

FASTSTONE Overview

Prepared for
OLLI Personal Computer User Group (OPCUG)
&
Potomac Area Technology and Computer Society
(PATACES)

16 March 2013

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What We'll Cover

- **What is Faststone & What it is NOT**

- Interface Overview
- Downloading Pictures from Camera Card
- Suggested File Structure for Photographs
- Save the original files – Work on Duplicates only
- The Faststone Views (Browser, Windowed, Full Screen)
- File types / Histograms / Tagging images etc.
- Reading the metadata (info), Comparing images
- Resizing & renaming the images,
- Editing
 - Red Eye correction (what causes it & how to fix it)
 - Straighten / Crop the photo
 - Adjusting the exposure
 - Adding jpg notes
- Making a stand-alone slide show
- It is not a replacement for Photoshop and/or LightRoom

May fill all
digital photo
needs of
many people

An Image Browser, Converter, and editor for the Point and shoot folks

FastStone

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All products work on Windows 98, ME, XP, Vista, Windows 7 and Windows 8

Products



FastStone Image Viewer 4.7 Freeware (Last Update: 2013-01-28)

An [image browser, converter and editor](#) that supports all major graphic formats including BMP, JPEG, JPEG 2000, GIF, PNG, PCX, TIFF, WMF, ICO, TGA and camera raw files. It has a nice array of features such as image viewing, management, comparison, red-eye removal, emailing, resizing, cropping, color adjustments, musical slideshow and much more.

[read more](#) [download](#)



FastStone Capture 7.3 Shareware (Last Update: 2012-09-17)

A powerful, lightweight, yet full-featured [screen capture tool](#) that allows you to easily capture and annotate anything on the screen including windows, objects, menus, full screen, rectangular/freehand regions and even scrolling windows/web pages. It also allows you to [record screen activities and sound](#) into video files.

[read more](#) [download](#)



FastStone MaxView 2.5 Shareware (Last Update: 2011-06-21)

A fast, compact and innovative [image viewer](#) that supports all major graphic formats. Its intuitive layout lets you view images in a variety of ways. It even lets you view images in password-protected [ZIP](#) and [RAR](#) archive files directly and instantly, which is a perfect solution for viewing private images. It is a handy tool for quickly viewing, rotating, resizing, cropping, annotating and printing images.

[read more](#) [download](#)



FastStone Photo Resizer 3.1 Freeware (Last Update: 2011-05-04)

An [image converter and renaming tool](#) that intends to enable users to convert, rename, resize, crop, rotate, change color depth, add text and watermarks to images in a quick and easy [batch mode](#).

[read more](#) [download](#)

Download Free (for home use)



CNET editors' rating: ★★★★★

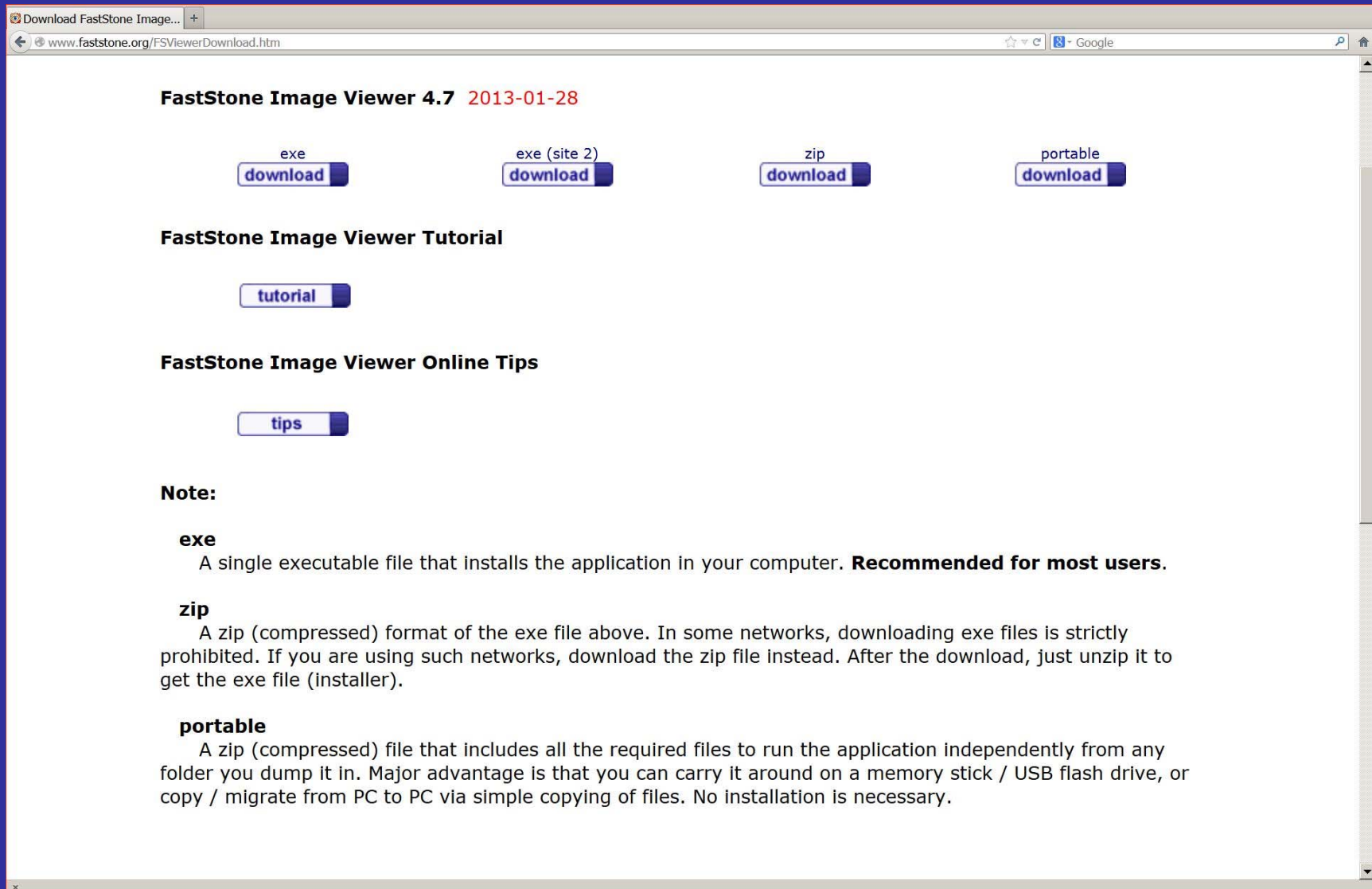
FastStone Image Viewer is a fast, stable, user-friendly image browser, converter and editor. It has a nice array of features that include image viewing, management, comparison, red-eye removal, emailing, resizing, cropping, retouching and color adjustments. Its innovative but intuitive full-screen mode provides quick access to EXIF information, thumbnail browser and major functionalities via hidden toolbars that pop up when your mouse touches the four edges of the screen. Other features include a high quality magnifier and a musical slideshow with 150+ transitional effects, as well as lossless JPEG transitions, drop shadow effects, image annotation, scanner support, histogram and much more. It supports all major graphic formats (BMP, JPEG, JPEG 2000, animated GIF, PNG, PCX, PSD, EPS, TIFF, WMF, ICO and TGA) and popular digital camera RAW formats (CRW, CR2, NEF, PEF, RAF, MRW, ORF, SRF, ARW, SR2, RW2 and DNG).

