

## Exiv2 - Bug #804

### build failure in basicio.cpp - headers

22 Jan 2012 15:16 - Pavel Heimlich

<b>Status:</b>	Closed	<b>Start date:</b>	22 Jan 2012
<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

```
cd src && /usr/bin/gmake
gmake1: Entering directory `/var/tmp/exiv2/exiv2-0.22/src'
libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l-
-DEXV_LOCALEDIR="/usr/local/share/locale/" -l./xmpsdk/include -c -DEXV_BUILDING_LIB=1 basicio.cpp -KPIC -DPIC -o
.libs/basicio.o
"basicio.cpp", line 105: Error: Type name expected instead of "FILE".
"basicio.cpp", line 197: Error: Formal argument 1 of type __FILE* in call to std::fseek(__FILE*, long, int) is being passed int.
"basicio.cpp", line 202: Error: Formal argument 1 of type __FILE* in call to std::ftell(__FILE*) is being passed int.
"basicio.cpp", line 206: Error: Formal argument 1 of type __FILE* in call to std::fclose(__FILE*) is being passed int.
"basicio.cpp", line 218: Error: Cannot assign __FILE* to int.
"basicio.cpp", line 221: Error: Formal argument 1 of type __FILE* in call to std::fseek(__FILE*, long, int) is being passed int.
"basicio.cpp", line 333: Error: The function "fileno" must have a prototype.
"basicio.cpp", line 487: Error: Formal argument 4 of type __FILE* in call to std::fwrite(const void*, unsigned, unsigned, __FILE*) is
being passed int.
"basicio.cpp", line 502: Error: Formal argument 4 of type __FILE* in call to std::fwrite(const void*, unsigned, unsigned, __FILE*) is
being passed int.
"basicio.cpp", line 532: Error: remove is not a member of file level.
"basicio.cpp", line 582: Error: The function "memset" must have a prototype.
"basicio.cpp", line 634: Error: remove is not a member of file level.
"basicio.cpp", line 640: Error: remove is not a member of file level.
"basicio.cpp", line 719: Error: The function "putc" must have a prototype.
"basicio.cpp", line 734: Error: Formal argument 1 of type __FILE* in call to std::fseek(__FILE*, long, int) is being passed int.
"basicio.cpp", line 740: Error: Formal argument 1 of type __FILE* in call to std::ftell(__FILE*) is being passed int.
"basicio.cpp", line 747: Error: Formal argument 1 of type __FILE* in call to std::fflush(__FILE*) is being passed int.
"basicio.cpp", line 779: Error: fopen is not a member of file level.
"basicio.cpp", line 795: Error: Formal argument 1 of type __FILE* in call to std::fclose(__FILE*) is being passed int.
"basicio.cpp", line 814: Error: Formal argument 4 of type __FILE* in call to std::fread(void*, unsigned, unsigned, __FILE*) is being
passed int.
"basicio.cpp", line 821: Error: The function "getc" must have a prototype.
"basicio.cpp", line 826: Error: The function "ferror" must have a prototype.
"basicio.cpp", line 832: Error: The function "feof" must have a prototype.
23 Error(s) detected.
gmake1: * [basicio.o] Error 1
gmake1: Leaving directory `/var/tmp/exiv2/exiv2-0.22/src'
gmake: * [all] Error 2
```

I used the below changes to get past this:

```
--- a/src/basicio.cpp Sun Jan 22 22:33:55 2012 0000
```

```
+++ b/src/basicio.cpp Sun Jan 22 23:12:05 2012 0000
```

```
@ -45.9 +45.9 @
```

```
#include <string>
```

```
#include <memory>
```

```
#include <iostream>
```

```
#include <cstring>
```

```
#include <string.h>
```

```
#include <cassert>
```

```
#include <cstdio> // for remove, rename
```

```
+#include <stdio.h> // for remove, rename
```

```
#include <cstdlib> // for alloc, realloc, free
```

```
#include <sys/types.h> // for stat, chmod
```

```
#include <sys/stat.h> // for stat, chmod
```

