

darktable - Bug #11912

Better monochrome raw support

01/09/2018 12:01 AM - Kelvie Wong

Status:	Fixed	Start date:	01/08/2018
Priority:	Low	Due date:	
Assignee:	Kelvie Wong	% Done:	100%
Category:	General	Estimated time:	0.00 hour
Target version:	2.6.0	bitness:	64-bit
Affected Version:	git master branch	hardware architecture:	amd64/x86
System:	all		

Description

Having used raw DNGs out of the Leica Monochrom camera, there are a few quality-of-life things that could be improved.

1. Right now, monochrom DNGs aren't read as real raws apparently, so modifying the code to read it as a real raw will allow some functions to work again (like auto exposure)
2. Demosaicing is on by default
3. Lens correction auto-applies CA correction when selected, which can add colour to a monochrome image!

From LebedevRI on IRC:

```
LebedevRI | kelvie: tldr: 1. move is_leica_monochrom() into some common source/header
LebedevRI | 2. change https://github.com/darktable-org/darktable/blob/master/src/common/ima
geio_rawspeed.cc#L228 to
| "if(!r->isCFA && !is_leica_monochrom())"
LebedevRI | 3. enjoy working exposure mode=automatic
LebedevRI | 4. on https://github.com/darktable-org/darktable/blob/master/src/iop/demosaic.c
#L4911 add something like
| if(is_leica_monochrom()) tmp.demosaicing_method = DT_IOP_DEMOSAIC_PASSTHROUGH_M
ONOCROME;
LebedevRI | that should get you 90% there
```

And maybe name the function `is_monochrome_camera`

Associated revisions

Revision 5dd21704 - 01/18/2018 08:43 PM - Roman Lebedev

Merge remote-tracking branch 'upstream/pr/1621'

Refs. #11912.

- upstream/pr/1621:
 - Disable cacorrect, invert, and temperature for monochrome cameras
 - Improve monochrome raw handling

History

#1 - 01/09/2018 12:07 AM - Roman Lebedev

Kelvie Wong wrote:

Having used raw DNGs out of the Leica Monochrom camera, there are a few quality-of-life things that could be improved.

1. Right now, monochrom DNGs aren't read as real raws apparently, so modifying the code to read it as a real raw will allow some functions to work again (like auto exposure)

I don't think there is anything else other than exposure mode=manual that is not working because of it. Well, and less data to deal with, so maybe slight performance/memory consumption changes.

2. Demosaicing is on by default

It isn't, but with these changes, it will have to be.

3. Lens correction auto-applies CA correction when selected, which can add colour to a monochrome image!

it would also be one liner, on <https://github.com/darktable-org/darktable/blob/master/src/iop/lens.c#L1136> add

```
if(is_leica_monochrom()) tmp.demosaicing_method &= ~LF_MODIFY_TCA;
```

#2 - 01/09/2018 12:59 AM - Kelvie Wong

<deleted>

Didn't see Roman's reply

#3 - 01/09/2018 04:30 AM - Kelvie Wong

Put up a PR with the fixes:

<https://github.com/darktable-org/darktable/pull/1616>

#4 - 01/18/2018 09:57 PM - Kelvie Wong

This was just merged, and I think can be closed!

#5 - 01/18/2018 10:16 PM - Roman Lebedev

- Assignee set to Kelvie Wong

- Status changed from New to Fixed
- System changed from Ubuntu to all
- Affected Version changed from 2.4.0 to git master branch
- % Done changed from 0 to 100

#6 - 01/24/2018 02:22 PM - Roman Lebedev

- Target version set to 2.6.0