No Adware No Spyware
Free for Home Users

Version 4.7 [download](#) 2013-01-28

[What's New](#)

Download Free (for home use)



The screenshot shows a web browser window with the address bar displaying "www.faststone.org/FSViewerDownload.htm". The page content includes:

- FastStone Image Viewer 4.7** 2013-01-28
- Four download buttons: "exe", "exe (site 2)", "zip", and "portable".
- FastStone Image Viewer Tutorial** with a "tutorial" button.
- FastStone Image Viewer Online Tips** with a "tips" button.
- Note:**
 - exe**: A single executable file that installs the application in your computer. **Recommended for most users.**
 - zip**: A zip (compressed) format of the exe file above. In some networks, downloading exe files is strictly prohibited. If you are using such networks, download the zip file instead. After the download, just unzip it to get the exe file (installer).
 - portable**: A zip (compressed) file that includes all the required files to run the application independently from any folder you dump it in. Major advantage is that you can carry it around on a memory stick / USB flash drive, or copy / migrate from PC to PC via simple copying of files. No installation is necessary.

What is it (& IS NOT)

- Not a replacement for Photo shop caliber editor
- Not a replacement for Lightroom
- It is an excellent tool for looking at your photos and making minor “post-production” adjustments
 - It will read “RAW” images (Explorer will not)

A suggested File Structure

- By YEAR_# MONTH_DAY (01,02....31) etc.



Suggest a subfolder for photo edits

Don't edit your original files

**UNLESS YOU ARE POSITIVE
YOU WILL NEVER NEED THE
ORIGINALS AGAIN !**

Download via Card Reader

- Downloading directly from camera isn't suggested
 - USE A Card Reader



If you want to Download from Camera

- Install camera's device driver of your computer
- Camera must be turned on and attached to computer

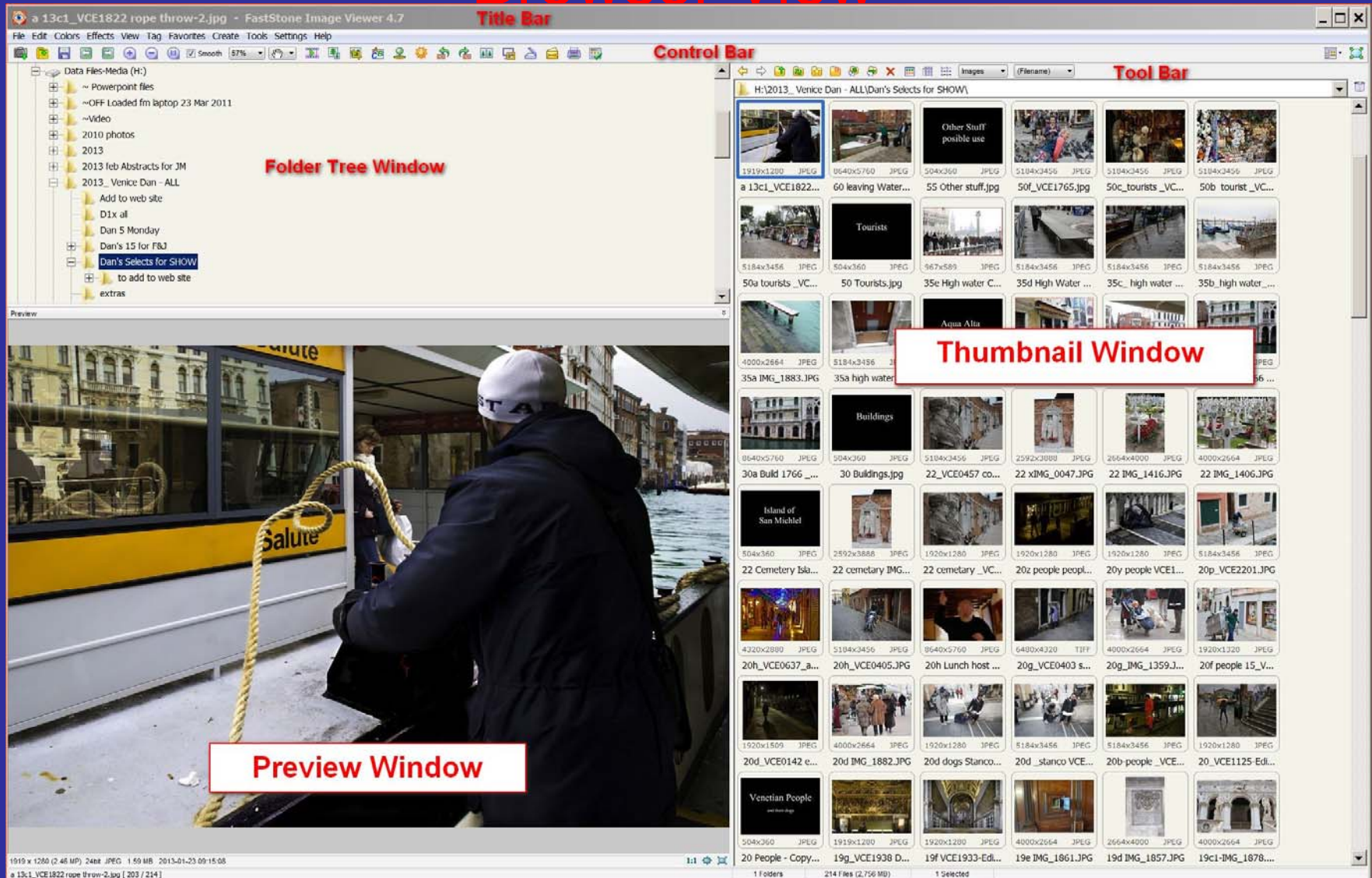
Remember

- Loss of camera power during transfer could result in lost photos.

