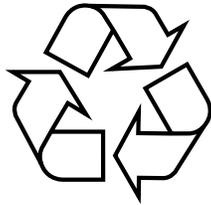




Kodak

Picture Saver Scanning System
PS50/PS80 Series

User's Guide
for MACINTOSH Computers



100% recycled content

Safety

User Precautions

- Place the scanner on a sturdy, level work surface capable of supporting 5.5 kg (12 lbs).
- Do not install the scanner in a location subject to dust, humidity or steam. This may cause electrical shock or a fire. Only use the scanner and power supply indoors in a dry location.
- Make sure the electrical power outlet is located within 1.52 meters (5 feet) of the scanner and is easily accessible.
- Use only the power cord that was provided with the scanner. Using any other power cord may cause electrical shock and/or damage the product.
- Be sure the power cord is securely plugged into the wall outlet. Failure to do so may cause electrical shock or fire.
- Do not damage, knot, cut or modify the power cord. This may cause electrical shock or fire.
- The scanner requires a dedicated power outlet. Do not use an extension cord or power strip with the scanner.
- Use only the AC adapter that is supplied with the scanner. Do not use the scanner's AC adapter with any other product.
- Leave sufficient space around the power outlet so it can be easily unplugged in case of an emergency.
- Do not use the scanner if it becomes inordinately hot, has a strange odor, emits smoke, or makes unfamiliar noises. Immediately stop the scanner and disconnect the power cord from the power outlet. Contact Kodak Service.
- Do not disassemble or modify the scanner or the AC power adapter.
- Do not move the scanner with the power cord and interface cable attached. This may cause damage to the cord/cable. Remove the power cord from the wall outlet before moving the scanner.
- Follow the Kodak recommended cleaning procedures. Do not use air, liquid or gas spray cleaners. These cleaners displace dust, dirt and debris to another location within the scanner, which may cause the scanner to malfunction.
- Material Safety Data Sheets (MSDS) for chemical products are available on the Kodak website at: www.kodakalaris.com/go/msds. When accessing the MSDSs from the website, you will be required to provide the catalog number of the consumable you want the Material Safety Data Sheet for. See the section entitled, "Supplies and consumables" later in this guide for supplies and catalog numbers.

Environmental information

- The *Kodak* PS50 / PS80 Scanner is designed to meet worldwide environmental requirements.
- Guidelines are available for the disposal of consumable items that are replaced during maintenance or service; follow local regulations or contact Kodak locally for more information.
- For recycling or reuse information contact your local authorities or, in the USA, visit: www.kodakalaris.com/go/scannerrecycling.
- The product packaging is recyclable.
- Parts are designed for reuse and recycling.

European Union



This symbol indicates that when the last user wishes to discard this product, it must be sent to appropriate facilities for recovery and recycling. Please contact your local Kodak representative or refer to: www.kodakalaris.com/go/recycle for additional information on the collection and recovery programs available for this product.

 Please consult www.kodakalaris.com/go/REACH for information about the presence of substances included on the candidate list according to article 59(1) of Regulation (EC) No. 1907/2006 (REACH).

Acoustic emission

Maschinenlärminformationsverordnung – 3, GSGV
Der arbeitsplatzbezogene Emissionswert beträgt <70 dB(A).

[Machine Noise Information Ordinance — 3, GSGV
The operator-position noise emission value is <70 dB(A).]

EMC statements

United States: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of these measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for additional suggestions.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulation.

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1 Overview

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Thank you for purchasing a *Kodak* Picture Saver Scanning System PS50/PS80.



The *Kodak* Picture Saver Scanning System PS50/PS80 allows you to easily digitize and enhance photos and can also be used as a general office document scanner. Once the photos are scanned, the images can be used in a variety of ways (e.g., printed, emailed or uploaded to a photo management system for sharing and various creative uses such as calendars, photo books or slide show).

NOTES:

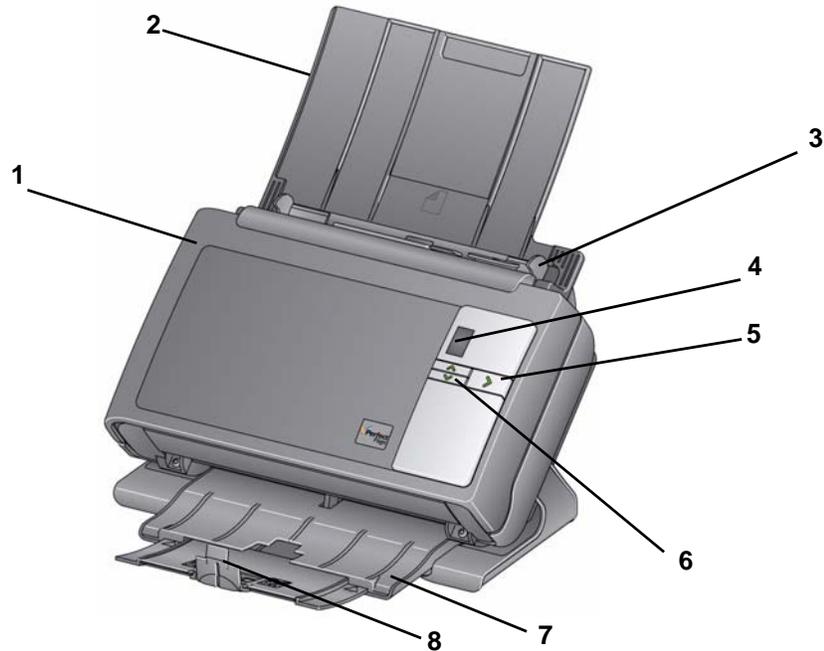
- The *Kodak* Picture Saver Scanning PS50/PS80 System is not intended for public environments where access to previous scans cannot be controlled.
- The Up and Down Scroll buttons on the scanners are not functional.
- The input tray of the *Kodak* PS50/PS80 Scanners hold up to 50 mixed-size photos per batch.
- Supports Mac OS V10.6 - 10.10. However, there are differences with V10.9 (Maverick) and V10.10 (Yosemite) as compared with the earlier versions.
 - The driver works with TWAINBridge, allowing you to download the scanner firmware to the scanner automatically when connected to a Mac computer and turned on. TWAINBridge is in OS V10-6, 10.7 and 10.8 and will download automatically.
 - TWAINBridge will **not** download automatically in V10.9 and V10.10 (Maverick/Yosemite); however, it will download when the first Acquire Image Data is selected.
 - Some applications (e.g., Vue Scan) do not work with V10.9 or V10.10 but will on earlier versions of the OS.
 - Presto! PageManager works with OS V10.6 - 10.10. Adobe Elements and Photoshop CS4, CS5 and CS6 work with the drivers with OS V10.6 - 10.10; although TWAIN support will need to be added for the later versions of the operating system. Check Adobe's website for more information for loading TWAIN support for their products.

Supporting documentation

In addition to this User's Guide, the Installation Guide provides a step-by-step procedure for installing the scanner.

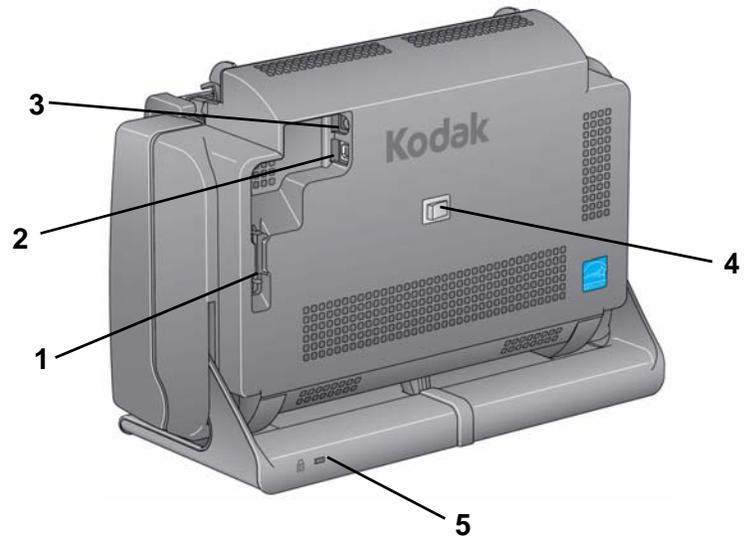
Scanner components

Front view



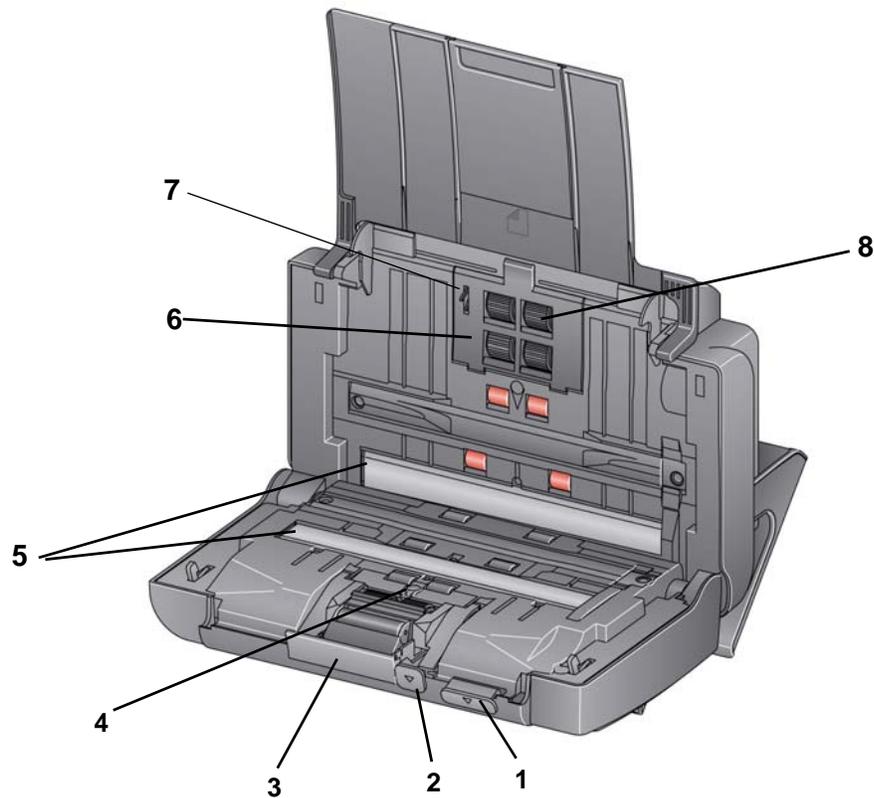
- 1 **Scanner cover** — provides access to internal components; such as, the imaging area and the feed and separation modules.
- 2 **Input tray** — holds photos or documents.
- 3 **Side guides** — slide the guides back and forth to accommodate the size of photos you are scanning.
- 4 **Status window** — displays 0 - 9. These numbers correspond to a predefined function. **U** or **E** is displayed if an error is encountered.
- 5 **LED/Start button** — illuminates to indicate scanner status (e.g., power on).
- 6 **Up and Down Scroll buttons** — not functional.
- 7 **Output tray** — collects the scanned photos or documents. When the scanner is placed in the vertical position the output tray slides underneath the scanner thus making the scanner compact and easy to store. When the scanner is in use and tilted, the output tray can be pulled out and extended to accommodate photos or documents up to 35.56 cm (14 inches) in length.
- 8 **End stops** — can be lifted up when scanning photos for better stacking. When the output tray is completely extended, another pair of end stops are located at the end of the output tray. Lift these end stops as necessary for better document stacking of longer photos or documents.

Back view



- 1 **Routing channel** — allows you to secure the USB cable and power cord to protect them when the scanner is moved.
- 2 **USB port** — connects the scanner to the computer.
- 3 **Power port** — connects the power supply to the scanner.
- 4 **Power switch** — turns the scanner on and off.
- 5 **Security lock port** — connects a security lock to the scanner. You can purchase a standard security lock at an office supply store. Refer to the instructions provided with the security lock for installation procedures.

Inside view

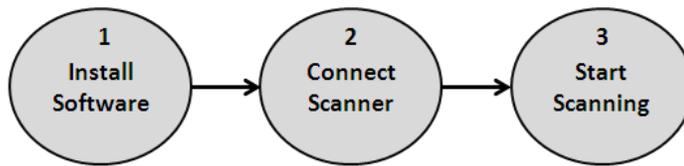


- 1 **Scanner cover release lever** — opens the scanner to allow access to the paper path for cleaning or clearing a jam.
- 2 **Gap release lever** — allows you to manually adjust the space between the feed module and separation module for photos that require special handling, e.g., photos that are badly torn.
- 3 **Separation module release lever** — push the release lever down to remove the separation module for cleaning or replacement.
- 4 **UDDS sensor** — used to detect multifeeds and photo or document edges.
- 5 **Imaging guides** — for optimum image quality, keep the imaging area clean.
- 6 **Feed module cover** — this cover needs to be removed when cleaning or replacing the feed module or feed module tires.
- 7 **Paper present sensor** — detects the presence of photos or documents in the input tray.
- 8 **Feed module assembly** — provides smooth document feeding and separation of various sizes, thicknesses and textures of photos or documents.

2 Setup

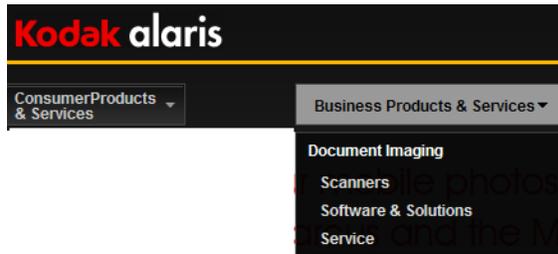
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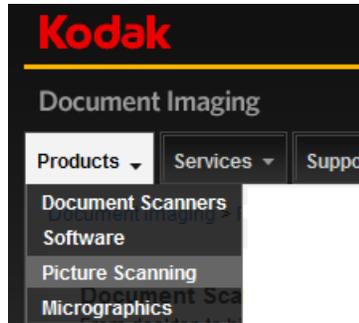
1 Install Software

1. Go to: www.kodakalaris.com to download the driver.
2. Select **Scanners** from the Business Products & Services drop-down list.

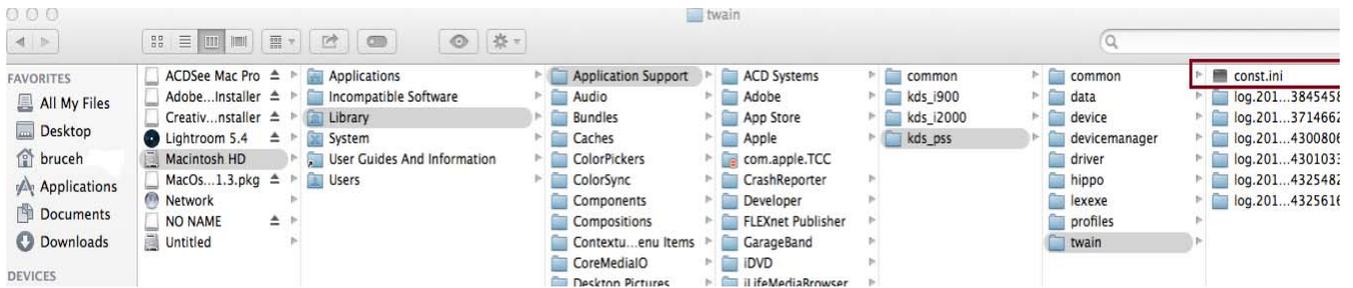


NOTE: You may need to select your display language before you can access the Document Imaging page.

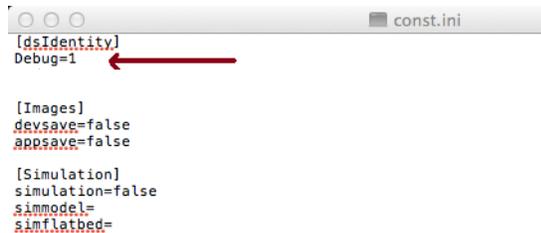
3. From the Document Imaging page, select the **Products tab**, then select **Picture Scanning**.



4. From the Picture Scanning page, select **Picture Saver Scanning System PS50/PS80**.
5. Click on the PS50 or PS80 **Support tab** and select **Drivers & Downloads**.
6. Click on **Details** under PS50/PS80 Picture Saver Scanning System Driver for MAC.
7. Download and save the .dmg.gz file to your desktop.
8. Double-click on the .dmg.gz file.
9. Double-click on the MacOSXSoftware_pss_V1.3.dmg.gz file.
10. While holding down the Control key, double-click on the MacOSXSoftware_pss_V1.3.pkg (**Package**) icon and select **Open** on the screen that is displayed.
11. Click **Continue**. The Welcome screen will be displayed.
12. Click **Continue**.
13. Select your language and click **Continue**.
14. A message will be displayed asking you to read and agree to the Software License Agreement. Click **Agree** to continue.
15. Click **Install**.
16. If your computer is password-protected, you will be asked to enter your password, then click **Install Software**. The installation will start.
17. When the installation is complete, click **Close**.
18. Close the Folder window. After installing the software register the scanner (US/C). Go to: <http://www.kodakalaris.com/global/mul/business/wrt/campaigns/CarekitWarrantyReg/entry.jhtml?RegisterWhat=Equipment>
19. When the PS50/PS80 Mac driver is initially installed, the driver will be displayed in *Dutch*. To change the language to English:
20. Using Finder, locate the const.ini file (**Macintosh HD> Library>Application Support>kds_pss>Twain>const.ini**).



21. Highlight the const.ini file.
22. Press the CTRL button and mouse-click on the const.ini file to display a context sensitive menu.
23. Select **File>OpenWith>TextEdit.app**.
24. Enter **DefaultLanguage=I_xx_xxx** (xx_xxx is your preferred language) after the *Debug=1* line.



