

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0		
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## **ABOUT MetaData**

### **Abstract**

Some information and reference sites relating to MetaData.

Overview of ExifTool

<http://www.sno.phy.queensu.ca/~phil/exiftool/under.html>

Tag Names :

<http://www.sno.phy.queensu.ca/~phil/exiftool/TagNames/>

Composite Tags

<http://www.sno.phy.queensu.ca/~phil/exiftool/TagNames/Composite.html>

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## 1 METADATA

MetaData is used extensively by Adobe in their Lightroom program.

Reference Documents “Understanding Metadata” & “MetaData Demistified”

There are three main types of metadata:

- **Descriptive metadata** describes a resource for purposes such as discovery and identification. It can include elements such as title, abstract, author, and keywords.
- **Structural metadata** indicates how compound objects are put together, for example, how pages are ordered to form chapters.
- **Administrative metadata** provides information to help manage a resource, such as when and how it was created, file type and other technical information, and who can access it. There are several subsets of administrative data, two that sometimes are listed as separate metadata types are:
  - **Rights management metadata**, which deals with intellectual property rights, and
  - **Preservation metadata**, which contains information needed to archive and preserve a resource.

**EXIF** “EXchangeable Image file format” – a standard for image file formats, jointly managed by Japan Electronics and Information Technology industries Association (JEITA) and Camera and Imaging Products Association (CIPA) . In particular, the Exif image interchange format defines a set of TIFF tags that describe photographic images, and is widely used by digital cameras.

Exif metadata can be found in TIFF, JPEG, and PSD files.

**TIFF** Tagged Image File Format

**RDF** The “Resource Description Framework (RDF)”, described by the W3C as a “framework for representing information in the Web”, has become a general model for representing metadata

**XMP** “Extensible Metadata Platform” – multimedia metadata standard introduced by Adobe

**Dublin Core** A metadata element set. It includes all DCMI terms (i.e. refinements, encoding schemes and controlled vocabulary terms) intended to facilitate discovery of resources.

**IPTC** “International Press Telecommunications Council”  
– creator and maintainer of metadata standards

**IPTC-IIM** “Information Interchange Model” – IPTC multimedia metadata standard

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<b>IPTC Core</b>	IPTC photo metadata standard based on XMP
<b>IPTC Extension</b>	Extended IPTC photo metadata standard based on XMP
<b>JPEG</b>	A file format, widely used in image and photography workflows
<b>MWG</b>	“Metadata Working Group” – Industry consortium responsible for this document

Metadata is an essential part of image and photography based workflows. Cameras capture device metadata while taking pictures.

## 1.1 DCF - DESIGN RULE FOR CAMERA FILE SYSTEM

As Digital Still Cameras (DSC) have grown enormously in popularity, there is a growing need for the direct exchange of images between cameras and other equipment, allowing pictures taken on one camera to be viewed on another, or to be sent to a printer. The DCF specification is intended to simplify the interchange of files between digital still cameras and other equipment. To this end, it specifies rules for recording, reading and handling image files and other related files used by DSC and other equipment. Among other things, DCF defines a subset of EXIF where some properties are optional in EXIF but required in DCF.

**APEX**— The Additive System of Photographic Exposure

## 1.2 METADATA STANDARDS

EXIF	<a href="http://www.jeita.or.jp">http://www.jeita.or.jp</a> / <a href="http://www.cipa.jp">http://www.cipa.jp</a>
IPTC	<a href="http://www.iptc.org">http://www.iptc.org</a>
IPTC-IIM	<a href="http://www.iptc.org/IIM">http://www.iptc.org/IIM</a>
IPTC Core for XMP	<a href="http://www.iptc.org/photometadata">http://www.iptc.org/photometadata</a>
IPTC Extension for XMP	<a href="http://www.iptc.org/photometadata">http://www.iptc.org/photometadata</a>
XMP	<a href="http://www.adobe.com/products/xmp">http://www.adobe.com/products/xmp</a>

## 1.3 METADATA SPECIFICATIONS

Exif 2.3 , TIFF 6.0  
<http://www.EXIF.org>

[http://www.cipa.jp/english/hyoujunka/kikaku/pdf/DC-008-2010\\_E.pdf](http://www.cipa.jp/english/hyoujunka/kikaku/pdf/DC-008-2010_E.pdf)

DCF 2.0 (2010) Design Rule for Camera File System  
[http://www.cipa.jp/english/hyoujunka/kikaku/pdf/DC-009-2010\\_E.pdf](http://www.cipa.jp/english/hyoujunka/kikaku/pdf/DC-009-2010_E.pdf)

IPTC-IIM 4.1 International Press Telecommunications Council  
<http://www.iptc.org/std/IIM/4.1/specification/IIMV4.1.pdf>

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IPTC Core 1.0

[http://www.iptc.org/std/lptc4xmpCore/1.0/specification/lptc4xmpCore\\_1.0-spec-XMPSchema\\_8.pdf](http://www.iptc.org/std/lptc4xmpCore/1.0/specification/lptc4xmpCore_1.0-spec-XMPSchema_8.pdf)

IPTC Core 1.1 & IPTC Extension 1.1

<http://www.iptc.org/std/photometadata/specification/IPTC-PhotoMetadata-201007.pdf>

XMP Adobe's Extensible Metadata Platform

<http://www.adobe.com/devnet/xmp/>

File Format Specifications

JPEG

<http://www.jpeg.org/jpeg/>

TIFF Tagged Image File Format – Adobe Uncompressed

<http://partners.adobe.com/public/developer/en/tiff/TIFF6.pdf>

PSD/PSIRs

<http://www.adobe.com/go/psir>

Miscellaneous

RDF

<http://www.w3.org/TR/rdf-schema>

Dublin Core

<http://dublincore.org/documents/dces>

Simply defined, metadata is "data about data." Used in the context of digital spatial data, metadata is the background information which describes the content, quality, condition, and other appropriate characteristics of the data.

Paper maps contain metadata, primarily as part of the map legend. In this form, metadata is readily apparent and easily transferred between map producers.

Metadata creation is typically considered to be an obligation of the data producer.

IPTC International Press Telecommunications Council

[www.iptc.org](http://www.iptc.org)

## 1.4 SMALL GLOSSARY

CIPA	Camera and Imaging Products Association
JEITA	Japan Electronics Industry Technology Association
JEITA CP-3451B	
CIPA DC-008-2910	
JEIDA	Japan Electronics Industry Development Association
EXIF	Exchangeable Image File Format for Digital Still Cameras
DCF	Design Rule for Camera File System
CIFF	Camera Image File Format

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APEX	Additive System of Photographic Exposure
TIFF	Tagged Image File Format – Adobe Uncompressed
JPEG or JPG	Joint Photographic Experts Group – Compressed
JFIF	JPEG File Interchange Format
MIE	Meta Information Encapsulation
IPTC	International Press Telecommunications Council

## 1.5 INTRODUCTION TO IPTC PHOTO METADATA

### Overview

IPTC Photo Metadata provides data about photographs and the values can be processed by software. Each individual metadata entity is called a property and they are grouped into Administrative, Descriptive and Rights Related properties. IPTC Photo Metadata properties have photo specific definitions that are widely supported by imaging software.

IPTC Photo Metadata aligns with other IPTC metadata standards that are made for media items of any media-type. Thus they integrate with media-type agnostic digital asset management systems.

The IPTC Photo Metadata (July 2010) specification is split into two different schemas:

- The IPTC Core 1.1 schema which refers back to properties from the IPTC "Information Interchange Model" (IIM) standard (IPTC IIM).
- The IPTC Extension 1.1 schema extends and complements the IPTC Core schema by a set of more granular properties and further specialised rights-related properties from the PLUS metadata schema (PLUS).

This allows users to decide whether ...

- ... to use only the IPTC Core schema that has a higher backward compatibility, but less refined metadata
- ... or to use the IPTC Core and the IPTC Extension schema with refined and specialised metadata, but restricted backward compatibility.

### Technical Metadata

Digital cameras capture metadata at the time the image is taken reflecting technical characteristics. Such metadata may include, but is not limited to, generic camera metadata, camera manufacturer-specific metadata, ICC profiles and positioning data.

Standards for these metadata are not subject to IPTC Standards, but are under the control of the camera manufacturers, their associations (such as CIPA) and others. Because the IPTC acknowledges these technical metadata standards of other bodies and does not wish to duplicate existing metadata properties, the IPTC Photo Metadata specification does not include any technical metadata.

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## 2 GUI2 EXAMPLES - METADATA

The following are Output Examples generated by the GUI2 program

### 2.1 GUI2 EXAMPLE 1 – EXIF METADATA FROM CANON EOS 7D

From Image File C:\A\_GUI2\_ Test\Aidan\_Charles\_0166.JPG

Total (EXIF:All) Tags = 42 (Includes Composite Tags)

```
>----- SORTED Tag Position
|
|      >--- UnSorted Tag Reference [EXIF:All] with ExifTool Ver: 8.56
|      |
|      |      >---- Tag Slogan (All Tags)
|      |      |
|      |      |      >-- Tag Data
|      |      |      |
|      |      |      |
1      20  Aperture Value           : 6.4
2      8   Artist                   : Andrew Quinlan
3      2   Camera Model Name       : Canon EOS 7D
4      28  Color Space              : sRGB
5      18  Components Configuration : Y, Cb, Cr, -
6      40  Compression             : JPEG (old-style)
7      10  Copyright               :
8      17  Create Date             : 2011:05:15 14:26:08
9      36  Custom Rendered         : Normal
10     16  Date/Time Original       : 2011:05:15 14:26:08
11     30  Exif Image Height        : 3456
12     29  Exif Image Width         : 5184
13     15  Exif Version             : 0221
14     37  Exposure Mode            : Auto
15     13  Exposure Program         : Program AE
16     11  Exposure Time            : 1/125
17     12  F Number                 : 6.3
18     21  Flash                    : Off, Did not fire
19     27  Flashpix Version         : 0100
20     22  Focal Length              : 18.0 mm
21     35  Focal Plane Resolution Unit : inches
22     33  Focal Plane X Resolution  : 5715.545755
23     34  Focal Plane Y Resolution  : 5808.403361
24     39  GPS Version ID           : 2.2.0.0
25     31  Interoperability Index   : R98 - DCF basic file (sRGB)
26     32  Interoperability Version : 0100
27     14  ISO                      : 100
28     1   Make                     : Canon
29     7   Modify Date              : 2011:05:15 14:26:08
30     3   Orientation              : Horizontal (normal)
31     6   Resolution Unit          : inches
32     38  Scene Capture Type       : Standard
33     19  Shutter Speed Value      : 1/128
34     24  Sub Sec Time             : 75
35     26  Sub Sec Time Digitized   : 75
36     25  Sub Sec Time Original    : 75
37     42  Thumbnail Length         : 19013
38     41  Thumbnail Offset        : 11000
39     23  User Comment             :
40     4   X Resolution             : 72
41     9   Y Cb Cr Positioning      : Co-sited
42     5   Y Resolution             : 72
```

....END

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## 2.2 GUI2 EXAMPLE 2 - METADATA FROM CANON EOS 7D

This Example was generated by GUI2 , A Menu Option a) using Exiftool.  
This is a Sorted Output - sorted on Tag Slogan.