Save / Archive card or Reformat in Camera

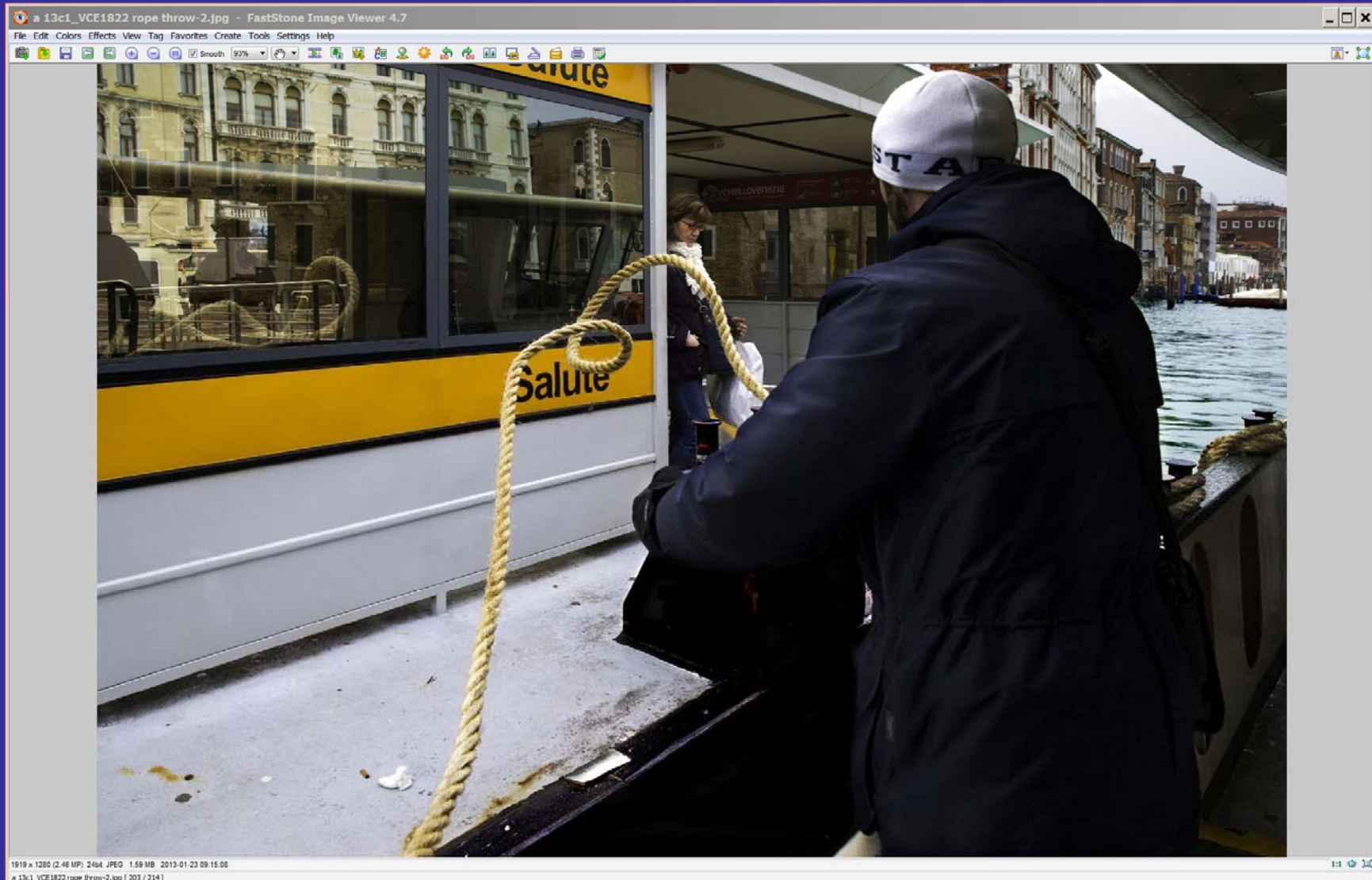
Three Primary Views

Browser View



Three Primary Views

Windowed View



Three Primary Views

Full Screen View



Some Essential Understanding

- Image Properties = data about data
- Histogram
- Pixel Size / ratio
- Color: Hue - Saturation Value (Brightness)
- Noise / Grain
- Pixel Size / ratio
- File Types

File Types /size

Computer > DAN F THUMB (M:) > New Folder > ' examples to correct

Organize > Share with > Burn > New folder

Name	Date modified	Type	Size
00 gpa location Adjust Lighting DJF0891 copy - ...	3/13/2013 2:11 PM	JPEG image	10,993 KB
00 GPS Location IMG_1878.JPG	7/26/2012 2:42 PM	JPEG image	4,160 KB
01 straighten & crop IMG_0578.JPG	7/27/2012 7:26 PM	JPEG image	599 KB
02 Correct Red Eye IMG_0612.JPG	7/29/2012 9:36 PM	JPEG image	2,181 KB
02a correct redeye IMG_0575.JPG	7/27/2012 7:25 PM	JPEG image	488 KB
03 crop 16x9 ratio Vienna v Nats 058 by Dan 19...	6/20/2009 11:47 AM	JPEG image	4,384 KB
04a Levels _Chincoteaque Morning MG_0431.jpg	3/13/2013 1:51 PM	JPEG image	5,808 KB
04b levels Great Falls _MG_0009.jpg	3/13/2013 1:55 PM	JPEG image	5,192 KB
04c Levels fiddler on bridge L1001674.jpg	3/13/2013 2:06 PM	JPEG image	4,183 KB
05 adj saturation etc_DJF0891 copy.jpg	3/13/2013 2:11 PM	JPEG image	10,993 KB
06 Heal dirt on lens IMG_0165.jpg	3/13/2013 2:48 PM	JPEG image	9,273 KB
07 clone IMG_0336 - Copy.JPG	12/4/2011 9:32 AM	JPEG image	2,153 KB
08 Local adjustment Boats ambulance_VCE014...	2/5/2013 4:41 PM	TIF File	105,012 KB
10 Noise _VCE0719.CR2	1/14/2013 10:58 AM	CR2 File	23,007 KB
IMG_0584.JPG	7/28/2012 4:10 PM	JPEG image	509 KB
test slide show.exe	3/11/2013 4:17 PM	Application	8,373 KB
this is a test.exe	3/11/2013 4:23 PM	Application	9,214 KB
WM- DJF Photographs.png	3/12/2013 9:46 AM	PNG image	4 KB
Burke Lake Nov1_2012-35.CR2	11/1/2012 8:12 AM	CR2 File	23,742 KB

