Kodak

i5x50 Series Scanners

Scanning Setup Guide
for ISIS Applications

Contents

Using the ISIS Driver

The information in this guide provides procedures for using the ISIS Driver as well as descriptions of the features. The same features should be available on the user interface of the scanning application you are using.

This guide describes the default ISIS Driver interface. Your application may change the ISIS Driver user interface to better suit its purpose. If your application provider has customized the ISIS Driver interface, it may not match the default screen configurations as described in this guide.

The Scan Validation Tool

The Scan Validation Tool (SVT) is a useful diagnostic application provided by Kodak Alaris, Inc. The SVT user interface allows access to all the features of the scanner and is a good way to verify that the scanner is working properly. The Scan Validation Tool allows you to verify scanner functionality using the TWAIN/TWAINDSM Datasource and the ISIS Driver.
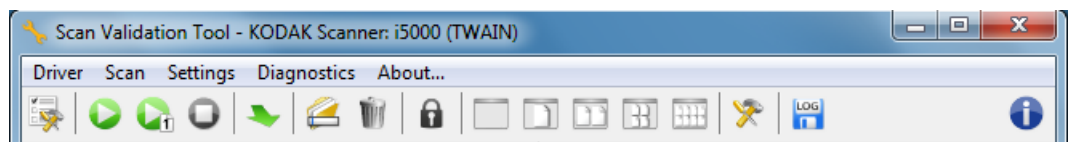
Starting the Scan Validation Tool

1. Select **Start>Programs>Kodak>Document Imaging>i5x50>SVT Diagnostics**.
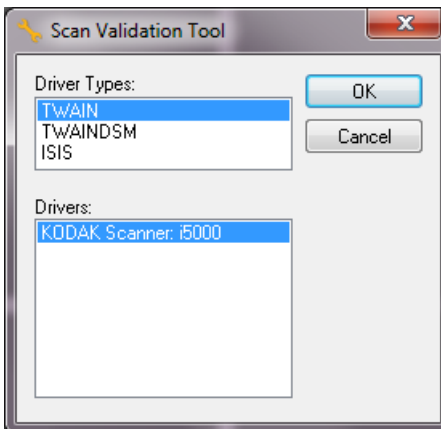
2. Select **ISIS** for the Driver Type and the ***Kodak* Scanner i5x50 Scanner** as the Driver. This option is only available if PIXDFLTN.DLL exists in the Windows 32-bit Systems folder.

    The Scan Validation Tool dialog box will be displayed

.

The Scan Validation Tool toolbar buttons

Buttons on the SVT toolbar provide the following features:.

Setup — displays the user interface for the selected driver.

Start Scanning — scans the documents in the input elevator.

Scan One Page — scans only one page.

Stop Scanning — ends the scan session.

Change/Open Driver — closes the currently opened driver and displays the Driver Choice window.

Destination — allows you to select a directory to store scanned images and their file names. This option is only available when **Save Images to Files** is selected.

Delete — deletes the selected image

License Key — displays the License Key window.

No Image Display mode — closes the Image Viewer window (no images will be displayed).

One Image Display mode — displays one image at a time.

Two Image Display mode — displays two images at a time.

Four Image Display mode — displays four images at a time.

Eight Image Display mode — displays eight images at a time.

TWAIN Settings — displays the TWAIN Settings window.

Save log — allows you to save log files.

About — displays the About window.

Click the **Setup** icon on the main Scan Validation Tool screen..
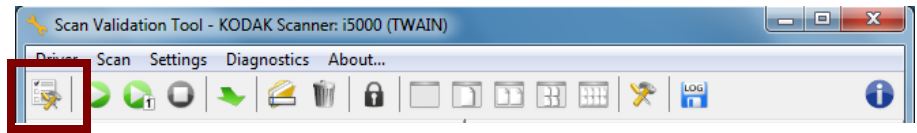
The Setup dialog box will be displayed.
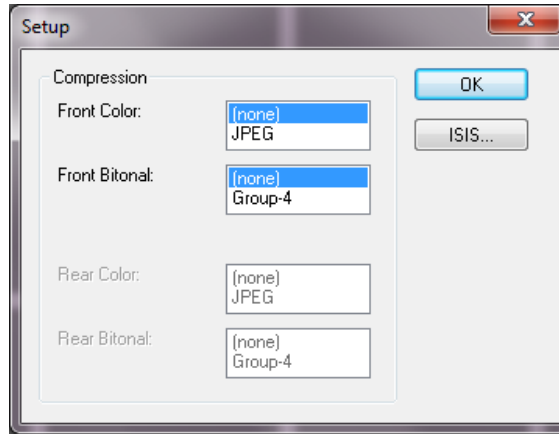
3. Click **ISIS**. The Preset Configurations dialog box will be displayed. This dialog box maintains a list of saved driver settings.

   You can save, delete or import a preset; or select a preset that is already set up or one you want to modify.
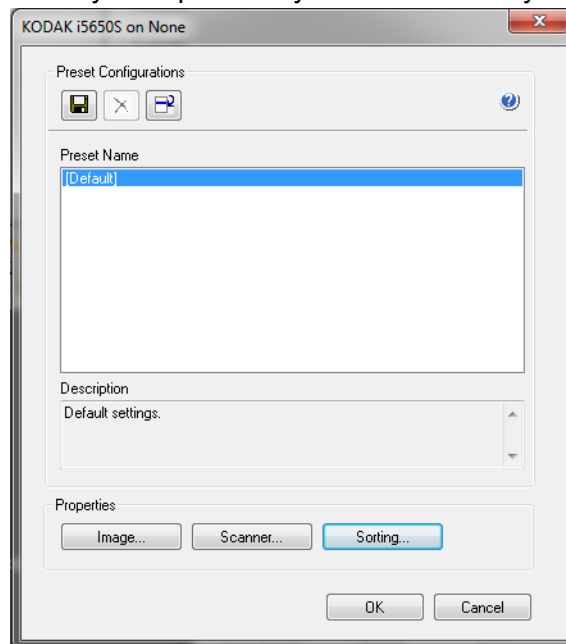
4. Click **Image** to configure settings associated with the image.

   The following sections provide descriptions and procedures for configuring Image settings. See the section entitled, "Configuring Scanner settings" for scanner configuration procedures. See the section entitled, "Configuring Sorting settings" for sorting configuration procedures.

Configuring Image settings

The main ISIS Driver window provides a set of default tabs for configuring images. You can select each of these tabs and make any choices necessary to meet your scanning needs.

This section describes the ISIS Driver default interface (as it is presented through the Scan Validation Tool). Your host application may modify the interface by not displaying some tabs or limiting the options presented.

NOTE: The **Image Mode** and **Toggle Patch** selections are available with all of the Image tabs (e.g., Main, Layout, Image Processing, etc.).
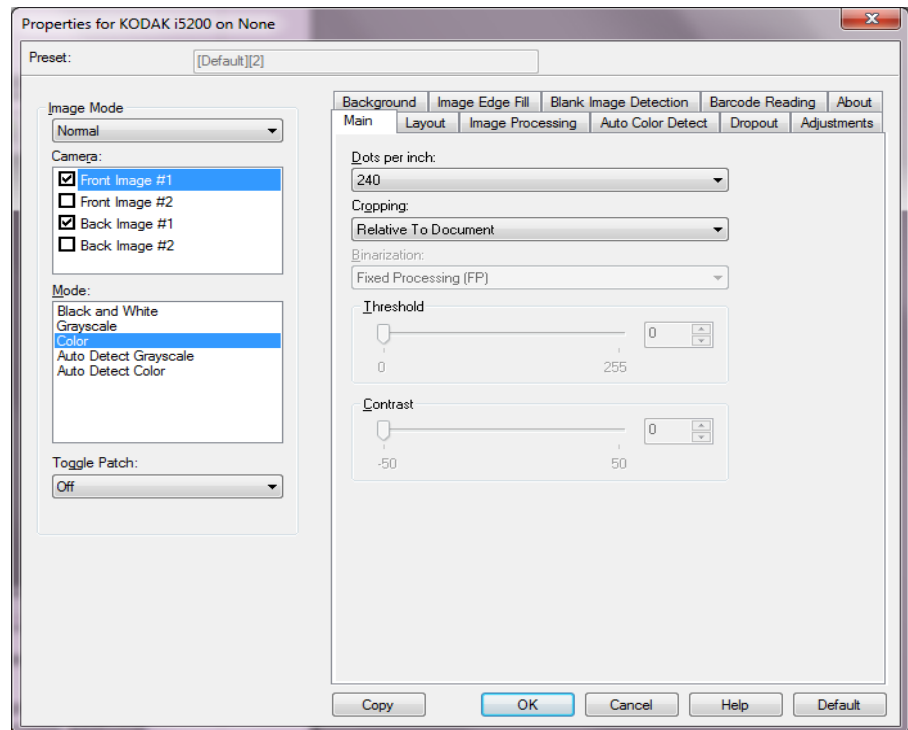
Image Mode — select one of the following options:

• **Normal** — typically for a document, one image is created for the front side and another image is created for the back side. Select this option if you want the front and back side to be individual images.

• **Merged** — select this option if you want one image that contains both the front side and back side of the document. *Image Merged* options are: **Front on Top**; **Front on Bottom**; **Front on Left** or **Front on Right**.

Camera — the selections in the Camera box list the available sides (front and back) of an image where you can define individual image processing values. Options include: **Front Image #1, Front Image #2, Back Image #1** and **Back Image #2**.

The *Kodak* Scanner drivers allow you to control the camera settings independently. Some settings apply only to black and white images, others apply to color/grayscale images.

- **Mode** — select one of the following modes:

  - **Black and White**: if you want your electronic image to represent all elements of your document in black and white.

  - **Grayscale**: if you want your electronic image to have a range of varying shades of gray from black to white.

  - **Color**: if you want your electronic image to be in color.

  - **Auto Detect Grayscale**: sets auto color detect for grayscale. See "Auto Color Detect tab" for more information.

  - **Auto Detect Color**: sets auto color detect for color. See "Auto Color Detect tab" for more information.

Toggle Patch — indicates you want to tell the scanner, via a toggle patch document, if the document is color/grayscale or black and white.

- **Off**: no patches will be used.

- **Front Side**: only the side which recognizes the patch sheet will toggle.

- **Both Sides**: a patch will be recognized on either the front or the back side.

Buttons — the buttons on the bottom of the window apply to all tabs:

- **Copy** — this function is only available when scanning two-sided documents. The Copy button provides a convenient way to set up the color, grayscale or black and white image settings on one side and transfer them to the other. For example, if you highlight and set up **Front Image #1**, you can use the Copy button to duplicate those settings for **Back Image #1**.

- **OK** — saves the values set on all tabs.

- **Cancel** — closes the window without saving any changes.

- **Help** — displays on-line help about the options available on the selected window.

- **Default** — resets the values on all tabs to the factory defaults.

Main tab   The Main tab provides the following options.
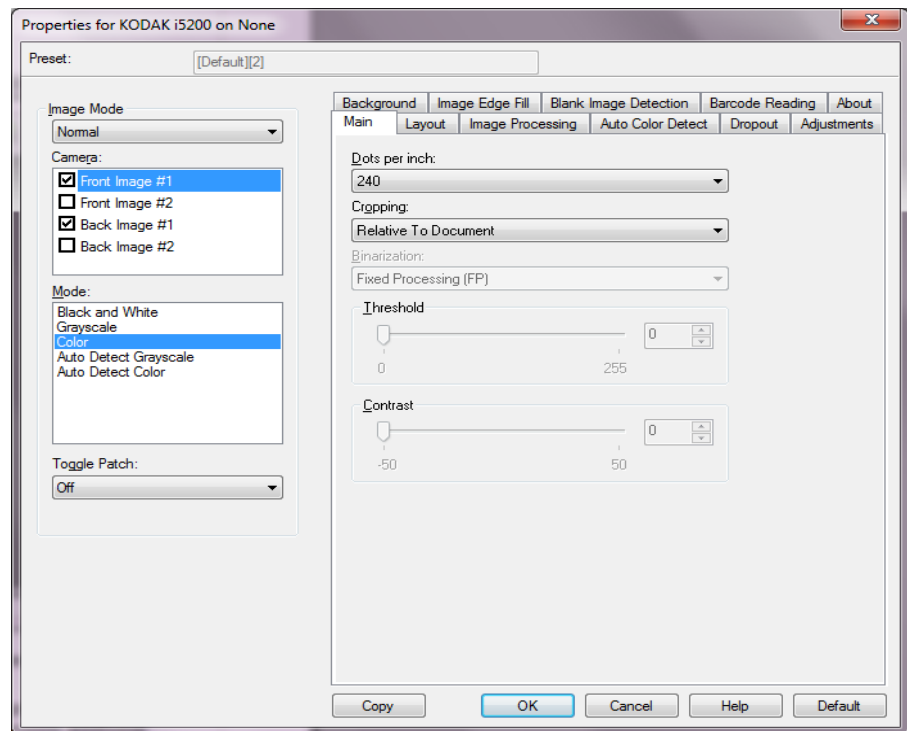
Dots per inch (dpi) or resolution — indicates the scanning resolution, which largely determines the quality of the scanned image. The greater the resolution, the better the reproduction. However, scanning at a higher resolution also increases scanning time and file size.

Select a resolution value from the drop-down list. The default is 200 dpi. Available resolutions are: 100, 150, 200, 240, 250, 300, 400, 500 and 600 dpi.

Cropping — allows you to capture a portion of the document being scanned. All cropping options can be used with color/grayscale and black and white images. Front and Back cropping are independent, however, for dual stream scanning, color/grayscale and black and white cropping must be the same per side. Only one cropping option can be assigned per image.

- **Automatic:** dynamically adjusts the cropping window for different document sizes based on the edges of the image.

- **Aggressive:** eliminates any residual black border on any image edges. In order to achieve this, there is a possibility that a small amount of image data from the edge of the document may be lost.

- **Fixed to Transport:** (used for batches of same-sized documents) allows you to define the area to be imaged. Fixed to Transport cropping is used in conjunction with paper size and page layout and assumes you are center-feeding your documents. If you are not using center feeding, you must select the Layout tab to define your scan. See "Layout tab" later in this guide

- **Relative to Document**: (zone processing): (used for batches of same-sized documents) — zone processing is a floating fixed crop window (the zone) located relative to the upper left corner of a document. It allows you to select an area on the document to be delivered in either color/grayscale or black and white format (a separate window for both black and white and color/grayscale may be defined). Different parameters may be selected for both the front and back of the image.

  This option may be used in conjunction with Automatic cropping where a separate color/grayscale or black and white area to be saved is desired. It is useful in applications where a photograph, signature, embossment or seal appears in a consistent area for an application (you may want that small area in color/grayscale and the rest in black and white). To define a zone, select the Layout tab.

Binarization — these options work on grayscale images and outputs a black and white electronic image. Their strength lies in the ability to separate the foreground information from the background information even when the background color or shading varies, and the foreground information varies in color quality and darkness. Different types of documents may be scanned using the same image processing parameters and results in excellent scanned images.

- **iThresholding:** allows the scanner to dynamically evaluate each document to determine the optimal threshold value to produce the highest quality image. This allows scanning of mixed document sets with varying quality (e.g., faint text, shaded backgrounds, color backgrounds) to be scanned using a single setting thus reducing the need for document sorting. When using iThresholding, only Contrast can be adjusted.

- **Fixed Processing (FP):** used for black and white and other high contrast documents. If **Fixed Processing** is selected, only Brightness can be adjusted.

- **Adaptive Thresholding (ATP):** separates the foreground information in an image (e.g., text, graphics, lines, etc.) from the background information e.g., white or non-white paper background). When using Adaptive Thresholding, Brightness and Contrast can be adjusted. Use this option when scanning similar type documents.

Threshold (Brightness) — this option is available when you select **Fixed Processing** or **Adaptive Thresholding (ATP)**. This option allows you to change the black and white image to be darker or lighter. The higher the threshold value, the darker the image. Use the slider to select a value from 0 to 255. The default is 90.

Contrast — adjusts how much of the faint detail you want to see in the output image. The higher the contrast value, the more faint lines will be shown in the image. The lower the contrast value, the clearer (or less detailed) the output image will be. If contrast is set too high, you may get lines or black areas in your output image that you do not want. If the contrast is set too low, some letters or lines may not show in the output image. Select a contrast value from -50 to 50. The default is 50.

Layout tab

The Layout tab provides the following options.
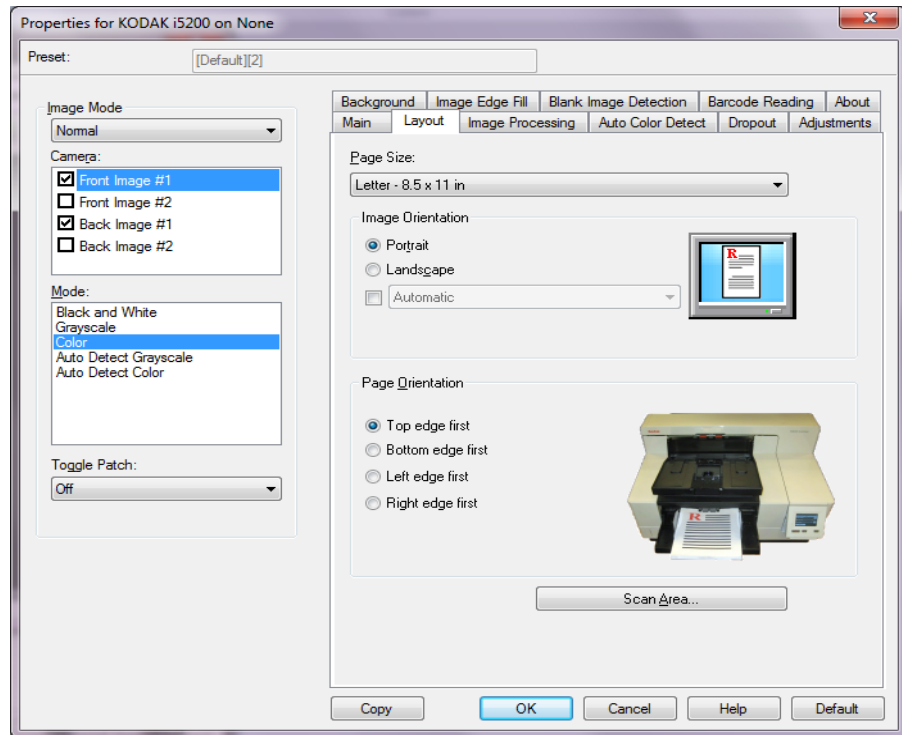
Page Size — the default page size is set when a scanner is first selected. You can choose a different page size using the drop-down list. Page size should be set to the **Scanner's maximum** when using the **Automatic** or **Aggressive** cropping option.

Image Orientation

- **Portrait**: displays the image orientation in the shape of a conventional portrait, where height is greater than width.

- **Landscape:** displays the image orientation in the shape of a conventional landscape painting, where width is greater than height.

- **Automatic** — the scanner will analyze each document to determine how it was fed and will rotate the image to the proper orientation.

  - **Automatic - default to 90:** the scanner will analyze the content of each document to determine how it was fed and will rotate the image to the proper orientation. If the scanner cannot determine how the document was fed, it will rotate the image 90 degrees.

  - **Automatic - default 180**: the scanner will analyze the content of each document to determine how it was fed and will rotate the image to the proper orientation. If the scanner cannot determine how the document was fed, it will rotate the image 180 degrees.

  - **Automatic - default 270**: the scanner will analyze the content of each document to determine how it was fed and will rotate the image to the proper orientation. If the scanner cannot determine how the document was fed, it will rotate the image 270 degrees.

Page Orientation — allows you to select the way you place your documents in the scanner, **Top edge first, Bottom edge first, Left edge first** or **Right edge first**.

Scan Area — displays the Scan Area dialog box. The Scan Area options are only available for images when the cropping option is **Fixed to Transport** or **Relative to Document**. See the next section entitled, "Scan Area dialog box" for more information.

Scan Area dialog box

The Scan Area dialog box allows you to define the amount of image data which is returned to the host.