From Image File C:\Documents and Settings\Andrew Quinlan\My Documents\My Pictures\2011\_05\_15\Aidan\_Charles\_0166.JPG

Total Tags = 386 (Includes Composite Tags) and Duplicate Tags

```
>----- SORTED Tag Position
|
| >--- UnSorted Tag Reference [-a -m -u -g ] with Ver: 8.56
|
| >----- Tag Slogan (All Tags)
| | >--- Tag Data
| | |
| | |
1 | 261 Add Aspect Ratio Info : Off
2 | 260 Add Original Decision Data : Off
3 | 238 AEB Auto Cancel : On
4 | 109 AEB Bracket Value : 0
5 | 239 AEB Sequence : 0,-,+
6 | 212 AF Area Heights : 266 266 266 266 266 266 266 266 266 266 266 266
266 266 266 266 266 266 266 266
7 | 204 AF Area Mode : Multi-point AF or AI AF
8 | 211 AF Area Widths : 222 222 222 222 222 222 222 222 222 222 222 222
222 222 222 222 222 222 222 222
9 | 213 AF Area X Positions : -1373 -881 -881 -881 -393 -393 -393 0 0 0 0
0 393 393 393 881 881 881 1373
10 | 214 AF Area Y Positions : 0 393 0 -393 393 0 -393 743 393 0 -393 -743
393 0 -393 393 0 -393 0
11 | 255 AF Assist Beam : Emits
12 | 210 AF Image Height : 3456
13 | 209 AF Image Width : 5184
14 | 203 AF Info Size : 182
15 | 354 AF Micro Adj Active : No
16 | 355 AF Micro Adj Value : 0
17 | 249 AF Microadjustment : Disable; 0; 0; 0; 0
18 | 215 AF Points In Focus : 0,1,9,10,13,14,17
19 | 216 AF Points Selected :
0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18
20 | 247 AI Servo Image Priority : 1: AF, 2: Tracking
21 | 246 AI Servo Tracking Method : Main focus point priority
22 | 245 AI Servo Tracking Sensitivity : Standard
23 | 364 Aperture : 6.3
24 | 34 Aperture Value : 6.4
25 | 22 Artist : Andrew Quinlan
26 | 262 Aspect Ratio : 3:2
27 | 108 Auto Exposure Bracketing : Off
28 | 95 Auto ISO : 100
29 | 362 Auto Lighting Optimizer : Strong
30 | 96 Base ISO : 100
31 | 12 Bits Per Sample : 8
32 | 349 Black Level : 129 129 129
33 | 289 Black Mask Bottom Border : 0
34 | 286 Black Mask Left Border : 0
```

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```

35 288 Black Mask Right Border : 0
36 287 Black Mask Top Border : 0
37 379 Blue Balance : 1.599609
38 218 Bracket Mode : Off
39 220 Bracket Shot Number : 0
40 219 Bracket Value : 0
41 114 Bulb Duration : 0
42 333 Camera Color Calibration 01 : -371 353 962 (10900K)
43 334 Camera Color Calibration 02 : -345 364 929 (10000K)
44 335 Camera Color Calibration 03 : -304 382 872 (8300K)
45 336 Camera Color Calibration 04 : -258 406 819 (7000K)
46 337 Camera Color Calibration 05 : -200 439 756 (6000K)
47 338 Camera Color Calibration 06 : -173 454 726 (5600K)
48 339 Camera Color Calibration 07 : -141 473 694 (5200K)
49 340 Camera Color Calibration 08 : -92 499 643 (4700K)
50 341 Camera Color Calibration 09 : -34 536 588 (4200K)
51 342 Camera Color Calibration 10 : 23 579 544 (3800K)
52 343 Camera Color Calibration 11 : 74 621 505 (3500K)
53 344 Camera Color Calibration 12 : 136 673 462 (3200K)
54 345 Camera Color Calibration 13 : 187 716 425 (3000K)
55 346 Camera Color Calibration 14 : 232 766 402 (2800K)
56 347 Camera Color Calibration 15 : 344 898 346 (2400K)
57 75 Camera ISO : Auto
58 16 Camera Model Name : Canon EOS 7D
59 130 Camera Orientation : Horizontal (normal)
60 105 Camera Temperature : 17 C
61 128 Camera Temperature : 17 C
62 115 Camera Type : EOS High-end
63 202 Canon 0x0019 : 1
64 350 Canon 0x4009 : 0 0 0
65 352 Canon 0x4011 : [...]
66 353 Canon 0x4012 :
67 361 Canon 0x4017 : 327942 2105278464
68 78 Canon Exposure Mode : Program AE
69 118 Canon Firmware Version : Firmware Version 1.2.5
70 94 Canon Flash Info : 0 0 0 0
71 66 Canon Flash Mode : Off
72 208 Canon Image Height : 3456
73 70 Canon Image Size : Large
74 117 Canon Image Type : Canon EOS 7D
75 207 Canon Image Width : 5184
76 199 Canon Model ID : EOS 7D
77 380 Circle Of Confusion : 0.019 mm
78 13 Color Components : 3
79 290 Color Data Version : 7 (500D/550D/7D/1DmkIV)
80 44 Color Space : sRGB
81 278 Color Space : sRGB
82 292 Color Temp As Shot : 4863
83 294 Color Temp Auto : 4863
84 304 Color Temp Cloudy : 6000
85 300 Color Temp Daylight : 5200
86 312 Color Temp Flash : 6172
87 308 Color Temp Fluorescent : 3769
88 310 Color Temp Kelvin : 5200
89 296 Color Temp Measured : 4863
90 302 Color Temp Shade : 7000
91 306 Color Temp Tungsten : 3200
92 298 Color Temp Unknown : 0
93 330 Color Temp Unknown 10 : 4010
94 332 Color Temp Unknown 11 : 4010
95 314 Color Temp Unknown 2 : 5200
96 316 Color Temp Unknown 3 : 5200
97 318 Color Temp Unknown 4 : 5200
98 320 Color Temp Unknown 5 : 5200

```



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```

99 322 Color Temp Unknown 6 : 5200
100 324 Color Temp Unknown 7 : 4010
101 326 Color Temp Unknown 8 : 4010
102 328 Color Temp Unknown 9 : 4010
103 134 Color Temperature : 5200
104 272 Color Temperature : 5200
105 90 Color Tone : Normal
106 169 Color Tone Faithful : 0
107 157 Color Tone Landscape : 0
108 175 Color Tone Monochrome : 0
109 163 Color Tone Neutral : 0
110 151 Color Tone Portrait : 0
111 145 Color Tone Standard : 0
112 181 Color Tone User Def 1 : 0
113 187 Color Tone User Def 2 : 0
114 193 Color Tone User Def 3 : 0
115 32 Components Configuration : Y, Cb, Cr, -
116 57 Compression : JPEG (old-style)
117 67 Continuous Drive : Single
118 73 Contrast : Normal
119 166 Contrast Faithful : 0
120 154 Contrast Landscape : 0
121 172 Contrast Monochrome : 0
122 160 Contrast Neutral : 0
123 148 Contrast Portrait : 0
124 142 Contrast Standard : 0
125 178 Contrast User Def 1 : 0
126 184 Contrast User Def 2 : 0
127 190 Contrast User Def 3 : 0
128 110 Control Mode : Camera Local Control
129 24 Copyright :
130 31 Create Date : 2011:05:15 14:26:08
131 374 Create Date : 2011:05:15 14:26:08.75
132 234 Crop Bottom Margin : 0
133 231 Crop Left Margin : 0
134 232 Crop Right Margin : 0
135 233 Crop Top Margin : 0
136 264 Cropped Image Height : 3456
137 263 Cropped Image Width : 5184
138 258 Custom Controls : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
222 222 222 222

139 351 Custom Picture Style File Name :
140 52 Custom Rendered : Normal
141 30 Date/Time Original : 2011:05:15 14:26:08
142 375 Date/Time Original : 2011:05:15 14:26:08.75
143 259 Dial Direction Tv Av : Normal
144 274 Digital Gain : 0
145 72 Digital Zoom : None
146 2 Directory : C:/Documents and Settings/Andrew Quinlan/
My Documents/My Pictures/2011_05_15
147 141 Directory Index : 100
148 253 Display All AF Points : Enable
149 365 Drive Mode : Single-frame Shooting
150 230 Dust Removal Data : (Binary data 1024 bytes,
use -b option to extract)

151 71 Easy Mode : Manual
152 11 Encoding Process : Baseline DCT, Huffman coding
153 8 Exif Byte Order : Little-endian (Intel, II)
154 46 Exif Image Height : 3456
155 45 Exif Image Width : 5184
156 29 Exif Version : 0221
157 35 Exposure Compensation : 0
158 100 Exposure Compensation : 0
159 235 Exposure Level Increments : 1/3 Stop
    
```