Explorer Won't Read Raw Files

The screenshot shows a Windows Explorer window titled "examples to correct" located at "Computer > DAN F THUMB (M:) > New Folder > 'examples to correct'". The left sidebar shows the navigation pane with "Computer" expanded to "DAN F THUMB (M:)", where the "examples to correct" folder is selected. The main pane displays a grid of image thumbnails. Most are JPEGs with captions like "00 gpa location Adjust Lighting DJF0891 copy - Copy.jpg", "01 straighten & crop IMG_0578.JPG", and "02 Correct Red Eye IMG_0612.JPG". Two CR2 raw files are highlighted: "10 Noise _VCE0719.CR2" and "Burke Lake Nov1_2012-35.CR2". The status bar at the bottom shows details for the selected CR2 file: "Burke Lake Nov1_2012-35.CR2 Date modified: 11/1/2012 8:12 AM Date created: 3/16/2013 10:04 AM CR2 File Size: 23.1 MB". A large green text overlay at the bottom reads "FastStone will read RAW files".







FastStone will read RAW files

Image File types

Open Images of type:	Save Images to type:
• JPEG	• JPEG ←
• BMP	• BMP
• GIF	• GIF
• PNG	• PNG
• TIFF	• TIFF ←
• PCX	• PCX
• TGA	• TGA
• JPEG2000	• JPEG2000
• PSD	• PDF
• EPS	
• WMF	
• CUR	
• ICO	

Digital Camera Support	
Company	Open RAW Images:
Canon	• CRW, CR2 ←
Nikon	• NEF
Pentax	• PEF
Fuji	• RAF
Minolta	• MRW
Olympus	• ORF
Sony	• SRF, SR2, ARW
Panasonic	• RW2
Adobe	• DNG

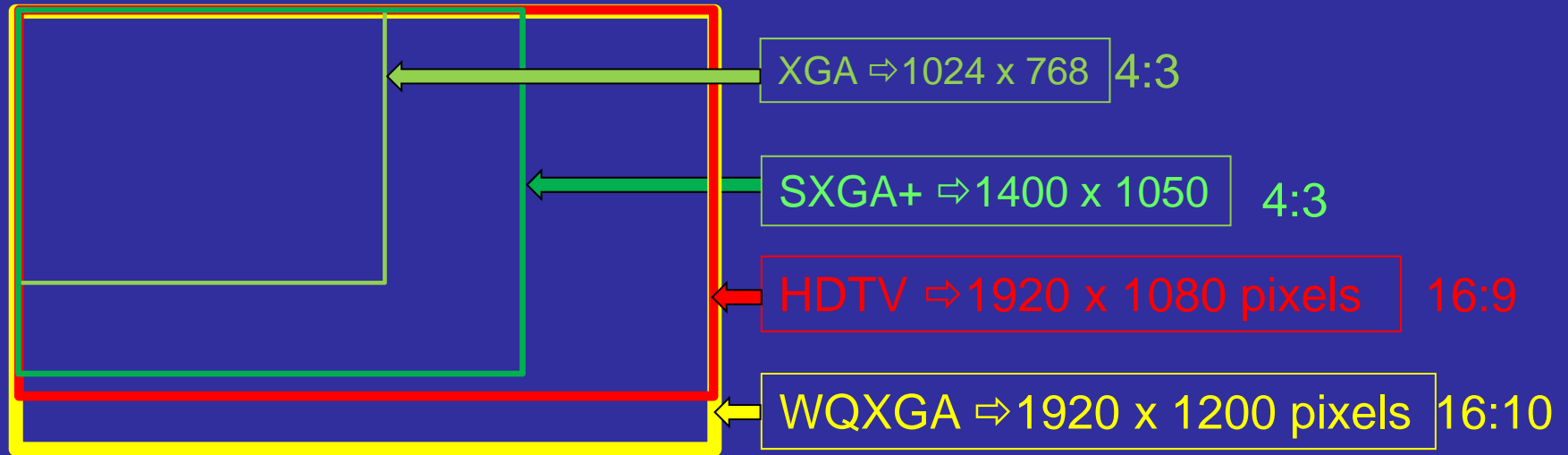
Some downloaded photos from my camera

	_JF_3080.CR2	2/15/2013 6:49 PM	CR2 File	20,269 KB
	_JF_3080.JPG	2/15/2013 6:49 PM	JPEG image	7,015 KB
	_JF_3081.CR2	2/15/2013 6:49 PM	CR2 File	21,451 KB
	_JF_3081.JPG	2/15/2013 6:49 PM	JPEG image	9,644 KB
	_JF_3082.CR2	2/15/2013 6:50 PM	CR2 File	20,138 KB
	_JF_3082.JPG	2/15/2013 6:50 PM	JPEG image	6,825 KB

Note File size
CR2 (RAW) vs JPG

Common Display Resolutions

Video Display



Some Common Photo Paper Sizes

4x6	13 x 19
5 x 7	17 x 22
8 x 10	
8½ x 11	

Some Common Frame Sizes

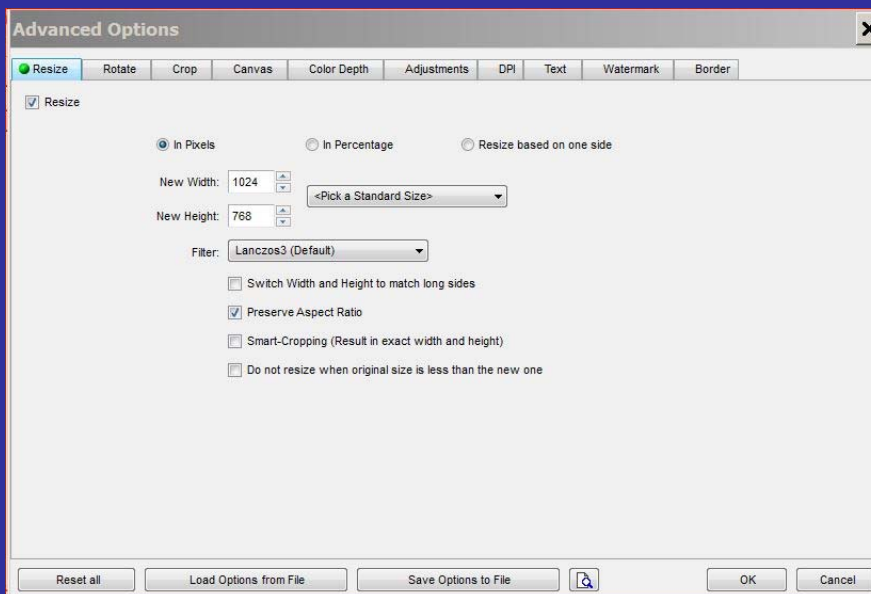
5x7	11x17
8x10	12 x 18
8½ x 11	16 x 20
8x12	18 x 24
	24 x 30

