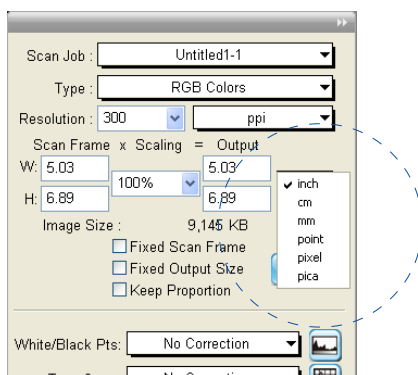
The Image Size field indicates how big the file will be when you accept the dimensions shown in the edit boxes, together with the resolution setting that you have selected. Size is calculated automatically. The resulting file size depends on the image type; resolution; and dimensions of the image.

Unit of Measurement

The unit of measurement lets you select the desired unit (inch, cm, mm, point, pixel, pica) for your image dimensions.

To choose the ruler unit, click the arrow button next to the box, and choose your setting from the list box.

Important: Make sure you select the correct unit of measurement before entering any of the values for width or height in the Scan Frame Settings or Output Settings.



Additional Notes

- When none of the Scan Frame options are checked, all five edit boxes are enabled, allowing you to edit or enter values into any of the boxes.
- The Fixed Scan Frame and Fixed Output Size options are mutually exclusive. This means that only one of the options can be checked at a time; checking another option will automatically uncheck the other.

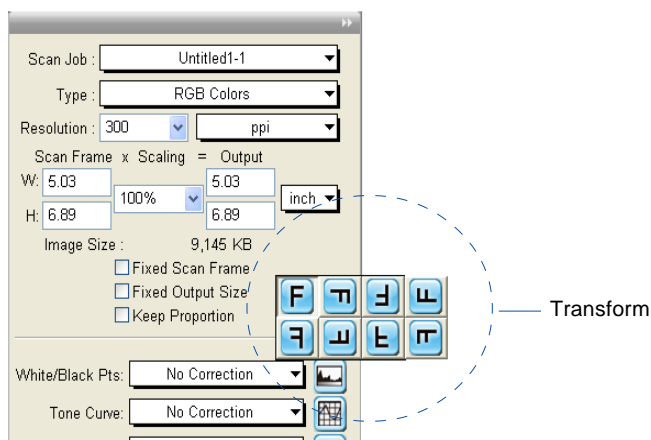
Flip/Transform

The Flip/Transform button allows you to rotate and/or flip the image at increments of 90 degrees.

The effects of the Flip/Transform button are seen only after you click the Scan button and scan the image. The effects are not shown in the Preview or Overview modes.

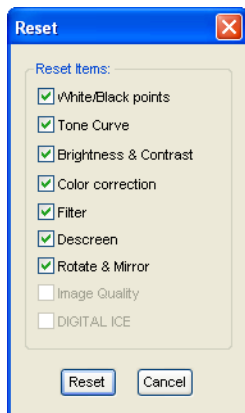
To use the Flip/Transform command:

1. Click the Flip/Transform button in the Settings window.
2. From the options that appear, choose the degree of rotation you wish.
3. Click the Scan button in the Preview window. When the image is scanned, it will be rotated or transformed according to the selected option.



The Reset button

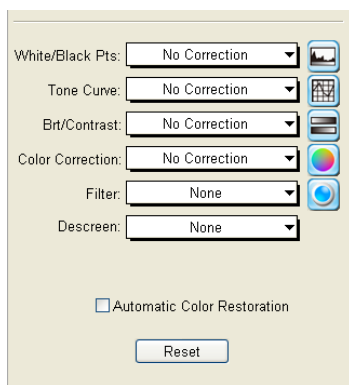
The Reset button in the Settings window brings up a dialog box where you can specify the AIC settings to be reset to their default values. To reset any or a combination of settings, check the boxes next to the targeted settings.



Advanced Image Correction Tools

The Advanced Image Correction (AIC) tools form an integral part of ScanWizard EZ - Professional mode. With the Advanced Image Correction (AIC) tools, you can adjust the characteristics of your image right from within ScanWizard EZ. Experiment with the tools to see what each does and to learn how to optimize your results.

The various AIC tools available for use will be shown depending on the Scan Material chosen in the Preview window.



White/Black Pts: No Correction [icon]

Tone Curve: No Correction [icon]

Brt/Contrast: No Correction [icon]

Color Correction: No Correction [icon]

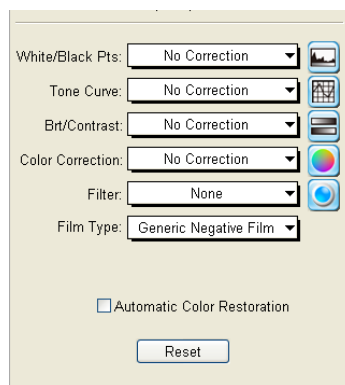
Filter: None [icon]

Descreen: None [icon]

☐ Automatic Color Restoration

Reset

For Reflective mode



White/Black Pts: No Correction [icon]

Tone Curve: No Correction [icon]

Brt/Contrast: No Correction [icon]

Color Correction: No Correction [icon]

Filter: None [icon]

Film Type: Generic Negative Film [icon]

☐ Automatic Color Restoration

Reset

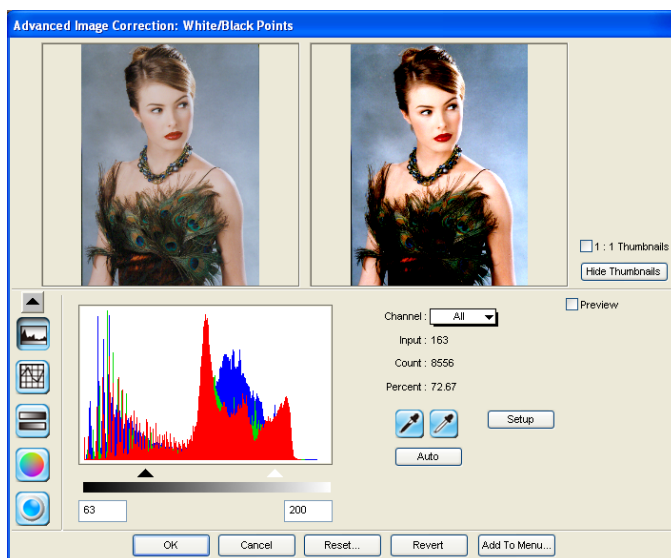
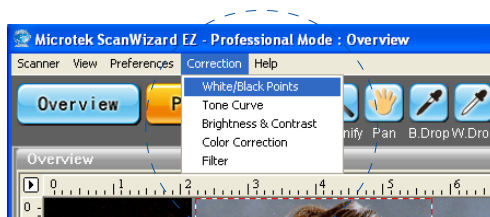
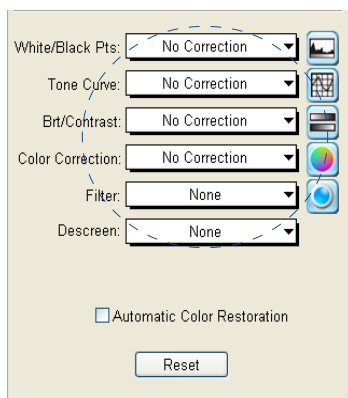
For Negative mode

The following topics are covered:

