

# What is EXIF?

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Digital photographers should know

# EXIF

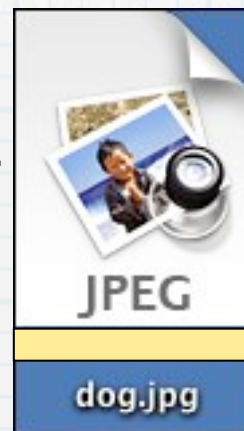
- \* **Exchangeable Image File Format**
- \* **Hidden data in JPEG files**
  - \* **How, when and where**
- \* **Written by digital cameras**
- \* **Used by photo software**

# Added by your camera

the picture part



JPEG file



the EXIF part

Photo Info	
▼ Image	
Width:	2,592 pixels
Height:	1,944 pixels
Original Date:	2/23/2008 8:58:32
Digitized Date:	2/23/2008 8:58:32
▼ File	
Name:	IMG_3863.JPG
Size:	1.2 MB
Modified:	2/23/2008 8:58:32
Imported:	2/24/2008 9:34:28
▼ Camera	
Maker:	Canon
Model:	Canon PowerShot A95
Software:	—
▼ Exposure	
Shutter:	1/60
Aperture:	f/2.8
Max Aperture:	f/2.8
Exposure Bias:	0.00
Exposure:	—
Exposure Index:	—
Focal Length:	7.81mm
Distance:	—
Sensing:	One-chip color area
Light Source:	—
Flash:	On
Metering:	Pattern
Brightness:	—
ISO Speed:	—
GPS Latitude:	—
GPS Longitude:	—
GPS Altitude:	—



# Also IPTC Metadata

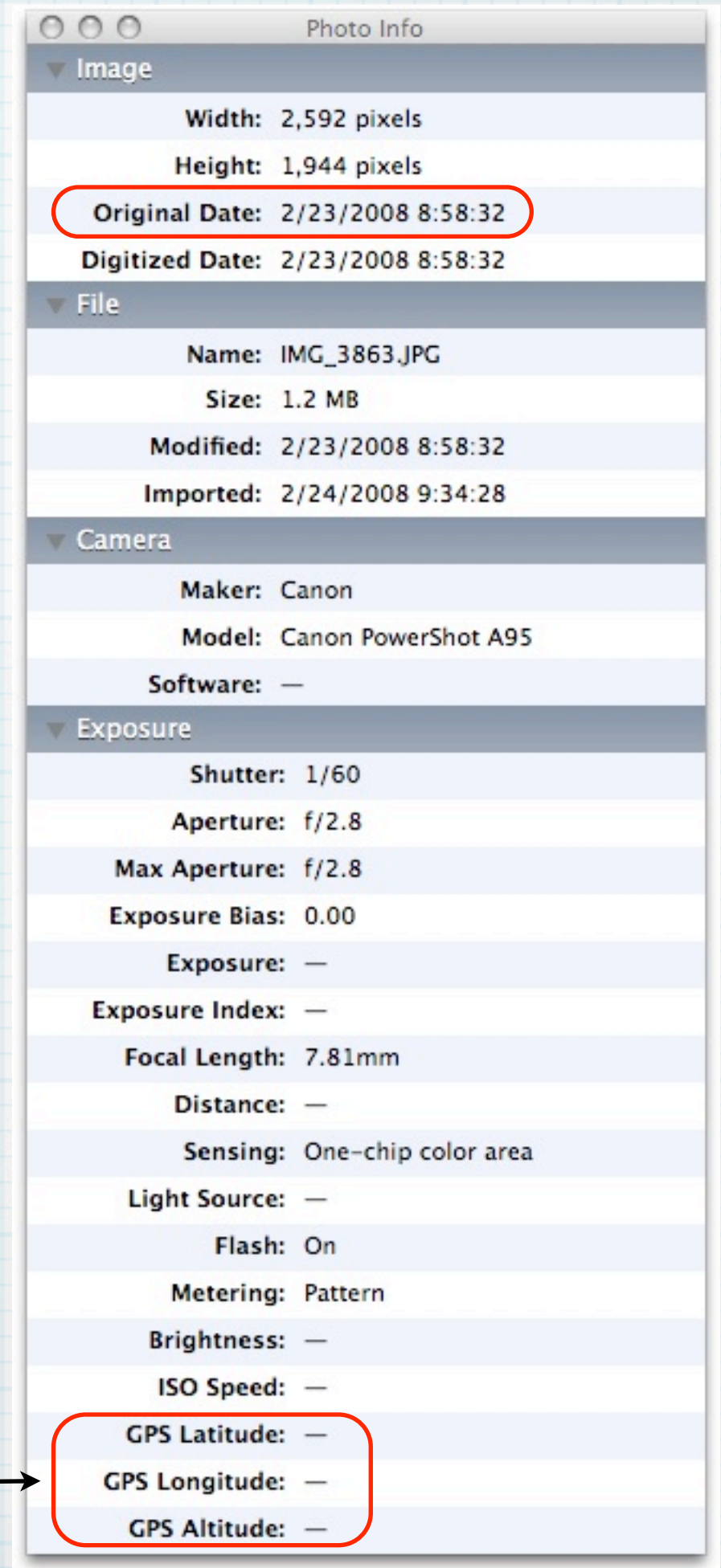
International Press Telecommunications Council

