



# ScanGear CS-U 5.3

*for CanoScan FB630U/FB636U Color Image Scanner*

# User's Guide



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# *Before You Begin*

**Welcome to ScanGear CS-U 5.3**

**Getting Help in ScanGear CS**



## *Welcome to ScanGear CS-U 5.3*

Welcome to Canon ScanGear CS-U 5.3 software for Windows 98.

ScanGear CS-U 5.3 (hereafter referred to ScanGear CS) will provide flexible, efficient image enhancement tools for scanning with your CanoScan FB630U/FB636U Scanner by providing an interface with a wide variety of TWAIN-compliant software applications.

ScanGear CS has a number of powerful features that help you achieve peak performance with your scanner. Using ScanGear CS, you can preview and adjust an image before the image is scanned and acquired by the target software application.

Here is a quick summary of the important features of ScanGear CS:

- Flexible, fully automatic image acquisition, and pre-scan image manipulation prior to passing data to the image application
- Sophisticated, Windows 98 user interface
- TWAIN 1.6 compliant
- High Definition Color
- Text Enhanced mode for OCR applications
- Canon ColorGear (Color Matching software technology)
- Automatic preview or preview image cache

- ScanGear CS can run with or without its main window, depending on the acquiring application.

Normally when you start a scanning job, you will see the ScanGear CS main window with its toolbar, Preview Area, and tabs.

However, some software applications may not open the ScanGear CS main window. When this occurs you cannot use the settings described in this user's guide because the parent software application will provide the settings so you can change the image after it is acquired. When a software application uses ScanGear CS without opening the ScanGear CS main window, this is called the *windowless* mode.

## *Getting Help in ScanGear CS*

For information on using ScanGear CS, open the on-line Help by clicking the Help button  on the toolbar or on the dialog boxes.

For general questions about scanning, check the Table of Contents or Index to see if the topic you are looking for is covered elsewhere in this user's guide.



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# *Scanning an Original*

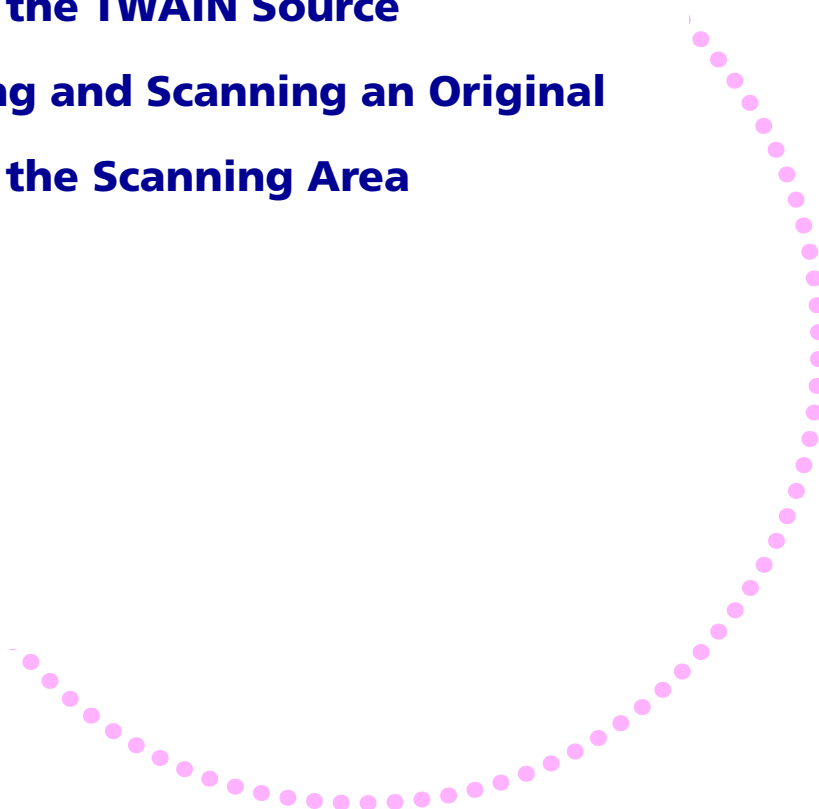
**Preparing the Scanner**

**Specifying Preview Opening Setting**

**Selecting the TWAIN Source**

**Previewing and Scanning an Original**

**Selecting the Scanning Area**



This is a quick overview of executing a scanning job. For more information about detailed ScanGear CS settings, see [Chapter 4](#) and [Chapter 5](#).

## *Preparing the Scanner*

Follow these simple guidelines to prepare for a scanning job:

- Before you start scanning, make sure the scanner is connected correctly.
- Always position the original on the scanner platen with the image side down.
- ScanGear CS lets you correct many undesirable features in scanned images, but you will save time and effort by starting with the best possible original. If you are scanning a photograph, for example, make sure the original is in the sharpest possible focus.
- If you are scanning text, make sure the printed text is sharp and clean.

## *Specifying Preview*

### *Opening Setting*

The preview opening setting determines what you see in the Preview Area of the ScanGear CS main window when you launch ScanGear CS from the parent software application. What you will see every time you start ScanGear CS depends on how the preview opening setting has been adjusted in the Preferences sheet.

1. **On the Windows desktop click the Start button, point to Settings, and click Control Panel.**
2. **In the Control Panel window double-click the Scanners and Cameras icon.**
3. **In the Scanners and Cameras Properties window, click CanoScan FB630U/FB636U and click the Properties button.**
4. **In the Properties window, click the Preferences tab to open the Preferences sheet.**
5. **Select the Preview at opening of ScanGear setting.**

If you want to preview the original on the scanner platen automatically when ScanGear CS is launched from the parent software application, click the button for "Automatically execute a preview".

-or-

If you want to display the image displayed in the Preview Area when ScanGear CS was closed at the end of the previous session, click the button for "Saved preview image will be displayed".

-or-

If you want to switch off automatic preview and preview image cache, click the button for None.

## Selecting the TWAIN Source

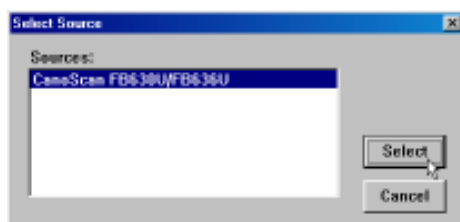
Follow this simple procedure to select the CanoScan FB630U/ FB636U as the scanner source.



*Note*

This is a very general description of this procedure. The procedure for your software application may be slightly different. For details, refer to your software application manual.

1. **Start the software application you are going to use for scanning.**
2. **Pull down the File menu and select the Select Scanner command or its equivalent.**
3. **In the Select Scanner dialog box select the name of the scanner (CanoScan FB630U/ FB636U) from the list and click the OK button.**



You are now ready to start scanning.

## *Previewing and Scanning an Original*

1. **Place the original on the scanner platen.**

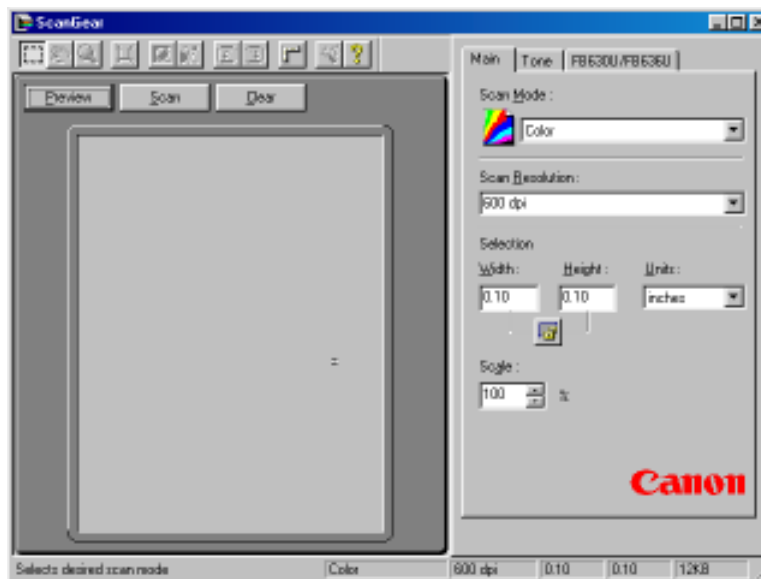


*Note*

For details about positioning the original on the scanner platen, see *Quick Start Guide*.

2. **Start the software application you are going to use to start the scanning job.**
3. **Confirm that your scanner is selected in the Select Source (or its equivalent) dialog box, if needed. For details, see the previous section.**
4. **Start the scanning job. Refer to your software application manual for details about acquiring an image with a scanner.**

For example, pull down the File menu and select the command to start the scanning job (**File|AcquireImage** or **File|Scan New**). The ScanGear CS main window opens.