NOTE: For English use: **en_usa**.



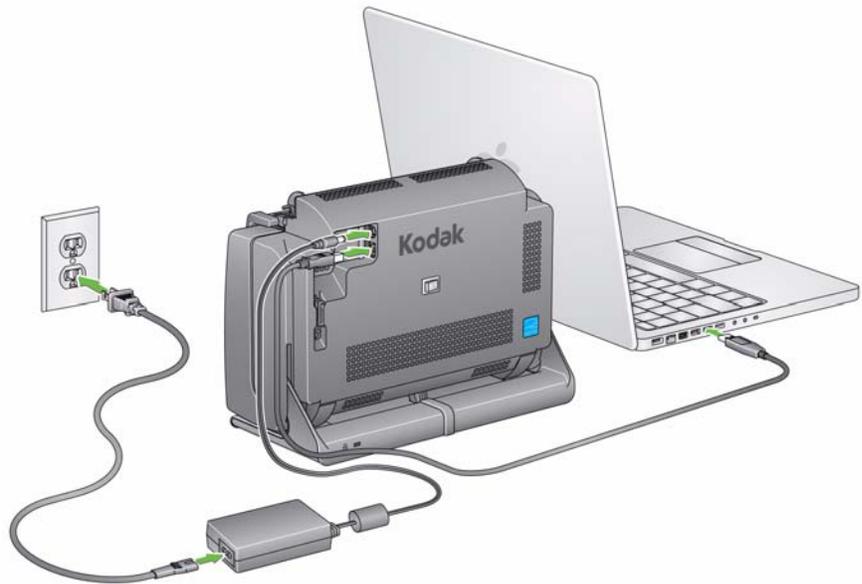
25. Click **File>Save** and close the const_ini file.

2

Connect Scanner

When the software has been installed, connect the power supply, power cord and USB cable to the scanner. Refer to the illustration below for making proper connections. Make sure the power outlet is located within 1.52 metres (5 feet) of the scanner and is easily accessible.

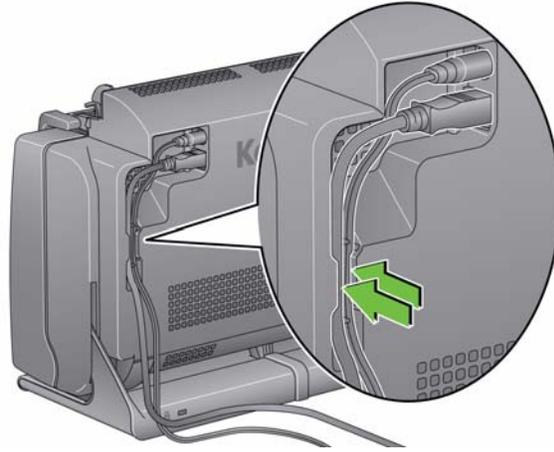
1. Select the appropriate AC power cord from the supply of power cords packed with your scanner.
2. Attach the power cord to the power supply.
NOTE: Be sure that the power cord is securely attached to the power supply.
3. Plug the output power cord from the power supply into the power port on the scanner.
4. Plug the other end of the power cord into the wall outlet.



NOTE: The green LED on the power supply indicates the power is on.

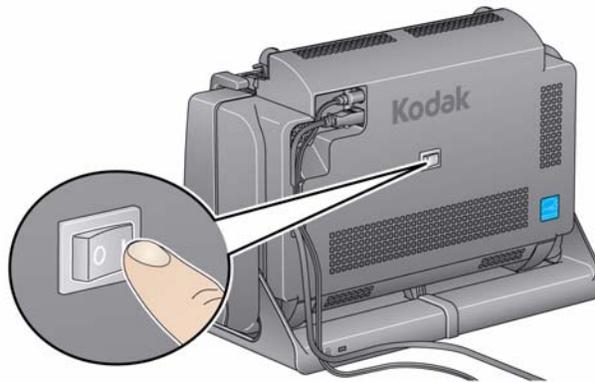
5. Attach the USB cable to the scanner USB port, located on the back of the scanner.
6. Attach the other end of the USB cable to the proper USB port on your computer.

7. Secure the power cord and USB cable into the routing channel on the back of the scanner.



Turning on the scanner

If your scanner has a toggle power switch, momentarily press the toggle button on the back of the scanner to turn the scanner on; otherwise press the button on the back of the scanner to the On (I) position.



When you turn on the scanner, the LED/Start button on the front of the scanner will display 0.

Turning the scanner off

To turn the scanner off, press the toggle button for 1 second or toggle the power switch to 0.

NOTE: The *Power Off* energy saver feature will also turn the scanner off after an extended period of time after the scanner is in power saver mode. The default is 60 minutes for power off and 15 minutes for power saver mode. You can configure this period of time via your scanning application. Valid values are 0-240 minutes.

3

Start Scanning

1. Be sure the scanner is on and ready to scan (LED/Start button will be green and constant).
2. Tilt the scanner.

- **Tilt position:** Use the scanner in this position when scanning. Using both hands, rotate the scanner body away from you. When you tilt the scanner, the output tray will slide out from underneath the scanner.



- **Storage position:** Use this position to store the scanner when not in use. Rotate the scanner toward you.



3. Pull out the document extender on the input tray.
4. Adjust the side guides (by sliding them in or out) to accommodate the size of the photos or documents you are scanning.
5. In Applications, click on the application you want to scan with.

Scanning applications

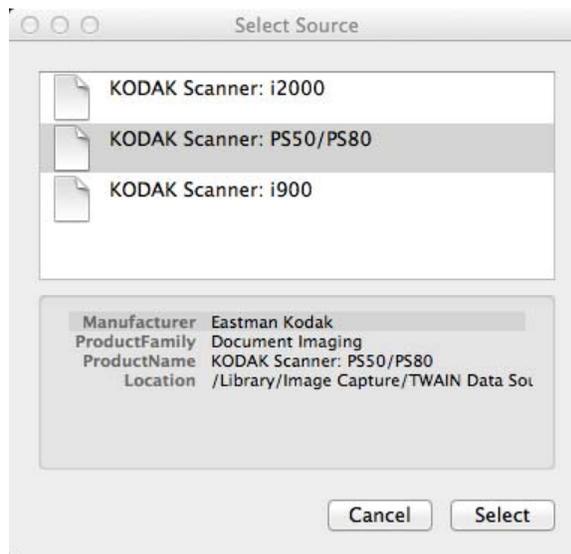
There are no scanning applications included with the PS50/PS80 Macintosh driver.

Making your first scan with the TWAIN Datasource

1. Insert a standard size photo into the input tray. Be sure the front side of the photo is positioned against the input tray and the top of the photo is inserted into the input tray first.

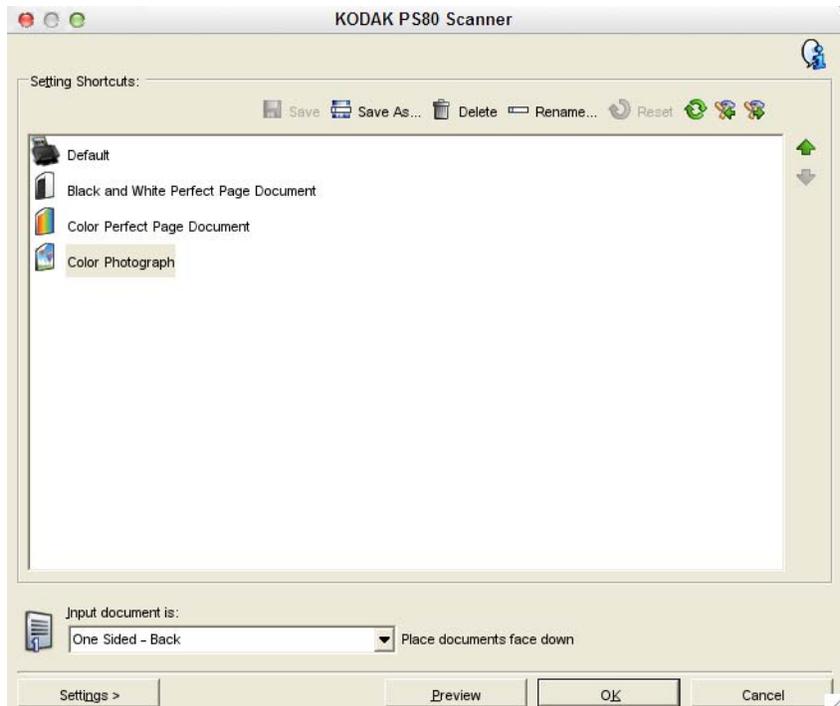


2. Open the TWAIN Datasource and select **KODAK Scanner PS50/PS80**.

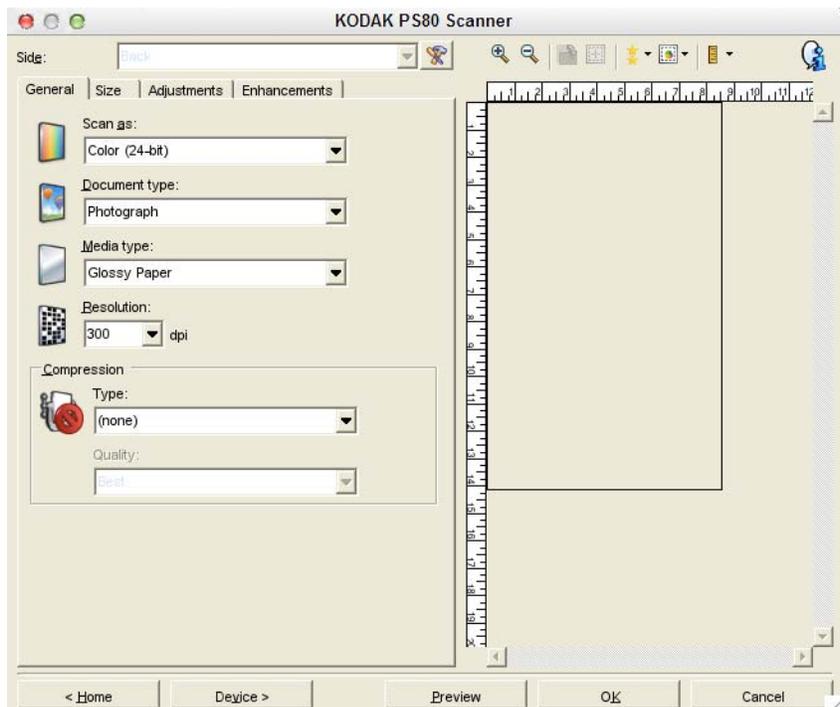


3. Verify your scan settings by accessing **Manage Profile**.

4. Select **Color Photographs** on the main Setting Shortcuts screen.

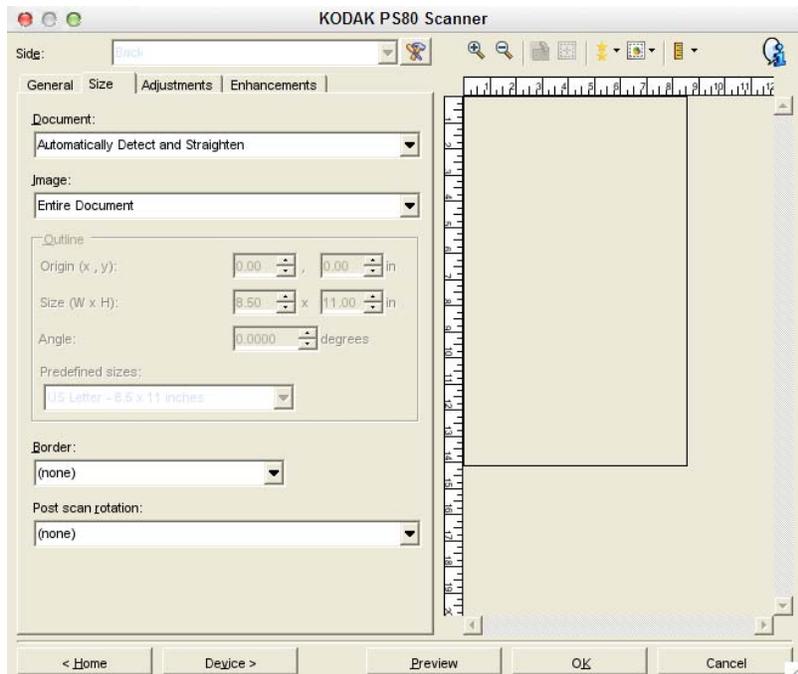


5. Verify the following settings on the General tab:



Scan as: Color (24-bit)
Document type: Photograph
Media type: Glossy Paper
Resolution: 300
Compression - Type: (none)

6. Verify the following settings on the Size tab:



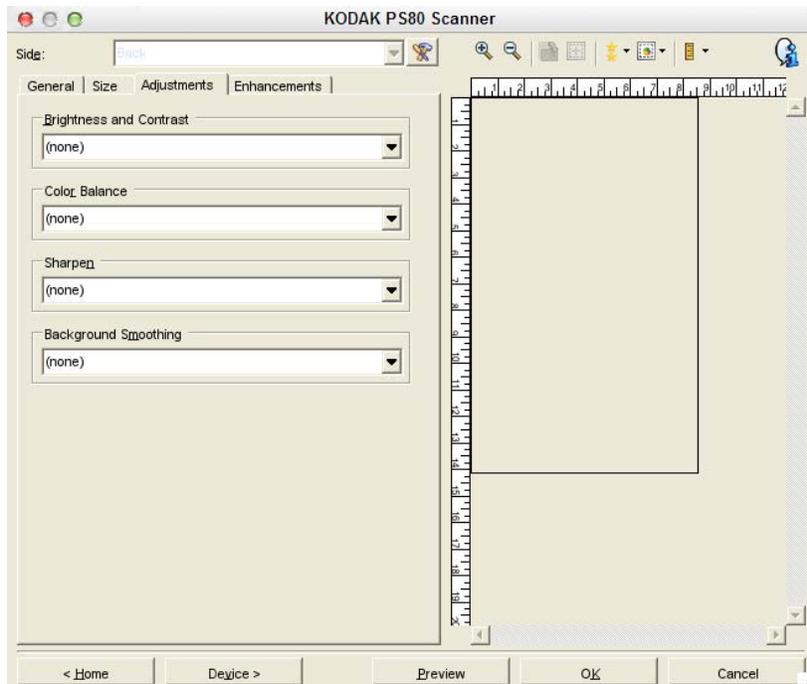
Document: Automatically Detect and Straighten

Image: Entire Document

Border: (none)

Post scan rotation: (none)

7. Verify the following settings on the Adjustments tab:



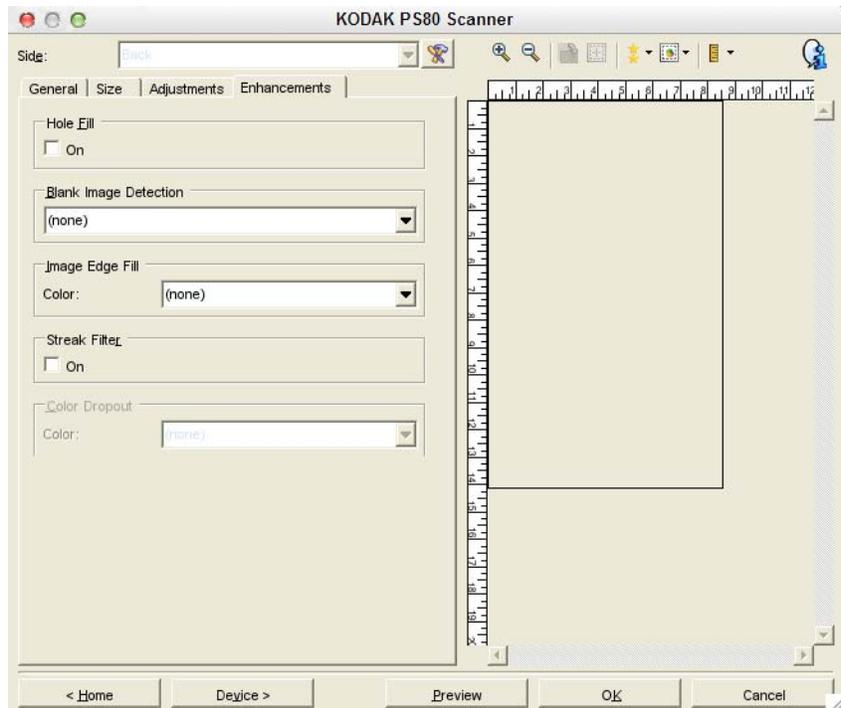
Brightness and Contrast: (none)

Color Balance: (none)

Sharpen: (none)

Background Smoothing: (none)

8. Verify the following settings on the Enhancements tab:



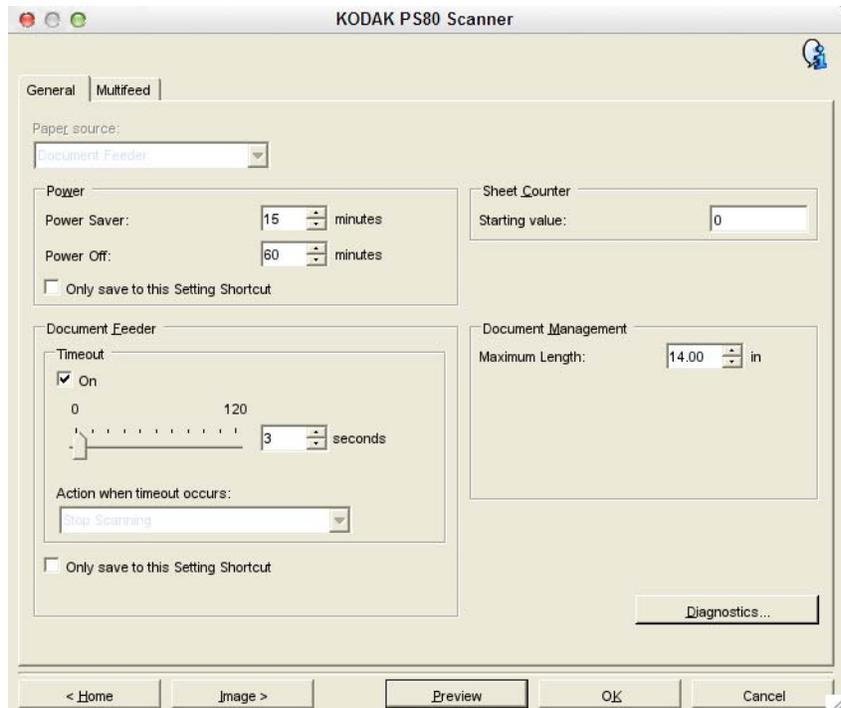
Hole Fill: not checked

Blank Image Detection: (none)