- \* Information you add - Stored with EXIF
  - \* Name, address
  - \* Copyright
  - \* Caption, Keywords, Category, etc.

# iPhoto

- \* EXIF data depends on the camera
- \* Used by photo software
- \* Cmd-I to view

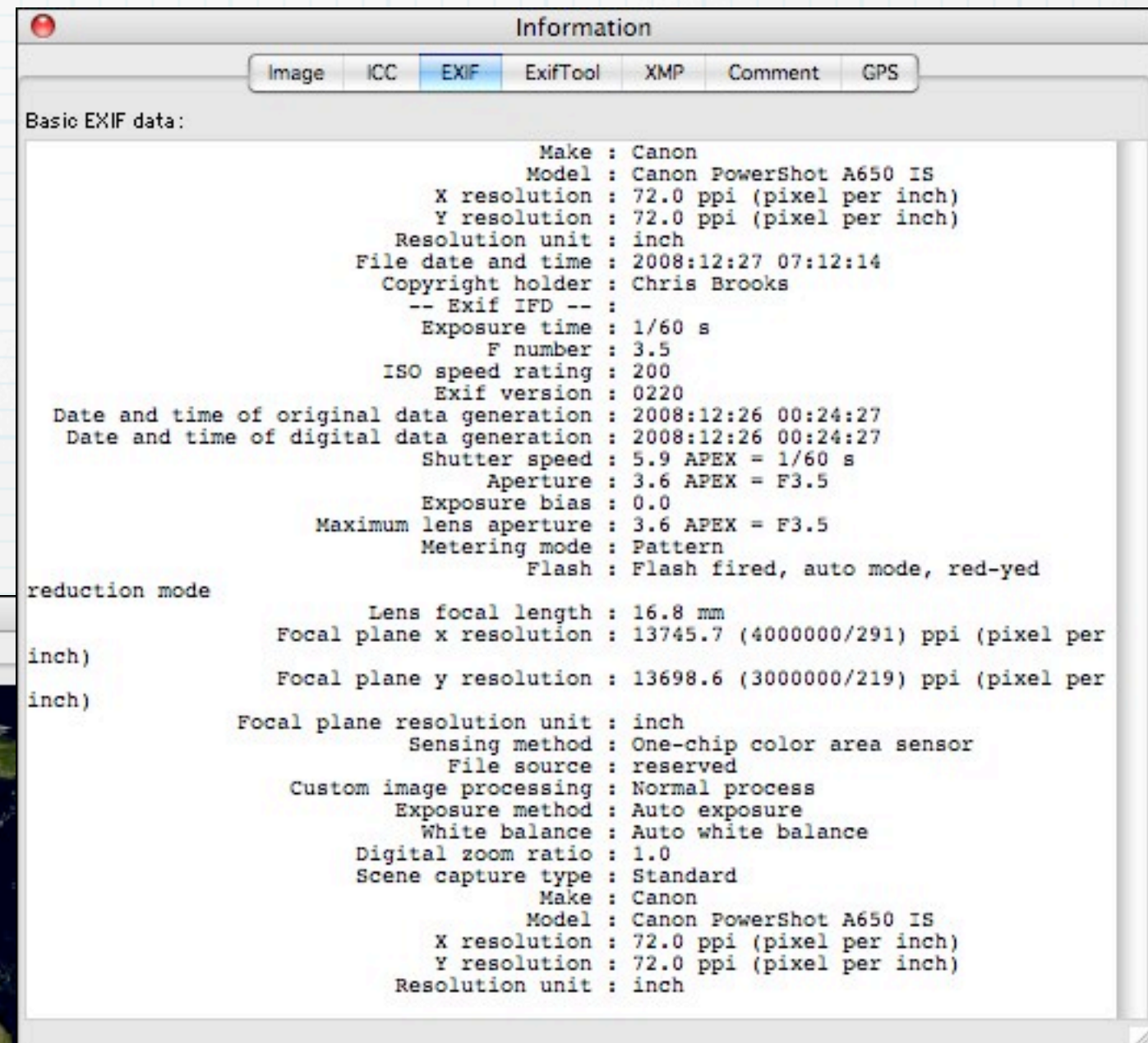
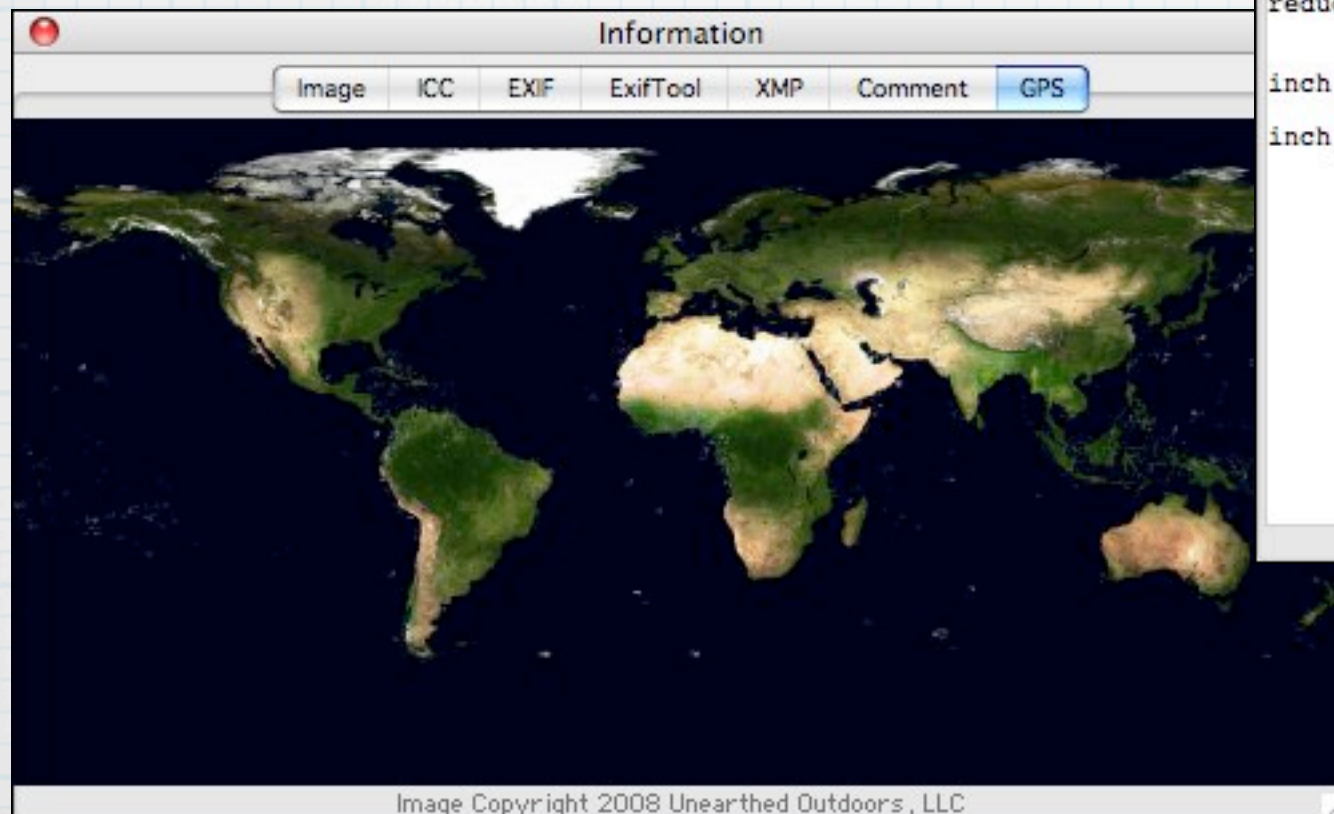
Geo-tagging by GPS  
equipped cameras