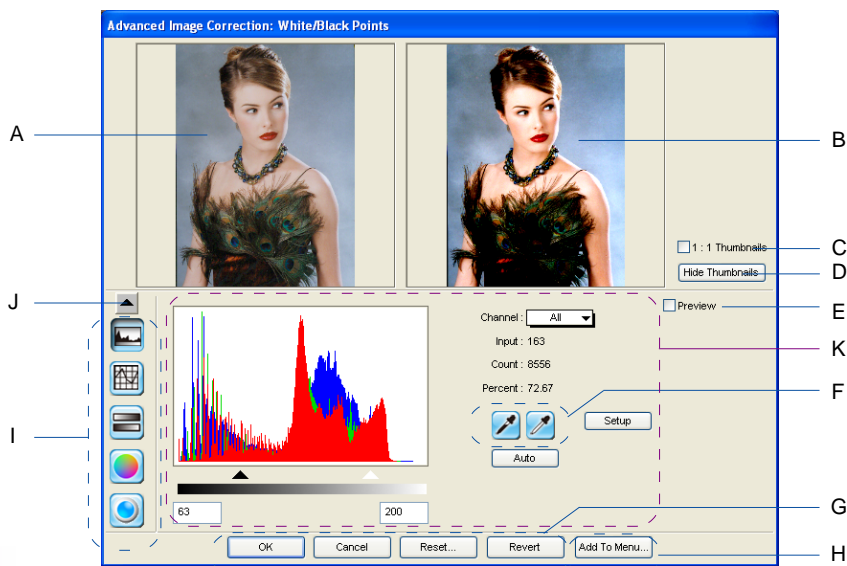
- How to access the AIC tools
- Elements of the AIC dialog box
- The Action buttons
- Using Custom Settings
- Discussion of the individual AIC tools

Accessing the AIC Tools

1. To access an AIC tool, click a particular tool in the Settings window or choose its counterpart in the Correction menu in the Preview window.
2. After clicking a tool, the AIC dialog box appears. The elements of the AIC dialog box are explained in the next section.



Elements of the AIC Dialog Box



A. Left thumbnail

This shows the image *before* enhancements are applied.

B. Right thumbnail

This shows the image *after* enhancements are applied.

C. 1:1 Thumbnails

If checked, the size of the thumbnail is about the same as the image shown in the Preview window. If unchecked, the image size appears fit into the shown dialog box.

D. Hide Thumbnails

If checked, the “before” and “after” thumbnails becomes hidden. The screen collapses to show only the lower portion of the dialog box. To restore the screen, click the “up” arrow at the left side of the dialog box.

E. Preview option

If checked, changes are applied immediately to the Preview window image. If unchecked, changes are seen only after you close the AIC dialog box.

F. Function icons

These icons (e.g., eyedropper, lens, etc.) perform functions specific to the AIC tool being used. Function icons are explained in more detail under their corresponding AIC tool.

G. Action buttons

These carry out a specific action. See the next section for more details.

H. Add To Menu button

This button allows you to save a custom setting for an AIC tool. You may retrieve this custom setting afterwards from the Setting windows.

I. AIC tools

These tools adjust or enhance your images. Click any tool in this area, and see how the core of the AIC screen (#K) changes to reflect the properties of that tool.

J. Arrow button:

This allows you hide/show the thumbnails.

K. Core of the AIC screen

This is the heart of the AIC screen, and the content here changes to reflect your selected AIC tool.

The Action Buttons

The Action buttons in the AIC dialog box let you accept, cancel, or control the application of AIC settings.

OK button

This button applies to the current scan job whatever image corrections you have performed, and then closes the AIC dialog box.

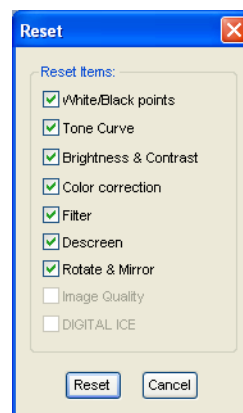
Cancel button

This button cancels out all image correction changes you have made to the current scan job, and then closes the AIC dialog box. The settings remained unchanged

Reset button

This button brings up the Reset dialog box, where you can specify which settings are to be restored to their default values, then click Reset or Cancel.

If Reset is selected, the settings are restored to their default values; if Cancel is selected, the operation has no effect.



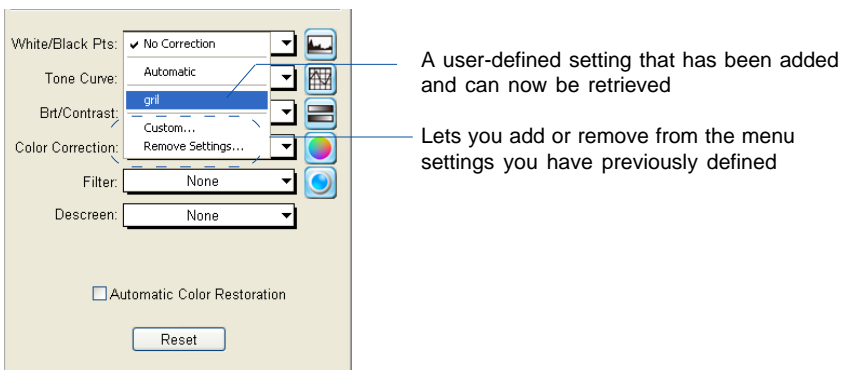
Revert button

This button to cancel out the changes that were made with the current image correction tool. This means that if you used several AIC tools, Revert cancels the effect of only the last used (or current) tool, and preserves the effects of the other preceding tools.

Custom Settings

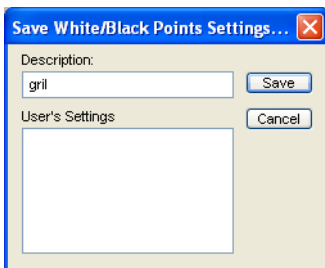
When you click on each AIC setting in the Settings window, a drop-down menu will show options for adding, removing, or loading custom settings. These custom settings are settings that you define yourself for your scan jobs.

For instance, if you wish to change the shadow to an image and then save that shadow setting for future scan jobs, you can add the shadow setting as a custom setting. The next time you wish to retrieve that particular shadow setting, simply go to the White/Black Point AIC drop-down menu, and choose that setting.



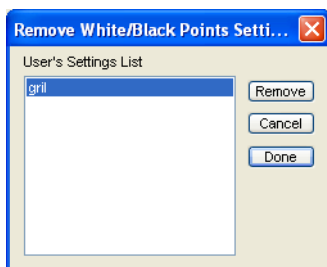
Adding Custom Settings

To add a custom setting for an AIC tool, click the *Custom...* in that tool's pop-up menu, or click the *Add To Menu ...* button in that tool's dialog box. When a dialog box comes up, enter the name of the new custom setting to be added. For instance, the added setting can be called "girl" as shown below.



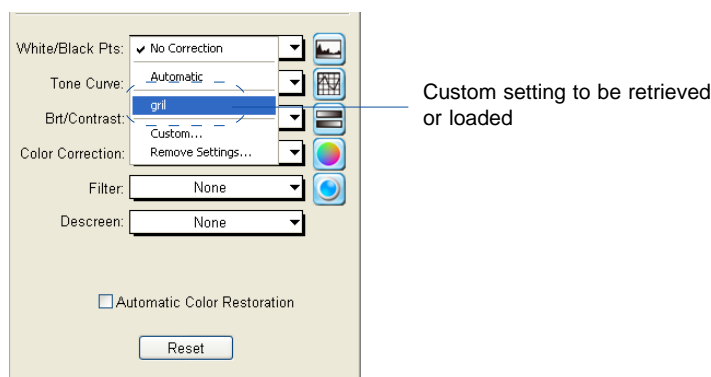
Removing Custom Settings

To remove a custom setting for an AIC tool, click the *Remove Settings...* in that tool's pop-up menu. When a dialog box comes up, select the particular setting to be removed, then click *Remove* and *Done* in the dialog box.