NOTE: Select the desired **Camera Mode** (e.g., **Front Image #1, Front Image #2, Back Image #1** and/or **Back Image #2**).

• Select **Scan Area** on the Layout tab to access the Scan Area dialog box.
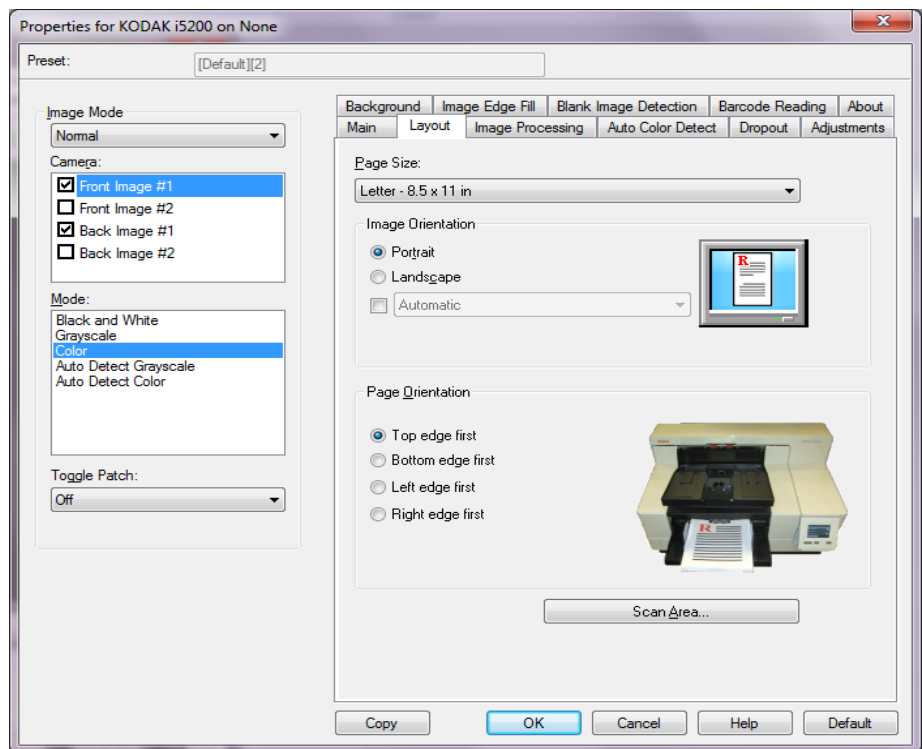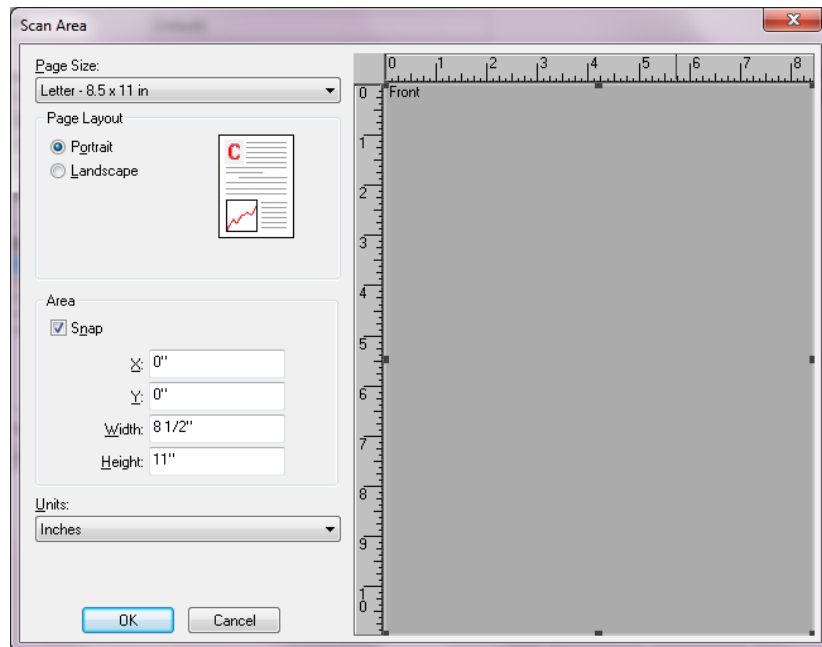
NOTE: The Scan Area dialog box is only available when **Fixed to Transport** or **Relative to Document** is selected on the Main tab.

Page Size — the default paper size is set when a scanner is first selected. You can choose a different paper size using the drop-down list.

NOTE: Page Size also appears on the Layout tab. If you make a change on the Scan Area dialog box, the same selection appears on the Layout tab and vice versa.

Page Layout

• **Portrait:** displays the image orientation in the shape of a conventional portrait, where height is greater than width.

• **Landscape:** displays the image orientation in the shape of a conventional landscape painting, where width is greater than height.

Area

• **Snap** — enable this option to control the dimensions of the preview area to fixed 0.3175 cm (1/8-inch) increments. This option is not available in **Pixels** mode.

• **X**: the distance from the left end of the scanner to the left-edge of the scanning area.

• **Y:** the position from the top end of the document to the top end of the scanning area.

• **Width**: the width of the scanning area.

• **Height:** the height of the scanning area.

Units — select whether you want the area to be defined in **Pixels**, **Inches** or **Centimeters**.

Image Processing tab

The Image Processing tab provides the following options.
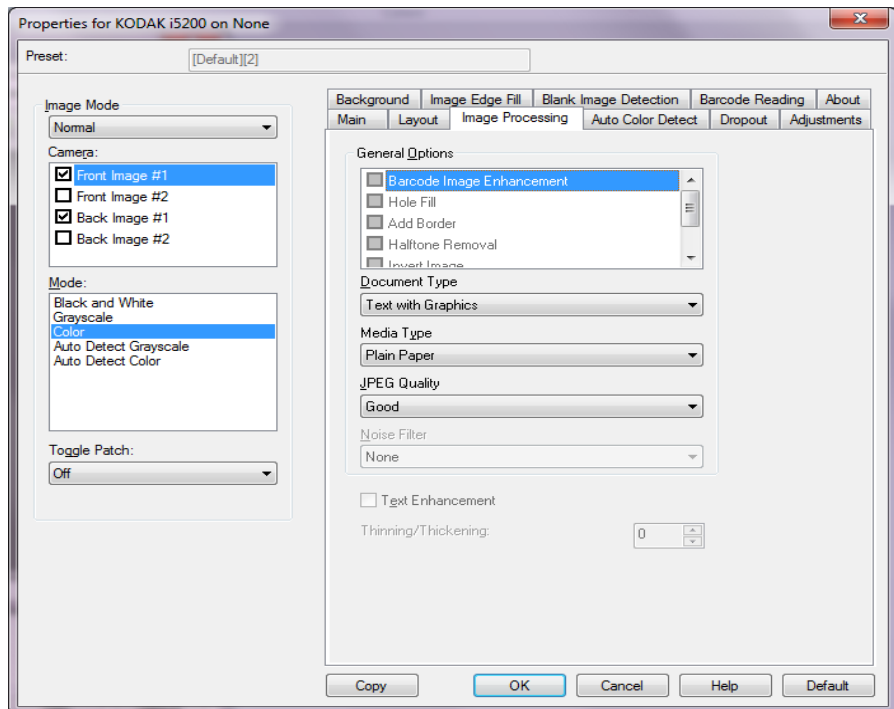
General Options

NOTE: Depending on your *Cropping* selection, some of the following options are not available.

- **Barcode Image Enhancement** — allows you to configure the scanner so it will optimize the barcodes for reading by your application. The scanner will automatically find the 1D and 2D barcodes in a black and white image and will apply special image processing to the barcodes to make them easier for barcode reading after they are scanned. Barcode Image Enhancement does not effect barcode reading that is enabled in the ISIS Driver, as the barcode reading functionality that Kodak Alaris provides is performed using high resolution grayscale data during image processing.

- **Hole Fill** — allows you to fill in the holes that are around the edges of your document. The types of holes that are filled include: round, rectangular, and irregularly shaped (e.g., double-punched or those having a slight tear that could have occurred when the document was removed from a binder).

   NOTE: Do not turn **Hole Fill** on if you are scanning photos.

- **Add Border** — allows you to add a fixed amount of border to the left, right, top and bottom edge of the image.

- **Halftone Removal** — enhances images containing dot matrix text and/or images with shaded or colored backgrounds using halftone screens and effectively eliminates noise caused by the halftone screen.

- **Invert Image** — 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.

  NOTE: You may want to change this option if your application misinterprets the image data and stores your image in reverse of what you expect.

- **Deskew** — automatically straightens a document within ±0.3 degrees of the leading edge of the document. Deskew can detect up to a 45-degree skew and correct up to a 24-degree angle at 200 dpi or a 10-degree skew angle at 300 dpi.

  NOTE: To prevent data loss, the document must have all four corners within the image path.

Document Type

- **Text**: when the documents you want to scan contain mostly text.
- **Text with Graphics**: when the documents you want to scan contain a mix of text, business graphics (bar graphs, pie charts, etc.) and line art.
- **Text with Photographs**: when the documents you want to scan contain a mix of text and photos.
- **Photographs:** when the documents you want to scan are comprised mainly of photos.

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

JPEG (Joint Photographic Editor Group) **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.

Noise Filter

• **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 vice versa.

• **Background**: locates and analyzes the background areas of the image (e.g., non-text areas) and reduces random noise that may be multiple pixels in size.

Text Enhancement — allows you to configure the scanner to improve the appearance of text. Turn this option on if your document is mostly text and the characters are disconnected or not smooth. This option improves the readability of dot matrix printing and improves poor quality characters if the font size and/or resolution is large/high enough.

NOTES:

• This may have no effect on small fonts and effectiveness may be diminished if **Thinning/Thickening** is being used.

• If the font size is too small or the resolution is not high enough, this option may cause characters to fill in.

Thinning/Thickening — allows you to make the lines and characters appear to be thinner or thicker. Decreasing this setting will make the lines and characters thinner/smaller. Increasing this setting will make the lines and characters thicker/larger. The default is 0, no thinning or thickening.

Auto Color Detect tab

The Auto Color Detect tab provides the following options.
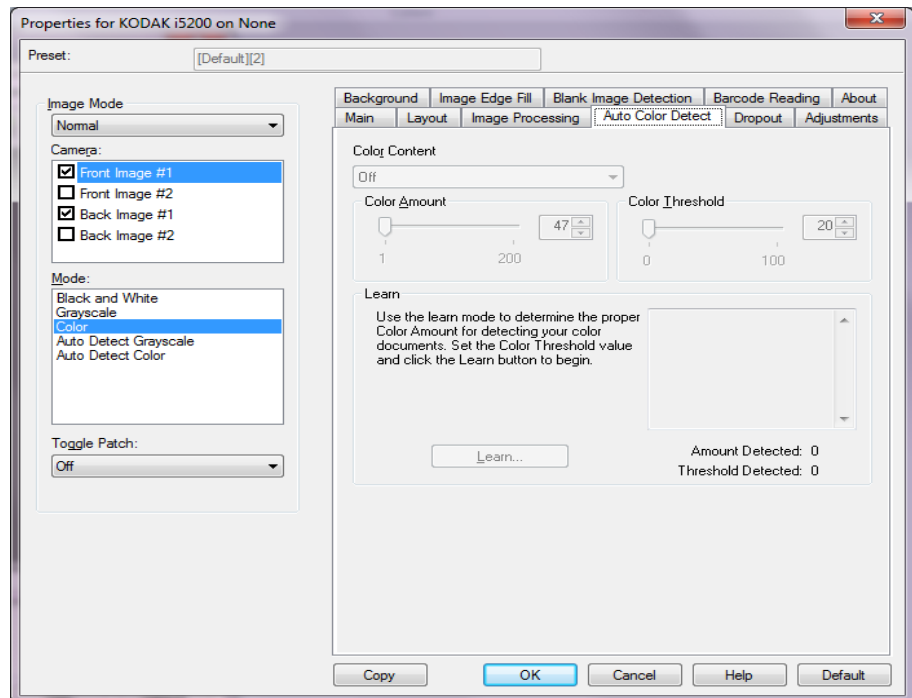
Color Content

- **Off:** this is the default. No color content will be detected.

- **Low**: documents requiring only a small amount of color to be saved as color or grayscale images. Used for capturing documents that are primarily black text with small logos, or contain small amounts of highlighted text or small colorful photos.

- **Medium**: documents require more color, as compared with the Low option, before they are saved as color or grayscale images.

- **High**: documents require more color, as compared with the Medium option, before they will be saved as color or grayscale images. Used for distinguishing documents containing medium- to large-size colorful photos from plain black text. Photos with neutral colors may require adjustments to the Color Threshold or Color Amount values in order to be captured correctly.

- **Custom**: allows you to manually adjust the **Color Amount** and/or **Color Threshold**.

  NOTE: When setting Auto Color Detect values, it is suggested that you start with the **Medium** option and scan a typical job set. If too many documents were returned as color/grayscale vs. black and white, then change to the **High** option and re-run the job. If too few documents were returned as color/grayscale vs. black and white, then change to the **Low** option and re-run the job. If none of these options provide the desired result, select **Custom** option to manually adjust Color Amount and/or Color Threshold.

Color Amount: the amount of color that needs to be present in a document before it will be saved as either color or grayscale. As the value of Color Amount increases, more color pixels are required. Valid values are 1 to 200.

Color Threshold: the color threshold or intensity (i.e., pale blue vs. dark blue) at which a given color will be included in the color amount calculation. A higher value indicates that a more intense color is required. Valid values are 0 to 100.

Learn — allows you to calculate your settings based on representative color documents scanned. Before selecting **Learn**, place at least 5 representative color documents in the input elevator. The documents will be scanned and analyzed to determine the recommended Color Amount.

NOTE: The **Color Amount** and **Color Threshold** sliders will be updated automatically. If these values do not provide the desired results with your job set, you may need to manually adjust the **Color Threshold**.

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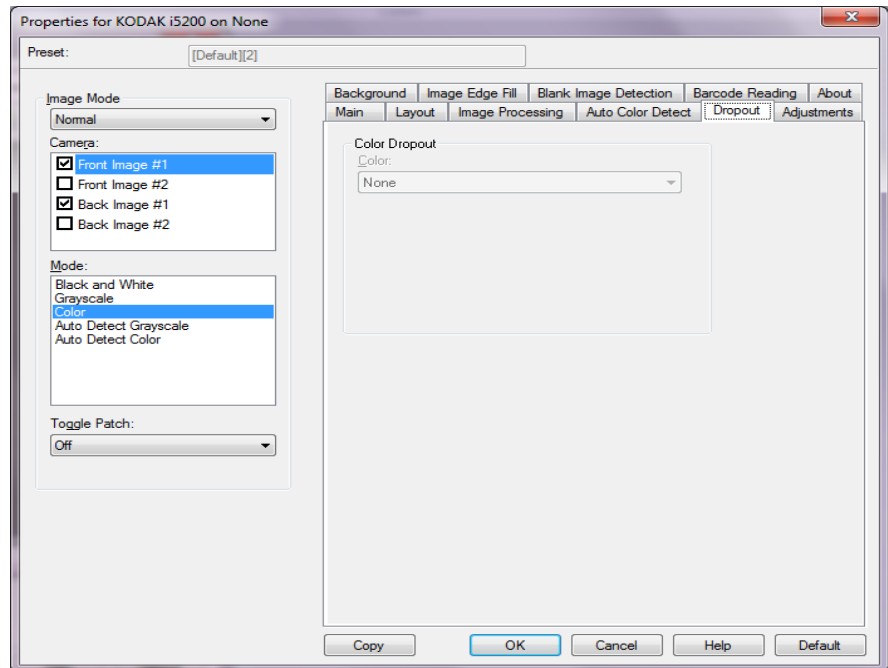
Color Dropout — used to eliminate a form's background so that only
the entered data is included in the electronic image (e.g., remove the
form's lines and boxes). For black and white images, these settings
effect the grayscale version of the document which the scanner
analyzes to produce that electronic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

- **Color**: select the desired dropout color.
    - **None**
    - **Multiple**: drops colors other than dark shades (e.g., black or dark
      blue ink). This feature will do a color analysis of every image
      scanned and will drop out up to 5 different colors. The individual
      color can be any color of more than 16 million colors. Use the
      Aggressiveness slider to adjust the color. This feature is unique in
      that it looks at every page that is scanned. You do not need to
      pick which color(s) to drop. **Multiple** is available for grayscale
      output.
    - **Predominate**: drops the predominant color. Use this option even
      if your forms are all the same color, as it drops a wider range of
      single colors. This option is also a good choice if you have
      several forms that each have one form color as you can mix the
      forms in a single batch.
    - **Red**
    - **Green**
    - **Blue**
    - **Orange**
    - **Orange and Red**

- **Aggressiveness**: allows you to adjust the extent at which colors are dropped. The values range from **-10** to **10**. The default is 0. *This option is only available when Color is set to **Multiple** or **Predominant**.*

NOTES:
- All Color Dropout options are available when the *Mode* selection is **Black and White**.
- **Red**, **Green**, **Blue, Orange** and **Orange and Red** are available for grayscale scanning.
- Color dropout is not available for color scanning.

The following red, green and blue Pantone values should provide good dropout performance.

These values were established by using the standard Pantone Matching System® Colors guide (uncoated, 175-line screen). If the background of the document you are using is not bright white, the results may vary. iThresholding is recommended. If iThresholding does not provide acceptable color dropout results, the ATP conversion quality setting will provide more control for binarization.

The following is a list of colors which may be used with the red, green and blue dropout options.

Red Dropout

144U	150U	151U	1485U	1495U	1505U	Orange 021 U	156U
157U	158U	1555U	1565U	1575U	1585U	162U	163U
164U	165U	1625U	1635U	1645U	1655U	169U	170U
171U	172U	176U	177U	178U	Warm Red U	179U	1765U
1775U	1785U	1788U	1767U	1777U	1787U	Red 032U	182U
183U	184U	185U	186U	189U	190U	191U	192U
1895U	1905U	1915U	1925U	196U	197U	198U	199U
200U	203U	204U	205U	206U	210U	211U	212U
213U	217U	218U	219U	Rubine Red U	223U	224U	225U
226U	230U	231U	232U	Rhodamine Red U	236U	237U	238U
239U	240U	2365U	2375U	2385U	2395U	2405U	243U
244U	245U	246U	247U	250U	251U	252U	Purple U
253U	256U	257U	2562U	2572U	2582U	2563U	2573U
2567U	263U	264U	2635U	2645U	236U	2365U	2375U
243U	244U	245U	250U	251U	256U	257U	2562U
2572U	2582U	2563U	2567U	263U	264U	2635U	2645U
1375U							

Green Dropout

106U	107U	108U	109U	113U	114U	115U	120U
121U	122U	1205U	1215U	127U	134U	135U	1345U
148U	317U	3245U	331U	332U	333U	337U	3375U
3385U	3395U	344U	345U	351U	352U	353U	358U
359U	360U	365U	366U	367U	368U	372U	373U
374U	375U	376U	379U	380U	381U	382U	386U
387U	388U	389U	390U	393U	394U	395U	396U
397U	3935U	3945U	3955U	3965U	317U	3294U	

Blue Dropout

317U	3245U	236U	2365U	2375U	243U	244U	245U
250U	251U	256U	257U	2562U	2572U	2582U	2563U
2567U	263U	264U	2635U	2645U	236U	2365U	2375U
243U	244U	245U	250U	251U	256U	257U	2562U
2572U	2582U	2563U	2567U	263U	264U	265U	266U
2635U	2645U	2655U	270U	271U	272U	2705U	2715U
2725U	2706U	2716U	2726U	2707U	2717U	2727U	2708U
2718U	2728U	277U	278U	279U	283U	284U	285U
290U	291U	292U	293U	2905U	2915U	2925U	2935U
297U	298U	299U	300U	2975U	2985U	2995U	3005U
304U	305U	306U	Process Blue U	310U	311U	312U	313U
3105U	3115U	3125U	317U	318U	319U	324U	3242U
3252U	3245U						

Adjustments tab

The Adjustments tab provides the following options.
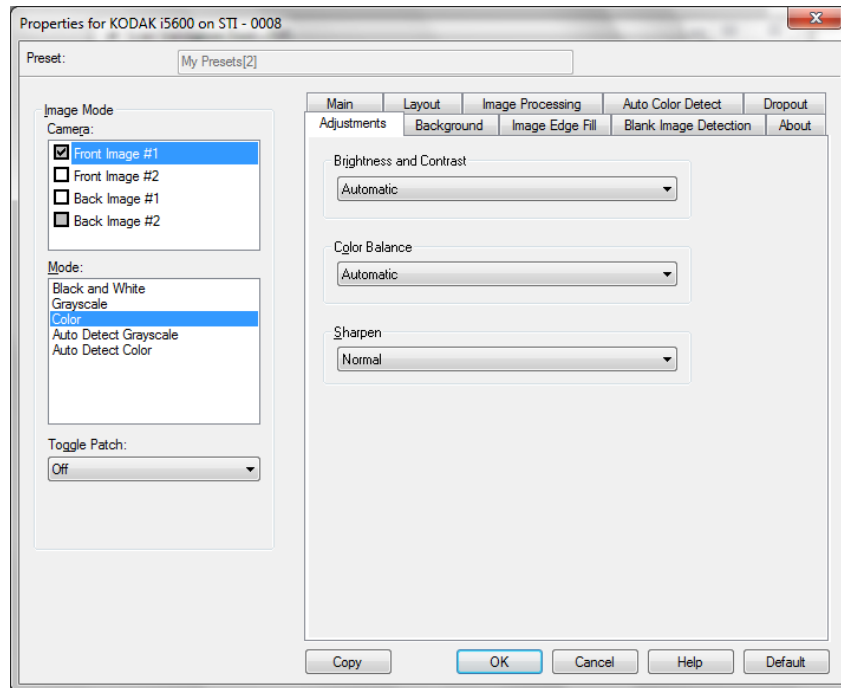
Brightness and Contrast

- **None**
- **Automatic**: automatically adjusts each image.
- **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 — available options are:

- **(none)**
- **Manual**
- **Automatic**
- **Automatic - advanced**

If you select **Manual** you can adjust the **Red, Green** and **Blue** values by dragging the slider bar to the left or right, entering a value in the text box or using the up/down arrows.

