Exiv2 - Feature #726

Add support for Samsung's .SRW raw format

16 Sep 2010 14:02 - Oleg Yermakov

Status:	Closed		**Start date:**	16 Sep 2010
Priority:	Normal		**Due date:**	
Assignee:	Andreas Huggel		**% Done:**	100%
Category:	image format		**Estimated time:**	0.00 hour
Target version:	0.21			

Description

Samsung had recently made the worst thing I could expect from them — they invented the new .SRW raw file format for their new NX series cameras.

The problem is: nothing supports it currently, except for Samsung's branded raw processor for Windows® (Silkypix or something like that) and Adobe's Lightroom & DNG converter.
Proof & examples: http://www.photographyblog.com/reviews/samsung_nx10_review/sample_images/

They say (at http://metadatamadness.blogspot.com/2010/03/stupid-samsung-srw.html , for example), that SRW is just TIFF with no additional markers and but with lot of proprietary stuff inside.

Samsung's NX series is gaining popularity, so it could be an important and requested feature.

An «Rapid photo downloader» software developer pointed me that you're to add support for SRW first before he could add it to his program too. https://bugs.launchpad.net/rapid/+bug/640722

Associated revisions

Revision 2353 - 21 Sep 2010 08:45 - Andreas Huggel

#726: Added support for thumbnail found in sub-IFD of IFD1 of Samsung .SRW files.

Revision 2357 - 28 Sep 2010 10:05 - Andreas Huggel

#726: Added support for Samsung2 makernote. (Pretty-print and easy-access functions not done yet.)

Revision 2358 - 29 Sep 2010 09:33 - Andreas Huggel

#726: Added pretty-print and easy-access functions for the Samsung2 makernote.

Revision 2359 - 01 Oct 2010 04:07 - Andreas Huggel

#726: Tweak to make it select the correct primary image.

History

#1 - 17 Sep 2010 01:37 - Andreas Huggel

If these files are really just like TIFF files then exiv2 should work just fine.

Can you try with the exiv2 command line tool whether you can read and maybe even write to these files?

Exiv2 doesn't support Samsung makernotes yet, so writing will probably corrupt the makernote and chances are the resulting image can't be displayed anymore.

#2 - 20 Sep 2010 10:19 - Oleg Yermakov

reading tags:

```
$ exiv2 print SAM_6972-test.srw
File name       : SAM_6972-test.srw
File size       : 28138208 Bytes
MIME type       : image/tiff
Image size      : 0 x 0
Camera make     : SAMSUNG
Camera model    : NX10
Image timestamp : 2010:09:09 00:14:46
Image number    :
```

```
Exposure time   : 1/8 s
Aperture        : F2
Exposure bias   : 0 EV
Flash           : No flash
Flash bias      :
Focal length    : 30.0 mm
Subject distance:
ISO speed       : 800
Exposure mode   : Aperture priority
Metering mode   : Multi-segment
Macro mode      :
Image quality   :
Exif Resolution :
White balance   : Auto
Thumbnail       : None
Copyright       :
Exif comment    :
```

$ exiv2 print SAM_6972-test.srw -ph >print-ph.txt → http://pastebin.com/1F6YDFZK

reading preview:

```
$ exiv2 print SAM_6972-test.srw -pp
Preview 1: image/jpeg, 4592x3056 pixels, 5994834 bytes
```

Extracted SAM_6972-test-preview1.jpg is sane JPEG image, although preview for the .SRW itself doesn't show anywhere

extracting tags:

```
$ exiv2 extract SAM_6972-test.srw
./SAM_6972-test.exv: Could not write metadata to file: Size of Exif JPEG segment is larger than 65535 bytes
```

The resulting SAM_6972-test.exv is only 9 bytes long and contains just the EXIF header:

```
<FF>^AExiv2<FF><D9>
```

Editing:

```
$ exiv2 -M"set Exif.Photo.UserComment charset=Ascii New Exif comment" SAM_6972-test.srw
$ exiv2 print SAM_6972-test.srw | grep comment
Exif comment    : New Exif comment
```

So, the empty «image size» field is only serious problem I see. But it **is** populated in EXIF as you can see in the **print -ph** output.

#3 - 20 Sep 2010 10:28 - Oleg Yermakov

Ooops, bad news: Adobe DNG converter no longer thinks it's still SRW after I added a comment to the image.

Maybe it's bacause size of the file changed from 28138208 to 28130514 bytes.

#4 - 20 Sep 2010 18:59 - Andreas Huggel

Thanks for testing. Chances are this can be made to work without too much effort. I'll give it a try, but that will be earliest over the weekend.

Andreas

#5 - 28 Sep 2010 10:08 - Andreas Huggel

I've added support for the Samsung makernote. Can you run your tests again with the current revision from SVN (r2357)?

#6 - 08 Oct 2010 22:54 - Andreas Huggel

- Category set to image format

- Status changed from New to Resolved

- Assignee set to Andreas Huggel

- Target version set to 0.21

- % Done changed from 0 to 100

Considered done. Needs some real-world feedback now.

#7 - 09 Oct 2010 00:41 - Gilles Caulier

Andreas,

For digiKam, i need to know if SRW file are supported as Read Only or as Read/Write.

Gilles Caulier

#8 - 09 Oct 2010 08:53 - Andreas Huggel

Read/Write

#9 - 22 Nov 2010 18:31 - Andreas Huggel

- Status changed from Resolved to Closed