Loading/Retrieving Custom Settings

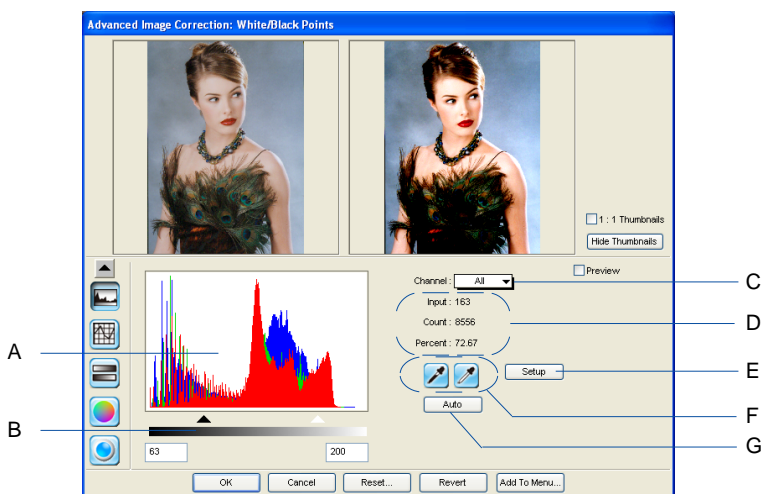
To load or retrieve a custom setting that you have previously defined for an AIC tool, go to that AIC tool's pop-up menu, and choose the setting you wish to be loaded.



White/Black Points

The White/Black Points tool is used to change the shadow and highlight points of an image.

By using this tool, you can manipulate an image to either bring out the highlights in a very dark image, or bring out more of the shadows in a very light image. The White/Black Points tool can also be used to neutralize the color cast in the highlight and shadow regions.



A. Histogram

The histogram is a graphic representation of how all the pixels in an image are distributed across brightness and darkness levels. The darkest pixels are at the left; the lightest pixels are at the right.

A histogram skewed heavily to the left indicates that the image has many more dark pixels than light. Conversely, a histogram skewed heavily to the right will indicate a light image as it has more light pixels than dark. The height of the histogram indicates the number of pixels at that point in the histogram.

B. Sliders

The sliders are used to adjust the Black and White points of the image. The values of the black and white points are reflected in the edit boxes below.



C. Channel

The channel button lets you control the shadow and highlight settings for a particular color channel (red, green, or blue), or for the All/Master channel (red, green, and blue simultaneously).

D. Input, Count, Percent

These figures provide information about the histogram. The figures will appear only when the cursor is on the histogram or if a slider is being moved.

- The Input value indicates the color value of the data displayed in the histogram.
- The Count value indicates the number of pixels at the Input value. If Input value is 2 and Count value is 1300, then there are 1300 pixels in the image at the Input value of 2.
- The Percent value is the percentage of all pixels in the image where color value is less than or equal to the input value. For example, if Percent is 15% and Input value is 2, it means that 15% of all pixels in the image have a value of 2 or less.

E. Setup button

This button provides you with advanced controls for setting the white/black clipping points, as well as for determining the output levels for the white/black points on your printer.

F. Pickers

The Pickers can be used instead of the sliders to set the Black and White points, based on color values in the preview image. The Picker on the left sets the Black point; the Picker on the right sets the White point.

- To set the White point: Click the Picker on the right, then click on the preview image to define the reference point.
- To set the Black point: Click the Picker on the left, then click on the preview image to define the reference point.

G. Auto button

The Auto button automatically judges the darkest and whitest points and clips excessive black or white points. The clipping percentage of the white/black points is accessible by clicking the Setup button.

Using the White & Black Point tool:

1. Choose the Channel in which the histogram will be modified.
 - If your Image Type is RGB, select All/Master to modify the tone curve in the red, green, and blue color channels of the image simultaneously; or select the color channels individually (red, green, blue) to modify that particular color channel.
 - If your Image Type is Grayscale, only the Gray channel is available for selection.
2. Move the black and white sliders to new points on the histogram.
 - Moving the black slider to the right will yield more contrast in the highlight areas of the image, so that more detail emerges in the highlight areas.
 - Moving the white slider to the left will yield more contrast in the shadow areas of the image, so that more detail emerges in the shadow areas.

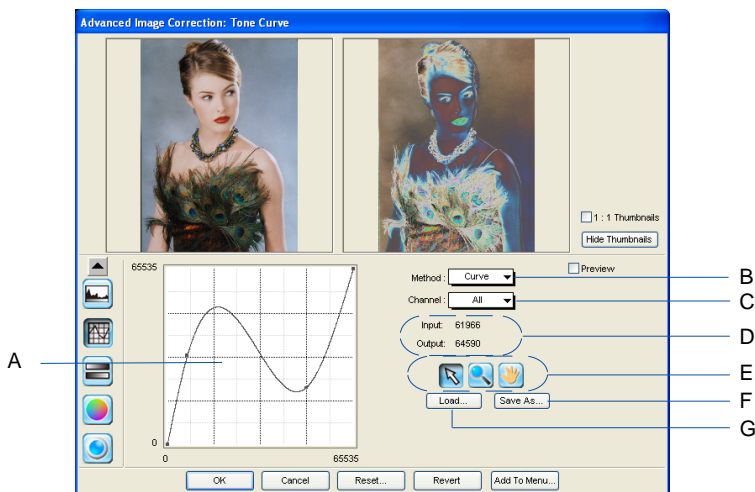
Another alternative is to simply click the Auto button, so that the dynamic range for the image is determined automatically.

3. When the changes are done, click OK.

For more details on the effects of the other action buttons, see the section The Action Buttons.

Tone Curve

The Tone Curve tool lets you adjust the tonal range of an image. However, instead of making adjustments using just three variables (highlights, shadows, and midtones), you can adjust any point along the 0-to-255 scale (for 8-bit images; 0-to 4096 scale for 12-bit images). The Tone Curve tool applies to grayscale and all color images and is not available for line art or halftone scan modes.

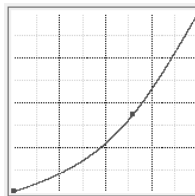


How to Read the Curve

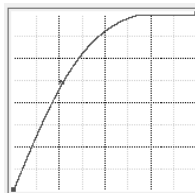
The Curve shows the relationship of the brightness changes across the middle pixels between the resulting image and the original. When you open the Curves dialog box, the line on the graph is diagonal because the Input and Output values are the same.

When the curve is moved up or down, the relationship between input value and output value changes accordingly.

- In areas where the curve is moved down, pixels in that portion of the image are darkened.



- In areas where the curve is moved up, pixels in that portion of the image are lightened.



