

Oklahoma Tax Commission  
64th Annual Educational Conference  
For Assessing Officers

Placing Value

In



Oklahoma

August 5-8, 2008  
Tulsa, Oklahoma  
Southern Hills Marriott

Presented By  
Charles Wilson, Sally Frazier and Gerald Elrod



*"They Shoot Houses,  
Don't They?"*



*Digital Photography for the Assessors Office*

*Oklahoma Tax Commission  
64<sup>th</sup> Annual Educational Conference*

- **Introduction of teachers. Charles Wilson, Sally Frazier and Gerald Elrod**
- **Welcome to Digital Photography.**
- What is the best digital camera? The one that lets you take the most effective images.
- **History of Photography**
  - **First Photos**

The Greek translation for the word "photography" is writing with light.
  - The birthplace of photography has been claimed by France and England in the first half of the 19<sup>th</sup> century.
  - Photography arrived in the United States in 1839, due to the enthusiasm of Samuel Morse. He observed the process in Paris on a visit.
  - **Digital History**

Digital photography is a recent invention with a complex history. In the middle of the 20<sup>th</sup> century, the first practical videotape recorders were produced.

Live images could be captured and stored as electrical impulses on tape or disk for the first time. The next milestone was a result of the 1960's space program.

NASA used an analog-to-digital conversion process when sending signals from space probes to earth. This same technology was being used for covert measures in spy satellites.

Texas Instrument was issued the first patent for a camera without film in 1972.

In 1975, Kodak researcher Steve Sasson built the first digicam, cobbled together from spare parts and digital technology.

Sony, in 1981, produced the first true digital camera called the Mavica. Most of you that have been in the assessor's office for any length of time remember the Mavica; it is still in use in several counties. Resolution or photo digital size was a modest 640 x 480 in the beginning. This gave way until now we are seeing sizes of 12 megapixel. We will discuss later the problems inherent to sizing of photos.

The relatively high price of digital kept most of the public out of the market for many years.

- **Course Objectives**

- Why buy digital?
- What camera fits my needs?
- Understanding digital terms and camera features
- Establishing office guidelines
- Field Work – Techniques and Tips
- Downloading of pictures
- CAMA Utilities
- Property Record Card

- **Why Buy Digital?**

- Digital cameras, unlike their predecessor 35mm cameras, store their photos on either internal memory or removable media storage.
- No film and less processing cost are perfect for use in assessor’s offices with budget concerns.
- They are equipped with an instant playback to see if you have the shot you intended to take.
- Some are equipped with zoom lens that allows the field person to obtain pictures from a distance.
- Unlike film, media cards are reusable.
- Although the initial cost of digital equipment is higher than 35mm, long term expenses are less and the savings will add up over time.

- **What Camera Fits My Needs**

<u>Type of Photographs</u>	<u>Best Choice</u>	<u>Good Choice</u>
Hassle-free, good photos	Compact	Ultra Compact
Great photos, without need to carry large camera	Power Compact	Compact
Great photos in wide range of conditions	SLR	Power Compact

- **Types of Cameras and Price-Ranges**

**Micro Mini**

Extremely small, fits in a gum package. Would be useful in the spy business. Priced from \$100 - \$200.

**Ultra Compact**

Size is a plus point with these cameras. You can slip one of these into any pocket or purse. In fact, the bulk of this device is made up of the batteries. Unfortunately, battery technology has not kept up when it comes to miniaturization. On the downside, you generally need to connect to a computer to download your photos. Image quality will be compromised. Priced under \$75.00

## **Compact**

The compact is the biggest-selling class in digital cameras. Most of you will recognize this as the camera you use in your office. Compact cameras are relatively small, still about pocket-sized, but they offer good image quality. Standard features include LCD preview panel on the back and memory cards for image storage. Some offer small zoom ability, depending on price you are willing to pay, or you will find a fixed lens. Zoom lenses would be preferred because you get the opportunity to frame pictures better. Most zoom lenses have a zoom ratio (the amount they will magnify) of around 3X, but some have as high as 10X. Rechargeable batteries are a must have for economical purposes. Priced from \$100.00 - \$200.00.

