

Digital Imaging Presentation



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Fasten Your Seatbelts

Introduction

- **Digital Image** – Electronic digital representation of a picture or graphics
- **What will we Learn**
How to take better quality photos with confidence
ABC's of Digital Cameras & Photography
- **What will we NOT Learn**
How to be a professional photographer
- **Advantages of Digital over Conventional Photography**
Easy to share photos, Instant results, Bypass the Film Process, Manipulate Images to Look Like New, Print Images in your Home, Never Buy Film

Agenda

- Digital Cameras Features
- Which Camera is for me?
- Picture Taking Techniques
- Transferring Pictures to the Computer
- Processing the Pictures – DI Software
- Final Results – Different Formats

Vocabulary

- **Digital Camera** A type of camera that stores photographed images electronically without the use of film.
- **Resolution** The clarity of detail in an image.
- **Pixels** Abbreviation of picture element. Tiny colored dots that make up an image.
- **Pixels per inch (ppi)** A measurement of the clarity or fineness of detail.
- **Dodge & Burn** A process used to darken or brighten areas of a picture.

Vocabulary cont.

- **Optical Zoom** The image is optically magnified by the lens system like using different lenses. Good resolution.
- **Digital Zoom** Cropping of a center part of the captured image. No additional image detail is gained. Blurred image.
- **CCD** The eye or backplane that captures the image on the camera.
- **Dodge & Burn** A process used to darken or brighten areas of a picture.

Digital Cameras Features

- **Megapixels** (1.0 – 11.1)
- **CCD**, Charge Coupled Device
- **Lenses**
Carl Zeiss
- **Optical / Digital Zoom**
- **Image Stabilization**
- **Automatic / Manual**
F-Stops, White Balance, Shutter Speed

Digital Cameras Features, cont.

- **Memory Type**

CF (Compact Flash) Type I & II, MicroDrives, MM (MultiMedia), MS (Memory Stick), SD (Secure Digital), SM (SmartMedia), XD (XD-Picture Card)

- **Battery Type** — rechargeables

Lithium, Lithium-Ion, Ni-MH, Alkaline, Ni-CD

- **Flash**

Build-in 6' – 10' range

Which Camera is for Me?

- Intended Usage
- Megapixel vs. Print Size
- Models / Prices
 - Standard, Mini, Cell Phone, PDA

Which Camera is for Me?

Megapixels vs. Print Size

Quality	Medium	Good	Professional
Print Size	150 dpi	200 dpi	300 dpi
3.5 x 5	0.39	0.70	1.6
4 x 6	0.54	0.96	2.2
5 x 7	0.8	1.4	3.1
8 x 10	1.8	3.2	7.2

Which Camera is for Me?

Digital Camera Prices

Brand / Model	Megapixels	Price
Canon EDS-1	11.1	\$7500
Nikon Coolpix 5700	5	\$1200
Olympus Camedia C-5050	5	\$800
Canon PowerShot G3	4	\$800
Hp Photosmart 850	4	\$500
Kodak DX-4900	4	\$400
Fujifilm FinePix 3800	2-3	\$400
Kodak DX4330	2-3	\$300
Olympus D-380	2-3	\$180

20 Second Break



Picture Taking Techniques

- Shutter Lag
- Steady She Goes – 2 Seconds
Arms close to body or use Tripod
- Outdoors Before 11 AM or After 3 PM
- Shoot with Sun Behind You
- Focus
- Manual vs. Automatic Settings
F-Stop, Shutter Speed, White Balance, Field of Depth

Transferring Pictures to the Computer

- Serial, USB, IR, Memory Card Reader, Printer with reader
- Docking Station
- Don't Alter the Original Image on the Hard Drive
- Backup your Photos
CDR, DVD, Zip Drive

Processing the Pictures

- Digital Imaging Software
- Image Editing Process
- Final Results – Output Methods
- Examples

Digital Imaging Software

BASIC PROGRAMS	PRICE	EASE OF USE
Jasc Paint Shop Photo Album 4	\$50	Excellent
Microsoft Picture It! Photo 7.0	30	Excellent
ACD System ACDSee 5.0	45	Very Good
IrfanView 3.80	Free	Good

Digital Imaging Software

ADVANCED PROGRAMS	PRICE	EASE OF USE
Microsoft Digital Image Pro 7.0	\$90	Excellent
Adobe Photoshop Elements 2.0	100	Very Good
Jasc Paint Shop Pro 7	90	Poor
Ulead PhotoImpact 8.0	Free	Poor

Digital Imaging Software

PROFESSIONAL PROGRAM	PRICE	EASE OF USE
Adobe Photoshop 7.0	\$600	Poor

Image Editing Process

- Save Original / Edit Copy Only
- Adjust Tonal Range
- Adjust Color Balance
- Dodge & Burn
- Correct Flaws, Dust, Red Eye
- Crop
- Size for Printing, E-mail, or Web
- Sharpen

Final Results

Output Methods

- JPEG vs. TIFF Image Formats
- Printing (150 to 300 pixels per inch)
- E-mailing (JPEG 440 x 330 pixels)
- Web Site (JPEG 440 x 330 pixels)
- On-line Processing, Pictures or CD's
- Local Photo Stores, Pictures or CD's
- Make CDR's or DVD's
- Slide Shows

Summary

Basic of Good Photography

- Fill the frame
- Focus on the eyes
- Keep horizons level
- Look for contrasting color
- Keep the background clean
- Hold the camera **STEADY,STEADY,STEADY...** Click and hold for 2 seconds
- Protect your equipment

The Beginning