**History****#1 - 22 Jan 2012 15:24 - Pavel Heimlich**

similarly in

```
libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.
"-DEXV_LOCALEDIR="/usr/local/share/locale/" -I../xmpsdk/include -c -DEXV_BUILDING_LIB=1 bmpimage.cpp -KPIC -DPIC -o .libs/bmpimage.o
"bmpimage.cpp", line 158: Error: The function "memcpy" must have a prototype.
1 Error(s) detected.
```

```
--- a/src/bmpimage.cpp Sun Jan 22 22:33:55 2012 0000
+++ b/src/bmpimage.cpp Sun Jan 22 23:14:53 2012 +0000
@ -45,7 +45,7 @
```

```
// + standard includes
#include <string>;
#include <cstring>;
#include <string.h>;
#include <iostream>;
```

```
// *****
```

```
libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.
"-DEXV_LOCALEDIR="/usr/local/share/locale/" -I../xmpsdk/include -c -DEXV_BUILDING_LIB=1 canonmn.cpp -KPIC -DPIC -o .libs/canonmn.o
"canonmn.cpp", line 1344: Error: The function "log" must have a prototype.
```

```
diff rfb3992b87b7d src/canonmn.cpp
--- a/src/canonmn.cpp Sun Jan 22 22:33:55 2012 0000
+++ b/src/canonmn.cpp Sun Jan 22 23:15:53 2012 0000
@ -46,7 +46,7 @
```

```
#include <algorithm>
#include <cassert>
#include <cstring>
#include <cmath>
#include <math.h>
```

```
// *****
// class member definitions
```

```
libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.
"-DEXV_LOCALEDIR="/usr/local/share/locale/" -I../xmpsdk/include -c -DEXV_BUILDING_LIB=1 convert.cpp -KPIC -DPIC -o .libs/convert.o
../xmpsdk/include/XMP_Environment.h", line 30: Warning (Anachronism): Attempt to redefine _FILE_OFFSET_BITS without using #undef.
"convert.cpp", line 1334: Error: The function "strcmp" must have a prototype.
"convert.cpp", line 1513: Error: The function "strcmp" must have a prototype.
2 Error(s) and 1 Warning(s) detected.
```

```
diff rfb3992b87b7d src/convert.cpp
--- a/src/convert.cpp Sun Jan 22 22:33:55 2012 0000
+++ b/src/convert.cpp Sun Jan 22 23:17:31 2012 +0000
@ -50,6 +50,7 @ # define snprintf _snprintf
#endif
```

```
#include <cstring>
#include <strings.h>
```

```
#if defined WIN32 && !defined CYGWIN
# include <windows.h>;
```

```
/opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.
"-DEXV_LOCALEDIR="/usr/local/share/locale/" -I../xmpsdk/include -c -DEXV_BUILDING_LIB=1 cr2image.cpp -KPIC -DPIC -o .libs/cr2image.o
"cr2image.cpp", line 238: Error: The function "memcpy" must have a prototype.
```

```
diff rfb3992b87b7d src/cr2image.cpp
--- a/src/cr2image.cpp Sun Jan 22 22:33:55 2012 0000
+++ b/src/cr2image.cpp Sun Jan 22 23:18:44 2012 0000
@ -51,6 +51,7 @
```

```
#include <iomanip>
#include <cassert>
#include <cstring>
#include <string.h>
```

```
// *****
// class member definitions
```

#2 - 22 Jan 2012 15:39 - Pavel Heimlich

also  
libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.  
"-DEXV\_LOCALDIR="/usr/local/share/locale/" -l./xmpsd/include -c -DEXV\_BUILDING\_LIB=1 crwimage.cpp -KPIC -DPIC -o .libs/crwimage.o  
"crwimage.cpp", line 665: Error: hex is not a member of std.  
"crwimage.cpp", line 665: Error: right is not a member of std.  
"crwimage.cpp", line 682: Error: hex is not a member of std.  
"crwimage.cpp", line 682: Error: right is not a member of std.  
"crwimage.cpp", line 684: Error: hex is not a member of std.  
"crwimage.cpp", line 684: Error: right is not a member of std.  
"crwimage.cpp", line 686: Error: dec is not a member of std.  
7 Error(s) detected.  
gmake: \*\*\* [crwimage.o] Error 1

```
diff -r fb3992b87b7d src/crwimage.cpp
- a/src/crwimage.cpp Sun Jan 22 22:33:55 2012 0000
++ b/src/crwimage.cpp Sun Jan 22 23:22:59 2012 0000
@ -60,6 +60,7 @
#include <ctime>
#include <cmath>
#include <cassert>
#include <ios> // for std::hex
#ifdef EXV_HAVE_TIMEGM # include "timegm.h"
#endif
@ -1035,7 +1036,8 @
if (ifdId == canonSild) {
// Exif.Photo.FNumber
float f = fnumber(canonEv(aperture));
- URational ur = floatToRationalCast(f);
+ Rational ur0 = floatToRationalCast(f);
+ URational ur( ur0.first, ur0.second );
URationalValue fn;
fn.value_.push_back(ur);
image.exifData().add(ExifKey("Exif.Photo.FNumber"), &fn);
```

libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.  
"-DEXV\_LOCALDIR="/usr/local/share/locale/" -l./xmpsd/include -c -DEXV\_BUILDING\_LIB=1 datasets.cpp -KPIC -DPIC -o .libs/datasets.o  
"datasets.cpp", line 497: Error: right is not a member of std.  
"datasets.cpp", line 498: Error: hex is not a member of std.  
"datasets.cpp", line 542: Error: hex is not a member of std.  
"datasets.cpp", line 554: Error: right is not a member of std.  
"datasets.cpp", line 555: Error: hex is not a member of std.  
"datasets.cpp", line 576: Error: hex is not a member of std.  
"datasets.cpp", line 681: Error: The function "strcmp" must have a prototype.  
"datasets.cpp", line 719: Error: dec is not a member of std.  
"datasets.cpp", line 721: Error: right is not a member of std.  
"datasets.cpp", line 721: Error: hex is not a member of std.  
"datasets.cpp", line 723: Error: boolalpha is not a member of std.  
"datasets.cpp", line 725: Error: dec is not a member of std.

```
diff -r fb3992b87b7d src/datasets.cpp
- a/src/datasets.cpp Sun Jan 22 22:33:55 2012 0000
++ b/src/datasets.cpp Sun Jan 22 23:24:23 2012 0000
@ -41,6 +41,8 @
#include <iostream>
#include <iomanip>
#include <sstream>
#include <ios> // for std::hex
+#include <strings.h>
```

```
// *****
// class member definitions
```

libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.  
"-DEXV\_LOCALDIR="/usr/local/share/locale/" -l./xmpsd/include -c -DEXV\_BUILDING\_LIB=1 easyaccess.cpp -KPIC -DPIC -o .libs/easyaccess.o  
"easyaccess.cpp", line 122: Error: The function "strcmp" must have a prototype.

```
diff -r fb3992b87b7d src/easyaccess.cpp
- a/src/easyaccess.cpp Sun Jan 22 22:33:55 2012 0000
++ b/src/easyaccess.cpp Sun Jan 22 23:25:29 2012 0000
@ -32,6 +32,7 @
// *****
// included header files
#include "easyaccess.hpp"
```

```

#include <strings.h>

// *****
namespace {

libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.
"-DEXV_LOCALEDIR="/usr/local/share/locale/" -l./xmpsdk/include -c -DEXV_BUILDING_LIB=1 epsimage.cpp -KPIC -DPIC -o .libs/epsimage.o
"epsimage.cpp", line 150: Error: The function "memcmp" must have a prototype.
"epsimage.cpp", line 214: Error: The function "memcmp" must have a prototype.
"epsimage.cpp", line 227: Error: The function "memcmp" must have a prototype.
"epsimage.cpp", line 242: Error: The function "memcmp" must have a prototype.
"epsimage.cpp", line 283: Error: The function "memcmp" must have a prototype.
"epsimage.cpp", line 283: Error: The function "memcmp" must have a prototype.
"epsimage.cpp", line 1121: Error: The function "memcmp" must have a prototype.
"epsimage.cpp", line 1123: Error: The function "memcmp" must have a prototype.
8 Error(s) detected.

--- a/src/epsimage.cpp Sun Jan 22 22:33:55 2012 0000
++ b/src/epsimage.cpp Sun Jan 22 23:26:25 2012 0000
@ -54.6 +54.7 @
#include <iostream>
#include <sstream>
#include <string>
#include <strings.h>

// *****
namespace {

libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.
"-DEXV_LOCALEDIR="/usr/local/share/locale/" -l./xmpsdk/include -c -DEXV_BUILDING_LIB=1 futils.cpp -KPIC -DPIC -o .libs/futils.o
"futils.cpp", line 104: Error: The function "strerror_r" must have a prototype.
1 Error(s) detected.

--- a/src/futils.cpp Sun Jan 22 22:33:55 2012 0000
++ b/src/futils.cpp Sun Jan 22 23:28:01 2012 0000
@ -52.6 +52.7 @
#include <cerrno>
#include <sstream>
#include <cstring>
#include <string.h>

#if defined EXV_HAVE_STRERROR_R && !defined EXV_HAVE_DECL_STRERROR_R
# ifdef EXV_STRERROR_R_CHAR_P

libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.
"-DEXV_LOCALEDIR="/usr/local/share/locale/" -l./xmpsdk/include -c -DEXV_BUILDING_LIB=1 gifimage.cpp -KPIC -DPIC -o .libs/gifimage.o
"gifimage.cpp", line 138: Error: The function "memcmp" must have a prototype.
"gifimage.cpp", line 139: Error: The function "memcmp" must have a prototype.
2 Error(s) detected.

--- a/src/gifimage.cpp Sun Jan 22 22:33:55 2012 0000
++ b/src/gifimage.cpp Sun Jan 22 23:29:08 2012 0000
@ -47.6 +47.7 @
#include <string>
#include <cstring>
#include <iostream>
#include <string.h>

// *****
// class member definitions

libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.
"-DEXV_LOCALEDIR="/usr/local/share/locale/" -l./xmpsdk/include -c -DEXV_BUILDING_LIB=1 jp2image.cpp -KPIC -DPIC -o .libs/jp2image.o
"jp2image.cpp", line 242: Error: The function "memcmp" must have a prototype.
"jp2image.cpp", line 263: Error: The function "memcmp" must have a prototype.
"jp2image.cpp", line 294: Error: The function "memcmp" must have a prototype.
"jp2image.cpp", line 313: Error: The function "memcmp" must have a prototype.
"jp2image.cpp", line 445: Error: The function "memcpy" must have a prototype.
"jp2image.cpp", line 487: Error: The function "memcpy" must have a prototype.
"jp2image.cpp", line 488: Error: The function "memcpy" must have a prototype.
"jp2image.cpp", line 493: Error: The function "memcpy" must have a prototype.
"jp2image.cpp", line 494: Error: The function "memcpy" must have a prototype.
"jp2image.cpp", line 495: Error: The function "memcpy" must have a prototype.
"jp2image.cpp", line 496: Error: The function "memcpy" must have a prototype.
"jp2image.cpp", line 516: Error: The function "memcpy" must have a prototype.