## **Power Compacts**

At the top end of the compact range come the power compacts. They are nearly the same size as the compacts but have many added features. The simple compact has automatic exposure and focusing, power compacts will give you the opportunity to exercise some creative control. Some models have preprogrammed "scenes" such as portrait, night, or landscape. Zoom lens is a standard feature. Priced from \$175.00 - \$300.00.

## **SLR or Single Lens Reflex**

Choice of professional and many enthusiasts, most have the ability to detach the lens and exchange for wide or telephoto lens. The scene is viewed thru the viewfinder or the lens itself. They are an expensive choice and not widely used in the assessor's office.

Priced from \$400-\$1000.

## **Medium Format**

Professional grade cameras with a high price tag. Used by professional and serious amateur photographers. Priced from \$1000.00 and up to \$15,000.

- **A Look Inside Your Digital Camera**
  - Your camera's inner workings may seem impossibly complicated, but there's nothing inside that should scare you.
  - A camera works much like your eye. The lens and iris collect and control the light entering the camera. The image sensor converts the light that enters the lens into an electrical signal. The electrical signal is stored as an image internally or on a memory stick. This image can be retrieved by a computer and displayed immediately.
  
- **Digital Camera Features**
  - **Rechargeable batteries**
    - Disposable AA vs Rechargeable AA
    - In-camera rechargeable
  
  - **Media Storage**
    - **Compact Flash (CF)**
      - Most bulky of cards, but offer a degree of ruggedness and space for high memory
  
    - **Memory Stick**
      - Sony's memory format. Has large capacity but some compatibility issues between the Duo and Pro versions.
  
    - **Smart Media**
      - Topped out in capacity at 128MB, found only in digital cameras with modest performance
  
    - **Secure Digital (SD) and MultiMedia Cards (MMC)**
      - Are used to store copyrighted material and prevents unauthorized copying. Found mostly in MP3 players, phones and PDAs.
  
    - **CD or DVD**
      - Particularly effective for storage of images. Easy to download and can be read on most all computers

- **Digital Dictionary and Digital Camera Features**
  - **Digital Zoom vs Optical Zoom**
    - The usefulness of a zoom lens is undoubted in field work.
    - The zoom ratio is made up of two different types of components.
    - The conventional zoom is the optical zoom; this adjusts the lens to enlarge the image.
    - The larger zoom is the digital zoom. This merely takes the data from the central pixels and enlarges them to full size of the image. The result is something you should try to avoid. You will end up with a low-resolution image and a large file.
    - For the best results, keep your camera on optical zoom.
  - **CCD Charge Coupled Device**
    - Pixels are tiny dots that are converted into an electrical charge that corresponds to a color in the color spectrum when light hits the CCD of the camera.
  - **Megapixel**
    - An image or image sensor with over 1 million pixels. A 4.0 Megapixel camera has a CCD with 4,000,000 pixels.
  - **Compression**
    - The process of reducing the size of a file.
    - This can be done by a scheme (jpeg) that both reduces the size of the file and degrades the picture.
    - The other scheme (raw,tiff) will reduce the file size without degrading the image.