Image Edge Fill: Color. (none)

Streak Filter: not checked

9. Click the **Device** button to display the Device settings. On the General tab, verify the following settings:



Power Saver: 15 minutes

Power Off: 60 minutes

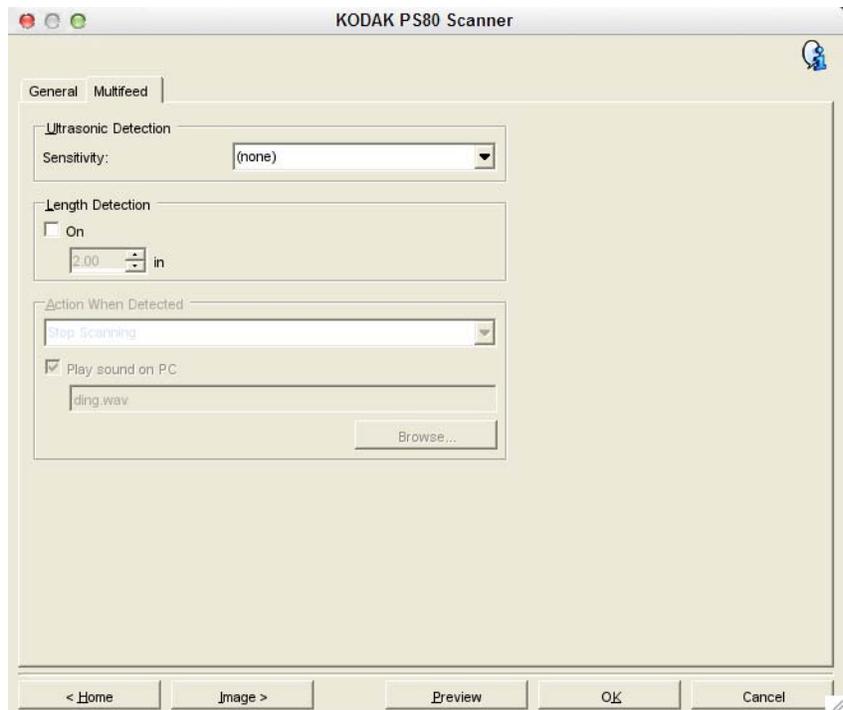
Document Feeder: On (checked); 3 seconds

Only save to this Setting Shortcut: not checked

Sheet Counter: Starting value: 0

Document Management: Maximum Length: 14.00 in.

10. Verify the following settings on the Multifeed tab:



Ultrasonic Detection: Sensitivity: (none)

Length Detection: not checked

When you acquire image data, the scanner will first connect to the application, then when the LED on the scanner is green, scanning will start. Follow the procedures from your application for scanning.

3 Scanning Features

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Using the scanning features

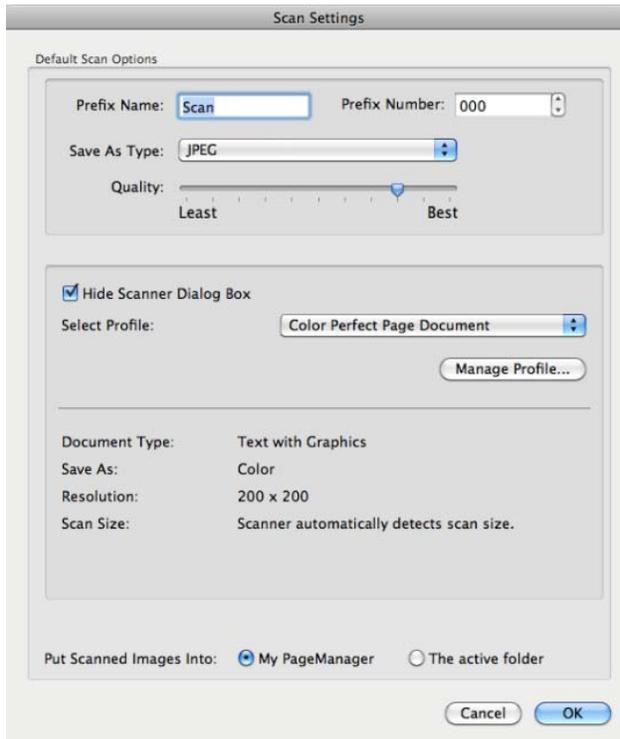
The *Kodak Picture Save Scanning System PS50/PS80 Scanner* can provide a wide variety of electronic images. This can be done by using the scanning features Kodak provides in concert with your scanning application. The scanning features are part of the capture system which links the scanner to your scanning application.

When using the scanning features, the main Scanner window will display a list of Setting Shortcuts. Each Setting Shortcut is a group of specific image and device settings. The supplied Setting Shortcuts represent some common electronic image outputs used for a wide variety of input documents. If none of the Setting Shortcuts meet your scanning needs, you can create a customized Setting Shortcut. For example, you could create a Setting Shortcut called “Black and White photos” and whenever you want to scan black and white photos, you simply select that Setting Shortcut.

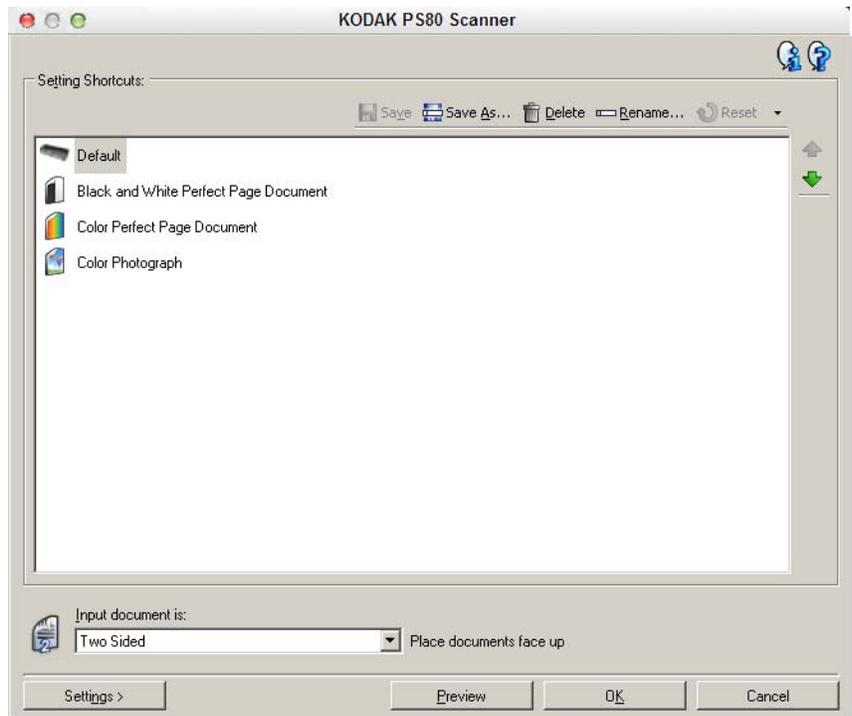
How do I begin?

The goal is to make scanning as simple as possible. This is accomplished by opening your application and selecting Scan settings.

1. Click **File>Scan Settings** to display the Scan Settings screen



2. Change any of the settings displayed on this window or you can click on **Manage Profile** to display the Setting Shortcuts where you can make any additional changes (e.g., resolution).



The scanner comes with some Setting Shortcuts already defined. If you find that you need different settings, you can create your own Setting Shortcut. Your shortcut will be added to the list of Setting Shortcuts and available for all future scanning.

Most of the options you will want are available on these two windows:

- **Image** Settings: clicking the Settings button on the main Scanner window, displays the Image Settings window. From this window you can set your image processing parameters by using the General, Size, Adjustments and Enhancements tab. You can also access the Device settings by clicking the **Device** button or the Advanced settings by clicking the **Advanced Image Setup** icon.
- **Device** Settings: the Device button is located on the Image Settings window. When you select **Device**, you will have access to the General and Multifeed tabs. From the Device Settings window, you can also access Diagnostics.

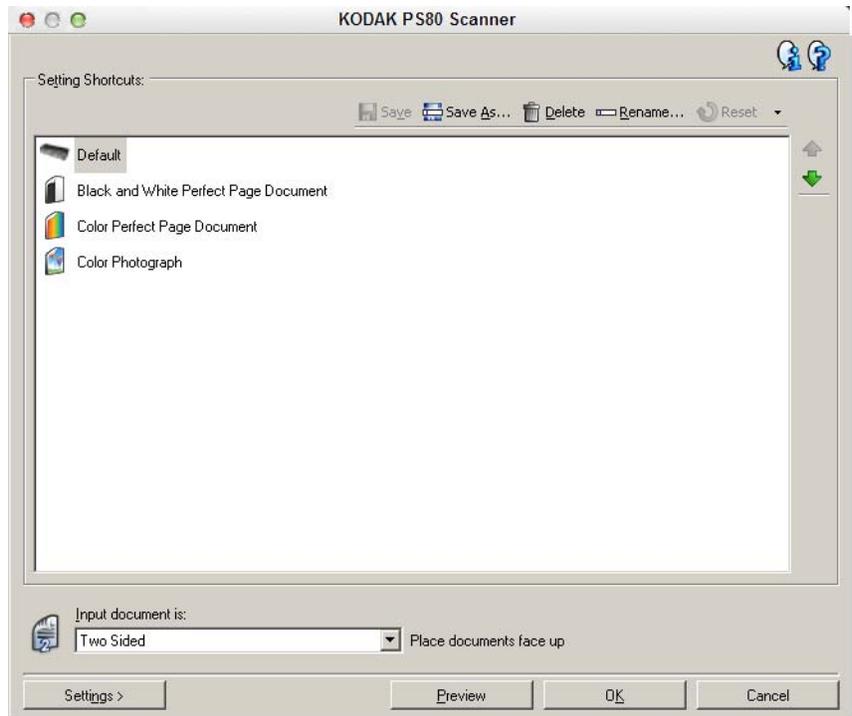
The procedures that follow describe how to configure a customized Setting Shortcut. Complete descriptions of the features and options on the main Scanner window and tabs are found in the section entitled, "The main Scanner window".

NOTE: Setting Shortcuts can sometimes be overridden by your scanning application. If this happens, the Shortcut you select will appear in the main Scanner window in italics with the word *<Changed>* next to it.

When you click **OK** to begin scanning, you will be asked if you want to save the changed settings. When using an application that does not use Setting Shortcuts, select **No** to this prompt and continue scanning.

Selecting Image settings

From the main Scanner window:



1. Select a predefined Setting Shortcut from the Setting Shortcuts list. Choose a Setting Shortcut that describes as closely as possible the image output you desire.

NOTE: **Color photograph** is the best option for scanning photos using the Picture Saver Scanning System PS50/PS80 Scanner.

2. Determine if you want to capture an electronic image of the front of your document or photo, back of your document or photo or both sides of your document or photo and make the selection from the *Input document is* drop-down list. Options are:
 - **Two Sided** — captures both sides of the document or photo
 - **One Sided-Front** — captures the front side only
 - **One Sided-Back** — captures the back side only
3. Place one or two representative photos in the input tray of the scanner.
4. If you want to see what your selected image processing options will look like and make on-screen changes, click **Preview** to review and adjust the image.

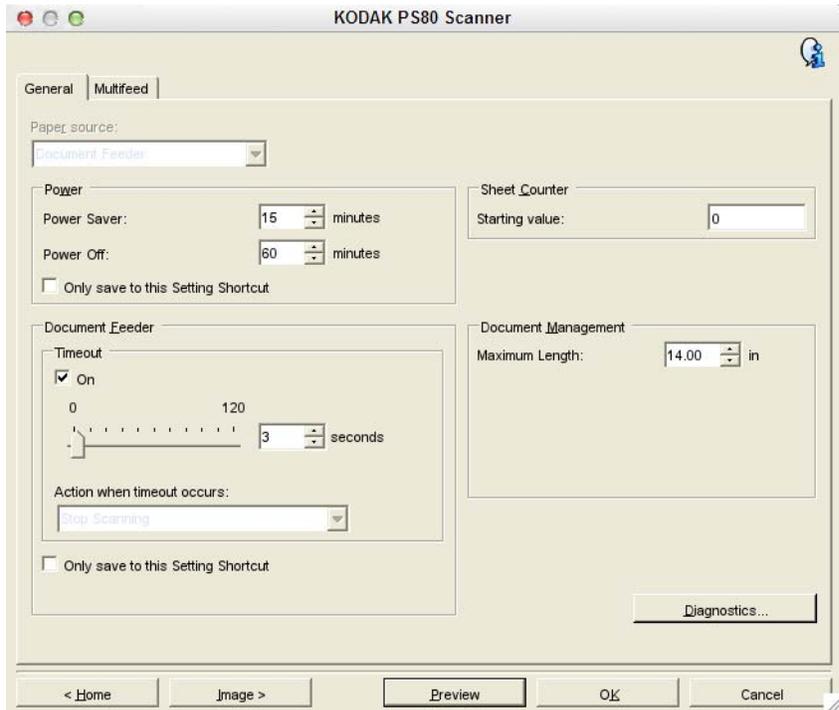
NOTE: This only needs to be done if you want to make interactive adjustments to your selected image processing options.

If you are making interactive adjustments, it is recommended that you preview the image using the highest preview quality.

5. If you are satisfied with your selected image processing options, reload your document or photo if necessary and click **OK/Scan**.
 - If the images are acceptable, the image processing settings are fine and you do not need to click the **Settings** button to alter any values in the General, Size, Adjustments or Enhancements tabs.
 - If the images are not acceptable, you can either select a different predefined Setting Shortcut that more closely describes your desired output or you can continue to work with the Setting Shortcut you have selected by reviewing each setting on the General, Size, Adjustments and Enhancements tabs and make the appropriate changes. When you make any changes, repeat Steps 3 - 5 to until you get the desired results.
6. If you made any changes to a predefined default Setting Shortcut, click **Save As** on the main Scanner window. The Save As dialog box will be displayed.
7. Enter a new Setting Shortcut name that is meaningful to you and click **Save**. You have now created and saved a custom Setting Shortcut which can be used for your scanning operations.

Selecting Device settings

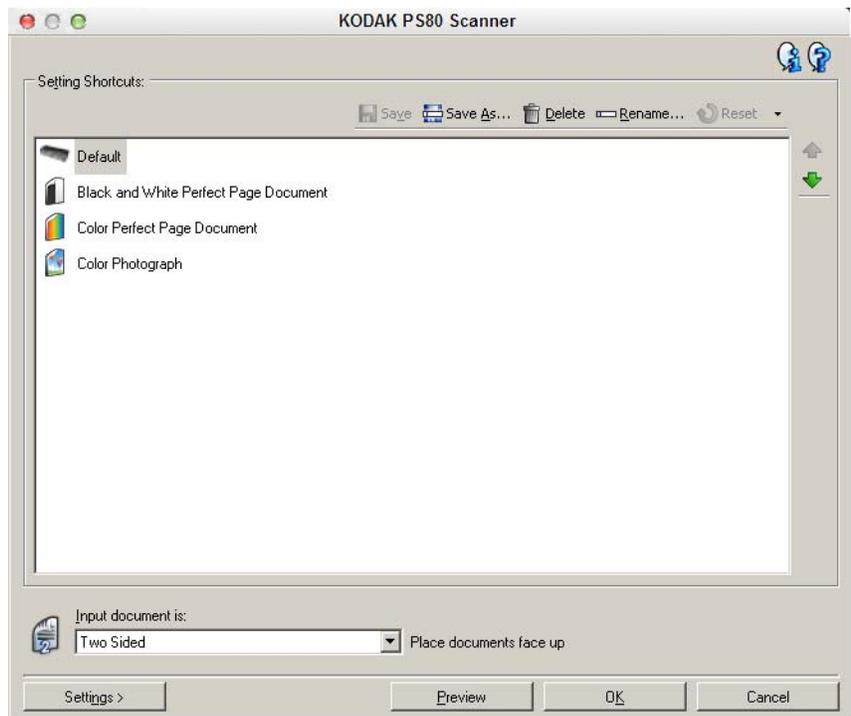
1. Select the Setting Shortcut that you just created.
2. Select **Settings** to access the Image Settings window.
3. Select **Device**. The Device Settings window will be displayed.



4. Before making any adjustments, click through the tabs on the Device Settings window to get familiar with features that are available. See the section entitled, “The Device Settings window” for information about these features.
5. Determine which features you want to use when scanning and select the appropriate tab.
6. On each tab, select the appropriate options or action you want the scanner to perform.
7. When finished:
 - Click **Home** to return to the main Scanner window and click **Save** to save your selections to your custom Setting Shortcut, or
 - Click **Image** to return to the Image Settings window if you need to make additional changes.

The main Scanner window

The main Scanner window is the home window of the scanner's user interface. You can scan by simply selecting a Setting Shortcut and then selecting **OK/Scan**.