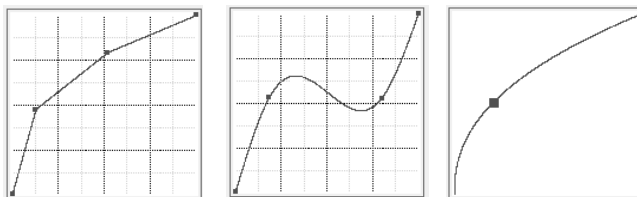
Contrast in an image can be seen by the angle of the line. The steeper the slope, the higher the contrast. The closer the line is to horizontal, the lower the contrast.

A. Curve

The Curve is a graphic representation of the tone curve showing scanner input from dark on the left to light on the right.

B. Method

The Method sets the kind of curve you wish to have. Select from Line, Curve, or Gamma.



C. Channel

The Channel allows you to choose the color or gray channel in which the gamma will be affected.

D. Input, Output, Zoom:

- Input shows the horizontal value of wherever the cursor is inside the curve, reflecting the scanner's full depth.
- Output shows the vertical value of wherever the cursor is inside the curve, reflecting the scanner's full depth.
- Zoom indicates the magnification level of the curve box. At 100% zoom, the curve is seen in its entirety. Using the zoom frame tool to magnify the curve will zoom in or enlarge your view of the curve, resulting in a higher zoom percentage.

E. The Curve Tools

The Curve Tools let you modify the curve. The tools are the curve pointer, the curve zoom frame, and the curve pane.



Use the Curve Pointer tool to define points in the curve that will be modified. When you click on any point in the curve, a black handle appears to mark your position. To remove the handle, drag it off the graph.



Use the Curve Zoom Frame tool to zoom in and out on a particular point in the curve. Once the area is zoomed in, you can then use the Curve Pointer tool to define new points for better precision. This is particularly useful for working with 12-bit images, where more detail can be seen in such images. The zoom level can be seen in the Zoom field. To zoom out, click Shift.



Use the Curve Pane tool to scroll through the curve if the curve has been zoomed in. This curve tool can be used only if the curve has been zoomed in with the Curve Zoom Frame button (above). Otherwise, the Curve Pane tool will be dimmed.

F. The Save As button

The Save button lets you save a tone curve together with its settings so that the curve can be used in the future if necessary.

G. The Load button

The Load button lets you load a previously saved tone curve for use with another image. Photoshop-saved curves can also be loaded.

Using the Tone Curve tool:

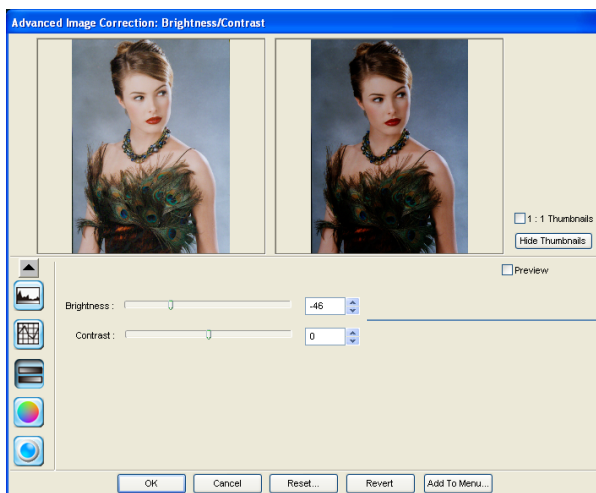
1. Choose the Channel in which the curve will be modified.
 - If your Image Type is RGB, select All/Master to modify the tone curve in the red, green, and blue color channels of the image simultaneously; or select the color channels individually (red, green, blue) to modify that particular color channel.
 - If your Image Type is Grayscale, only the Gray channel is available for selection.
2. Choose the Method in which the curve will be modified. Select from Line, Curve, or Gamma.
3. Click the Curve Pointer tool, then click on the curve to define the points where the curve will be modified. You can then either raise or lower the curve at that point and see changes to the image accordingly.
4. When the changes are done, click OK.

For more details on the effects of the other action buttons, see the section “The Action Buttons”.

5. To save a curve, click the Save As button. To load a previously saved curve, click the Load button and specify the curve setting to be loaded.

Brightness and Contrast

The Brightness & Contrast tool lets you control the brightness and contrast levels of the entire image. Increasing the brightness makes all tones in the image lighter. Contrast, on the other hand, is the range between the darkest and lightest shades in the image, and increasing the contrast makes greater separation between the darkest and lightest areas of the image.

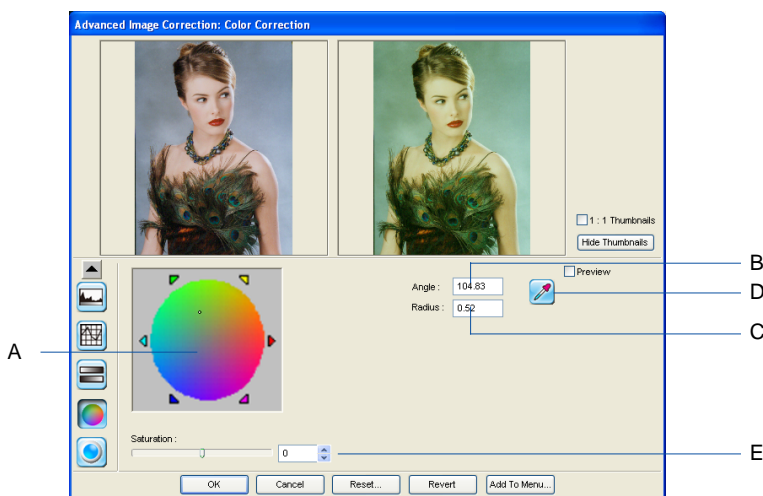


Drag the sliders or enter values to change Brightness and Contrast

- **Brightness:** The Brightness control lets you change the brightness setting. Too much brightness can make an image look washed out, while too little brightness will make the image look dark.
- **Contrast:** The Contrast control lets you change the contrast setting. Too much contrast will make an image look like a photocopy of a picture, with little or no gray shades left. Too little contrast will make the colors in the image look dull and flat.

Color Correction

The Color Correction tool changes the hue and saturation of an image. You can also add a color cast to an image by simply moving the pointer to a particular area on the Color Wheel, or you can remove an unwanted color cast by moving the pointer to a complementary color to balance out the tones. For instance, to remove a greenish cast from your image, move the pointer in the Wheel to the “red” area to neutralize the greenish hue of the image. The Color Correction tool is available only for RGB and indexed color images.



A. Color Wheel

The Color Wheel allows you to add or remove a color cast from an image.

To change the hue of an image, move the pointer in the color wheel to its new color position in the wheel

B. Angle

This shows the angle of the pointer on the Color Wheel as measured in degrees, and a value can also be entered directly in the edit box to move the cursor to any point in the Wheel.

Example: 0° corresponds to the color red on the Wheel, 60° to the color yellow, 120° to the color green, 180° to the color cyan, 240° to the color blue, and 300° to the color magenta.



C. Radius

This field shows the amount of shift towards a particular color and works in tandem with the Angle field. The Radius range extends from 0 located at the center of the Color Wheel and indicating the least concentration of color, to 1, located at the periphery of the Wheel and indicating the greatest concentration of color.

Example: If your angle is 0° (red on the Color Wheel) and the radius is 1, this results in an intense reddish cast on the entire image.

The Angle-Radius feature works differently from that of the Saturation bar, which increases the saturation of all hues in the image without tending towards any particular color cast.