- **Guidelines for Photo**

- **What to photograph and what not to photograph**

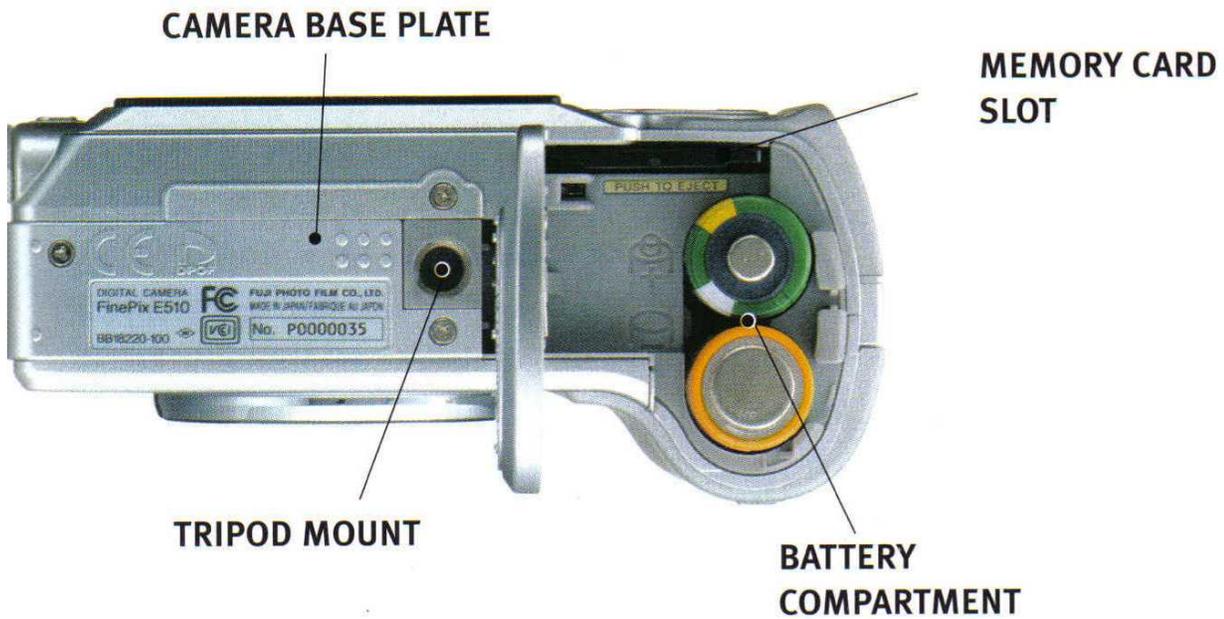
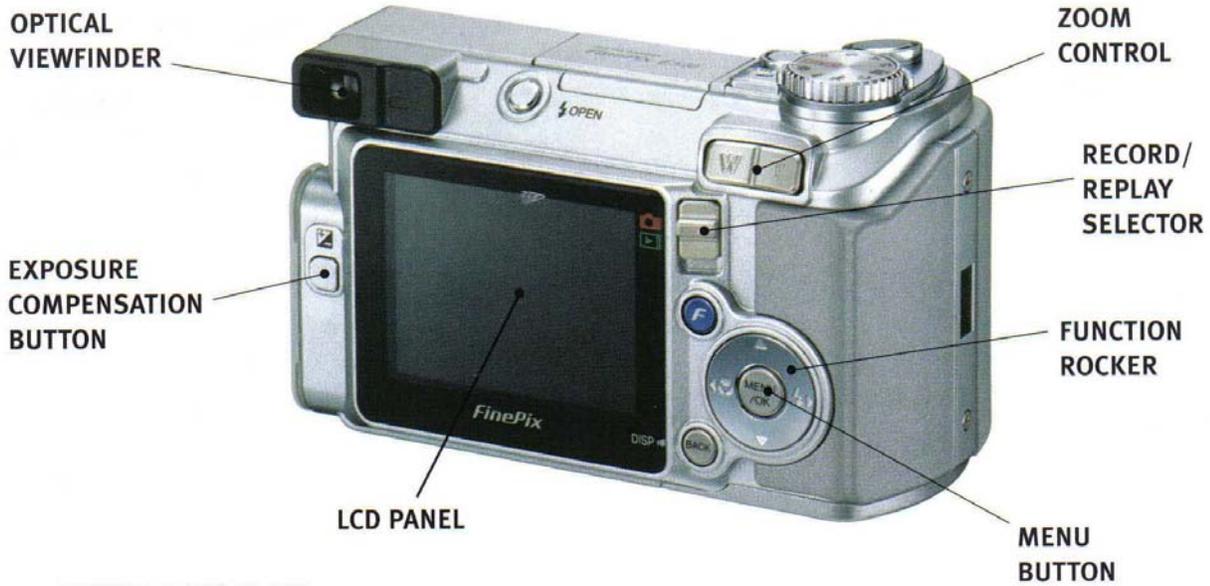
- Establish policy regarding people included in shot
- Internet accessibility
  - Photos use to be only on in-house cards and now are online
- Photograph all buildings and any special features
- What to avoid in your photo
  - Discuss importance of where you stand
    - No shooting through windshield, etc

