

## Exiv2 - Bug #1254

### Cannot recognize Canon 16-35 f/4 IS L

14 Nov 2016 14:34 - Niccolò Belli

<b>Status:</b>	Closed	<b>Start date:</b>	14 Nov 2016
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Robin Mills	<b>% Done:</b>	100%
<b>Category:</b>	lens	<b>Estimated time:</b>	2.00 hours
<b>Target version:</b>	0.26		

**Description**

Darktable developers suggested the bug was upstream: <https://redmine.darktable.org/issues/11315>  
I attached the raw file.

```
$ pacaur -Ss exiv2 | grep install
extra/exiv2 0.25-3 [installato]
extra/libkexiv2 16.08.3-1 [installato]
extra/libkexiv2_4 15.08.3-2 [installato]
```

OS is Archlinux.

### History

#### #1 - 14 Nov 2016 15:00 - Robin Mills

- Category set to lens
- Status changed from New to Closed
- Assignee set to Robin Mills
- Target version set to 0.26
- % Done changed from 0 to 100
- Estimated time set to 1.00 h

This is not a bug! Please see [#1252](#) for a discussion.

There's a new feature in Exiv2 v0.26 to add the definition of a lens to the file ~/.exiv2

```
$ exiv2 -pa --grep lens/i ~/Downloads/IMG_0589.CR2
Exif.CanonCs.LensType          Short      1  (0)
Exif.CanonCs.Lens              Short      3  16.0 - 35.0 mm
Exif.CanonCf.LensAFStopButton  Short      1  2049
Exif.Canon.LensModel           Ascii      64

$ exiv2 -pv --grep lens/i ~/Downloads/IMG_0589.CR2
0x0016 CanonCs      LensType          Short      1  0  <---- This is your lensID
0x0017 CanonCs      Lens              Short      3  35 16 1
0x0009 CanonCf      LensAFStopButton  Short      1  2049
0x0095 Canon        LensModel         Ascii      64

$ cat ~/.exiv2
[canon]
# 247=Samyang 14mm f/2.8 AE ED AS IF UMC
# 65535=The lens in issue 1251
0=Canon 16-35 f/4 IS L <--- ADD Your lens definition here

[nikon]
# 146=Robin's Sigma Lens

[pentax]
# 3 255 0 0=another pentax lens

[minolta]
# 255=a sony lens

[olympus]
# 123=something
```

```
$ exiv2 -pa --grep lens/i ~/Downloads/IMG_0589.CR2
Exif.CanonCs.LensType           Short      1   Canon 16-35 f/4 IS L <--- Good, eh?
Exif.CanonCs.Lens              Short      3   16.0 - 35.0 mm
Exif.CanonCf.LensAFStopButton   Short      1   2049
Exif.Canon.LensModel           Ascii     64
$
```

Exiv2 v0.26 status is currently **Release Candidate** and I hope it will ship in 2016. Darktable will include Exiv2 v0.26 sometime in 2017.

## #2 - 14 Nov 2016 15:44 - Roman Lebedev

Robin Mills wrote:

Darktable will include Exiv2 v0.26 sometime in 2017.

Hm? We do not include exiv2. We do not bundle it. We use whatever version is present in the system.

## #3 - 14 Nov 2016 15:48 - Robin Mills

You are correct. Darktable uses the system supplied version of Exiv2. That will be updated to v0.26 during 2017.

## #4 - 14 Nov 2016 15:57 - Niccolò Belli

You suggested to manually add my lens to the database, does it mean that v0.26 will ship without Canon 16-35 f/4 IS L support out of the box?

## #5 - 14 Nov 2016 16:03 - Robin Mills

[http://dev.exiv2.org/projects/exiv2/wiki/Lens\\_Recognition\\_in\\_Exiv2\\_v026\\_\(and\\_later\)/](http://dev.exiv2.org/projects/exiv2/wiki/Lens_Recognition_in_Exiv2_v026_(and_later)/)

## #6 - 14 Nov 2016 16:09 - Robin Mills

- Estimated time changed from 1.00 h to 2.00 h

Lens recognition is a problem because most manufacturers do not store metadata to define the lens in the image.

In your test file, the LensModel stored by the camera is 64 null bytes. Exiv2 has code to guess which lens is being used. Not only is this unreliable, it results in many issue reports and work for Team Exiv2. Additionally, when we add new lens recognition code, it takes time for the update to our code to reach our users.

To avoid frustration for everybody, I have added the `~/exiv2` feature. This enables users to add their lens to the system without a bug report to us and to add it instantly on their computer without a software update.

## #7 - 14 Nov 2016 16:13 - Niccolò Belli

This is a **TERRIBLE** news, didn't know the manufacturers were so stupid.

Just a few questions:

- 1) How does software like Lightroom handle such collision issues?
- 2) How does software like Darktable will handle the situation once v0.26 and future versions get released? Will they drop features like automatic lens correction which rely on exiv decoding?

## #8 - 14 Nov 2016 18:04 - Robin Mills

I think this is **WONDERFUL** news. I've given darktable and other applications a mechanism for the users to register their lenses without waiting for exiv2 to go through a release cycle.

I wish manufacturers would correctly and uniquely record the lens in the metadata. I don't know why they don't improve this feature of their cameras. It may be that most cameras ship in advance of new lenses. So the camera cannot recognise a new lens that is released after the camera.

I worked for Adobe for many years in Silicon Valley. I never worked on anything relating to metadata or LightRoom.

At the moment, I frequently update Exiv2 with new lenses. So Exiv2 v0.26 does ship with an up-to-date database of lenses. We might continue to update the lens recognition code in v0.27 and beyond - however it depends on the response of darktable and other applications to having the `~/exiv2` feature.

We have an issue on the agenda for v0.27 to use all 7000 images in Phil's test suite. This matter isn't dead with v0.26. It is intended to give it more attention and to improve our RAW support and test. So, we're not walking away. The `~/exiv2` feature is an investment to help everybody. More work will follow.

I try very hard to give our users the best tools and features. If there is a strong demand to continuously add new "built in" lenses, I will try to support that. However if `~/exiv2` is a success, demand for us to guess the lens may disappear. And perhaps darktable will manage the `~/exiv2` file on behalf of the user. If an unrecognised lens is used, darktable could alert the user, and update `~/exiv2` in a very painless manner.

So --- cheer up --- everything will work out fine!

#9 - 14 Nov 2016 23:21 - Niccolò Belli

Hopefully you will keep updating the built in lenses database, which combined to the new approach would probably be the best solution. Thanks for your detailed answer.

## Files

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IMG\_0589.CR2

12.2 MB

14 Nov 2016

Niccolò Belli