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```

160 53 Exposure Mode : Auto
161 27 Exposure Program : Program AE
162 25 Exposure Time : 1/125
163 112 Exposure Time : 1/117
164 122 Exposure Time : 1/128
165 26 F Number : 6.3
166 111 F Number : 6.3
167 121 F Number : 6.4
168 381 Field Of View : 65.0 deg
169 140 File Index : 384
170 4 File Modification Date/Time : 2011:05:15 14:58:35+01:00
171 1 File Name : Aidan_Charles_0166.JPG
172 366 File Number : 100-0384
173 5 File Permissions : rw-rw-rw-
174 3 File Size : 8.9 MB
175 6 File Type : JPEG
176 170 Filter Effect Faithful : 0
177 158 Filter Effect Landscape : 0
178 176 Filter Effect Monochrome : None
179 164 Filter Effect Neutral : 0
180 152 Filter Effect Portrait : 0
181 146 Filter Effect Standard : 0
182 182 Filter Effect User Def 1 : None
183 188 Filter Effect User Def 2 : None
184 194 Filter Effect User Def 3 : None
185 139 Firmware Version : 1.2.5
186 37 Flash : Off, Did not fire
187 85 Flash Activity : 0
188 86 Flash Bits : (none)
189 107 Flash Exposure Compensation : 0
190 227 Flash Exposure Lock : Off
191 106 Flash Guide Number : 0
192 127 Flash Metering Mode : Off
193 241 Flash Sync Speed Av : Auto
194 43 Flashpix Version : 0100
195 38 Focal Length : 18.0 mm
196 91 Focal Length : 18 mm
197 129 Focal Length : 18 mm
198 382 Focal Length : 18.0 mm (35 mm equivalent: 28.3 mm)
199 51 Focal Plane Resolution Unit : inches
200 49 Focal Plane X Resolution : 5715.545755
201 92 Focal Plane X Unknown : 11675
202 50 Focal Plane Y Resolution : 5808.403361
203 93 Focal Plane Y Unknown : 19690
204 82 Focal Units : 1/mm
205 254 Focus Display AI Servo And MF : Enable
206 132 Focus Distance Lower : 0.9 m
207 131 Focus Distance Upper : 0.94 m
208 68 Focus Mode : One-shot AF
209 77 Focus Range : Not Known
210 56 GPS Version ID : 2.2.0.0
211 135 High ISO Noise Reduction : Standard
212 243 High ISO Noise Reduction : Standard
213 124 Highlight Tone Priority : Off
214 244 Highlight Tone Priority : Disable
215 383 Hyperfocal Distance : 2.69 m
216 10 Image Height : 3456
217 368 Image Size : 5184x3456
218 9 Image Width : 5184
219 229 Internal Serial Number : S0882487A
220 47 Interoperability Index : R98 - DCF basic file (sRGB)
221 48 Interoperability Version : 0100
222 28 ISO : 100
223 123 ISO : 100

```

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```

224 367 ISO : 100
225 237 ISO Expansion : Off
226 236 ISO Speed Increments : 1/3 Stop
227 369 Lens : 18.0 - 135.0 mm
228 384 Lens : 18.0 - 135.0 mm (35 mm equivalent:
                28.3 - 212.0 mm)
229 248 Lens Drive No AF : Focus search on
230 370 Lens ID : Canon EF-S 18-135mm f/3.5-5.6 IS
231 228 Lens Model : EF-S18-135mm f/3.5-5.6 IS
232 363 Lens Serial Number : 00002008af
233 79 Lens Type : Canon EF-S 18-135mm f/3.5-5.6 IS
234 136 Lens Type : Canon EF-S 18-135mm f/3.5-5.6 IS
235 385 Light Value : 12.3
236 226 Live View Shooting : Off
237 242 Long Exposure Noise Reduction : Off
238 222 Long Exposure Noise Reduction 2 : Off
239 80 Long Focal : 135 mm
240 138 Long Focal : 135 mm
241 63 Macro Mode : Normal
242 15 Make : Canon
243 251 Manual AF Point Select Pattern : Stops at AF area edges
244 89 Manual Flash Output : n/a
245 83 Max Aperture : 3.6
246 97 Measured EV : 12.25
247 126 Measured EV : 12.25
248 113 Measured EV 2 : 12
249 125 Measured EV 2 : 12
250 277 Measured RGGB : 525 1024 1024 542
251 36 Metering Mode : Multi-segment
252 76 Metering Mode : Evaluative
253 7 MIME Type : image/jpeg
254 84 Min Aperture : 23
255 257 Mirror Lockup : Disable
256 21 Modify Date : 2011:05:15 14:26:08
257 376 Modify Date : 2011:05:15 14:26:08.75
258 116 ND Filter : n/a
259 205 Num AF Points : 19
260 104 Optical Zoom Code : n/a
261 17 Orientation : Horizontal (normal)
262 256 Orientation Linked AF Point : Same for verical and horizontal
263 217 Original Decision Data Offset : 0
264 359 Original Image Height : 3456
265 358 Original Image Width : 5184
266 119 Owner Name :
267 356 Peripheral Lighting : On
268 360 Peripheral Lighting Setting : On
269 357 Peripheral Lighting Value : 35
270 273 Picture Style : Standard
271 65 Quality : Fine
272 221 Raw Jpg Size : Large
273 348 Raw Measured RGGB : 486448 994230 991205 509652
274 69 Record Mode : JPEG
275 386 Red Balance : 2.165039
276 20 Resolution Unit : inches
277 60 Resolution Unit : inches
278 240 Safety Shift : Disable
279 74 Saturation : Normal
280 168 Saturation Faithful : 0
281 156 Saturation Landscape : 0
282 174 Saturation Monochrome : 0
283 162 Saturation Neutral : 0
284 150 Saturation Portrait : 0
285 144 Saturation Standard : 0
286 180 Saturation User Def 1 : 0

```

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```

287 186 Saturation User Def 2 : 0
288 192 Saturation User Def 3 : 0
289 371 Scale Factor To 35 mm Equivalent: 1.6
290 55 Scene Capture Type : Standard
291 250 Select AF Area Select Mode : Disable; 7
292 64 Self Timer : Off
293 269 Sensor Blue Level : 0
294 285 Sensor Bottom Border : 3511
295 281 Sensor Height : 3516
296 282 Sensor Left Border : 168
297 268 Sensor Red Level : 0
298 284 Sensor Right Border : 5351
299 283 Sensor Top Border : 56
300 280 Sensor Width : 5360
301 120 Serial Number : 1961001940
302 201 Serial Number Format : Format 2
303 266 Sharpness : 3
304 167 Sharpness Faithful : 0
305 267 Sharpness Frequency : n/a
306 155 Sharpness Landscape : 4
307 173 Sharpness Monochrome : 3
308 161 Sharpness Neutral : 0
309 149 Sharpness Portrait : 2
310 143 Sharpness Standard : 3
311 179 Sharpness User Def 1 : 3
312 185 Sharpness User Def 2 : 3
313 191 Sharpness User Def 3 : 3
314 372 Shooting Mode : Program AE
315 81 Short Focal : 18 mm
316 137 Short Focal : 18 mm
317 103 Shot Number In Continuous Burst : 0
318 373 Shutter Speed : 1/125
319 33 Shutter Speed Value : 1/128
320 102 Slow Shutter : None
321 40 Sub Sec Time : 75
322 42 Sub Sec Time Digitized : 75
323 41 Sub Sec Time Original : 75
324 98 Target Aperture : 6.3
325 99 Target Exposure Time : 1/128
326 377 Thumbnail Image : (Binary data 19013 bytes,
use -b option to extract)
327 200 Thumbnail Image Valid Area : 0 159 7 112
328 62 Thumbnail Length : 19013
329 61 Thumbnail Offset : 11000
330 265 Tone Curve : Standard
331 171 Toning Effect Faithful : 0
332 159 Toning Effect Landscape : 0
333 177 Toning Effect Monochrome : None
334 165 Toning Effect Neutral : 0
335 153 Toning Effect Portrait : 0
336 147 Toning Effect Standard : 0
337 183 Toning Effect User Def 1 : None
338 189 Toning Effect User Def 2 : None
339 195 Toning Effect User Def 3 : None
340 39 User Comment :
341 196 User Def 1 Picture Style : Standard
342 197 User Def 2 Picture Style : Standard
343 198 User Def 3 Picture Style : Standard
344 206 Valid AF Points : 19
345 252 VF Display Illumination : Auto
346 279 VRD Offset : 0
347 223 WB Bracket Mode : Off
348 224 WB Bracket Value AB : 0
349 225 WB Bracket Value GM : 0

```

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		<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf	

