File: 02WalkingWireAtMitreFlatsNov60.tif

Jhove 1.10.

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1:

ErrorMessage: Type mismatch for tag 37377; expecting 10, saw 5

Fix: search for tag 0x9201 (search for 0x 0192)

Change byte after match (if in IFD) from 0x05 to 0x0a

Tag: 01 92 05 00 01 00 00 00 46 02 2c 01

01 92 (tag: 37377.d)

05 00 (Type: 5 (rational) )

01 00 00 00 (Count: 1)

46 02 2c 01 (offset: points to the data “00 00 00 00 40 42 0f 00”)

Type is set to 5: Rational (Two longs, first is numerator, 2nd is denominator)

A long is 32 bits unsigned int (represented by 4 bytes.)

So, numerator = 00 00 00 00 = 0

Denominator = 40 42 0f 00 = f4240.h = 1000000

Exif 2.1 standard defines the tag: 37377.d

“***ShutterSpeedValue***

Shutter speed. The unit is the APEX (Additive System of Photographic Exposure) setting (see Appendix C ).

Tag = 37377 (9201.H)

Type = SRATIONAL

Count = 1

Default = none”

The expected “Type” is SRATIONAL (10) not, RATIONAL(5) as is found.

There is no inaccuracy with the actual data, as the value being recorded is the same signed (SRATIONAL) and unsigned (RATIONAL). It would only be an issue if the recorded value was negative.

This can be fixed by setting the “Type” value to 10.d (0a.h), thus the tag becomes

01 92 0a 00 01 00 00 00 46 02 2c 01

2. ErrorMessage: Type mismatch for tag 37379; expecting 10, saw 5

Tag: 03 92 05 00 01 00 00 00 56 02 2c 01

03 92 tag name (0x9203, 37379.d)

05 00 (Type: 5 (rational) )

01 00 00 00 (Count: 1)

56 02 2c 01 (points to the data “00 00 00 00 40 42 0f 00’)

Exif 2.1 standard defines the tag: 37379.d

***“BrightnessValue***

The value of brightness. The unit is the APEX value. Ordinarily it is given in the range of -99.99 to 99.99.

Tag = 37379 (9203.H)

Type = SRATIONAL

Count = 1

Default = none”

The expected “Type” is SRATIONAL (10) not, RATIONAL(5) as is found.

This can be fixed by setting the “Type” value to 10.d (0a.h), thus the tag becomes

03 92 0a 00 01 00 00 00 56 02 2c 01

3. ErrorMessage: Type mismatch for tag 37380; expecting 10, saw 5

Tag: 04 92 05 00 01 00 00 00 5e 02 2c 01

***ExposureBiasValue***

The exposure bias. The unit is the APEX value. Ordinarily it is given in the range of –99.99 to 99.99.

Tag = 37380 (9204.H)

Type = SRATIONAL

Count = 1

Default = none

As above, change Type value to 0a.h. Tag becomes:-

04 92 0a 00 01 00 00 00 5e 02 2c 01

4. ErrorMessage: Type mismatch for tag 41728; expecting 7, saw 3

Tag: 00 a3 03 00 01 00 00 00 00 00 00 00

00 a3 Tag name:

03 00 Type

01 00 00 00 (Count :1)

00 00 00 00 (Offset: 0)

***“FileSource***

Indicates the image source. If a DSC recorded the image, this tag value of this tag always be set to 3, indicating that

the image was recorded on a DSC.

Tag = 41728 (A300.H)

Type = UNDEFINED

Count = 1

Default = 3

3 = DSC

Other = reserved”

Given that there is no value in the offset field, this tag has actually probably been written incorrectly.

To fix, the type will be set to 7, and the default value will be set, thus the tag becomes:

00 a3 07 00 01 00 00 00 03 00 00 00

ErrorMessage: Type mismatch for tag 41729; expecting 7, saw 3

Tag: 01 a3 03 00 01 00 00 00 00 00 00 00

***SceneType***

Indicates the type of scene. If a DSC recorded the image, this tag value must always be set to 1, indicating that the

image was directly photographed.

Tag = 41729 (A301.H)

Type = UNDEFINED

Count = 1

Default = 1

1 = A directly photographed image

Other = reserved

As above, tag becomes: -

01 a3 07 00 01 00 00 00 01 00 00 00

File is now valid according to JHOVE

Of note:

EXIF-IFD - FileSource: 3

EXIF-IFD - SceneType: 1

If the default values are not used, these parameters become:-

EXIF-IFD - FileSource: 0

EXIF-IFD - SceneType: 0

Neither of these are strictly permitted.

