

## Exiv2 - Bug #897

### New Compilation Warnings

26 Mar 2013 00:22 - Abhinav Badola

<b>Status:</b>	Closed	<b>Start date:</b>	26 Mar 2013
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Robin Mills	<b>% Done:</b>	0%
<b>Category:</b>	build	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	0.24		

#### Description

```
libtool: compile: g++ -O2 -fvisibility=hidden -fvisibility-inlines-hidden -Wall -Wcast-align -Wpo-inter-arith -Wformat-security -Wmissing-format-attribute -Woverloaded-virtual -W -MMD -I. -DEXV_LOCALEDIR=\"/usr/local/share/locale\" -I../xmpsdk/include -c -DEXV_BUILDING_LIB=1 basicio.cpp -fPIC -DPIC -o .libs/basicio.o
```

```
canonmn.cpp:184:5: warning: narrowing conversion of '2147483649u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484007u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484008u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484009u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484016u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484020u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484021u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484040u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484041u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484179u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484210u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484212u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484214u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484240u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484242u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484244u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484257u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484272u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484289u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484293u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484294u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484295u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484296u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484311u' from 'unsigned int' to 'long int' inside { } is ill-formed in C++11 [-Wnarrowing]
```

```
canonmn.cpp:184:5: warning: narrowing conversion of '2147484312u' from 'unsigned int' to 'long int'
' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484417u' from 'unsigned int' to 'long int'
' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:184:5: warning: narrowing conversion of '2147484418u' from 'unsigned int' to 'long int'
' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:190:5: warning: narrowing conversion of '2415919104u' from 'unsigned int' to 'long int'
' inside { } is ill-formed in C++11 [-Wnarrowing]
canonmn.cpp:190:5: warning: narrowing conversion of '2684354560u' from 'unsigned int' to 'long int'
' inside { } is ill-formed in C++11 [-Wnarrowing]
```

I found these compilation errors are new, and should not occur.  
Didn't use to occur in previous versions.

#### Related issues:

Related to Exiv2 - Bug #898: GCC warning when including exiv2.hpp

Closed

10 Apr 2013

## History

### #1 - 26 Mar 2013 17:22 - Robin Mills

- Category set to build
- Status changed from New to Assigned
- Assignee set to Robin Mills
- Priority changed from Low to Normal
- Target version set to 0.24

Abhinav

Thanks for reporting this.

I also discovered this last week when one of the GSoc students wanted to use `#include <regex>` in his code. All manner of mayhem resulted. In that case, we skipped the regex code and used string find or something (not as good, however sufficient). I wasn't willing to take `<regex>` into the Exiv2 code base because it isn't in older C++ libraries (such as MSVC/2003).

However you are quite right. We should fix warning from all compilers. Warnings are there to help us! There are also warnings from the Clang compiler to be dealt with. We could do with another build engineer to work on some of this stuff. Shawn? Can you help us?

Robin

### #2 - 26 Mar 2013 23:24 - Niels Kristian Bech Jensen

These warnings came with GCC 4.7+. They can be suppressed by adding `static_casts` to the declared type like I did in the UFRaw code base: [http://ufraw.cvs.sourceforge.net/viewvc/ufraw/ufraw/dcrav.cc?r1=1.280&r2=1.281&diff\\_format=u](http://ufraw.cvs.sourceforge.net/viewvc/ufraw/ufraw/dcrav.cc?r1=1.280&r2=1.281&diff_format=u)

Regards,  
Niels Kristian

### #3 - 28 Mar 2013 23:12 - Robin Mills

Niels

Thanks for the tip/solution. Much appreciated.

Abhinav:

I never like to say "can't reproduce". I've built on Linux with three compilers: gcc 4.7.2, gcc 4.8.0 and clang 3.0.6. I'm building the trunk.

```
$ uname -a
Linux rmills-linux 3.5.0-24-generic #37-Ubuntu SMP Thu Feb 7 01:50:30 UTC 2013 x86_64
x86_64 x86_64 GNU/Linux
```

```
1035 rmills@rmills-linux:~/gnu/exiv2/test.build $ svn info .
Path: .
Working Copy Root Path: /home/rmills/gnu/exiv2/test.build
URL: svn://dev.exiv2.org/svn/trunk
Repository Root: svn://dev.exiv2.org/svn
Repository UUID: b7c8b350-86e7-0310-a4b4-de8f6a8f16a3
Revision: 3003
Node Kind: directory
Schedule: normal
Last Changed Author: nkbj
```

Last Changed Rev: 3003  
Last Changed Date: 2013-03-28 05:52:21 -0700 (Thu, 28 Mar 2013)

```
$ C=/usr/bin/g++; T=canonmn ; touch src/$T.cpp ; $C --version ; make src/$T.o CXX=$C  
g++ (Ubuntu/Linaro 4.7.2-2ubuntu1) 4.7.2  
Copyright (C) 2012 Free Software Foundation, Inc.  
This is free software; see the source for copying conditions. There is NO  
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
```

```
/usr/bin/g++ -c -o src/canonmn.o src/canonmn.cpp
```

```
$ C=/usr/local/bin/g++; T=canonmn ; touch src/$T.cpp ; $C --version ; make src/$T.o CXX=$C  
g++ (GCC) 4.8.0  
Copyright (C) 2013 Free Software Foundation, Inc.  
This is free software; see the source for copying conditions. There is NO  
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
```

```
/usr/local/bin/g++ -c -o src/canonmn.o src/canonmn.cpp
```

```
$ C=/usr/bin/clang; T=canonmn ; touch src/$T.cpp ; $C --version ; make src/$T.o CXX=$C  
Ubuntu clang version 3.0-6ubuntu3 (tags/RELEASE_30/final) (based on LLVM 3.0)  
Target: x86_64-pc-linux-gnu  
Thread model: posix  
/usr/bin/clang -c -o src/canonmn.o src/canonmn.cpp
```