Setting Shortcuts — provides a listing of the Setting Shortcuts currently set up. The supplied shortcuts are:

- **Default** — the scanner's default settings
- **Black and White Perfect Page Document**
- **Color Perfect Page Document**
- **Color Photograph** — for use with the Picture Saver Scanning System PS50/PS80 Scanner

NOTES:

- The provided Setting Shortcuts can be deleted. It is highly recommended that you not delete the default profiles.
- If you have made changes to a Setting Shortcut and have not saved your changes, the Setting Shortcut will be appended with the text *<changed>*, and the name will be displayed in italics (e.g., **Default<changed>*).

Input document is — allows you to select which sides of the document or photo has information that you want an electronic image of.

- **Two Sided**: scans the front and back of the document or photo.
- **One Sided - Front**: scans only the front side of the document or photo.
- **One Sided - Back**: scans only the back side of the document or photo.

NOTE: Be sure to place your photo face up in the input tray.

Save — saves any changes made to the current Setting Shortcut. This is only available for shortcuts you have created.

Save As — displays the Save As window allowing you to save your current settings as a new Setting Shortcut.

Delete — deletes the selected Setting Shortcut; you will be prompted for confirmation. This is only available for shortcuts you have created.

Rename — displays the Rename window allowing you to rename a Setting Shortcut. This is only available for shortcuts you have created.

Reset — allows you to undo any changes that have been made to the selected Setting Shortcut. This is only available for shortcuts you have modified (e.g., are in italics and appended with *<changed>*).

Move Up arrow — moves the selected Setting Shortcut up one position in the Setting Shortcut list. When you move a Setting Shortcut, it will stay in that position until you move it again.

Move Down arrow — moves the selected Setting Shortcut down one position in the Setting Shortcut list. When you move a Setting Shortcut, it will stay in that position until you move it again.

Settings — displays the Image Settings window which allows you to make changes to the selected Setting Shortcut. From this window you can also access the Device settings and Diagnostics windows.

Preview — initiates a scan and then displays the Image Settings window with the scanned image placed in the preview area. The image displayed is a sample based on your current shortcut settings.

OK/Scan — when selected, you will be prompted to save any unsaved changes.

NOTE: If this button is **OK**, any unsaved changes will remain in effect for the current scan session.

Cancel — closes the main Scanner window without saving any changes.

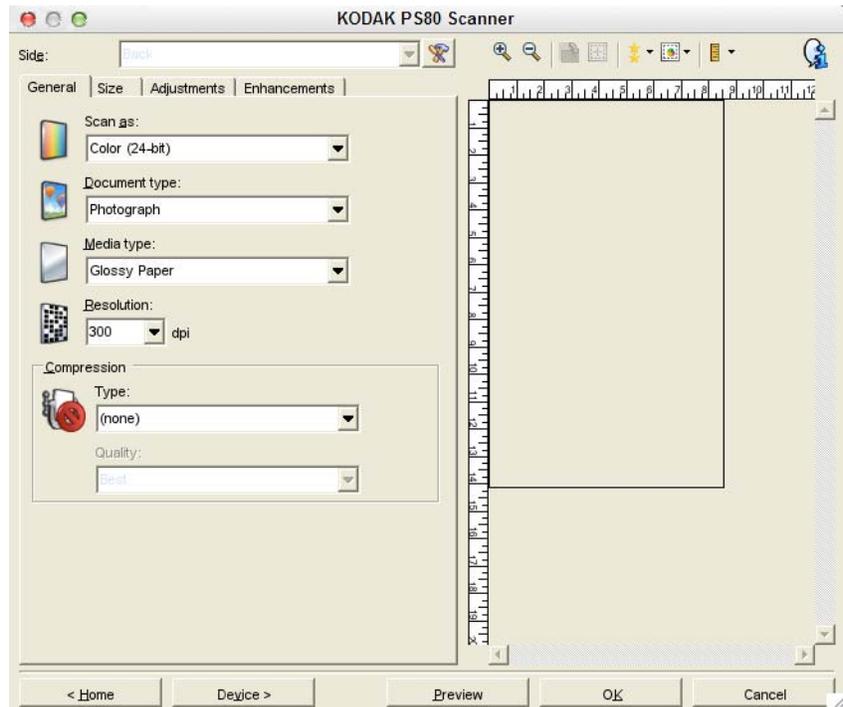
About Icon



Displays the scanners' version and copyright information.

The Image Settings window

From this window you can define image processing options by using the available tabs. The values used in Image Settings are saved in the selected Setting Shortcut. The Image Settings window includes the following tabs: General, Size, Adjustments and Enhancements.



Side — allows you to select which side and image to configure (e.g., Front, Back, Both: Color (24-bit), etc.). All image settings will be applied to the selected image.

NOTE: The *Side* option is only available when advanced settings have been selected on the Advanced tab.



Advanced Image Setup: displays the Advanced tab.

Toolbar buttons

	Zoom In: enlarges the image that is currently being displayed in the preview area.
	Zoom Out: reduces the image that is currently being displayed in the preview area.
	Rotate Outline: rotates the outline 90 degrees. NOTE: This is only available if the rotated outline fits in the scanner's maximum width.
	Center Outline: adjusts the X origin of the outline such that the outline is centered within the scanner's maximum width.
	Preview Quality: selects the quality of the scanned image. <ul style="list-style-type: none"> • Normal: displays acceptable image quality at a lower resolution. • High: displays the most accurate representation of the actual image. The image that is displayed in the preview area is a good representation of what the final image will look like.
	Automatic Preview Updates: allows you to select how the displayed image is updated. <ul style="list-style-type: none"> • On: the displayed image will automatically show the effects of your settings changes, in most cases, without having to rescan the document or photo. If rescan is necessary, you will be prompted to reinsert the document or photo. • Off: the displayed image will not update until another Preview scan is performed.
	Units: selects the unit of measurement for the scanner; this includes the preview area and any size-related options. The Units options are: Inches , Centimeters and Pixels .

Preview area

The preview area displays a sample image that is based on your current shortcut settings. An image will be displayed in this area after a preview scan has been performed.

- **Outline:** If you choose **Document: Manually Select** or **Image: Part of Document** on the Size tab, the preview area will also show the current outline selections. If the outline does not align with your preview image, you may use the mouse to adjust the size and location of the outline. As the mouse cursor moves around the outline, the cursor will change indicating that you can adjust the outline by pressing and holding the left mouse button.
 - **Move:** place the mouse cursor within the outline to adjust the location of the outline.
 - **Corner:** place the mouse cursor over one of the corner graphics to adjust two sides at the same time.
 - **Side:** place the mouse cursor over one of the side graphics to adjust that side.
 - **Rotate:** place the mouse cursor over the rotate graphic to adjust the angle of the outline.

Home — returns you to the main Scanner window.

Device — displays the Device Settings window.

Preview — initiates a scan and places the image in the preview area. The image displayed is a sample based on your current shortcut settings.

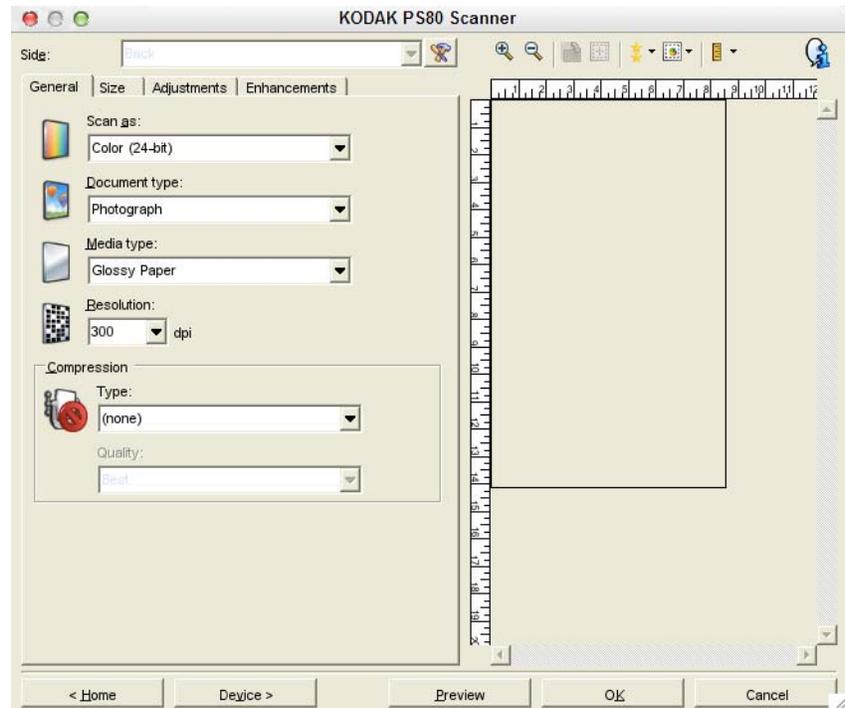
OK/Scan — when selected, you will be prompted to save any unsaved changes.

NOTE: If this button is **OK**, any unsaved changes will remain in effect for the current scan session.

Cancel — closes the main Scanner window without saving any changes.

General tab

The General tab contains the commonly used image options. In most cases, you will not have to change options on other tabs.



Scan as — allows you to select the electronic image format.

- **Color (24-bit):** produces a color version of your document or photo.
- **Grayscale (8-bit):** produces a grayscale version of your document or photo.
- **Black and white (1-bit):** produces a black and white version of your document or photo.

NOTE: The *Scan as* option is only available when **Images per Side: One** is selected on the Advanced tab.

Document type — allows you to select the type of content on your documents or photos.

- **Text with Graphics:** the documents contain a mix of text, business graphics (bar graphs, pie charts, etc.) and line art.
- **Text:** the documents contain mostly text.
- **Photographs:** the documents contain mostly photographs.

Media type — allows you to select the type of paper you are scanning based on the texture/weight. The options are: **Plain Paper, Thin Paper, Glossy Paper, Card Stock** and **Magazine**.

Resolution or dots per inch (dpi) — allows you to select the desired resolution, which is a determinant of a better quality image. Higher resolutions may also increase scanning time and image size. The resolutions are: 100, 150, 200, 240, 250, 300, 400, 600 and 1200 dpi.

Compression — allows you to reduce your electronic image size.

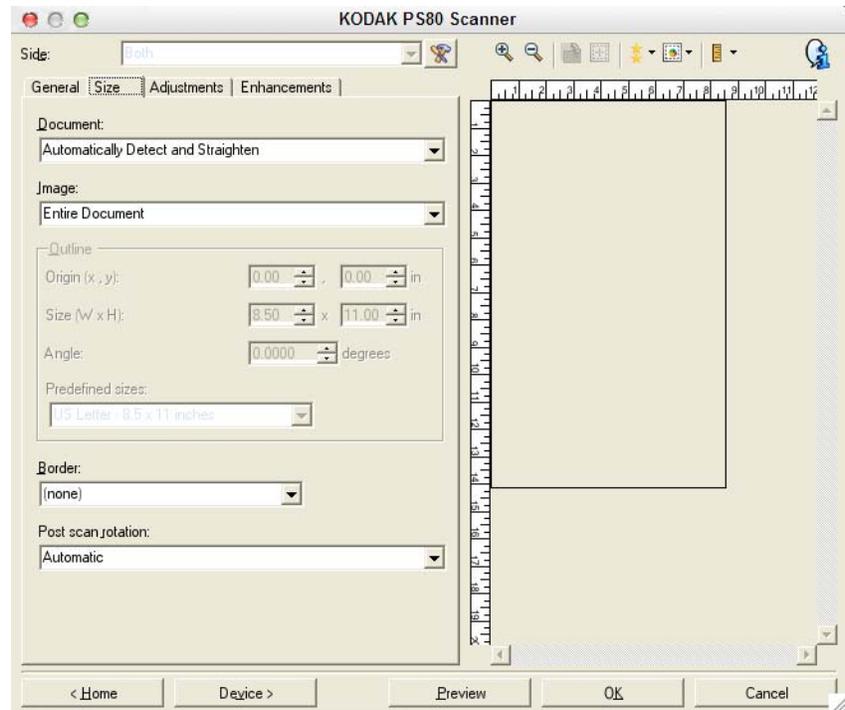
- **Type:** the scanner will produce a color version of your document.
 - **(none):** no compression, which may produce a large image size.
 - **Group-4:** uses a CCITT standard to compress a black and white image, often used in conjunction with TIFF files.
 - **JPEG:** uses JPEG techniques to compress a color/grayscale image.

NOTE: The Group-4 and JPEG options are only available for
Scan as: **Black and White (1-bit)**.

- **Quality** — if you choose JPEG compression, select one of the quality options:
 - **Draft:** maximum compression which produces the smallest image size.
 - **Good:** a fair amount of compression but still produces acceptable image quality.
 - **Better:** some compression which produces decent image quality.
 - **Best:** minimal compression which produces very good image quality.
 - **Superior:** the least amount of compression which produces the largest image size.

Size tab

The Size tab allows you to define values relating to the image output (e.g., cropping values, paper size, etc.).



Document — allows you to select how the scanner will detect your document or photo as it is being fed through the scanner.

- **Automatically Detect and Straighten:** the scanner will automatically find each document or photo (regardless of size) and will straighten any document or photo that may have been fed crooked.
- **Automatically Detect:** the scanner will automatically find each document or photo (regardless of size). If a document or photo is fed crooked, it will not be straightened.
- **Manually Select:** the scanner will return an image based on the area you specify with the Outline options. It is suggested that you only use this option for scan jobs that contain same-size documents or photos.

Image — allows you to select which part of the document or photo you want to use for creating your electronic image.

- **Entire Document:** if you select **Document: Automatically Detect and Straighten**, **Document: Automatically Detect** or **Document: Manually Select**, the entire document or photo will be returned.
- **Part of Document:** if you select **Document: Automatically Detect and Straighten**, returns the portion of the document or photo which you specify with the *Outline* options.

Outline — allows you to select the location and size to use for creating your electronic image. The preview area will show the outline.

- **Origin (x, y):**

- if you select **Document: Automatically Detect and Straighten**, (x) is the distance from the left edge of the document or photo and (y) is the distance from the top edge of the document or photo.
- if you select **Document: Manually Select**, (x) is the distance from the left edge of the scanner's paper path and (y) is the distance from the first portion of the document or photo detected by the scanner.

- **Size (w, h):** if you select **Document: Automatically Detect and Straighten** or **Document: Manually Select**, this is the width and height of the electronic image.

NOTE: The electronic image may be shorter than you specified if the outline goes beyond the end of the scanned document or photo.

- **Angle:** allows you to select the angle of the outline.
- **Predefined sizes:** provides a list of commonly used paper sizes. Selecting an item in this list will automatically set the size of the outline to that paper's size. **Custom** will be displayed when the outline size does not match any sizes in the list.

NOTE: You can also adjust the outline displayed in the preview area using your mouse.

Border — allows you to select what action to perform on the edges of your electronic image.

- **(none)**
- **Add:** includes up to approximately 0.1 inches of border around all of the image edges.

NOTE: This option is not available when both **Document: Automatically Detect and Straighten** and **Image: Part of Document** are selected.

- **Remove:** produces an image that contains just the document by eliminating any residual border. Residual border can be used by variations in a document edge; for example, when a document is not a perfect rectangle and/or was fed crooked.

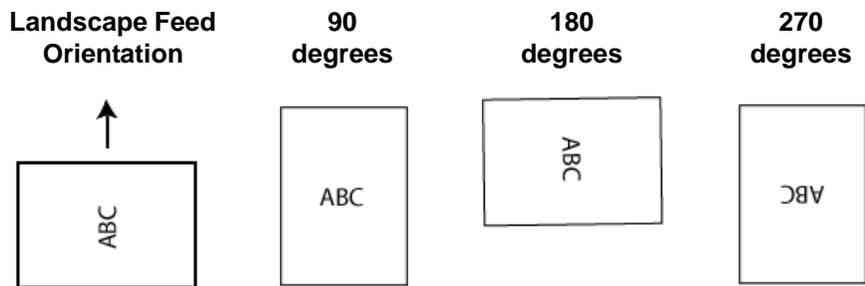
NOTES:

- While this option will not remove large amounts of residual border, there is a possibility that a small amount of the document will be lost.
- This option is only available when both **Document: Automatically Detect and Straighten** and **Image: Entire Document** are selected.

Post-scan rotation options — allows you to select any rotation to be applied to the electronic image after it has been scanned.

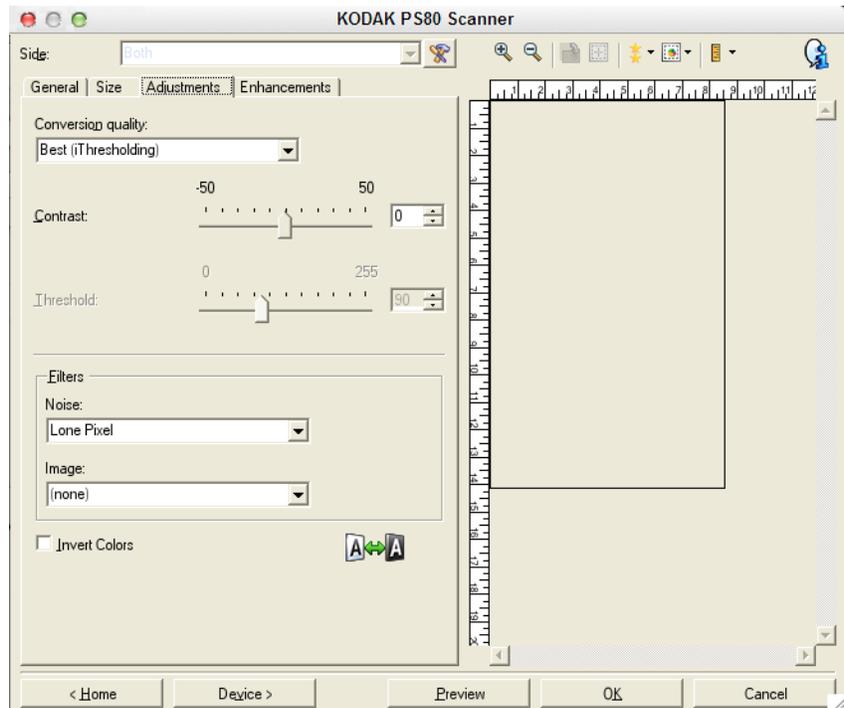
- **(none)**
- **Automatic** — the scanner will analyze each document or photo to determine how it was fed and will rotate the image to the proper orientation.
- **90, 180, 270 degrees** — the amount of rotation that will be performed.