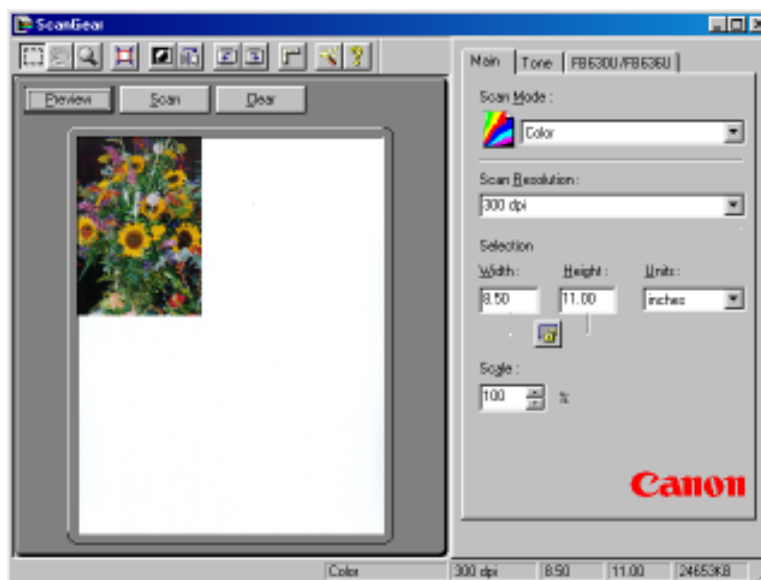


*Note*

If you see an image in the Preview Area, this means one of the preview settings has been switched on with the Preferences sheet. Otherwise, the Preview Area is empty. (◆30)

5. **On the Main sheet, adjust the settings for the Scan Mode, Scan Resolution, and size (Selection).**

6. Click the **Preview** button to pre-scan the image and display it in the **Preview Area**.



#### *Note*

With the image in the Preview Area, you can use the ScanGear CS toolbar and the sheets to manipulate or enhance the image before you actually scan it and send it to the parent software application.

7. In the **Preview Area**, adjust the image, or select the area to scan with the **Crop** button or the **Auto Crop** button.



8. **Adjust the image quality with the tools and options provided on the sheets:**

- **Tone sheet.** Allows you to adjust the quality of the image.
- **FB630U/FB636U Scanner sheet.** Allows you to set the Threshold and Descreen settings.

9. **When you are satisfied with the settings, click the Scan button to scan the image. The image is acquired in the software application.**



*Note*

If ScanGear CS does not close automatically after scanning the original, click the close button in the upper right corner of the main window.

## Selecting the Scanning Area

Follow this procedure to use the Crop and/or Auto Crop buttons to select an area of the image in the Preview Area for scanning.

1. **In the ScanGear CS main window, click the Preview button to display the image on the platen in the Preview Area.**
2. **With an image in the Preview Area click on the Crop button.**
3. **Point to one corner of the area of the image that you want to scan.**
4. **Click the left mouse button and, while holding the mouse button down, drag the mouse pointer to the opposite corner of the area you want to scan.**
5. **Release the mouse button. The area will be boxed in by a rectangle.**



*Note*

- You can drag the selected area to another location or use the handles on the borders to enlarge or reduce the enclosed area.
- Just point and click any portion outside of the selected area to cancel the selection.

6. **Click the Auto Crop button if necessary. The rectangle will adjust its size automatically to fit perfectly around the object enclosed in the rectangle.**

7. **Click the Scan button to scan the image and send it to the parent software application.**



*Note*

- You can also use the Selection features on the Main sheet to set the scanning area precisely by entering the dimensions in the entry boxes.
- You can set the scanning area with the Crop button or the Selection settings on the Main sheet with or without an image in the Preview Area.

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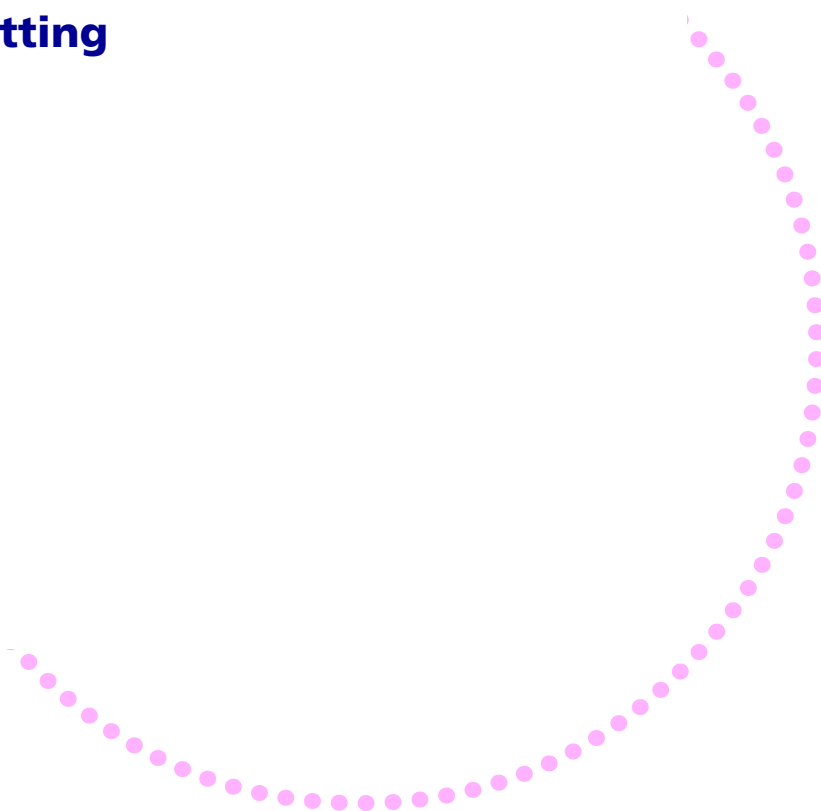
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# *Settings in the Windows Control Panel*

**Preferences Settings**

**Events Setting**



## *Preferences Settings*

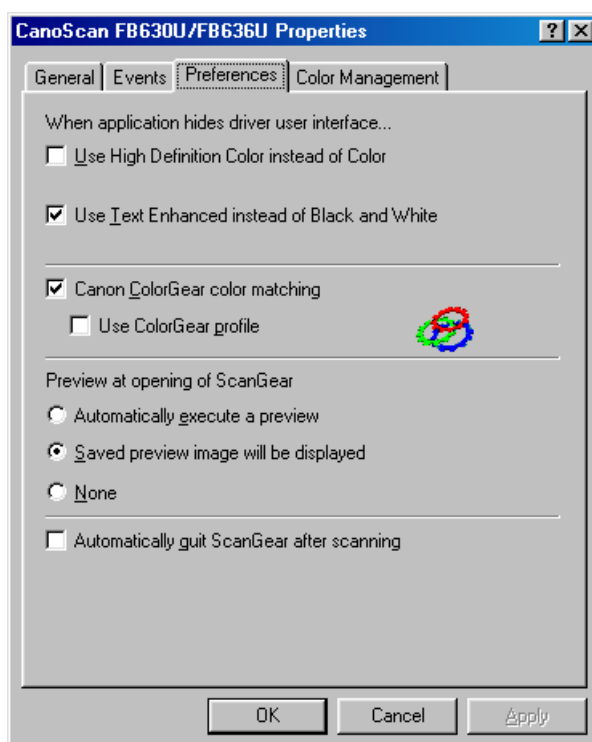
### ***Displaying the Preferences Sheet***

The Preferences sheet contains settings for important features that you can switch on and off. The Preferences sheet must be opened from the Control Panel; it cannot be opened from within the parent software application.

#### **To open the Preferences sheet**

1. **On the Windows desktop click the Start button, point to Settings, and click Control Panel.**
2. **In the Control Panel window double-click the Scanners and Cameras icon.**
3. **In the Scanners and Cameras Properties window, click CanoScan FB630U/FB636U and click the Properties button.**

4. In the Properties window, click the Preferences tab to open the Preferences sheet.



For a detailed description of Preferences sheet settings, see the following sections.

## ***Windowless Mode Settings***

### **Setting scanning for high-definition color**

Click the checkbox for "Use High Definition Color instead of Color" to scan in high-definition color mode with a parent software application that will not open the ScanGear CS main window.

### **Converting grayscale to black and white for OCR**

Click the checkbox for "Use Text Enhanced instead of Black and White" to convert grayscale to black and white using Canon ImageTrust technology for an OCR program that will not open the ScanGear CS main window.

## ***Color Matching Settings***

### **Switching on ColorGear Matching for color matching**

Click the checkbox for "Canon ColorGear color matching" to enable your monitor to display colors that best match the colors scanned based on the type of monitor identified in the Windows Control Panel.

### **Switching on the ColorGear Profile for best color matching**

Click the checkbox for "Use ColorGear profile" to use the Canon ColorGear profile for the best color matching between monitor display and printed output. The Windows 98 profile is used until you turn on this setting on.

## ***Preview Opening Settings***

### **Switching automatic preview on for ScanGear CS launching**

Click the button for “Automatically execute a preview” to preview the original on the scanner platen automatically when ScanGear CS is launched from the parent software application.

### **Switching preview image cache on for ScanGear CS launching**

Click the button for “Saved preview image will be displayed” to display the previous saved image in the Preview Area when ScanGear is launched from the parent software application.

### **Turning off automatic preview and preview image cache**

Click the button for None to switch off the automatic preview and image cache feature to display no image in the Preview Area.

## ***ScanGear Quit Setting***

Click the button for “Automatically quit ScanGear after scanning” to close ScanGear CS every time scanning an image is completed.



## *Events Setting*

### ***Selecting an Application for Starting Up with the Start Button***

The events setting on the Events sheet determines which parent application starts automatically when the Start Button on the scanner is pressed.

