

SIGMA Photo Pro User Guide



*Companion Processing Software
For the SIGMA SD9 Digital Camera*

Version 1.0

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TABLE OF CONTENTS

| | | |
|----------|---|-----------|
| 1 | INTRODUCTION | 1 |
| 1.1 | About SIGMA Photo Pro | 2 |
| | What you can do in SIGMA Photo Pro; A quick visual tour..... | 2 |
| | Main Window elements..... | 3 |
| | Review Window elements | 4 |
| 1.2 | About this manual | 5 |
| | Symbols and conventions..... | 5 |
| | Navigating the on-screen version of the manual..... | 5 |
| 2 | COMPUTER SET-UP | 6 |
| 2.1 | Installing the software | 7 |
| | Windows system requirements..... | 7 |
| | Macintosh system requirements... .. | 7 |
| | Installing and uninstalling software... .. | 7 |
| | Installing camera drivers... .. | 8 |
| 2.2 | Setting up your monitor | 9 |
| | Verifying monitor brightness, gamma, and color..... | 9 |
| | Using a pre-existing monitor profile..... | 9 |
| | Choosing the best monitor resolution for your screen size | 9 |
| 3 | BEFORE YOU BEGIN | 10 |
| 3.1 | Connecting the camera to your computer | 11 |
| | Connecting the cables | 11 |
| | Turning on the camera | 11 |
| | Switching from battery to AC power | 11 |
| | Connecting the camera while the application is running | 11 |
| 3.2 | Launching the software | 12 |
| | Opening and closing SIGMA Photo Pro | 12 |
| | Enabling and disabling Auto-Launch | 12 |
| 4 | TRANSFERRING IMAGES | 13 |
| 4.1 | Transferring images from the camera to your computer | 14 |
| | Using the Copy Camera Images button | 14 |
| | Using a CF Card reader to copy images to your computer | 14 |

TABLE OF CONTENTS

| | | |
|----------|---|-----------|
| 5 | MANAGING IMAGES | 15 |
| 5.1 | Main Window Overview | 16 |
| | Main functions..... | 16 |
| | Links to more information | 16 |
| | Changing the size of the Main Window | 17 |
| | Changing the size of the Navigation and Thumbnail Panes..... | 17 |
| 5.2 | Displaying images in the Main Window | 17 |
| | Viewing images stored on the camera | 17 |
| | View images stored on your computer | 17 |
| 5.3 | Different ways to view thumbnails | 18 |
| | Changing the size and style of thumbnails | 18 |
| | Sorting and filtering thumbnails | 18 |
| 5.4 | Renaming Images | 19 |
| | Renaming images outside of SIGMA Photo Pro | 19 |
| 5.5 | Selecting images | 19 |
| | Selecting one image | 19 |
| | Selecting multiple images..... | 19 |
| 5.6 | Marking, Locking, & Rotating images in Main and Review Windows | 20 |
| | Rotating images..... | 20 |
| | Marking and unmarking images | 20 |
| | Locking and unlocking images | 20 |
| 5.7 | Deleting images in the Main or Review Window | 20 |
| | Deleting images..... | 20 |
| 6 | REVIEWING IMAGES | 21 |
| 6.1 | The Review Window | 22 |
| | Opening a Review Window | 22 |
| | Main functions..... | 22 |
| | Links to more information | 22 |
| 6.2 | Navigating through a folder using the Review Window | 23 |
| | Choosing which image is displayed in the Review Window | 23 |
| | Using Navigation Buttons to select images | 23 |
| | Selecting specific images from the Main Window | 23 |
| 6.3 | Using the Magnification Loupe | 23 |
| | Turning the loupe on and off..... | 23 |
| | Changing the magnification of the loupe | 23 |
| | How to read the RGB values in the loupe | 24 |
| | Restoring the loupe..... | 24 |

TABLE OF CONTENTS

| | | |
|------------|---|-----------|
| 6.4 | Viewing Images with Highlight and Shadow Warnings | 24 |
| | Using the mask to analyze highlights and shadows | 24 |
| 6.5 | Using the Adjustment Mode Settings | 25 |
| | Default Mode: Reviewing images with default adjustments | 25 |
| | Auto Mode: Reviewing images with automatic adjustments | 25 |
| | Custom Mode: Reviewing images with a specific setting applied | 25 |
| | Unsaved Settings..... | 25 |
| 6.6 | Multiple Review Windows | 26 |
| | Opening Multiple Review Windows | 26 |
| | Using multiple Review Windows to compare images..... | 26 |
| | Using multiple Review Windows to compare modes..... | 26 |
| 7 | PROCESSING & SAVING | 27 |
| 7.1 | Main Window Processing | 28 |
| | Processing groups of images simultaneously | 28 |
| | Processing directly from the camera to the computer | 28 |
| 7.2 | Review Window Processing | 29 |
| | Processing individual images | 29 |
| | Applying the current unsaved setting | 29 |
| | Choosing a destination | 29 |
| 7.3 | Processing options | 30 |
| | File type | 30 |
| | Resolution..... | 30 |
| | Adjustment Settings..... | 30 |
| | Color Space | 30 |
| 8 | ADJUSTING IMAGES | 31 |
| 8.1 | Using Adjustment Controls to manually adjust images | 32 |
| | Opening and closing the Adjustment Controls Palette | 32 |
| | Maximizing, minimizing, and closing the palette | 32 |
| 8.2 | Making Tonal Adjustments | 33 |
| | Exposure..... | 33 |
| | Contrast | 33 |
| | Shadow..... | 33 |
| | Highlight..... | 33 |
| | Sharpness..... | 33 |
| | Saturation | 33 |

TABLE OF CONTENTS

| | | |
|-------------|--|-----------|
| 8.3 | Making Color Adjustments | 34 |
| | Using the Color Wheel..... | 34 |
| | Using the Color Wheel to manually adjust color..... | 35 |
| | Using the Color Adjustment Eyedropper to adjust color..... | 35 |
| 8.4 | Using the Histogram and Warning Masks | 36 |
| | Reading the Histogram | 36 |
| | Enabling, disabling and setting values for the Warning Masks | 36 |
| 8.5 | Changing White Balance | 37 |
| | Changing the White Balance setting on an X3F file | 37 |
| 8.6 | Saving and applying custom settings | 38 |
| | Applying settings from the Adjustment Controls Palette | 38 |
| | Saving settings | 38 |
| | Deleting settings | 38 |
| 9 | GETTING IMAGE INFO | 39 |
| 9.1 | Image information | 40 |
| | Image information in the Main and Review Windows..... | 40 |
| | Image information in the Thumbnail Pane..... | 40 |
| | Image information in the Camera and Computer Panes | 40 |
| 9.2 | Accessing the Image Information Window | 41 |
| | The Image Info Button | 41 |
| | The Image Information Window..... | 41 |
| 10 | APPENDIX | 42 |
| 10.1 | Supported file types | 43 |
| | TIFF format..... | 43 |
| | 8-bit versus 16-bit TIFFs..... | 43 |
| | JPEG format | 43 |
| | Deciding which format to use | 43 |
| 10.2 | Choosing resolution | 43 |
| | Choosing resolution | 43 |
| 10.3 | Camera references | 44 |
| | Setting camera date and time..... | 44 |
| | Battery warnings | 44 |
| | INDEX | 45 |

1 INTRODUCTION

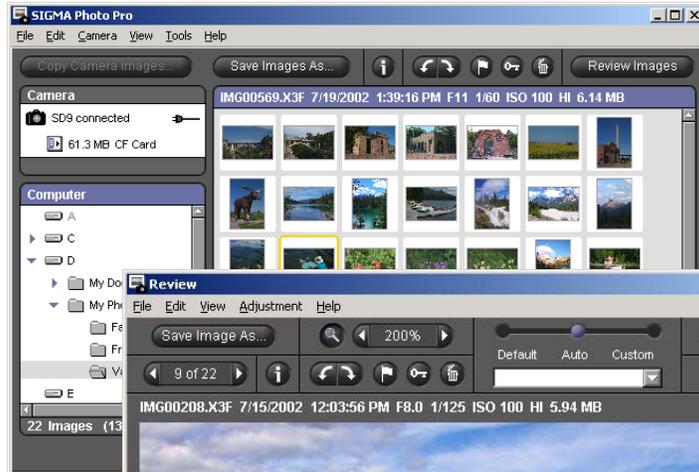
**In this section you
will learn...**

- The main features
of SIGMA Photo Pro
- How this manual
works

1.1 About SIGMA Photo Pro

What you can do in SIGMA Photo Pro; A quick visual tour

Below are the windows and palettes found in SIGMA Photo Pro. Click on any window or palette to jump to a detailed view.



Main Window

- Copy images from camera to your computer
- Save groups of images to TIFF or JPEG
- Mark, lock, rotate, and delete images from camera or computer

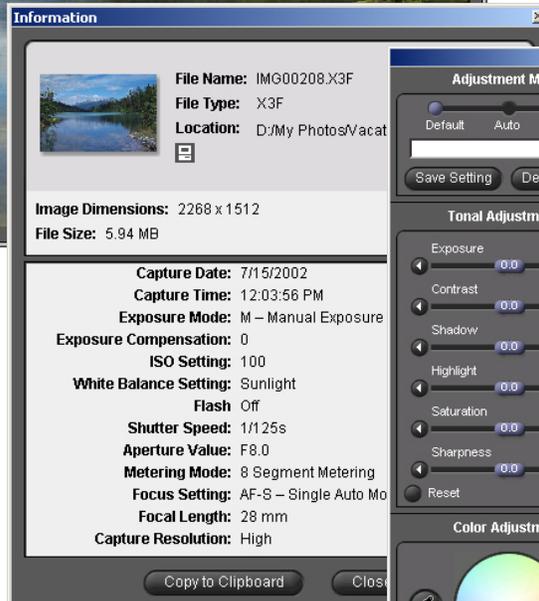


Review Window

- View images at large size
- Choose adjustment mode
- Save images
- Magnify details
- View highlight and shadow warnings
- Mark, lock, rotate, and delete images
- Cycle through images displayed in the Main Window
- Activate Adjustment Controls

Image Information Window

- View capture information
- View file information



Adjustment Controls Palette

- Adjust image exposure compensation, contrast, shadow, highlight, sharpness and saturation
- Adjust color
- Load, save, and delete user-defined settings
- View histogram
- Set highlight and shadow warnings



Main Window elements

Below are the key elements found in the Main Window. Click on any link to take you to the section in the manual containing detailed descriptions.

Click on the [Copy Camera Images](#) button *p. 14* to copy X3F images from the camera to the computer

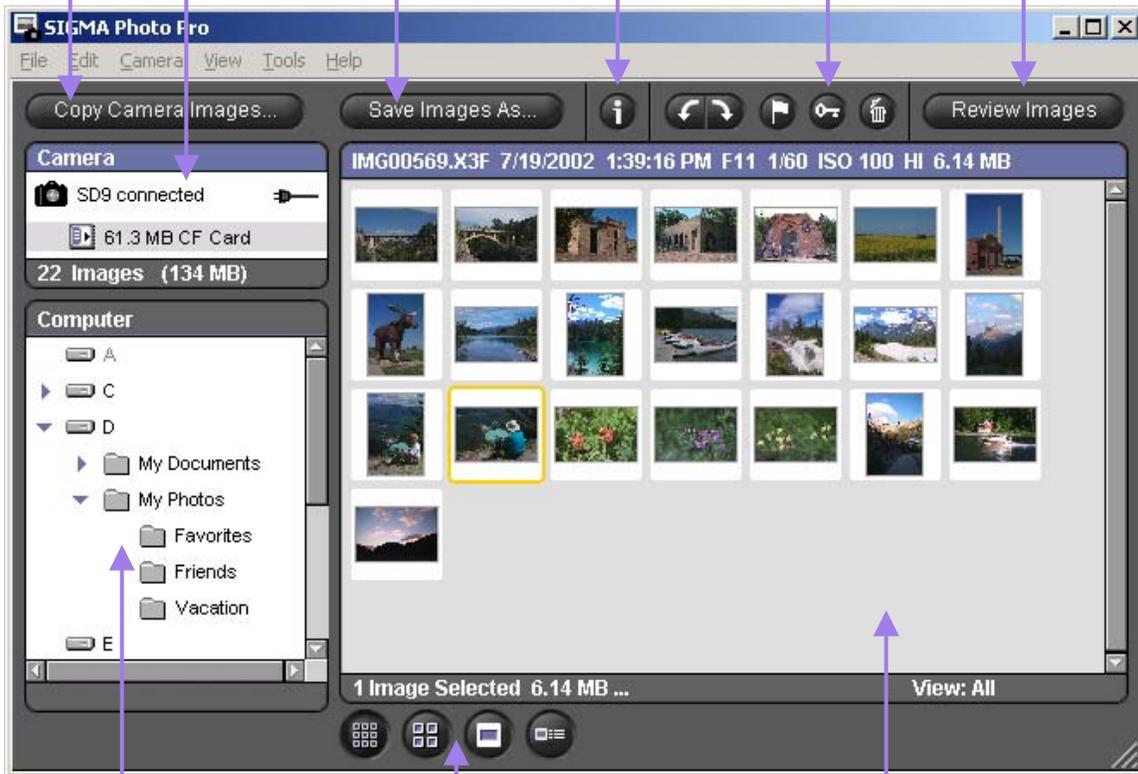
Click on the [Review Images](#) button *p. 22* to open a Review Window for viewing and adjusting an image