```

350 378 WB RGGG Levels           : 2217 1024 1024 1638
351 291 WB RGGG Levels As Shot   : 2217 1024 1024 1638
352 293 WB RGGG Levels Auto      : 2217 1024 1024 1638
353 303 WB RGGG Levels Cloudy    : 2389 1024 1024 1387
354 299 WB RGGG Levels Daylight  : 2217 1024 1024 1511
355 311 WB RGGG Levels Flash     : 2450 1024 1024 1380
356 307 WB RGGG Levels Fluorescent : 1956 1024 1024 2127
357 309 WB RGGG Levels Kelvin    : 2217 1024 1024 1511
358 295 WB RGGG Levels Measured  : 2215 1023 1024 1637
359 301 WB RGGG Levels Shade     : 2583 1024 1024 1280
360 305 WB RGGG Levels Tungsten  : 1558 1024 1024 2270
361 297 WB RGGG Levels Unknown   : 0 0 0 0
362 329 WB RGGG Levels Unknown 10 : 1041 1024 1024 1027
363 331 WB RGGG Levels Unknown 11 : 1041 1024 1024 1027
364 313 WB RGGG Levels Unknown 2  : 2217 1024 1024 1511
365 315 WB RGGG Levels Unknown 3  : 2217 1024 1024 1511
366 317 WB RGGG Levels Unknown 4  : 2217 1024 1024 1511
367 319 WB RGGG Levels Unknown 5  : 2217 1024 1024 1511
368 321 WB RGGG Levels Unknown 6  : 2217 1024 1024 1511
369 323 WB RGGG Levels Unknown 7  : 1041 1024 1024 1027
370 325 WB RGGG Levels Unknown 8  : 1041 1024 1024 1027
371 327 WB RGGG Levels Unknown 9  : 1041 1024 1024 1027
372 275 WB Shift AB              : 0
373 276 WB Shift GM              : 0
374 54 White Balance             : Auto
375 101 White Balance            : Auto
376 133 White Balance            : Auto
377 271 White Balance Blue       : 0
378 270 White Balance Red        : 0
379 18 X Resolution              : 72
380 58 X Resolution              : 72
381 23 Y Cb Cr Positioning       : Co-sited
382 14 Y Cb Cr Sub Sampling      : YCbCr4:2:2 (2 1)
383 19 Y Resolution              : 72
384 59 Y Resolution              : 72
385 87 Zoom Source Width         : 0
386 88 Zoom Target Width         : 0

```

....END

## 2.3

### GUI2 EXAMPLE 3 - METADATA FROM CANON EOS 7D

This Example was generated by GUI2 , A Menu Option c) using Exiftool.

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This is a Sorted Output - sorted on Tag Slogan.  
 Note: Tag Group is shown in this output

The Unsorted reference refers to Tag output order from ExifTool before GUI2 does the transformation below .  
 This is useful for learning about MetaData and how it could help to analyze and Improve your photography.

From Image File C:\Documents and Settings\Andrew Quinlan\My Documents\My Pictures\2011\_05\_15\Aidan\_Charles\_0166.JPG

Total Tags = 386 (Includes Composite Tags) and Duplicate Tags

```
>----- SORTED Tag Position
|
|   >--- UnSorted Tag Reference [ExifTool -a -m -u -G ] with Ver: 8.56
|   |
|   |   >----- Tag Group
|   |   |
|   |   |   >--- Tag Slogan (All Tags)
|   |   |   |
|   |   |   |   >--- Tag Data
|   |   |   |   |
1  261 [MakerNotes]  Add Aspect Ratio Info           : Off
2  260 [MakerNotes]  Add Original Decision Data       : Off
3  238 [MakerNotes]  AEB Auto Cancel                  : On
4  109 [MakerNotes]  AEB Bracket Value                : 0
5  239 [MakerNotes]  AEB Sequence                     : 0,-,+
6  212 [MakerNotes]  AF Area Heights(19)              : 266 266 266 266 266 266 266
                                     266 266 266 266 266 266 266
7  204 [MakerNotes]  AF Area Mode                      : Multi-point AF or AI AF
8  211 [MakerNotes]  AF Area Widths(19)               : 222 222 222 222 222 222 222
                                     222 222 222 222 222 222 222
9  213 [MakerNotes]  AF Area X Positions(9)           : -1373 -881 -881 -881 -393 -393
                                     -393 0 0 0 0 393 393 393 881 881 1373
10 214 [MakerNotes]  AF Area Y Positions(9)          : 0 393 0 -393 393 0 -393 743
                                     393 0 -393 -743 393 0 -393 393 0 -393 0
11 255 [MakerNotes]  AF Assist Beam                   : Emits
12 210 [MakerNotes]  AF Image Height                  : 3456
13 209 [MakerNotes]  AF Image Width                   : 5184
14 203 [MakerNotes]  AF Info Size                     : 182
15 354 [MakerNotes]  AF Micro Adj Active              : No
16 355 [MakerNotes]  AF Micro Adj Value               : 0
17 249 [MakerNotes]  AF Microadjustment               : Disable; 0; 0; 0; 0
18 215 [MakerNotes]  AF Points In Focus               : 0,1,9,10,13,14,17
19 216 [MakerNotes]  AF Points Selected               :
                                     0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18
20 247 [MakerNotes]  AI Servo Image Priority           : 1: AF, 2: Tracking
21 246 [MakerNotes]  AI Servo Tracking Method         : Main focus point priority
22 245 [MakerNotes]  AI Servo Tracking Sensitivity    : Standard
23 364 [Composite]   Aperture                          : 6.3
24 34 [EXIF]         Aperture Value                    : 6.4
25 22 [EXIF]         Artist                          : Andrew Quinlan
26 262 [MakerNotes]  Aspect Ratio                      : 3:2
27 108 [MakerNotes]  Auto Exposure Bracketing         : Off
28 95 [MakerNotes]   Auto ISO                          : 100
29 362 [MakerNotes]  Auto Lighting Optimizer          : Strong
30 96 [MakerNotes]   Base ISO                          : 100
31 12 [File]         Bits Per Sample                    : 8
32 349 [MakerNotes]  Black Level                       : 129 129 129
33 289 [MakerNotes]  Black Mask Bottom Border         : 0
```

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```

34 286 [MakerNotes] Black Mask Left Border : 0
35 288 [MakerNotes] Black Mask Right Border : 0
36 287 [MakerNotes] Black Mask Top Border : 0
37 379 [Composite] Blue Balance : 1.599609
38 218 [MakerNotes] Bracket Mode : Off
39 220 [MakerNotes] Bracket Shot Number : 0
40 219 [MakerNotes] Bracket Value : 0
41 114 [MakerNotes] Bulb Duration : 0
42 333 [MakerNotes] Camera Color Calibration 01 : -371 353 962 (10900K)
43 334 [MakerNotes] Camera Color Calibration 02 : -345 364 929 (10000K)
44 335 [MakerNotes] Camera Color Calibration 03 : -304 382 872 (8300K)
45 336 [MakerNotes] Camera Color Calibration 04 : -258 406 819 (7000K)
46 337 [MakerNotes] Camera Color Calibration 05 : -200 439 756 (6000K)
47 338 [MakerNotes] Camera Color Calibration 06 : -173 454 726 (5600K)
48 339 [MakerNotes] Camera Color Calibration 07 : -141 473 694 (5200K)
49 340 [MakerNotes] Camera Color Calibration 08 : -92 499 643 (4700K)
50 341 [MakerNotes] Camera Color Calibration 09 : -34 536 588 (4200K)
51 342 [MakerNotes] Camera Color Calibration 10 : 23 579 544 (3800K)
52 343 [MakerNotes] Camera Color Calibration 11 : 74 621 505 (3500K)
53 344 [MakerNotes] Camera Color Calibration 12 : 136 673 462 (3200K)
54 345 [MakerNotes] Camera Color Calibration 13 : 187 716 425 (3000K)
55 346 [MakerNotes] Camera Color Calibration 14 : 232 766 402 (2800K)
56 347 [MakerNotes] Camera Color Calibration 15 : 344 898 346 (2400K)
57 75 [MakerNotes] Camera ISO : Auto
58 16 [EXIF] Camera Model Name : Canon EOS 7D
59 130 [MakerNotes] Camera Orientation : Horizontal (normal)
60 105 [MakerNotes] Camera Temperature : 17 C
61 128 [MakerNotes] Camera Temperature : 17 C
62 115 [MakerNotes] Camera Type : EOS High-end
63 202 [MakerNotes] Canon 0x0019 : 1
64 350 [MakerNotes] Canon 0x4009 : 0 0 0
65 352 [MakerNotes] Canon 0x4011 : [...]
66 353 [MakerNotes] Canon 0x4012 :
67 361 [MakerNotes] Canon 0x4017 : 327942 2105278464
68 78 [MakerNotes] Canon Exposure Mode : Program AE
69 118 [MakerNotes] Canon Firmware Version : Firmware Version 1.2.5
70 94 [MakerNotes] Canon Flash Info : 0 0 0 0
71 66 [MakerNotes] Canon Flash Mode : Off
72 208 [MakerNotes] Canon Image Height : 3456
73 70 [MakerNotes] Canon Image Size : Large
74 117 [MakerNotes] Canon Image Type : Canon EOS 7D
75 207 [MakerNotes] Canon Image Width : 5184
76 199 [MakerNotes] Canon Model ID : EOS 7D
77 380 [Composite] Circle Of Confusion : 0.019 mm
78 13 [File] Color Components : 3
79 290 [MakerNotes] Color Data Version : 7 (500D/550D/7D/1DmkIV)
80 44 [EXIF] Color Space : sRGB
81 278 [MakerNotes] Color Space : sRGB
82 292 [MakerNotes] Color Temp As Shot : 4863
83 294 [MakerNotes] Color Temp Auto : 4863
84 304 [MakerNotes] Color Temp Cloudy : 6000
85 300 [MakerNotes] Color Temp Daylight : 5200
86 312 [MakerNotes] Color Temp Flash : 6172
87 308 [MakerNotes] Color Temp Fluorescent : 3769
88 310 [MakerNotes] Color Temp Kelvin : 5200
89 296 [MakerNotes] Color Temp Measured : 4863
90 302 [MakerNotes] Color Temp Shade : 7000
91 306 [MakerNotes] Color Temp Tungsten : 3200
92 298 [MakerNotes] Color Temp Unknown : 0
93 330 [MakerNotes] Color Temp Unknown 10 : 4010
94 332 [MakerNotes] Color Temp Unknown 11 : 4010
95 314 [MakerNotes] Color Temp Unknown 2 : 5200
96 316 [MakerNotes] Color Temp Unknown 3 : 5200
97 318 [MakerNotes] Color Temp Unknown 4 : 5200

