

Exiv2 - Bug #1341

Date/Time Original not modified for NEFs

07 Apr 2018 11:19 - Jean-Luc CECCOLI

Status:	Closed	Start date:	07 Apr 2018
Priority:	Normal	Due date:	
Assignee:	Robin Mills	% Done:	100%
Category:	metadata	Estimated time:	2.00 hours
Target version:	0.27		
Description			
Hello, Ubuntu 16.04 LTS, exiv2 v2.5. exiv2 -v ad -a -1:00:00 photo.nef states Date/Time Original is modified, but it actually keeps unmodified. Is a fix for this planned ? Rgrds, J.-Luc			

History

#1 - 07 Apr 2018 13:28 - Robin Mills

- Category set to metadata
- Status changed from New to Assigned
- Assignee set to Robin Mills
- Target version set to 0.27
- % Done changed from 0 to 10
- Estimated time set to 2.00 h

Amazing discovery.

Clearly **NEF** has a metadatum **Exif.Image.DateTimeOriginal** which is not being updated.
Both **JPEG** and **NEF** have **Exif.Photo.DateTimeOriginal** which is being correctly updated.

JPEG:

```
$ curl http://clanmills.com/Stonehenge.jpg > S.jpg
$ exiv2 -pa --grep Date/i S.jpg
Exif.Image.DateTime                Ascii      20  2015:07:16 20:25:28 <-- Last edit 8:25pm
Exif.Photo.DateTimeOriginal        Ascii      20  2015:07:16 15:38:54 <-- Taken at 3:38pm
Exif.Photo.DateTimeDigitized       Ascii      20  2015:07:16 15:38:54
Exif.NikonWt.DateDisplayFormat     Byte       1  Y/M/D
Exif.GPSInfo.GPSDateStamp          Ascii      11  2015:07:16
Xmp.xmp.ModifyDate                 XmpText    25  2015-07-16T20:25:28+01:00
$ exiv2 --verbose -a -1:00:00 S.jpg
File 1/1: S.jpg
Adjusting `Exif.Image.DateTime` by -3600s to 2015:07:16 19:25:28
Adjusting `Exif.Photo.DateTimeOriginal` by -3600s to 2015:07:16 14:38:54
Adjusting `Exif.Photo.DateTimeDigitized` by -3600s to 2015:07:16 14:38:54
$ exiv2 -pa --grep Date/i S.jpg
Exif.Image.DateTime                Ascii      20  2015:07:16 19:25:28 <-- Now 7:25pm
Exif.Photo.DateTimeOriginal        Ascii      20  2015:07:16 14:38:54 <-- Now 2:28pm
Exif.Photo.DateTimeDigitized       Ascii      20  2015:07:16 14:38:54
Exif.NikonWt.DateDisplayFormat     Byte       1  Y/M/D
Exif.GPSInfo.GPSDateStamp          Ascii      11  2015:07:16
Xmp.xmp.ModifyDate                 XmpText    25  2015-07-16T20:25:28+01:00
```

NEF:

```
$ cp /Volumes/Backup/Photos/2016/Raw/DSC_0001.NEF .
$ exiv2 -pa --grep Date/i DSC_0001.NEF
Exif.Image.DateTime                Ascii      20  2016:04:20 08:00:13 <-- Last edit 8am
Exif.Photo.DateTimeOriginal        Ascii      20  2016:04:20 08:00:13 <-- Taken at 8am
Exif.Photo.DateTimeDigitized       Ascii      20  2016:04:20 08:00:13
Exif.NikonWt.DateDisplayFormat     Byte       1  Y/M/D
Exif.Image.DateTimeOriginal        Ascii      20  2016:04:20 08:00:13
```

```

$ exiv2 --verbose -a -1:00:00 DSC_0001.NEF
File 1/1: DSC_0001.NEF
Adjusting `Exif.Image.DateTime' by -3600s to 2016:04:20 07:00:13
Adjusting `Exif.Photo.DateTimeOriginal' by -3600s to 2016:04:20 07:00:13
Adjusting `Exif.Photo.DateTimeDigitized' by -3600s to 2016:04:20 07:00:13
$ exiv2 -pa --grep Date/i DSC_0001.NEF
Exif.Image.DateTime                Ascii      20  2016:04:20 07:00:13 <-- Now 7am
Exif.Photo.DateTimeOriginal        Ascii      20  2016:04:20 07:00:13 <-- Now 7am
Exif.Photo.DateTimeDigitized       Ascii      20  2016:04:20 07:00:13
Exif.NikonWt.DateDisplayFormat     Byte       1   Y/M/D
Exif.Image.DateTimeOriginal        Ascii      20  2016:04:20 08:00:13 <-- Oh!
$

```

This will be fixed in v0.27 which is expected to be released later this year. We don't have a target date for v0.27 at the moment.