D. Picker

The Picker lets you pick a known neutral gray shade in your image and adjusts it to a closer, truer gray. The grays in an image may have a particular color cast which can be verified through the color information in the Info window. A gray that tends towards a reddish tint, for instance, will have its R value skewed higher than the G and B values. By using the Picker on a gray area, the gray is adjusted so that the RGB values become approximately equal.

E. Saturation bar

This lets you change the intensity of the hues (colors) in your image. Use Saturation selectively, because increasing saturation will increase the intensity of all hues in the image.

Using the Color Wheel:

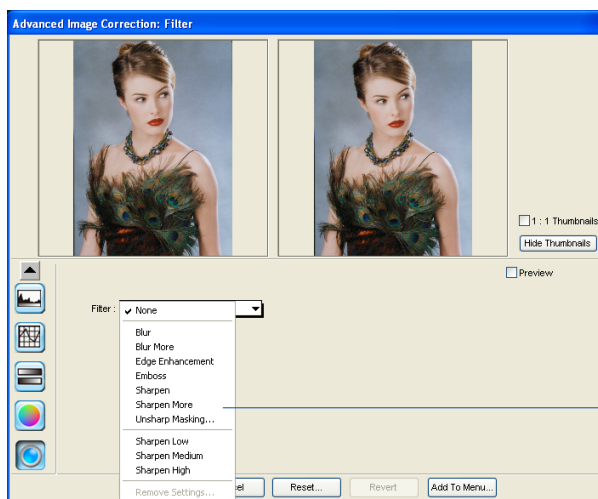
1. To change the hue of an image, move the pointer in the color wheel to its new color position in the wheel.
2. To change the saturation of an image, drag on the saturation slide bar. Dragging the slide bar to the left decreases saturation; dragging it to the right increases saturation.
3. Use the Angle, Radius, and Picker as necessary.
4. Click an action button. For more details, see the section The Action buttons.

Filters

The Filter tool is used to apply special effects to your images. Several filters are provided in ScanWizard EZ, including Blur, Blur More, Edge Enhancement, Emboss, Unsharp Masking, Sharpen Low, Sharpen Medium, and Sharpen High.

In using most of the Filters (except Unsharp Masking), the image you obtain in the preview window may differ from the way the image appears when you finally scan it in. For the Unsharp Masking filter, the final scan result can be simulated and previewed, either from the thumbnail on the filters dialog box or from the preview image in the Preview window.

Keep in mind too that the appearance of the image in the preview window and how it is affected by a filter will depend on the resolution of the image. The higher the resolution, the less obvious the effect of certain filters (such as Blur).



Click the arrow button next to the Filter box, and choose the filter you want from the list box

Blur/Blur More

The Blur filters eliminate noise in the parts of the image where significant color transitions occur. These filters decrease the contrast between adjacent pixels, making the image appear hazy and out of focus.

- Blur smooths out the transitions by lightening pixels next to the hard edges of defined lines and shaded areas.
- Blur More produces an effect three or four times stronger than Blur.

Edge Enhancement

The Edge Enhancement filter gives greater contrast to edges. The filter can do this because edges are areas in an image where gray or color levels change abruptly. It is best to use this tool for improving geometrical, contoured shapes.

Emboss

The Emboss filter makes a selection appear raised or stamped by suppressing the color within the selection and then tracing its edges with black.



Normal



Blur More



Edge Enhancement



Emboss

Sharpen Low/Sharpen Medium/Sharpen High

The Sharpen filters do the opposite of the Blur filters and increase the contrast of adjacent pixels, making images appear sharper and more focused.

The three sharpening filters (Sharpen Low, Sharpen Medium, and Sharpen High) improve clarity. The Sharpen High filter has a greater sharpening effect than the Sharpen Medium filter, which in turn has a greater sharpening effect than the Sharpen Low filter.



Sharpen High



Unsharp Masking

Unsharp Masking

The Unsharp masking filter is used to adjust the contrast of edge detail, creating the illusion of more image sharpness. This filter can be useful for refocusing an image that has become blurry from interpolation or scanning, and it is an essential tool for doing CMYK color separation. In general, Unsharp masking is needed to render sharp color reproductions, especially when you wish to make a large color reproduction from a small original.



Using the Unsharp Masking:

From the settings window, click the Filter tool button, then choose Unsharp Masking from the list of options.

1. Click the Filter tool button to open the AIC window. The Unsharp Masking dialog box appears.
2. Enter a value in the Strength box to specify the degree of the filter's effect. The higher the value, the stronger the effect of the filter.
3. Select a mask size in the Mask Size box. This parameter determines the depth of pixels that will be affected at the edge. Available selections are 3x3, 5x5, 7x7, 9x9, 11x11, and 13x13. For small, low-resolution image files, 3x3 is sufficient. For high-resolution, or large-scale image files, use 7x7.
4. Enter a value in the Threshold box. This option allows you to specify a tolerance range to prevent overall sharpening that might generate noise or cause other unexpected results. The Threshold defines the required image of contrast between adjacent pixels before sharpening is applied to an edge. A lower value produces a clearer effect.
5. The Light and Dark option control the sharpness effect to be applied to the light and dark edges of the images, respectively. In general, doing too much Unsharp Masking on light edges would make images seem unnatural, as the human eye is sensitive in perceiving changes in bright areas of the image beyond a certain threshold. If both values are 0, Unsharp Masking effect is disabled.
6. Click OK to apply the settings.



Before



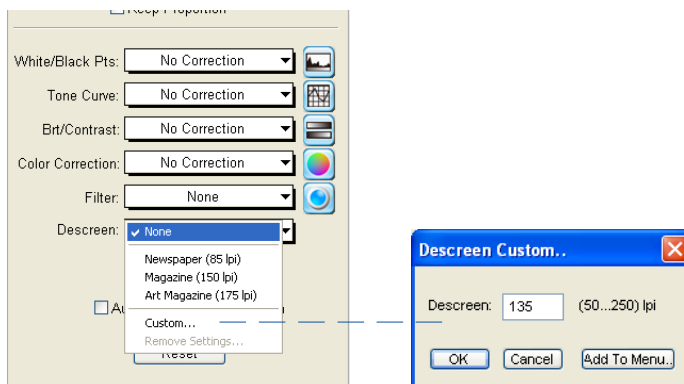
After 7x7



After 13x13

Descreen (for Reflective mode only)

The Descreen tool lets you remove moiré patterns in the scan process. Moirés occur when you scan a screened original (mostly reflective materials, such as pictures from a newspaper or magazine). These patterns appear to the naked eye like a series of grids or dots, as shown in the example below.



Using the Descreen:

1. Click the Descreen drop-down menu in the Settings window.
2. When the Descreen menu comes up, select the screen for your needs, or choose Custom to set your own descreen options.