```

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98 320 [MakerNotes] Color Temp Unknown 5 : 5200
99 322 [MakerNotes] Color Temp Unknown 6 : 5200
100 324 [MakerNotes] Color Temp Unknown 7 : 4010
101 326 [MakerNotes] Color Temp Unknown 8 : 4010
102 328 [MakerNotes] Color Temp Unknown 9 : 4010
103 134 [MakerNotes] Color Temperature : 5200
104 272 [MakerNotes] Color Temperature : 5200
105 90 [MakerNotes] Color Tone : Normal
106 169 [MakerNotes] Color Tone Faithful : 0
107 157 [MakerNotes] Color Tone Landscape : 0
108 175 [MakerNotes] Color Tone Monochrome : 0
109 163 [MakerNotes] Color Tone Neutral : 0
110 151 [MakerNotes] Color Tone Portrait : 0
111 145 [MakerNotes] Color Tone Standard : 0
112 181 [MakerNotes] Color Tone User Def 1 : 0
113 187 [MakerNotes] Color Tone User Def 2 : 0
114 193 [MakerNotes] Color Tone User Def 3 : 0
115 32 [EXIF] Components Configuration : Y, Cb, Cr, -
116 57 [EXIF] Compression : JPEG (old-style)
117 67 [MakerNotes] Continuous Drive : Single
118 73 [MakerNotes] Contrast : Normal
119 166 [MakerNotes] Contrast Faithful : 0
120 154 [MakerNotes] Contrast Landscape : 0
121 172 [MakerNotes] Contrast Monochrome : 0
122 160 [MakerNotes] Contrast Neutral : 0
123 148 [MakerNotes] Contrast Portrait : 0
124 142 [MakerNotes] Contrast Standard : 0
125 178 [MakerNotes] Contrast User Def 1 : 0
126 184 [MakerNotes] Contrast User Def 2 : 0
127 190 [MakerNotes] Contrast User Def 3 : 0
128 110 [MakerNotes] Control Mode : Camera Local Control
129 24 [EXIF] Copyright :
130 31 [EXIF] Create Date : 2011:05:15 14:26:08
131 374 [Composite] Create Date : 2011:05:15 14:26:08.75
132 234 [MakerNotes] Crop Bottom Margin : 0
133 231 [MakerNotes] Crop Left Margin : 0
134 232 [MakerNotes] Crop Right Margin : 0
135 233 [MakerNotes] Crop Top Margin : 0
136 264 [MakerNotes] Cropped Image Height : 3456
137 263 [MakerNotes] Cropped Image Width : 5184
138 258 [MakerNotes] Custom Controls : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 222 222 222 222

139 351 [MakerNotes] Custom Picture Style File Name :
140 52 [EXIF] Custom Rendered : Normal
141 30 [EXIF] Date/Time Original : 2011:05:15 14:26:08
142 375 [Composite] Date/Time Original : 2011:05:15 14:26:08.75
143 259 [MakerNotes] Dial Direction Tv Av : Normal
144 274 [MakerNotes] Digital Gain : 0
145 72 [MakerNotes] Digital Zoom : None
146 2 [File] Directory : C:/Documents and
Settings/Andrew Quinlan/My Documents/My Pictures/2011_05_15
147 141 [MakerNotes] Directory Index : 100
148 253 [MakerNotes] Display All AF Points : Enable
149 365 [Composite] Drive Mode : Single-frame Shooting
150 230 [MakerNotes] Dust Removal Data : (Binary data 1024 bytes, use -
b option to extract)

151 71 [MakerNotes] Easy Mode : Manual
152 11 [File] Encoding Process : Baseline DCT, Huffman coding
153 8 [File] Exif Byte Order : Little-endian (Intel, II)
154 46 [EXIF] Exif Image Height : 3456
155 45 [EXIF] Exif Image Width : 5184
156 29 [EXIF] Exif Version : 0221
157 35 [EXIF] Exposure Compensation : 0
158 100 [MakerNotes] Exposure Compensation : 0

```



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159	235	[MakerNotes]	Exposure Level Increments	:	1/3 Stop
160	53	[EXIF]	Exposure Mode	:	Auto
161	27	[EXIF]	Exposure Program	:	Program AE
162	25	[EXIF]	Exposure Time	:	1/125
163	112	[MakerNotes]	Exposure Time	:	1/117
164	122	[MakerNotes]	Exposure Time	:	1/128
165	26	[EXIF]	F Number	:	6.3
166	111	[MakerNotes]	F Number	:	6.3
167	121	[MakerNotes]	F Number	:	6.4
168	381	[Composite]	Field Of View	:	65.0 deg
169	140	[MakerNotes]	File Index	:	384
170	4	[File]	File Modification Date/Time	:	2011:05:15 14:58:35+01:00
171	1	[File]	File Name	:	Aidan_Charles_0166.JPG
172	366	[Composite]	File Number	:	100-0384
173	5	[File]	File Permissions	:	rw-rw-rw-
174	3	[File]	File Size	:	8.9 MB
175	6	[File]	File Type	:	JPEG
176	170	[MakerNotes]	Filter Effect Faithful	:	0
177	158	[MakerNotes]	Filter Effect Landscape	:	0
178	176	[MakerNotes]	Filter Effect Monochrome	:	None
179	164	[MakerNotes]	Filter Effect Neutral	:	0
180	152	[MakerNotes]	Filter Effect Portrait	:	0
181	146	[MakerNotes]	Filter Effect Standard	:	0
182	182	[MakerNotes]	Filter Effect User Def 1	:	None
183	188	[MakerNotes]	Filter Effect User Def 2	:	None
184	194	[MakerNotes]	Filter Effect User Def 3	:	None
185	139	[MakerNotes]	Firmware Version	:	1.2.5
186	37	[EXIF]	Flash	:	Off, Did not fire
187	85	[MakerNotes]	Flash Activity	:	0
188	86	[MakerNotes]	Flash Bits	:	(none)
189	107	[MakerNotes]	Flash Exposure Compensation	:	0
190	227	[MakerNotes]	Flash Exposure Lock	:	Off
191	106	[MakerNotes]	Flash Guide Number	:	0
192	127	[MakerNotes]	Flash Metering Mode	:	Off
193	241	[MakerNotes]	Flash Sync Speed Av	:	Auto
194	43	[EXIF]	Flashpix Version	:	0100
195	38	[EXIF]	Focal Length	:	18.0 mm
196	91	[MakerNotes]	Focal Length	:	18 mm
197	129	[MakerNotes]	Focal Length	:	18 mm
198	382	[Composite]	Focal Length	:	18.0 mm (35 mm equivalent: 28.3 mm)
199	51	[EXIF]	Focal Plane Resolution Unit	:	inches
200	49	[EXIF]	Focal Plane X Resolution	:	5715.545755
201	92	[MakerNotes]	Focal Plane X Unknown	:	11675
202	50	[EXIF]	Focal Plane Y Resolution	:	5808.403361
203	93	[MakerNotes]	Focal Plane Y Unknown	:	19690
204	82	[MakerNotes]	Focal Units	:	1/mm
205	254	[MakerNotes]	Focus Display AI Servo And MF	:	Enable
206	132	[MakerNotes]	Focus Distance Lower	:	0.9 m
207	131	[MakerNotes]	Focus Distance Upper	:	0.94 m
208	68	[MakerNotes]	Focus Mode	:	One-shot AF
209	77	[MakerNotes]	Focus Range	:	Not Known
210	56	[EXIF]	GPS Version ID	:	2.2.0.0
211	135	[MakerNotes]	High ISO Noise Reduction	:	Standard
212	243	[MakerNotes]	High ISO Noise Reduction	:	Standard
213	124	[MakerNotes]	Highlight Tone Priority	:	Off
214	244	[MakerNotes]	Highlight Tone Priority	:	Disable
215	383	[Composite]	Hyperfocal Distance	:	2.69 m
216	10	[File]	Image Height	:	3456
217	368	[Composite]	Image Size	:	5184x3456
218	9	[File]	Image Width	:	5184
219	229	[MakerNotes]	Internal Serial Number	:	S0882487A
220	47	[EXIF]	Interoperability Index	:	R98 - DCF basic file (sRGB)
221	48	[EXIF]	Interoperability Version	:	0100
222	28	[EXIF]	ISO	:	100

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223 123 [MakerNotes] ISO : 100
224 367 [Composite] ISO : 100
225 237 [MakerNotes] ISO Expansion : Off
226 236 [MakerNotes] ISO Speed Increments : 1/3 Stop
227 369 [Composite] Lens : 18.0 - 135.0 mm
228 384 [Composite] Lens : 18.0 - 135.0 mm (35 mm
equivalent: 28.3 - 212.0 mm)

229 248 [MakerNotes] Lens Drive No AF : Focus search on
230 370 [Composite] Lens ID : Canon EF-S 18-135mm f/3.5-5.6 IS
231 228 [MakerNotes] Lens Model : EF-S18-135mm f/3.5-5.6 IS
232 363 [MakerNotes] Lens Serial Number : 00002008af
233 79 [MakerNotes] Lens Type : Canon EF-S 18-135mm f/3.5-5.6 IS
234 136 [MakerNotes] Lens Type : Canon EF-S 18-135mm f/3.5-5.6 IS
235 385 [Composite] Light Value : 12.3
236 226 [MakerNotes] Live View Shooting : Off
237 242 [MakerNotes] Long Exposure Noise Reduction : Off
238 222 [MakerNotes] Long Exposure Noise Reduction 2 : Off
239 80 [MakerNotes] Long Focal : 135 mm
240 138 [MakerNotes] Long Focal : 135 mm
241 63 [MakerNotes] Macro Mode : Normal
242 15 [EXIF] Make : Canon
243 251 [MakerNotes] Manual AF Point Select Pattern : Stops at AF area edges
244 89 [MakerNotes] Manual Flash Output : n/a
245 83 [MakerNotes] Max Aperture : 3.6
246 97 [MakerNotes] Measured EV : 12.25
247 126 [MakerNotes] Measured EV : 12.25
248 113 [MakerNotes] Measured EV 2 : 12
249 125 [MakerNotes] Measured EV 2 : 12
250 277 [MakerNotes] Measured RGGB : 525 1024 1024 542
251 36 [EXIF] Metering Mode : Multi-segment
252 76 [MakerNotes] Metering Mode : Evaluative
253 7 [File] MIME Type : image/jpeg
254 84 [MakerNotes] Min Aperture : 23
255 257 [MakerNotes] Mirror Lockup : Disable
256 21 [EXIF] Modify Date : 2011:05:15 14:26:08
257 376 [Composite] Modify Date : 2011:05:15 14:26:08.75
258 116 [MakerNotes] ND Filter : n/a
259 205 [MakerNotes] Num AF Points : 19
260 104 [MakerNotes] Optical Zoom Code : n/a
261 17 [EXIF] Orientation : Horizontal (normal)
262 256 [MakerNotes] Orientation Linked AF Point : Same for verical and horizontal
263 217 [MakerNotes] Original Decision Data Offset : 0
264 359 [MakerNotes] Original Image Height : 3456
265 358 [MakerNotes] Original Image Width : 5184
266 119 [MakerNotes] Owner Name :
267 356 [MakerNotes] Peripheral Lighting : On
268 360 [MakerNotes] Peripheral Lighting Setting : On
269 357 [MakerNotes] Peripheral Lighting Value : 35
270 273 [MakerNotes] Picture Style : Standard
271 65 [MakerNotes] Quality : Fine
272 221 [MakerNotes] Raw Jpg Size : Large
273 348 [MakerNotes] Raw Measured RGGB : 486448 994230 991205 509652
274 69 [MakerNotes] Record Mode : JPEG
275 386 [Composite] Red Balance : 2.165039
276 20 [EXIF] Resolution Unit : inches
277 60 [EXIF] Resolution Unit : inches
278 240 [MakerNotes] Safety Shift : Disable
279 74 [MakerNotes] Saturation : Normal
280 168 [MakerNotes] Saturation Faithful : 0
281 156 [MakerNotes] Saturation Landscape : 0
282 174 [MakerNotes] Saturation Monochrome : 0
283 162 [MakerNotes] Saturation Neutral : 0
284 150 [MakerNotes] Saturation Portrait : 0
285 144 [MakerNotes] Saturation Standard : 0