- **Red** — changes the amount of red in the color image.
- **Green** — changes the amount of green in the color image.
- **Blue** — changes the amount of blue in the color image.

If you select **Automatic**, the scanner will analyze the documents to produce the best possible image.

Automatic - advanced is for advanced users that want to further adjust this option. Use the *Aggressiveness* slider bar to adjust the extent at which the color balance is determined. Values range from **-2** to **2**.

Sharpen — increases the contrast of edges within the image.
• **None**
• **Normal**
• **High**
• **Exaggerated**

Streak Filter — allows you to configure the scanner to filter vertical streaks from your images. Streaks are lines which may appear on an image and are not part of the original document. Streaks may be caused by contaminants on your documents (e.g., dirt, dust or frayed edges) or by not following the recommended cleaning procedures for your scanner. Adjust the extent at which the streaks are filtered by moving the slider bar from -2 to 2. The default is 0.

Background tab   The Background tab provide the following options.
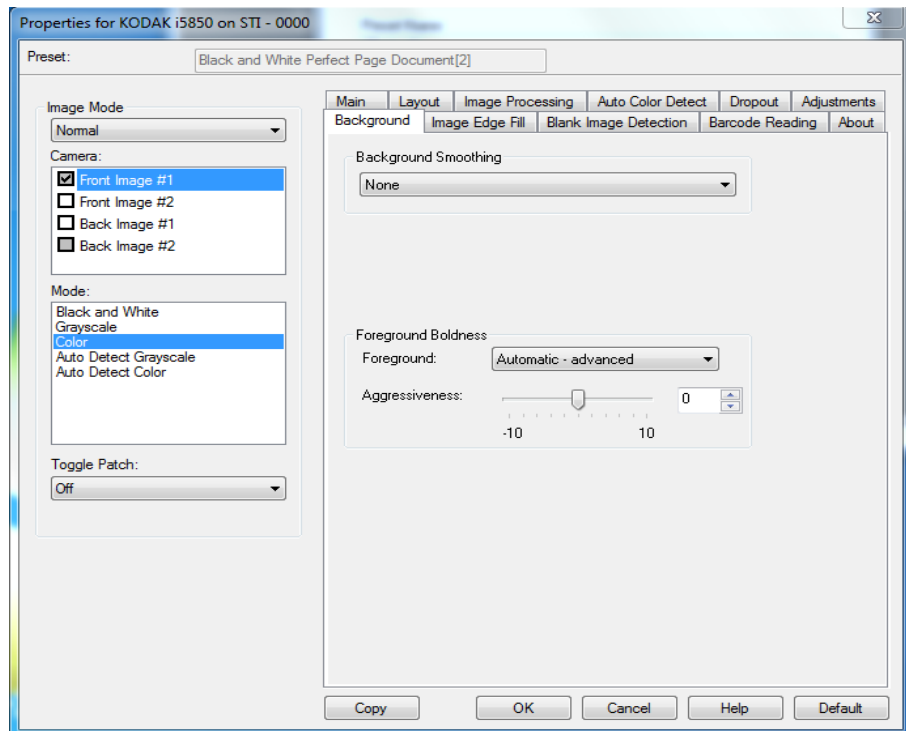
NOTE: The options on the Background tab are not available for black and white mode.

Background Smoothing — using this option for documents or forms with a background color will help produce images with a more uniform background color. This option improves image quality and may reduce file size.

NOTE: Background Smoothing is not intended for use with photographs.

Before   **After**

- **None**
- **Automatic**: smooths up to three background colors.
- **Automatic - advanced**: for advanced users that want to further adjust the **Automatic** option.
  - **Aggressiveness** — allows you to adjust the extent at which the background(s) are determined. The values range from **-10** to **10**.

Foreground Boldness — use this option for documents or forms where you want the foreground (e.g., text, lines, etc.) to be more prominent. When **Foreground Boldness** is enabled, gray and neutral colors are darkened.

NOTE: Foreground Boldness is not intended for use with photographs.
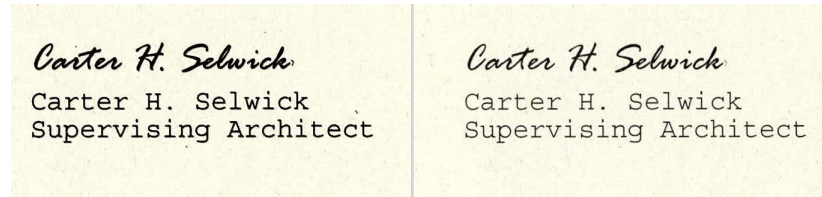
Before	After

- **None**
- **Automatic**: all foreground will be bolder.
- **Automatic - advanced:** for advanced users that want to further adjust the Automatic option.
    - **Aggressiveness** - allows you to adjust the extent at which the foreground is determined. Values range from **-10** to **10**.

Image Edge Fill tab   The Image Edge Fill tab provides the following options.
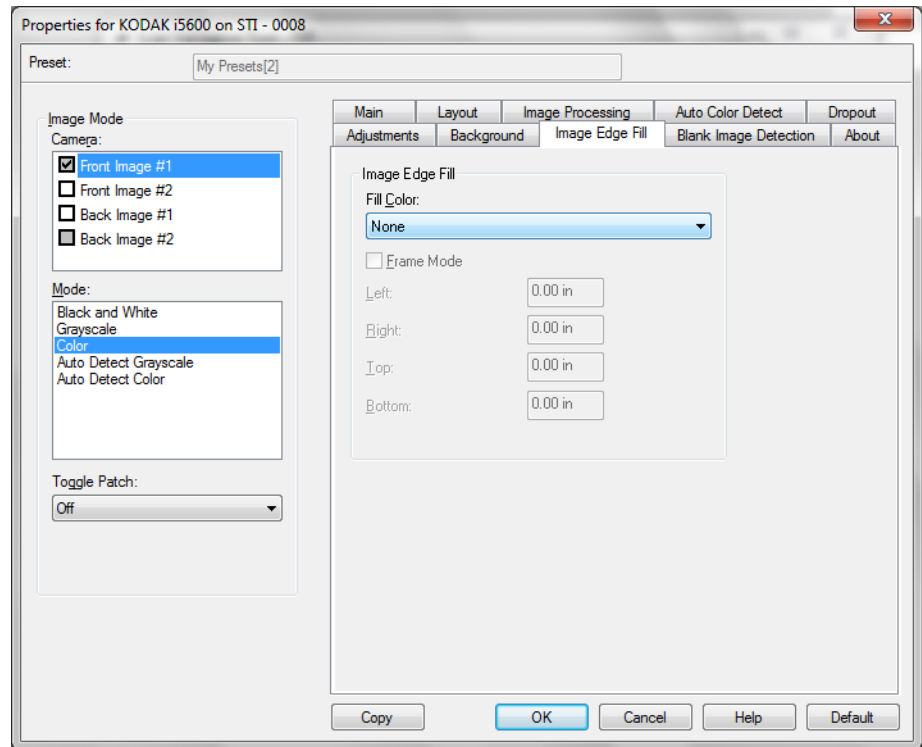

Image Edge Fill — fills the edges of the final electronic image by covering the area with the specified color.

- **Fill Color**:
  - **None**
  - **Automatic**: the scanner will automatically fill the edges of the image using the surrounding color.
  - **Automatic - include tears**: in addition to filling the edges, the scanner will also fill in tears along the edge of document.
 - **White**
  - **Black**

Frame Mode — when you select either **Black** or **White**, you can enter the size of the frame that you want to fill. An equal amount of the selected color from the *Image Edge Fill* drop-down list will be filled in on all sides of the image.

If **Frame Mode** is not selected, you can select a value in the **Left, Right, Top** and/or **Bottom** area(s) from each side of the scanned image to be filled with Black or White as selected.

NOTE: When using this option, be careful not to enter a value too large as it could fill in image data that you want to keep.

Blank Image Detection tab

The Blank Image Detection tab provides the following options.
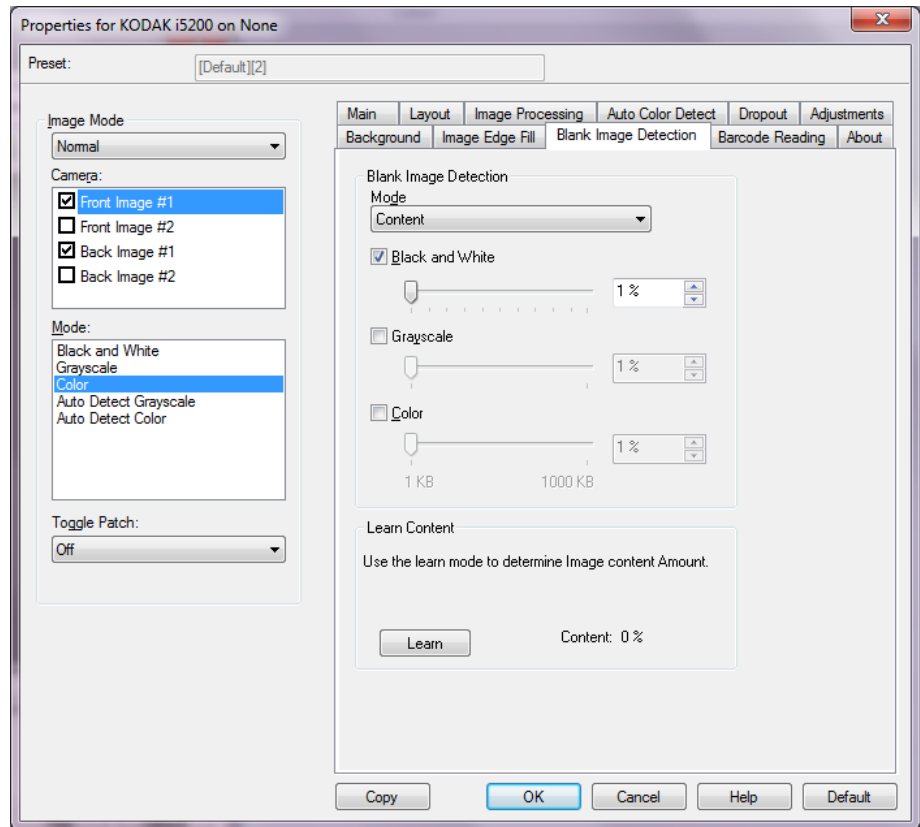
Blank Image Detection — allows you to configure the scanner to not give blank images to the scanning application. Select the image size (KB), below which an image is determined to be blank. Images with sizes less than the number you select will not be created. If you use this option, you must specify a blank image size for each image type (**Black and White, Grayscale** and **Color)** you want to delete. If you do not make an entry in these fields, all images are kept.

- **Off:** all images are given to the scanning application.

- **Size**: images will be considered blank based on the size of the image that would be given to the scanning application (i.e., after all other settings have been applied).

- **Content**: images will be considered blank based on the document content within the image. Select **Black and White**, **Grayscale** or **Color** to choose 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.

  NOTE: Blank Image Detection by Content has been improved in Scanner Firmware 3.12.1 (and higher) to allow better detection of pages with very little text. The improved feature can determine differences between just a few characters on a page. Because the feature is more sensitive, you may need to increase the value for percentage content if you find that images are being deleted that you do not want to delete. For example, a setting of 5% would equate to 12-13% with the improved feature.

Learn Content — allows the scanner to determine the content amount based on the documents to be scanned. Click **Learn** to use this function.

NOTE: Learn mode cannot be applied to both the front and back sides simultaneously. You must select the side you want to configure.

Barcode Reading tab

The Barcode Reading tab allows you to configure the scanner to search your images for barcodes and return the information to the scanning application.
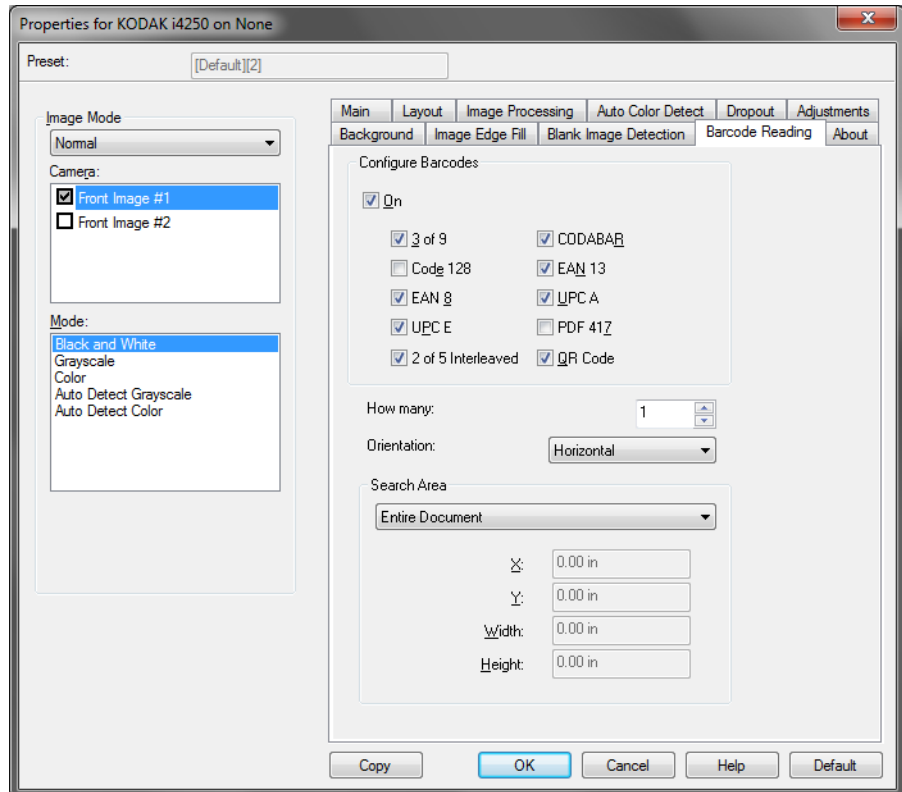
Configure Barcodes

- **On**: turns barcode reading on. When you select **On**, all barcode types are selected. Deselect any of the barcode types you do not want the scanner to search for.

    - 3 of 9
    - Code 128
    - EAN 8
    - UPC E
    - 2 of 5 Interleaved
    - CODABAR
    - EAN 13
    - UPC A
    - PDF 417
    - QR Code

- **How many:** select the number of barcodes the scanner will search for.

- **Orientation:** select the orientation of the barcodes to search for. Selections are: **Horizontal**, **Vertical** or **Both**.

   NOTE: This is relative to the final image (i.e., after any cropping and rotation has been applied).

- **Search Area**: select the area of the image to search.

  - **Entire Document**
  - **Part of Document:** if selected, you can make an entry in the following fields:
    - **X** is the distance from the left edge of the image.
    - **Y** is the distance from the top edge of the image.
   - **Width and Height**: the width and height of the area to search.

  NOTES:

  - These are relative to the final image (i.e., after any cropping and rotation has been applied).

  - If **Part of Document** is selected, the rules for *top left* to *bottom right* barcode reading apply with the selected Region of Interest.

  - If **Image Merge** is selected, the barcode settings for the front image will be applied to the merged front and rear image.

Configuring Scanner settings

To access scanner settings from the ISIS Driver, go into the Scan Validation Tool as described earlier in this guide and access the ISIS driver.
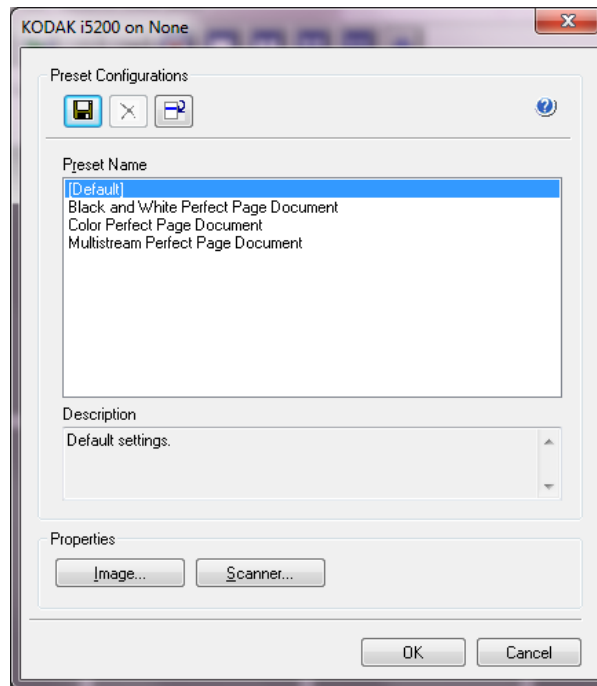
If your scanner is an i5650S or i5850S, the ISIS driver will present a button for Sorting.
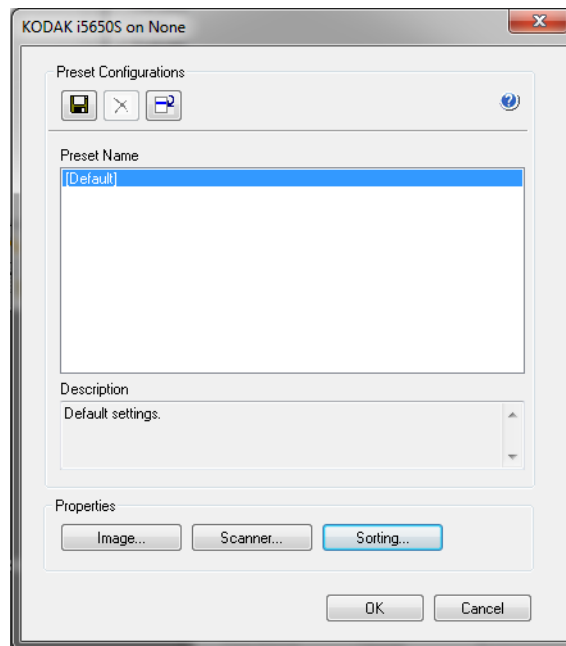
- Click **Scanner** to configure settings associated with the scanner. The following sections provide descriptions and procedures for configuring Scanner settings. See the section entitled, "Configuring Image settings" for image configuration procedures.