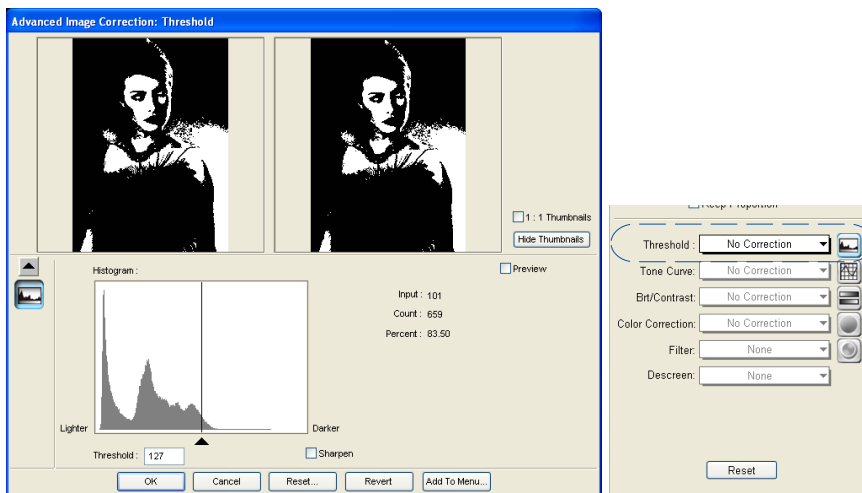
When the Descreen dialog box comes up, enter a value that best corresponds to the dot quality of the original in which the moiré is to be removed. You may use a screen finder to measure the print screen lpi. Please contact your local print shop for more information on how to obtain a screen finder.

- Set a value from 50 to 85 if the original image has a coarse dot pattern, as in images taken from a newspaper.
- Set a value from 100 to 133 if the original image has a fine dot pattern, as in images taken from a magazine.
- Set a value from 200 to 250 if the original image has a very fine dot pattern with a near-photographic quality, as in images taken from a high-quality art magazine.

Threshold (for Line Art image only)

For Line Art images, the Threshold tool is the only AIC tool available for use.

Threshold is the dividing line between black and white; the range is 0 to 255, and the default is 127. Thus, gray levels below the Threshold are converted to black, while gray levels equal to or above the Threshold are converted to white, resulting in a high-contrast, black-and-white representation of the image.



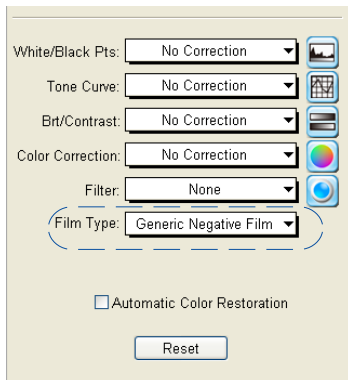
Using the Threshold feature:

1. Drag the sliders to change the Threshold.
 - To darken the original, drag the slider to the right. This increases the Threshold value so that more pixels are turned to black, resulting in a darker image.
 - To lighten the original, drag the slider to the left. This lowers the Threshold value so that more pixels are turned to white, resulting in a lighter image.
2. Alternatively, you can enter a value in the Threshold edit box to change the Threshold.
3. The Sharpen option lets you sharpen the Line Art image.

Film Type (for Negative mode only)

The Film Type option is enabled only when negative film is your film type selection. Otherwise, this option will not appear and switches instead to the Descreen option for positive film or reflective scanning.

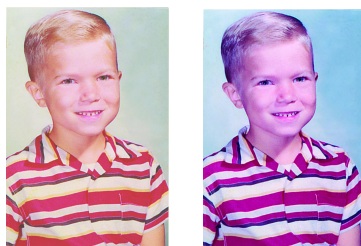
The option “Generic Negative Film” is the only film type option available for negative film scanning



Automatic Color Restoration

The Automatic Color Restoration feature is also known as ColoRescue™, part of Microtek's PictuRescue™ system for photo reconstruction and color restoration which also includes DIGITAL ICE.

With ColoRescue, the scanner restores faded colors in photos and/or film, bringing hues back to their original luster and brilliance for more vibrant images. ColoRescue's one-click, automatic color recovery process is simple and straightforward, involving no learning curve or hassle.

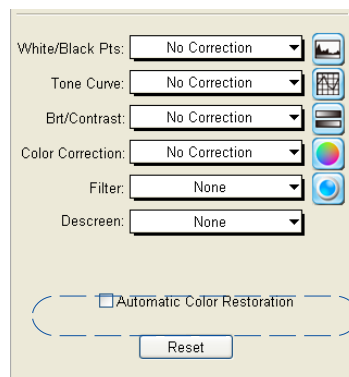


Before

After

Note:

- This option will not work when the Image Type is set to “Line Art” or “Black and White Diffusion.”
- For best results when using the “Automatic Color Restoration” feature, marquee (select) only the image area of the photo to be restored (the photo proper). Do not include the white border around the photo, as inclusion of the background may lead to inaccurate color restoration.



To use the Automatic Color Restoration function:

1. In the Preview window of the Professional mode, marquee the faded image area to be restored.
2. In the Settings window, check the “Automatic Color Restoration” option.
3. Click the “Scan” or “Scan To” button to perform scanning. Automatic Color Restoration is applied, and faded colors in the photo are restored.

The Information Window

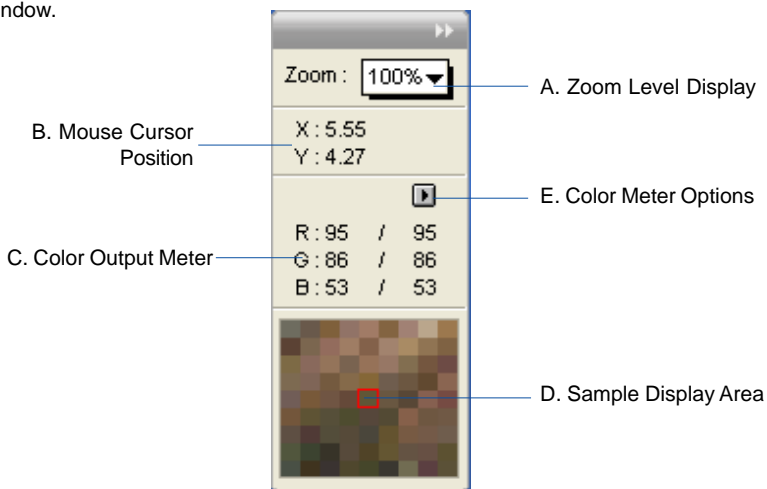
The Information window displays color information as you move the cursor over the preview image in the Preview window (or the thumbnail in the Advanced Image Correction dialog box if it is open).

You can choose to show or hide the Information window in ScanWizard EZ. To do this, click the *Show/Hide Info window* toggle command under the View menu in the Preview window.

Clicking the Window Expansion button to expand the Information window.



Elements of the Information window

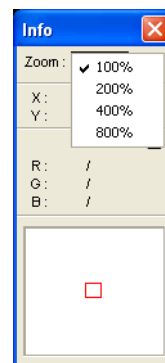


A. Zoom Level Display

The Zoom Level Display magnifies your view of an image, much like the Zoom (Magnify Glass) tool in the Preview window.

The magnification factor in Zoom Level Display is by a factor of 2. Thus, the magnification levels increase from 100% to 200%, to 400%, to 800%.

To use the Zoom Level Display, click the Zoom box to choose a zoom or magnification level you wish to use from the drop-down menu that appears.



B. Mouse Cursor Position

The Mouse Cursor Position (Pixel Position) shows you the cursor position on the x (horizontal) and y (vertical) coordinates of the axis. This feature is useful for operations that require very precise measurements and alignment.

C. Color Output Meter

The Color Output Meter is useful if you wish to adjust the shadow and highlight points of an image.

As you move the cursor over a point in the image, the Color Output Meter will show the appropriate RGB values of that point in the image. The significance of the numbers is explained below.