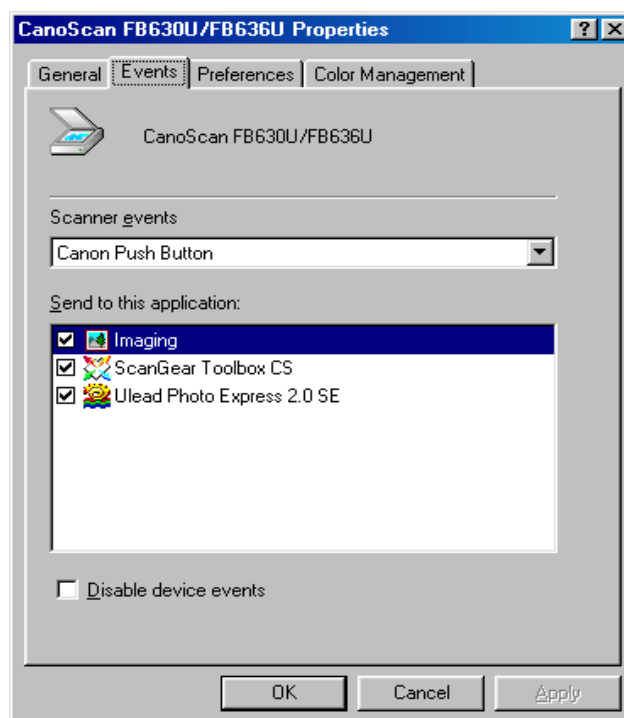
1. **On the Windows desktop click the Start button, point to Settings, and click Control Panel.**
2. **In the Control Panel window, double-click the Scanners and Cameras icon.**
3. **In the Scanners and Cameras Properties window, click CanoScan FB630U/FB636U and click the Properties button.**

4. In the Properties window, click the Events tab to open the Events sheet.



*Note*

The list of all push-enabled applications (applications designed for scanners with the push button) registered in your system will appear in the Events window.



5. **In the list, click the name of the application that you want start automatically every time you press the Push Button on the scanner. If other applications are selected, click their checkboxes to de-select them.**



*Note*

If several applications are selected on the Events sheet, every time you press the Push Button on the scanner, you must select the parent application that you want to start.

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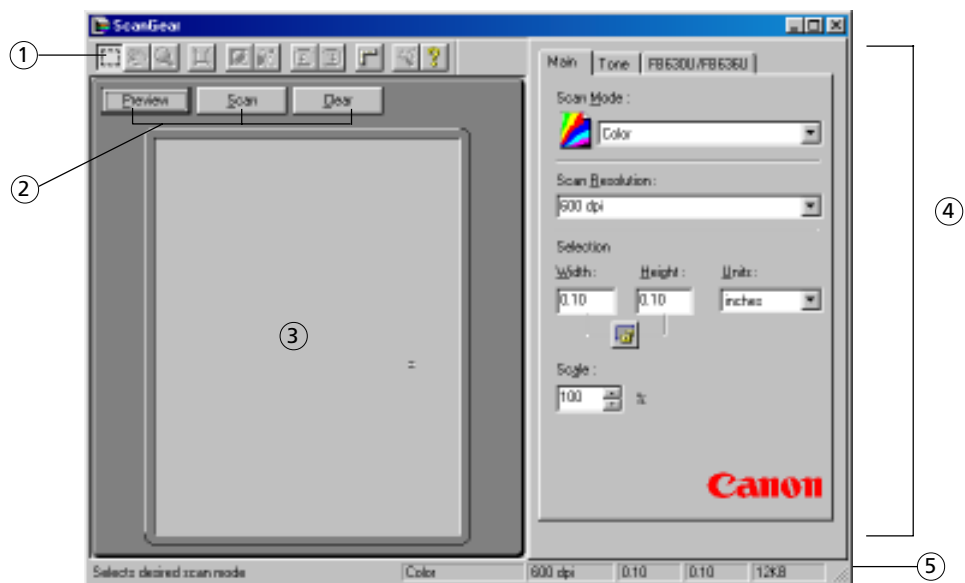
# *The ScanGear CS Settings*

**Overview of the Main Window**

**Summary of the ScanGear CS Settings**



## *Overview of the Main Window*



### ① **Toolbar**

Use the Toolbar to manipulate the image in the Preview Area and modify the scan settings.

### ② **Scanning Buttons**

Click the Preview button to pre-scan the image and display it in the Preview Area so you can select the scanning area, manipulate the image, or enhance the image with special effects.

Click the Scan button to scan the image on the scanner with any special effects or adjustments that have been applied and send the scanned image to the software application from which you launched ScanGear CS.

Click the Clear button to clear the image in the Preview Area. Clicking the Clear Button also cancels any scanning settings you have performed on the image.

### ③ **Preview Area**

Displays the preview image. Use the Preview Area to set the scanning area and adjust the image before scanning.

- You can view the preview image and decide if the image needs any adjustments before you actually scan the image.
- With the preview image, you can use the buttons on the toolbar to select a portion of the image to scan, rotate or resize.
- You can judge the image's appearance after you make changes to the tone, or other settings with the options provided on the Tone sheet.
- The horizontal and vertical rulers, which can be switched on or off with the Rulers button in the toolbar, allow you to see the dimensions of the image.
- If you click the Clear button, the image in the Preview Area is cleared.

### ④ The Tabs and Sheets

Click the Main tab, Tone tab, or the Scanner tab to open the Main sheet, Tone sheet, or Scanner sheet. Use the settings on each sheet to perform important settings for scanning.



*Note*

The name of your scanner (FB630U or FB636U) will appear on the Scanner tab.

### ⑤ Status Bar

Reading from left to right, the status bar displays the following important information:

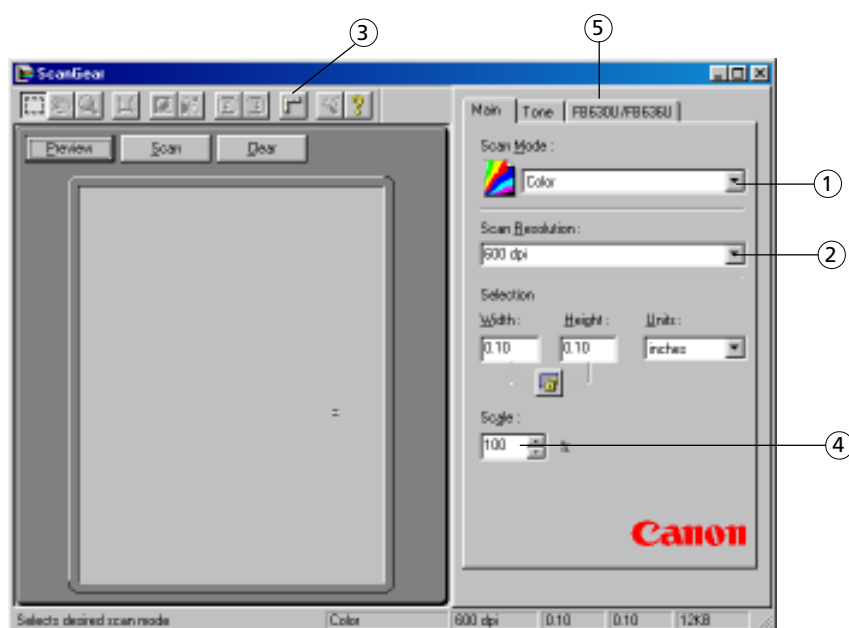
- **Message Area:** Displays messages about the current status of the driver or a simple explanation of the button or setting you point to.
- **Scan Mode:** Displays the option selected for the Scan Mode on the Main sheet.
- **Resolution:** Displays the option selected for Scan Resolution on the Main sheet.
- **Width:** Displays the current Width setting in the Selection box on the Main sheet.
- **Height:** Displays the current Height setting in the Selection box on the Main sheet.
- **Size:** Displays the file size of the uncompressed image with the current settings you have selected.

## *Summary of the ScanGear CS*

## *Settings*

### **General Scanning Settings**

The general scanning settings set up the basic features for the scanning job.



The general scanning settings are performed in the ScanGear CS main window.



### ① **Selecting the Scan Mode**

On the Main sheet click the down-arrow for Scan Mode and select Black and White, Grayscale, Color, High Definition Color, or Text Enhanced. (◆41)

### ② **Selecting scanning resolution**

On the Main sheet click the down-arrow for Scan Resolution and select the resolution setting from the pull-down list. If you select Custom for the Scan Resolution setting, you can specify custom resolution settings. (◆42)

### ③ **Displaying the rulers in the Preview Area**

Click the Rulers button in the toolbar to switch the rulers display in the Preview Area on and off. Set the units for the rulers with the Units item on the Main sheet. (◆44)

### ④ **Scaling the size of the scanned image**

On the Main sheet, use the Scale entry box to enter a percentage (25%~200%) to reduce or enlarge the size of the image then click the Scan button. The scanned image is output at the scale you selected. (◆44)

### ⑤ **Selecting the paper size of the original**

On the Scanner sheet, click the down-arrow for Paper Size and select a standard paper size from the pull-down list to match the size of the original on the scanner platen. (◆58)

## ***Image Manipulation Settings***

These settings allow you to crop, size, or change the position of the image for scanning.



### **Cropping an image**

Click the Crop button in the toolbar and drag the pointer to draw a rectangle around the area of the image you want to crop. You can use the Auto Crop button to size the rectangle exactly around the object enclosed by the rectangle. (◆38)



### **Moving an enlarged image**

With an image enlarged with the Zoom Tool button in the Preview Area, click the Move Image button in the toolbar. Drag the hand-pointer in any direction to scroll the image in the Preview Area. (◆38)



### **Enlarging/reducing size of an image**

Click the Zoom Tool button and click the left mouse button to enlarge the image size or click the right mouse button to reduce the image size. Only the displayed image is enlarged or reduced in the Preview area. (◆39)



### **Inverting an image**

Click the Negative/Positive button in the toolbar to create a negative effect by reversing colors in the image. (◆39)



### **Mirroring an image**

Click the Mirror button in the toolbar to flip the image horizontally. (◆39)



### **Rotating an image**

Click the Rotate Left or Rotate Right button in the toolbar to rotate the image left or right 90 degrees. (◆40)

## ***Image Enhancement Settings***

The enhancement settings provide a range of professional tools for adjusting color and tone for scanning.



