

Exiv2 - Feature #1048

Add support for webm video format.

27 Mar 2015 10:07 - Robin Mills

Status:	New	Start date:	27 Mar 2015
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:	image format	Estimated time:	0.00 hour
Target version:	0.28		

Description

Google have proposed new image and movie file formats to address various deficiencies in the existing 2000+ known formats. We believe that the video format webm is already supported by our Matrovska implementation.

Gilles has been asking on behalf of Digicam for Exiv2 to support webp.

I've looked at libwebp from Google. I've built it and run some examples. This looks like a straight-forward task.

```
621 rmills@rmillssmbp:~ $ cp ~/Pictures/2015/WinterTrip/Austin/DSC_5900.jpg test.jpg; ls -alt test.jpg
-rw-r--r-- 1 rmills staff 7167602 22 Mar 22:23 test.jpg
622 rmills@rmillssmbp:~ $ exiv2 -pv test.jpg | wc # nice new test JPEG with 156 lines of metadata
    156    1091    10978
623 rmills@rmillssmbp:~ $ cwebp -metadata exif test.jpg -o test.webp # convert the JPEG to WEBP while keeping the exif data in test.web
Saving file 'test.webp'
File:      test.jpg
Dimension: 6000 x 4000
Output:    420072 bytes Y-U-V-All-PSNR 42.59 47.79 47.70  43.73 dB
block count:  intra4: 45949
                intra16: 47801 (-> 50.99%)
                skipped block: 12523 (13.36%)
bytes used:  header:      281 (0.1%)
                mode-partition: 125371 (29.8%)
Residuals bytes |segment 1|segment 2|segment 3|segment 4| total
macroblocks:   |    2%|    6%|   13%|   76%|  93750
quantizer:     |    36|    36|    30|    23|
filter level:  |    15|    31|    32|    20|
Metadata:
* EXIF data:    14854 bytes
624 rmills@rmillssmbp:~ $ ls -alt test.webp # a little smaller, eh?
-rw-r--r-- 1 rmills staff 434952 22 Mar 22:24 test.webp
626 rmills@rmillssmbp:~ $ webpmux -get exif test.webp -o - | exiv2 -pv - # extract the metadata and pipe it through exiv2
Saved file - (14854 bytes)
0x010f Image      Make                Ascii                18  NIKON CORPORATION
0x0110 Image      Model               Ascii                12  NIKON D5300
...
0x0202 Thumbnail  JPEGInterchangeFormatLength Long                1  10670
0x0213 Thumbnail  YCbCrPositioning   Short                1  1
627 rmills@rmillssmbp:~ $ webpmux -get exif test.webp -o - | exiv2 -pv - | wc
Saved file - (14854 bytes)
    156    1091    10978 # we still have 156 lines of metadata
628 rmills@rmillssmbp:~ $
```

Please don't think that because I have been able to extract the meta data with a pipe, this project's trivial. It's not. I'd like us to use Exiv2's basicio module to perform I/O within libwebp. This is because basicio supports web protocols to randomly seek data on the web (we don't copy the whole file).

I'll take a look at the webp/webpmux libraries and make an assessment of the effort required to get basicio to perform I/O.

Related issues:

Related to Exiv2 - Feature #992: Better raw file support and test

Assigned**18 Sep 2014****History**

#1 - 09 Apr 2015 18:22 - Robin Mills

- Subject changed from *Add support for webp image format.* to *Add support for webp image and webm video formats.*

#2 - 23 May 2015 08:36 - Robin Mills

- Assignee deleted (*Robin Mills*)

#3 - 24 Aug 2015 10:23 - Robin Mills

- Tracker changed from *Bug* to *Feature*
- Category changed from *miscellaneous* to *image format*
- Status changed from *Assigned* to *New*
- Target version changed from *0.26* to *1.0*

#4 - 13 Jun 2016 11:46 - Robin Mills

- Status changed from *New* to *Assigned*
- Assignee set to *Robin Mills*
- Target version changed from *1.0* to *0.28*

#5 - 20 Aug 2016 15:52 - Robin Mills

- Subject changed from *Add support for webp image and webm video formats.* to *Add support for webm video format.*
- Status changed from *Assigned* to *New*
- Assignee deleted (*Robin Mills*)

Thanks to splendid work by Ben, we have WebP support added to v0.26. webm is Matrovska and may already be working. The video code needs attention and [#992](#) should address this matter in v0.27.

I'm going to change the title of this to only include webm. I'm also going to set Status = New and unassign myself from this task. Our video code and image tests will be serviced in v0.27.

#6 - 20 Aug 2016 16:19 - Gilles Caulier

Good idea. WebM is another important Google format to support in near future.

Gilles Caulier