- Click Sorting to set up sorting options for the scanner. See the section entitled, "Configuring sorting settings" later in this guide.

Scanner tab

The Scanner tab provides the following options.
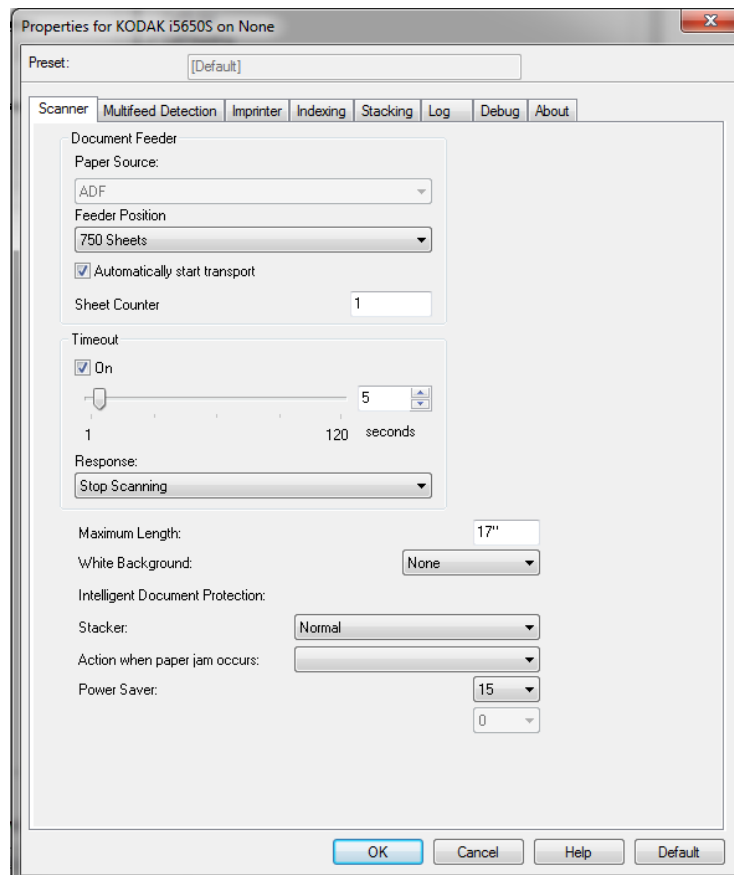
Document Feeder

Paper Source — **ADF** (automatic document feeder). All documents will be scanned from the input elevator.

NOTE: The **Automatic** and **Flatbed** options are only available if you had the flatbed accessory attached when the scanning application connected to the scanner.

Feeder Position — select one of the following input elevator positions:

• **Automatic**: looks for paper in the document feeder first. If there are no documents in the input elevator, the scanner will scan from the flatbed.

• **Automatic - 100 Sheets**: looks for paper in the input elevator first, if there are no documents in the input elevator, the scanner will scan from the flatbed. This selection is recommended when you are scanning between 25 and 100 sheets from the input elevator.

• **Automatic - 250 Sheets**: looks for paper in the input elevator first, if there are no documents in the input elevator, the scanner will scan from the flatbed. This selection is recommended when you are scanning between 100 and 250 sheets from the input elevator.

- **Automatic - 500 Sheets**: looks for paper in the input elevator first, if there are no documents in the input elevator, the scanner will scan from the flatbed. This selection is recommended when you are scanning between 250 and 500 sheets from the input elevator.

- **Automatic - 750 Sheets**: looks for paper in the input elevator first, if there are no documents in the input elevator, the scanner will scan from the flatbed. This selection is recommended when you are scanning between 500 and 750 sheets from the input elevator.

- **Normal**: the input elevator is in the highest position. This selection is recommended when you are scanning 25 sheets or less from the input elevator.

- **100 Sheets** — this selection is recommended when you are scanning between 25 and 100 sheets from the input elevator.

- **250 Sheets** — this selection is recommended when you are scanning between 100 and 250 sheets from the input elevator.

- **500 Sheets** — this selection is recommended when you are scanning between 250 and 500 sheets from the input elevator.

- **750 Sheets** — this selection is recommended when you are scanning between 500 and 750 sheets from the input elevator.

- **Flatbed** — the scanner will scan from the flatbed.

Automatically start transport — if selected, the scanner will wait for up to 10 seconds for documents to be placed in the input elevator before scanning will begin. In addition, once the input elevator has been emptied, the scanner will automatically resume scanning when paper is placed in the input elevator. The scanner will wait the amount of time specified by the document feeder timeout.

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.

Timeout — allows you to set the amount of time the scanner will wait after the last document enters the transport before the transport timeout action is taken. You can specify a time delay setting from **1** to **120** seconds.

Response — 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).

- **Pause Scanning**: scanning will stop but the scanning application will be waiting for additional images (e.g., stops the feeder). Scanning may be resumed by pressing the **Start/Pause** button on the Operator Control Panel. Scanning may be stopped by pressing the **Stop** button on the Operator Control Panel or via the scanning application.

- **Pause Scanning - Wait for Paper**: scanning will stop but the scanning application will be waiting for additional images (e.g., stops the feeder). Scanning will be resumed automatically when documents are added to the input elevator.

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

NOTES:

- Not all combinations of settings are supported at the larger lengths (i.e, resolution, color, grayscale, etc.). For greater flexibility, the scanner will not generate an error until it sees a document whose length is not supported.

- The scanner's throughput may be reduced for larger lengths.

- If a document that is longer than this value is scanned, the transport will stop (leaving the document in the scanner) and a document jam message will be displayed.

- The Maximum Length will always range from 2.5 to 180 inches but the true maximum length of the scan will depend on the bit depth (color/grayscale/black and white and the resolution used for the scan). Black and white 200 dpi will be 180 inches, but color 600 dpi will be much less. If the scanner's processing capacity is exceeded before the user-selected Maximum Length is reached, then a document jam will be displays on the scanner's Operator Control Panel and the image will not be sent to the host application.

- If scanning a stack of mixed documents, where some documents are very long, the best option may be to select when to enable Long Document scanning by using either the *Allow Maximum Length* override or the *Maximum Length Detection* batch override option on the scanner's Operator Control Panel.

- When **Controlled Dual Stacking** is enabled, the default setting will be limited to the maximum length of 10 inches/254 mm. See Chapter 5, "Length Protection Enabled" in the User's Guide for more information.

White background — when turned on, indicates which side(s) of the document will see White instead of Black where there is no paper.

- **None**: uses the Black background for the front and back sides.

- **Both**: uses the White background for the front and back sides.

The following are examples of when white background is used:

- Scanning non-rectangular documents and, in the final image, you want the area outside the document to be White instead of Black.

- Scanning lightweight or thin paper, with printing on one side, and you do not want the black background to bleed through the document and appear in the final image.

NOTE: If you are using the i5850 Scanner, the only option available is **Both**.

Intelligent Document Protection — allows you to select how aggressively the scanner detects documents that enter the scanner incorrectly. This can occur when documents are not prepared properly for scanning (e.g., stapled or paper clipped documents).

- **None**

- **Normal**: this is the recommended option as it provides a balance between minimizing document damage and stopping the scanner unnecessarily.

- **Minimum**: select this option if the scanner is stopping too frequently on documents that you do not want it to detect.

  NOTE: Documents may become more damaged before detection occurs.

- **Maximum**: select this option to get the least amount of document damage.

  NOTE: This may cause the scanner to stop unnecessarily.

Stacker — allows you to select how the scanner transports documents through the scanner. This affects how the documents are fed into the scanner, how fast they move through the scanner, and how they are placed in the output tray.

NOTE: When Controlled Dual Stacking is enabled, Stacker will automatically be set to a custom level with a throughput that will be less than **Best Stacking**.

- **Normal**: no additional handling is performed. Best used when all documents are similar in size.
  - Full throughput
  - Controlled stacking **Off**
  - Minimum gap between documents

- **Improved Stacking**: aids in controlling how the documents are stacked/ordered in the output tray for mixed document sets. This should work for the majority of mixed sets.
  - Possible slight reduction in throughput
  - Controlled stacking **On**
  - Minimum gap between documents

- **Best Stacking**: when your document set contains a great variability in size, this option provides the best control of how the documents are stacked/ordered within the output tray.
  - Slight reduction in throughput
  - Controlled stacking **On**
  - Large interdocument gap

- **Fragile**: for documents that need extra care as they are transported through the scanner and placed in the output tray.
  - Greatly reduced throughput
  - Controlled stacking **Off**
  - Minimum interdocument gap
  - One-quarter transport speed

- **Thick**: for documents that are thicker than card stock (110 lb. / 0.25 mm).
  - Greatly reduced throughput
  - Controlled stacking **On**
  - Minimum interdocument gap
  - One-quarter transport speed

- **Thin**: for documents that are thinner than 20 lb. bond paper (e.g., rice paper).

  - Greatly reduced throughput
  - Controlled stacking **On**
  - Large interdocument gap
  - One-quarter transport speed

Action when paper jam occurs — allows you to select what happens when the scanner detects a paper jam.

- **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.

- **Pause Scanning**: if you want to automate the jam recovery option, selecting **Pause Scanning** will cause scanning to stop but the scanning application will be waiting for additional images (e.g., stops the feeder). This option will allow you to recover from a document jam faster, thus improve operator efficiency. When you clear the paper path, scanning can be resumed by pressing the **Start/Pause** button on the Operator Control Panel. Scanning can be stopped by pressing the **Stop** button on the Operator Control Panel or via the scanning application.

Power Saver — allows you to set the amount of time the scanner (**1** to **240** minutes) will remain inactive before the scanner goes into an idle state. The default is 15 minutes.

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.

Multifeed Detection tab

Multifeed detection aids in document processing by detecting documents that may go through the feeder overlapped. Multifeed can happen due to stapled documents, adhesives on documents or electrostatically charged documents. The Multifeed Detection tab provides the following options.
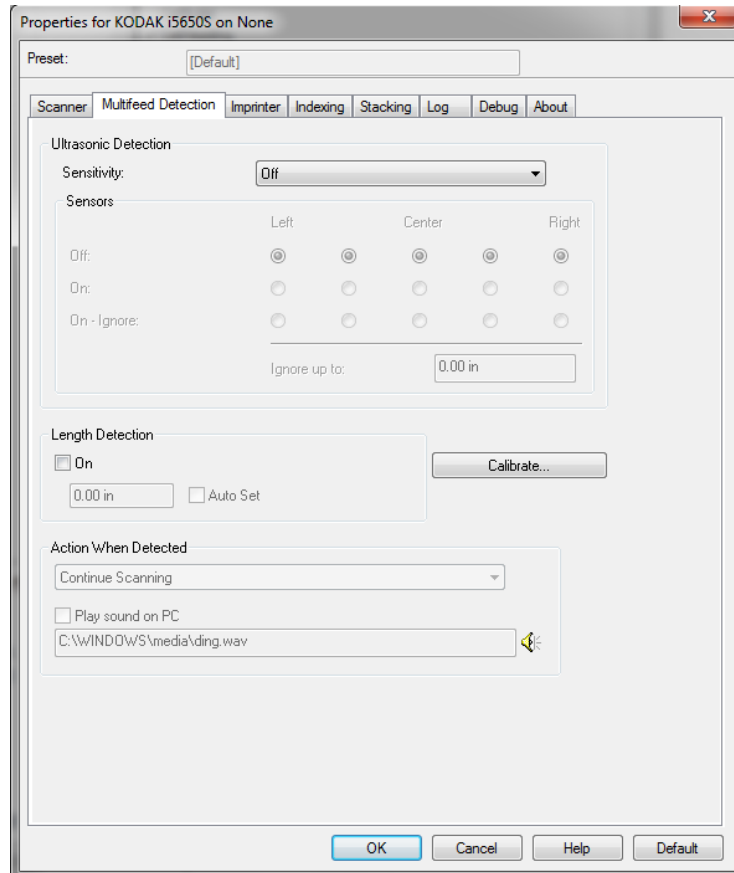
Ultrasonic Detection — check this option to set multifeed detection.

• **Sensitivity** — controls how aggressively the scanner will work to determine if more than one document is fed into the transport. Multifeeds are triggered by detecting air gaps between documents. This allows multifeed detection to be used with job sets containing documents with mixed thicknesses.

  - **Off**
  - **Low**: the least aggressive setting and is less likely to detect labels, poor quality, thick or wrinkled documents as multifed documents.
  - **Medium**: use Medium sensitivity if your application has varying document thickness or labels attached to the document. Depending on the label material, most documents with labels should not be detected as a multifed document.
  - **High**: the most aggressive setting. This is a good setting to use if all documents are similar in thickness to 75.2 g/m^2 (20-lb.) Bond paper.

Sensors — five sensors cover the width of the paper path. In order for multifed documents to be detected correctly, they must pass under one of these sensors.

- **Left** through **Right**: these controls allow you to select which of the five sensor(s) you want to have turned on. For example, if you know that the left side of the document has a "sticky" note on it, you can turn off the left sensor.

- **Ignore up to:** ignores a multifeed anywhere on the document that is less than the value entered. This option is useful when you have a known multifeed situation that you want to allow, but do not want to have the sensor off for the entire document (e.g., 3-inch "sticky" note).

  NOTES:
  - This option is available when at least one sensor is set to **On - Ignore.**
  - This length applies to all sensors set to **On - Ignore.**

Length Detection — when enabled, you can select the maximum length of the document that can be scanned without a multifeed being detected. Length detection is used when scanning same-sized documents to check for overlap. For example, if you are scanning A4 (8.5 x 11-inch) documents in portrait mode, enter a value of 28.57 cm (11.25 inches) in the *Max Length* field. The maximum value is 35.56 cm (13.99 inches).

Auto Set — when checked, automatically sets the maximum length value to .50-inch greater than the length of the currently selected page size.

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 (i.e., ends the job). Image(s) of the multifed document will not be generated. 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 (i.e., ends the job). Image(s) of the multifed document 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 (i.e., making no attempt to clear the paper path) and control will return to the scanning application (i.e., ends the job). Image(s) of the multifed document will not be generated. Clear any documents from the paper path prior to restarting the scan session from the scanning application.

- **Stop Scanning - leave paper at exit**: scanning will stop and the last portion of the multifed document will be held at the transport's exit, and control will return to the scanning application (i.e., ends the job). Image(s) of the multifed document will not be generated. Clear any documents from the paper path prior to restarting the scan session from the scanning application.

- **Continue Scanning**: the scanner will continue to scan. Image(s) of the multifed document will be generated.

- **Pause Scanning - generate image(s)**: scanning will stop but the scanning application will be waiting for additional images (i.e., stops the feeder). Image(s) of the multifed document will be generated. Scanning may be resumed by pressing the **Start/Pause** button on the Operator Control Panel. Scanning may be stopped by pressing the **Stop** button on the Operator Control Panel or via the scanning application.

  This option allows you to inspect a preview image of the scanned page and choose to **Accept** the scanned image or **Rescan** the page and discard the image from the scan that triggered a multifeed alarm. The scanned images will not be sent to the host application until accepted. This option allows all multifeed events to be handled at the scanner. No image manipulation is required in the scanning application. This option also allows you to stay in front of the scanner reducing wasted movement and fatigue. **This option is provided by the scanner. No changes to the scanning application are required**.
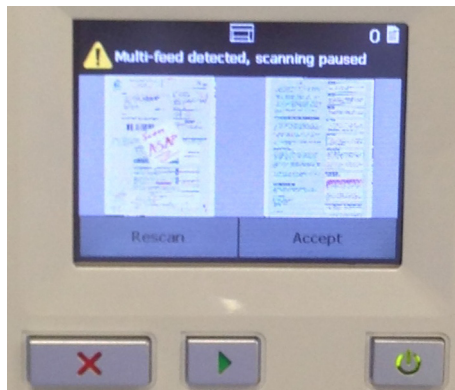
The preview image will be oriented per the image processing settings that were selected within the ISIS Driver (Automatic Rotation). If the scanning application is rotating the image or performing other image processing, the preview image will not have scanning image processing applied.

- If scanning in duplex (front and back), then both images will be displayed.

- If scanning in black and white, a black and white image will be displayed.

- If scanning in color/grayscale, a color/grayscale image will be displayed.

- If scanning in dual stream, a color/grayscale image will be displayed.

- If scanning in black and white using VRS software, a grayscale image will be displayed.

- **Accepting the images**: if you want to accept the image, touch **Accept** on the Operator Control Panel or press the **Start/ Resume button** on the scanner. When **Accept** is selected, the images shown in the scanner's preview will immediately be sent to the scanning application and scanning will continue.

- **Rescanning the page:** if the page needs to be rescanned, remove the top page(s) from the output tray and place the pages back in the input elevator (be sure to correct any document preparation issues). When the pages are ready to rescan, touch **Rescan** on the Operator Control Panel. The preview images will be discarded. If printing was not enabled, the scanner will immediately start scanning. If printing was enabled, the scanner will go to the Paused screen where you can choose to **Omit Printing** on the next page scanned. You can then press the **Start/ Resume** button on the scanner to continue scanning.

• **Pause Scanning - leave paper in path:** scanning will stop immediately (i.e., making no attempt to clear the paper path) but the scanning application will be waiting for additional images (i.e., stops the feeder). Image(s) of the multifed document will not be generated. Clear any documents from the paper path prior to resuming the scan session. Scanning may be resumed by pressing the **Start/Pause** button on the scanner's Operator Control Panel. Scanning may be stopped by pressing the **Stop** button on the scanner's Operator Control Panel or via the scanning application.

• **Pause Scanning - leave paper at exit**: scanning will stop and the last portion of the multifed document will be held at the transport's exit, but the scanning application will be waiting for additional images (i.e.,stops the feeder). Image(s) of the multifed document will not be generated. Clear any documents from the paper path prior to resuming the scan session. Scanning may be resumed by pressing the **Start/Pause** button on the Operator Control Panel. Scanning may be stopped by pressing the **Stop** button on the Operator Control Panel or via the scanning application.

- **Interactive Multifeed Recovery:** scanning will stop but the scanning application will be waiting for additional images (i.e., stops the feeder). Images of the multifed document will be displayed on your computer. You can accept these images or rescan to replace them. You can make your selection on your computer or the scanner. Send the images to your application and resume scanning by selecting **Accept**. Selecting **Rescan** will discard the images and scanning will resume. Scanning may be stopped by selecting **Stop**.
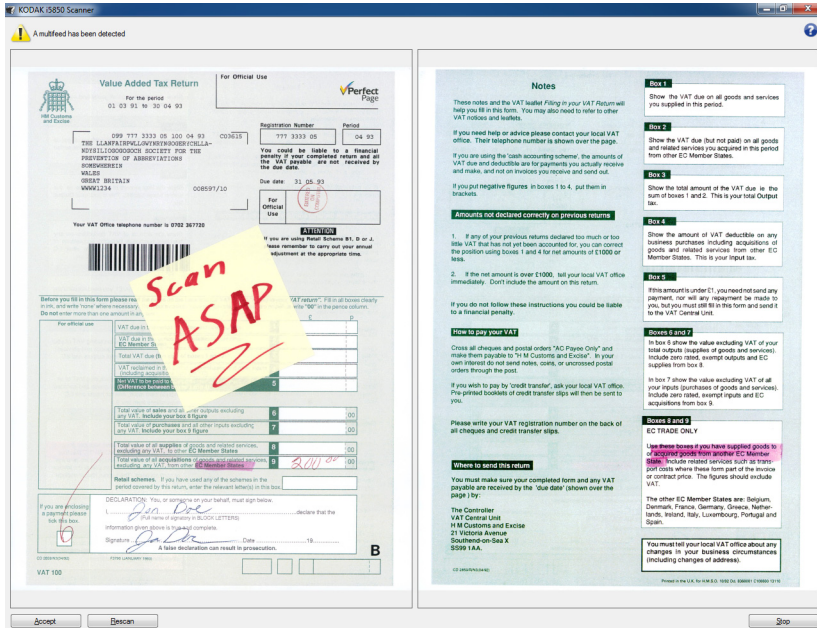
NOTE: Put the multifed document(s) into the input elevator before selecting **Rescan**.