### **Adjusting color tone automatically**

On the Preview Area toolbar or the Tone sheet, click the Auto Tone button to have ScanGear CS correct color tones automatically. (◆48)



### **Adjusting contrast and brightness**

On the Tone sheet, click the Contrast/Brightness button, then use the Contrast and Brightness slide bars to adjust the overall contrast and brightness of the image. (◆49)



### **Adjusting mid-tone range (gamma)**

On the Tone sheet, click the Gamma button then use the Gamma slide bar to adjust the gamma setting. (◆50)



### **Adjusting intensity of tone**

On the Tone sheet, click the Histogram button then drag the triangles at the bottom of the graph to change the intensity of the tones. (◆52)



### **Adjusting output color (RGB)**

On the Tone sheet, click the Special Tone Curves button. Then on the graph, click a point on the curve to define a point and drag it in any direction to adjust the color output of the color selected in the Channel box. (◆54)

### **Setting Threshold**

On the Main sheet, click the down-arrow for Scan Mode and select Black and White from the pull-down list. On the Scanner sheet, drag the Threshold slide bar to the left or right to adjust the setting. The adjusted Threshold setting will be reflected in the next preview or scan.(◆59)

### **Improving image quality**

On the Scanner sheet, click the Descreen check box to switch on moiré reduction to improve the overall quality of the image. (◆59)

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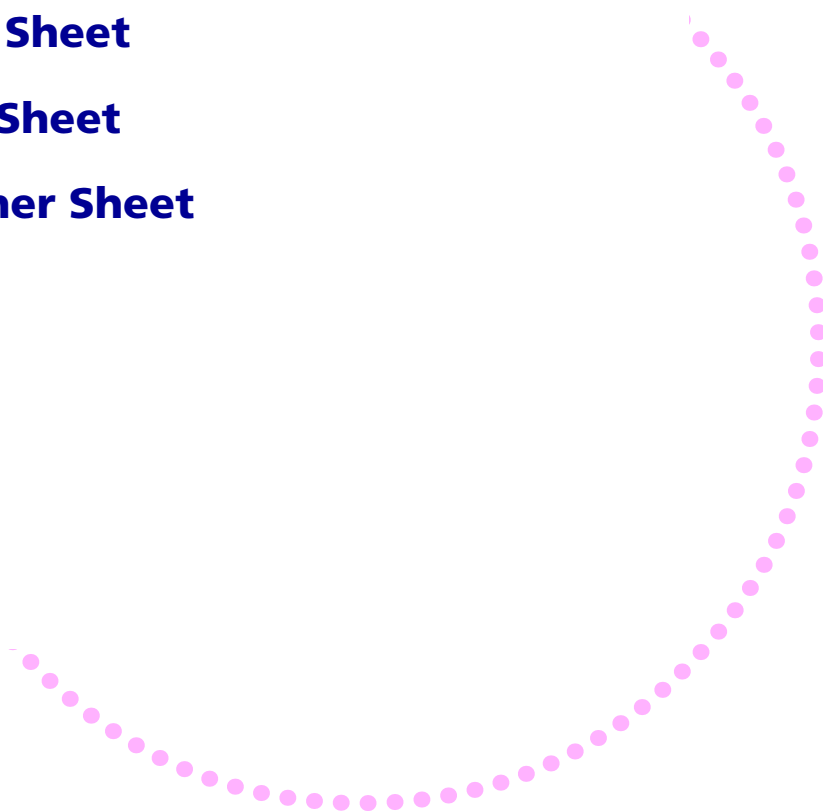
# *What is on the ScanGear CS Main Window?*

**The Toolbar**

**The Main Sheet**

**The Tone Sheet**

**The Scanner Sheet**



## *The Toolbar*

Buttons on the toolbar help you to perform important tasks, like cropping images, moving images, zooming, and so on.



### **Crop Button**

Click the Crop button and drag the pointer in any direction to draw a rectangle around the area you want to select for scanning. This reduces the time it takes to scan an image because you are pre-scanning or scanning only the necessary section of the original, not the whole area. To un-crop the image, simply click outside the cropped area. You can drag the selected area to another location or drag the handles on the borders to enlarge or reduce the area.



### **Move Image Button**

Use the Move Image button to scroll the image up/down or left/right when the previewed image has been enlarged with the Zoom Tool button and is too large to be viewed all at once. Click the Move Image button and drag the image with the hand image pointer.



*Note*

The Move Image button is not available when the previewed image has not been enlarged and is displayed entirely in the Preview Area.



#### **Zoom Tool Button**

Click the Zoom Tool button and then click the left or right mouse button to increase or decrease the current magnification of the image. The final scanned image will not be affected by this operation.

To increase the magnification of the image, click the Zoom Tool button then click the left mouse button on the area of the previewed image to view. You can repeat this procedure to magnify the image up to 4 times its previewed size.

To decrease the magnification of the image, click the Zoom Tool button and click the right mouse on the magnified image.



#### **Auto Crop Button**

Click the Crop button and draw a rectangle around the part of the image that you want to scan. Then, click the Auto Crop button to size the rectangle for the best fit around the object enclosed by the rectangle. Clicking only the Auto Crop button selects the entire image in the Preview area.



#### **Negative/Positive Button**

Click the Negative/Positive button to invert the colors and create a negative of the image.



#### **Mirror Button**

Click the Mirror button to flip the image horizontally like a mirror image.



#### **Rotate Left Button**

Click the Rotate Left button to rotate a scanned image left 90 degrees (counterclockwise). Click this button repeatedly to continue rotating the image left.



#### **Rotate Right Button**

Click the Rotate Right button to rotate a scanned image right 90 degrees (clockwise). Click this button repeatedly to continue rotating the image right.



#### **Rulers Button**

Click the Rulers button to display rulers in the Preview Area to help with sizing and cropping images. To select the units for rulers, click the down-arrow for Units on the Main sheet and then select the desired measurement units from the pull-down list.



#### **Auto Tone Button**

Click the Auto Tone button to have ScanGear CS automatically adjust the tone of a pre-scanned color image. The Auto Tone feature is on when the button on the toolbar is depressed. The Auto Tone button is available only when Color or High Definition Color has been selected for Scan Mode on the Main sheet.



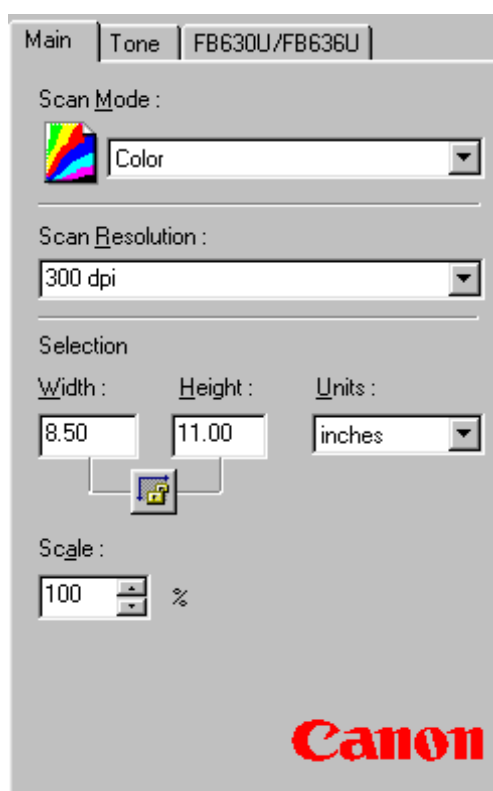
#### **Help Button**

Click the Help button to display the ScanGear CS on-line Help.



## *The Main Sheet*

### ***The Main Sheet***



#### **Scan Mode**

The Scan Mode determines how the original will be scanned: Black and White, Grayscale, Color, etc.

Click the down-arrow and select a setting from the pull-down list.



*Note*

Changing the Scan Mode will refresh the image in the Preview Area and cancel the settings you made for the preview image.

- **Black and White.** The image is scanned in black and white.
- **Grayscale.** The image is scanned in shades of gray.
- **Color.** The image is scanned in color.
- **High Definition Color.** Select for the best possible color quality. Scanning at this setting will be slightly slower.
- **Text Enhanced.** Converts grayscale images to black and white using Canon ImageTrust technology. This setting produces sharper text which will be easier for OCR software to recognize.

#### **Scan Resolution**

Select a Scan Resolution that matches how you will be using the scanned image.

Click the down arrow and select a pre-set resolution from the pull-down list.



*Note*

Notations are provided to help you decide which resolution setting to select. If you are scanning the original for display on a screen (not printing) select Screen 75 dpi. The higher the resolution, the better the quality of the displayed image but the slower the scanning speed and larger the resulting file size. Make sure you select a setting based on the capability of your output device.

If you want to create and save a custom resolution setting for a special scanning job, select Custom from the pull down list to open the Custom Resolution dialog box. (◆45)

#### **Selection**

Use the Selection options to set the exact size of the image output.



*Note*

To select the area to scan, use the Crop button, or enter the desired dimensions in the text box.

- **Keep Proportions button.** Click the button to maintain the Width and Height proportions. If you change Width or Height, the other setting will be adjusted automatically to maintain the proportion of the original image. When this button is clicked, a chain appears between the Width and Height boxes. As you enlarge or shrink the selection, note that the Width and Height of the selection remain in correct proportion.