The following example shows how these settings effect a document or photo that was fed landscape:



Adjustments tab: black and white

The options available on the Adjustments tab depend on the *Scan as* selection on the General tab. The following options are based on a *Scan as* selection of **Black and White (1-bit)**.



Conversion quality — these settings effect how the scanner analyzes a grayscale version of the document or photo which is used to produce the black and white electronic image.

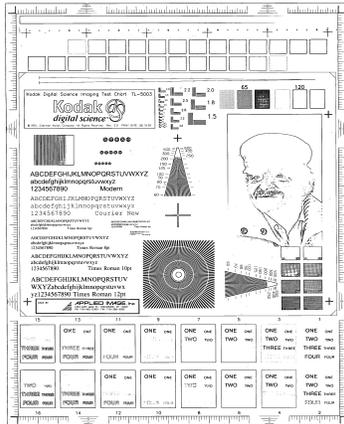
- **Best (iThresholding):** the scanner analyzes each document or photo to produce the highest quality image. This option allows scanning of mixed documents or photos with varying quality (e.g., faint text, shaded backgrounds, color backgrounds) and when scanning with consistent document or photo sets.
- **Normal (ATP):** allows you to determine the optimal settings to produce the desired image quality. This option works best when scanning with consistent document or photo sets. You may also want to use this option if you have difficult documents or photos such that you cannot find a Contrast setting for *Best* that produces the desired quality.
- **Draft (Fixed):** allows you to select the grayscale threshold used to determine if a pixel is black or white. This option works best for high contrast documents or photos.

Contrast — allows you to make an image sharper or softer. Decreasing this setting will make the image softer and reduce noise in the image. Increasing this setting will make the image clearer and make light information more visible. The options range from **-50** to **50**. The default is 0.

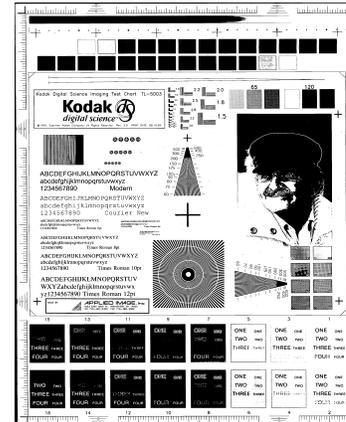
NOTE: This is not available for *Conversion quality: Best* and *Conversion quality: Normal*.

Threshold — aids in controlling the level at which a pixel is considered black or white. Decreasing this setting will make the image appear lighter, and can be used to subdue background noise. Increasing this setting will make the image appear darker, and can be used to help pick up light information. The options range from 0 to 255. The default is 90.

NOTE: This is not available for *Conversion quality: Best* and *Conversion quality: Normal*.



Threshold: 50



Threshold: 127

Filters

- **Noise**

- (none)
- **Lone Pixel:** reduces random noise by converting a single black pixel to white when it is completely surrounded by white pixels or by converting a single white pixel to black when it is completely surrounded by black pixels.
- **Majority Rule:** sets each pixel based on its surrounding pixels. The pixel will become white if the majority of the surrounding pixels are white and visa versa.

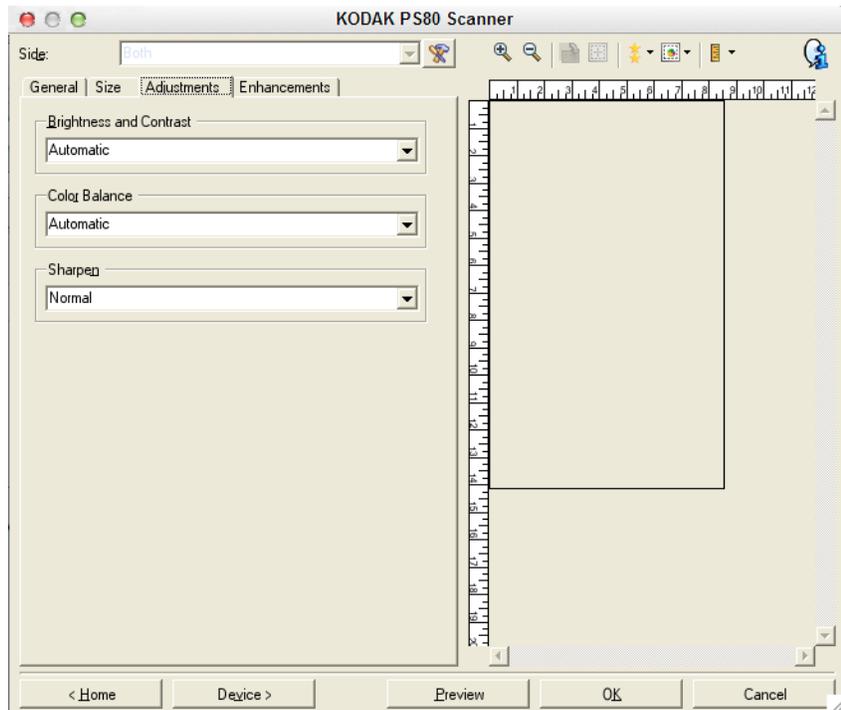
- **Image**

- (none)
- **Halftone Removal:** enhances dot matrix text and images with halftone screens (e.g., newspaper photographs).

Invert Colors — allows you to select how the black pixels will be stored in the image. By default the black pixels are stored as black and the white pixels are stored as white. Turn this option on if you want the black pixels stored as white and the white pixels stored as black.

Adjustments tab: color or grayscale

The options available on the Adjustments tab depend on the *Scan as* selection on the General tab. The following options are based on a *Scan as* selection of **Color** or **Grayscale**.



Brightness and Contrast

- (none)
- **Manual:** allows you to set specific values that will be used for all images.
 - **Brightness** — changes the amount of white in the color or grayscale image. The values range from **-50** to **50**. The default is 0.
 - **Contrast** — makes the image sharper or softer. The values range from **-50** to **50**. The default is 0.

Color Balance *(not available for grayscale images).*

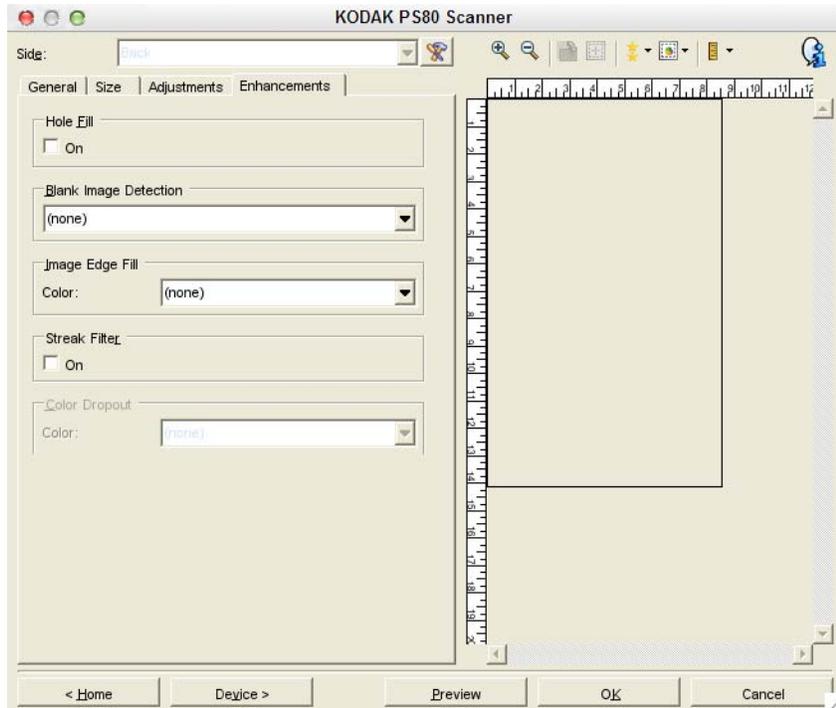
- **(none)**
- **Automatic:** adjusts the white background of each document to pure white. This option compensates for the variations that occur between different weights and brands of paper. **This is not recommended for use with photographs.**
- **Automatic - advanced:** for advanced users that want to further adjust the **Automatic** option.
 - **Aggressiveness** - allows you to adjust the extent of the variation. Increasing this value can help with documents that have yellowed due to age. The values range from -2 to 2.
- **Manual:** allows you to set specific values that will be used for all images.
 - **Red** — changes the amount of red in the color image. The values range from **-50** to **50**. The default is 0.
 - **Green** — changes the amount of green in the color image. The values range from **-50** to **50**. The default is 0.
 - **Blue** — changes the amount of blue in the color image. The values range from **-50** to **50**. The default is 0.

Sharpen — increases the contrast of edges within the image. Options are: **Normal**, **High** and **Exaggerated**.

Enhancements tab

The options on the Enhancements tab depend on the *Scan as* selection on the General tab.

NOTE: Most options have additional settings. Those settings will only be visible when the option is turned on. If all settings do not fit on the screen, a scroll bar will appear giving you access to all settings.



Blank Image Detection — allows you to configure the scanner to not give blank images to the scanning application.

- **(none)**: all images are given to the scanning application.
- **Based on Document Content**: images will be considered blank based on the document content within the image.
 - **Content amount**: allows you to select the maximum amount of content that the scanner will consider to be blank. Any image that has more content than this value will be considered non-blank and will be given to the scanning application. The values range from 0 to 100 percent.
 -  : Content amount will be filled in with the amount of content in the preview image. If you have a representative blank document (e.g. blank sheet with letter head), this can be used to assist with determining the setting for Content amount (i.e. perform a preview scan, click this button, and adjust Content amount as appropriate).

NOTE: This option is only available when there is a preview image.

- **Based on Size:** images will be considered blank based on the size of the image that would be given to the scanning application (e.g., after all other settings have been applied).
 - **Final image size:** allows you to select the minimum image size that the scanner will consider to be non-blank. Any image that is less than this value will be considered blank and will not be given to the scanning application. The values range from **1** to **1000** KB (1 KB equals 1024 bytes).

Image Edge Fill — fills the edges of the final electronic image by covering the area with the specified color.

- **Color:** allows you to select the color to fill the edges with.
 - (none)
 - White
 - Black
- **All sides match:** when turned on, an equal amount will be filled in on all sides.
- **Top:** determines how much of the top edge will be filled in.
- **Left/Right:** the option on the left will determine how much of the left edge will be filled in and the option on the right will determine how much of the right edge will be filled in.
- **Bottom:** determines how much of the bottom edge will be filled in.

NOTES:

- The **Top**, **Left/Right** and **Bottom** options are not available when *All sides match* is turned on.
- When using **Image Edge Fill**, be careful not to enter a value too large as it could fill in image data that you want to keep.
- This option is not applied to the preview image.

Color Dropout — used to eliminate a form's background so that only the entered data is included in the electronic image (i.e., remove the form's lines and boxes). For black and white images, these settings effect the grayscale version of the document which the scanner analyzes to produce that electronic image.

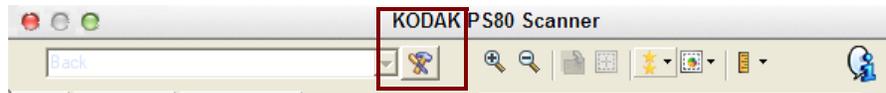
- **Color:** select the desired dropout color.
 - (none)
 - Red
 - Green
 - Blue

The Color Dropout options are only available when the *Scan as* selection is **Black and White** or **Grayscale**.

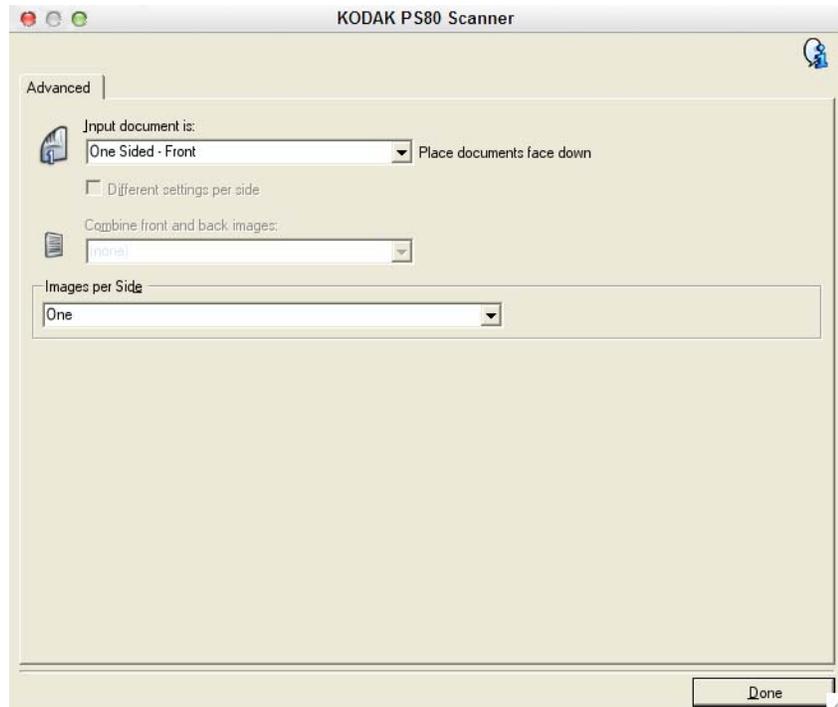
Advanced Image Setup

Advanced tab

The Advanced Image Setup icon is located at the top of the Image Settings window next to the *Side* drop-down box.



When you select the Advanced Image Setup icon, the Advanced tab will be displayed.

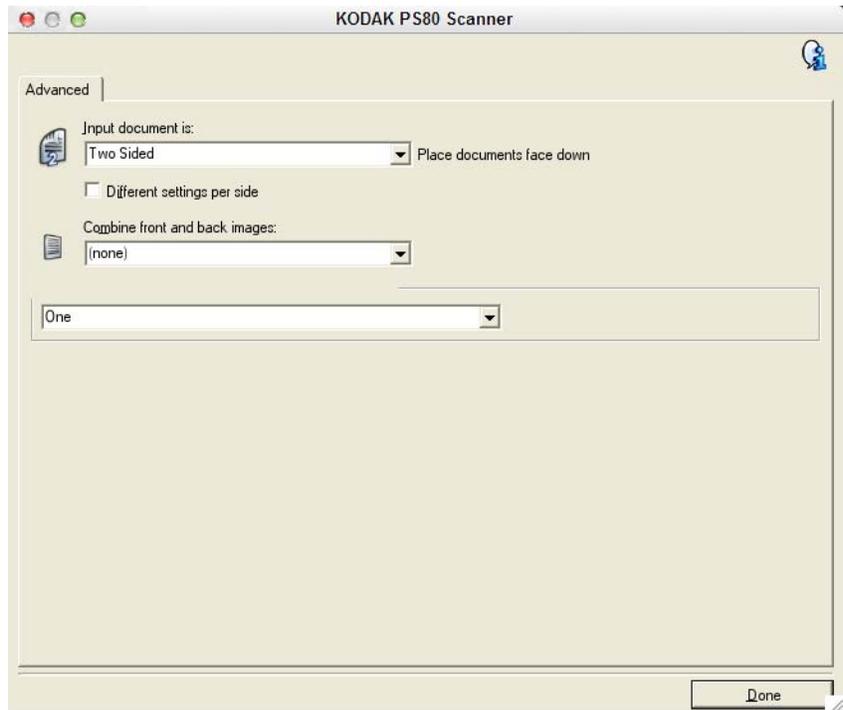


Input document is — select **Two Sided**, **One sided - Front** or **One sided - Back** depending on what side(s) you want to configure.

Different settings per side — by default, the settings you select apply to both sides of the image. Turn this option on if you want to select different image processing settings for each side of the document or photo you are scanning. For example, if you want the front side to be color and the rear side to be black and white, first make sure that you have selected the **Two Sided** option from the *Input Document is* drop-down list, then select the *Different Settings per side* checkbox.

Once you have done this, the *Side* drop-down list on the Image Settings window will no longer be grayed out and you can select different settings for each side. Now that you have enabled **Different settings per side**, your initial selections will apply only to the front side of the document or photo you are scanning.

After you have made your selections for the front side, use the *Side* drop-down list to select the back side and then make the settings you want to apply to the back.



Combine front and back images — typically, for a document or photo, one image is created for the front side and another image is created for the back side. Turn this option on if you want one image that contains both the front side and back side of the document or photo. The selections are:

Front

Back

Back

Front

Front on Top: front side will be above the back side within the image.

Front on Bottom: back side will be above the front side within the image.

Front

Back

Back

Front

Front on Left: front side will be to the left of the back side within the image.

Front on Right: back side will be to the left the front side within the image.

NOTE: This option is only available when *Input document is* is set to **Two Sided**, *Different settings per side* is turned **off** and *Images per side* is set to **One**; and the document or photo is scanned from the document feeder.

Images per side — indicates how many images the scanner will create for a side, based on your imaging selections.

- **One:** indicates you want the scanner to create one image.
- **Multiple:** indicates you want the scanner to create more than one image.

Images to Configure — indicates which electronic images you need to configure.