- There are two numbers shown in the Color Output Meter. The first number represents the raw color data taken by the scanner; the second number represents the resulting value after color correction or image enhancement is applied to the image.
- The values can be anywhere from 0 to 255, with 0 as the black point, 255 as pure white, and all other values in between corresponding to shades of varying degrees between black and white.
- The values as a whole represent color info for the sample size selected in the Color Meter Options button (discussed below). For instance, if you chose 3 x 3 as your sample size and your R value reads 23, that shows your red value of 23 is the average of a 3-pixel by 3-pixel area.

Pixel-value info is useful especially if you are making color corrections based on color values. Knowing this, you can modify the shadow and highlight points of an image, then come back to the same point in the image, and verify through the Color Output Meter that the RGB values have indeed changed.

D. Sample Display Area

This shows a pixelized display of the area surrounding the cursor. The size of the sample area depends on the selection made in the Color Meter Options.

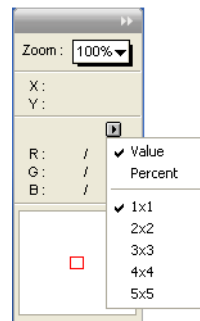
E. Color Meter Options

These options let you choose how color information is displayed — in numbers or percentages.

To use the Color Meter Options, click the Color Meter Options button to choose your setting from the drop-down menu that appears.

Value and Percent

- If *Value* is chosen, the numbers represent values in the 0-to-255 pixel scale regardless of the bit depth of your output image.
- If *Percent* is chosen, the numbers represent the percentage of intensity.



Color Meter Options

The Color Meter options let you choose the size of your sample display area. For instance, if you choose 5 x 5 as your sample area, this means your RGB value will represent color information for a 5-pixel by 5-pixel area. If you choose 1 x 1 (the default), the color information pertains to a single pixel — the pixel in the middle of the sample area.

Scan Job Queue Window

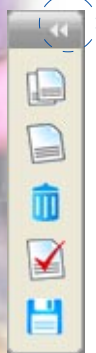
The Scan Job Queue window provides several functions for managing your scan jobs. By definition, a scan job contains the following elements: a set of scanning parameters (shown in the Settings window); a scan frame (shown in the Preview window); and one or several scan job items (shown in the Scan Job Queue window).

You can have multiple scan jobs, each having its own distinct settings; the number of scan jobs is indicated by the number of titles in the Scan Job Queue window (two in the example below). Scan jobs marked with a check are the ones designated to be scanned, and the jobs are scanned in the order that they appear in the Scan Job Queue window.

You can choose to show or hide the Scan Job Queue window in ScanWizard EZ. To do this, click the *Show/Hide Scan Job Queue window* toggle command under the View menu in the Preview window.

Elements of the Scan Job Queue window

Clicking the Window Expansion button to expand the Scan Job Queue window.



A. Checked Scan Job

B. Current Scan Job

C. Image type

H. Multiple Auto-crop for EZ-Lock Film Holder

Status	Type	Job Title	Size
✓	🌈	Untitled1-1	9,076 KB
✓	🌈	Untitled1-1-1	2,529 KB
✓	🌈	Untitled1-1-1-1	2,411 KB

☐ One-pass Scan for Multiple Jobs

☐ Multiple Auto-crop for EZ-Lock Film Holder

Function buttons: Up/Down arrow, DUP, NEW, DEL, CHR, LOAD SAVE

Total Scan Jobs: 3 Job(s) Scanned: 0

D. Image size

E. Title of scan job

F. Selected Scan Job (highlighted)

G. One-pass Scan for Multiple Scan Jobs

I. Function buttons for controlling scan jobs (i.e. Up/Down arrow, Duplicate, New, Delete, Check, and Load Save)

- A.. Checked scan job: Checked scan jobs are the ones that are scanned when you click the *Scan to* or *Scan* button in the Preview window. To check a scan job, you can either click the *Check* icon or use the *Check* button at the bottom of the Scan Job Queue window.
- B Current scan job: This is the current scan job, indicated by a frame around the title. There may be several defined scan jobs, but only one scan job can be current. In the Preview window, the current scan job is the one with the flashing marquee.
- C. Image type display: This shows the image type of the scan job .
- D. Image size: This is the image size of the scan job.
- E Title of scan job: The title of each scan job is shown. To edit a scan job title, double-click the title of scan job and type a new name when an edit box appears.
- E Selected scan job: The selected scan job is the highlighted item. You can have multiple selected scan jobs, and clicking on a function button (such as *Check* or *Duplicate*) will implement that function on the selected scan job.
- G. One-pass Scan for Multiple Scan Jobs: This allows the scanner performs scanning in a single pass for all the selected scan jobs.
- H. Multiple Auto-crop for EZ-Lock Film Holder: This allows the scanner automatically performs an Auto-crop after scanning multiple films at one time.
- D. Function buttons for controlling scan jobs: These buttons perform a specific action on the selected scan job. The *Duplicate*, *New*, *Delete*, *Check* and *Load/Save* buttons can be used on multiple selected scan jobs.
- E. Thumbnail of prescan image: A thumbnail (Ⓢ) appears for the selected scan job after you click the *Prescan* button in the Preview window. This means a prescan image is available for that scan job. **This function is available only** in the Reflective mode.



One-pass Scan for Multiple Scan Jobs

If this option is unchecked, when you assign multiple scan jobs in the preview window, the scanner will continuously scan for several passes, depending on the number of scan jobs that are selected. For instance, assuming that there are three scan jobs selected, the scanner performs the first job, and as the scanner carriage returns to the stand-by position, the scan for the second job begins, and so forth to the third job — for a total of three passes.

If this option is checked, the scanner performs scanning in a single pass for all the selected scan jobs. The scanner's carriage moves only once and when it returns to the stand-by position, ScanWizard EZ then starts to process and finish all of the scan jobs.

To use the “One-pass Scan for Multiple Jobs”, the image original should meet the following conditions:

1. For all the scan jobs, the “resolution x scale” value in the Settings window should be the same.
2. All the scan jobs should have the same scan type. For example, the scan type can be either color (RGB or RGB 48-bit) or gray (Gray or Gray 16-bit).
3. If the screen filter is applied, all the scan jobs should use the same descreen lpi value.

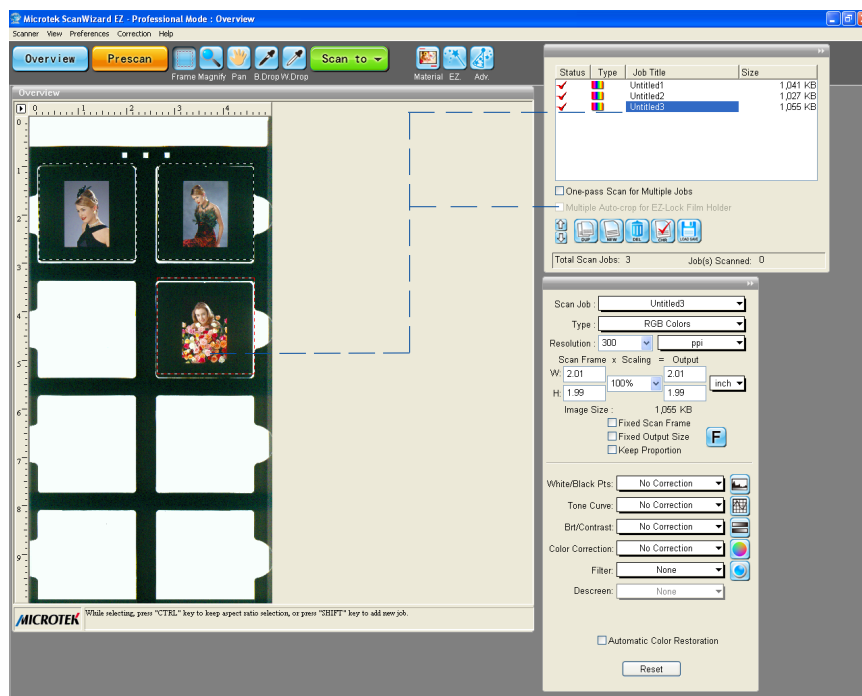
If ScanWizard EZ has detected that your image original does not meet the above conditions, the “One-pass Scan for Multiple Jobs” option is dimmed and will not be available for selection.