Play sound on PC — turn this option on if you want the PC to make a sound when a multifeed is detected.

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

Speaker icon — displays the Open dialog box allowing you to select the desired tone (.wav file) for your alarm.

Calibrate — displays the Calibration window allowing you to perform a **UDDS** calibration.

NOTE: Frequent calibration is not necessary or recommended. Only perform a calibration when instructed to do so by your support personnel.

Imprinter tab

The Enhanced Printer operates at full scanner speed. The printer can add a date, time, document sequential counter, and custom messages.

The print string can be configured to include both literal (static) information (e.g., information that stays the same for each document, such as batch name or operator) and dynamic information (i.e., information that may change for each page scanned, such as the document sequential counter). The capture software application controls static fields; any information that the software allows you to enter can be sent to the printer.
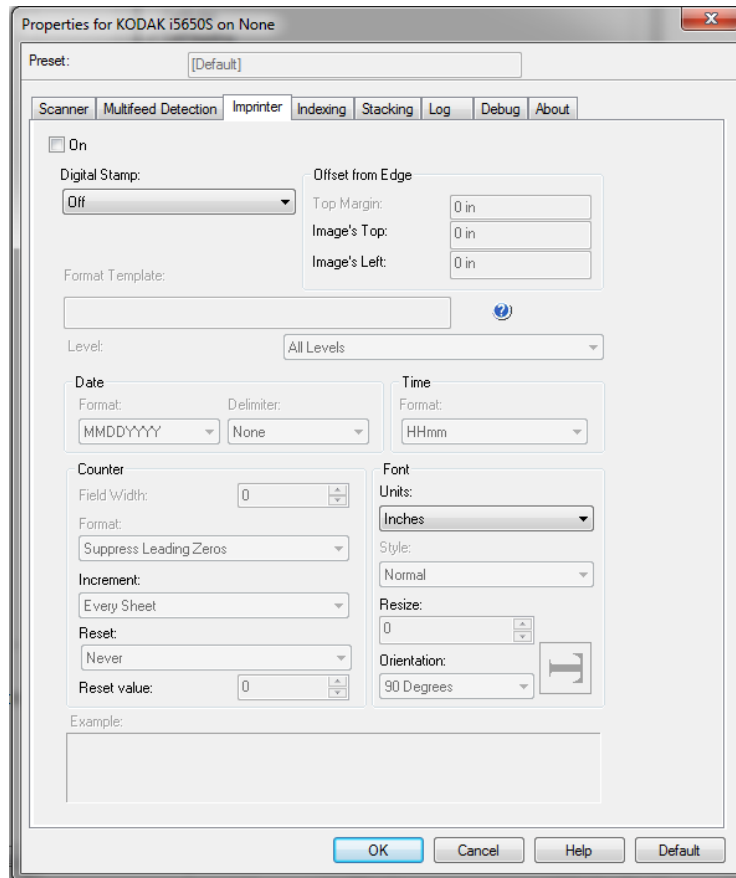
On — check this to enable the printer.

NOTE: Printing may be overridden from the scanner's Operator Control Panel.

Digital Stamp — turns digital printing on for the physical sheet of paper.

- **Mode**
  - **Disabled**
  - **Front Side** — turns digital printing on for all front images.
  - **Back Side** — turns digital printing on for all rear images.
  - **Both**

NOTES:

- Digital stamp is applied to the image *after* it has been cropped and rotated. Therefore, if **Front Side** and **Back Side** are both enabled, the print may be printed on different edges of the document.

- Digital stamp is applied before **Image Merge** so if **Back Side** is enabled, the digital print will be printed on the merged image twice.

Offset from Edge — select a value to determine how far the printed information will appear from the edge.

- **Top Margin:** select a value for the distance from the leading edge of the document.

  NOTES:

  - Printing automatically stops 6.3 mm (1/4-inch) from the trailing edge of the document even if the information has not been completely printed.

  - The horizontal print position is determined by the location of the ink cartridge in the scanner. See the User's Guide for information about setting print positions.

  - This option is only available when printing on the physical sheet of paper.

  - The offset from the lead edge may also be overridden from the scanner's Operator Control Panel.

- **Image's Top:** select a value for the distance from the top edge of the image.

- **Image's Left**: select a value for the distance from the left edge of the image.

  NOTE: The **Image's Top** and **Image's Left** options are only available when digitally printing on images.

Format Template — the format template is used to build the print string. The print string is what is printed on documents as they pass through the transport. If using the front printer, the print string is printed before the document is scanned, therefore, it is part of the image. If using the rear printer (i5850 Scanner), the documents are printed after scanning, therefore, the printing will not be on the image. The maximum amount of characters for each print string is 40 characters (including spaces).

IMPORTANT: *Some combinations of patch usage and imprinting, or indexing and imprinting, are complex to set up correctly. It is possible to set up printing so it looks correct — but image header information will not match the print string information if other setup is not correct. You risk unexpected results, if you use the following combinations.*

- If you intend to use Indexing your ISIS print format string should probably NOT contain the values "%S" or "#".

- If you intend to use patch counting your ISIS print format string should probably NOT contain the Values "%A" "%B" "%C" "%D".

You can use the following imprinter format variables when building the format template.

%S or # = counter
%T = Time
%Y = Date
%% = "%"

NOTE: See the section entitled, "Imprinter Format table" for additional formatting options for these variables.

IMPORTANT: Patch Counting is not commonly used concurrently with Indexing. If you are having problems with synchronization of counters between the printed page values and the host software counter values, you may have inadvertently configured your scanner for Patch Counting and Indexing.

The i5850 and i5850S Scanners support the following variables to enable printing in the Indexing/Image Address fields:

%A = the first element of an image address (e.g., Fixed field)
%B = the second element of an image address (e.g., Level 3)
%C = the third element of an image address (e.g., Level 2)
%D = the fourth element of an image address (e.g., Level 1)

Level — select the level that you want to set up the print string for. You can set up to 4 different print strings at a time. This option can be used to prevent printing on patch sheets. For example, to prevent printing on Patch 2 sheets you should configure a format template for Level 1 and leave the Level 2 format template blank.

- **All Levels:** prints on all documents

- **Level 1**: prints only on Level 1 documents

- **Level 2:** prints only on Level 2 documents

- **Level 3**: prints only on Level 3 documents

NOTE: This option is only available when *Format* is set to Image Address on the Indexing tab.

Date

- **Format**:

    MMDDYYYY
    MMDDYY
    DDMMYYYY
    DDMMYY
    YYYYMMDD
    YYMMDD
    DDD (Julian)
    YYYYDDD (Julian)
    YYDDD (Julian)

- **Delimiter**: (the examples indicate a format of YYYYMMDD)

    - None
    - Slash: 2010/08/24
    - Dash: 2010-08-24
    - Dot: 2010.08.24
    - Space: 2010 08 24

• **Time**:

    HHmm
    HHmmss
    HHmmss.xx
    hhmm
    hhmmss
    hhmmss.xx
    hhmm tt
    hhmmss tt
    hhmmss.xx tt

    NOTE: **HH** is 24 hours, from 00 to 23; **hh** is 12 hours, from 01 to 12; **mm** is minutes from 00 to 59, **ss** is seconds from 00 to 59; **xx** is a counter from 00 to 99; and **tt** is **AM** or **PM**.

Counter — if you want to add a Counter to the print string, you can enter one of the following options:

• **Field Width:** used to control the width of the document counter. Values range from 1 to 9.

• **Format** — allows you to configure the format of the counter when the width of the value is less than the field width (the examples indicate a field width of 3 and the counter at 4). Options are:
    - **Display Leading Zeros** (default): "004"
    - **Suppress Leading Zeros**: "4"
    - **Compress Leading Zeros**: " 4"

• **Increment**: allows you to configure when the counter is incremented.
    - Every Sheet
    - Patch Type T
    - Patch Type 1
    - Patch Type 2
    - Patch Type 3
    - Patch Type 6

• **Reset**: allows you to configure when the counter is reset.
    - Never
    - Patch Type T
    - Patch Type 1
    - Patch Type 2
    - Patch Type 3
    - Patch Type 6

• **Reset Value**: allows you to select the value for the counter when it is reset.

- **Font** — you can select what orientation you want your information to be printed.

  - **Units** — select **Inches**, **Centimeters** or **Pixels**.
  - **Style**: available character styles: **Normal, Large** and **Bold**.

Normal: 90° rotation   **Large: 90° rotation**   **Bold: 90° rotation**

  - **Digital Print examples**

Normal: 90°   **Bold: 90°**   **Extra Bold: 90°**

- **Resize** — allows you to adjust the width of the font. The default is **0** (i.e., no adjustment).

  NOTE: This option only affects what is printed on the physical sheet of paper.

- **Orientation** — while the characters are printed vertically (starting at the lead edge of the document) this allows you to select the orientation of the print string. Available options are: **0, 90, 180, 270**.

Feed Direction   **0**   **90**   **180**   **270**
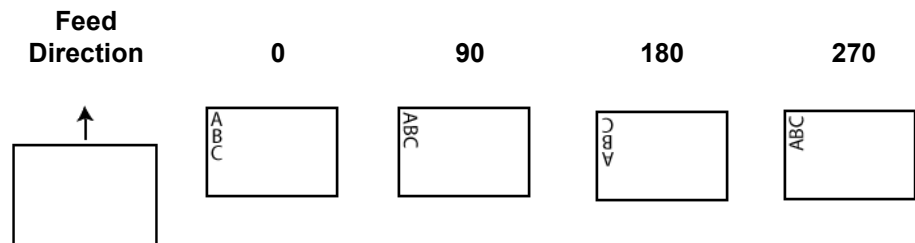
Imprinter Format table

| Specifier	Modifier	Description
%S	None	Inserts the current value of the sequential counter.
	0	Optional. Formats the counter to be left-padded with zeros to fill the defined field width. Example: %0S
	1-9	Optional. Defines the field width used to print the counter. If the 0 modifier is used, this field will be left-padded with zeros. Otherwise, it will be left-padded with spaces. Examples: %7S, %05S
%A	n/a	Inserts the value defined for Image Address field A
%B	n/a	Inserts the value defined for Image Address field B
%C	n/a	Inserts the value defined for Image Address field C
%D	n/a	Inserts the value defined for Image Address field D
#	n/a	Same as %S but cannot be formatted.
%T	1	Inserts the current time in HH:mm format
	2	Optional. Default. Sets the time format to HHmmss
	3	Optional. Sets the time format to HHmmss.xx
	4	Optional. Sets the time format to hhmm
	5	Optional. Sets the time format to hhmmss
	6	Optional. Sets the time format to hhmmss.xx
	7	Optional. Sets the time format to hhmm t
	8	Optional. Sets the time format to hhmmss tt
	9	Optional. Sets the time format to hhmmss.xx tt
%Y	1	Inserts the current date format to MMDDYYYY
	2	Optional. Sets the date format to MMDDYY
	3	Optional. Sets the date format to DDMMYYYY
	4	Optional. Sets the date format to DDMMYY
	5	Optional. Sets the date format to YYYYDDMM
	6	Optional. Sets the date format to YYMMDD
	7	Optional. Sets the date format to DDD
	8	Optional. Sets the date format to YYYYDDD
	9	Optional. Sets the date format to YYDDD
	_ (underscore)	Optional. Sets the date delimiter to the space character. Can be used with or without a date format specifier but cannot precede it. Examples: %_Y, %2_Y
	-	Optional. Sets the date delimiter to the dash character
	/	Optional. Sets the date delimiter to the slash character
	.	Optional. Sets the date delimiter to the dot character
%%	n/a	Inserts a %

Indexing tab

Indexing/Image addressing is used for document tracking, batch control and image management. The scanner will increment the indexes based on how you set up the selections on this tab.
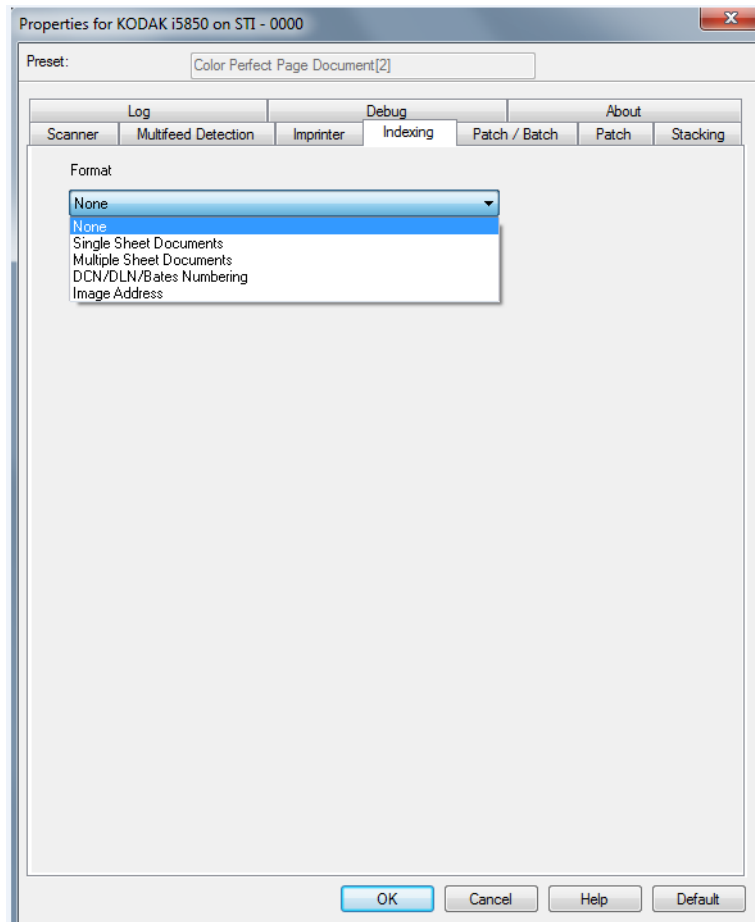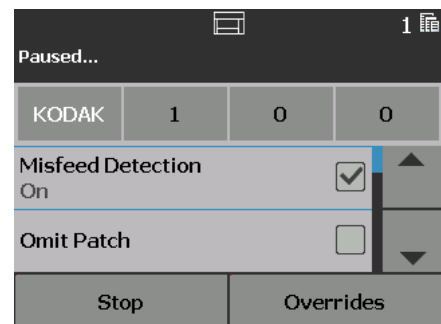

The i5x50 Scanners allow the scanner drivers to control whether the scanner has Indexing enabled or not. When Indexing is set to **None**, the indexing counters will not be displayed on the Operator Control Panel of the scanner.
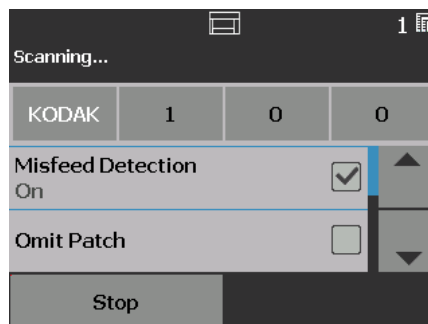
Indexing - Enabled	**Indexing - Not Enabled**

NOTE: The Operator Control Panel will not change until the job is started.

Format

- **None**

- **Single Sheet Documents**: use this when the documents in your job consist of only one sheet of paper. The scanner will increment the *Document* number for each sheet of paper scanned. **i5650/i5850 only.**

- **Multiple Sheet Documents**: use this when the documents in your job have multiple sheets of paper and you want to track each sheet within each document. When the scanner detects a Patch 2 sheet, the *Document* number is incremented and the *Sheet* number is set to 0. However, if the first page scanned is a Patch 2 sheet and the starting *Sheet* number is 0, then neither number is changed. This allows you to place a Patch 2 sheet before your first document and not have it affect the document's number. **i5650/i5850 only.**

- **DCN/DLN/Bates Numbering**: use this when the documents in your job have multiple sheets of paper and you only want to track the document's number. When the scanner detects a Patch 2 sheet, the Document number is incremented. However, if the first page scanned is a Patch 2 sheet and *New Job* was On, then the number is not changed. This allows you to place a Patch 2 sheet before your first document and not have it affect the document's number. **i5650/i5850 only.**

- **Image Address:** allows you to set an image address starting point. The scanner will increment the image address based on how you set up the image address rules on this tab. *This is only available on the i5850 Scanner.*

NOTES:

- When **Image Address** is selected as the *Format* on the Indexing tab, the options on the Patch/Batch tab will be available.

- For options other than **None** and **Image Address,** when you select a *Format*, the Printer Template is automatically updated with the *Document* and, if available, the *Sheet* value. If **On** was not checked on the Imprinter tab, it will automatically be turned on.

Single Sheet Documents, Multiple Sheet Documents and **DCN/ DLN/Bates Numbering** are only available for the i5650 and i5860 Scanners. When selected, the following options are available:
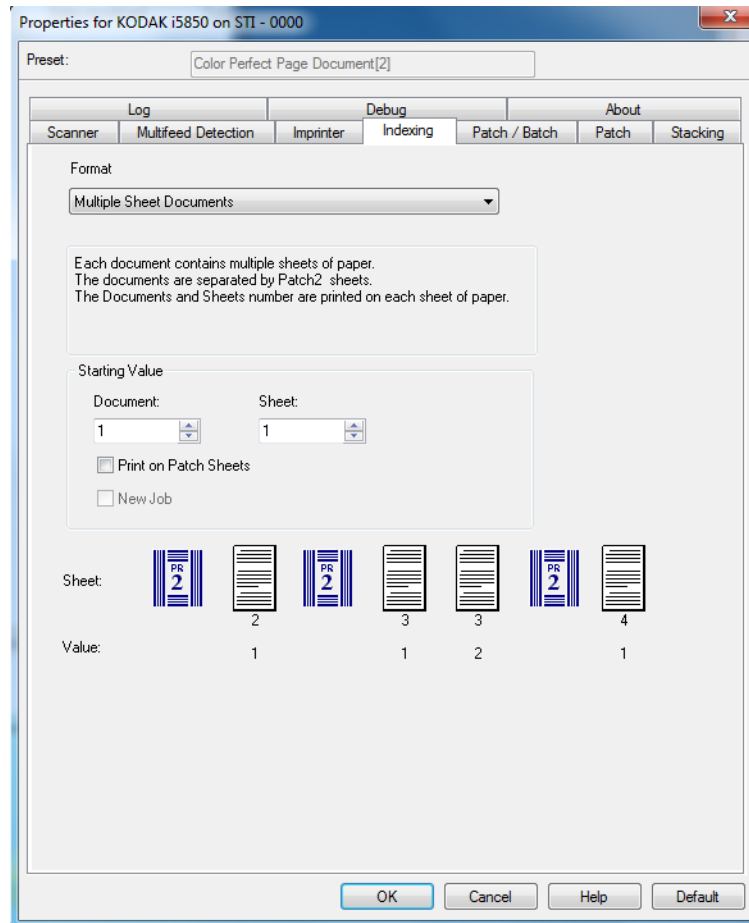
Starting Value

• **Document**: allows you to enter the starting value for the Document number. The values range from **0** to **999,999,999**. This value is maintained by the scanner. When powered on, the scanner initializes this value to 1.

• **Sheet**: allows you to enter the starting value for the Sheet number. The values range from **0** to **999,999,999**. This value is maintained by the scanner. When powered on, the scanner initializes this value to 0.

  NOTE: This option is only available when *Format* is **Multiple Sheet Documents**.

• **Print on Patch Sheets** — allows you to select whether the print string is applied to the Patch 2 sheets.

  NOTE: This option is not available if **Single Sheet Documents** is selected from the *Format* list.

- **New Job**: allows you to indicate if the next scan is a new job, or a continuation of the previous scan. This value is maintained by the scanner. When powered on, the scanner initializes this value to On.