```

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286 180 [MakerNotes] Saturation User Def 1 : 0
287 186 [MakerNotes] Saturation User Def 2 : 0
288 192 [MakerNotes] Saturation User Def 3 : 0
289 371 [Composite] Scale Factor To 35 mm Equivalent: 1.6
290 55 [EXIF] Scene Capture Type : Standard
291 250 [MakerNotes] Select AF Area Select Mode : Disable; 7
292 64 [MakerNotes] Self Timer : Off
293 269 [MakerNotes] Sensor Blue Level : 0
294 285 [MakerNotes] Sensor Bottom Border : 3511
295 281 [MakerNotes] Sensor Height : 3516
296 282 [MakerNotes] Sensor Left Border : 168
297 268 [MakerNotes] Sensor Red Level : 0
298 284 [MakerNotes] Sensor Right Border : 5351
299 283 [MakerNotes] Sensor Top Border : 56
300 280 [MakerNotes] Sensor Width : 5360
301 120 [MakerNotes] Serial Number : 1961001940
302 201 [MakerNotes] Serial Number Format : Format 2
303 266 [MakerNotes] Sharpness : 3
304 167 [MakerNotes] Sharpness Faithful : 0
305 267 [MakerNotes] Sharpness Frequency : n/a
306 155 [MakerNotes] Sharpness Landscape : 4
307 173 [MakerNotes] Sharpness Monochrome : 3
308 161 [MakerNotes] Sharpness Neutral : 0
309 149 [MakerNotes] Sharpness Portrait : 2
310 143 [MakerNotes] Sharpness Standard : 3
311 179 [MakerNotes] Sharpness User Def 1 : 3
312 185 [MakerNotes] Sharpness User Def 2 : 3
313 191 [MakerNotes] Sharpness User Def 3 : 3
314 372 [Composite] Shooting Mode : Program AE
315 81 [MakerNotes] Short Focal : 18 mm
316 137 [MakerNotes] Short Focal : 18 mm
317 103 [MakerNotes] Shot Number In Continuous Burst : 0
318 373 [Composite] Shutter Speed : 1/125
319 33 [EXIF] Shutter Speed Value : 1/128
320 102 [MakerNotes] Slow Shutter : None
321 40 [EXIF] Sub Sec Time : 75
322 42 [EXIF] Sub Sec Time Digitized : 75
323 41 [EXIF] Sub Sec Time Original : 75
324 98 [MakerNotes] Target Aperture : 6.3
325 99 [MakerNotes] Target Exposure Time : 1/128
326 377 [Composite] Thumbnail Image : (Binary data 19013 bytes, use
-b option to extract)
327 200 [MakerNotes] Thumbnail Image Valid Area : 0 159 7 112
328 62 [EXIF] Thumbnail Length : 19013
329 61 [EXIF] Thumbnail Offset : 11000
330 265 [MakerNotes] Tone Curve : Standard
331 171 [MakerNotes] Toning Effect Faithful : 0
332 159 [MakerNotes] Toning Effect Landscape : 0
333 177 [MakerNotes] Toning Effect Monochrome : None
334 165 [MakerNotes] Toning Effect Neutral : 0
335 153 [MakerNotes] Toning Effect Portrait : 0
336 147 [MakerNotes] Toning Effect Standard : 0
337 183 [MakerNotes] Toning Effect User Def 1 : None
338 189 [MakerNotes] Toning Effect User Def 2 : None
339 195 [MakerNotes] Toning Effect User Def 3 : None
340 39 [EXIF] User Comment :
341 196 [MakerNotes] User Def 1 Picture Style : Standard
342 197 [MakerNotes] User Def 2 Picture Style : Standard
343 198 [MakerNotes] User Def 3 Picture Style : Standard
344 206 [MakerNotes] Valid AF Points : 19
345 252 [MakerNotes] VF Display Illumination : Auto
346 279 [MakerNotes] VRD Offset : 0
347 223 [MakerNotes] WB Bracket Mode : Off
348 224 [MakerNotes] WB Bracket Value AB : 0

```

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0	
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A
		<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf	

```

349 225 [MakerNotes] WB Bracket Value GM : 0
350 378 [Composite] WB RGGG Levels : 2217 1024 1024 1638
351 291 [MakerNotes] WB RGGG Levels As Shot : 2217 1024 1024 1638
352 293 [MakerNotes] WB RGGG Levels Auto : 2217 1024 1024 1638
353 303 [MakerNotes] WB RGGG Levels Cloudy : 2389 1024 1024 1387
354 299 [MakerNotes] WB RGGG Levels Daylight : 2217 1024 1024 1511
355 311 [MakerNotes] WB RGGG Levels Flash : 2450 1024 1024 1380
356 307 [MakerNotes] WB RGGG Levels Fluorescent : 1956 1024 1024 2127
357 309 [MakerNotes] WB RGGG Levels Kelvin : 2217 1024 1024 1511
358 295 [MakerNotes] WB RGGG Levels Measured : 2215 1023 1024 1637
359 301 [MakerNotes] WB RGGG Levels Shade : 2583 1024 1024 1280
360 305 [MakerNotes] WB RGGG Levels Tungsten : 1558 1024 1024 2270
361 297 [MakerNotes] WB RGGG Levels Unknown : 0 0 0 0
362 329 [MakerNotes] WB RGGG Levels Unknown 10 : 1041 1024 1024 1027
363 331 [MakerNotes] WB RGGG Levels Unknown 11 : 1041 1024 1024 1027
364 313 [MakerNotes] WB RGGG Levels Unknown 2 : 2217 1024 1024 1511
365 315 [MakerNotes] WB RGGG Levels Unknown 3 : 2217 1024 1024 1511
366 317 [MakerNotes] WB RGGG Levels Unknown 4 : 2217 1024 1024 1511
367 319 [MakerNotes] WB RGGG Levels Unknown 5 : 2217 1024 1024 1511
368 321 [MakerNotes] WB RGGG Levels Unknown 6 : 2217 1024 1024 1511
369 323 [MakerNotes] WB RGGG Levels Unknown 7 : 1041 1024 1024 1027
370 325 [MakerNotes] WB RGGG Levels Unknown 8 : 1041 1024 1024 1027
371 327 [MakerNotes] WB RGGG Levels Unknown 9 : 1041 1024 1024 1027
372 275 [MakerNotes] WB Shift AB : 0
373 276 [MakerNotes] WB Shift GM : 0
374 54 [EXIF] White Balance : Auto
375 101 [MakerNotes] White Balance : Auto
376 133 [MakerNotes] White Balance : Auto
377 271 [MakerNotes] White Balance Blue : 0
378 270 [MakerNotes] White Balance Red : 0
379 18 [EXIF] X Resolution : 72
380 58 [EXIF] X Resolution : 72
381 23 [EXIF] Y Cb Cr Positioning : Co-sited
382 14 [File] Y Cb Cr Sub Sampling : YCbCr4:2:2 (2 1)
383 19 [EXIF] Y Resolution : 72
384 59 [EXIF] Y Resolution : 72
385 87 [MakerNotes] Zoom Source Width : 0
386 88 [MakerNotes] Zoom Target Width : 0

```

....END----- SORTED

## 2.4 GUI2 EXAMPLE 4 - A MENU OPTION E) EOS 1D

```

File Name : Canon1DmkIII.jpg
File Size : 8.1 kB
Camera Model Name : Canon EOS-1D Mark III
Date/Time Original : 2007:02:22 17:02:42
Image Size : 8x8
Quality : Fine

```

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0	
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A
		<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf	

```

Focal Length           : 35.0 mm
Focal Length           : 35 mm
Focal Length           : 35 mm
Shutter Speed          : 1/125
Aperture                : 5.6
ISO                    : 3200
ISO                    : 3200
ISO                    : 3200
White Balance          : Auto
White Balance          : Auto
White Balance          : Auto
Flash                  : On, Fired
    
```

## 2.5 GUI2 EXAMPLE 5 - A MENU OPTION H) EOS 1D

From Image File C:\A\_GUI2\_ Test\Canon1DmkIII.jpg

Total (EXIF:All) Tags = 43