NOTE: This is only available if you select anything other than **One** from the *Images per side* option. For procedures on how to configure advanced options, see these sections:

- *Creating multiple images for each side of a photo, Example 1.*
- *Creating different settings for each side of a photo, Example 2.*

When available, use the up and down arrows to select the order the images will be delivered by the scanner to the scanning application.

Toolbar buttons



Add: adds an image type to the bottom of the configuration list.



Change: allows you to change the currently selected image type.



Delete: removes the selected image type.

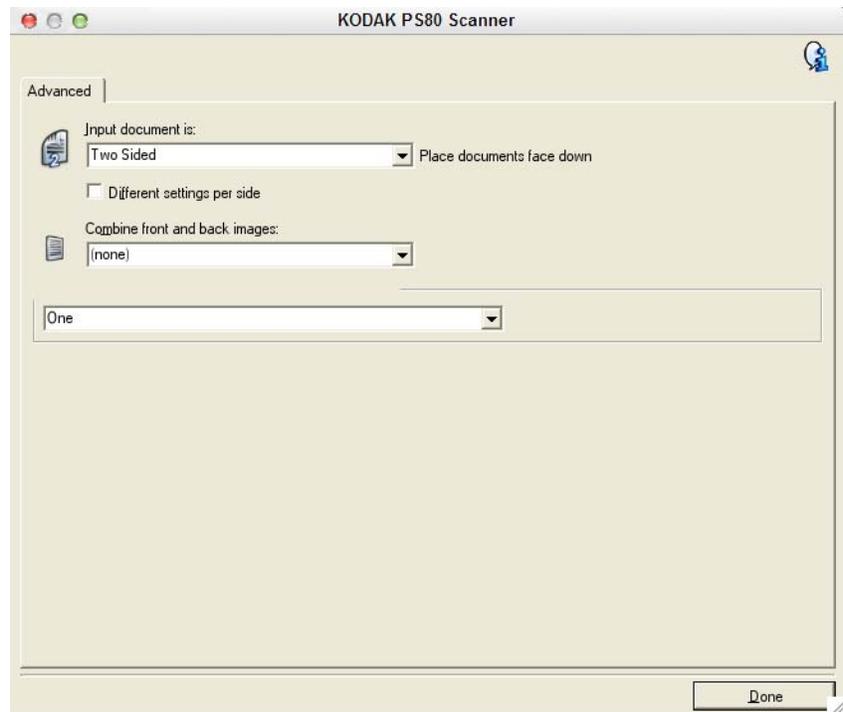
Done — returns you to the Image Settings window.

Creating multiple images for each side of a photo, Example 1

In this example, let's assume you want to configure a scan session that has photos with information on both sides and you want the scanner to produce both a color and a black and white image for each side of each photo.

1. Select a **Setting Shortcut** from the main Scanner window that closely describes your desired output.
2. Select **Settings** to display the Image Settings window.
3. Select the **Advanced Image Setup** icon on the Image Settings window to display the Advanced tab.
4. Select **Input document is: Two Sided**.
5. Select **Images per side: Multiple**.

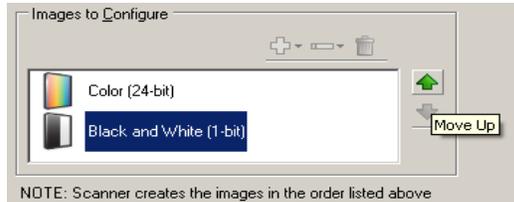
NOTE: The *Images to Configure* area will now be displayed on the Advanced tab and will contain a color image item and a black and white image item.



6. If you want a grayscale image instead of a color image, when enough color is detected in the photo:
 - make sure *Color (24-bit)* is selected
 - select **Change** to display a list of options
 - select **Grayscale**

7. By default the scanner will produce the first image listed (black and white in this example) and deliver it to the scanning application, then it will produce and deliver the second image listed (color/grayscale in this example). If you want the color/grayscale image to be produced and delivered first:

- make sure *Color (24-bit)* is selected
- select **Move up** to place the color/grayscale image first in the list.



8. Select **Done** to return to the Image Settings window.

NOTE: You will notice that the *Side* option now has two entries:
Both: Color (24-bit) and **Both: Black and White (1-bit)**.



9. Select **Sides: Both: Color (24-bit)**.

NOTE: Make any other adjustments to the color image settings on the rest of the tabs on the Image Settings window.

10. Select **Sides: Both: Black and White (1-bit)**.

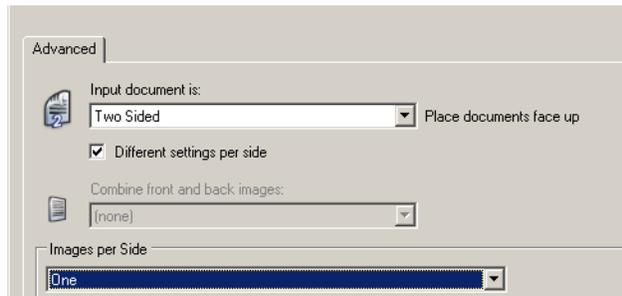
NOTE: Make any other adjustments to the black and white image settings on the rest of the tabs on the Image Settings window.

11. When finished, select **Home** to return to the main Scanner window and then select **Save** to save your selections to the shortcut.

Creating different settings for each side of a photo, Example 2

In this example, let's assume you want to scan the front and back of a photo.

1. If you are not already on the Advanced tab:
 - Select a **Setting Shortcut** from the main Scanner window that closely describes your desired output.
 - Select **Settings** to display the Image Settings window.
 - Select the **Advanced Image Setup** icon on the Image Settings window to display the Advanced tab.
2. Select **Input document is: Two Sided**.
3. Turn on the **Different settings per side** option.
4. Select **Images per side: One**.



5. Select **Done** to return to the Image Settings window.

NOTE: You will notice that the *Side* option now has two entries: **Front** and **Back**.



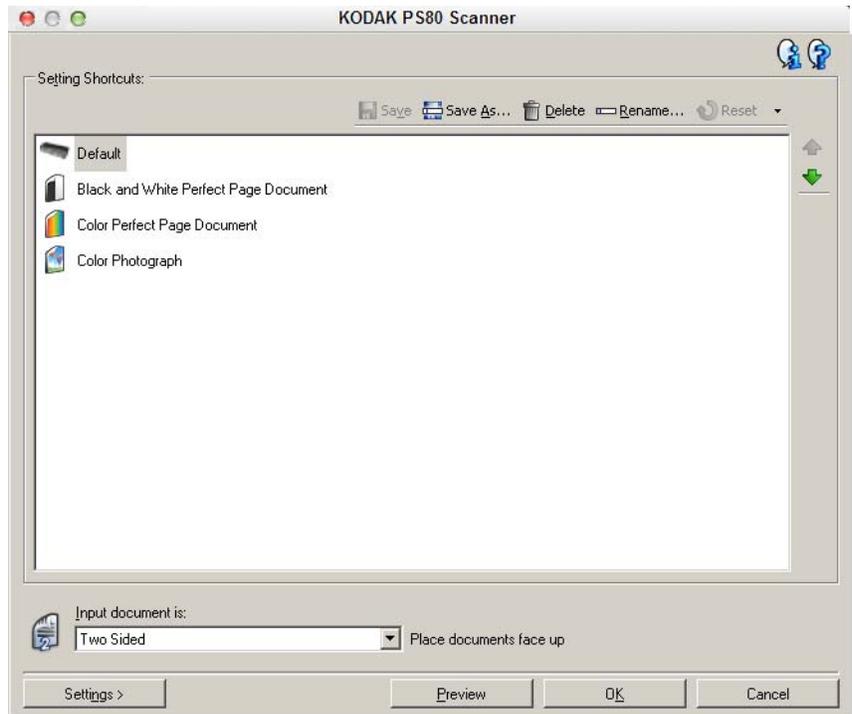
6. Select **Sides: Back**.
7. Select **Color (24-bit)** for the *Scan as* option on the General tab.

NOTE: Make any other adjustments to the front side settings on the rest of the tabs on the Image Settings window.
8. Select **Sides: Front**.
9. Select **Black and White (1-bit)** for the *Scan as* option on the General tab.

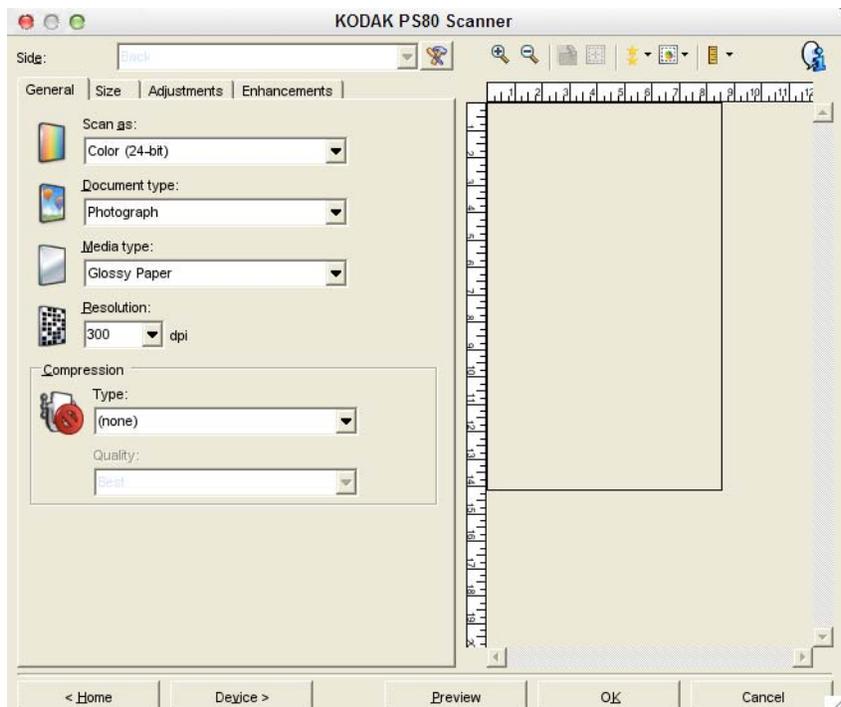
NOTE: Make any other adjustments to the back side settings on the rest of the tabs on the Image Settings window.
10. When finished, select **Home** to return to the main Scanner window and then select **Save** to save your selections to the shortcut.

Creating a new Setting Shortcut

1. From the main Scanner window, select a Setting Shortcut from the list. It is recommended that you select a shortcut that most closely describes the desired image output.



2. Determine if you want to capture an electronic image of the front of your document or photo, back of your document or photo or both sides of your document or photo and make the selection from the *Input document is* field.
3. Select **Settings** on the main Scanner window. The General tab of the Image Settings window will be displayed.



4. Select the appropriate options on the General tab.

NOTE: If necessary, review each setting on the other tabs and make any changes.

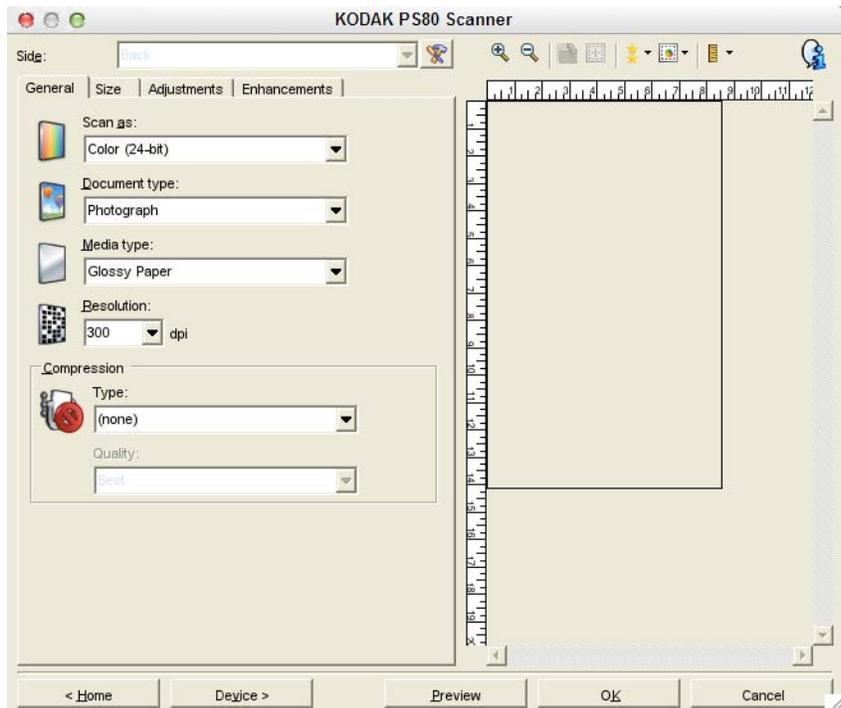
5. Place one representative document or photo in the input tray of the scanner.
6. Select **Preview** to review the resulting image.

NOTES:

- If the images are not acceptable, you can either select a different predefined Setting Shortcut or make additional changes on the rest of the tabs on the Image Settings window.
 - If you are making interactive adjustments, it is recommended that you preview the image using the highest preview quality.
7. Define the desired Device settings by selecting **Device** on the Image Settings window to display the Device Settings window.
 8. Review each tab and select the appropriate options or actions you want the scanner to perform.
 9. Select **Home** to return to the main Scanner window.
 10. Select **Save As** to display the Save As window.
 11. Enter a new shortcut name that is meaningful to you and select **Save**.

Changing Image settings

1. Select a Setting Shortcut from the main Scanner window that closely describes your desired output.
2. Select an *Input document is* option from the main Scanner window.
3. Select **Settings** to display the Image Settings window.



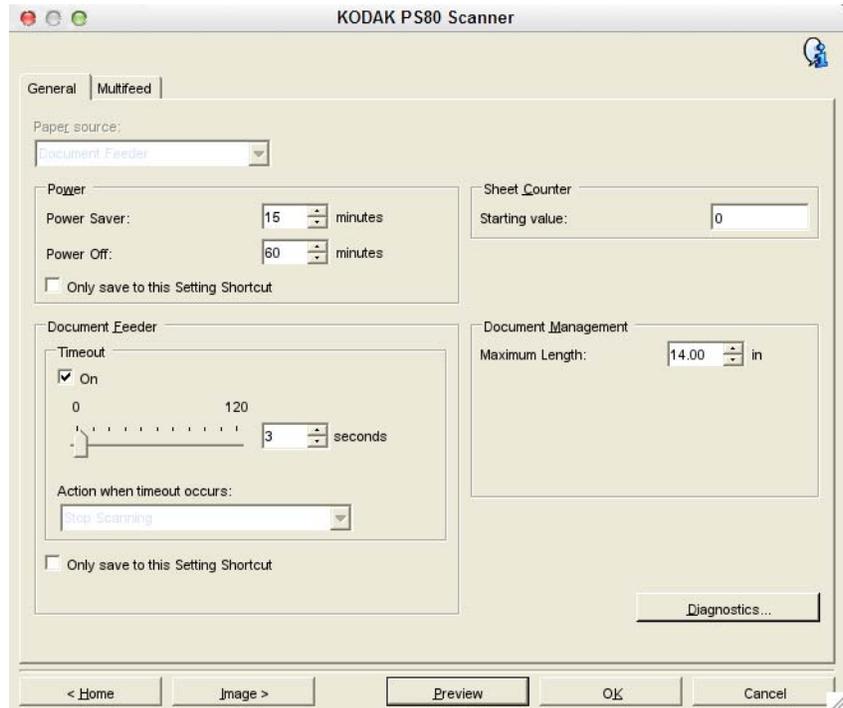
4. Before making any adjustments, browse through the tabs on the Image Settings window to get familiar with options that are available.
5. For each option you want to use, make the appropriate selections you want the scanner to perform when scanning.
6. If you want to see the result of your options:
 - Place a representative document or photo in the input tray of the scanner.
 - Select **Preview** to perform a preview scan.

NOTES:

- If the images are not acceptable, you can either select a different Setting Shortcut or continue working with the current Setting Shortcut by reviewing each tab within the Image Settings window again. Repeat this step as needed.
 - If you are making interactive adjustments, it is recommended that you preview the image using the highest preview quality.
7. When finished, select **Home** to return to the main Scanner window and then select **Save** to save your selections to the shortcut.

The Device Settings window

From this window you can set all scanner-specific options, as well as diagnostics, by using the available tabs. The values used in Device Settings are saved in the selected *Setting Shortcut*. The Device Setting window includes the General and Multifeed tabs.



Home — returns you to the main Scanner window.

Image — displays the Image Settings window.

Preview — initiates a scan and then displays the Image Settings window with the scanned image placed in the preview area. The image displayed is a sample based on your current shortcut settings.

OK/Scan — when selected, you will be prompted to save any unsaved changes.

NOTE: If this button is **OK**, any unsaved changes will remain in effect for the current scan session.

Cancel — closes the main Scanner window without saving any changes.

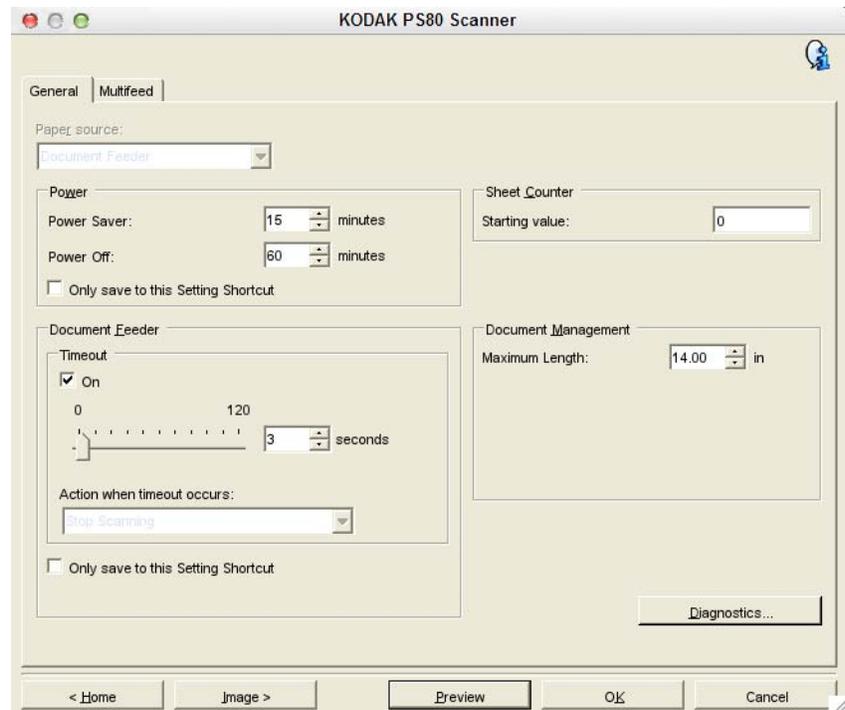
About Icon



Displays the scanners' version and copyright information.