EXIF IFD

1a 00

9a 82 05 00 01 00 00 00 2e 02 2c 01

9d 82 05 00 01 00 00 00 36 02 2c 01

22 88 03 00 01 00 00 00 00 00 00 00

27 88 03 00 02 00 00 00 00 00 00 00

00 90 07 00 04 00 00 00 30 32 31 30

02 91 05 00 01 00 00 00 3e 02 2c 01

01 92 05 00 01 00 00 00 46 02 2c 01

02 92 05 00 01 00 00 00 4e 02 2c 01

03 92 05 00 01 00 00 00 56 02 2c 01

04 92 05 00 01 00 00 00 5e 02 2c 01

05 92 05 00 01 00 00 00 66 02 2c 01

06 92 05 00 01 00 00 00 6e 02 2c 01

07 92 03 00 01 00 00 00 00 00 00 00

08 92 03 00 01 00 00 00 00 00 00 00

09 92 03 00 01 00 00 00 00 00 00 00

0a 92 05 00 01 00 00 00 76 02 2c 01

01 a0 03 00 01 00 00 00 ff ff 00 00

02 a0 04 00 01 00 00 00 e7 0b 00 00

03 a0 04 00 01 00 00 00 64 08 00 00

0e a2 05 00 01 00 00 00 7e 02 2c 01

0f a2 05 00 01 00 00 00 86 02 2c 01

10 a2 03 00 01 00 00 00 00 00 00 00

15 a2 05 00 01 00 00 00 8e 02 2c 01

17 a2 03 00 01 00 00 00 00 00 00 00

00 a3 03 00 01 00 00 00 00 00 00 00

01 a3 03 00 01 00 00 00 00 00 00 00

00 00 00 00 00

IFD

13 00

fe 00 04 00 01 00 00 00 00 00 00 00

00 01 03 00 01 00 00 00 e7 0b 00 00

01 01 03 00 01 00 00 00 64 08 00 00

02 01 03 00 03 00 00 00 f2 00 00 00

03 01 03 00 01 00 00 00 01 00 00 00

06 01 03 00 01 00 00 00 02 00 00 00

11 01 04 00 01 00 00 00 38 66 00 00

15 01 03 00 01 00 00 00 03 00 00 00

16 01 03 00 01 00 00 00 64 08 00 00

17 01 04 00 01 00 00 00 b4 9a 2b 01

1a 01 05 00 01 00 00 00 f8 00 00 00

1b 01 05 00 01 00 00 00 00 01 00 00

1c 01 03 00 01 00 00 00 01 00 00 00

28 01 03 00 01 00 00 00 02 00 00 00

31 01 02 00 14 00 00 00 08 01 00 00

32 01 02 00 14 00 00 00 1c 01 00 00

bc 02 01 00 29 12 00 00 30 01 00 00

49 86 01 00 de 52 00 00 5a 13 00 00

69 87 04 00 01 00 00 00 f0 00 2c 01

00 00 00 00

bell 1960s.tif

IFD 0

18 00

fe 00 04 00 01 00 00 00 00 00 00 00

00 01 03 00 01 00 00 00 57 07 00 00

01 01 03 00 01 00 00 00 fc 08 00 00

02 01 03 00 03 00 00 00 f4 d4 c5 00

03 01 03 00 01 00 00 00 01 00 00 00

06 01 03 00 01 00 00 00 02 00 00 00

0f 01 02 00 06 00 00 00 fa d4 c5 00

10 01 02 00 15 00 00 00 00 d5 c5 00

11 01 04 00 01 00 00 00 08 00 00 00

12 01 03 00 01 00 00 00 01 00 00 00

15 01 03 00 01 00 00 00 03 00 00 00

16 01 03 00 01 00 00 00 fc 08 00 00

17 01 04 00 01 00 00 00 ec d4 c5 00

1a 01 05 00 01 00 00 00 16 d5 c5 00

1b 01 05 00 01 00 00 00 1e d5 c5 00

1c 01 03 00 01 00 00 00 01 00 00 00

28 01 03 00 01 00 00 00 02 00 00 00

31 01 02 00 1c 00 00 00 26 d5 c5 00

32 01 02 00 14 00 00 00 42 d5 c5 00

bc 02 01 00 16 42 00 00 56 d5 c5 00

49 86 01 00 da 1a 00 00 6c 17 c6 00

69 87 04 00 01 00 00 00 60 33 c6 00

30 93 07 00 00 16 00 00 00 00 8a 01

5c 93 07 00 94 cc c3 00 46 32 c6 00

00 00 00 00