```

>----- SORTED Tag Position
|
|      >--- UnSorted Tag Reference [EXIF:All] with ExifTool Ver: 8.56
|      |
|      |      >---- Tag Slogan (All Tags)
|      |      |
|      |      |      >-- Tag Data
|      |      |      |
1      18 Aperture Value           : 5.7
2       2 Camera Model Name       : Canon EOS-1D Mark III
3      26 Color Space              : sRGB
4      16 Components Configuration : Y, Cb, Cr, -
5      41 Compression              : JPEG (old-style)
6      15 Create Date              : 2007:02:22 17:02:42
7      34 Custom Rendered          : Normal
8      14 Date/Time Original        : 2007:02:22 17:02:42
9      28 Exif Image Height         : 2592
10     27 Exif Image Width          : 3888
11     13 Exif Version              : 0221
12     35 Exposure Mode             : Auto
13     11 Exposure Program          : Program AE
14      9 Exposure Time             : 1/125
15     10 F Number                  : 5.6
16     19 Flash                    : On, Fired
17     25 Flashpix Version          : 0100
18     20 Focal Length              : 35.0 mm
19     33 Focal Plane Resolution Unit : inches
20     31 Focal Plane X Resolution   : 3512.195122
21     32 Focal Plane Y Resolution   : 3521.73913
22     40 GPS Altitude Ref           : Above Sea Level
23     38 GPS Latitude              : 10 deg 30' 0.00"
24     39 GPS Longitude Ref         : West
25     37 GPS Version ID            : 2.2.0.0
26     29 Interoperability Index     : R98 - DCF basic file (sRGB)
27     30 Interoperability Version   : 0100
28     12 ISO                       : 3200
29      1 Make                      : Canon
30      7 Modify Date                : 2007:02:22 17:02:42
31      3 Orientation                : Horizontal (normal)
32      6 Resolution Unit            : inches
33     36 Scene Capture Type         : Standard
    
```

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0	
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A
		<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf	

```

34      17  Shutter Speed Value           : 1/128
35      22  Sub Sec Time                   : 81
36      24  Sub Sec Time Digitized        : 81
37      23  Sub Sec Time Original         : 81
38      43  Thumbnail Length              : 28
39      42  Thumbnail Offset              : 8120
40      21  User Comment                   :
41       4  X Resolution                   : 72
42       8  Y Cb Cr Positioning           : Co-sited
43       5  Y Resolution                   : 72

```

....END

## 2.6 GUI2 EXAMPLE 6 - B MENU OPTION 1

```

Location > C:\A_GUI2_Test\All_Camera_Types(8_42)\Date_Time\
This File > Imges_(JPG)_DandTL.Txt

```

```

Count  Date      Time      Image Name
-----
1      AFCP.jpg
2      2003:12:04 06:46:5 Canon.jpg
3      2007:02:22 17:02:4 Canon1DmkIII.jpg
4      2000:03:31 10:44:1 Casio.jpg
5      2003:06:18 16:54:3 Casio2.jpg
6      1998:10:24 12:08:5 CasioQVCI.jpg
7      1998:12:31 15:17:2 ExifTool.jpg
8      ExtendedXMP.jpg
9      FotoStation.jpg
10     2001:05:19 18:36:4 FujiFilm.jpg
11     2002:07:13 15:58:2 GPS.jpg
12     2001:05:19 18:36:4 IPTC-XMP.jpg
13     2004:06:26 12:36:4 JVC.jpg
14     2002:07:14 22:59:3 JVC2.jpg
15     2002:05:01 10:22:2 Kodak.jpg
16     2002:06:01 12:37:2 Minolta.jpg
17     2001:01:01 01:11:1 MWG.jpg
18     2001:08:01 12:57:2 Nikon.jpg
19     2005:03:18 02:55:1 NikonD2Hs.jpg
20     2005:01:14 08:57:5 NikonD70.jpg
21     1999:12:06 16:38:4 Olympus.jpg
22     2007:02:16 15:09:1 Olympus2.jpg
23     2005:01:05 10:53:4 OlympusE1.jpg
24     2004:08:28 15:55:4 Panasonic.jpg
25     2008:03:02 12:01:2 Pentax.jpg
26     2006:10:29 06:27:51-05:0 PhotoMechanic.jpg
27     2001:11:07 13:08:4 Ricoh.jpg
28     2006:05:26 11:48:4 Ricoh2.jpg
29     2003:10:11 12:43:0 Sanyo.jpg
30     2003:11:27 10:31:3 Sigma.jpg
31     2003:12:18 13:51:3 Sony.jpg
32     2005:08:10 06:24:3 Unknown.jpg
33     Writer.jpg
....END

```

## 2.7 GUI2 EXAMPLE 7 - B MENU OPTION 4 FORMAT FILE OUTPUT

See GUI2\_Appendix 1 page 11 for Format file "My\_Name\_Date\_Time.fmt" which generated this output file "My\_Name\_Date\_Time\_Out.txt"

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0		
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A	<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf

Generated by ExifTool [ © Phil Harvey] Version 8.56

GUI2 [ © Andrew Quinlan]

- a) Aperture
- b) Aperture Value
- c) Camera ISO
- d) ISO
- e) Drive Mode
- f) Exposure Program
- g) Shooting Mode
- h) File Type
- i) Flash
- j) Focal Length
- k) Focus Mode
- l) Metering Mode
- m) Num AF Points
- n) Picture Style
- o) Shutter Speed
- p) Shutter Speed Value
- q) White Balance
- r) Camera Model Name
- s) Camera Type
- t) Firmware Version
- u) Lens ID
- v) Lens Serial Number

.....  
 FileName = canon.jpg , Date Time 2003:12:04 06:46:52

- a) Aperture = 14.0
- b) Aperture Value = 14.0
- c) Camera ISO = n/a
- d) ISO = 100
- e) Drive Mode = Continuous Shooting
- h) File Type = JPEG
- i) Flash = No Flash
- j) Focal Length = 34.0 mm
- k) Focus Mode = Manual Focus (3)
- l) Metering Mode = Center-weighted average
- m) Num AF Points = 7
- p) Shutter Speed Value = 0
- q) White Balance = Auto
- s) Camera Type = EOS Mid-range
- u) Lens ID = Unknown 18-55mm

FileName = Canon1DmkIII.jpg , Date Time 2007:02:22 17:02:42

- a) Aperture = 5.6
- b) Aperture Value = 5.7
- d) ISO = 3200
- e) Drive Mode = Continuous Shooting
- f) Exposure Program = Program AE
- h) File Type = JPEG
- i) Flash = On, Fired
- j) Focal Length = 35.0 mm
- k) Focus Mode = AI Servo AF
- l) Metering Mode = Evaluative
- m) Num AF Points = 45
- n) Picture Style = Neutral
- p) Shutter Speed Value = 1/128
- q) White Balance = Auto
- s) Camera Type = EOS High-end
- t) Firmware Version = 5.3.1
- u) Lens ID = Canon EF 16-35mm f/2.8L II

FileName = Canon\_EOS450D.JPG , Date Time 2011:02:16 15:01:09

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0	
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A
		<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf	

a) Aperture = 32.0  
 b) Aperture Value = 32.0  
 d) ISO = 800  
 e) Drive Mode = Continuous Shooting  
 f) Exposure Program = Not Defined  
 h) File Type = JPEG  
 i) Flash = Off, Did not fire  
 j) Focal Length = 263.0 mm  
 k) Focus Mode = AI Servo AF  
 l) Metering Mode = Evaluative  
 m) Num AF Points = 9  
 n) Picture Style = Landscape  
 p) Shutter Speed Value = 1/10  
 q) White Balance = Auto  
 s) Camera Type = EOS High-end  
 t) Firmware Version = 1.1.0  
 u) Lens ID = Sigma 70-300mm f/4-5.6 [APO] DG Macro

FileName = Canon\_iVIS\_HV20.jpg , Date Time 2007:12:18 03:55:48

a) Aperture = 2.8  
 c) Camera ISO = Auto  
 e) Drive Mode = Continuous Shooting  
 h) File Type = JPEG  
 i) Flash = No Flash  
 j) Focal Length = 6.1 mm  
 k) Focus Mode = Single  
 l) Metering Mode = Evaluative  
 q) White Balance = Auto  
 s) Camera Type = DV Camera  
 u) Lens ID = Unknown 6-61mm

FileName = CanonDC20.jpg , Date Time 2005:07:02 15:46:22

a) Aperture = 2.8  
 c) Camera ISO = Auto  
 e) Drive Mode = Continuous Shooting  
 h) File Type = JPEG  
 i) Flash = No Flash  
 j) Focal Length = 40.5 mm  
 k) Focus Mode = Single  
 l) Metering Mode = Evaluative  
 q) White Balance = Manual  
 u) Lens ID = Unknown 4-40mm

FileName = CanonDIGITAL\_IXUS\_WIRELESS.jpg , Date Time 2005:05:01 12:19:16

a) Aperture = 2.8  
 b) Aperture Value = 2.8  
 c) Camera ISO = Auto  
 d) ISO = 50  
 e) Drive Mode = Single-frame Shooting  
 h) File Type = JPEG  
 i) Flash = Auto, Did not fire, Red-eye reduction  
 j) Focal Length = 5.8 mm  
 k) Focus Mode = Single  
 l) Metering Mode = Evaluative  
 m) Num AF Points = 9  
 p) Shutter Speed Value = 1/159  
 q) White Balance = Auto  
 s) Camera Type = Compact  
 u) Lens ID = Unknown 5-17mm

FileName = gps.jpg , Date Time 2002:07:13 15:58:28

a) Aperture = 0.6  
 b) Aperture Value = 16.0



<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0	
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A
		<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf	

```

d) ISO = 0
f) Exposure Program = Shutter speed priority AE
h) File Type = JPEG
i) Flash = No Flash
j) Focal Length = 0.0 mm
l) Metering Mode = Multi-segment
p) Shutter Speed Value = 1/724

```

FileName = ricoh2.jpg , Date Time 2006:05:26 11:48:48

```

a) Aperture = 5.5
b) Aperture Value = 5.7
d) ISO = 125
f) Exposure Program = Program AE
h) File Type = JPEG
i) Flash = Auto, Did not fire
j) Focal Length = 5.7 mm
l) Metering Mode = Spot
q) White Balance = Auto
t) Firmware Version = 22.19

```

.....end

## 2.8 GUI2 EXAMPLE FORMAT FILE

The contents of Format file "My\_Serial\_Numbers\_etc.fmt"