Device - General tab

The General tab allows you to set scanner-specific options and provides access to scanner diagnostics.



Paper Source

- **Document Feeder:** the scanner will only scan documents or photos from the input tray.

Power Saver — allows you to set the amount of time, in minutes, the scanner has to be inactive before going into power saver mode.

Power Off — allows you to set the amount of time, in minutes, the scanner has to be in power saver mode before it automatically turns off.

NOTE: The Power Saver setting is shared with all Setting Shortcuts. Any changes will affect other shortcuts unless you check the **Only save to this Setting Shortcut** option.

Document Feeder

- **Timeout:** allows you to select the amount of time, in seconds, the scanner will wait once the last document enters the feeder before the timeout occurs.

Action when timeout occurs: indicates the action that will be taken when the document feeder timeout has been reached.

- **Stop Scanning:** scanning will stop and control will return to the scanning application (e.g. ends the job).

NOTE: The *Document Feeder* settings are shared with all Setting Shortcuts. Any changes will affect other shortcuts unless you check the **Only save to this Setting Shortcut** option.

Sheet Counter — enter the number to be assigned to the next physical sheet of paper entering the scanner. This is incremented sequentially by the scanner and is returned in the image header.

Document Management

Maximum Length — select a value that indicates the length of the longest document in your document or photo set.

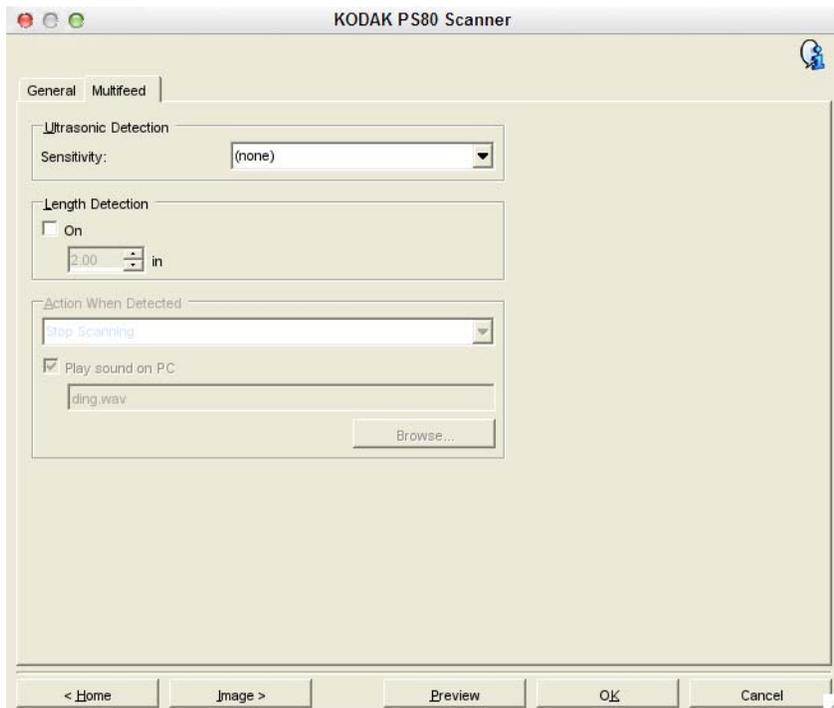
NOTES:

- Changing this value will affect the maximums for the following settings: *Image Size - Outline*; *Multifeed - Length Detection*.
- Not all combinations of settings for *Scan as* and *Resolution* are supported at the larger lengths. To allow for greater flexibility with applications, the scanner will not generate an error until it sees a document or photo whose length is not supported.
- The scanner's throughput may be reduced for large lengths.

Diagnostics — displays the Diagnostics tab.

Device - Multifeed tab

Multifeed detection aids in processing by detecting documents or photos that may go through the feeder overlapped. Multifeeds can happen due to stapled photos, adhesives on photos, or electrostatically charged photos.



Length Detection — allows you to select the maximum length of the document or photo in your job. If the scanner detects a document or photo longer than this value, it will determine that a multifeed has occurred. You can turn this option **off** or set a length.

Action When Detected — select what action you want the scanner to take when a multifeed is detected. With all options, the condition will be logged in the scanner.

- **Stop Scanning**: scanning will stop and control will return to the scanning application (e.g., ends the job). Verify that the paper path has been cleared and restart the scan session from the scanning application.

Stop Scanning - generate image(s): scanning will stop and control will return to the scanning application (e.g., ends the job). Image(s) of the multifeed document or photo will be generated. Verify that the paper path has been cleared and restart the scan session from the scanning application.

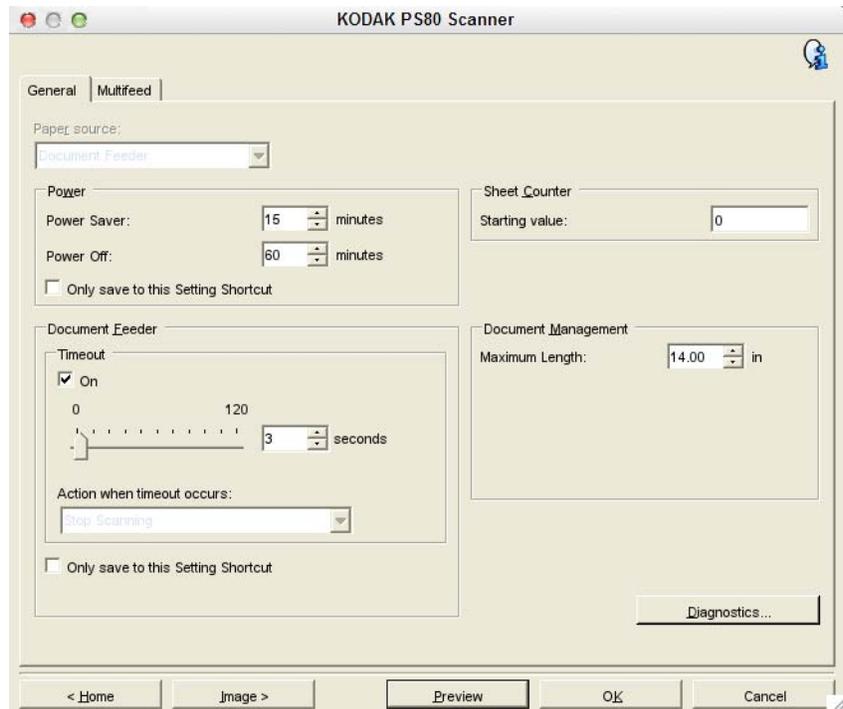
- **Stop Scanning - leave paper in path:** scanning will stop immediately (e.g., making no attempt to clear the paper path) and control will return to the scanning application (e.g., ends the job). Clear any documents or photos from the paper path prior to restarting the scan session from the scanning application.
- **Continue Scanning:** the scanner will continue to scan.

Play sound on PC — turn this option on if you want the computer to make a sound when a multifeed is detected. You can click the **Browse** button to select the desired .wav file.

NOTE: The sound on the computer may not occur at the exact time the multifeed is detected by the scanner.

Changing Device settings

1. Select a Setting Shortcut from the main Scanner window that closely describes your desired output.
2. Select **Settings** to display the Image Settings window.
3. Select **Device** to display the Device Settings window.



4. Before making any adjustments, browse through the tabs on the Device Settings window to get familiar with options that are available.
5. For each option you want to use, make the appropriate selections you want the scanner to perform when scanning.
6. When finished, select **Home** to return to the main Scanner window and then select **Save** to save your selections to the shortcut.

The Diagnostics window

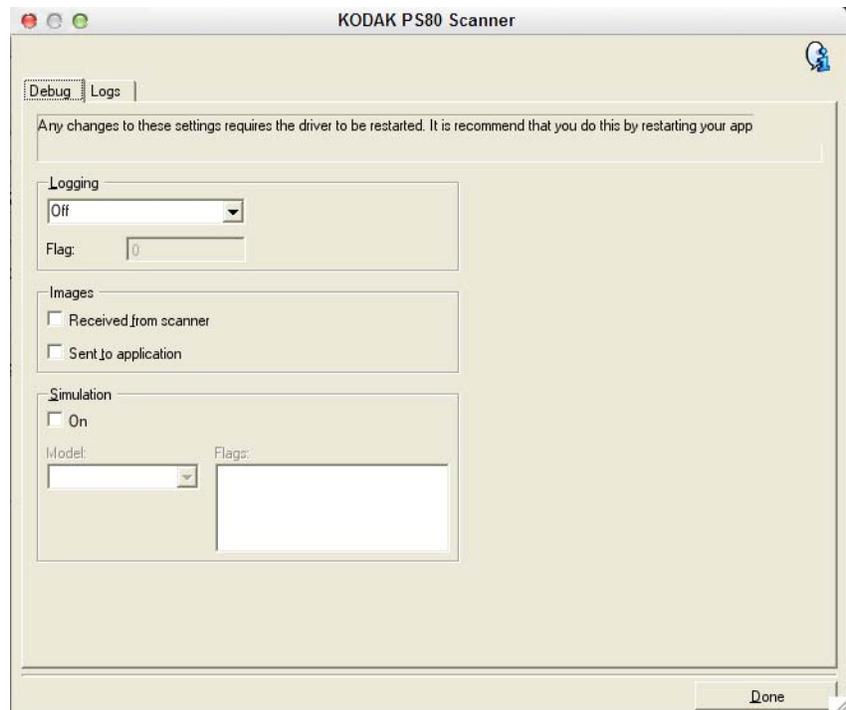
From this window you can access the diagnostic functions of the scanner. The Diagnostics window includes the following tabs: Debug and Logs. The Diagnostics window can be accessed via the Diagnostics button which is located on the General tab of the Device Settings window.

Diagnostics - Debug tab

The Debug tab allows you to turn on options that allow support personnel to diagnose any issues you may encounter with using your scanner. It is suggested that you only make changes on this tab when instructed by Kodak support personnel.

NOTES:

- All of the options on this tab apply to all Setting Shortcuts, not just the currently selected Setting Shortcut.
- In order for any changes on this tab to take effect, you must restart your application.



Logging — saves the communications between the scanner and a scanning application. The options are: **Off**, **On** or **Custom**.

Images

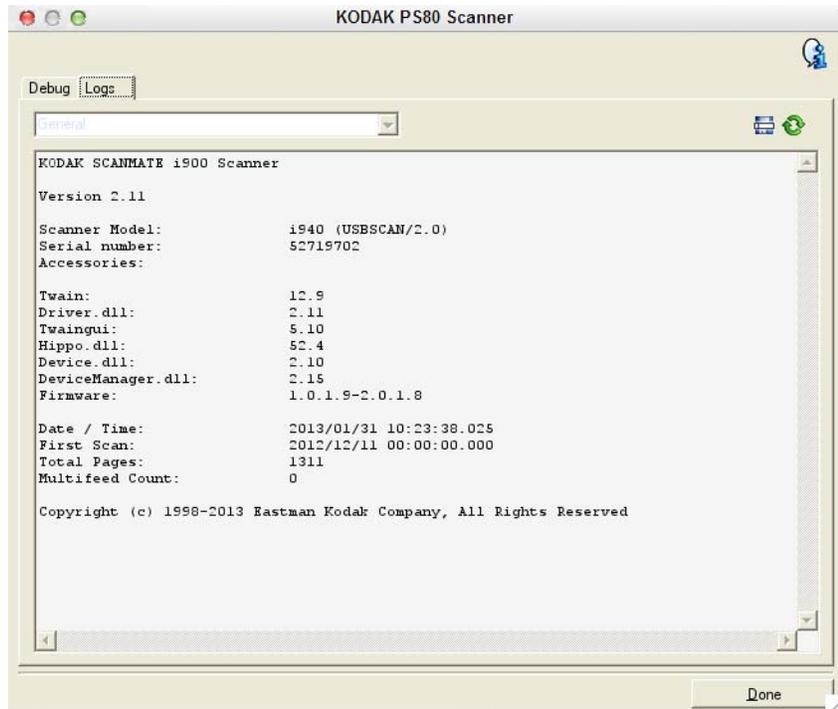
- **Received From Scanner** — saves the images received at the computer from the scanner.
- **Sent To Application** — saves the images received at the scanning application from the scanner.

Simulation — allows you to use the scanner features without using the actual scanner.

- **Model:** allows you to select the specific model to simulate.
- **Flags:** if supported by your scanner features, this will contain a list of accessories your simulate scanner has installed.

Diagnostics - Logs tab

The Logs tab allows you to view scanner information.



Logs: General — displays the scanners's version information, serial number, attached/installed accessories, meters, etc.

Toolbar buttons



Save As — saves all the logs for viewing by Kodak support personnel. When selected, the Save As window will be displayed:

- **Description:** enter a brief description of problem/reason for saving the logs.
- **Folder:** the location to save the logs.
- **Browse:** displays the operating system's File Open window so you can find the folder that you want to use.
- **Include debug images:** includes any generated debug images with the logs. This is turned on by default and should only be turned off when recommended by your support personnel.
- **Save:** saves the logs into a file with the extension .eklog.



Refresh: refreshes the currently displayed log.

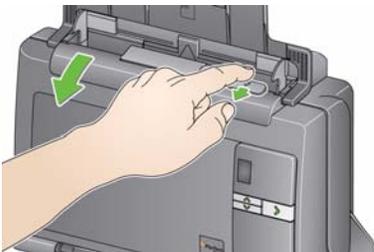
4 Troubleshooting

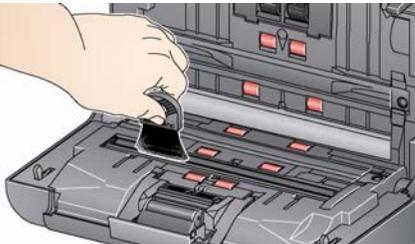
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Problem solving

Occasionally you may encounter a situation with your scanner where it may not function properly. Use the chart below as a guide to check possible solutions to help you resolve the situation before calling Technical Support.

Problem	Possible Solution
<p>Photos are jamming or multiple photos are feeding</p>	<p>Make sure that:</p> <ul style="list-style-type: none"> • the side guides are adjusted for the width of the photos you are scanning. • the output tray is adjusted for the length of the photos you are scanning. • all photos meet the specifications for size, weight and type as outlined in Appendix A, <i>Specifications</i>. • the scanner and tires are clean. • the spring on the pre-separation module is adjusted to the proper tension. See the procedures in Chapter 5, <i>Maintenance</i> in the User's Guide for your scanner. • the feed module and pre-separation module are installed properly and securely in place. See the procedures in Chapter 5, <i>Maintenance</i> in the User's Guide for your scanner. • Photos sometimes stick due to static electricity. Fan the photos and make sure the ambient humidity is sufficient. <p>To remove a photo jam:</p> <p><i>IMPORTANT: Be sure the input tray is up before opening the cover. Do not pull the jammed photo out of the scanner; open the scanner cover first.</i></p> <ul style="list-style-type: none"> • Open the scanner cover.  <ul style="list-style-type: none"> • Remove any jammed photo(s) from inside the scanner. • Close the scanner cover and resume scanning.

Problem	Possible Solution
Scanner will not scan/feed photos	<p>Make sure that:</p> <ul style="list-style-type: none"> • the power cord is plugged securely into the back of scanner and the wall outlet. • the power supply, green LED is lit. • the power switch is on. • the wall outlet is not defective (call a licensed electrician). • the computer was restarted after installing the software. • photo(s) is making contact with the feed rollers. <p>If you are feeding several photos in the upright position, and the transport will not start, it may be necessary to fan the bottom photos so the feed rollers can grasp the first photo and start the feeding process, or use the tilt button to rotate the scanner in the downward position.</p>
Images are not being cropped correctly	<ul style="list-style-type: none"> • Images are not being cropped correctly from the batch scanner. Rescan and adjust the side guides for the width of the photos you are scanning. • Images are not being cropped correctly from the flatbed. Try placing a contrasting background behind the photograph and rescan.
Roller marks appear on the photo after scanning	Clean the rollers. See the procedures in Chapter 5, <i>Maintenance</i> in the User's Guide for your scanner.
Streaks are running through a photo	<ul style="list-style-type: none"> • The scanner is dirty and needs to be cleaned. Refer to the "Cleaning procedures" in Chapter 5, <i>Maintenance</i> in the User's Guide for your scanner. • Select the Image Cleaner tool option on the Scan Images screen to eliminate or minimize streaks. • Clean the imaging guide area with an anti-static brush. Do not blow air into the open imaging area.  <ul style="list-style-type: none"> • Also see the section entitled, "Keeping your scanner clean" in Chapter 6 in the User's Guide for your scanner to do a "quick cleaning" procedure.
Scanner is running slow	<ul style="list-style-type: none"> • Your computer may not meet the minimum requirements for the scanner. • The scanner is rated and designed to operate with USB 2.0, but will function in a USB 1.1 port. If you are using a USB 1.1 connection, update your connection to USB 2.0. • Scanning photos at 600 or 1200 dpi or in TIFF format will scan slower.