Pixel Size / Ratio for Computer Screen

- OK for most Computer monitors: 1024 x 768
- For WEB: 800x600 often recommended
- For digital projector:

0.78mp 1024 x 768 (XGA) \$
 1.02mp 1280 x 800 (WXGA) \$\$
 1.47mp 1400 x 1050 (SXGA+) \$\$\$ (Hatachi CPSX 635)
 2.3mp 1920 x 1200 (WUXGA) \$\$\$\$

- Faststone > tools > batch resize > advanced options



Monitor pxls & usage		% of Internet Users
mp	Width Height	
	1024 768	22.63
1	1366 768	15.63
	1280 800	14.55
	1280 1024	7.96
	1440 900	6.92
	1680 1050	3.75
	1920 1080	3.70
	1600 900	3.12
	1360 768	2.65
	1024 600	2.37
	1152 864	1.91
	1280 768	1.84
	1280 720	1.66
	800 600	1.44
2.3	1920 1200	1.04
4	2560 1600	

Source: Wikipedia

Image Properties

EXIF Metadata Histogram JPG comments

The screenshot displays the FastStone Image Viewer 4.7 interface. The main window shows a photograph of a silver car parked on a brick driveway in front of a multi-story apartment building. An 'Image Properties' dialog box is open, showing the following EXIF metadata:

EXIF Metadata	
Make	Canon
Model	Canon EOS-1D X
Software	Adobe Photoshop CS5 Windows
Date/Time	2012-10-20 08:51:46
Exposure Time	1/125 sec
Exposure Program	Manual
Exposure Bias	0 EV
F Number	F 2.2
Max Aperture	F 2.83
ISO Speed ratings	ISO 2000
Flash	Flash did not fire
Focal Length	28 mm
35mm Equivalent	
Metering Mode	Partial
GPS	37 48' 7.62" N 122 25' 8.40" W

The interface also shows a grid of 18 thumbnail images on the right side, each with its dimensions and format (e.g., 5184x3456 JPEG). The status bar at the bottom indicates '0 Folders', '18 Files (138 MB)', '1 Selected', and '0 Tagged'.

Image Properties

EXIF Metadata Histogram JPG comments

The screenshot displays the FastStone Image Viewer 4.7 interface. The main window shows a preview of a landscape image titled "04a Levels_Chincoteaque Morning MG_0431.jpg". An "Image Properties" dialog box is open, showing the following details:

- File and Attributes:**
 - File Name: 04a Levels_Chincoteaque Morning MG_0431
 - Location: M:\New Folder\ examples to correct - Copy\
 - Type: JPEG Bitmap (JPG) YCbCr
 - Size: 5.67 MB
 - Date Time: 2013-03-13 13:51:52
 - Attributes: 4368 x 2912 (12.72 MP) 24bit
 - Print Size: 60.67 x 40.44 inches, DPI: 72 x 72
- Histogram:** Shows a graph of luminosity with a peak on the left side. The x-axis is labeled from 0 to 255.
- EXIF / Histogram / JPEG Comment:** Tabs are visible at the top of the dialog.

The right side of the viewer shows a gallery of 24 images, each with its dimensions and format (e.g., 5184x3456 JPEG, 4000x2248 JPEG, 1600x1200 JPEG). The image "04a Levels_Chin..." is selected and highlighted with a blue border. The status bar at the bottom indicates "0 Folders", "18 Files (138 MB)", "1 Selected", and "0 Tagged".

Understanding Histogram (1)

- Each pixel in the image can have a brightness Value ranging from 0 to 255 (bit depth of 8)
 - The computer scans through the brightness values and counts how are many at each of the levels

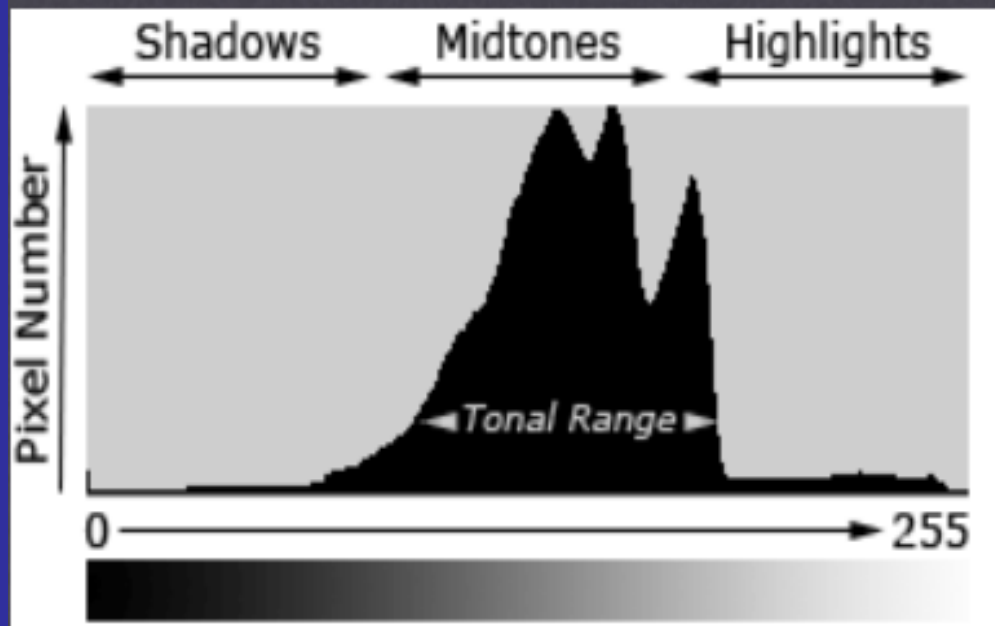


Image Capture (Dynamic Range)