The [Camera Pane](#) *p. 11* shows camera connectivity. Click anywhere in the Camera Pane to display camera images in the Thumbnail Pane

Use [Edit Buttons](#) *p. 20* to rotate, mark, lock, or delete selected images

Click on the [Save Images As](#) button *p. 28* to process and save X3F images in TIFF or JPEG formats

Click on the [Info Button](#) *p. 41* to open the Image Information Window



Use [Thumbnail Buttons](#) *p. 18* to control the size and style of the thumbnails

The [Computer Pane](#) *p. 17* shows the drives and folders on your computer. Click on a drive or folder in the Computer Pane to display images in a folder

The [Thumbnail Pane](#) *p. 18* displays images from your camera or from a selected folder on your computer

Review Window elements

Below are the key elements found in the Review Window. Click on any link to take you to the section in the manual containing detailed descriptions.

Press the [Navigation Buttons](#) *p. 23* to move forward and backward through images

Press the [Save Image As](#) button *p. 29* to process and save the X3F image in TIFF or JPEG format

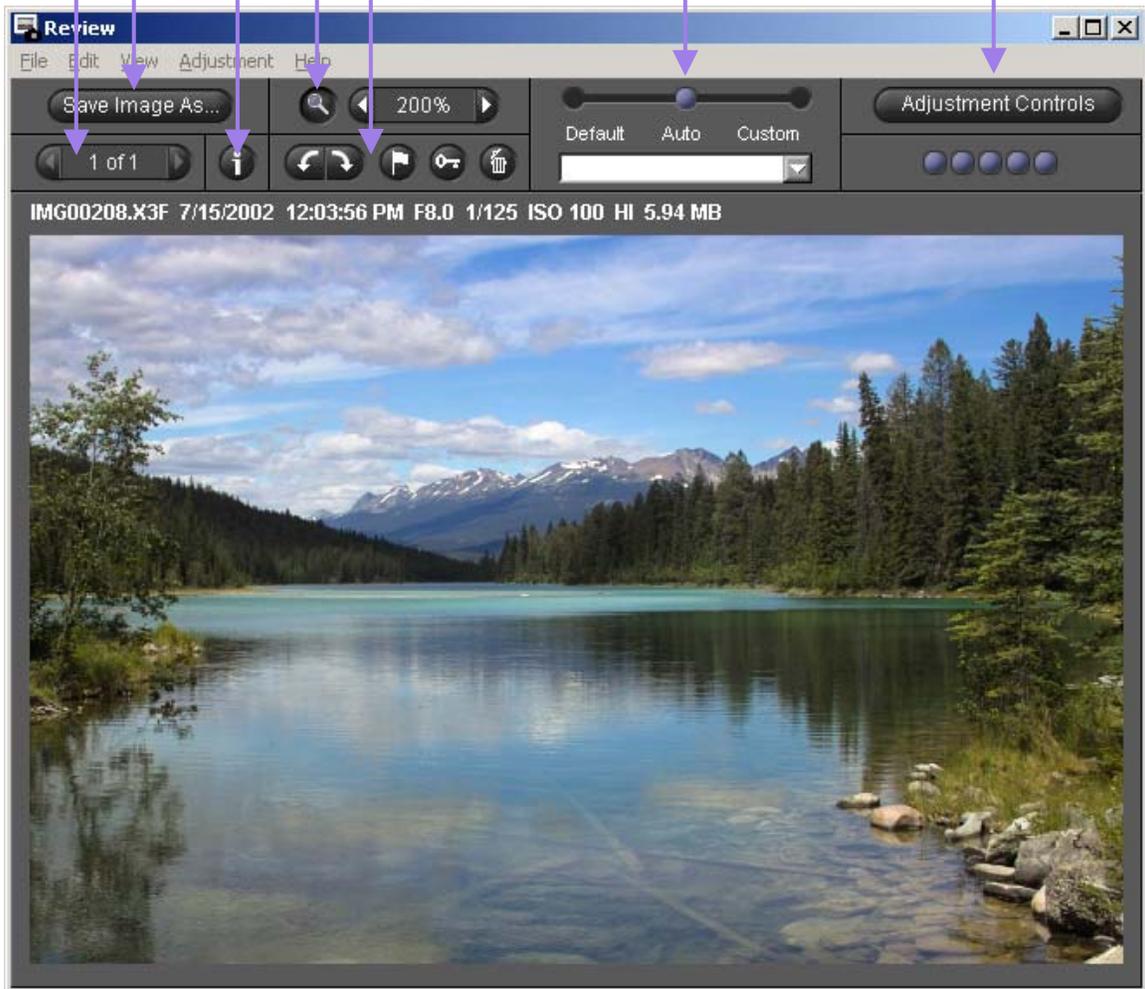
Click on the [Info Button](#) *p. 41* to open the Image Information Window

The [Loupe](#) *p. 23* lets you view image details

Use [Edit Buttons](#) *p. 20* to rotate, mark, lock, or delete, the currently displayed image

[Adjustment Modes](#) *p. 25* allow you to view images with different adjustment settings

Press [Adjustment Controls](#) *p. 32* to open the Adjustment Controls Palette



1.2 About this manual

This manual provides information on the installation and use of SIGMA Photo Pro, the companion processing software for your SD9 digital camera.

Symbols and conventions

- Menu paths are denoted as follows:

Menu Header > Menu Choice

- Keyboard Equivalents are shown as follows:

Ctrl/Cmd + Letter or Symbol

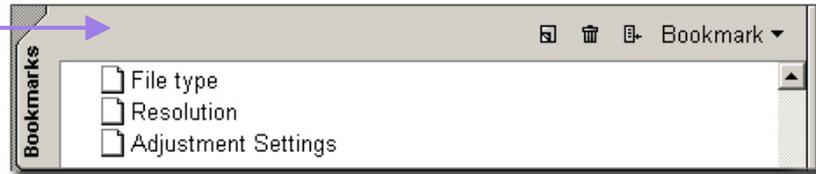
“Ctrl” is an abbreviation for the Control Key on a Windows system and “Cmd” is an abbreviation for the Command Key on a Macintosh system.

Navigating the on-screen version of the manual

To view the SIGMA Photo Pro manual while working in SIGMA Photo Pro, select *Help > SIGMA Photo Pro Help* from any window menu.

The following features in the screen version of the PDF manual help you navigate and search quickly:

Use the Bookmarks feature to find main topics



Use the Search feature to find keywords

n to delete the images. The [Delete Dialog Box](#) will

Use Links (underlined in blue) to jump to related topics

2 C O M P U T E R S E T - U P

**In this section you
will learn...**

- How to install
SIGMA Photo Pro
on your computer
- How to set up your
monitor

2.1 Installing the software

Windows system requirements

If you are using your SD9 digital camera with a PC, the following minimum requirements are necessary to run SIGMA Photo Pro:

- Pentium II 233MHz
- Windows 98 Second Edition, Windows 2000, Windows ME, Window XP
- 256MB RAM
- 40MB of available hard disk space
- 16-bit display card (24-bit recommended)
- 800x600 monitor resolution (1024x768 recommended)
- USB or IEEE 1394 (FireWire) connection
- CD-ROM drive

Macintosh system requirements...

If you are using your SD9 digital camera with a Macintosh computer, the following minimum requirements are necessary to run SIGMA Photo Pro:

- PowerPC G3 Processor
- Mac OS 9.2.1 or Mac OS X v10.1.1
- 256MB RAM OS 9 or 512MB RAM Mac OS X
- 40MB of available hard disk space
- 16-bit display card (24-bit recommended)
- 800x600 monitor resolution (1024x768 recommended)
- USB or IEEE 1394 (FireWire) connection
- CD-ROM drive

Installing and uninstalling software...

To install SIGMA Photo Pro on your computer, insert the installation disk that shipped with your SD9 camera. Double-click on the CD icon on your desktop. Then double-click on the Set Up (Windows) or Installer (Macintosh) icon to install the program.



The Welcome Screen should appear on your screen.

The wizard will take you through step-by-step instructions which will allow you to choose the language SIGMA Photo Pro displays on your computer, assign destination folders for the application, etc.

You should close all other programs before running the installer, and you may need to reboot your computer once the program is installed.

To uninstall the software in Windows, choose the Uninstall option from the SIGMA section of the Start

Menu, or through the Add/Remove Programs option in the Control Panel.

To uninstall the software on a Macintosh, double-click the Uninstaller icon in the SIGMA Photo Pro application folder.

Installing camera drivers...

A driver is necessary for your SD9 camera to communicate with SIGMA Photo Pro. On Macintosh, these drivers are automatically installed during the application installation. For Windows systems, it may be necessary to install these drivers using the Hardware Wizard.

- 1) Verify that the camera is OFF.
- 2) Plug the IEEE 1394 (FireWire™) or USB cable to the back of your computer and camera.
- 3) Turn the camera on and wait for the Hardware Wizard to appear.
- 4) Follow the Hardware Wizard instructions. When you are asked to specify a location for the appropriate driver, navigate to the location you installed SIGMA Photo Pro. In a typical installation, that path looks like:

C:\Program Files\SIGMA\Photo Pro\Drivers

You may need to specify this location several times in the course of installing the driver.

- 5) Once you have specified the driver location, follow the remaining wizard instructions until you are prompted to click *Finish*.

You may need to repeat this process for both USB and IEEE 1394 (FireWire™).

Never connect the camera to the computer with both USB and IEEE 1394 (FireWire™) at the same time.

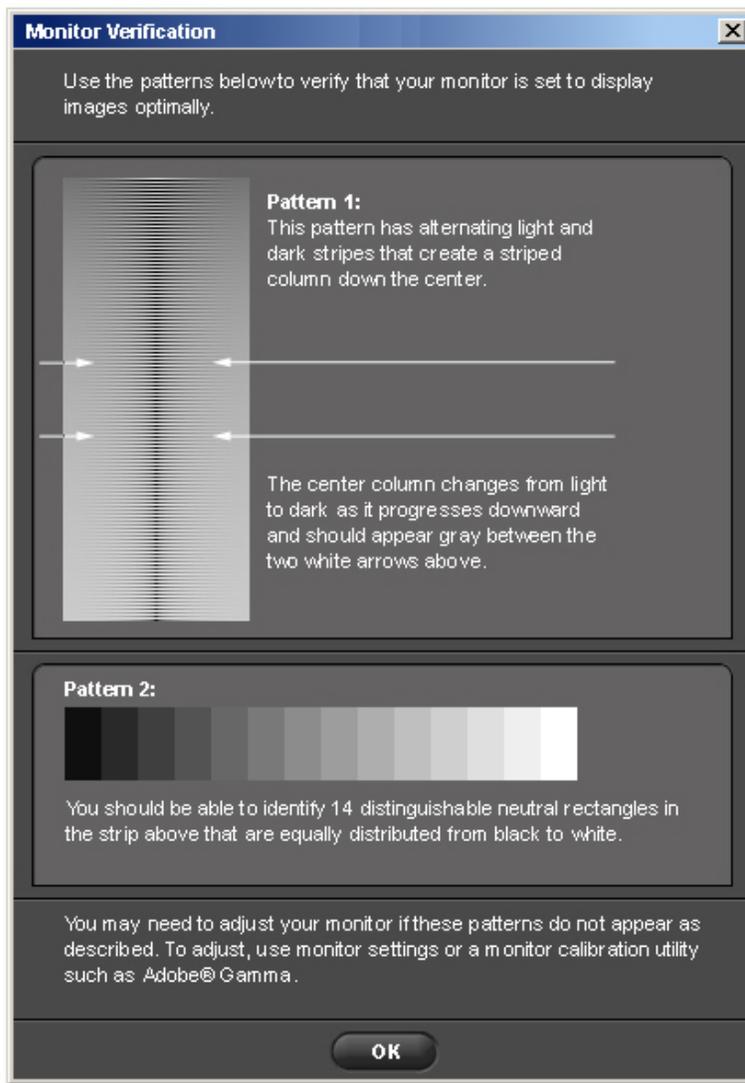
2.2 Setting up your monitor

Verifying monitor brightness, gamma, and color

Making adjustments to your images on screen works best with a monitor that displays color consistently. Over time the characteristics of your monitor change, so check your monitor's performance periodically. Consult your monitor documentation and perform calibration adjustments as recommended by the manufacturer.