  NOTE: This option is only available when *Format* is **DCN/DLN/Bates Numbering**.

Sheet and **Value** — displays an example job and what will be printed on each sheet. You can change the sheets in the example to represent your job. The printed value shown is based on the current selections for *Starting Value*, *Print on patch sheets*, and the sheets within the example.

The following options are available when the *Format* selection is **Image Address**.
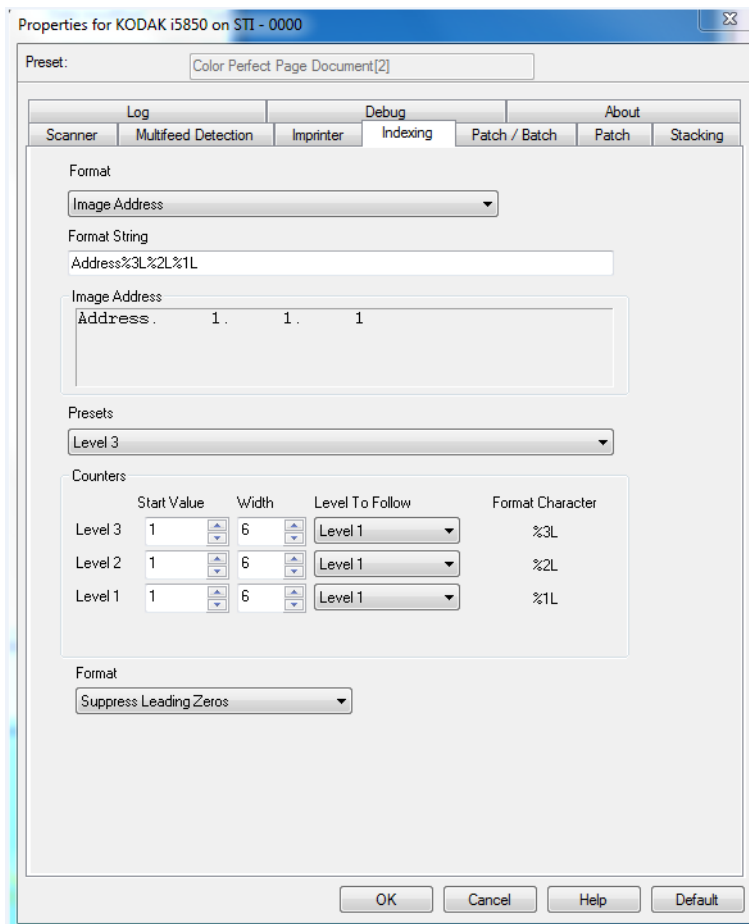
Format String — this text field allows you to structure your image address. The format string in the sample screen above represents a fixed field value of address and a 3 level image address.

Image Address — displays the starting image address. The values in this field reflect information from the *Format String* area and the S*tart Value* field in the *Counters* area. Each field can have a maximum width of 9 characters. The total image address cannot exceed 27 characters (30 with 3 delimiters).

Presets — you can use the selections in the field to automatically fill in the *Format String* field. The options are:

- **Custom**: enter your desired values.
- **None**
- **Fixed**: Address
- **Level 3**: Address%3L%2L%1L
- **Level 2**: Address%2L%1L
- **Level 1**: Address%1L
- **Level 3 Offset**: Address%3L%2L
- **Level 2 Offset**: Address%2L

You can have no fixed field or enter any fixed field value. The default fixed field value is **Address**.

Counters — for each image address level enter a **Start Value**, **Width** and make a **Level to Follow** Level selection.

- **Start Value**: the start value is reflected in the image address in the field designed by the format string.

- **Width**: a value of 0 indicates that no image address level will be used. Widths cannot exceed 9 characters.

- **Level to Follow**: these are the rules the scanner follows to set the next image address level if there are no other inputs. For example, patch sheet or end of batch processing. You will have to define a level to follow level for each of the level fields you defined in your image address.

  NOTE: The total value of the *Width* column plus the number of characters in all fixed fields cannot exceed 27 characters.

Format — select the format of the image address string used by the printer and how it is displayed on the scanner's Operator Control Panel. The following choices are available for printing the counter format.

- **Display Leading Zeros** format (e.g., 0009). This is the default.
- **Suppress Leading Zeros** format (e.g.,   9)
- **Compress Leading Zeros** format (e.g., 9)

Patch/Batch tab

The Batch/Patch tab provides batch and patch functionality. Batching is the operation of counting pages or documents. The Patch tab provides choices of what patch type to recognize. One or more patches can be selected at a time.
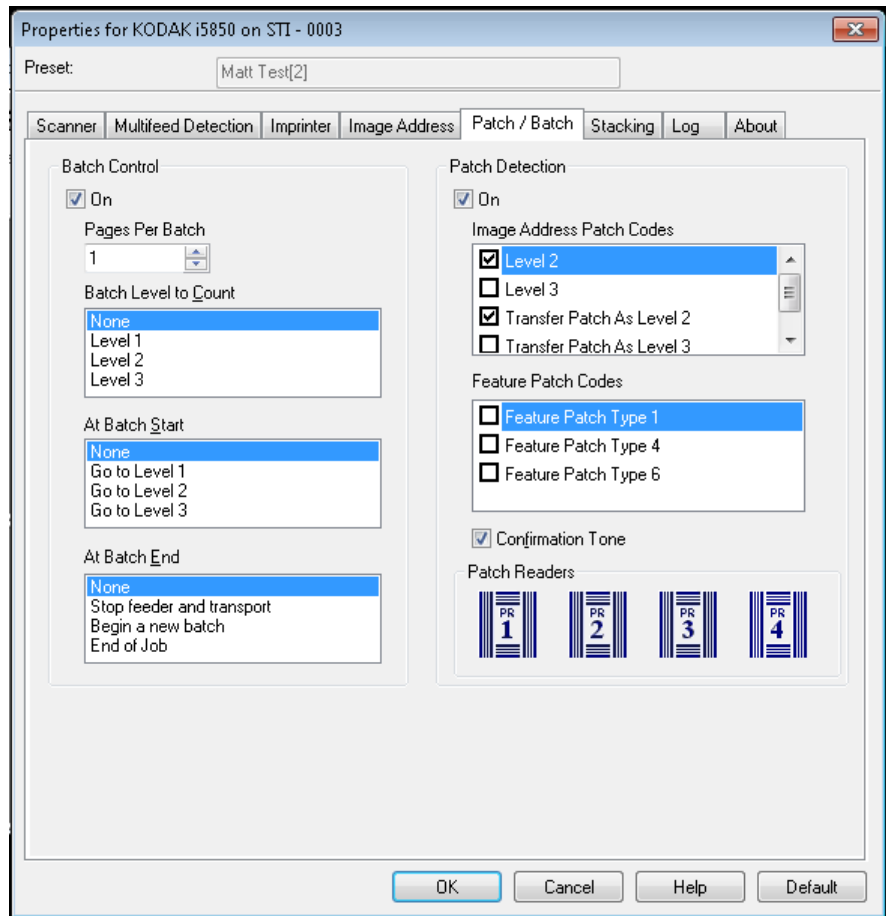
Batch Control

On — turns batching on and makes the rest of the options for Batch Control available.

Pages Per Batch — defines the number of documents to be counted prior to performing the action to take when the count has been reached.

Batch Level to Count — sets the level to count. You can select **None, Level 1, Level 2** or **Level 3**. The level you choose to count must exist in the image address template as defined on the Indexing tab.

At Batch Start — defines the level for the next document after the count is reached. Options are: **None, Go to Level 1, Go to Level 2,** and **Go to Level 3.**

At Batch End — defines the action to be taken after processing the last document in the batch. You can select: **None, Stop feeder and transport, Begin a new batch** or **End of Job.**

Patch Detection

On — turns patch detection on and makes the rest of the options for Patch Detection available.

Image Address Patch Codes — these patch types are used for image addressing. When the Patch Reader detects a patch, it automatically assigns a new image address to the new document. This eliminates the task of trying to determine where one document stops and the next starts when an operator is viewing electronic images. It provides a hierarchical document structure and offers an auto-batching alternative.You can select **Level 2, Level 3, Transfer Patch - Level 2** or **Patch T / Transfer Patch - Level 3**.

The Patch Reader controls document level changes by automatically sensing a predefined patch code and changing the document level accordingly.

Patch 2 — assigns a Level 2 to the *current* document

(Do not use these patches for production - they are not to spec)

Patch 3 — assigns a Level 3 to the *current* document

(Do not use these patches for production - they are not to spec)

Patch T/Transfer Patch — assigns a predetermined level to the *next* document. Defined by selecting Level 2 or Level 3 in the Definition box.

(Do not use these patches for production - they are not to spec)

Feature Patch Codes — these patch types can be used by the host for post-scan image control (they are not used for image addressing). For example, use these patch types for changing between black and white and color/grayscale imaging or workflow control.

Feature Patch Type 1

(Do not use these patches for production - they are not to spec)

Feature Patch Type 4
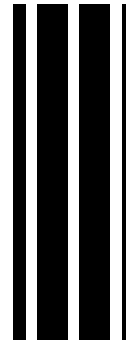
image addressing - disabled

(Do not use these patches for production - they are not to spec)

Feature Patch Type 6
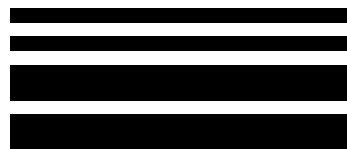
(Do not use these patches for production - they are not to spec)

Confirmation Tone — the confirmation tone may be used to signal that a patch has been recognized. The default is no confirmation tone.

Patch Readers — select the icon that corresponds to the physical patch reader location in the scanner. Select one, two, three or four patch readers.

PR1 - indicates the left patch reader.

PR2 - indicates the left center patch reader.

PR3 - indicates the right center patch reader.

PR4 - indicates the right patch reader.

Patch tab   The Patch tab provides the following options.
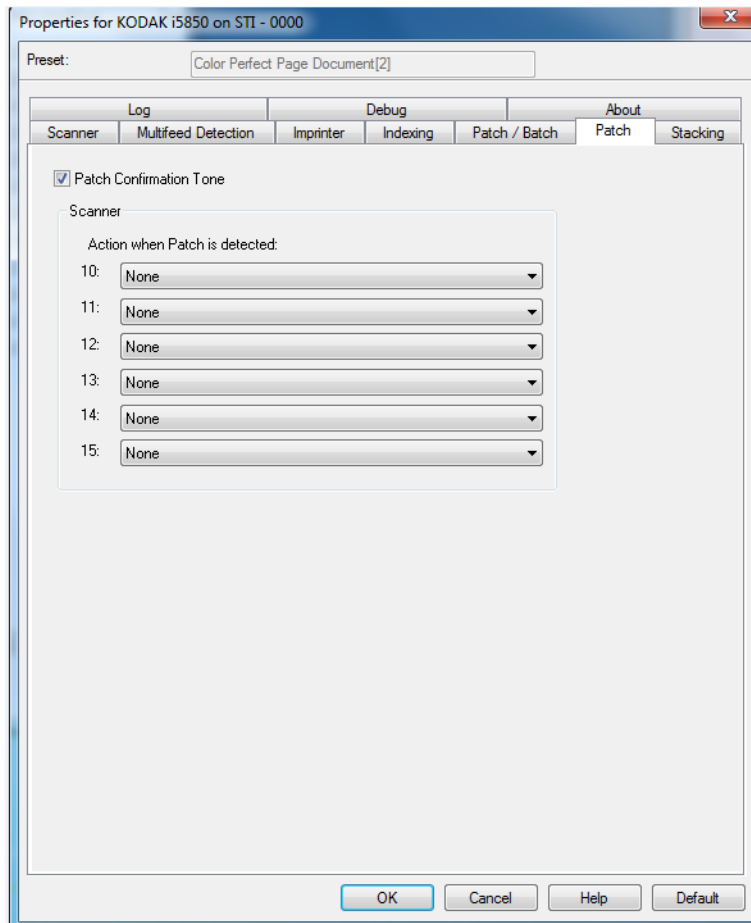
Patch Confirmation Tone — the confirmation tone may be used to signal that a patch has been recognized by the scanner. The default is no confirmation tone.

Action when Patch is detected — the scanners provide an option that allows you to use a set of Scanner Control patches. These patches are new patch patterns numbered from 10 -15 and are reserved for automatically controlling features of the scanner by inserting patch pages into the batches of paper during document preparation. For example, you may have a job that requires that you scan envelopes that contain the pages you are scanning. The envelopes trigger a multifeed that is slowing down your scanning throughput. To avoid this, you can use the **Action when patch is detected** option in the scanning application to select one of the Scanner Control patches and assign the **Turn Off Multifeed – For One Sheet** option. If, for example, you select a Patch Type 10 you could insert a Patch 10 sheet in front of the envelopes to prevent the scanner from triggering a multifeed.

Select one of the following when a patch is detected:

- **Turn Off Multifeed – For One Sheet**: disables multifeed detection for the page following the patch that is used to trigger this feature.

- **Turn Off Multifeed – Between Patches:** toggle a multifeed detection off until another patch of the same kind is read. This feature can be used if there is a group of documents together in the batch that would trigger an undesired multifeed event.

- **Stop Scanning:** stops scanning at specific point in a batch of documents. This option can be used if there is a change needed in the way the documents are scanned. For example, if you are scanning business documents at 200 dpi but there are some photos included in the batch that must be scanned as high resolution (i.e., 600 dpi color images), you can insert a **Stop Scanning** patch in the batch just before and after the photos to stop the scanner to change the resolution. You could also print instructions on the patch pages to indicate what change needs to be made.
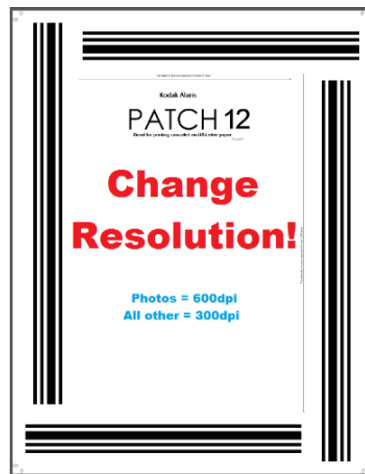
NOTE: Scanning applications (e.g., *Kodak* Capture Pro Software) can also embed data on the **Stop Scanning** patch page to automatically make a change to the scanner settings and restart scanning thereby totally automating any required change.

Stacking tab

The Stacking tab allows you to set options for separating documents into the two stacks of the *Kodak* Controlled Stacking Accessory output tray.

NOTES:

- The Stacking tab is only available when the *Kodak* Controlled Dual Stacking Accessory has been enabled for your scanner.

- This feature is not supported on the i5x50S scanners.
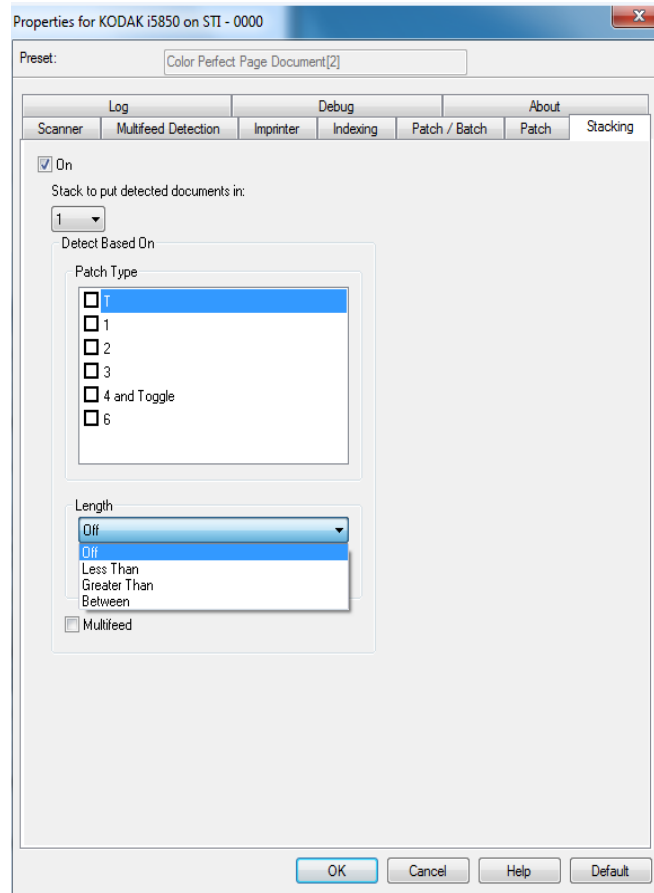
On — turns stacking on and makes the rest of the options on this tab available.

NOTE: Stacking also may be overridden to be On or Off from the scanner's Operator Control Panel.

Stack to put detected documents in: indicates which stack documents matching the **Detect Based On** settings will be placed in. All non-matching documents will be placed in the other stack.

NOTE: Because document weight and condition can impact the ability of documents to stack optimally, it is recommended that when you separate documents less than 6 inches/152 mm (e.g., checks) you place them in Stack #1; and when separating documents longer than 6 inches/152 mm (e.g., patch sheets) you place them in Stack #2.

Detect Based On

- **Patch Type** — allows you to select which patch sheets, if any, to separate from the document set and place in the selected stack. Options are any combination of: **T, 1, 2, 3, 4 and Toggle, 6, 10, 11, 12, 13, 14** and **15**. It is recommended that the patch sheets go into Stack #2.

  The *Dual Stacking* option on the scanner's Operator Control Panel allows you to use patch sheets to separate a document(s) from the documents being scanned into Stack #2 or Stack #1.

  NOTES:

  - The scanner will generate images for patch sheets.

  - Printing the patch sheets on stiff paper will aid in reliable stacking.

  - See the section entitled "Requirements for patch codes" in the User's Guide for more information.

Length — allows you to select which documents to separate from the document set based on the document's length.

- **Off**

- **Less Than:** documents shorter than this length will be separated and placed in the selected stack. This is recommended when separating shorter documents (e.g., checks) into Stack **1.**

- **Greater Than**: documents longer than this length will be separated and placed in the selected stack. This is recommended when separating longer documents into Stack **2**.

- **Between**: documents whose length falls within the selected range will be separated and placed in the selected stack.

  NOTES:

  - When entering a length, consider including an extra 1/2 inch / 25 mm to account for possible document skew during scanning.

  - For documents shorter than 6 inches / 152 mm, you may consider using the Short Document Insert to improve stacking in Stack **1**.

Multifeed — select this option if you want to separate all documents that are determined to have been multifed. The settings to turn on and configure multifeed detection are on the Multifeed Detection tab.

NOTES:

- This option can provide additional functionality by allowing you to detect thicker documents and separate them into Stack #2. This is a good choice to consider when Length based detection cannot be used because all of the documents are a similar size.

- This option will not automatically turn on multifeed detection.

Recommended configurations for using the Stacking option

Following are some examples of how to use the Stacking option.

Short document out-sorting
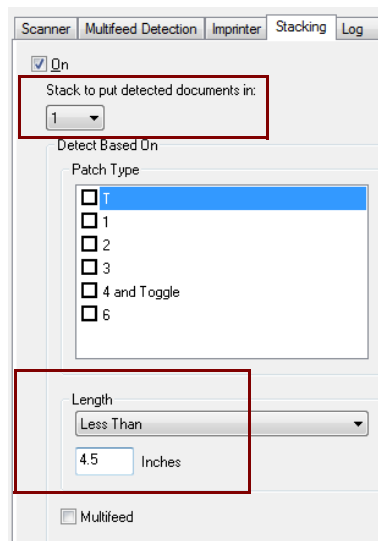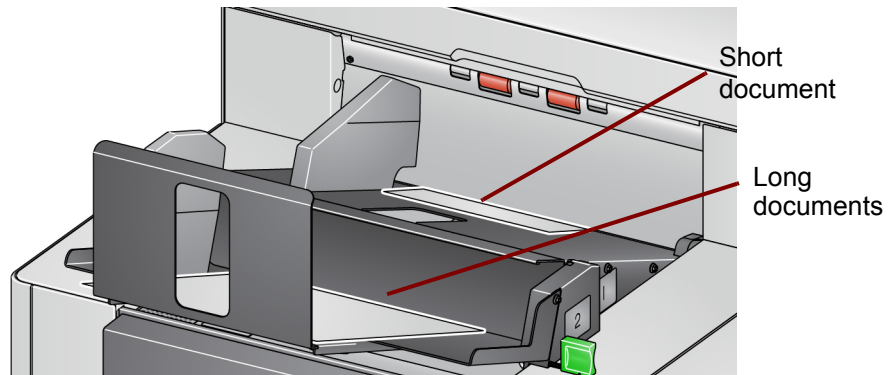
If your goal is to sort checks or short documents from your other documents, configure the Stacking settings as follows:

Stack to put detected documents in:

**1** (Stack #1)

and set the *Length* option to:

Less Than: the length of your shortest document plus 1/2-inch.

