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@rmillsmbp:~ $ 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@rmillsmbp:~ $ exiv2 -pv test.jpg | wc                          # nice new test JPEG wit
h 156 lines of metadata
    156    1091   10978
623 rmills@rmillsmbp:~ $ cwebp -metadata exif test.jpg -o test.webp      # convert the JPEG to WE
BP 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@rmillsmbp:~ $ ls -alt test.webp                               # a little smaller, eh?
-rw-r--r--  1 rmills  staff  434952 22 Mar 22:24 test.webp
626 rmills@rmillsmbp:~ $ webpmux -get exif test.webp -o - | exiv2 -pv -   # extract the metadata a
nd 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@rmillsmbp:~ $ webpmux -get exif test.webp -o - | exiv2 -pv - | wc
Saved file - (14854 bytes)
    156    1091   10978                                                  # we still have 156 line
s of metadata
628 rmills@rmillsmbp:~ $
```

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