- **Units.** Click the down-arrow and select a unit to measure the scanning area. Changing the Units setting does not affect the image in the Preview Area.
- **Width and Height.** The width and height of the current selection, or if there is no selection, the maximum output size, measured from the upper left corner of the image in the Preview Area and based on the current paper size. To change the Width and Height settings, click the Crop button on the toolbar and select a section of the image in the preview area, or just type the desired dimensions into the Width and Height text boxes.
- **Scale.** Allows you to specify the output size of the selected image 25% to 200% (preset to 100%) as a percentage of the original Width and Height. Click the up or down arrow to increase or decrease the percentage. If the image in the Preview Area is 4" x 2" and you select 50% then the output image will be 2" x 1".

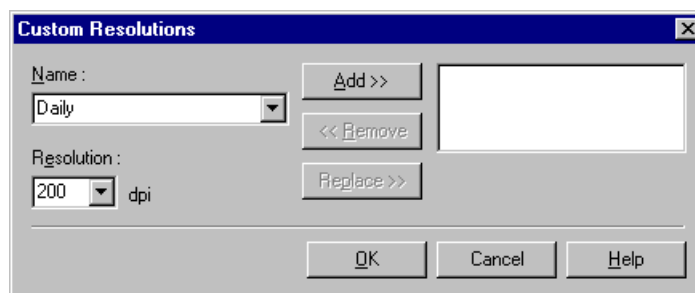
## ***Custom Resolution Dialog Box***

ScanGear CS has a range of preset resolutions based on your chosen output device. With the Custom Resolutions dialog box, you can also create a new customized resolution, change, or delete a previously defined custom resolution.

### **To create a custom resolution setting**

Follow this procedure to create a new resolution setting.

1. **On the Main sheet click the down-arrow for Scan Resolution and select Custom from the pull-down list. The Custom Resolutions dialog box opens.**



2. **Enter a name for the resolution.**
3. **In the Resolution box, select a resolution or type a new one and click the Add button.**
4. **Click the OK button. The new resolution name is added to the Scan Resolution list.**

#### To delete a custom resolution setting

When you no longer need to use a custom resolution, you can delete it from the list.

1. **On the Main sheet, click the down-arrow for Scan Resolution and select Custom from the pull-down list. The Custom Resolutions dialog box opens.**
2. **In the Custom Resolutions dialog box, select a name.**
3. **Click the Remove button.**
4. **Click the OK button.**

#### To change a custom resolution setting

Once you have set a custom resolution, you can change it.

1. **On the Main sheet, click the down-arrow for Scan Resolution and select Custom from the pull-down list. The Custom Resolutions dialog box opens.**
2. **In the Custom Resolutions dialog box, select a name.**
3. **Enter a new resolution in the Resolution box.**
4. **Click the Replace button. The updated custom resolution replaces the existing one.**
5. **Click the OK button.**



*Note*

You cannot remove or replace the preset resolution settings.

## *The Tone Sheet*

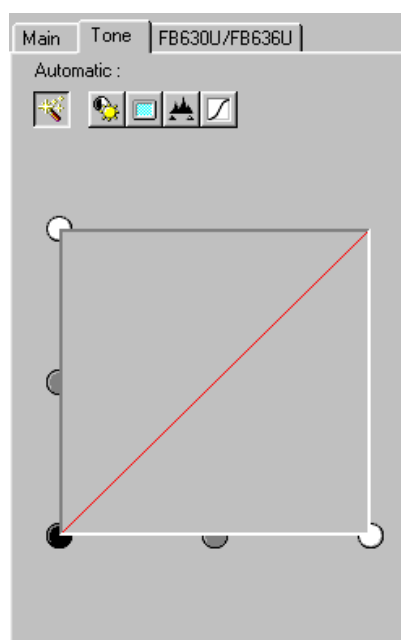
In the main window click the Tone tab to open the Tone sheet. The Tone sheet contains the buttons that open the professional features for adjusting color tone.



① ② ③ ④ ⑤

- ① **Auto Tone button.** Turns on automatic tone adjustment and opens the Auto Tone sheet with the Auto Tone graph.
- ② **Contrast/Brightness button.** Opens the Contrast/Brightness sheet with the Contrast/Brightness graph.
- ③ **Gamma button.** Opens the Gamma sheet with the Gamma graph.
- ④ **Histogram button.** Opens the Histogram sheet with the Histogram graph.
- ⑤ **Special Tone Curves button.** Opens the Special Tone Curves sheet with the Special Tone Curves graph.

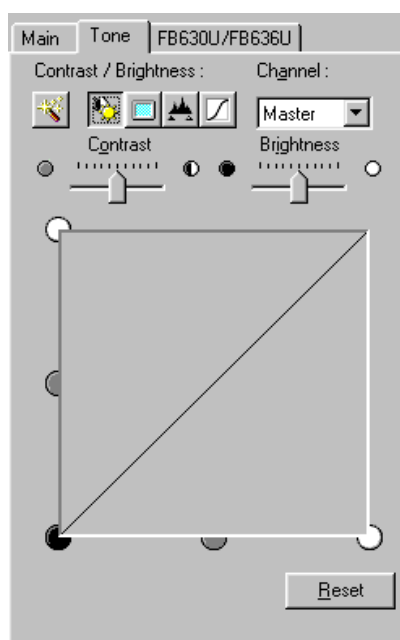
## ***Auto Tone Sheet***



When the Auto Tone button is depressed, the Auto Tone sheet is displayed with the Auto Tone graph and the automatic tone correction feature switches on. All color tone adjustment is conducted automatically by ScanGear CS to produce a better image. This setting is connected with the Auto Tone button in the toolbar.



## ***Contrast/Brightness Sheet***



When the Contrast/Brightness button is clicked, the Contrast/Brightness sheet is displayed.

The shape of the tone curve changes to reflect the current Contrast/Brightness setting for the current Channel, and the image in the Preview Area changes to reflect the adjustment.

### **Brightness**

Drag the Brightness slider to the left to darken the image or to the right to lighten the image.

#### **Contrast**

Drag the Contrast slider to the left to decrease the contrast of the image or to the right to increase the contrast of the image.

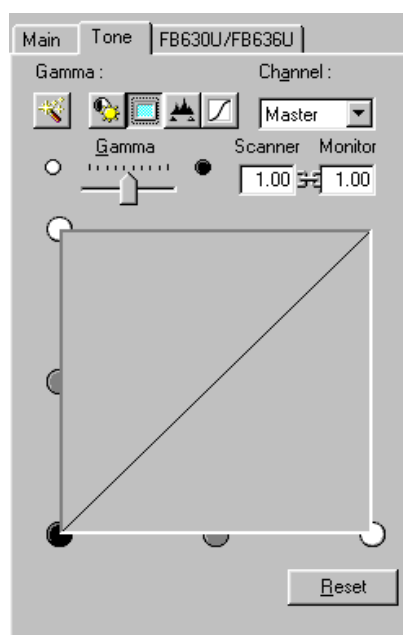
#### **Channel**

Click the Channel down-arrow and select one of the primary colors (Red, Green, Blue) for adjustment or leave the setting at Master to adjust all colors.

#### **Reset**

Resets the default settings for Contrast and Brightness.

### ***Gamma Sheet***





When the Gamma button is clicked, the Gamma sheet is displayed.

Gamma refers to a process where mid-tones are shifted so that the lighter colors are lightened and darker colors are darkened. For example, let us say you scanned a photograph of a subject in a boat in a tree-lined lake and the shadows of the trees are dark enough and the white of the boat is light enough, but the blue in the sky, the blue of the water, and the blue of the subject's clothing all look the same. By increasing the Gamma value of the image, the sky might become lighter and the water darker, giving a better contrast to the image.



*Note*

Gamma can be set even if there is no image in the Preview Area. The gamma setting will remain in effect for the next image previewing or scanning.

### **Gamma**

Slide the Gamma slider to the left or right to set the gamma value or you can type the value directly into the box. The allowed range of values are 0.10 to 10.00, inclusive. Larger Gamma values darken the mid-tones of an image, and smaller Gamma values lighten the mid-tones. The shape of the tone curve changes to reflect the current gamma setting for the current Channel, and the image in the Preview Area changes to reflect the adjustment.

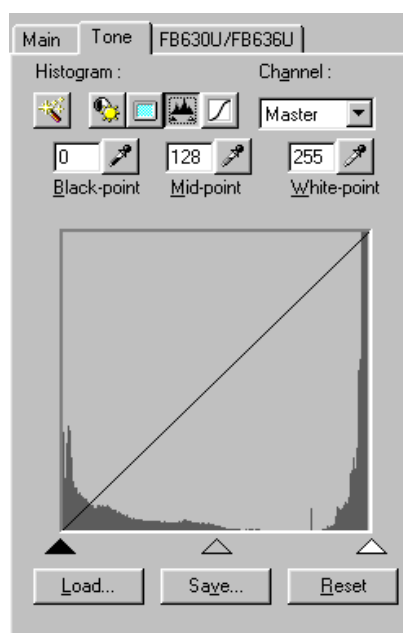
### **Channel**

Click the Channel down-arrow and select one of the primary colors (Red, Green, Blue) for adjustment or leave the setting at Master to adjust all colors.

#### **Reset**

Resets the default gamma setting.

### ***Histogram Sheet***



When the Histogram button is clicked, the Histogram sheet is displayed.

Use the histogram to enhance an image when the image is either too light or too dark, like an overexposed or underexposed photograph. Increasing the darker tones with the histogram improves the contrast of the image.

#### **Eyedroppers (Black-point, Mid-point, White-point)**

Click one of the three eyedroppers then click the portion of the image in the Preview Area that you want to sample, or enter values in the text boxes, or drag one of the three triangles at the bottom of the graph to adjust the value. The shape of the tone curve and histogram changes to reflect the current Histogram setting for the current Channel.



*Note*

A White-point value must be larger than a Black-point, and a Mid-point value must be between the Black-point and White-point.