- **Advantages of Photos in Assessors Office**

- Leads to credibility of actual inspection
- Shows condition of property on certain date
- Helpful in classing of property
- Useful for comparisons in appraisals
- Great tool for informal and formal protests
- Aids in locating of property especially in rural areas

- **Care and Feeding of Your Camera and Media**
  - **Cameras are a lot like people.**
    - They don't like heat.
    - They don't like cold.
    - Dust is an enemy.
    - And as with all electronic devices
    - ..They don't like water!
  - **Use of cases for transport**
  - **Use of Neck Strap cord or Lanyard**
    - Cameras don't like to be dropped
  - **Lens Protector or Filter**
    - They are available for most lenses and offer inexpensive protection. A UV filter is the most common.
  - **LCD Panel Cover**
    - An inexpensive screen that fits over your LCD panel to prevent scratches. The cost is less than \$20.00.
  - **Camera Features**
    - **LCD Panel**
      - Allows you to preview shots, but will run down batteries very quickly
    - **Auto White Balance**
      - Attempts to correct color due to different light sources
    - **Resolution or Detail**-Expressed as mega pixels
      - Higher Pixels = Better enlargements but large size takes up hard drive space
      - Lower Pixels = Good small photos without filling up the hard drive





- Techniques and Tips for Getting the Best Shot
  - Photos are important tools and will be seen by owners and appraisers.



## *Bright Light*

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- *Use lens or shade hood*



## *Shooting Towards the Sun*

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- *Try a different camera angle*





# *Low Light*

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- *Turn on camera flash*



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*A day without sunshine  
is like,*



*well, night.*





## *Subject Too Large*

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- *Try to shoot building at an angle rather than head on*



## *Subject Too Far Away*

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- *Use your optical zoom*
- *Crop in the office*



# Centering

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- *Try to get only your building in the photo*



# Preventing Movement or Blurring

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- *Use of a tripod or monopod*



# *Preventing Movement*

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- *Brace your camera square to your body*



# *Building Features*

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- *Photograph any unusual features*



*Good Photos Help Determine  
the Quality, Grade or Class*

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*A Couple of  
“Don’t Do” Shots*

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*You want your photos to  
reflect your  
professionalism.*



*Good Photos =*  

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*Good Public Relations*



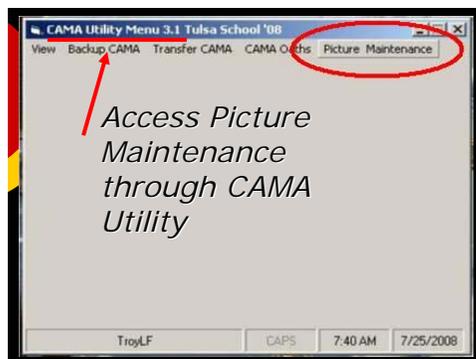
# *Despite Your Best Efforts*

*Sometimes this is the best you can do!!*



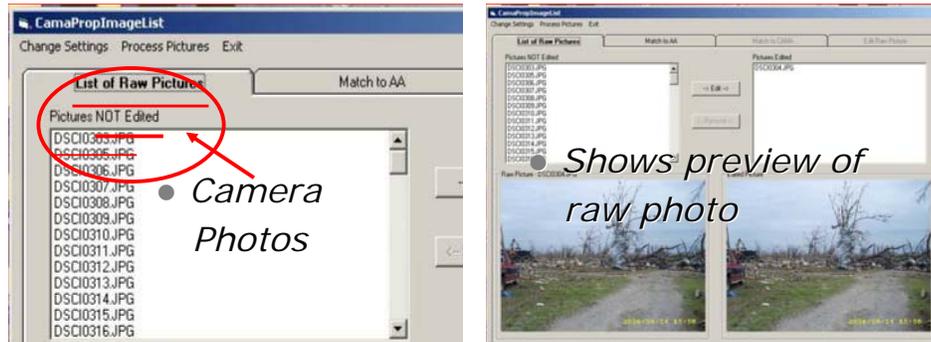
After a long day in the field you are now ready to ***retrieve*** your images.