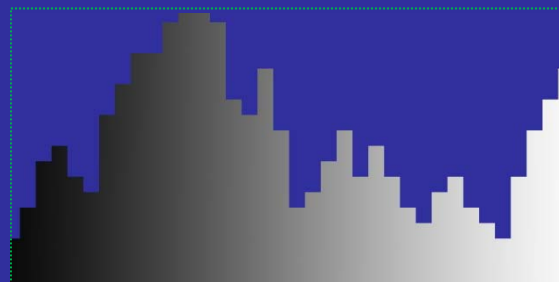
A Simplified Understanding

Consider an imaginary scene that might contain tones from the blackest black to the bright white

- For this example consider only several dozen levels of brightness



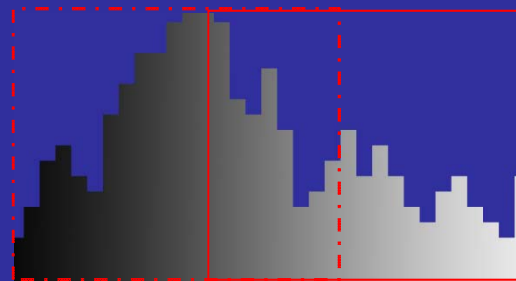
- We make a graph by stacking pixels of the same intensity level in the scene



Our eyes can discern perhaps this range of dark to bright

A camera sensor may only capture this range of intensity

But is selectable

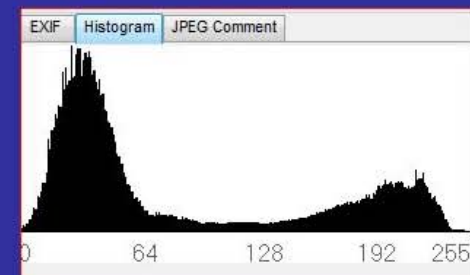
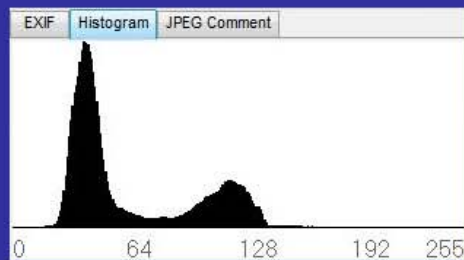


← "Blown Out
No detail"

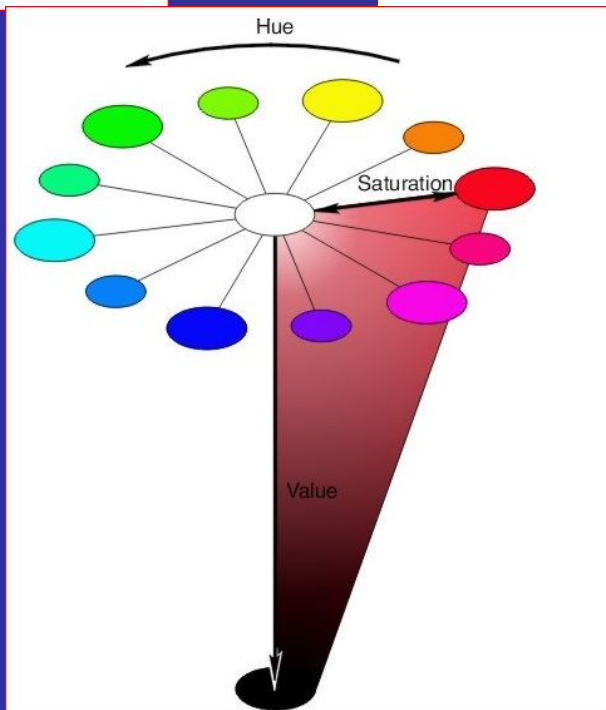
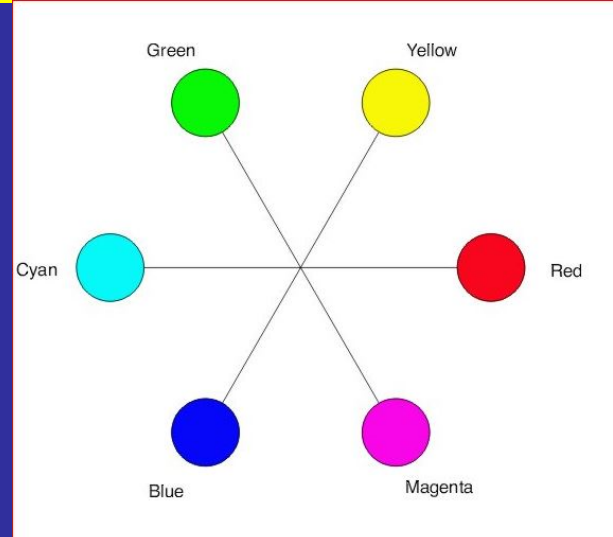
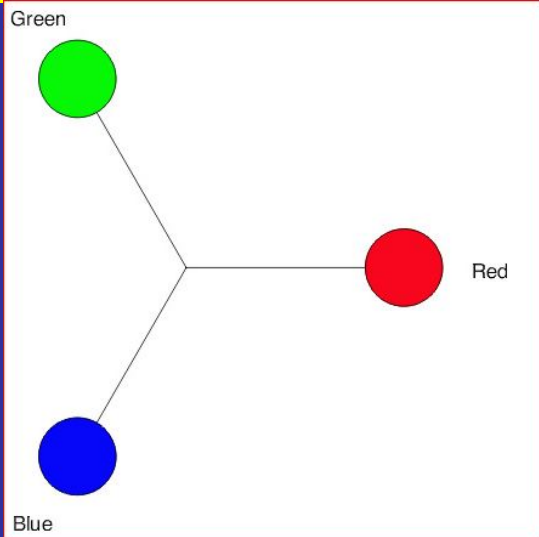
Software can not recover blown out highlights!!!