#### **Channel**

Click the Channel down-arrow and select one of the primary colors (Red, Green, Blue) for adjustment or leave the setting at Master to adjust all colors.

#### **Load**

Loads a file with previously saved tone settings.

#### **Save**

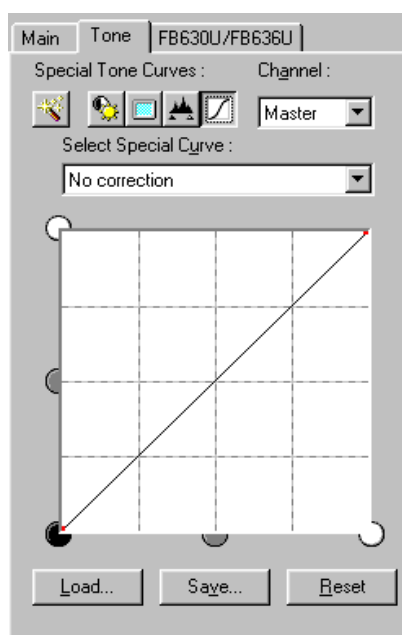
Saves the current tone settings reflected in the histogram chart as a file so you can use the Load button to load the settings again whenever you need them.


#### **Reset**

Resets the default values:

Black-point:	0
Mid-point:	128
White-point:	255

## ***Special Tone Curves Sheet***



 When the Special Tone Curves button is clicked, the Special Tone Curves sheet is displayed.

### **Channel**

Click the Channel down-arrow and select one of the primary colors (Red, Green, Blue) for adjustment or leave the setting at Master to adjust all colors.

#### **Select Special Curve**

Click the down-arrow and select a setting from the drop-down list. These settings are designed to solve some of the most common problems with scanned images: overexposure, underexposure, or poor contrast:

- No correction
- Fix an image that is underexposed
- Fix an image that is overexposed
- Fix an image that is low contrast
- Fix an image automatically
- Edit custom curve

#### **Load**

Click to load a file with previously saved curve settings.

#### **Save**

Saves the current curve settings as a file so you can use the Load button to load the settings again whenever you need them.

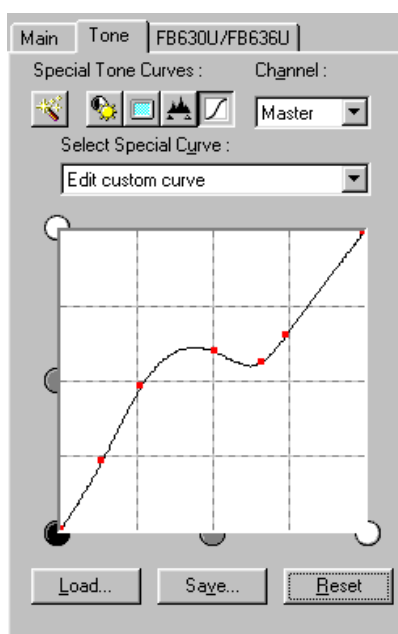
#### **Reset**

Resets the default values for the curve.

### ***Editing a Special Tone Curve Directly***

In the Special Tone Curves graph you can edit the curve directly.

1. **Click on the curve and drag each curve anchor point until the desired effect is achieved.**



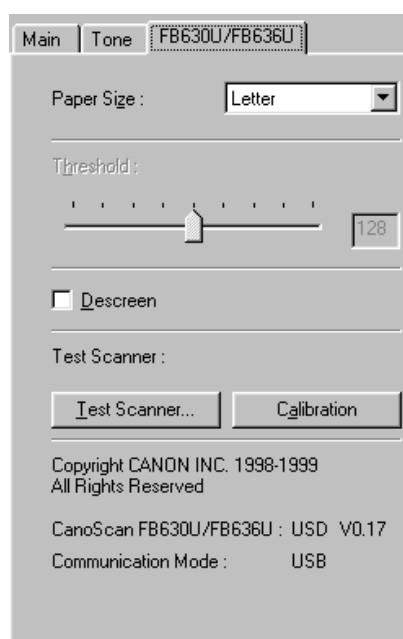
2. **To remove an anchor point altogether, drag the anchor point off the graph area.**



Here are some hints for editing curves:

- Curve handles are drawn on a white background as a red dot to signify that they are editable. When the cursor is over the handle, it changes to a crosshair.
- Curve end points can be selected and dragged to any point in the curve but cannot be deleted.
- Up to 15 points can be added to a curve by clicking anywhere in the curve box.
- If you drag a point outside of a curve box, it will be deleted from the curve and a new curve will form with the remaining points.
- The X and Y axes on the curve chart represent the input image color and output image color. When you add a handle to the curve and drag that handle toward the white areas, the preview image tones are adjusted to reflect the change.
- More than one handle cannot be positioned on a vertical line but more than one handle can be positioned on a horizontal line so you can have several handles on a horizontal line.

## *The Scanner Sheet*



When you click on the FB630U/FB636U Tab, the Scanner sheet opens.

### **Paper Size**

Click the down-arrow and select a paper size from the drop-down list. These sizes are available: Business Card, Statement, B5, Executive, A4, Letter, Full Platen.



*Note*

Changing the Paper Size will refresh the image in the Preview Area.

#### **Threshold**

Threshold determines whether portions of an original are scanned as black or white. Drag the slider right to make the document lighter or drag it left to make the document darker. You can also enter the values directly into the entry box (range: 0~255). This feature is enabled only when the Scan Mode on the Main sheet has been set for Black and White. Otherwise, this slidebar is dimmed and disabled.

#### **Descreen**

Click this check box if you want ScanGear CS to conduct moiré reduction to improve the overall image quality. Moiré patterns are dot-like patterns that interfere with processing images for professional use and are usually caused by poor dithering resulting from scanning images from newspapers, books, magazines, etc.

#### **Test Scanner**

Click this button to open the Scanner Diagnostics dialog box. Click the Start button in the Scanner Diagnostics dialog box to test your Scanner. After the test is complete, a message is displayed to inform you of the results. If a problem is reported after the test, use your scanner manual to troubleshoot the problem. During the test, do not open the Document Cover of the scanner.

#### **Calibration**

Click this button to start calibration. Calibration is the adjustment of color processing for input and output devices so the colors in the scanned image match the colors you see on the computer screen and in the printed image. During calibration, do not open the Document Cover of the scanner.

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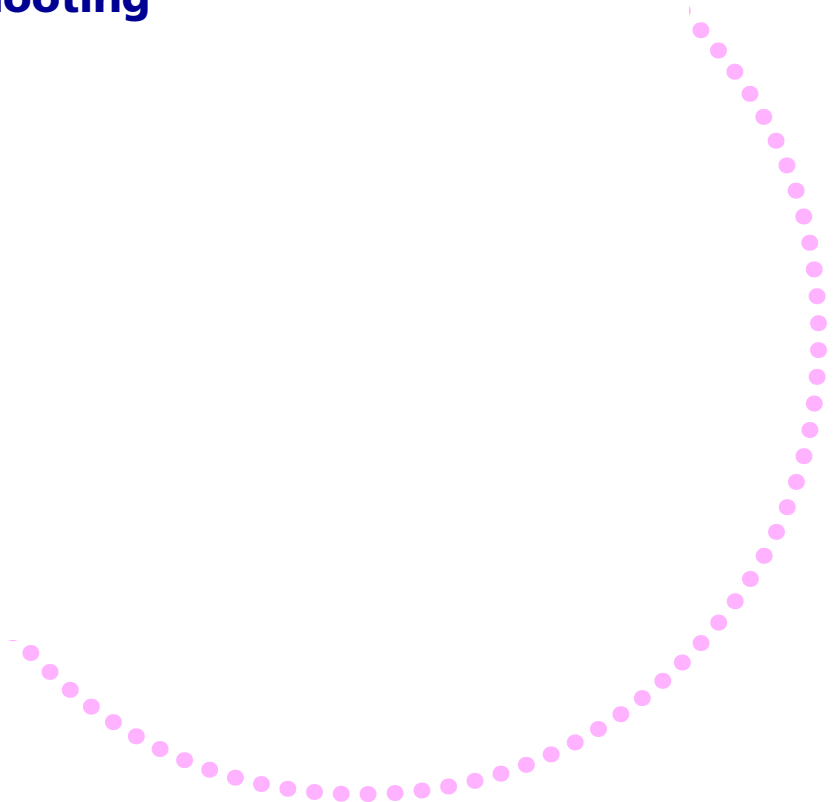
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# *Troubleshooting*

**Pre-Scan Checklist**

**How to Avoid Problems**

**Troubleshooting**



## *Pre-Scan Checklist*

Perform the checks on this short list before you begin troubleshooting specific problems.

- Refer to the *Quick Start Guide* to make sure that the ScanGear CS software was installed successfully.
- Check that the cables between your computer and scanner are connected securely.
- Before scanning or previewing, check that your scanner has been selected as the data source in the application. If your scanner does not appear as an option when you select a TWAIN source to scan from your application, you have to install ScanGear CS again.

## *How to Avoid Problems*

Here is some general advice on avoiding problems in your scanning jobs:

- Start with the best possible original image to scan.
- Select only the part of the image you want to scan. Preview the image and select it with the Crop and Auto Crop buttons. (◆38, 39) Not only does a more precise selection save file space, but your image quality will be much higher.
- Check the output file size before beginning the scan. Make sure you have enough room if you are scanning files that require a large amount of disk space.
- Match your Scan Mode to the output purpose. If you are scanning text, use the Text Enhanced mode. If you are scanning line art, use the Black and White setting, and so on.
- Match your scan resolution to the type of file you need. If you are scanning images for use as .GIF or .JPG files on the Web, you do not have to scan at 600 dpi. Although it is recommended that you scan at a higher resolution than you need for high-quality color images, you should balance that factor against your planned use for the image.
- Take advantage of the Tone sheet features to enhance your images. (◆47)
- Try to use TrueColor mode on your monitor so you can view your preview image as accurately as possible.

