darktable - Camera Support #12322

Support Nikon Z7

09/11/2018 08:41 PM - Luc Viatour

Status:	Fixed		**Start date:**	09/11/2018
Priority:	Medium		**Due date:**	
Assignee:	Roman Lebedev		**% Done:**	100%
Category:	General		**Estimated time:**	0.00 hour
Target version:	2.6.0			
Affected Version:	git master branch			

Description

Hello I just sent the raw files of Nikon Z7 in all formats of raw on https://raw.pixls.us/

Can you add support for this case in my favorite software?

thank you in advance

Related issues:

Duplicated by darktable - Camera Support #12374: No Nikon Z7 support	**Duplicate**	**10/22/2018**

Associated revisions

Revision 39afcdbd - 10/10/2018 07:39 PM - Roman Lebedev

Nikon Z 7 color matrix. Refs. #12322

Revision 96791383 - 10/27/2018 02:12 PM - Roman Lebedev

RawSpeed submodule update: GoPro ".GPR" raw format, Nikon Z 7 camera support

- Support for GoPro ".GPR" raws.
  Thanks to the initial patch by
  Stefan Löffler, https://github.com/stloeffler
   https://github.com/darktable-org/rawspeed/pull/146
   https://github.com/darktable-org/rawspeed/issues/40
- Nikon Z 7 camera support.
  Only uncompressed 14-bit raw does not decode,
  will look into that later, hopefully not many will use
  it anyway, due to it's filesize.

Note that the new VC5Decompressor is parallized using OpenMP,
so it is really best to have openmp support.

Also, update the compiler-versions.cmake from RawSpeed, changes

- gcc 5.0 is still the required version.
- clang 3.9 (instead of 3.5) is now required.
- Thus, both of the compilers provide full OpenMP 4.0 support.
- Outline the forward path (gcc 7, clang 4.0), not yet in effect.

Fixes #11466.
Fixes #12322.

History

#1 - 09/11/2018 09:07 PM - Roman Lebedev

- Status changed from New to Incomplete

- Assignee set to Roman Lebedev

- % Done changed from 0 to 20

Thanks for the samples.
adobe dng converter with support for that camera needs to be released first, since we need a color matrix..

#2 - 09/11/2018 09:30 PM - Stefan Schöfegger

Z7 files can be converted with 10.5

#3 - 09/11/2018 09:33 PM - Roman Lebedev

Stefan Schöfegger wrote:

> Z7 files can be converted with 10.5

Hmm, but it is not listed in the release notes.
I did not check, but i wonder how 'final' that color matrix is.

#4 - 09/11/2018 09:38 PM - Stefan Schöfegger

All but

- Nikon - NIKON Z 7 - 14bit compressed (Lossless) (3_2).NEF
- Nikon - NIKON Z 7 - 12bit compressed (Lossless) (3_2).NEF
  from rpu can be converted.

#5 - 09/12/2018 10:14 AM - Roman Lebedev

Stefan Schöfegger wrote:

> All but
>
> - Nikon - NIKON Z 7 - 14bit compressed (Lossless) (3_2).NEF
> - Nikon - NIKON Z 7 - 12bit compressed (Lossless) (3_2).NEF
>   from rpu can be converted.

On our side:

```
./Nikon/NIKON Z 7/Nikon-Z7-14bit-lossless-compressed.NEF failed: ../src/librawspeed/decoders/RawDecoder.cpp:27
2: rawspeed::RawImage rawspeed::RawDecoder::decodeRaw(): ../src/librawspeed/io/ByteStream.h:75: rawspeed::Buff
er::size_type rawspeed::ByteStream::check(rawspeed::Buffer::size_type) const: Out of bounds access in ByteStre
am
./Nikon/NIKON Z 7/Nikon-Z7-12bit-lossless-compressed.NEF:  76 MB / 2049 ms
```

#6 - 09/12/2018 12:10 PM - Roman Lebedev

Roman Lebedev wrote:

> Stefan Schöfegger wrote:
>
>> All but
>>
>> - Nikon - NIKON Z 7 - 14bit compressed (Lossless) (3_2).NEF
>> - Nikon - NIKON Z 7 - 12bit compressed (Lossless) (3_2).NEF
>>   from rpu can be converted.

> On our side:
> [...]

After digging a bit, either that image is corrupted somehow, or they changed *something*.

#7 - 09/29/2018 11:44 AM - Luc Viatour

Luc Viatour wrote:

> Hello I just sent the raw files of Nikon Z7 in all formats of raw on https://raw.pixls.us/
>
> Can you add support for this case in my favorite software?
>
> thank you in advance

I have at home the Z7, I made new raw clean 8 formats of Z7 and upload to raw.pixls.us
Only the 4 formats lossless compressed recognized by DNGconverter

#8 - 09/29/2018 06:30 PM - Roman Lebedev

Luc Viatour wrote:

Luc Viatour wrote:

Hello I just sent the raw files of Nikon Z7 in all formats of raw on https://raw.pixls.us/

Can you add support for this case in my favorite software?

thank you in advance

I have at home the Z7, I made new raw clean 8 formats of Z7 and upload to raw.pixls.us

Thanks, validated, deleted the previous set.