Application issues

If the scanner encounters **E9 Document Jams** when scanning at higher resolutions (600 or 1200 dpi) and the computer RAM is less than 3GB, then the memory should be increased to the required 3GB RAM for high resolution scanning.

Data removal

It is the responsibility of the operators of the *Kodak* Picture Saver Scanning System to backup or delete customer orders and files from the hard drive as needed.

LED codes

Following is a listing of the codes that may be displayed in the Function window. When an error occurs, the red indicator will blink and a number is displayed in the Function window.

Code	Message	Remedy
0	Check USB cable	Indicates that there is no USB connection or the USB cable is not securely attached.
	Power saver mode	No action required.
	Scanning....	The scanner is scanning.
U5, E3	Rescan documents	USB cable has been disconnected while the scanner was running.
U6	Clear paper path and close cover	Open the scanner cover and verify that all documents or photos are removed from the paper path. Then close the scanner cover.
U8	Multifeed	<ul style="list-style-type: none">• A multifeed document or photo has been detected. Clear the multifeed condition.• The document or photo you are trying to scan is too long.
U9	Paper jam	Document or photo jam or the paper path is blocked. Clear the documents or photos from the paper path.
E1, E2		<ul style="list-style-type: none">• Be sure all cables are connected properly.• Turn power off and then on again. If the problem persists, call Service.
E2, E4, E7		<ul style="list-style-type: none">• Turn power off and then on again. If the problem persists, call Service.

Contact information

1. Visit www.kodakalaris.com/go/disupport to obtain the most current phone number for your country.
2. When calling, please have the following information ready:
 - A description of your problem.
 - The scanner serial number.
 - Computer configuration.
 - Software application you are using.

Appendix A Specifications

System Requirements	<p>Mac OS Version 10.6 - 10.10</p> <p>NOTES:</p> <ul style="list-style-type: none"> • Supports Mac OS V10.6 - 10.10. However, there are differences with V10.9 (Maverick) and V10.10 (Yosemite) as compared with the earlier versions. • TWAINBridge will not download automatically in V10.9 (Maverick) or 10.10 (Yosemite); however, it will download when the first Acquire Image Data is selected. • Some applications (e.g., Vue Scan) do not work with V10.9 or V10.10 but will on earlier versions of the OS. • Presto! PageManager works with OS V10.6 - 10.10. Adobe Elements and Photoshop CS4, CS5 and CS6 work with the drivers with OS V10.6 - 10.10; although TWAIN support will need to be added for the later versions of the operating system. Check Adobe's website for more information for loading TWAIN support for their products.
Host Connection	USB 2.0
Scanner Type/Speed	<p>A duplex scanner which provides scanning at up to:</p> <p>PS80: 85 pictures (4 x 6-inch size) per minute at 300 dpi</p> <p>PS50: 50 pictures (4 x 6-inch size) per minute at 300 dp</p>
Scanning Technology	<p>CCD type</p> <p>Grayscale output bit depth is 256 levels (8-bit)</p> <p>Color capture bit depth is 48 bits (16 x 3)</p> <p>Color output bit depth is 24 bits (8 x 3)</p>
Output Resolutions	300, 600 and 1200 dpi
File Format Output	Single-page JPEG and TIFF photo scanning
Minimum Photo Size	63.5 x 50 mm (2.5 x 2 in.)
Maximum Photo Size	215 x 863 mm (8.5 x 34 in.)
Paper Weight	34 g/m ² to 413 g/m ² (9 to 110 lbs.)
ADF Capacity	<p>Up to 50 mixed-size photos per batch; ADF capacity: 75 sheets</p> <p>Continuous feeding of photos is supported</p> <p>Bandling weights up to 34-413 g/m² (9-110 lb.) paper; ID card thickness: up to 1.25 mm (0.05 in.)</p>
Illumination	Dual LED
Electrical requirements	100 - 240 V (international), 50/60 Hz
Electric rating	24 Vdc; 1.875 A
Scanner Dimensions	<p>Height: 246 mm / 9.7 in. (not including input tray)</p> <p>Width: 330 mm / 13 in.</p> <p>Depth: 162 mm / 6.3 in. (not including input tray and output tray)</p>
Scanner Weight	5.5 kg (12 lbs)
Operating Temperature	10°C to 35°C
Humidity	15 to 76%
Power Consumption - Scanner	<p>Off mode: <0.5 watts Idle: <8 watts</p> <p>Energy Star: <2.5 watts Running: <35 watts</p>
Acoustic Noise (Sound Pressure level)	<p>Operating: less than 58 dB(A)</p> <p>Off mode: less than 30 dB(A)</p>

Appendix B Warranty - US and Canada only

Congratulations on the purchase of a *Kodak Scanner*. *Kodak Scanners* are designed to provide end users with the highest performance and reliability. All *Kodak Scanners* are covered by the following Limited Warranty.

Limited Warranty for *Kodak Scanners*

Kodak Alaris Inc. ("Alaris") provides the following Limited Warranty on *Kodak Scanners* (excluding spare parts and consumables) distributed by Alaris or through Alaris' authorized distribution channels:

Kodak Alaris Inc. warrants that a *Kodak Scanner*, from the time of sale through the Limited Warranty period applicable to the Product, will be free of defects in materials or workmanship and will conform to the performance specifications applicable for the particular *Kodak Scanner*.

All *Kodak Scanners* are subject to the Warranty Exclusions described below. A *Kodak Scanner* found to be defective or which does not conform to the product specifications will be repaired or replaced with new or refurbished product at Kodak Alaris' option.

Purchasers may determine the applicable Limited Warranty period for the *Kodak Scanners* purchased by calling (800) 822-1414, or by visiting www.kodakalaris.com/go/disupport or by reviewing the Limited Warranty Summary Card enclosed with the *Kodak Scanner*.

Proof of purchase is required to demonstrate eligibility for warranty service.

Warranty exclusions

Alaris' Limited Warranty does not apply to a *Kodak Scanner* that has been subjected to physical damage after purchase, caused, for example, by casualty, accident, acts of God or transportation, including (a) by a failure to properly package and ship the Scanner back to Alaris for warranty service in accordance with Alaris' then current Packaging and Shipping Guidelines, including failure to replace the shipping restraint prior to shipping, or by a failure to remove the shipping restraint prior to use; (b) resulting from the user's installation, system integration, programming, re-installation of user operating systems or applications software, systems engineering, relocation, reconstruction of data, or removal of the product or any component (including breakage of a connector, cover, glass, pins, tray or seal); (c) from service, modification or repair not performed by Alaris or a service provider authorized by Alaris or by tampering, use of counterfeit or other non-Kodak Alaris components, assemblies, accessories, or modules; (d) by misuse, unreasonable handling or maintenance, mistreatment, operator error, failure to provide proper supervision or maintenance, including use of cleaning products or other accessories not approved by Alaris or use in contravention of recommended procedures or specifications; (e) by environmental conditions (such as excessive heat or other unsuitable physical operating environment), corrosion, staining, electrical work external to the product or failure to provide electro-static discharge (ESD) protection; (f) by failure to install firmware updates or releases available for the product and (g) by such other supplemental exclusions published from time to time online at www.kodakalaris.com/go/disupport.

Alaris provides no Limited Warranty for products purchased from countries other than the United States and Canada. Purchasers of products from foreign distribution channels must seek warranty coverage, if any, through the original source of purchase.

Alaris provides no Limited Warranty for products that are purchased as part of a third party manufacturer's product, computer system or other electronic device.

Any warranty for these products is provided by the OEM (Original Equipment Manufacturer) as part of that manufacturer's product or system.

The replacement product assumes the remainder of the Limited Warranty period applicable to the defective product or thirty (30) days, whichever is longer.

Installation Warning and Disclaimer

ALARIS WILL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM THE SALE, INSTALLATION, USE, SERVICING OR IMPROPER FUNCTIONING OF THIS PRODUCT, REGARDLESS OF THE CAUSE. SUCH DAMAGES FOR WHICH ALARIS WILL NOT BE RESPONSIBLE, INCLUDE, BUT ARE NOT LIMITED TO, LOSS OF REVENUE OR PROFIT, LOSS OF DATA, DOWNTIME COSTS, LOSS OF USE OF THE PRODUCT, COST OF ANY SUBSTITUTE PRODUCT, FACILITIES OR SERVICES OR CLAIMS OF CUSTOMERS FOR SUCH DAMAGES.

If there is any conflict between other sections of this appendix and the Limited Warranty, the terms of the Limited Warranty prevail.

How to obtain Limited Warranty service

Kodak Scanners are supplied with information on unpacking, setup, installation and operation. Careful reading of the User's Guide will answer most of the technical questions the end user might have regarding proper installation, operation and maintenance of the product. However, should additional technical support be required, you may visit our website at: www.kodakalaris.com/go/disupport or contact:

Response Center: **(800) 822-1414**

The Response Center is available Monday – Friday (excluding Alaris holidays) 8 a.m. to 5 p.m. local time.

Before placing the call, the eligible purchaser should have the *Kodak* Scanner model number, part number, serial number and proof of purchase available. The eligible purchaser should also be prepared to provide a description of the problem.

Response Center personnel will assist the end user in resolving the problem over the phone. The end user may be asked to run some simple, self-diagnostic tests and report the resulting status and error code messages. This will assist the Response Center in determining if the problem is the *Kodak* Scanner or another component and if the problem can be resolved over the phone. If the Response Center determines a hardware problem exists that is covered either under the Limited Warranty or a purchased Maintenance Agreement, a Return Material Authorization Number (RMA) will be assigned as needed, a service request will be initiated and repair or replacement procedures will follow.

Packaging and shipping guidelines

Purchaser must ship all warranty returns in a method that guarantees full protection of the product from shipping damage. Failure to do so will void the *Kodak* Scanner warranty. Alaris advises the purchaser to keep the original box and packing materials for storing or shipping. Alaris is not responsible for issues related to shipping damage. The purchaser must return only the *Kodak* Scanner. Prior to shipment, purchaser must remove and retain all "add-on" items, (i.e. adapters, cables, software, manuals, etc.). Alaris accepts no responsibility for these items and they will not be returned with the repaired or replacement *Kodak* Scanner. All products should be returned to Alaris in the original shipping container, or an authorized packaging box for the units being returned. Purchaser must install the shipping restraint before the *Kodak* Scanner is shipped. When the original packaging is not available, contact Kodak Alaris' Response Center at (800) 822-1414 for part numbers and replacement packaging ordering information.

Return procedure

Eligible purchasers seeking services for *Kodak* Scanners covered under this Limited Warranty must obtain a Return Material Authorization number ("RMA") by calling (800) 822-1414 and within ten (10) business days from the date of issuance of the RMA must return the *Kodak* Scanner to the address designated in the RMA at the end user's own expense and risk, in compliance with Kodak Alaris' current Packaging and Shipping Guidelines.

Any defective products or parts replaced by Alaris become the property of Alaris.

Customer responsibility

BY REQUESTING SERVICE, THE ELIGIBLE PURCHASER ACKNOWLEDGES THE TERMS OF THE LIMITED WARRANTY, INCLUDING THE DISCLAIMER AND LIMITATION OF LIABILITY PROVISIONS. PRIOR TO SEEKING SERVICE, THE END USER MUST BACK-UP ANY DATA OR FILES THAT MAY BECOME DAMAGED OR LOST. ALARIS IS, WITHOUT LIMITATION, NOT RESPONSIBLE FOR LOST OR DAMAGED DATA OR FILES.

Warranty Service descriptions

Alaris offers a range of service programs to support its Limited Warranty and to assist with the use and care of the *Kodak* Scanner ("Service Methods"). A *Kodak* Scanner represents an important investment. *Kodak* Scanners provide the productivity needed to stay competitive. The sudden loss of this productivity, even temporarily, could seriously affect the ability to meet commitments. Downtime can be very expensive, not just in the cost of the repair but also in time lost. To help alleviate these problems, Alaris may use one of the service methods listed below, depending upon product type, in providing service under its Limited Warranty.

Included with selected *Kodak* Scanners is a Limited Warranty Registration card and a Limited Warranty Summary card. The Limited Warranty Summary card is specific by model. The Limited Warranty Summary card contains important warranty information, including the model number and the Limited Warranty. Refer to the Limited Warranty Summary card to determine the available Service Methods applicable to the particular *Kodak* Scanner.

If the Limited Warranty Registration card or Limited Warranty Summary card cannot be located, additional information may be obtained about the product, including updated warranty and service program information and restrictions, online at www.kodakalaris.com/go/disupport.

To avoid service delays, Alaris urges end users to complete and return the enclosed Limited Warranty Registration Card at the first opportunity. If you cannot locate the Limited Warranty Registration card, you may register online at: www.kodakalaris.com/go/disupport.

Alaris also provides a variety of service programs that may be purchased to assist with the use and care of the *Kodak* Scanner. Alaris is committed to providing its customers with quality, performance, reliability and service under the Limited Warranty.

On-site service

For the selected *Kodak* Scanner, and after the Response Center verifies a hardware problem, a service call will be opened and logged. An Alaris Field Engineer will be dispatched to the product location to perform repair service if the product is located within the contiguous forty-eight (48) United States, in certain areas of Alaska and Hawaii, and if there are no security, safety or physical requirements that would restrict the Field Engineer's access to the scanner. For additional information on service areas, visit our website at: www.kodakalaris.com/go/docimaging. On-Site Service will be provided between the hours of 8 a.m. and 5 p.m. local time, Monday through Friday (excluding *Kodak* holidays).

Advanced Unit Replacement (AUR)

AUR may be one of the easiest and most comprehensive service offerings in the industry. In the unlikely event of a product defect, for eligible purchasers of certain *Kodak* Scanners, *Kodak* will replace that product within two business days.

The AUR provides advance replacement on specific failed or broken *Kodak* Scanner. To be eligible to take advantage of the AUR, the eligible purchaser must obtain an RMA number, sign an Advance Replacement Agreement and provide a credit card deposit to secure the replacement product. The RMA number should be kept in the event that the status of the replacement product needs to be checked. The eligible purchaser will be asked for the address where the replacement product is to be shipped. The eligible purchaser will also be faxed packing and shipping instructions for the malfunctioning product. The eligible purchaser will then receive a replacement product within 2 business days after the service call initiation and *Kodak*'s receipt of the signed agreement. The malfunctioning product must be received by *Kodak* within ten (10) days of the end user's receipt of the replacement product or the end user's credit card will be charged the list price of the replacement product. Shipment of replacement Imaging Product will be made at *Kodak*'s expense and choice of freight carrier. Shipments not made under *Kodak*'s directions and choice of freight carrier may void the Limited Warranty.

Before the product is returned to *Kodak*, be sure to remove all options and accessories (which include power cord, documentation, etc.) that are not covered by the Limited Warranty. The box and packaging in which the replacement product was shipped must be used to return the malfunctioning product. If the malfunctioning product is not returned in the box and packaging in which the replacement product was shipped the Limited Warranty may be voided. The Return Material Authorization Number ("RMA") must be clearly marked on the outside of the box to ensure proper receipt and credit of the defective product.

Depot service

If the *Kodak* Scanner is not eligible for AUR or On-Site Service, an eligible purchaser may utilize our Depot Repair Service. The eligible purchaser will be instructed to ship the product to the nearest authorized Depot Repair Center. Product must be shipped at the eligible purchaser's risk and expense to the repair center. Before the product is returned to the repair center, be sure to remove all options and accessories (which include power cord, documentation, etc.) not covered by the Limited Warranty. All products should be returned to Alaris in the original shipping container, or in a recommended packing box. The *Kodak* Scanner must have the shipping restraint installed before it is shipped. When the original packaging is not available, contact *Kodak* Alaris' Response Center at (800) 822-1414, for ordering information. Eligible purchasers seeking services for *Kodak* Scanners must obtain a Return Material Authorization number ("RMA") by calling (800) 822-1414, and within ten (10) business days from the date of issuance of the RMA must return the *Kodak* Scanner to the address designated in the RMA at the end user's own expense and risk. The Return Material Authorization Number ("RMA") must be clearly marked on the outside of the box to ensure proper receipt and credit of the defective product.

Upon receipt of the product, the repair center will repair product within ten (10) business days. The repaired product will be shipped back two-day express mail at no expense to the eligible purchaser.

Important restrictions

Eligibility: The Advance Exchange Program and the Depot Service are available to eligible purchasers in the fifty (50) United States, and On-Site Service is available in the contiguous forty-eight (48) states and in certain areas of Alaska and Hawaii for products purchased from authorized distributors of Alaris The *Kodak* Scanner will be ineligible for any service under warranty if the product falls under any of *Kodak* Alaris' then-current Warranty Exclusions, including a purchaser's failure to return defective products to Alaris in compliance with *Kodak* Alaris' then current Packaging and Shipping Guidelines. Persons are only considered "eligible purchasers" or "end users" if they originally purchased the *Kodak* Scanner for their own personal or business use, and not for resale.

Consumables: Consumables are items that wear out under normal use and must be replaced by the end user as needed. Consumables, supplies, other expendable items and those items identified as being the user's responsibility in the User's Guide are not covered under the Limited Warranty.

Any defective products or parts replaced by Alaris become the property of Alaris.

Contacting Kodak Alaris Inc.

For Information on *Kodak* Scanners:

Website: www.kodakalaris.com/go/docimaging

For U.S. Service, Repair and Technical Assistance by Telephone:

Telephone technical support is available Monday-Friday between the hours of 8 a.m. to 5 p.m. (local time) excluding Alaris holidays. Phone: (800) 822-1414

For Technical Documentation and FAQ's available 24 hours a day:

Website: www.kodakalaris.com/go/docimaging

For Service Program Information

Website: www.kodakalaris.com

Phone: (800) 822-1414