Multiple Auto-crop for EZ-Lock Film Holder

This option is enabled only when the EZ-Lock film holder is placed on the scanner glass surface, and the scan material is Positive or Negative Film. Otherwise, this option is disabled. Check this option to enable the scanner to auto-crop multiple scanning frames.

To perform multiple auto-crop preview of the film loaded onto the scanner, click the Overview button. When done, you will see multiple scan frames that have been automatically cropped in the preview window. Multiple job titles will appear in the Scan Job Queue window, numbered sequentially and all marked by a “Check” that indicates the jobs are ready to be scanned.

Note: After performing multiple auto-crop scanning, the previously created jobs will be removed from the Scan Job Queue window.



Function Buttons

The function buttons at the bottom of the Scan Job Queue window can be used for multiple job selections. The New and Load/Save button can be used on only one selected scan job. The Duplicate, Delete, and Check buttons can be used, however, on multiple selected scan jobs.



Selecting Multiple Scan Jobs

The *Duplicate*, *Delete*, and *Check* buttons at the bottom of the Scan Job Queue window can be used for multiple job selections.

For example, you can select multiple scan jobs, and then click the *Delete* button to remove all the jobs simultaneously.

To select multiple scan jobs, press the *Ctrl* or *Shift* key and click on the jobs to be selected.

Editing Multiple Scan Jobs

ScanWizard EZ lets you edit multiple scan jobs at the same time, increasing your efficiency in using the software.

To edit multiple scan jobs, simply select all the scan jobs to be edited in the Scan Job Queue window.

To include each scan job for selection, use the *Shift* + Click combination (pressing the *Shift* key while clicking the mouse at the same time). Then perform the selected editing function.

For instance, you can go to the Settings window and choose an image type that will apply to all the scan jobs. Another example is to apply a common resolution setting to all the scan jobs. Simultaneous editing simplifies the scanning process for you.



Adding a New Scan Job

The New button lets you create a new scan job; the new scan job will have default settings. This feature allows you to create as many scan jobs as you wish, and each scan job can then have its own settings.

1. Click the *New* button.
2. When a title of new scan job appears, accept the default name or enter a name for the new scan job. Use unique names for your scan jobs, as duplicate names are not accepted.
3. Define the scan frame in the Preview window for the new scan job.
4. In the Settings window, specify the settings for the new scan job. With the creation of a new scan job, the new scan job becomes the current scan job.



Duplicating a Scan Job

The Duplicate button lets you duplicate the settings of a scan job. This function is very helpful if you have created optimal settings for a scan job and wish to use these settings as a template for other scan jobs. This saves time, as you don't have to create the settings repeatedly for every scan job you make.

1. From the list of scan jobs available, select the scan job(s) to be duplicated.
2. Click the *Duplicate* button. The selected scan job(s) will be duplicated. The Duplicate function is very useful when scanning several images at the same settings.



Removing a Scan Job

The Delete button allows you to remove a scan job from the list of scan jobs available.

To delete a scan job, highlight the scan job to be removed, then click the *Delete* button.



Checking a Scan Job

The Check button allows you to select the scan jobs to be scanned. Checked scan jobs are the ones that are scanned when you click the *Scan to button* or *Scan* button in the Preview window. The check button is a toggle for checking/unchecking a scan job.

To check a scan job, highlight the scan job, then click the *Check* button. A check sign will appear next to the selected scan job.

To uncheck a scan job, highlight the scan job, then click the *Check* button. The scan job will be unchecked, and the scan job will not be scanned when you click on the Scan button.



The Up/Down Arrows

The Up/Down arrows allow you to change the order of the scan jobs in the Scan Job Queue window.

To move up/down the scan job, highlight the scan job, then click the *Up/Down* arrow to change the order of the scan job in the list.

When you start scanning, the scan jobs will be processed and scanned in the order that they appear in the Scan Job Queue window.



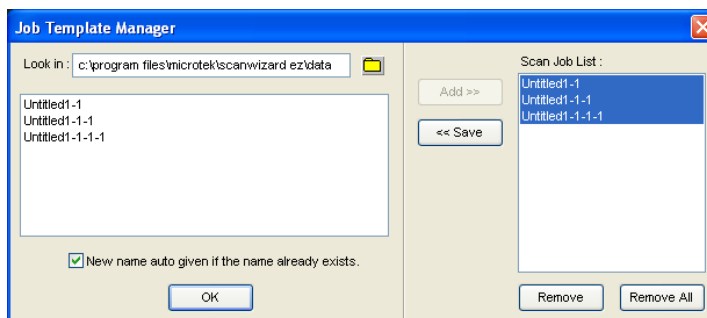
The Load/Save button

The Load/Save button allows you save scan jobs that can be loaded at a later time when necessary. The idea of saving and loading scan jobs has important applications, especially for scanners with different templates or “trays”. Loading/ Saving scan jobs is also useful if you consistently work in a specific format, scan the same kind of images, or if the scanner is used by several users who have their own sets of jobs.

To save a scan job as a template:

1. Click on the *Load/Save* button to open the Job Template Manager window.
2. Specify a folder for saving scan jobs by clicking the Folder icon (yellow) or use the current default folder.
3. Highlight the scan jobs you want to save at the right column of the window.
4. Click the <<Save button in the window. The selected scan jobs will be saved into the chosen folder and appeared at the left column of the window.

You may also specify different folders for respective scan job templates as you desired.



To load a scan job template:

1. Click the *Load/Save* button to open the Job Template Manager window..
2. Switch to the folder where the scan job template is stored.
3. Highlight the scan job template to be loaded at the left column of the window.

Before loading a new scan job, you may remove your existing scan jobs from the right column

4. Click the *Add>>* button in the window to load the scan jobs from a chosen folder into the Scan Job Queue window.



To remove a scan job template:

1. Click the *Load/Save* button to open the Job Template Manager window..
2. Highlight the scan job to be removed at the right column of the window.
3. Click the *Remove* or *Remove all* button in the window to remove the scan job from the Scan Job Queue.

New name auto given if the name already exists

When you load or save scan jobs, you may check or uncheck the “New name auto given if the name already exists” option in the window. Suppose the scan jobs already exist, if you check this check box, the number suffix is automatically appended as a new scan job. If unchecked, the existing scan jobs are overwritten.

Appendix

Product and Technical Support

If you need to call Technical Support, please have the following information ready:

- Your scanner model. The scanner product name is indicated on the front (or top) of the scanner, not the back.
- The scanner's serial number. This can be found on the back panel of the scanner.
- Your computer name and model.
- The version number of ScanWizard EZ. This is indicated on the ScanWizard EZ scanning software.
- Your system components, or the devices on your system, such as an external hard drive, CD-ROM, etc.
- Software being used with your scanner.