NOTES:

•You need to add an extra 1/2-inch to account for possible skew during feeding short documents.

•If you attempt to stack the shorter documents in Stack #2, they will not successfully reach the Stack #2 location.

• For documents shorter than 6 inches, you may consider using the Short Document Insert to improve stacking in Stack #1.

Patch code document separator out-sorting

Non-patch documents
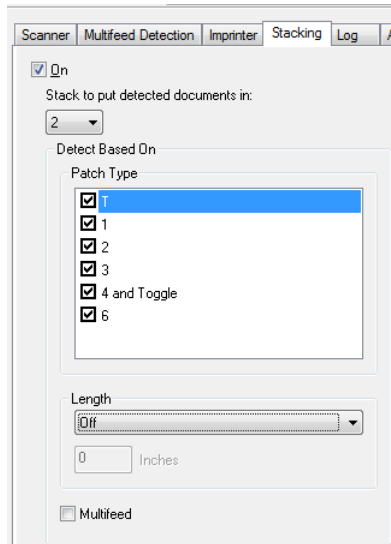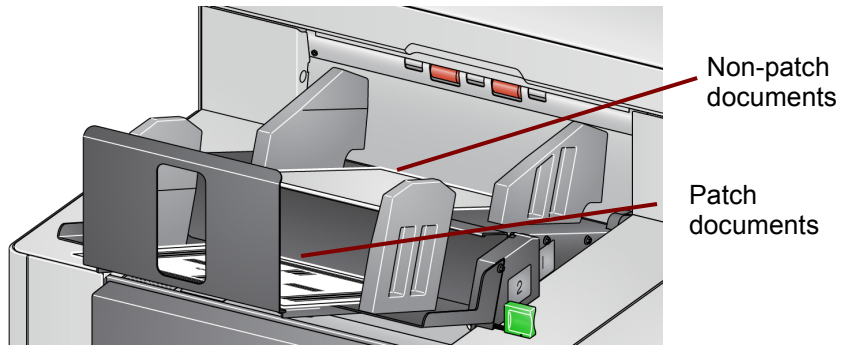
Patch documents

If your goal is to sort document separator sheets with patch codes (or color toggle patch sheets) from your other documents, configure the Stacking settings as follows:
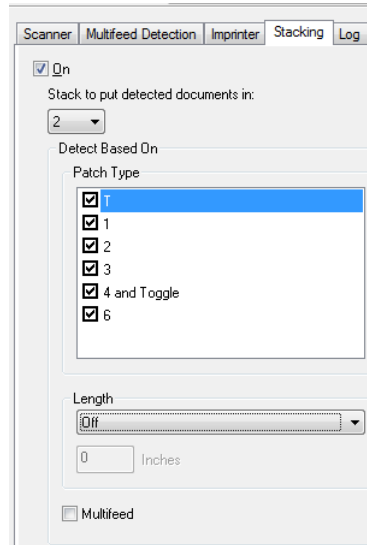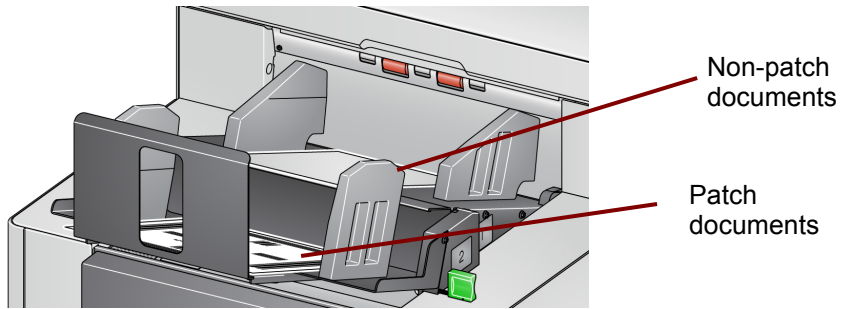
Stack to put detected documents in:

2 (Stack #2)

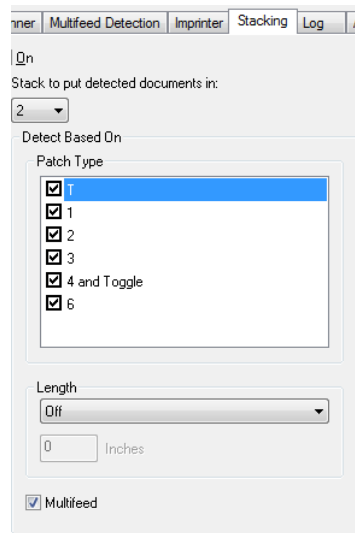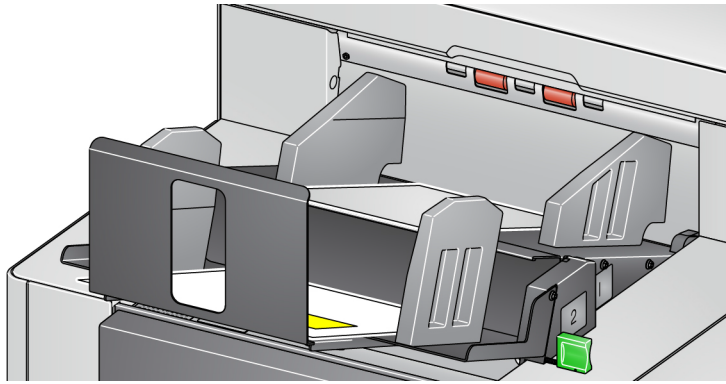and set the *Detect Based On: Patch Type* option to one or more patch types, and inserted patch documents used for document separation are normally ordered in bulk or printed on demand.

For controlled dual stacking find a stiff paper that works well with your job and print the patch documents on this paper; this aids with reliable sorting and stacking.

Selected document out-sorting

Non-patch documents

Patch documents

If your goal is to out-sort a selected document(s) from the stack (e.g., invoices that are over a $10,000), configure the Stacking settings as follows:

Stack to put detected documents in:

2 (Stack #2)

and set the *Detect Based On: Patch Type* option to one or more patch types,

configure **Dual Stacking** on the scanner's Operator Control Panel to a patch type that is not specified for document separation (e.g., Patch 6).

insert the patch sheet in front of and behind the document(s) you want to out-sort during document preparation.

After scanning, the patch sheet and documents will be output to Stack #2.

Multifeed alarm document out-sorting

If your goal is to sort documents that have triggered a multifeed alarm, configure the Stacking settings as follows:

Stack to put detected documents in:

2 (Stack #2),

and set the *Detect Based On: Multifeed* option.

Triggering exception stacking by multifeed can provide additional functionality. For example, stacking documents that trigger a multifeed alarm in Stack #2 can be a way to sort thicker documents that you cannot sort by size or patch.

NOTE: The **Allow Maximum Length** override will not disable Controlled Dual Stacking Length Protection.

Log tab

The Log tab provides a listing of any errors that have been encountered.
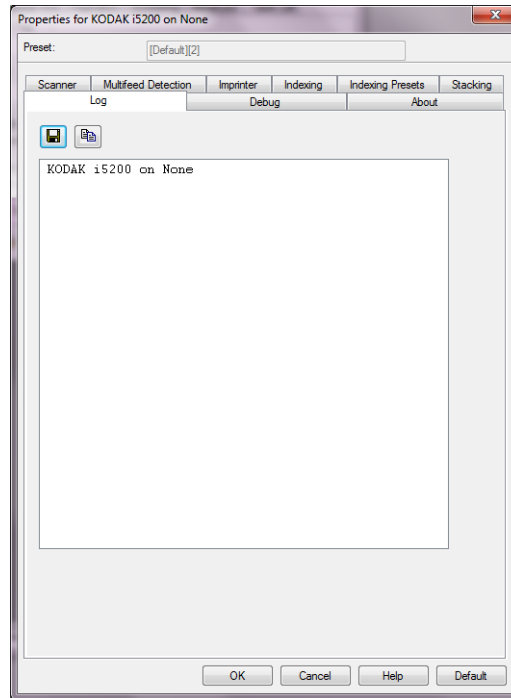
You can view the Operator and Meter logs and save this information to a file by copying the information to the clipboard then pasting it into a document or you can Save all the logs.

Save As: saves all the logs for viewing by support personnel. When selected, a save window will be displayed:
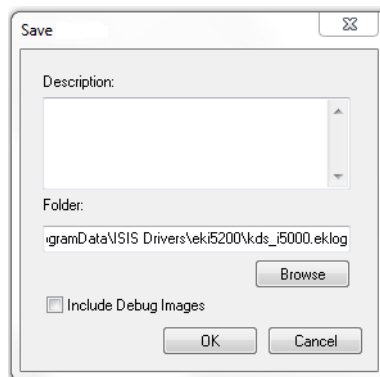
- **Description**: enter a brief description of problem/reason for saving the logs.

- **Folder**: the location to save the logs.

- **Browse**: displays the operating system's Browse for Folder window so you can find the folder that you want to use.

- **Include debug images**: includes any generated debug images with the logs. This should only be turned on when recommended by support personnel.

OK: saves the file into an eklog file.

Debug tab

The Debug tab allows you to turn on options that allow support personnel to diagnose any issues you may encounter when using your scanner. It is suggested that you only make changes on this tab when instructed by Technical Support.
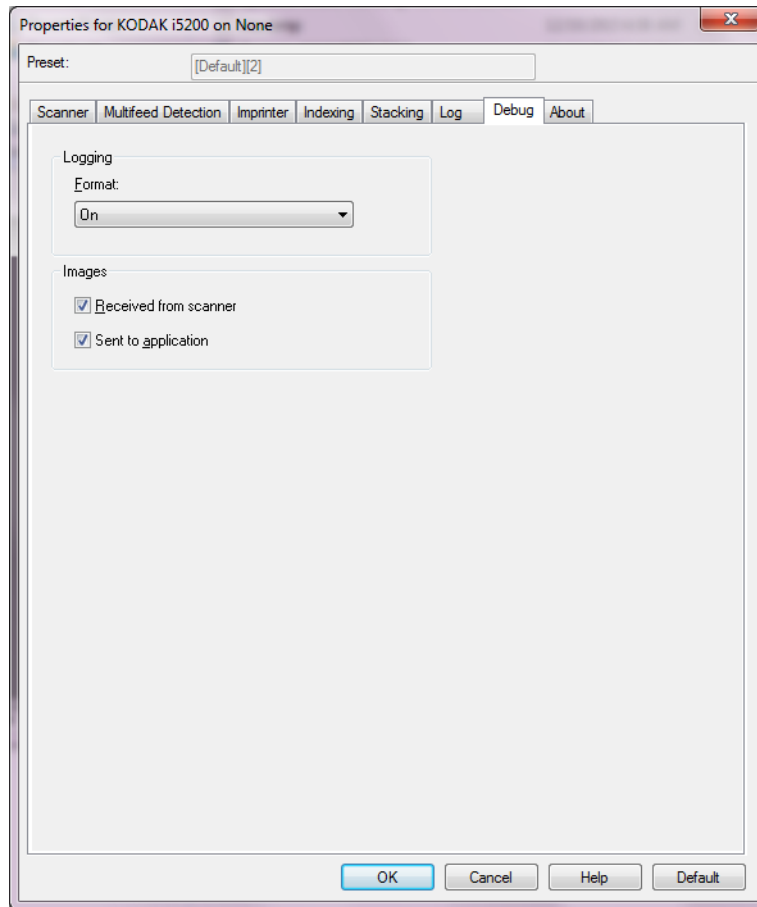
Logging — saves the communications between the scanner and a scanning application. The options are: **Off** or **On.**

Images

- **Received From Scanner**: saves the images received at the PC from the scanner.

- **Sent To Application**: saves the images received at the scanning application from the scanner.

About tab   The About tab displays information about your scanner and driver.

Properties for KODAK i5650S on None

Preset: [Default]

Scanner | Multifeed Detection | Imprinter | Indexing | Stacking | Log | Debug | About

This driver was written to be compatible with ISIS(R) but has not been certified by EMC Corporation.

eki5200 Version 2.0.11608.11001
KODAK i5000 Series Scanner
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QuickDriver Version 2.0.11608.4003

Device Information:

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Visit Kodak Alaris on the web:

Contact support

Product updates and documentation

Scanner product information

OK | Cancel | Help | Default

Configuring Sorting settings

To access sorting settings from the ISIS Driver, go into the Scan Validation Tool as described earlier in this guide and access the ISIS driver.
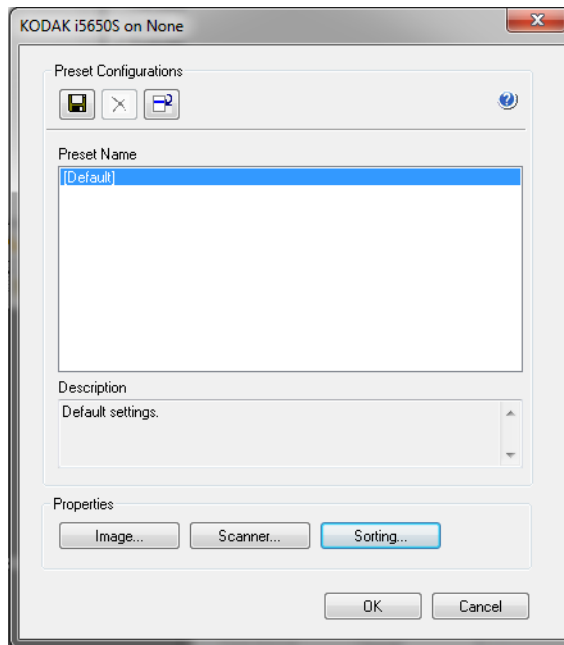

Click **Sorting** to configure sorting option settings for your scanner. The following sections provide descriptions and procedures for configuring Sorting settings.

The Sorting tabs allow you to set options for sending sheets of paper within your document set to different output locations, based on criteria you set up.

NOTE: The Sorting tabs are available for only the i5650S and i5850S scanners.

Sorting options are categorized by three tabs: General Sorter, Patch Sorter, and Barcode Sorter.
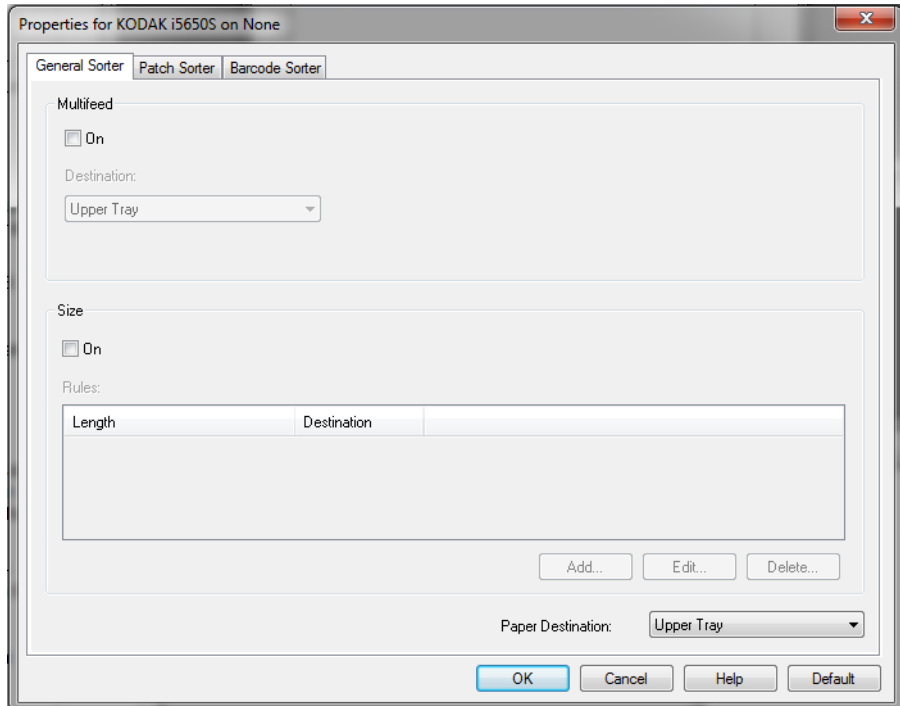
Paper destination — when sorting, the paper destination specifies the default tray for paper that is *not* sorted. Typically, the destination for your sorted sheets of paper will be different from this destination. This choice appears for all three Sorting tabs. A change to any one will change the others also.

Specifying a paper destination can also be useful when *not* sorting; for example it can be used to send thick pages out the rear exit or to send documents to the upper tray, for lead edge alignment.

Precedence for sorting rules

Sorting rules are applied with the following order of precedence:

NOTE: OCP option for Rear Exit always takes first precedence.

1. Multifeed sorting
2. Size sorting
3. Patch sorting
4. Barcode sorting

General Sorter tab   The General Sorter tab allows you to set options to sort multi-fed papers and/or sheets of paper that are a specific size.
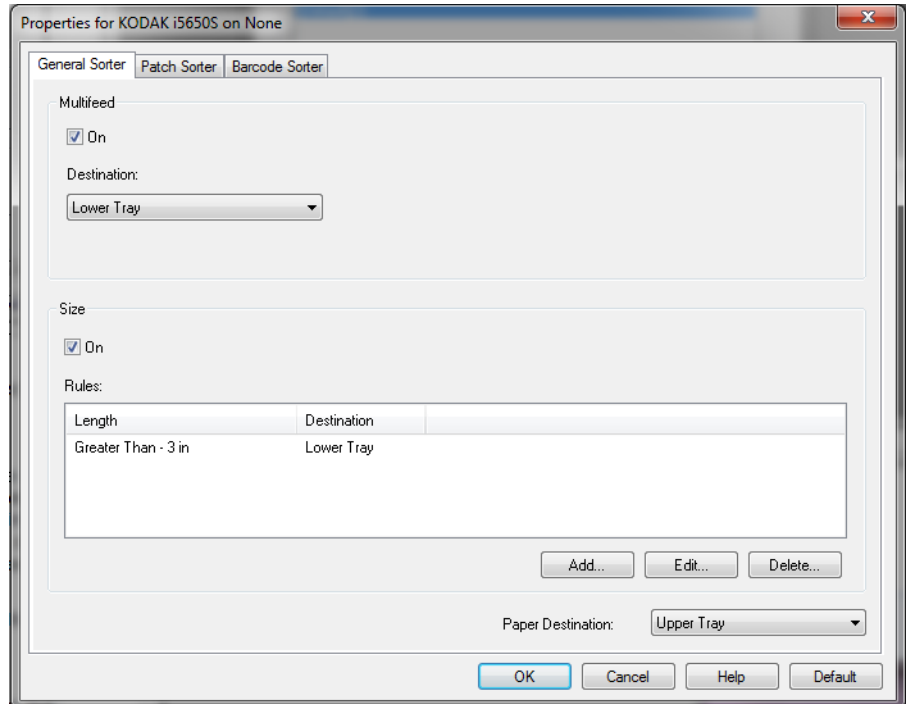
Multifeed

Multifeed sorting always takes precedence over other sorting rules.

• **On** — turns multifeed sorting on and makes multifeed options available.

  NOTE: Multifeed detection must also be turned on (see the section entitled, "Multifeed Detection tab" earlier in this guide) and the *Action When Detected* option must be an option that does not leave the paper in the scanner. For example, if *Pause Scanning - leave paper in path* is selected, the sheet is not sorted because the sheet of paper remains in the scanner.