#2 - 07 Apr 2018 19:28 - Robin Mills

- % Done changed from 10 to 20

Ah! This is intentional behaviour. The code to preform this is in src/actions.cpp:

```

861         Exiv2::ExifKey key("Exif.Photo.DateTimeOriginal");
862         Exiv2::ExifData::iterator md = exifData.findKey(key);
863         if (md == exifData.end()) {
864             key = Exiv2::ExifKey("Exif.Image.DateTime");
865             md = exifData.findKey(key);
866         }
867         ...

```

The code updates Exif.Photo.DateTimeOriginal or Exif.Image.DateTime, but not both! Exif.Photo.DateTimeOriginal has priority. This is exactly the behaviour we have seen in the test above.

I can of course modify the code to update both, however I think this is intended behaviour.

Can you describe your use case and the behaviour you would wish to see?

#3 - 07 Apr 2018 20:34 - Robin Mills

- % Done changed from 20 to 100

- Estimated time changed from 2.00 h to 1.00 h

Apologies. I misread the code. The code at 861 is modifying the filesystem timestamp using the metadata. That's correct, it has to choose only one.

The correct fix is:

```

705 rmills@rmillsmbp:~/gnu/github/exiv2/exiv2/build $ git diff
diff --git a/src/actions.cpp b/src/actions.cpp
index b167d19e..16a49a95 100644
--- a/src/actions.cpp
+++ b/src/actions.cpp
@@ -1701,6 +1701,7 @@ namespace Action {
     }
     int rc = adjustDateTime(exifData, "Exif.Image.DateTime", path);
     rc += adjustDateTime(exifData, "Exif.Photo.DateTimeOriginal", path);
+   rc += adjustDateTime(exifData, "Exif.Image.DateTimeOriginal", path);
     rc += adjustDateTime(exifData, "Exif.Photo.DateTimeDigitized", path);

     if (rc == 0 ) {
706 rmills@rmillsmbp:~/gnu/github/exiv2/exiv2/build $

```

Here's the output:

```

706 rmills@rmillsmbp:~/gnu/github/exiv2/exiv2/build $ cp /Volumes/Backup/Photos/2016/Raw/DSC_0001.NEF .
707 rmills@rmillsmbp:~/gnu/github/exiv2/exiv2/build $ bin/exiv2 -pa --grep date/i DSC_0001.NEF
Exif.Image.DateTime                Ascii      20  2016:04:20 08:00:13
Exif.Photo.DateTimeOriginal        Ascii      20  2016:04:20 08:00:13
Exif.Photo.DateTimeDigitized       Ascii      20  2016:04:20 08:00:13
Exif.NikonWt.DateDisplayFormat     Byte       1   Y/M/D
Exif.Image.DateTimeOriginal        Ascii      20  2016:04:20 08:00:13
708 rmills@rmillsmbp:~/gnu/github/exiv2/exiv2/build $ bin/exiv2 --verbose --adjust -1:00:00 DSC_0001.NEF
File 1/1: DSC_0001.NEF
Adjusting `Exif.Image.DateTime' by -3600s to 2016:04:20 07:00:13
Adjusting `Exif.Photo.DateTimeOriginal' by -3600s to 2016:04:20 07:00:13

```

```
Adjusting `Exif.Image.DateTimeOriginal` by -3600s to 2016:04:20 07:00:13
Adjusting `Exif.Photo.DateTimeDigitized` by -3600s to 2016:04:20 07:00:13
709 rmills@rmillsmbp:~/gnu/github/exiv2/exiv2/build $ bin/exiv2 -pa --grep date/i DSC_0001.NEF
Exif.Image.DateTime                Ascii      20 2016:04:20 07:00:13
Exif.Photo.DateTimeOriginal        Ascii      20 2016:04:20 07:00:13
Exif.Photo.DateTimeDigitized       Ascii      20 2016:04:20 07:00:13
Exif.NikonWt.DateDisplayFormat     Byte       1  Y/M/D
Exif.Image.DateTimeOriginal        Ascii      20 2016:04:20 07:00:13
710 rmills@rmillsmbp:~/gnu/github/exiv2/exiv2/build $
```

#4 - 18 Sep 2018 14:05 - Robin Mills

- % Done changed from 100 to 50
- Estimated time changed from 1.00 h to 2.00 h

I still have to submit this change to 'master' for Exiv2 v0.27.

#5 - 07 Nov 2018 17:54 - Robin Mills

- Status changed from Assigned to Closed
- % Done changed from 50 to 100

<https://github.com/Exiv2/exiv2/pull/524>