- **Downloading of Pictures to Computer**
  - **Use of Card Readers**
    - **Inexpensive device that allows you to transfer photos stored on any type of media.**
      - **Caution: Don't leave plugged in to system**
    - **Use of USB Port Cables**
      - **Easy way to upload photos to server**
  - **Use of Docking Station**
    - **Many cameras are equipped with docking stations for photo transfer and charging.**
      - **We strongly encourage you to use your docking station for battery charging only. Don't plug into the computer system.**
- **CAMA Utilities**
  - **Automatic resize when each photo is pulled into program**
    - **Feature available to resize existing photos**
  - **Picture Maintenance**
    - **Text Settings allows for the following:**
      - **Parcel ID**
      - **Date**
      - **Comments**



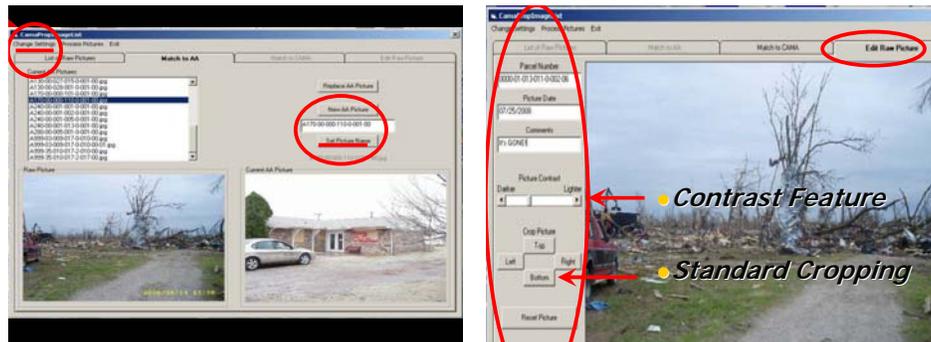
- **Raw Pictures**

- Set up where photos are being downloaded from, such as photo stick or floppy
- Pulls in photos with default names from each camera
- Shows preview of raw photo



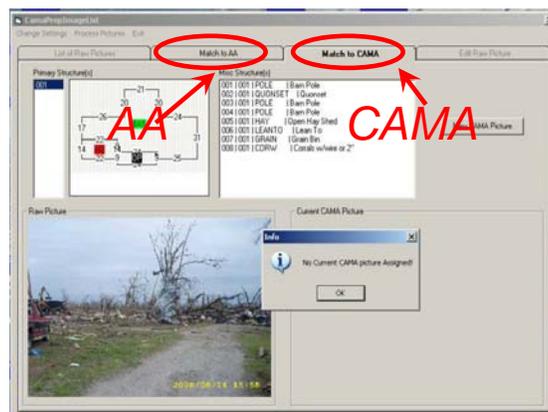
- **Edit of Raw Photo**

- Allows contrast to lighten or darken
- Allows standard cropping



- **Process Picture**

- Saves photo to AA, CAMA or Both



- **New Property Record Card**

- How numbering system works for photos on card
  - Primary photo will have parcel ID number followed by -000
  - Secondary photos will have parcel ID number followed by -001 for 2<sup>nd</sup> photo, -002 for 3<sup>rd</sup> photo, etc up to 999 photos on each parcel
  - This numbering sequence is the most compatible for both CAMA and AA.
- After selecting property record card print, the following options will appear:



## *Selecting Thumbnail or All Photos*

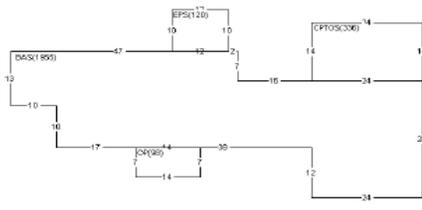


SEG. 1142PT S OF NE COR LOT 1,  
W 627FT. S 330FT., E627FT., N  
330FT., SEC. 1-16-15

OAKWOOD OK 736599726  
Site Address: 000000

BLDG # 1  
Stories/Style 1 One Story  
Occupancy 1 Single Fami  
Design 0001 TRADITIONAL  
Quality 03 Class D+ LO  
Roof Type 01 GABLE  
Roof Material 1 COMP SHG CL  
Exterior Wall-1 3 AL/VNL SDG  
Exterior Wall-2  
Foundation 2 "D" CONVNTN  
Interior Fin 3 D AVERAGE  
Floor Cover 3 "D" AVERAGE  
No. Bedrooms 000  
No. Baths 000  
Total Rooms 000  
Heating 1 FORCED AIR  
Air Condition 1 FORCED AIR  
Fireplace #1  
Fireplace #2  
Primary Garage  
Primary Porch 3  
Basement  
Actual Year Blt 1945  
Year Remodeled 0000  
Eff. Year Built 0000  
Condition 3  
Normal Depr Tbl DA  
Functional Cbs. 000000  
Economic Obs 000000  
Observed Depr. 000000  
Obavd Depr Code  
RENT 000000  
cnty Adj. Fact. 000

One Story  
Single Fami  
TRADITIONAL  
Class D+ LO  
GABLE  
COMP SHG CL  
AL/VNL SDG  
"D" CONVNTN  
D AVERAGE  
"D" AVERAGE  
FORCED AIR  
FORCED AIR  
OpnPorch Cl  
AVERAGE  
Class D AVG



Land Value 4,750  
Misc Value 11,052  
Bldg Value 32,258  
Total Value 48,060  
Value By CAMA  
Effective Area 1,955  
Points 0.0000  
Bldg Rate 47.14  
RCN 32,166  
Pct Good 0.3500  
OBSOL 0.0000  
Building Value 32,258  
BOOK PAGE DATE QS SALE PRICE  
PERMIT NO TYPE DATE AMOUNT

Appraiser JL J. LOUTHAN-OWNER  
Appr Date 08/23/06  
Use Code 0002 RURAL RESIDENT  
NEED 7000.00 RURAL #10  
L100 M100 B108

AREA	FLAT	HEATED
BAS	1955	1955
OP	98	
CFTOS	336	
EPS	120	



History Values

Tax Year	Total Appraised Value
05	21,711
01	16,816

MISC BLDG CODE	DESC	LENGTH	WIDTH	UNITS	ADJ PRICE	EYB DT PCT	ADJUSTMENT	VALUE
1	1 EPSD EncPorch Cls D	12.00	10.00	120.00	14.39	00 37.00	1.00	639
2	1 STL BIN 4 STEEL BIN 4 RING	.00	.00	1.00	400.00	00 50.00	1.00	200
3	1 POLE Barn Pole	30.00	30.00	900.00	3.37	00 10.00	1.00	303
4	1 LEANTO lean To	38.00	24.00	912.00	2.93	00 10.00	1.00	267
5	0 UTIL Utility Bldg	50.00	30.00	1500.00	5.36	2004 95.00	1.00	7,628
6	0 CPTOSD CovPatio Cls D	24.00	14.00	336.00	6.28	2007 95.00	1.00	2,005
LAND LUSE DESC	ZONING	UNITS TP	PRICE	ADJUSTMENT CODE/FACTOR				VALUE
AC 1 2 Rural Res	R1	4.75 AC	1000.00	.00	.00	.00	.00	4,750

# New Property Record Card



Prop - 0000-01-16N-15W-1-002-00-000



Prop - 0000-01-16N-15W-1-002-00-002



Prop - 0000-01-16N-15W-1-002-00-003

- Card is saleable to both property owners and appraisers
- Take new photos once every 4 years on Visual Inspection cycle
- Archive previous photos if space is problem on server

**Notes:**