• **Destination** — indicates the output location to deliver each multi-fed sheet.

Size

Size sorting rules take precedence over Patch and Barcode sorting, but not over Multifeed sorting.

• **On** — turns on sorting by size and makes the rest of the options in this group available.

• **Rules** — you can have up to two rules. The table displays the details for each rule; the columns represent each selection from the Size window.

Buttons for rules:
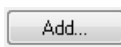
Add — allows you to create a new rule. The Size Sorter Settings window will be displayed.

NOTE: This option will not be available if you have created the maximum number of allowed rules.

Edit — allows you to change the currently selected rule. The Size Sorter Settings window will be displayed, with the current options for this rule selected.

Delete — allows you to remove the currently selected rule.

Size Sorter Settings window

From this window you can select the options for one size rule.
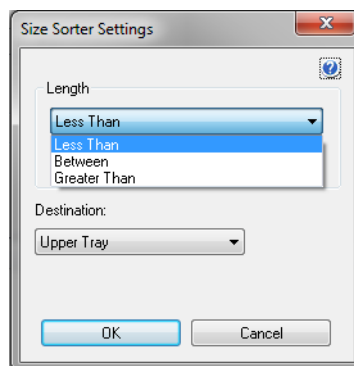
Length — allows you to select the length the sheet of paper must be for this rule to be applied.

- **Less Than**: sheets shorter than this length will be sent to the defined destination.
- **Greater Than**: sheets longer than this length will be sent to the defined destination.
- **Between**: sheets whose length falls within the selected range will be sent to the defined destination.

  NOTES:
  - A length option can be used only once. If the option has been used in another rule, it will not be available.
  - The available length values may change based on the selection for *Destination*.
  - When a **Less Than** or **Between** length is specified with a front tray destination (lower tray or upper tray), the physical page must be shorter than 15 inches/38cm.
  - When a **Less Than** or **Between** length is specified for the rear exit, the physical page must be shorter than 6 inches/15cm.
  - When entering a length, consider including an extra 1/2 inch/15 mm to account for possible document skew during scanning.

Destination — indicates the output location to deliver each sheet that this rule is applied to.

**OK** — saves any changes and closes this window.

Cancel — closes this window without saving any changes.

Help: displays help information for this window

Patch Sorter tab

Multifeed and Size sorting rules take precedence over Patch sorting. Patch sorting takes precedence over Barcode sorting.

The Patch Sorter tab allows you to set options to sort patch sheets and sheets after the patch sheet.
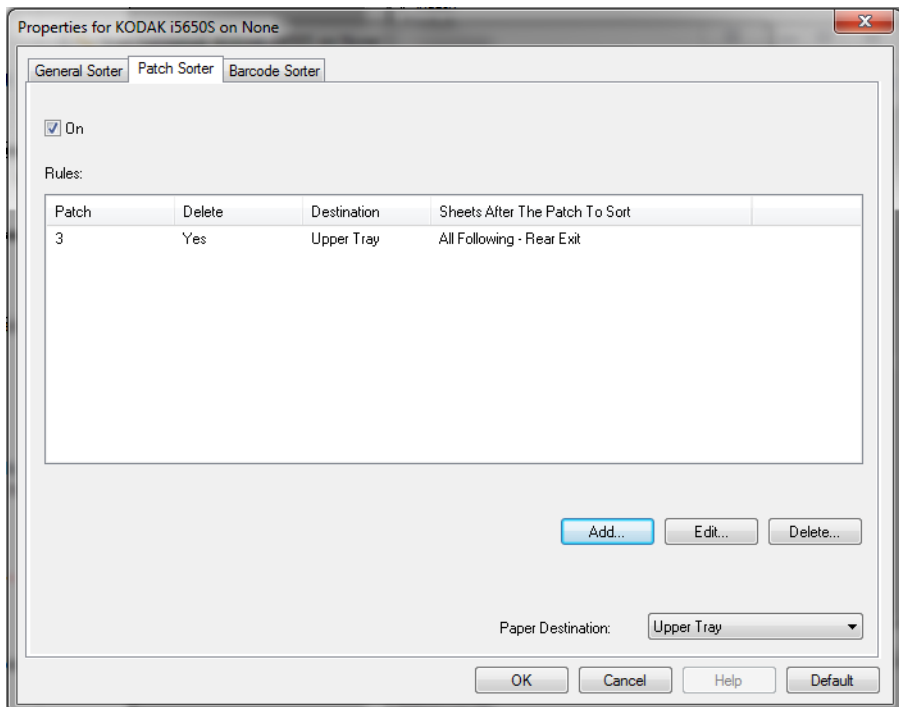
• **On** — turns patch sorting on and makes patch sorting options available.

• **Rules** — you can have up to 8 rules. The table displays the details for each rule; the columns represent each selection from the Patch Sorter Settings window.

Buttons for rules:

Add — allows you to create a new rule. The Patch Sorter Settings window will be displayed.

NOTE: This option will not be available if you have created the maximum number of allowed rules.
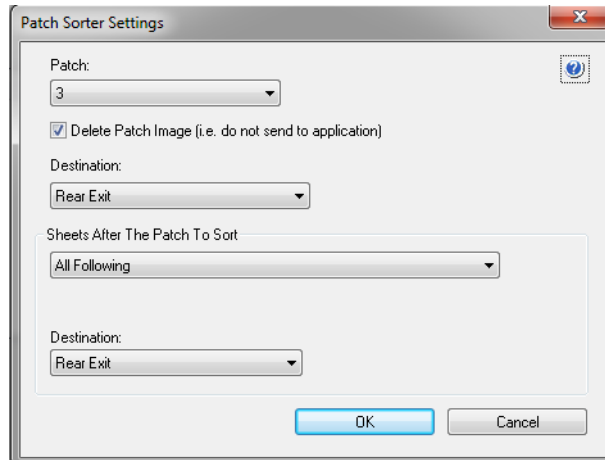
Edit — allows you to change the currently selected rule. The Patch Sorter Settings window will be displayed, with the current options for this rule selected.

Delete — allows you to remove the currently selected rule.

Patch Sorter Settings window

From this window you can select all options for one patch rule.

NOTE: A patch can be used in only one rule. If the patch type has been used in another rule, it will not be available.

Patch — allows you to select the patch that must be recognized, for this rule to be applied.

- **T**, **1**, **2**, **3**, **4 and Toggle**, **6**, **10**, **11**, **12**, **13**, **14** and **15**

- **All**: indicates all remaining patches (i.e. any patch that is not already used in another rule).

Delete patch image — all images of the patch sheet will be discarded and not sent to your application.

   NOTES:
   - When selected, the images are deleted no matter what other scanner options are set to. *Choosing to delete the patch image means that a host application will* not *be able to use a patch for document separation.*
   - When not selected, other scanner options determine if the patch image is deleted or not.

Destination — indicates the output location for each patch sheet that this rule is applied to.

Sheets After The Patch To Sort — allows you to select which sheets of paper, immediately following the patch sheet, will be sent to the Destination you set up.

- **(none)**

- **Specified Number**: allows you to select an exact number of sheets from **1** to **99**.

- **All Until This Patch**: indicates every sheet of paper is sent to the Destination, up to the next sheet of paper when this rule's patch is detected.

   NOTE: Use this option if you have an unknown number of consecutive pages in your document set that you want to sort. In this case, obtain two patch sheets with this patch type, then place one patch sheet before the pages to sort and place the other patch sheet after the pages to sort.

- **All Following**: indicates every sheet of paper after the patch sheet is sent to the destination, until the scanning session ends.

   NOTES:

- Sorting that is in progress will continue until finished. So if you have a rule to sort a specific number of sheets, and a second sorting rule is met before that number of sheets has been sorted, the second rule will be ignored.

- Sorting will be terminated by any of the following events:
   - Stop scanning
   - Multifeed that stops scanning
   - Jam that stops scanning

Destination: the output location to deliver each sheet that this patch sorting rule is applied to.

NOTE: Destination is available only when Sheets After The Patch To Sort is not **(none)**.

OK — saves any changes and closes this window.

Cancel — closes this window without saving any changes.

    Help: displays help information for this window

NOTE: If something happens during patch sorting that disables the scanner (e.g. a multifeed that stops the scanner and ends the job), then any Patch sorting rule in effect will be considered completed. No further action will be taken based on that rule.

Barcode Sorter tab

Multifeed, Size, and Patch sorting rules take precedence over Barcode sorting.

The Barcode Sorter tab allows you to set options to sort barcode sheets and pages that follow the barcode sheet.
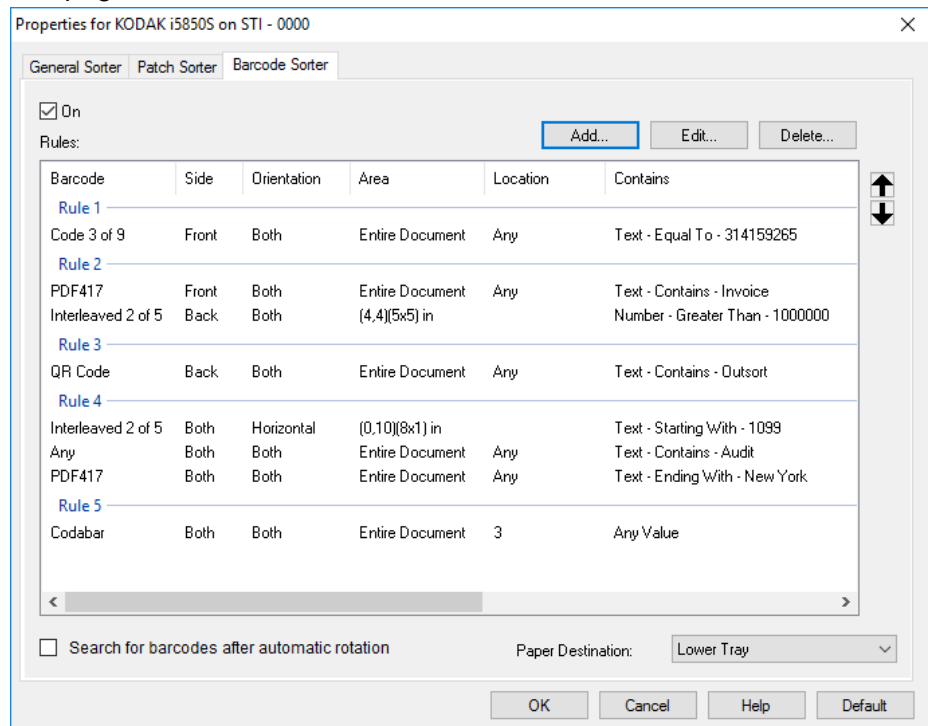
- **On** — turns barcode sorting on and makes barcode sorting options available.

- **Rules** - you can have up to 8 rules. The table displays the details for each rule; the columns represent each selection from the Barcode window.
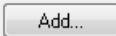
    NOTES:
    - The order of the rules is important. If a sheet of paper matches more than one rule, the first rule it matches is the one that is applied.
    - Since each rule may contain more than one barcode criterion (i.e. can take up multiple rows in the table), each rule is separated within the table by a label — such as "Rule 1" in the screen shot above.
    - A rule is selected when any of its barcode criteria (i.e. any of its rows) are selected.

Paper destination — the default output tray for non-sorted pages.

Buttons for rules:

NOTE: Remember that Delete, Move Up, and Move Down apply to the entire rule, not just the selected table row.

Add... | **Add** — allows you to create a new rule. The Barcode Sorter Settings window will be displayed.

NOTE: This option will not be available if you have created the maximum number of allowed rules.

Edit... | **Edit** — allows you to change the currently selected rule. The Barcode Sorter Settings window will be displayed, with the current options for this rule selected.

Delete... | **Delete** — allows you to remove the currently selected rule.

Move Up — allows you to move the currently selected rule up one position.

Move Down — allows you to move the currently selected rule down one position.

Search for barcodes after automatic rotation — means the scanner will look for a matching rule after automatic rotation of the image, oriented by the text in the image. This setting can affect sorting by barcode only if you use one of the following options:

• *Orientation* Horizontal or Vertical

• Search for a barcode by *Area* within the image

• Choose a barcode based on *Location* (reading from top down and left to right in the image)

If you do not use one of the above options, then do *not* check **Search for barcodes after automatic rotation**.

NOTE: This option may impact how quickly your documents are scanned.

Barcode Sorter Settings window

From this window you can select all options for one barcode rule.
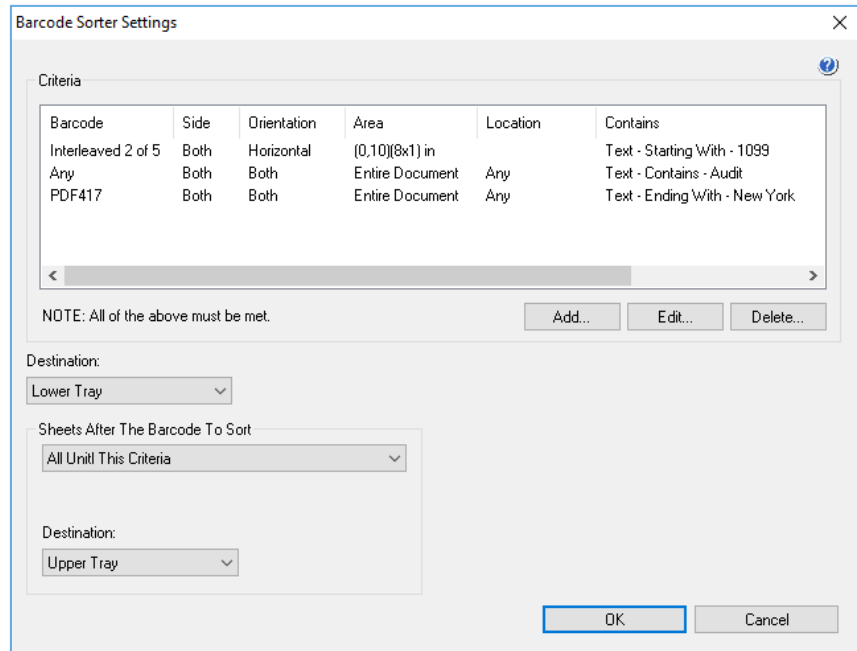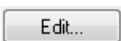

Criteria for a barcode rule

You can have up to four criteria in a barcode rule. All criteria must be met in order for the rule to be applied. The table displays the details for the criteria; the columns represent each selection from the Barcode Criteria window.

Buttons for criteria:

Add — allows you to create a new criterion. The Barcode Criteria for Sorter window will be displayed.

NOTE: This option will not be available if you have created the maximum number of allowed criteria.

Edit — allows you to change the currently selected criterion. The Barcode Criteria for Sorter window will be displayed, with the current options for this criterion selected.

Delete — allows you to remove the currently selected criterion.

Destination — indicates the output location to deliver each barcode sheet that meets this rule.

Sheets After the Barcode to Sort — allows you to select which sheets of paper, immediately following the barcode sheet that matches the rule, to send to the destination you set up for them.

• **(none)**

• **Specified Number**: allows you to select an exact number of sheets from **1** to **99**.

- **All Until This Criteria**: indicates every sheet of paper will be sent to the destination you defined, up to the next sheet of paper that meets this rule's barcode criteria.

  NOTE: Use this option if you have an unknown number of consecutive pages in your document set that you want to sort. In this case, obtain two barcode sheets that have the same criteria as this rule, then place one barcode sheet before the pages to sort and place the other barcode sheet after the pages to sort.

- **All Following**: indicates every sheet of paper after the barcode sheet is sent to the destination you set up, until the scanning session ends.

NOTES:

- Sorting that is in progress will continue until finished. So if you have a rule to sort a specific number of sheets, and a second sorting rule is met before that number of sheets has been sorted, the second rule will be ignored.

- Sorting will be terminated by any of the following events:
  - Stop scanning
  - Multifeed that stops scanning
  - Jam that stops scanning

Destination: the output location to deliver each sheet that meets this barcode sorting rule.

NOTE: Destination is only available when *Sheets After The Barcode To Sort* is not **(none)**.

OK — saves any changes and closes this window.

Cancel — closes this window without saving any changes.

 Help: displays help information for this window

NOTE: If something happens during barcode sorting that disables the scanner (e.g. a multifeed that stops the scanner and ends the job), then any barcode sorting rule in effect will be considered completed. No further action will be taken based on that rule.

Barcode Criteria for Sorter window

From this window you can select all options for one criterion within a barcode rule.

Barcode — allows you to select the type of barcode that must be recognized on the sheet of paper.

- **Codabar**
- **Code 128**
- **Code 3 of 9**
- **EAN-13**
- **EAN-8**
- **Interleaved 2 of 5**
- **UPC-A**
- **UPC-E**
- **PDF417**
- **QR Code**
- **Any 1D Barcode**: indicates that any one-dimensional barcode on the paper will meet the criterion. (PDF417 and QR Code are 2D.)
- **None Detected**: indicates that sorting will be performed if no barcode is found on the paper.

NOTES:

- A barcode must have at least 4 characters, to be used for barcode sorting. Contact Support at www.kodakalaris.com/go/IMsupport if you need to sort with fewer characters.
- A barcode can be used in multiple criteria within the same rule.
- A barcode can be used in multiple rules.

Search — indicates where on the sheet of paper to look for the barcode.

- **Side**: select which side of the paper to look on, for the sorting barcode.

  - **Both**: look on both sides of the paper. It does not matter which side the barcode is on.

  - **Front**: only look for barcode on the front side of the paper.

  - **Back**: only look for barcode on the back side of the paper.

- **Orientation**: select the orientation for the barcode. Only barcodes in the selected orientation will be checked against barcode sorting criteria.

  - **Horizontal**

  - **Vertical**

  - **Both**

- **Area**: select the portion of the paper to search.

  - **Entire Document**

  - **Part of Document**

    - **Origin (x, y)**: (x) is the distance from the left edge of the image and (y) is the distance from the top edge of the image.

    - **Size (w, h)**: the width and height of the area to search, relative to the transport.

- **Location**: select the position within the search area where the barcode needs to be. Search for barcode will proceed from upper left to lower right on the image.

  - **Any**: indicates the barcode can be anywhere within the search area

  - **1**: must be the first barcode in the search area

  - **2**: must be the second barcode in the search area

  - etc.

  NOTES:

  - Location is not available when *Barcode* is **None Detected**.

  - Location is not available when *Area* is **Part of Document**.

  - Use Location options if there are multiple barcodes on the sheet of paper and you want to sort based on a specific one. For example, if there are three barcodes down the center of the paper and you want to sort based on the middle one, then you would select **2**.

Data — indicates what must be in the barcode data.

- **Contains** — select the type of data.
    - **Any Value**: the data can be anything. Use this option to sort by barcode type — e.g. any Code 3 of 9.
    - **Number**: allows you to compare the barcode data with a number up to 9 digits long. Any non-digit characters, even a space, will cause the comparison to fail.
        - **Comparison**: select how to compare: **Equal To**, **Not Equal To**, **Less Than**, **Greater Than**, **Less Than or Equal To**, and **Greater Than or Equal To**. The comparison is *not* case-sensitive, so "DATA" is equal to "data".
        - **Value**: enter up to a nine-digit number to compare the barcode data with.
    - **Text**: allows you to compare the barcode data with a string of characters. The character value searched for must fall within the first 4096 characters of the barcode value.
        - **Comparison**: select how to compare: **Contains**, **Equal To**, **Not Equal To**, **Starting With**, **Not Starting With**, **Ending With**, and **Not Ending With**.
        - **Value**: enter up to 32 characters to compare the barcode data with.
- **Length** — select how much data there must be (i.e. number of digits and characters), from **1** to **99**.
    - **Any**: any number of characters meets the criterion
    - **Equal To**
    - **Not Equal To**
    - **Less Than**
    - **Greater Than**
    - **Between**

NOTE: The Data options are not available when *Barcode* is **None Detected**.

OK — saves any changes and closes this window.

Cancel — closes this window without saving any changes.

Help: displays help information for this window