```

# comment Line
#[HEAD]Generated by ExifTool [ © Phil Harvey] Version $exifToolVersion
#[HEAD] GUI2 [ © Andrew Quinlan] Version 2.0
#[HEAD]
#[HEAD] Not found Tags will be omitted, so a)....j) prefix makes it
#[HEAD] easy to identify Missing Tags depending on Camera used .
#[HEAD]
#[HEAD] a) Camera Serial Number
#[HEAD] b) Camera Internal Serial Number
#[HEAD] c) Serial Number Format
#[HEAD]
#[HEAD] d) Camera Type

```

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0	
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A
		<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf	

```

#[HEAD] e) Camera Model ID
#[HEAD] f) Camera Firmware Version
#[HEAD]
#[HEAD] g) Lens Model
#[HEAD] h) Lens ID
#[HEAD] i) Lens Serial Number
#[HEAD] j) Lens Type
#[HEAD] ----- First Image ----- First Image -----
FileName ..... = $FileName , Date Time = $DateTimeOriginal
a) Camera Serial Number = $SerialNumber
b) Camera Internal Serial Number = $InternalSerialNumber
c) Serial Number Format = $SerialNumberFormat

d) Camera Type = $cameraType
e) Camera Model ID = $ModelID
f) Camera Firmware Version = $FirmwareVersion

g) Lens Model = $LensModel
h) Lens ID = $LensID
i) Lens Serial Number = $LensSerialNumber
j) Lens Type = $LensType

----- Next Image -----Next Image -----
#[TAIL] .....End.
    
```

## 2.9 GUI2 EXAMPLE 8 - B MENU OPTION 4 FORMAT FILE OUTPUT

This is Output file "My\_Serial\_Numbers\_etc\_Out.txt" generated by format file "My\_Serial\_Numbers\_etc.fmt"

Generated by ExifTool [ © Phil Harvey] Version 8.56  
 GUI2 [ © Andrew Quinlan] Version 2.0

Not found Tags will be omitted, so a)...j) prefix makes it easy to identify Missing Tags depending on Camera used .

```

a) Camera Serial Number
b) Camera Internal Serial Number
c) Serial Number Format

d) Camera Type
e) Camera Model ID
f) Camera Firmware Version

g) Lens Model
h) Lens ID
i) Lens Serial Number
j) Lens Type
----- First Image ----- First Image -----
FileName ..... = canon.jpg , Date Time = 2003:12:04 06:46:52
a) Camera Serial Number = 0560018150
c) Serial Number Format = Format 1

d) Camera Type = EOS Mid-range

h) Lens ID = Unknown 18-55mm
j) Lens Type = Unknown (-1)

----- Next Image -----Next Image -----
    
```

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0		
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A	<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf

FileName ..... = Canon1DmkIII.jpg , Date Time = 2007:02:22 17:02:42  
 a) Camera Serial Number = 500292  
 b) Camera Internal Serial Number = G002669  
 c) Serial Number Format = Format 2  
  
 d) Camera Type = EOS High-end  
 f) Camera Firmware Version = 5.3.1  
  
 g) Lens Model = EF16-35mm f/2.8L II USM  
 h) Lens ID = Canon EF 16-35mm f/2.8L II  
 j) Lens Type = Canon EF 16-35mm f/2.8L II

----- Next Image -----Next Image -----

FileName ..... = Canon\_EOS450D.JPG , Date Time = 2011:02:16 15:01:09  
 a) Camera Serial Number = 0580103444  
 b) Camera Internal Serial Number = K0397151  
 c) Serial Number Format = Format 2  
  
 d) Camera Type = EOS High-end  
 f) Camera Firmware Version = 1.1.0  
  
 g) Lens Model = 70-300mm  
 h) Lens ID = Sigma 70-300mm f/4-5.6 [APO] DG Macro  
 j) Lens Type = Canon EF 100-300mm f/5.6 or Sigma or Tokina Lens

----- Next Image -----Next Image -----

FileName ..... = Canon\_iVIS\_HV20.jpg , Date Time = 2007:12:18 03:55:48  
  
 d) Camera Type = DV Camera  
  
 h) Lens ID = Unknown 6-61mm  
 j) Lens Type = Unknown (-1)

----- Next Image -----Next Image -----

FileName ..... = CanonDC20.jpg , Date Time = 2005:07:02 15:46:22  
  
 h) Lens ID = Unknown 4-40mm  
 j) Lens Type = Unknown (-1)

----- Next Image -----Next Image -----

FileName = CanonDIGITAL\_IXUS\_WIRELESS.jpg , Date Time = 2005:05:01 12:19:16  
  
 d) Camera Type = Compact  
  
 h) Lens ID = Unknown 5-17mm  
 j) Lens Type = Unknown (-1)

----- Next Image -----Next Image -----

FileName ..... = gps.jpg , Date Time = 2002:07:13 15:58:28

----- Next Image -----Next Image -----

FileName ..... = ricoh2.jpg , Date Time = 2006:05:26 11:48:48  
 b) Camera Internal Serial Number = 0000000000000012207000003100957  
  
 f) Camera Firmware Version = 22.19

----- Next Image -----Next Image -----

.....End.

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0	
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A
<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf			

### 3 GUI2 - GPS1 MENU EXAMPLE [CUSTOMIZATION OPTIONS]

#### 3.1 GUI2 - GPS1 MENU OPTION 5 FORMAT FILE EXAMPLE

This is contents of Format file "GPS1\_First.fmt"

```
# comment Line
#[HEAD]Generated by ExifTool [ © Phil Harvey] Version $exifToolVersion
#[HEAD]GUI2 [ © Andrew Quinlan ]
#[HEAD] GPS_Info
#[HEAD] a) GPSAltitudeRef
#[HEAD] b) GPSAltitude
#[HEAD] c) GPSLatitude
#[HEAD] d) GPSLatitudeRef
#[HEAD] e) GPSLongitude
#[HEAD] f) GPSLongitudeRef
#[HEAD] g) GPSMapDatum
#[HEAD] h) GPSPosition
#[HEAD] i) GPSTimeStamp
#[HEAD] j) GPSVersionID

Image = $FileName , Date Time = $DateTimeOriginal
GPS_Info
a) GPSAltitudeRef = $GPSAltitudeRef
b) GPSAltitude = $GPSAltitude
c) GPSLatitude = $GPSLatitude
d) GPSLatitudeRef = $GPSLatitudeRef
e) GPSLongitude = $GPSLongitude
f) GPSLongitudeRef = $GPSLongitudeRef
g) GPSMapDatum = $GPSMapDatum
h) GPSPosition = $GPSPosition
i) GPSTimeStamp = $GPSTimeStamp
j) GPSVersionID = $GPSVersionID

#[TAIL].....end
```

#### 3.2 GUI2 EXAMPLE 9 – GPS1 MENU OPTION 5 FORMAT FILE OUTPUT

This is Output file "GPS1\_First\_Out.txt" generated by format file "GPS1\_First.fmt" .

```
Generated by ExifTool [ © Phil Harvey] Version 8.56
GUI2 [ © Andrew Quinlan ]
GPS_Info
a) GPSAltitudeRef
b) GPSAltitude
c) GPSLatitude
d) GPSLatitudeRef
e) GPSLongitude
f) GPSLongitudeRef
g) GPSMapDatum
h) GPSPosition
i) GPSTimeStamp
j) GPSVersionID
```

<i>Prepared</i> Andrew Quinlan		<i>Version</i> Version 4.0	
<i>Approved</i>	<i>Checked</i>	<i>Date</i> 31-05-2013	<i>Rev</i> A
		<i>File</i> GUI2 Appendix 2(Ver 4.0 Rev A).pdf	

Image = canon.jpg , Date Time = 2003:12:04 06:46:52  
 GPS\_Info  
 f) GPSTimeStamp = 2003:12:04 06:46:52  
 j) GPSVersionID = 2.3.0.0

---

Image = Canon1DmkIII.jpg , Date Time = 2007:02:22 17:02:42  
 GPS\_Info  
 f) GPSTimeStamp = 2007:02:22 17:02:42  
 j) GPSVersionID = 2.2.0.0

---

Image = Canon\_EOS450D.JPG , Date Time = 2011:02:16 15:01:09  
 GPS\_Info

---

Image = Canon\_iVIS\_HV20.jpg , Date Time = 2007:12:18 03:55:48  
 GPS\_Info

---

Image = CanonDC20.jpg , Date Time = 2005:07:02 15:46:22  
 GPS\_Info

---

Image = CanonDIGITAL\_IXUS\_WIRELESS.jpg , Date Time = 2005:05:01  
 12:19:16  
 GPS\_Info

---

Image = gps.jpg , Date Time = 2002:07:13 15:58:28  
 GPS\_Info  
 c) GPSLatitude = 54 deg 59' 22.80" N  
 d) GPSLongitudeRef = North  
 e) GPSLongitude = 1 deg 54' 51.00" W  
 f) GPSLongitudeRef = West  
 g) GPSMapDatum = WGS84  
 h) GPSPosition = 54 deg 59' 22.80" N, 1 deg 54' 51.00" W  
 i) GPSTimeStamp = 14:58:24  
 j) GPSVersionID = 2.0.0.0

---

Image = ricoh2.jpg , Date Time = 2006:05:26 11:48:48  
 GPS\_Info  
 a) GPSAltitudeRef = Above Sea Level  
 b) GPSAltitude = 117 m Above Sea Level  
 c) GPSLatitude = 42 deg 2' 4.47" N  
 d) GPSLongitudeRef = North  
 e) GPSLongitude = 0 deg 30' 27.01" W  
 f) GPSLongitudeRef = West  
 g) GPSMapDatum = WGS-84  
 h) GPSPosition = 42 deg 2' 4.47" N, 0 deg 30' 27.01" W  
 i) GPSTimeStamp = 10:47:24  
 j) GPSVersionID = 2.2.0.0

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.....end