You can then verify monitor output from within SIGMA Photo Pro by selecting *Tools > Monitor Verification...* from the Main Window.

The charts in this dialog box are for verification of color neutrality and gamma only. Use your monitor's adjustment controls as specified in the manufacturer's documentation to make any adjustments.



Using a pre-existing monitor profile

SIGMA Photo Pro supports monitor profiles. For information regarding monitor profiles, consult the documentation for your monitor, after-market profiling software, or operating system.

Choosing the best monitor resolution for your screen size

SIGMA Photo Pro is designed to fit on a monitor with a screen resolution of 800x600, however the viewable area for images and thumbnails is not maximized at this small screen size. A screen resolution of 1024x768 or greater offers the most flexibility for viewing and processing images. You can then resize the Main or Review Windows, resize the Thumbnail Pane within the Main Window, or move the windows anywhere on the desktop.

3 B E F O R E Y O U B E G I N

**In this section you
will learn...**

- How to connect
your camera to
your computer
- How to start up
SIGMA Photo Pro

3.1 Connecting the camera to your computer

When using SIGMA Photo Pro, only one SD9 digital camera should be connected at any given time. Disconnect any other digital cameras to assure the software operates correctly.

Connecting the cables

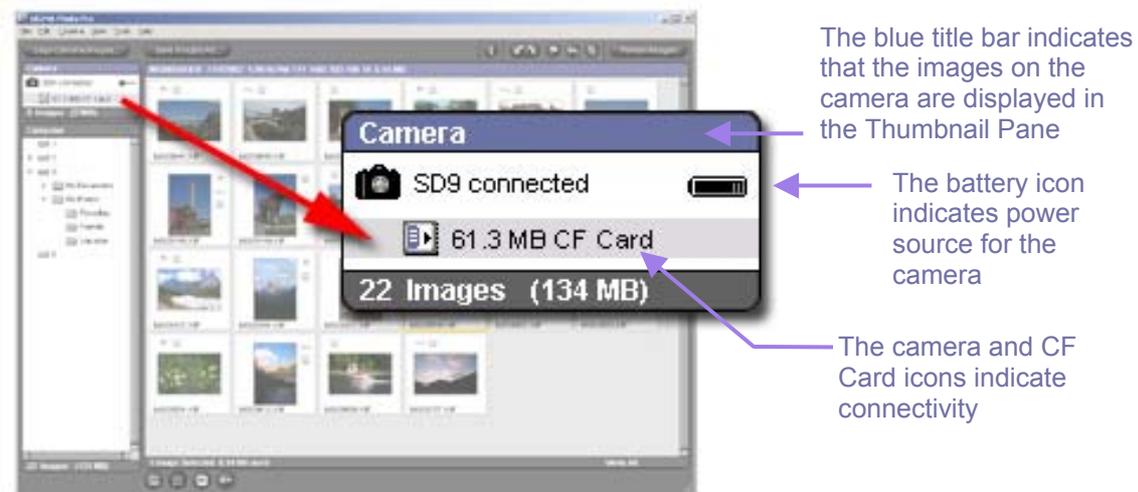
Before connecting the camera to your computer using either the USB cable or IEEE 1394 (FireWire™) cable, verify that the camera is turned off. Plug the cable into the computer and camera. Never connect the camera to the computer with both USB and IEEE 1394 (FireWire™) at the same time.

Turning on the camera

Turn the camera on as illustrated in your camera manual. SIGMA Photo Pro will not detect the camera unless it is turned on after being connected to the computer.

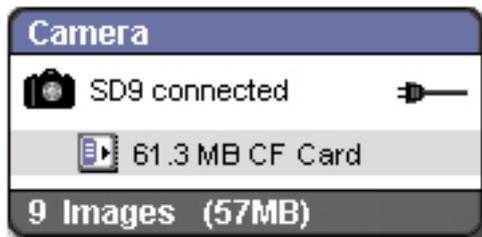
At this point, you may be prompted to [install a driver](#) (p. 8) for the camera if it is the first time you have connected the SD9 to this computer.

Once the camera is turned on and connected, SIGMA Photo Pro will auto-launch. The Main Window will appear with the Camera Pane highlighted in blue. Any images on the camera's CF Card will be automatically displayed in the Thumbnail Pane. An empty Thumbnail Pane indicates no images were detected on the camera.



Switching from battery to AC power

It is recommended that you use AC power when connecting the camera to the computer. Using AC power saves the camera batteries and avoids unsuccessful image transfer due to power loss.



When you switch to AC power, the battery indicator will be replaced with the AC power indicator.

While using batteries, the battery icon will flash red periodically as a reminder that the batteries are draining. This is not necessarily an indication of low battery power.

Connecting the camera while the application is running

If SIGMA Photo Pro is already running and you connect the camera to your computer, the images on the camera will not be automatically displayed in the Main Window. If you wish to display the camera images, select the camera by clicking on the Camera Pane.

3.2 Launching the software

Opening and closing SIGMA Photo Pro

SIGMA Photo Pro will auto-launch and the Main Window will appear with the Camera Pane highlighted, whenever the camera is connected and then turned on. If no images appear in the Thumbnail Pane, this indicates no images were detected on the camera.

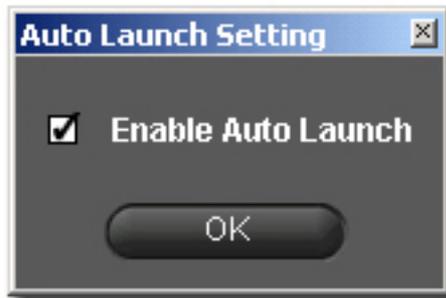


You can launch SIGMA Photo Pro without connecting a camera by double-clicking on the application icon on your desktop. The Main Window will appear and the last folder you worked in will be selected in the Computer Pane. Any X3F, JPEG, or TIFF images in this folder will be displayed. If this is the first time you are opening SIGMA Photo Pro, no folder will be selected.

To exit the application, click on the close box in the title bar of the Main Window, or select *File > Exit* from the Main Window Menu.

Enabling and disabling Auto-Launch

SIGMA Photo Pro's default condition is to auto-launch whenever the SD9 camera is detected. If you do not want SIGMA Photo Pro to launch each time you connect and turn on the camera, you can disable the preference by selecting *Camera > Auto-Launch Setting...* from the Main Window menu.



4 TRANSFERRING IMAGES

In this section you will learn...

- How to copy images from your camera to your computer
- How to erase the images from the CF Card as you copy

4.1 Transferring images from the camera to your computer



Using the Copy Camera Images button

Transferring images from the camera to a folder on your computer assures that X3F files will be saved for future use. It also tags the images to identify which images have been transferred from the CF Card. This is useful when reviewing old images on the camera. You can also delete images from the CF Card as you transfer to free up space on your camera.

To transfer X3F image files from the camera to your computer:

- 1) Connect and turn on the camera.
- 2) Select the Camera in the Main Window Navigation Pane.
- 3) If you wish to transfer specific images only, select or mark the images.
(Images marked on the camera remain marked when viewed in SIGMA Photo Pro.)
- 4) Click on the *Copy Camera Images* button.

The following dialog box will appear:



Source:

Choose images to be transferred by clicking a radio button for all, marked, or selected images.

Transfer Option:

Click in the checkmark box to delete images from the CF Card after successful transfer to your computer.

Destination:

Click the *Choose* button to select a place on your computer to store the X3F images.

Click *OK* to begin the transfer or *Cancel* to return to the Main Window

Using a CF Card reader to copy images to your computer

If you have a CF card reader that can be displayed on your computer as a drive, SIGMA Photo Pro may also recognize the drive in the Navigation Pane. You can use the CF Card reader to transfer images from the CF Card to your computer; however, the X3F files will not be tagged as transferred.

5 M A N A G I N G I M A G E S

In this section you will learn...

- How to display, view, and sort images
- How to select and move images
- How to rename images
- How to mark, lock, and rotate images
- How to delete images

5.1 Main Window Overview

Main functions

Go to the Main Window to do the following:

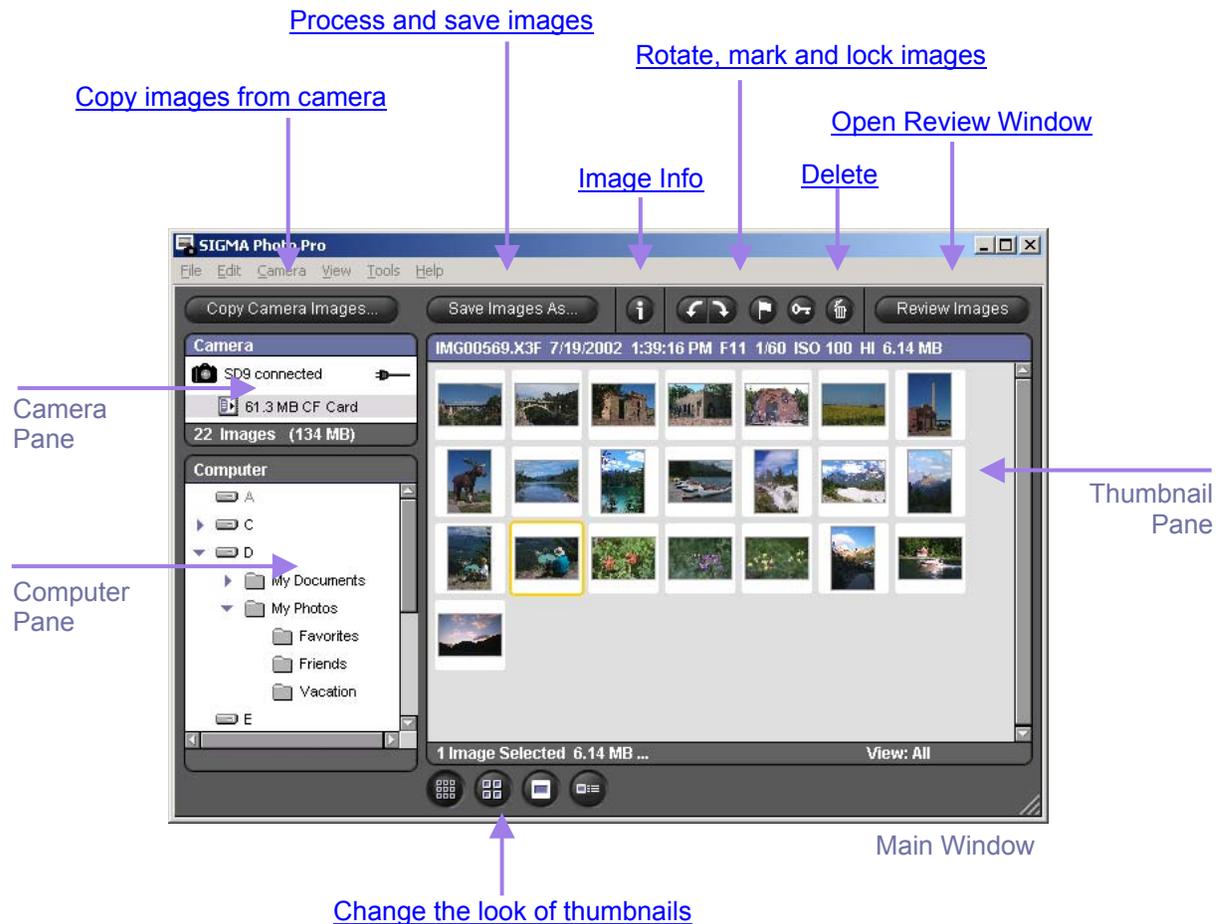
- Copy images from the camera to your computer
- View images as thumbnails
- Process and save groups of images
- Copy and move images to new folders
- Rotate, mark or lock images
- Rename or delete images
- Access the Image Information Window
- Open an image in a Review Window

The Thumbnail Pane displays images directly from the camera when the Camera Pane is selected, or images from folders when the Computer Pane is selected. Note that the selected pane will be highlighted in blue.