Understanding Histogram (2)

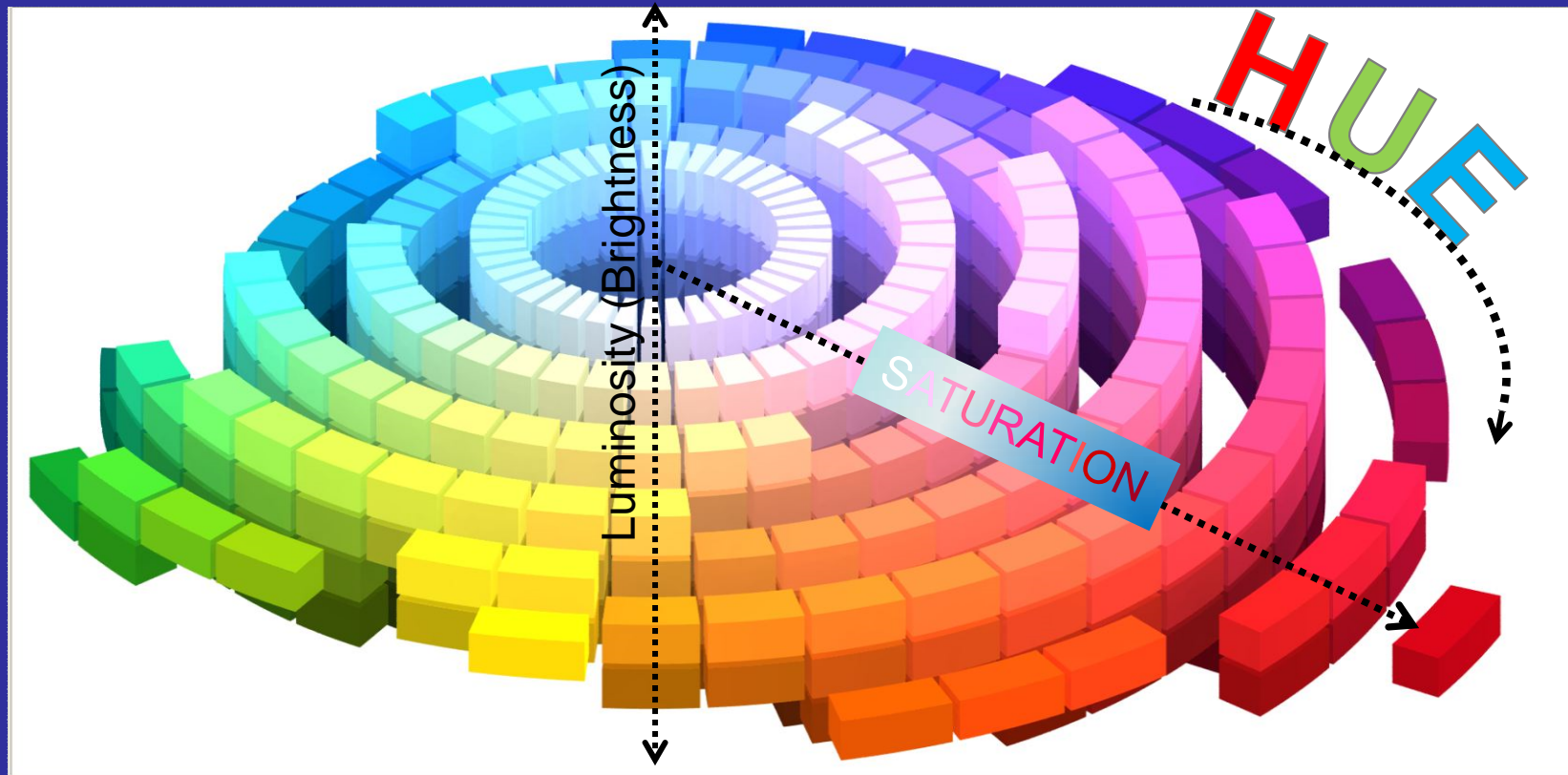
- Spreading out the data may improve the picture