I've built from

```
$ make clean ; make config ; ./configure ; make
```

with GCC 4.8.0 and the command issued is the same as you have above:

```
libtool: compile: g++ -O2 -fvisibility=hidden -fvisibility-inlines-hidden -Wall -Wcast-align -Wpointer-arith  
-Wformat-security -Wmissing-format-attribute -Woverloaded-virtual -W -MMD -I. -DEXV_LOCALEDIR=\"/usr/local/sha  
re/locale\" -I../xmpsdk/include -c -DEXV_BUILDING_LIB=1 basicio.cpp -fPIC -DPIC -o .libs/basicio.o
```

Any ideas?

#### #4 - 29 Mar 2013 13:31 - Abhinav Badola

I've built from[...]

with GCC 4.8.0 and the command issued is the same as you have above:[...]

Any ideas?

Hi Robin,  
Last year, the same happened with me. I was not able to produce compilation warnings at my end.  
So Andreas suggested me to use,

-ggdb instead of -O2

These changes are to be made in **config.mk** file.  
It worked for me back then, hope it would work for you as well.

#### Note

[1] config.mk file can be found in **config** folder.

[2] config.mk is not created till the step **make config** has been executed.

#### #5 - 03 Apr 2013 20:17 - Robin Mills

- Status changed from Assigned to Resolved

Thanks, Abhinav.

I always try to avoid editing anything in the config directory because magic is best left in its safe hiding place.

You can change compiler and linker flags using ./configure ENV=value and/or make ENV=value. CC/CXX=C/C++ compiler, CXXFLAGS/CFLAGS to set compiler flags and LDFLAGS for linking flags. I'm sure there are many others that I've never thought to use.

I built with GCC 4.8.0 CXXFLAGS=-std=c++2011 and I'm very pleased to say that exiv2 built and passed the test suite. There were numerous warnings about **'autopt' is deprecated**. Something to visit in future.

One curiosity was that `exiv2 -v -V` threw an exception as it couldn't load library `dl` to call **`dlopen`**. No problem, I think `libtool` linked the wrong version of `libdl.so`

```
$ locate libdl | grep x86_64
/lib/x86_64-linux-gnu/libdl-2.15.so
/lib/x86_64-linux-gnu/libdl.so.2
/usr/lib/x86_64-linux-gnu/libdl.a
/usr/lib/x86_64-linux-gnu/libdl.so <-- that's the one I want
```

```
$ touch src/version.cpp ; make LDFLAGS=-L/usr/lib/x86_64-linux-gnu ; sudo make install ; bin/.libs/exiv2 -v -V
....
exiv2=0.23.0
platform=linux
compiler=G++
bits=64
dll=1
debug=0
version=4.8.0
date=Apr  3 2013
time=18:51:58
executable=/home/rmills/gnu/exiv2/test.build/bin/.libs/exiv2
library=/lib/x86_64-linux-gnu/libdl.so.2
library=/usr/local/lib/libexiv2.so.12
...
```

Getting back to this bug report, I still haven't seen those warnings from `canonmn.cpp`. So, I'm going to advance this to "resolved" using the lame excuse "Can't replicate". If anybody knows exactly how to reproduce these messages, then they can explain and change the status to "feedback". When/if that happens, I'll give this further attention.

#### #6 - 03 Apr 2013 22:55 - Abhinav Badola

Thank you Robin for looking into the matter.  
I will update my compiler and see if the compilation warning exists.

Niels Kristian Bech Jensen wrote:

These warnings came with GCC 4.7+. They can be suppressed by adding `static_casts` to the declared type like I did in the UFRaw code base:  
[http://ufraw.cvs.sourceforge.net/viewvc/ufraw/ufraw/dcraw.cc?r1=1.280&r2=1.281&diff\\_format=u](http://ufraw.cvs.sourceforge.net/viewvc/ufraw/ufraw/dcraw.cc?r1=1.280&r2=1.281&diff_format=u)

Regards,  
Niels Kristian

Hi Niels,  
I have a doubt, is it possible that by adding `static_casts`, the data may get deprecated or truncated..?

#### #7 - 03 Apr 2013 23:13 - Robin Mills

Abhinav

The deprecated warning has to do with C++2011 - the new C++ standard. The template `std::auto_ptr` will be removed at sometime in the future.  
[[[http://en.wikipedia.org/wiki/Auto\\_ptr](http://en.wikipedia.org/wiki/Auto_ptr)]]  
[[<http://stackoverflow.com/questions/2404115/is-auto-ptr-deprecated>]]

So, I'm not concerned about those warnings (yet). I'm very pleased that the code has successfully built and passed the test suite using the C++2011 compiler.

Robin

#### #8 - 24 Jul 2013 15:06 - Robin Mills

- Status changed from Resolved to Closed

Fixed in 0.24.