The Main Window is always open when working in SIGMA Photo Pro. Closing the window exits the program and closes any other open windows or palettes.

Links to more information

Click on any link below to view detailed descriptions of Main Window elements.



Changing the size of the Main Window

Use the buttons in the title bar to maximize, minimize, and restore the size of your Main Window. You can drag the tab in the lower right hand corner of the window to any desired size.

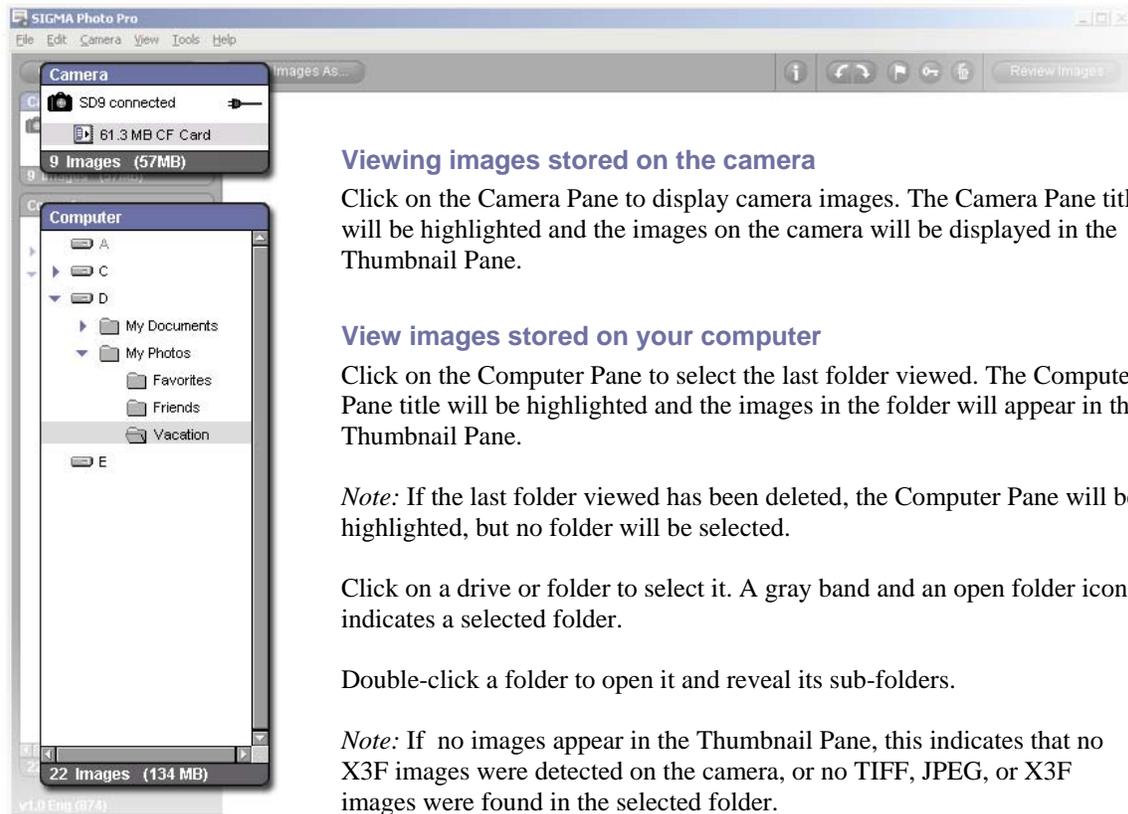
Changing the size of the Navigation and Thumbnail Panes



To change the relative size of the Navigation and Thumbnail Panes, click and drag the splitter-bar located between the two panes. SIGMA Photo Pro will remember the new size the next time you launch the application.

Drag the gray bar left or right to change the size of the Navigation and Thumbnail Panes

5.2 Displaying images in the Main Window



Viewing images stored on the camera

Click on the Camera Pane to display camera images. The Camera Pane title will be highlighted and the images on the camera will be displayed in the Thumbnail Pane.

View images stored on your computer

Click on the Computer Pane to select the last folder viewed. The Computer Pane title will be highlighted and the images in the folder will appear in the Thumbnail Pane.

Note: If the last folder viewed has been deleted, the Computer Pane will be highlighted, but no folder will be selected.

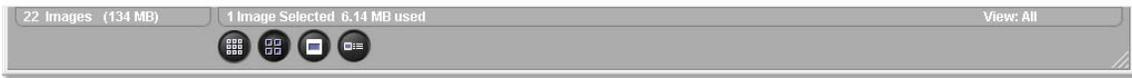
Click on a drive or folder to select it. A gray band and an open folder icon indicates a selected folder.

Double-click a folder to open it and reveal its sub-folders.

Note: If no images appear in the Thumbnail Pane, this indicates that no X3F images were detected on the camera, or no TIFF, JPEG, or X3F images were found in the selected folder.

5.3 Different ways to view thumbnails

Changing the size and style of thumbnails



Click on the *Thumbnail* buttons at the bottom of the Main Window to view thumbnails with or without text, and at different sizes.



Small thumbnails

Click on the button or select *View > Small Thumbnails* in the Main Window menu.



Medium thumbnails

Click on the button or select *View > Medium Thumbnails* in the Main Window menu.



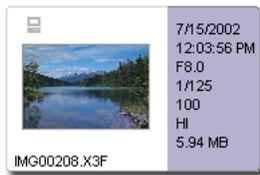
Large thumbnails

Click on the button or select *View > Large Thumbnails* in the Main Window menu.



Small thumbnails with details

Click on the button or select *View > Thumbnails with Details* in the Main Window menu.



Sorting and filtering thumbnails

Sorting and filtering options for thumbnails are located under *View* in the Main Window menu. Use these selections or their keyboard equivalents to display specific groupings in the Thumbnail Pane.



View only X3F files in drive or folder (TIFF and JPEG files will not appear)

Choose to filter images that you have marked or locked

Order images in the Thumbnail Pane according to different attributes

Reverse the order in which the thumbnails appear or Refresh the Thumbnail Pane view

5.4 Renaming Images

Renaming images outside of SIGMA Photo Pro

Changing the filename format (IMG#####) of an X3F file on a CF Card will make the file unreadable on the camera. Once copied to your computer, however, file names can be changed.

On a PC, if you rename your files outside of the application, the file extension (.X3F) must be retained in order for the file to be recognized by SIGMA Photo Pro as the original. Processed files will have the file extensions .TIF and .JPG, and these two must not be changed.

5.5 Selecting images

Selecting one image

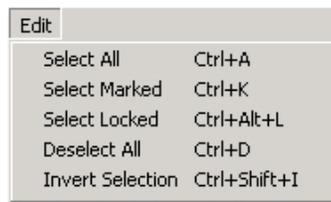
Click once on a thumbnail to select an image. Double-clicking selects and then displays the image in a Review Window. Selected images are highlighted in yellow.

Selecting multiple images

Use the following conventions to select and deselect thumbnails using your mouse:

- *Shift + click* on thumbnails for contiguous (range) selection
- *Ctrl/Cmd + click* on thumbnails for non-contiguous (random) selection
- *Ctrl/Cmd + A* to select all thumbnails
- *Click* in an empty space or *Ctrl/Cmd + D* to deselect all thumbnails
- *Ctrl/Cmd + Shift + I* to invert current selection of thumbnails

The following Main Window menu selections and keyboard shortcuts are also available to select and deselect thumbnails:



5.6 Marking, Locking, & Rotating images in Main and Review Windows



Rotating images



Use the *Rotate* buttons to change the vertical or horizontal orientation of thumbnails. Images rotated on the camera will remain rotated after transferring to your computer.

- Select images and click on the left *Rotate* button to rotate images to the left.
- Click on the right *Rotate* button to rotate images to the right.
- Only X3F images can be rotated.

Marking and unmarking images



Mark images when you want to identify groups of images for transferring, copying, processing, or moving. Images marked on the camera will remain marked after transferring to your computer.

- Select one or more images and click the *Mark* button to mark.
- Select one or more marked images and click the *Mark* button to unmark.
- If a selected group has both marked and unmarked images, all images will be marked.
- If all selected images are marked, clicking the *Mark* button will unmark the images.
- Only X3F images can be marked.

Locking and unlocking images



Lock images to protect them from being accidentally deleted. Images locked on the camera will remain locked after transferring to your computer.

- Select one or more images and click the *Lock* button to lock.
- Select one or more locked images and click the *Lock* button to unlock.
- If a selected group has both locked and unlocked images, all images will be locked.
- If all selected images are locked, clicking the *Lock* button will unlock the images.
- JPEG, TIFF, and X3F images can be locked.

5.7 Deleting images in the Main or Review Window

Deleting images



- Select images and click on the *Delete* button or hit Delete on your keyboard.
- The Delete dialog box will guide you through the deletion process.
- Locked images must be unlocked before they can be deleted.
- JPEG, TIFF, and X3F images can be deleted.
- Images can also be recovered from your computer's recycle bin or trash can.

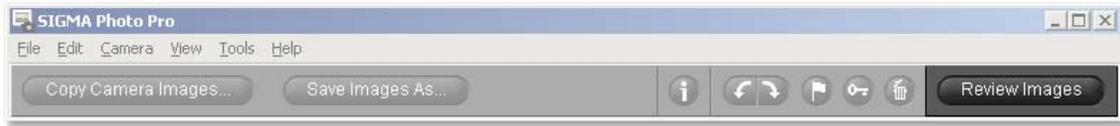
6 REVIEWING IMAGES

In this section you will learn...

- How to open a Review Window
- How to view different images in the Review Window
- How to view details using the loupe
- How to check shadows and highlights with the warning mask
- How to use adjustment modes
- How to display multiple Review Windows

6.1 The Review Window

Opening a Review Window



You can display a Review Window on your desktop by double-clicking a thumbnail, or clicking on the *Review Image* button after selecting an image in the Main Window.

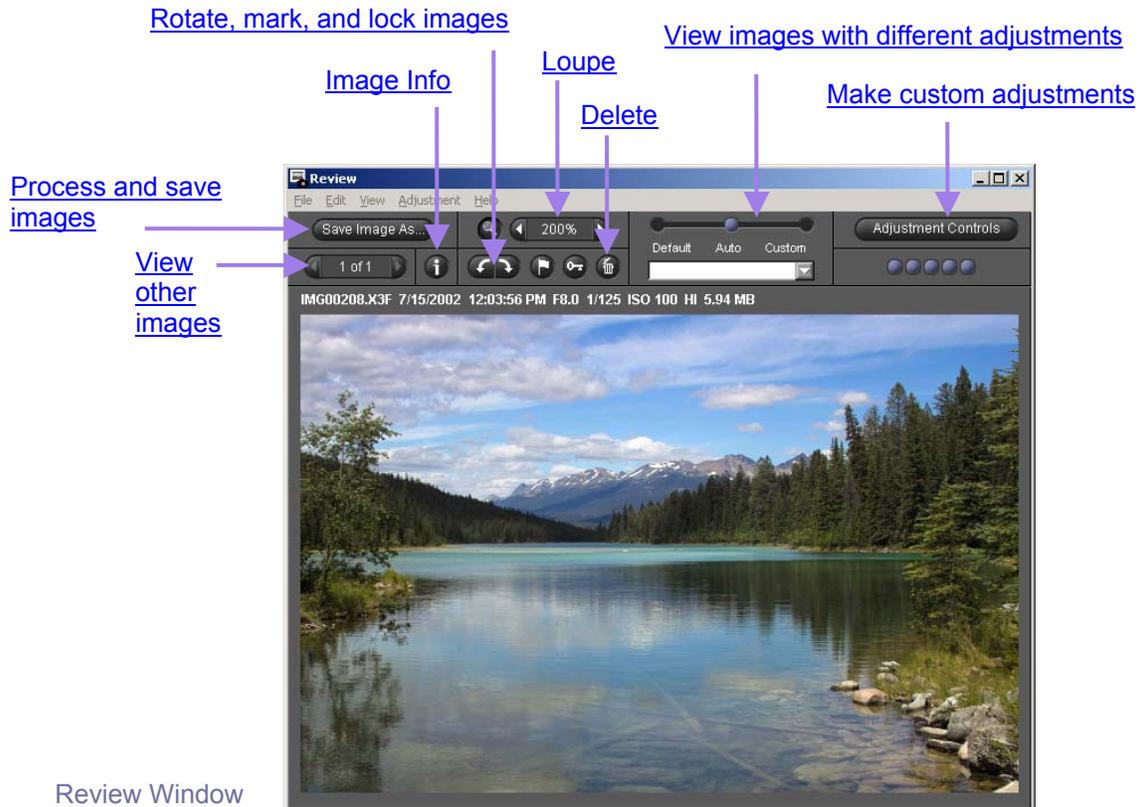
Main functions

Use the Review Window to do the following:

- View individual images at a larger size and higher resolution
- Process and save images individually
- Review images with different adjustment settings
- Access Adjustment Controls for custom processing
- Mark, lock, rotate, or delete images
- Navigate through other images on the camera or in a selected folder
- Access the Image Information Window

Links to more information

Click on any link below to view detailed descriptions of Review Window elements.