# GraphicConverter

\* Each program  
does it  
differently



# Photoshop

\* One of several windows

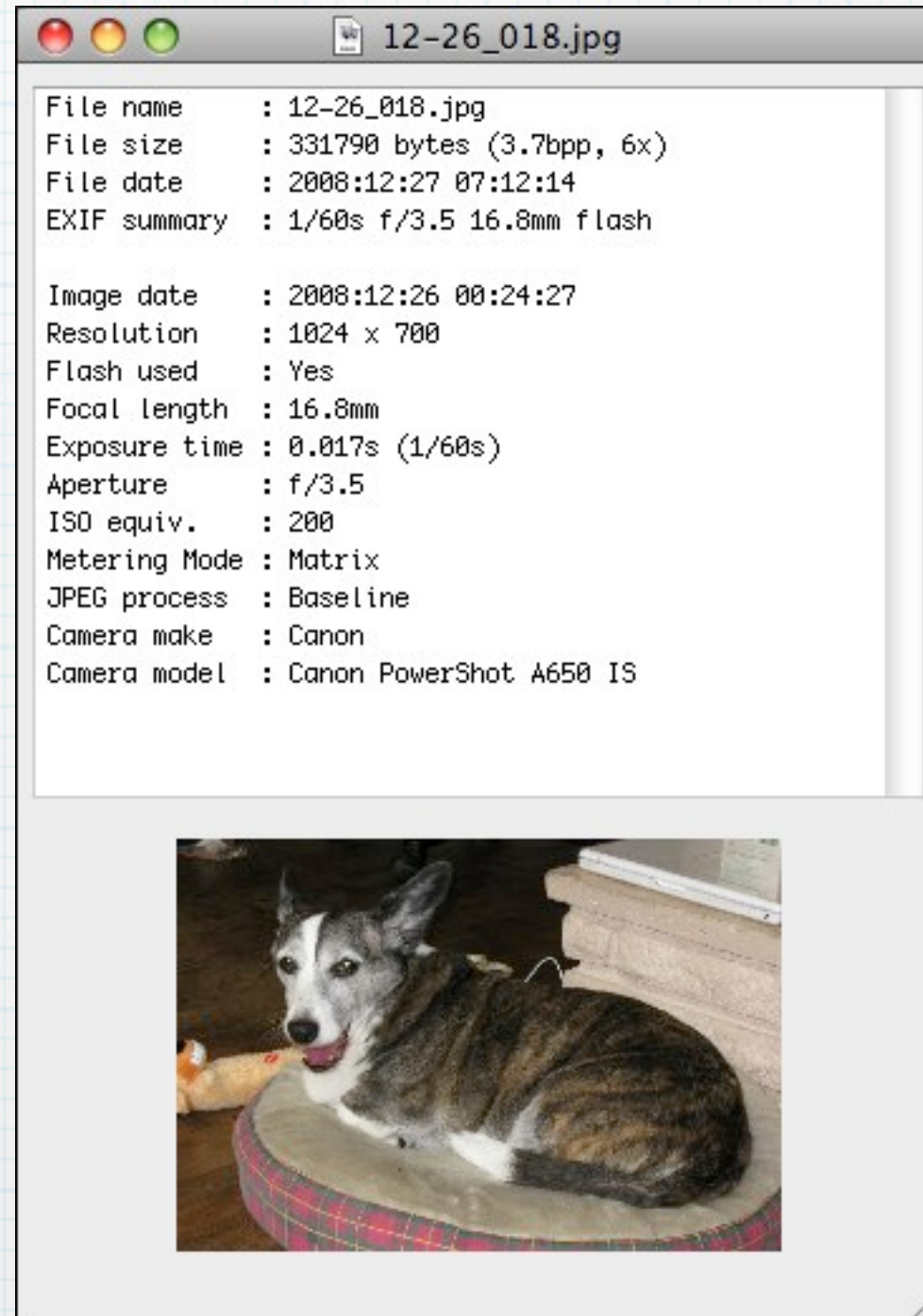
Camera Data 1	
Make:	Canon
Model:	Canon PowerShot A650 IS
Date Time:	2008-12-26T00:24:27-08:00
Shutter Speed:	1/60 sec
Exposure Program:	
F-Stop:	f/3.5
Aperture Value:	f/3.5
Max Aperture Value:	f/3.5
ISO Speed Ratings:	200
Focal Length:	16.8 mm
Lens:	7.4-44.4 mm
Flash:	Fired
	No strobe return detection (0)
	Auto mode (3)
	Flash function present
	Red-eye reduction
Metering Mode:	Pattern