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- If you are using OCR software, scan in Text Enhanced at 300 dpi or higher.
- Take advantage of the preview feature and preview as much as you want before scanning.

## Troubleshooting

### The scanner diagnostics test fails.

- Problem:** The Scanner Diagnostics test started with the Test Scanner button on the Scanner sheet, returns a Test Failed message.
- Cause:** The scan head may not be in its home position.
- Solution:** Close the ScanGear CS window if it is open.

### Colors are not what you expect.

- Problem:** The colors in the preview image appear different from the colors in the original image.
- Cause:** The scanned colors need to be adjusted.
- Solution:** Make sure the Auto Tone button is selected. If further adjustments are necessary, use the Tone sheet buttons.

### The preview image of a photograph appears blurred but the scanned image of the same photograph appears sharp.

- Problem:** When zooming in on a photograph in the Preview Area, the enlarged image appears blurred.
- Cause:** The preview scan uses a lower resolution than the final scan. If you zoom in on a preview image so it is enlarged 1.5x or more, the image will not maintain its resolution in the same way as the final scanned image.
- Solution:** Select a magnified area and preview the image again. The prescan should display a sharper image.



#### **The printed image colors appear different from image you see in the Preview Area.**

- Problem:** The colors in the printed image appear different from the colors in the image you see on the screen.
- Cause:** Printer toner may be low. ColorGear color matching may have not been selected when it was necessary.
- Solution:** Check the toner cartridge in the printer and make sure that it is not low or empty. Check that ColorGear color matching and Use ColorGear profile are selected on the Preferences sheet.

#### **The software application cannot find the scanner.**

- Problem:** When trying to scan, an error message says the scanner cannot be found.
- Cause:** Windows may not recognize your scanner.
- Solution:** Make sure the scanner is connected to your computer and that the AC adapter is connected to your scanner. If not, connect the scanner. If this does not correct the problem, consult the scanner manual for additional information about how to properly set up your scanner.

#### **Some buttons are grayed-out.**

- Problem:** Buttons in the Preview Area Toolbar are grayed-out and not available.
- Cause:** Some functions are not available until an image has been previewed.
- Solution:** Preview an image.

#### ScanGear CS does not launch.

- Problem:** ScanGear CS does not launch, the screen freezes, or another software application launches.
- Cause:** The scanner may not be connected correctly, or you may have chosen the wrong scanner source in your application. The scanner configuration file may have been changed.
- Solution:** Make sure the scanner is properly connected to your computer and that the AC adapter is connected to your scanner. If not, connect the scanner.  
Make sure you selected the correct scanner in your parent software application. For details, see your application documentation for instructions.  
If neither of those steps solve the problem, uninstall ScanGear CS using the Windows Control Panel then reinstall ScanGear CS.

#### Scanning or printing is too slow.

- Problem:** The scanner or printer is taking an unusually long time to print or scan.
- Cause:**
1. The selected output resolution of the image may be too high for the resolution of your printer, or your computer may be low on memory.
  2. The descreen mode is on.
- Solution:**
1. Before printing the image, make sure you have set the Scan Resolution on the Main Tab to not exceed the resolution of your printer. Also check to see if there is enough memory available in your computer. Before scanning or printing, quit other applications that are not in use.
  2. Click off the descreen check box in the FB630U/ FB636U tab.

#### Parts of images are missing or mis-aligned.

- Problem:** Some characters are missing from the image in the Preview Area, or the image is mis-aligned in the Preview Area.
- Cause:** The page has been placed on the scanner improperly.
- Solution:** Check the scanner and place the page improperly to adjust the image.

#### Image is too light or too dark compared to the original.

- Problem:** Scanned or printed image is much lighter or darker than the original.
- Cause:** Image type or image and color adjustments may not have been set properly.
- Solution:** The best solution is to scan the image using all default settings again. Then make imaging and color adjustments as necessary.

#### The preview image is too small on my monitor

- Problem:** The image in the Preview Area is very small, and cannot be viewed in the Preview Area for adjustment.
- Cause:** If you have a high-resolution setting on your monitor, the ScanGear CS window is smaller than if you had a lower-resolution setting.
- Solution:** Click the Size button on the ScanGear CS window to enlarge the entire window or lower your monitor's resolution with the Control Panel.

#### **The image I want to scan is too big for the scanner.**

**Problem:** The image I want to scan is 50 percent larger than my scanner platen.

**Solution:** Scan one half at a time, at exactly the same settings. Then use your imaging application to join the parts.

#### **The scanned image has jagged edges.**

**Problem:** The scanned image has jagged edges when viewed on the screen or printed.

**Cause:** Jagged edges usually occur because of a conflict between the scan resolution and the output resolution.

**Solution:** Choose a preset Scanning Resolution for the scanning job. Choose a setting for the intended use of the image. When you choose a preset resolution, or a custom resolution, the maximum resolution of the output device should be evenly distributed by the resolution you select.

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# *Glossary*



## **Acquired Images**

Images sent from your scanner software to the host graphics application.

## **Auto Crop**

After you select an area of the screen by clicking the Crop button and dragging a rectangle around the object or text you want to crop, click the Auto Crop button to size the rectangle exactly to the size of the object or block of text enclosed in the rectangle.

## **Auto Tone Adjustment**

Automatic analysis and adjustment of the image using Contrast/Brightness and Gamma settings.

## **Automatic Preview**

When the automatic preview feature is switched on, the original on the scanner platen is pre-scanned immediately as ScanGear CS is launched from the parent software application. To switch this feature on and off, open the Preferences sheet and click the button for "Automatically execute a preview".

## **Bits and Bit Depth**

A bit (binary digit) is the smallest possible unit of information on a computer; it represents yes or no; on or off; 1 or 0. Bit Depth is used to describe the complexity of a graphic image.

One-bit, or bilevel images are black and white. This is the Black and White setting in ScanGear CS. Eight-bit grayscale uses 256 shades of gray to accurately represent most black and white photographs or gray interpretations of color images. This is the Grayscale setting in ScanGear CS. Twenty-four-bit color, also called True Color, uses three eight-bit channels, one channel each for Red, Green and Blue, to create up to 16.7 million colors. This is the Color setting in ScanGear CS.

**Black-point**

The darkest portion of an image scanned as Color or Grayscale. When you click on the image with the Black-point eyedropper, all tones darker than the selected sample tone are adjusted to black. See also Mid-point, White-point.

**Brightness**

The overall amount of lightness or darkness in an image. An image with maximum brightness tends toward white; an image with minimum brightness tends toward black. While contrast refers to the range and number of tones in an image, brightness refers to the intensity of tones.

**Calibration**

For scanning, calibration refers to the adjustment of color processing for input and output devices on a computer, so that the colors match throughout the process. For example, calibration ensures that the color image scanned on a scanner matches the original image when it is displayed on the computer monitor, as well as printed on a color printer.

**Canon ColorGear Color Matching**

Canon's process of matching the color profile of the input device (scanner) with the color profile of the output device (monitor), to yield the most accurate color image. Canon ColorGear Color Matching is compliant with ICC (International Color Consortium) guidelines. ICC is a group of hardware and software companies which developed cross-platform, industry-standard guidelines for color devices. Canon ColorGear Color Matching is also compatible with the ICM (Image Color Matching) component of Windows 98.

**Canon ImageTrust**

Canon's process of converting grayscale image (8 bits per pixel) to a black and white image (1 bit per pixel) to yield a more effective scan for optical character recognition (OCR) applications.

**Channel**

See Color Channels.

**Clear button**

The button that removes the current image from the Preview Area.

**CMY**

An acronym for cyan, magenta, and yellow, the color complements to red, green, and blue.

**CMYK**

An acronym for cyan, magenta, yellow, and black, the four-color process used in most commercial printing. (The black "K" stands for "Black".)

**Color Channels**

The red, green, or blue components of a color image. Color images contain 8 bits per pixel each for red, green, and blue channels, therefore each pixel has 24 bits. If you are scanning a color image, you can change the brightness and contrast of the individual red, green, and blue tones in your image. The Master channel is a combination of the three.



## **Color Matching**

The range of colors your scanner can see may not match the range of colors your video monitor can produce. Color matching lets your system display colors so that the color on your monitor and printer matches the colors scanned. See also Canon ColorGear Color Matching.

## **Complementary colors**

Red, green, and blue can be thought of as complementary colors to cyan, magenta, and yellow. These colors cancel each other out when combined in equal amounts. Similarly, adding a small amount of one color reduces its complement by that amount.

## **Contrast**

Contrast refers to the difference between the lightest light and the darkest dark in the image. A low contrast value indicates that the difference between dark shades and light shades is not very great. A high value indicates a great difference between dark and light shades. While brightness refers to the intensity of tones in an image, contrast refers to the range and number of tones in an image.

## **Crop**

The action of selecting part of an image. The Crop button on the ScanGear CS main window lets you select part of a preview image and re-preview or scan only that selected part.

## **Curve chart**

The graph displayed in the Tone sheet settings for the Auto Tone, Contrast/Brightness, Gamma, Histogram, and Special Tone Curves features. This graph describes the relationship between the color characteristics of the previewed image and the available feature settings.