Review Window

6.2 Navigating through a folder using the Review Window

Choosing which image is displayed in the Review Window

When you open a Review Window, the first currently selected thumbnail is displayed. Double clicking on any thumbnail or selecting a thumbnail and clicking the *Review Images* button replaces the image in the open Review Window.

Using Navigation Buttons to select images



Click on the Review Window *Navigation* buttons to cycle through the other thumbnails displayed in the current Main Window. You can also select *View > Next image* or *Previous image* from the Review Window menu.

When the *Previous* button turns gray, it indicates you are viewing the first image in the folder. When the *Next* button turns gray, it indicates you are viewing the last image in the folder.

Whenever you switch folders in the Main Window, both *Navigation* buttons will be disabled until you replace the image in the Review Window with an image from the new folder.



Selecting specific images from the Main Window

To view a specific image displayed in the Main Window, once you have already opened a Review Window, double-click on that thumbnail in the Main Window. The current image in the active Review Window will be replaced with the new image.

6.3 Using the Magnification Loupe

Turning the loupe on and off



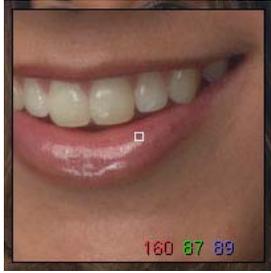
Click on the *Magnification Loupe* button to change the pointer to the loupe. Place the loupe over the image to magnify the area underneath. To turn off the loupe and restore the arrow, click on the button again.

Changing the magnification of the loupe



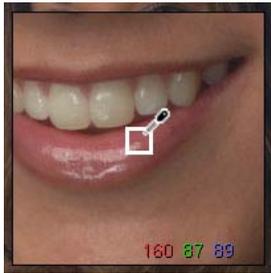
The loupe displays a magnified section of the image in the Review Window up to 800%. To change magnification, click on the left or right arrow buttons next to the *Magnification Loupe* button. The current magnification is displayed between the arrows.

How to read the RGB values in the loupe



Three numbers are displayed in the lower right hand corner of the loupe which represent Red, Green, and Blue values in a 5-by-5-pixel sample in the center of the loupe.

Restoring the loupe



To restore the Magnification Loupe if the *Color Adjustment Eyedropper* is present, click on the Eyedropper button in the Adjustment Controls Palette. The indicator will be restored to its last state, either the loupe or a pointer.

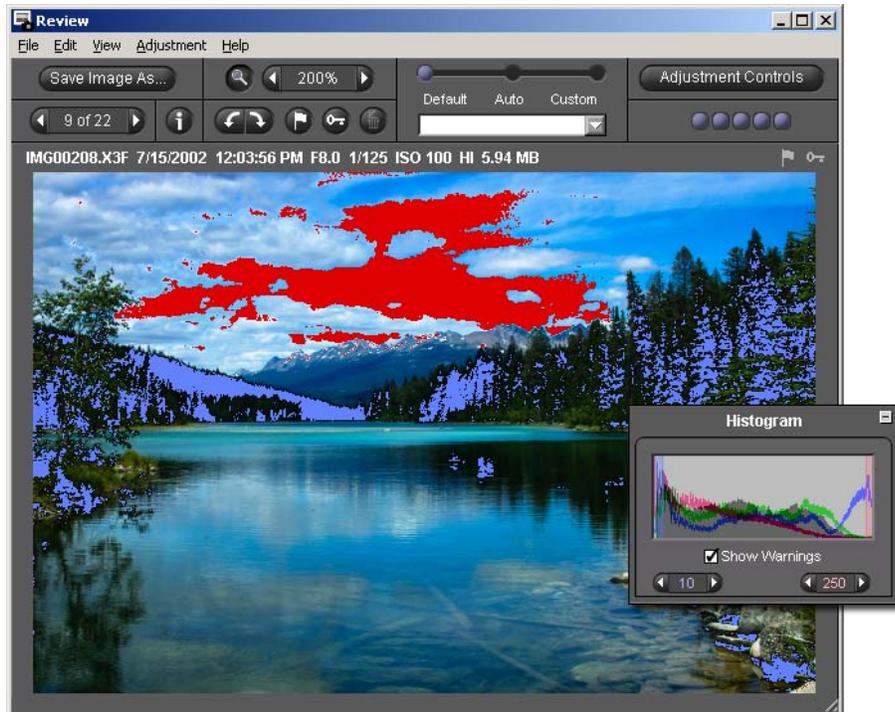


If a pointer is displayed, activate the loupe by clicking on the *Magnification Loupe* button in the Review Window.

6.4 Viewing Images with Highlight and Shadow Warnings

Using masks to analyze highlights and shadows

Red represents highlight areas exceeding the value set in the Histogram located in the Adjustment Controls Palette, and blue represents shadow areas below the value set in the Adjustment Controls Palette. See Section 8.4 for more information about the Highlight and Shadow Warning Mask.



6.5 Using the Adjustment Mode Settings

Use the Adjustment Modes switch to control how X3F images are processed. When an X3F image is first displayed in the Review Window, a preview image is displayed.



The indicator in the upper right corner of the Review Window animates while the image is processing. When the animation stops, the display will update to a higher resolution reflecting the current adjustment mode.

To select a different mode, drag the blue ball to another adjustment mode or click on the desired mode.

Default Mode: Reviewing images with default adjustments (to match in-camera preview)



With Default selected, each image displayed in the Review Window will appear just as it was rendered on your SD9 digital camera, without further adjustment to tone scale or color.

Default Mode remains selected until you choose another mode, or manually adjust a setting using [Adjustment Controls](#).

Auto Mode: Reviewing images with automatic adjustments (dependent on image content)



With Auto selected, rendering settings are adjusted automatically for each image displayed.

Auto Mode remains selected until you choose another mode, or manually adjust a setting using Adjustment Controls.

To see what adjustments Auto is making, open the Adjustment Controls. Auto Mode sets these controls for each image automatically. If you want to further adjust the Auto settings, update any of the settings in the Adjustment Controls Palette. Notice that the Auto Mode is replaced with Custom.

Custom Mode: Reviewing images with a specific setting applied



With Custom selected, each image displayed in the Review Window will be rendered with the custom setting listed in the pop-down menu, or the current unsaved setting.

The current setting in Custom Mode remains selected until you select another setting from the pop-down menu, choose another mode, or manually adjust a setting using Adjustment Controls.

After selecting another mode, the last custom setting will remain in the pop-down menu. You can return to that setting by selecting Custom again.

Unsaved Settings

When “Current Unsaved Setting” is displayed in the pop-down menu, the adjustment settings reflect whatever is currently displayed in Adjustment Controls.

“Current Unsaved Setting” will instantly appear in the pop-down menu any time you manually adjust an image using Adjustment Controls. Moving controls or sliders automatically changes the mode to Custom, and “Current Unsaved Setting” will appear in the pop-down menu.

6.6 Multiple Review Windows

Opening Multiple Review Windows

Having multiple Review Windows open lets you compare images or settings side-by-side. To display an additional Review Window, select *File > Open New Review Window* from the Main or Review Window menu.

Once multiple Review Windows are open, double-clicking on any thumbnail in the Main Window will open the image in the topmost Review Window.

Note: Each Review Window requires additional computer memory, so the program may run more slowly with multiple windows open. To optimize program performance, close Review Windows when not in use.

Using multiple Review Windows to compare images

Displaying similar images in two Review Windows side-by-side allows you to compare details such as composition, facial expressions, or focus before deciding which image you want to save.

Using multiple Review Windows to compare modes

Each Review Window retains its Adjustment Mode; any image displayed in the same Review Window will be processed using the retained Adjustment Mode. Displaying the same image in two different Review Windows side-by-side allows you to compare different modes.

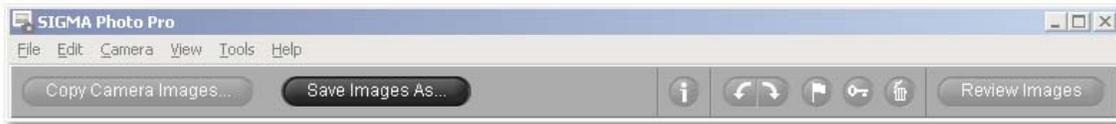
7 PROCESSING & SAVING

In this section you will learn...

- How to process and save images
- How to apply adjustments
- How to choose resolution, file type, and color space for your processed image

7.1 Main Window Processing

Processing groups of images simultaneously

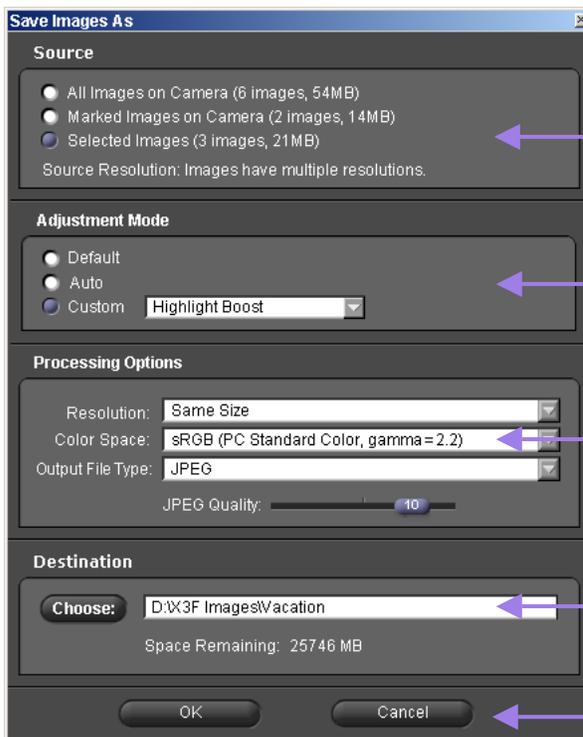


Save Images As... Processing groups of images in batches is a great way to quickly process X3F files which do not require individual attention. You will not be able to individually name the files, and all files must be processed using the same settings. However, if you select the Auto Adjustment Setting, SIGMA Photo Pro will optimize each image during processing.

To process a batch of images:

- 1) Select the folder containing the X3F images you wish to process.
- 2) You can process the entire folder, selected images, or marked images.
- 3) Select or mark specific thumbnails if desired.
- 4) Click on the *Save Images As* button.

The following dialog box appears:



Source: Choose images to be processed by clicking a radio button for all, marked, or selected images.

Adjustment Mode: Choose [Adjustment Mode](#) for image processing.

Processing Options: Choose [Output file type](#), [Resolution](#), and [Color Space](#).

Destination: Click *Choose* to select a place on your computer to store the processed images.

Click *OK* to begin processing or *Cancel* to return to the Main Window.

Processing directly from the camera to the computer

Processing and saving images directly from camera to computer is the quickest way to obtain finished images in TIFF or JPEG format, bypassing the transfer of X3F files to your computer. Deleting the X3F files from the CF Card without transferring, sacrifices the benefit of reprocessing files using different settings, resolutions, or file formats. However, processing directly from the camera is an appropriate option if you do not wish to process the images in the future, or have limited space on your computer.