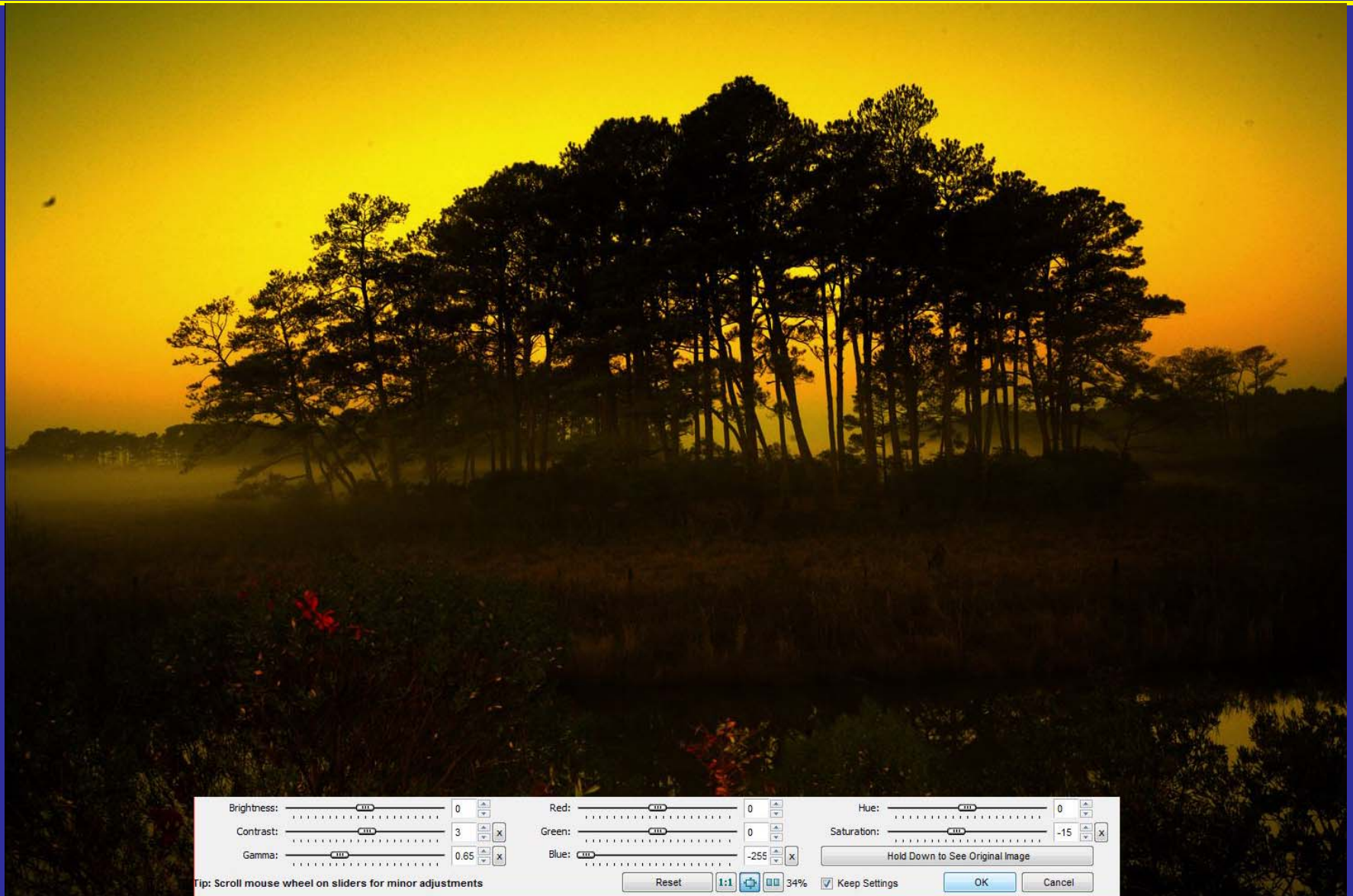
Color Components



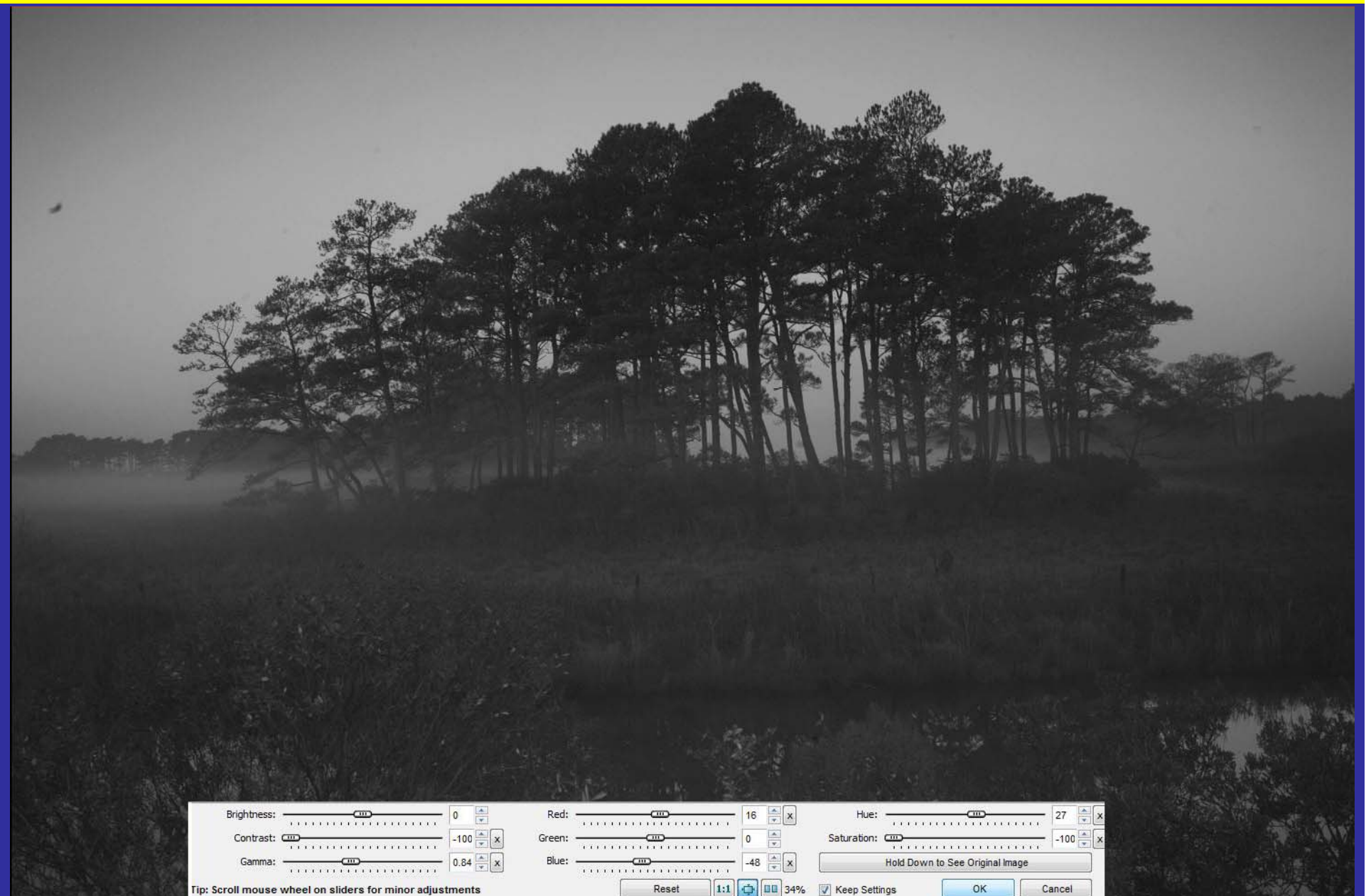
Color Components



Color Adjustments (1)



Color Adjustments (2)



Brightness: 0
Contrast: -100
Gamma: 0.84
Red: 16
Green: 0
Blue: -48
Hue: 27
Saturation: -100

Hold Down to See Original Image

Reset 1:1 34% Keep Settings OK Cancel

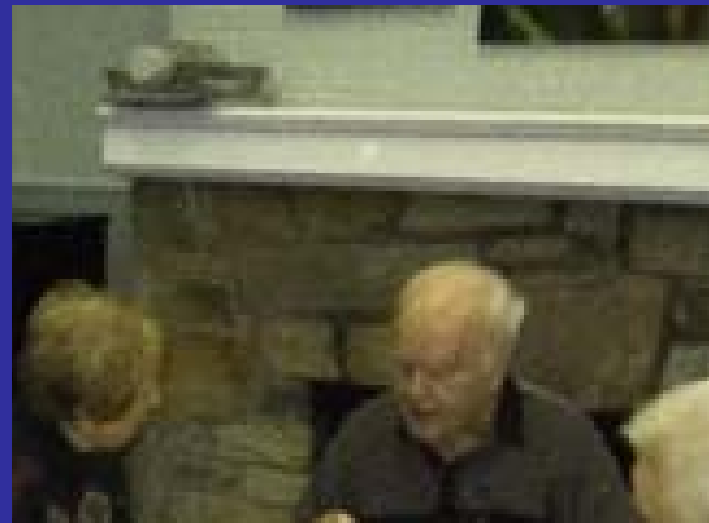
Tip: Scroll mouse wheel on sliders for minor adjustments

Look Closely at Noise

As Shot RAW (.CR2) File - not adjusted



ZOOM In on As Shot RAW (.CR2) File - not adjusted



Camera Adjusted (.jpg) File



Zoom In on Camera adjusted (.jpg) File



Download via Card Reader

- Downloading directly from camera isn't suggested
 - USE A Card Reader



If you want to Download from Camera

- Install camera's device driver of your computer
- Camera must be turned on and attached to computer

Remember

- Loss of camera power during transfer could result in lost photos.

We'll use the FastStone
application for the
rest of the presentation