Exiv2 - Bug #906

Mountain Lion Plugin crashes when setxattr called

10 Jun 2013 09:37 - Robin Mills

Status:	Closed	**Start date:**	10 Jun 2013
Priority:	Normal	**Due date:**	
Assignee:	Robin Mills	**% Done:**	50%
Category:	build	**Estimated time:**	4.00 hours
Target version:	0.24		

Description

This has been reported by Yang Yang of Topaz Labs.

Related issues:

Related to Exiv2 - Bug #910: Bug #836 possibly reintroduced: writeMetadata() ...	**Assigned**	**25 Jul 2013**

Associated revisions

Revision 3050 - 10 Jun 2013 09:49 - Robin Mills

Issue: #906

Revision 3065 - 06 Jul 2013 22:16 - Robin Mills

Mac build #906 fix compilation error (thanks to Tuan for this fix).

History

#1 - 10 Jun 2013 09:45 - Robin Mills

I think it's clear that this is a fault being thrown by Mac's 'sandbox' feature which was introduced by Mountain Lion. The 'sandbox' restricts system calls. As our test suite passes, it would appear that Terminal applications are not 'sandboxed'.

I believe we can dummy it to be effectivly void copyXattrFrom(const FileIo&) { return ; }.
…

#ifndef *APPLE*
if (::setxattr(path_.c_str(), name, value, valueSize, 0, 0) != 0) {
throw Error(2, path_, strError(), "setxattr");
}
#endif
…

What's xattr and how to work with it:

I've googled up a couple of pages about this
http://www.jetseven.org/2011/09/tiny-terminal-tip-xattr.html
http://xahlee.info/comp/OS_X_extended_attributes_xattr.html

I've applied an xattr to Volker's test files:

```
$ cd <exiv2dir>/test/data
$ xattr -w -x aabbcc 2233445566 *.eps
$ ls -alt@ *.eps
….
-rw-r--r--@ 1 rmills  staff  1256239 Oct 19  2012 test/data/eps/eps-flat_coreldraw-x3-lev2.eps
    aabbcc          5
564 rmills@rmills-imac:~/gnu/exiv2/test.build $
```

I added a cout to copyXattrFrom to be certain it's being called:

```
#ifdef DEBUG
            EXV_DEBUG << "Copying xattr \"" << name << "\" with value size " << valueSize << "\n";
#endif
#ifndef __APPLE__
            if (::setxattr(path_.c_str(), name, value, valueSize, 0, 0) != 0) {
                throw Error(2, path_, strError(), "setxattr");
            }
```

```
#else
            std::cout << "SETATTR" << std::endl;
#endif

555 rmills@rmills-imac:~/gnu/exiv2/test.build $ make teste
cd test && make teste
Running eps-test.sh ...
.....................................................................................................
Files /Users/rmills/gnu/exiv2/test.build/test/tmp/../data/eps/eps-test.out and /Users/rmills/gnu/exiv2/test.bu
ild/test/tmp/eps-test.out differ
--- /Users/rmills/gnu/exiv2/test.build/test/tmp/../data/eps/eps-test.out    2012-10-19 21:18:22.000000000 -070
0
+++ /Users/rmills/gnu/exiv2/test.build/test/tmp/eps-test.out    2013-06-03 11:25:13.000000000 -0700
@@ -5,6 +5,7 @@
 Exit code: 253

 Command: exiv2 -dx eps-flat_coreldraw-x3-lev2.eps
+SETATTR
 Exit code: 0

 Command: exiv2 -f -ex eps-flat_coreldraw-x3-lev2.eps
@@ -16,6 +17,7 @@
 Exit code: 0

 Command: exiv2 -ix eps-flat_coreldraw-x3-lev2.eps
+SETATTR
 Exit code: 0

 Command: (2) exiv2 -ix eps-flat_coreldraw-x3-lev2.eps
make[1]: *** [teste] Error 1
make: *** [teste] Error 2
556 rmills@rmills-imac:~/gnu/exiv2/test.build $
```

Notice there is an exception coming from test/data/eps-test.out

```
560 rmills@rmills-imac:~/gnu/exiv2/test.build $ ls -alt@ test/tmp/eps-test.out
-rw-r--r--+ 1 rmills  staff  427419 Jun  3 11:25 test/tmp/eps-test.out
561 rmills@rmills-imac:~/gnu/exiv2/test.build $ ls -alt@ test/data/eps/eps-test.out
-rw-r--r--+ 1 rmills  staff  427403 Oct 19  2012 test/data/eps/eps-test.out
562 rmills@rmills-imac:~/gnu/exiv2/test.build $
```

Both have extended attributes and the second is shorter by 16 bytes. However ls -alt@ didn't list anything. I think he has an invisible string in his xattr. Volker's test is strong enough to detect this. I think this exception is benign.

#2 - 10 Jun 2013 09:53 - Robin Mills

Fix submitted: r3050.

#3 - 24 Jul 2013 15:48 - Robin Mills

- Status changed from Assigned to Closed

I believe this is fixed in 0.24. If you wish this issue to be reconsidered, please open a new issue on dev.exiv2.org and reference this report.

#4 - 25 Jul 2013 02:32 - Volker Grabsch

Please note that the MacOSX platform was the reason we introduced the xattr stuff in the first place, as otherwise the resource fork of images bigger than 1MB would be destroyed (see issue #836).

So I think that disabling this mechanism for all MacOSX platforms is going too far.

We should either disable this for exactly the MacOSX versions that cause trouble.

Or better: provide an alternative mechanism that preserves resource forks.

#5 - 25 Jul 2013 02:42 - Volker Grabsch

I created a new issue #910 to address this possible reintroduction of a bug.