7.2 Review Window Processing

Processing individual images

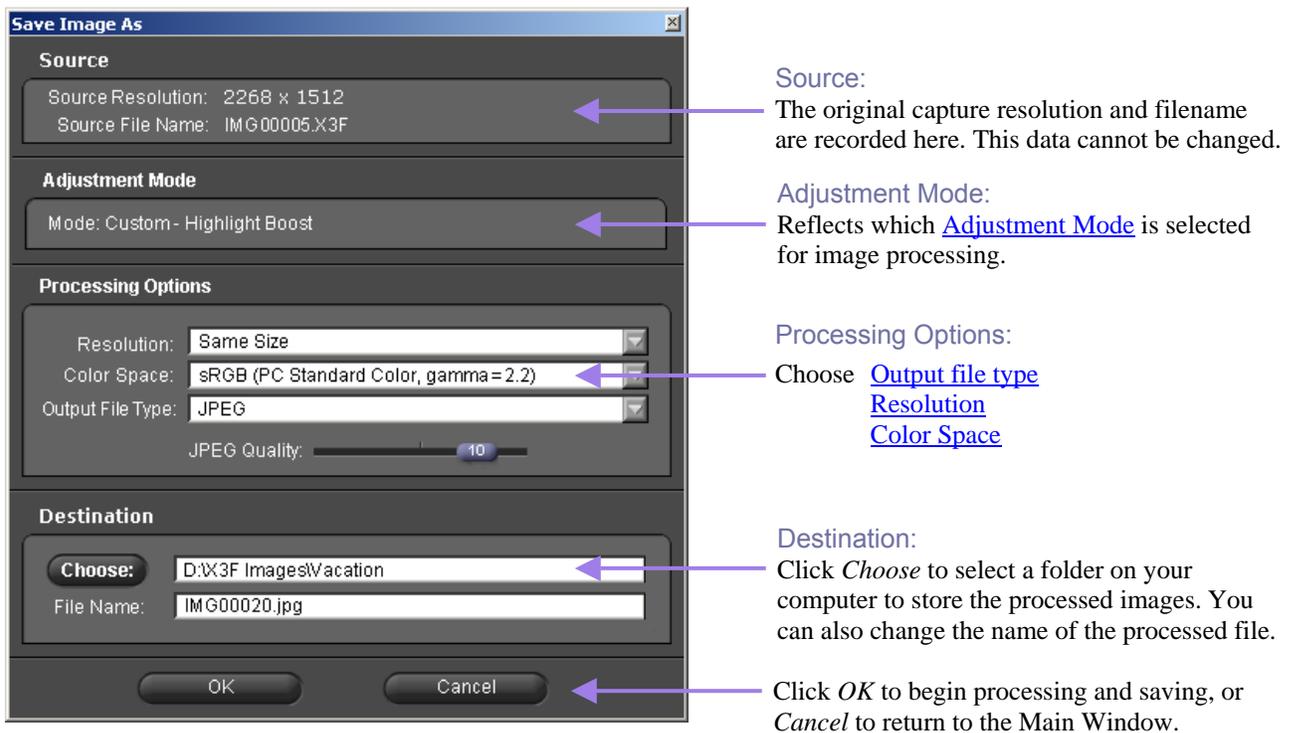
Processing an individual image from the Review Window is similar to processing from the Main Window, with the following added benefits:

- Most of the processing is already done while you are viewing an image, so saving is quick
- You can rename the processed file as it is saved
- You can adjust settings using the Adjustment Controls Palette
- You can review the image in more detail prior to choosing settings

Save Image As...

Once you have chosen the image to process, press the *Save Image As* button.

The following dialog box appears:



Applying the current unsaved setting

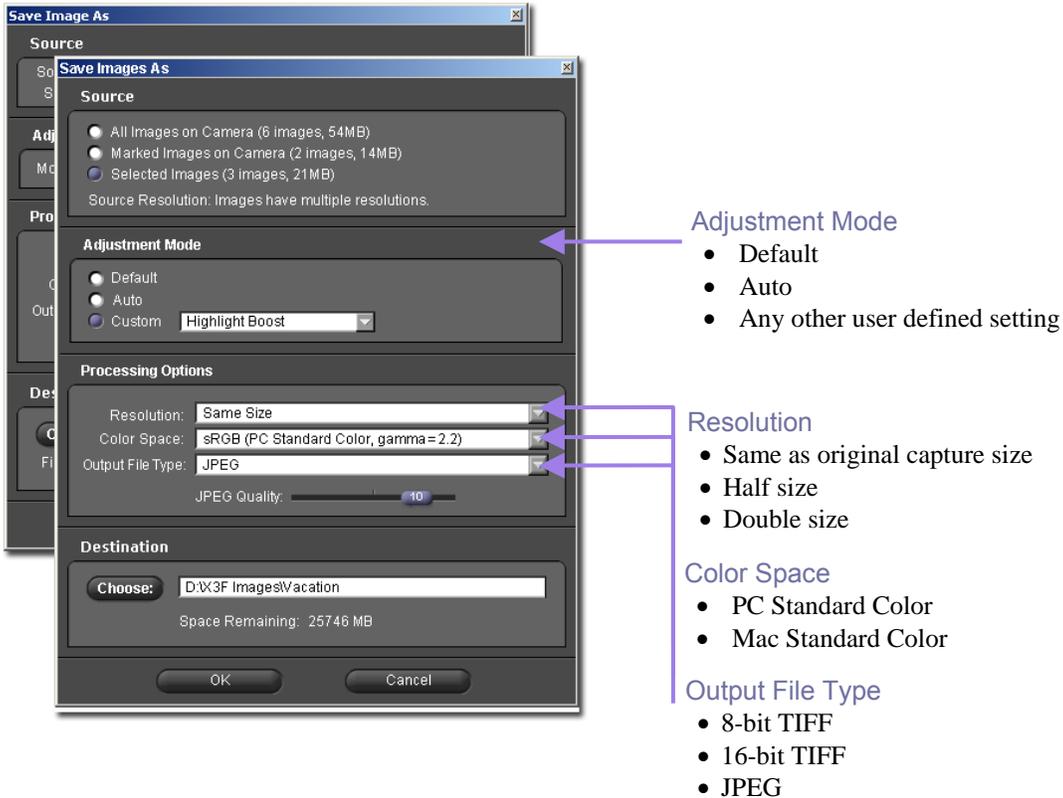
In addition to Auto, Default, and Saved Settings, you can also choose the current unsaved setting to process your image. This is useful if you do not wish to save the current unsaved setting.

Choosing a destination

If you are processing from a folder where you transferred X3F images, those images will remain in the source folder as an archive, or for future processing in a different size or format. It is not necessary for the source folder and the destination folder to be the same.

7.3 Processing options

Use the pop-down menus and radio buttons to choose the processing settings to be applied to your image. Settings in the Main Window's *Save Image As* dialog box are independent of the settings found in the Review Window's *Save Images As* dialog box.



File type

8-bit TIFF, 16-bit TIFF, and JPEG file formats are supported by SIGMA Photo Pro. For information on appropriate file formats for different purposes, see Section 10.1.

Resolution

The default setting for resolution is the same as the resolution you selected when capturing the image on your camera (High, Medium, or Low). You can also select one half, or double the resolution (one half or double the number of pixels in each dimension) for your processed image. For more information, see Section 10.2.

Adjustment Settings

Three setting options are available: *Default* as rendered on the camera, *Auto* with adjustments set automatically by SIGMA Photo Pro, and *Custom* with adjustments set by the user. For more information on how settings work, see Section 6.5. For information on saving settings, see Section 8.6.

Color Space

Selecting the correct color space according to your output needs allows other programs, printers, and users to receive correct color data. If you do not have a specific color management preference, it is recommended that you choose either the PC or Mac standard color space. For more specific color control, you can select other color spaces in the pop-down field according to your needs.

8 A D J U S T I N G I M A G E S

In this section you will learn...

- How to use the Adjustment Controls palette
- How to make tonal adjustments
- How to make color adjustments
- How to use the Histogram
- How to set the Warning Masks
- How to save settings
- How to delete saved settings

8.1 Using Adjustment Controls to manually adjust images

Adjustment Controls allow you to manually adjust the settings applied to images in the Review Window. Changing any control or slider places the current Review Window in [Custom Mode](#) (p. 25). The pop-down menu will show “*CurrentUnsaved Setting*” indicating that a control has been manually adjusted.

Until you choose another mode or a saved setting, the current settings in the palette will be applied to each image appearing in the associated Review Window. When multiple Review Windows are open, the palette settings will reflect the current topmost active Review Window.

Opening and closing the Adjustment Controls Palette

Adjustment Controls

To open Adjustment Controls, click on the *Adjustment Controls* button in the Review Window.



[Adjustment Mode](#) p. 38

Use to set the adjustment mode, and to save and delete specific adjustment settings

[Tonal Adjustments](#) p. 33

Use to adjust overall tone and color saturation

[Color Adjustment](#) p. 34

Use to neutralize and adjust overall color in your image

[Histogram](#) p. 36

Use to evaluate brightness values and assure the desired tonal range has been produced

Maximizing, minimizing, and closing the palette



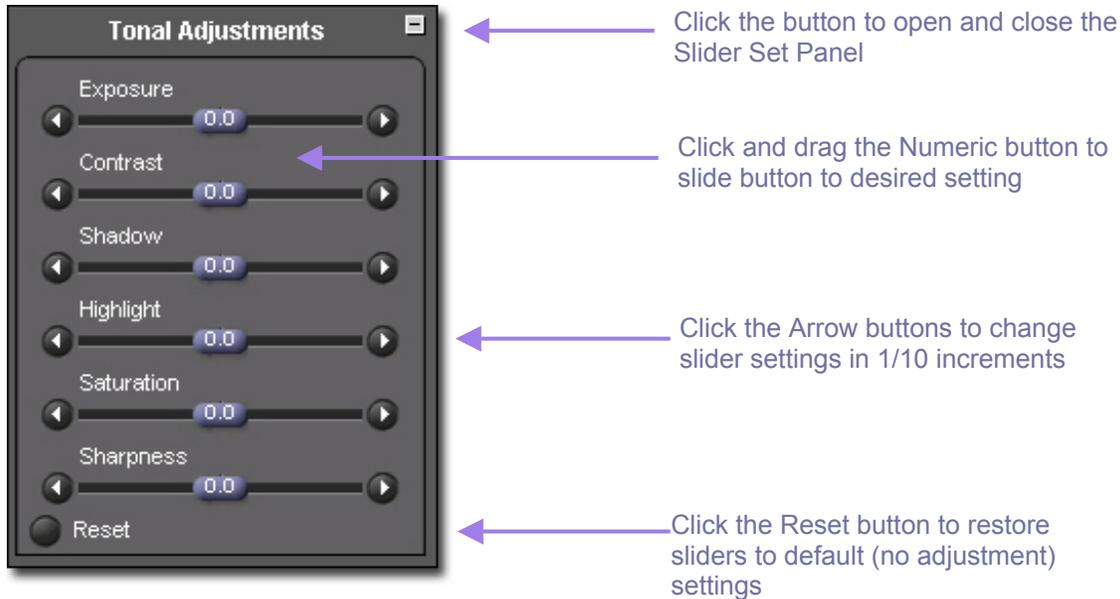
To maximize or minimize a panel within the Adjustment Controls Palette, click on the gray button in the upper right hand corner of any of the four panels, Adjustment Controls, Color Adjustment, Histogram, or Adjustment Mode.



Click the Close Box in the upper right hand corner of the Adjustment Controls Palette to completely close the palette. Closing all Review Windows will also cause the palette to close.

8.2 Making Tonal Adjustments

Use the sliders to control exposure compensation, contrast, shadow, highlight, and saturation. To view the sliders, display the Adjustment Controls Palette on your screen, and maximize the panel titled Tonal Adjustments.



Exposure

The Exposure Compensation slider affects the overall brightness of an image as if the original exposure had been changed. Use this control for slightly under or overexposed images. Each 1/10 increment of the slider represents 1/10 of an f/stop. The range of the Exposure Slider is two stops in each direction.

Contrast

The Contrast slider affects the blackness of the blacks and the whiteness of the whites with a single control. Increasing the contrast brightens the whites and darkens the blacks. Decreasing the contrast grays both the whites and the blacks. The range of the Contrast Slider is -2.0 to 2.0 .