**Curve file**

A file containing Special Tone Curve settings. (Tone sheet-Special Tone Curves)

**Custom curves**

A user-defined Special Tone Curve that may be saved in a file. (Tone sheet-Special Tone Curves)

**Custom Resolutions**

The Custom Resolutions dialog box lets you create a scan resolution not found in the preset list, but supported by the input device.

**Default**

The preset factory settings on hardware or software.

**Digitizing**

The process of converting an image into computer-usable (digital) information that can be saved as a file, printed, faxed, or otherwise manipulated on your computer.

**dpi**

The abbreviation for dots per inch. The resolution of a monitor or printer is measured in how many dots per horizontal inch it can display or print. See also Pixel, Optical resolution, Resolution.

**Driver**

The software that lets you run a peripheral device such as a printer, scanner, video monitor, and so on. ScanGear CS is a scanner driver.

**End points**

The points at each end of a preset or custom tone curve. The curve end points cannot be deleted. If they are dragged to or past an edge, they remain on the edge. Add points to the curve by clicking anywhere in the curve box. (Tone sheet - Special Tone Curves)

**Exective**

A U.S. standard paper size measuring width x height:7.25 x 10.5 in. (184.2 x 266.7 mm)

**Eyedropper**

A Histogram tool used to sample the Black-point, Mid-point, and White-point areas in the previewed image. (Tone sheet - Histogram)

**Full Platen**

The maximum scannable area on the scanner's document glass, 8.5 in. x 11.7 (width of U.S. Letter and length of A4 paper sizes).

**Gamma Curve Tool**

The Gamma Curve Tool lets you change the midtones of colors to increase the contrast between colors, and enhance the overall image. When you increase the Gamma value, light colors are made lighter, and dark colors are made darker. The graphed curve represents the relationship between input and output values for the midtones of the preview image.

**Gamma correction**

The process of adjusting the midtones to improve an image.

## Grayscale

Grayscale refers to a single-channel image made up of 256 shades of gray, ranging from white to black, that represent all tones in an image.

## Height

The Height text box contains the height of the current selection, or, if there is no selection, the maximum vertical output size, based on the currently selected Paper Size.

## Histogram Tool

The Histogram displays the distribution of bright and dark pixels for each color channel in the previewed image. The Eyedropper tool on the histogram graph lets you redefine the tonal profile. You can save the settings for Black-point, Mid-point, and White-point settings in a histogram file with the extension \*.HST.

## Image Type

The type of image, such as color or grayscale.

## JPEG file format

An image file format developed by the Joint Photographic Experts Group, as a standard for storing color images in less space, with the file format .jpg.

## Keep Proportions button

The Keep Proportions button affects the selection and the Width and Height text boxes. When you click the Keep Proportions button, the image size is maintained in the same proportion whenever you change either the width or the height.

**Low contrast**

An image that has low contrast does not have many distinct differences between tones.

**Mid-point**

The midtone portion of the image scanned as Color or Grayscale. When you click on the image with the Mid-point eyedropper, all tones between the black-point and the white-point are adjusted in relation to the mid-point setting.

**Mid-tone**

Mid-tones are the middle range of tones in an image, between highlights and shadows. Midtones can be adjusted for color and grayscale images with the Gamma tool.

**Mode**

The type of scan used to scan an image, differentiated by the number of bits per pixel. ScanGear CS has the following Scan Modes: Color, High Definition Color, Grayscale, Text Enhanced, and Black and White.

**Moiré reduction**

Moiré reduction can be switched on with the Descreen button on the Scanner sheet. Moiré patterns are caused by poor dithering as a result of scanning images from published materials like newspapers, magazines, books, etc. When the Descreen feature is on, moiré reduction smooths the overall appearance of the image and enhances image quality.

**OCR (Optical Character Recognition)**

OCR (Optical Character Recognition) software converts text images into actual text characters readable by a word-processing program or similar application. The Text Enhanced scan setting sharpens black and white contrast to assist in the accurate recognition of characters in OCR software.

**Optical resolution**

A scanner's resolution capability. See also dpi, Resolution.

**Output Dimensions**

The final dimensions of the scanned image, based on paper size, cropping, and scaling.

**Output file formats**

The format in which a file is saved to disk such as Windows Bitmap (\*.bmp), Tagged Image File (\*.tif), JPEG (\*.jpg).

**Output size**

The size of the acquired image, calculated by multiplying the width and height by the scale percentage.

**Overexposed**

An image that was exposed to too much light while it was being photographed.

**Paper Size**

An option on the Scanner sheet that determines the initial scannable area. For flatbed scanners, standard paper sizes from B5 to A4 are available.

**Pixel**

An acronym for “picture element,” a pixel is the smallest element used to create a screen image. It can contain up to 24 bits of color information.

**Platen**

The scanner’s document glass, where originals are placed for scanning.

**Preset Curves**

A set of curves designed to fix common photographic image problems such as underexposure, overexposure, or low contrast.

**Preview Area**

The area located to the left of the ScanGear CS main window where the image is displayed before the scan occurs. When you click the Preview button, the image on the scanner is scanned into the Preview Area, but not acquired by the application.

**Preview Image Cache**

When the preview image cache feature is switched on, the image in the Preview Area is saved and displayed the next time ScanGear CS is launched from the parent software application. To switch this feature on and off, open the Preferences sheet and click the button for “Saved image will be displayed”.

**Proportion**

The ratio of width to height. When you click the Keep Proportions button, the image size is maintained in the same proportion whenever you change either the width or the height.

**Resolution**

The degree of detail, translated into the number of pixels or dpi, which a device such as a scanner, video monitor, printer, or other image-displaying device, can display or reproduce. See also dpi, Pixel, Scan Resolution.

**RGB**

RGB is an acronym for red, green, and blue, the onscreen color complements to print colors cyan, magenta, and yellow.

**Rotate Left**

The Rotate Left tool rotates the preview display 90 degrees counterclockwise. If the Preview Area is in portrait orientation, it becomes landscape and vice versa.

**Rotate Right**

The Rotate Right tool rotates the preview display 90 degrees clockwise. If the Preview Area is in portrait orientation, it becomes landscape and vice versa.

**Sampling**

In scanning, sampling is the process of measuring and recording the tonal or color value in an image and converting it to digital information.

**Scale**

The Scale setting lets you specify an output size for the selected image as a percent of the original width and height.

**Scan Button**

Clicking the Scan Button scans the original and sends it to the parent software application.



**Scan Mode**

The desired bit depth for the scanned image. Choices are Color, High Definition Color, Black and White, Grayscale, and Text Enhanced.

**Scanner**

An input device that scans an original with a light source, and converts the image tones to digital information for computer applications. The digital information can be saved as a file, or converted to a text file using OCR software.

**Scan Resolution**

A list of preset levels of detail, expressed in dots per inch (dpi), for the scanned image, available from the Scan Resolution list on the Main sheet. See also dpi, Pixel, Resolution.

**Sliders**

On some of the controls in ScanGear CS, for example, the Contrast/Brightness tool, you have the choice of either typing values directly into text boxes or using sliders. Click the slider and move it to the left or to the right to change the values.

**Statement**

A U.S. standard paper size measuring width x height: 5.5 x 8.5 in. (139.7 x 215.9 mm)

**Status Bar**

The information line at the lower border of the ScanGear CS main window which provides helpful information about the current image and settings.

## **Test Scanner Button**

The Test Scanner Button on the Scanner sheet starts diagnostic tests and reports if there are any problems with the scanner.

## **Text Enhanced**

A feature used by ScanGear CS to increase the accuracy of text scans. When Text Enhanced is the scan mode, images are scanned as Grayscale (8 bits per pixel) and converted to Black and White (1 bit per pixel) using Canon ImageTrust processing software.

## **Threshold**

In a Black and White image, the point at which a gray pixel is determined to become either black or white. The Threshold slide bar is on the Scanner sheet. Adjust the Threshold value when you are scanning a grayscale or halftone original with Black and White selected as the Scan Mode.

## **Tone**

The shading and combination of colors in the image.

## **Tone Curve**

The curve displayed with the Tone sheet tools to indicate the Black-, Mid-, and White-point tones in a color or grayscale preview image. You cannot edit the curve except with the Special Tone Curves tool.

## **Tone sheet**

The Tone sheet contains tools that let you adjust and correct the image tone. The Tone sheet tools include Auto Tone, Contrast/Brightness, Gamma, Histogram, and Special Tone Curves.

**Toolbar**

A set of ScanGear CS tool buttons, located above the Preview Area, for image selection, orientation, and other basic adjustments.

**TWAIN**

TWAIN refers to an industry standard for transferring information from devices (such as a scanner or digital camera) to your computer. One interpretation of the acronym is "Technology Without An Interested Name."

**Underexposed**

An dark photographic image that was exposed to too little light when it was photographed.

**Units of measurement**

In the Units text box, the expression of width and height, in inches, centimeters, or pixels, of the scanned image.

**Universal Serial Bus (USB)**

A group of hardware devices that makes it easier to add serial devices to a computer system. Support of USB devices is built into the Windows Driver Model (WDM) specifications, making it easier for future versions of Windows to support the current drivers.

**White-point**

The lightest portion of the image scanned as Color or Grayscale. When you click on the image with the White-point eyedropper, all tones lighter than the selected sample tone are adjusted to white.

## **Width**

The Width text box contains the width of the current selection or, if there is no selection, the maximum horizontal output size, based on the currently selected paper size.

## **Width-Height ratio**

Proportion of the image. To keep the width-height ratio intact, click the Keep Proportions button before changing the width or height values.

## **X and Y Axes**

The X and Y axes on the Tone sheet curve chart represent, respectively, the input image color and output image color.

## **Zooming**

Enlarging an image or a selected part of the image in the Preview Area or in a graphics application.

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