Only the 4 formats lossless compressed recognized by DNGconverter

#9 - 10/10/2018 09:15 AM - Luc Viatour

New version Adobe DNG converter in 11.0 and support Nikon Z7

#10 - 10/10/2018 10:56 AM - Roman Lebedev

Luc Viatour wrote:

New version Adobe DNG converter in 11.0 and support Nikon Z7

Ah, thank you. This is so weird, it seems to only install the **.dcp**/.lcp,
i do not see "Program Files/Adobe/Adobe DNG Converter/Adobe DNG Converter.exe" there..
Did they upload the wrong exe?

#11 - 10/10/2018 11:04 AM - Luc Viatour

here download exe:
https://supportdownloads.adobe.com/detail.jsp?ftpID=6450

#12 - 10/10/2018 11:05 AM - Roman Lebedev

Luc Viatour wrote:

> here download exe:
> https://supportdownloads.adobe.com/detail.jsp?ftpID=6450

That is exactly what i'm looking at, it does not install "Adobe DNG Converter.exe" as far as i can see.

#13 - 10/10/2018 11:10 AM - Luc Viatour

44/5000
I installed the .exe via wine without problem

#14 - 10/10/2018 11:11 AM - Roman Lebedev

Luc Viatour wrote:

> 44/5000
> I installed the .exe via wine without problem

And did it install "Program Files/Adobe/Adobe DNG Converter/Adobe DNG Converter.exe" ?

#15 - 10/10/2018 11:15 AM - Luc Viatour

yes:
http://download.adobe.com/pub/adobe/dng/win/DNGConverter_11_0.exe

#16 - 10/10/2018 12:20 PM - Roman Lebedev

Luc Viatour wrote:

> yes:
> http://download.adobe.com/pub/adobe/dng/win/DNGConverter_11_0.exe

Tried again with that with fully updated 32-bit chroot + 32-bit wine, no change. I don't get it.

If you remove "Program Files/Adobe/Adobe DNG Converter", and install DNGConverter_11_0.exe, does "Program Files/Adobe/Adobe DNG Converter/Adobe DNG Converter.exe" appear for you?

#17 - 10/10/2018 06:22 PM - Luc Viatour

This DNG converter 64bit.

#18 - 10/10/2018 06:25 PM - Roman Lebedev

Luc Viatour wrote:

> This DNG converter 64bit.

Let's see if 64-bit chroot helps..

#19 - 10/10/2018 06:28 PM - Luc Viatour

DNG converter 64bit installed on a 64bit Ubuntu 18.4 system
no problem everything works with Playonlinux / wine

#20 - 10/10/2018 08:07 PM - Roman Lebedev

- Affected Version changed from 2.4.4 to git master branch

- Status changed from Incomplete to In Progress

- Target version deleted (Candidate for next patch release)

- % Done changed from 20 to 50

#21 - 10/10/2018 08:07 PM - Roman Lebedev

- Status changed from In Progress to Triaged

- % Done changed from 50 to 20

#22 - 10/10/2018 10:20 PM - Roman Lebedev

Been looking at this again.
Three samples do not decode:

- 1-Nikon-Z7-RAW-14bit-uncompressed-L.NEF
  Some elusive problem with how the uncompressed data is stored. At the very list there is one padding byte at the end of each input row
- 2-Nikon-Z7-RAW-14bit-compressed-L.NEF and 5-Nikon-Z7-RAW-12bit-compressed-L.NEF
  Something is going wrong with the curve.
  If i pass true (do not apply LUT) instead of uncorrectedRawValues in

  https://github.com/darktable-org/rawspeed/blob/564f6b5228635c30886076696c66e9d49f61238f/src/librawspeed/decompressors/NikonDecompressor.cpp#L222
  then they decode. Although unsurprizingly, look bad.

#23 - 10/15/2018 01:16 AM - Luc Viatour

Nikon Z7 support will be present in the next minor update?

#24 - 10/15/2018 01:36 AM - Roman Lebedev

Luc Viatour wrote:

> Nikon Z7 support will be present in the next minor update?

Not before it is actually added in master, which i still didn't do, which my previous comment here should have explained.
For now you can **temporarily workaround** this by converting those NEF's to DNG's via that very adobe dng converter.

#25 - 10/22/2018 09:06 AM - Roman Lebedev

- Duplicated by Camera Support #12374: No Nikon Z7 support added

#26 - 10/27/2018 01:23 PM - Roman Lebedev

- % Done changed from 20 to 50

- Status changed from Triaged to In Progress

Luc Viatour wrote:

> Nikon Z7 support will be present in the next minor update?

Ok, finally cracked those 2-Nikon-Z7-RAW-14bit-compressed-L.NEF and 5-Nikon-Z7-RAW-12bit-compressed-L.NEF, they decode correctly now.

Only 1-Nikon-Z7-RAW-14bit-uncompressed-L.NEF remains to be a problem, but i think i feel like ignoring it for now.

Once again, thank you so much for this perfect sample set!

#27 - 10/27/2018 01:29 PM - Luc Viatour

Thank you for the support

#28 - 10/27/2018 03:04 PM - Roman Lebedev

- % Done changed from 50 to 100

- Status changed from In Progress to Fixed

Applied in changeset darktable|967913834f1f4dde8c0c9be7044de9b0a37edabe.

#29 - 11/29/2018 02:11 PM - Roman Lebedev

- Target version set to 2.6.0