Shadow

The Shadow slider affects the blackness of the shadows. Increasing the number makes shadows lighter, decreasing the number makes shadows darker. The range of the Shadow Slider is -2.0 to 2.0 .

Highlight

The Highlight slider affects the brightness of the highlights. Increasing the number makes highlights brighter, decreasing the number makes highlights darker. The range of the Highlight Slider is -2.0 to 2.0 .

Saturation

The Saturation slider affects the intensity of the color in your image. Increasing the saturation makes the color richer, decreasing the saturation makes the color weaker. The range of the Saturation Slider is -2.0 to 2.0 . The minimum saturation value of -2.0 corresponds to a pure grayscale (Black and White) image.

Sharpness

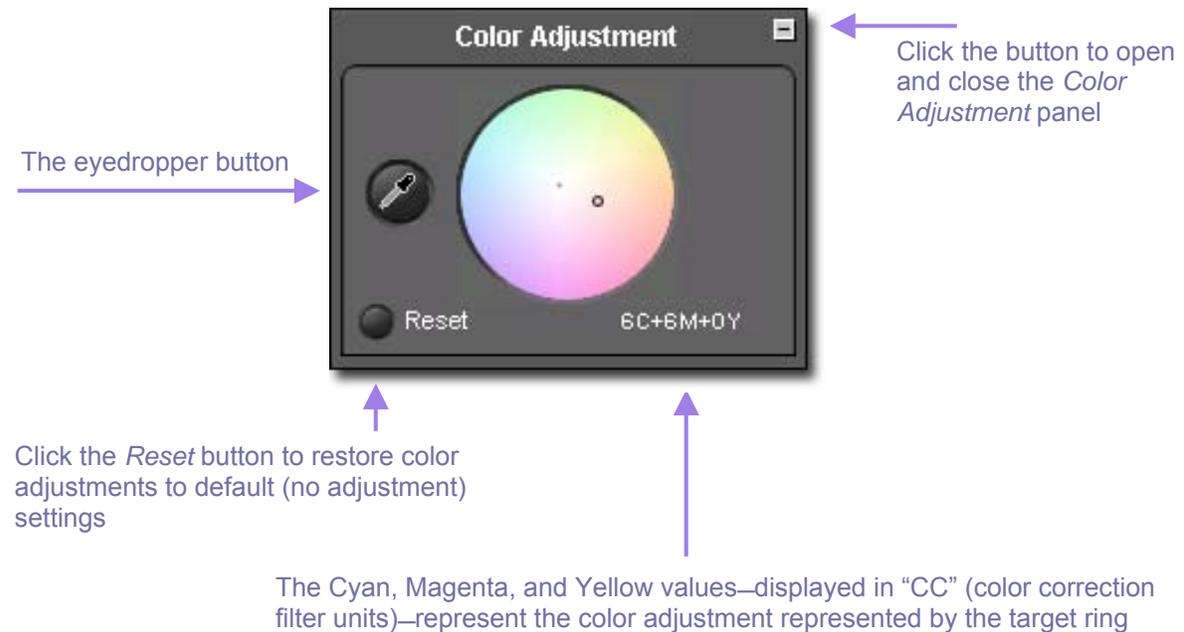
The Sharpness slider affects the clarity of detail in your image. The higher the number, the stronger the sharpness. The range of the Sharpness Slider is -2.0 to 2.0 .

8.3 Making Color Adjustments

Use Color Adjustment to change the overall color of your image. For example, if your image has an overall yellow tone caused by indoor lighting, adding cyan and magenta will remove the yellow color cast.

You can manually adjust color using the Color Wheel; you slide the control to a desired effect, or you can use the Color Adjustment Eyedropper to automatically neutralize a scene based on a correction to a sample in a known neutral area where the present RGB values are not neutral.

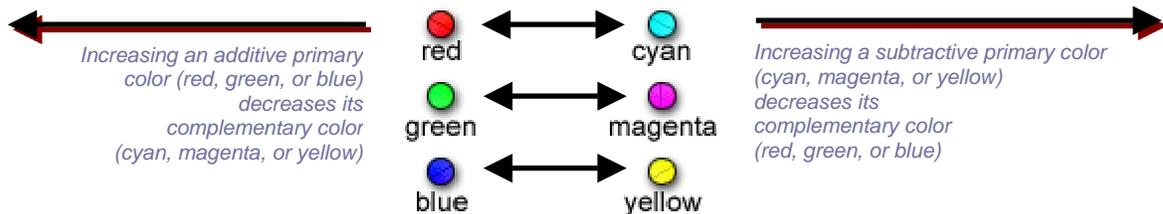
To view the Color Adjust Wheel, display the Adjustment Controls Palette on your screen, and maximize the panel titled Color Adjustment.



Using the Color Wheel

Click and drag the target ring anywhere in the colored portion of the circle. As you move to the edge of the color wheel, the color in the image will become more intense in that range. Moving outside of the circle will continue to produce color changes even when the target ring is no longer in view.

To return the image to the original default settings, click on the *Reset* button.



Using the Color Wheel to manually adjust color

To manually neutralize a color cast, such as a yellow scene caused by indoor lighting, use the loupe in the Review Window to sample a color that represents a neutral gray. Based on the RGB values in the loupe, drag the target ring in the color wheel to set the CMY values so that the RGB values will equalize. Since the sampled color was known to be neutral, this generally balances the overall color of the image.

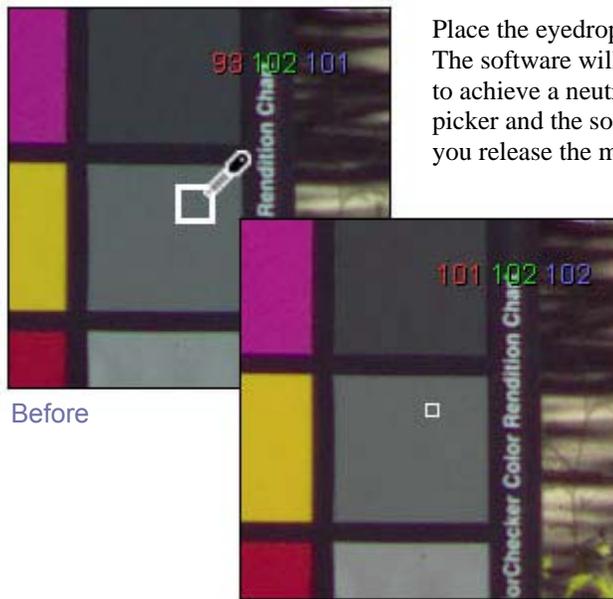
The value of the target ring is represented by units of cyan, magenta, and yellow recorded below the color wheel, displayed in “CC” (color correction filter units). The chart on the preceding page indicates the relationship between red, green, and blue, and cyan, magenta, and yellow.

If you feel the image has an overall color cast, and do not have a neutral color to sample, drag the target ring in the opposite direction of the unwanted color to neutralize. For example, if the image appears too red, move the target ring towards cyan, on the opposite side of red in the Color Wheel.

Using the Color Adjustment Eyedropper to adjust color



Use the Color Adjustment Eyedropper to let SIGMA Photo Pro create neutral gray tones in your image. Locate a portion of your image in the current Review Window that includes a known neutral color that is not rendered as a neutral color. Click on the eyedropper button. The pointer turns to an eyedropper.



Before

After adjustment

Place the eyedropper over the color to be neutralized and click. The software will evaluate that sample and make adjustments to achieve a neutral tone. You can also click and drag the color picker and the software will continue to sample and adjust until you release the mouse.

Once you have clicked on the neutral tone, click the eyedropper button to return to the original loupe or pointer.

Note in this example that the known neutral gray square was weak in Red. Once balanced, the Red value increased from 93 to 101, and the gray now appears neutral as in the original scene.

If you are viewing the image in the Review Window using the loupe, notice that the RGB values in the neutral area are exactly equal to each other, or nearly exact, after the adjustment.

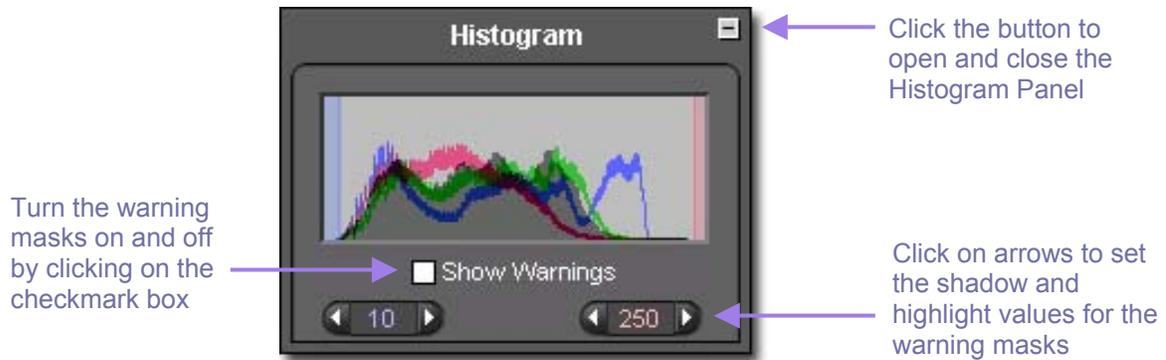
If you wish to redo the gray balance using a different sample point, click on the eyedropper button and repeat the steps above.

If you do not like the results of the color adjustment, click on the *Reset* button at the bottom of the panel to return to default (no color adjustment) setting. You can also use the eyedropper adjustment as a base, and then move the target ring in the color wheel to refine your adjustment.

8.4 Using the Histogram and Warning Masks

Reading the Histogram

To view the Histogram, display the Adjustment Controls Palette on your screen, and open the panel titled Histogram.



The Histogram graphically displays the distribution of brightness values in your image. There are three readouts depicted as colored lines which each represent the brightness values of the Red, Green, and Blue channels. These represent the same RGB values you see individually recorded in the lower right hand corner of the loupe in the Review Window.

Shadows are represented on the left side of the graph, mid-tones in the center, and highlights on the right side of the graph. The scale in which these values are measured is between 0 (blackest shadow) and 255 (whitest highlight).

Enabling, disabling and setting values for the Warning Masks

To turn the warning masks on and off click the checkmark box at the bottom of the Histogram panel. You can set the values in the warning mask to alert you when a shadow or highlight value on one or more of the channels falls outside of the specified values.

For example, you may discover that your printer or color lab cannot produce good shadow detail when values fall below 8, and that highlights appear blown out above the value 240. With this information, you can set the warning mask to alert you when the values exceed these limits. To set the limits, click on the arrow buttons below the histogram until the shadow and highlight values are set.

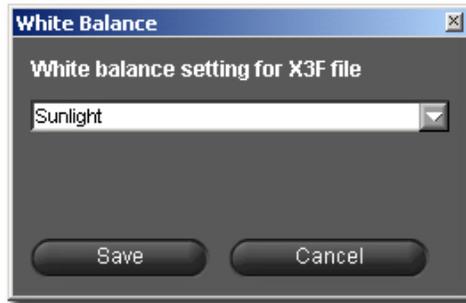
Once you have set the values for the mask, you can manually adjust the sliders in the Adjustment Controls Palette until the warnings are reduced or eliminated. Below is an example of a Review Window with the Warning Mask enabled. This powerful feature helps you to best use the tonal range for your finished print.



8.5 Changing White Balance

Changing the White Balance setting on an X3F file

White Balance can be adjusted during processing. If you wish to change the lighting type for a particular image, you can change the lighting type to match any of the lighting types featured on your SD9 camera. To change White Balance, first select the image you wish to change in a Review Window. Next select *Edit* > *White Balance* from the Review Window menu. The following dialog box will appear:



The current White Balance setting will appear in the input field. To select a different White Balance setting, choose from the pop-down menu. For more information about specific White Balance settings, consult your SD9 camera manual.

When you select a different White Balance setting, the original X3F file will be modified with the updated information. The thumbnail image in the Main Window, and the preview image in the Review Window will not appear to change. The new White Balance setting will be applied during processing, and its effects will appear in the Review Window after processing is complete.

Each time you select a different White Balance setting, the new setting will be automatically saved to the X3F file. To view the effect of the change, wait for the image to complete processing.