# EXIF Viewer

\* Quick view

\* Freeware





# PhotoToolCM

- \* **No Intel Leopard**
- \* **Really quick**
- \* **A free contextual menu (CM) item**  
**Goes in CM folder**
- \* **Give EXIF info and is a photo utility**



# PhotoToolCM

## EXIF Info

Copy All Information  
Copy EXIF Information Only

File name: dog.jpg  
File size: 324 KB (331,790 bytes)  
File created: 2009:02:08 06:38:06  
File modified: 2008:12:27 07:12:14  
File type/creator: <none>/<none>

Resolution: 1024 x 700  
Jpeg process : Baseline  
Resource fork: None  
Comment: None  
Exif data: Yes (600 bytes)  
Exif thumbnail: None

Camera make: Canon  
Camera model: Canon PowerShot A650 IS  
Date/Time: 2008:12:26 00:24:27  
Flash used: Yes  
Focal length: 16.8mm  
Exposure time: 0.017 s (1/60)  
Aperture: f/3.5  
ISO equiv.: 200  
Metering Mode: matrix



# PhotoToolCM

Cameras date/time stamp photos

## Photo Utility

Lossless Rotate 180  
Lossless Rotate 90 CW  
Lossless Rotate 90 CCW  
Lossless Flip Horizontal  
Lossless Flip Vertical  
Lossless Automatic Transform


Edit Comment...  
Edit Exif Date...  
Lossless Cleaning (Reduce Size)...

Change File Dates to Exif Date  
Batch Rename using Exif Date

Batch Resize...  
Add Frame...

Preferences...

Edit EXIF Date/Time



Mode:

Absolute Date/Time

Year	Month	Day	Hour	Minute	Second
<input type="text" value="2008"/>	<input type="text" value="12"/>	<input type="text" value="26"/>	<input type="text" value="00"/>	<input type="text" value="24"/>	<input type="text" value="27"/>

Relative Day/Time (Offset)

Day	Hour	Minute	Second
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

\* Use minus (-) for negative offset in each field  
\* Blank fields are assumed to be equal to zero (0)