

Exiv2 - Bug #795

Set/Get of PNG comment

24 Oct 2011 13:48 - Thomas Beutlich

Status:	Closed	Start date:	24 Oct 2011
Priority:	Normal	Due date:	
Assignee:	Andreas Huggel	% Done:	100%
Category:	image format	Estimated time:	0.00 hour
Target version:	0.23		

Description

If I set and retrieve the comment of a PNG file using Exiv2 0.22 on WinXPSP3 I get strange characters if the comment string is shorter than 8 characters.

```
C:\temp>exiv2 -c "PNG" imagemagick.png
```

```
C:\temp>exiv2 -pc imagemagick.png
```

```
PNG x 4
```

Associated revisions

Revision 2634 - 14 Nov 2011 08:23 - Andreas Huggel

#795: Fixed decoding of PNG comment.

History

#1 - 08 Nov 2011 11:53 - Thomas Beutlich

After two weeks of waiting: Can someone please accept this issue. I tried but I failed.

If I run the debug version of exiv2.exe (i.e. with undefined SUPPRESS_WARNINGS) I get a strange error on the original PNG file *imagemagick.png* which like a strange bug.

```
C:\temp>exiv2.exe -pc imagemagick.png
```

```
Error: Directory NikonPreview with 512 entries considered invalid; not read.
```

#2 - 08 Nov 2011 17:04 - Andreas Huggel

- Assignee set to Andreas Huggel

- Target version deleted (0.23)

Hi Thomas, I'll have a look, sorry for the delay.

The error complains about an invalid NikonPreview directory, which typically gets corrupted if the image is edited (converted?) with a software that doesn't handle this part of the makernote correctly.

Andreas

#3 - 09 Nov 2011 04:16 - Thomas Beutlich

OK, thanks for looking into this.

By the way, SUPPRESS_WARNINGS is kind of misleading here. If it is undefined, I get an error and exiv2 aborts. If it is defined, there is neither a warning nor a error. I think it is better if SUPPRESS_WARNINGS only suppresses warnings and not changes the error / exception behaviour.

#4 - 09 Nov 2011 17:18 - Andreas Huggel

The differentiation between "Warning" and "Error" **messages** is subjective and I have no well-defined criteria for it (suggestions welcome). Both are equally affected by the SUPPRESS_WARNINGS flag. Exceptions are different. SUPPRESS_WARNINGS should not modify the program flow, in particular it should not affect exceptions. It's a bug if it does, but the code for the error you highlighted looks ok, it doesn't explain your observation, will also check in more detail later.

```
// Sanity check with an "unreasonably" large number
if (n > 256) {
#ifdef SUPPRESS_WARNINGS
    EXV_ERROR << "Directory " << groupName(object->group()) << " with "
        << n << " entries considered invalid; not read.\n";
#endif
    return;
}
```

#5 - 14 Nov 2011 08:31 - Andreas Huggel

- Status changed from New to Assigned

r2634 fixes the PNG comment decoding issue I can see here, using Valgrind on Mac OSX. Maybe there are memory leaks too, I'll have to also test on Linux. Does it look better on Windows now?

What command did you run to get exiv2 to abort as described in the comment above (with SUPPRESS_WARNINGS undefined)?

-ahu.

#6 - 14 Nov 2011 11:01 - Thomas Beutlich

Yes, r2634 solves the primary problem with the PNG comment on Windows using MS Visual Studio C++ 2010 SP1 Express Edition.

I checked in Debugger with [Visual Leak Detector](#) Version 2.2 (if compiled with defined SUPPRESS_WARNINGS) and could not detect any memory holes.

The command that aborts (if compiled with undefined SUPPRESS_WARNINGS) is (taken from above):

```
C:\temp>exiv2.exe -pc imagemagick.png
```

```
Error: Directory NikonPreview with 512 entries considered invalid; not read.
```

This error still occurs with the fix r2634.

#7 - 14 Nov 2011 17:00 - Andreas Huggel

```
C:\temp>exiv2.exe -pc imagemagick.png
Error: Directory NikonPreview with 512 entries considered invalid; not read.
This error still occurs with the fix r2634.
```

Are you sure it aborts, i.e., throws an exception or crashes? Here all I get is that error message, but that doesn't change the program flow (see the code snippet above). I can't reproduce any exception or crash, if you really observe something like that, can you please try to trace where it comes from? (btw the -q option will turn it off)

Andreas

#8 - 14 Nov 2011 22:45 - Thomas Beutlich

Sorry for confusion. It is not a program exception or crash but rather a regular program termination with an error message.

With undefined SUPPRESS_WARNINGS:

```
C:\temp>exiv2.exe -pc imagemagick.png
```

```
Error: Directory NikonPreview with 512 entries considered invalid; not read.
```

With defined SUPPRESS_WARNINGS:

```
C:\temp>exiv2 -pc imagemagick.png
```

```
PNG
```

It is just about the different program flow. If SUPPRESS_WARNINGS is not defined I get an error message rather than the expected PNG comment. If SUPPRESS_WARNINGS is defined, the program output is as expected.

#9 - 15 Nov 2011 07:54 - Andreas Huggel

- *Status changed from Assigned to Resolved*

- *Target version set to 0.23*

- *% Done changed from 0 to 100*

Marking the issue as resolved, the remaining Valgrind complaints don't seem to be caused by Exiv2.

As for the error message, does this explain what you see: When you first run `exiv2 -pc imagemagick.png`, you get the error message and no PNG comment, because none was set yet. Running `exiv2 -c "PNG" imagemagick` sets the comment (and also writes the error message to stderr). Running `exiv2 -pc imagemagick.png` again after this writes out the comment but not the error message anymore. That's because the Exif block was re-written without the suspicious directory (because that wasn't read it in the first place, as the error message says) when the comment was set.

#10 - 03 May 2012 17:14 - Andreas Huggel

- *Status changed from Resolved to Closed*