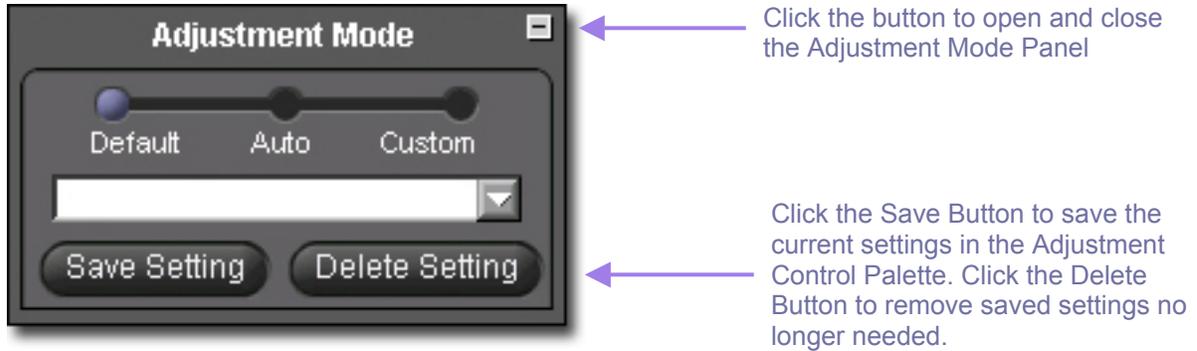
If the feature is disabled in the menu when you access it from the Edit Menu, check to see where your X3F image is stored. Since the White Balance feature modifies the original X3F file, the feature will be disabled when the image is located on read-only media such as a CD.

8.6 Saving and applying custom settings

Applying settings from the Adjustment Controls Palette

To view the Adjustment Mode, display the Adjustment Controls Palette on your screen, and open the panel titled Adjustment Mode.

The Adjustment Mode settings in the Adjustment Control Palette reflect the same information as the Adjustment Mode settings found in the active Review Window. [See Page 25](#) for a review of this information.



Saving settings

To save the current setting in the Adjustment Control Palette, click on the *Save Setting* button located at the bottom of the Adjustment Mode Panel. The *Save Setting* dialog box will appear.

Type in a name for your new setting in the input field. To update an existing saved setting, click on the name of the setting you wish to update. Click *Save*.

Deleting settings

To delete a saved setting, click on the *Delete Setting* button located at the bottom of the Adjustment Mode Panel. The *Delete Setting* dialog box will appear.

Click on the name of the setting you wish to delete and click *Delete*.

9 GETTING IMAGE INFO

In this section you will learn...

- How to find image info in the Main and Review Windows
- How to open an Image Info Window for additional information

9.1 Image information

Image information in the Main and Review Windows



When a single image is selected in the Main Window, basic information about the image appears above the Thumbnail Pane in an information field. When multiple images are selected, the Main Window information field will be blank.

Information includes:

- Filename
- Date and time of image capture
- Aperture, shutter speed
- ISO, resolution
- File size in megabytes (MB)

The same information field appears above the image pane in the Review Window.



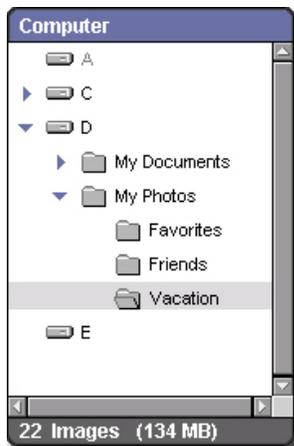
In addition to text information, single images will also display icons in the information field indicating marked status, locked status, and transfer status. If the selected image is a TIFF or JPEG processed outside of SIGMA Photo Pro, information is limited to file type and locked status icons only.

Image information in the Thumbnail Pane



Information about selected images is located in the information field at the bottom of the Thumbnail Pane in the Main Window. The field indicates how many images are selected and how many MB in total the selected images use.

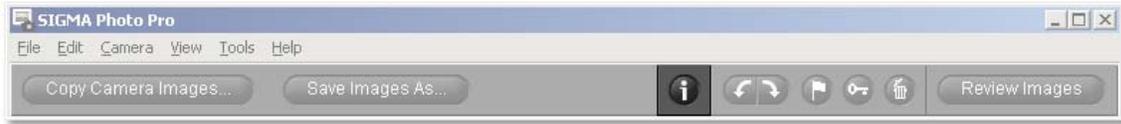
Image information in the Camera and Computer Panes



Similar information is located in fields below the Camera Pane and the Computer Pane. Information includes how many images are presently in the folder or on the camera, and the total MB used.

← Information Field

9.2 Accessing the Image Information Window

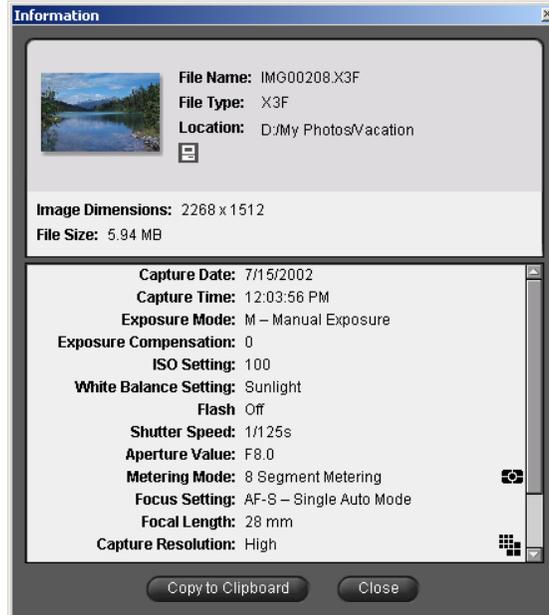


The Image Info Button

You can view additional information about individual images or groups of selected images by clicking the *Image Info* button in the Main or Review Window.

The Image Information Window

The Image Information Window describes the selected image(s) in the Main or Review Window. One of the Image Information Windows pictured below will be displayed on your screen, depending on the number of images you have selected.



To get information for a different image, click on the Review Window containing the new image or on a new thumbnail in the Main Window. The Image Information Window will update with information about the selected image.

The Image Information Window remains open and floats above the Main and Review Windows until you close it, or until you exit the program. To close an Image Information Window without exiting SIGMA Photo Pro, click on the *Close* button in the Title Bar or on the *Close* button at the bottom of the window.

Copy to Clipboard

To copy the text in the Image Information Window, click on the *Copy to Clipboard* button. Paste the text into any word processing program. Then you can use the word processing program's print function to print the text. If you choose to save these text files in your SIGMA Photo Pro image folders for easy access later, note that they will not be visible from within SIGMA Photo Pro, but you can continue to open and print them from your word processing application.

**In this section you
will find...**

- Additional information about the software
- Additional information about the camera

10.1 Supported file types

TIFF format

TIFF (Tagged Image File Format) images are high quality bitmapped images widely recognized by many programs. This bitmapped file format is the industry standard, and images in this format are created without color compression. Without compression, file size is large, but TIFFs are a good choice when you desire high quality and uncompromised color.

8-bit versus 16-bit TIFFs

The number of bits per pixel in a bitmapped image represents the range of possible values that an image can have. With a greater range of possible colors, images can be rendered with less banding and posterization as bit-depth increases. Greater bit-depth directly correlates to file size, so a 16-bit TIFF requires twice the memory as an 8-bit file.

Before choosing 16-bit files, check to see if your output device and color software support 16-bit TIFFs. If you do not plan to do extensive color correction and compositing, 8-bit files may be sufficient for your needs.

JPEG format

JPEG images are images which are compressed in file size for rapid loading via email or on the web, or for hard disk storage efficiency. These files achieve this file size reduction through the compression of color. You can control the amount of compression via a slider control in SIGMA Photo Pro when you save the file. The more you compress the image, the more likely you will be to see banding and posterization in the image.

JPEGs are a good choice for images which will be displayed on the web because the file size is small. Without reducing resolution, images can be saved in a format which loads quickly on screen. For high quality prints however, results may be compromised as the quality setting of the JPEG is lowered.

If you open and adjust a JPEG repeatedly using image processing software, it should also be noted that any adverse effects of the compression are cumulative. That is to say, if you make changes, save, and close several times, each time you save the JPEG, additional data is lost in the compression.

Deciding which format to use

JPEGs are a great way to make fast loading efficient files. If you are in the practice of saving your X3F files, you can take advantage of JPEG compression for efficient web–email files. Later, you can use the original X3F files to create high quality TIFFs should the need arise for high quality prints.

10.2 Choosing resolution

Choosing resolution

Resolution refers to how many pixels per inch an image contains. This directly affects how big an image will be output on a printer or monitor. Because printers require more pixels per inch (typically 300 ppi or greater), choose larger resolutions when shooting and processing images which will be printed. Because monitors require less pixels per inch (typically 72 to 96 ppi), choose lower resolutions when shooting or printing when the image will be used exclusively for display on a monitor via email or the web.

When your image will be used for both print and monitor display, shoot and process the image at a high resolution for the print version. For the email–web version, you can use image processing software to save an additional copy from the processed file, and resample the copy to a smaller size by reducing the resolution. In general, software designed to resample (change resolution) works best when reducing resolution (downsampling). Resampling to a higher resolution (upsampling) is possible, but the results are not as crisp. Whenever you need to upsample, it is recommended that you re-process your X3F file using the highest resolution options.

10.3 Camera references

Setting camera date and time

You can set the camera date and time to match the date and time on your computer system. First confirm that the date and time on your computer is correct. See your computer's documentation for instructions. To set the camera's date and time, connect the camera to your computer and verify that the camera is turned on. From the Main Window menu select:

Camera > Set Camera Date and Time

Click OK to set the date and time. Click cancel to cancel the operation and leave the camera date and time unchanged.

Battery warnings

Loss of battery power is instant, so it is always recommended to connect the camera to AC power when connecting your camera to your computer to avoid any loss of data. As a reminder, when the camera is connected to the computer using battery power, the battery icon will flash red repeatedly periodically. This is only an indication that battery power is being used, and not an indication that the camera batteries are low in power. Loss of digital battery power can be instant or gradual.

Index

A

Adjustment Controls Palette.....32
 Adjustment Modes25
 Default25
 Auto25
 Custom.....25
 Auto-Launch.....12
 Auto Mode.....25

C

Camera 11, 44
 Battery warning.....44
 Connecting11
 Setting date and time.....44
 Color..... 34-35
 Adding and removing..... 34-35
 Adjusting..... 34-35
 Contrast33
 Copying Images.....14
 Color Space30
 Color Wheel34
 Custom Mode25

D

Default Mode.....25
 Deleting Images.....20

E

Exposure Compensation.....33

F

File Types30, 43

G

Gray Balance 34-35

H

Highlight control33
 Histogram36

I

Image Information Window41
 Images 14, 19, 20, 28-30, 31-36, 41
 Adjusting..... 31-36
 Copying.....14
 Deleting.....20
 Information41
 Locking20
 Marking.....20
 Processing 29-30
 Renaming19
 Resolution30
 Rotating.....20
 Saving 28-29
 Selecting.....19
 Installing SIGMA Photo Pro7

J

JPEG image43

L

Locking Images20

M

Magnification Loupe 23-24

Main Window3

Marking Images.....20

Monitor.....7, 9

 Resolution7, 9

 Verification9

N

Navigation Pane17

P

Processing and Saving Images 27-30

 Processing Groups of Images.....28

 Processing Individual Images29

R

RGB Values34

Renaming Images19

Resolution.....30

Review Window4

Rotating Images.....20

S

Saturation control33

Saved Settings38

Saving Images 28-29

 For Print43

 For Web43

 Saving Groups of Images28

 Saving Individual Images.....29

Selecting Images.....19

Settings25, 38

 Saving38

 Deleting.....38

Shadow control.....33

Software 7-8, 12

 Auto-Launch12

 Installation.....7

 Drivers8

 Removal7

 System requirements7

T

Thumbnail18

 Filtering.....18

 Size.....18

 Sorting.....18

 Viewing with Details18

Thumbnail Pane.....16

TIFF image.....43

T *continued*

| | |
|-----------------------------|----|
| Tonal Adjustments | 33 |
| Contrast..... | 33 |
| Exposure compensation | 33 |
| Highlights..... | 33 |
| Saturation | 33 |
| Shadows | 33 |

W

| | |
|---------------------|----|
| Warning Mask | 36 |
| White Balance | 37 |

X

| | |
|-----------------|----------------|
| X3F image | 12, 14, 17, 19 |
|-----------------|----------------|