```

"jp2image.cpp", line 517: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 518: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 519: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 546: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 547: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 548: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 549: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 563: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 569: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 575: Error: The function "memcpy" must have a prototype.  
"jp2image.cpp", line 630: Error: The function "memcpy" must have a prototype.  
23 Error(s) detected.

--- a/src/jp2image.cpp Sun Jan 22 22:33:55 2012 0000

++ b/src/jp2image.cpp Sun Jan 22 23:29:58 2012 0000

@ -52,7 +52,7 @

#include <cstring>

#include <iostream>

#include <cassert>

=

#include <string.h>

// JPEG-2000 box types

const uint32\_t kJp2BoxTypeJp2Header = 0x6a703268; // 'jp2h'

const uint32\_t kJp2BoxTypeImageHeader = 0x69686472; // 'ihdr'

libtool: compile: /opt/test2/SolarisStudio12.3-solaris-x86-bin/solarisstudio12.3/bin/CC -library=stdcxx4 -lCrun -xldscope=hidden -l.

"-DEXV\_LOCALDIR="/usr/local/share/locale/" -l../xmpsdk/include -c -DEXV\_BUILDING\_LIB=1 jpgimage.cpp -KPIC -DPIC -o .libs/jpgimage.o

"jpgimage.cpp", line 130: Error: The function "memcpy" must have a prototype.

"jpgimage.cpp", line 347: Error: The function "memcpy" must have a prototype.

"jpgimage.cpp", line 369: Error: The function "memcpy" must have a prototype.

"jpgimage.cpp", line 389: Error: The function "memcpy" must have a prototype.

"jpgimage.cpp", line 564: Error: The function "memcpy" must have a prototype.

"jpgimage.cpp", line 575: Error: The function "memcpy" must have a prototype.

"jpgimage.cpp", line 582: Error: The function "memcpy" must have a prototype.

"jpgimage.cpp", line 796: Error: Could not find a match for Exiv2::find<Exiv2::T, Exiv2::K, Exiv2::N>(int\*, int\*, int) needed in

Exiv2::JpegBase::doWriteMetadata(Exiv2::BasicIo&).

"jpgimage.cpp", line 942: Error: The function "memcpy" must have a prototype.

9 Error(s) detected.

### #3 - 10 Mar 2012 19:20 - Andreas Huggel

- Status changed from New to Feedback

I'd like to understand the root cause of this better. Simply replacing <cstring> with <string.h> might result in errors with other compiler which do not declare std::fseek etc. then. Can the problem be fixed differently?

### #4 - 14 Mar 2012 16:42 - Pavel Heimlich

I'm not sure, I'm not a programmer. Either one could ifdef the includes, but that would be quite ugly, or perhaps use something like autotools to get the correct headers.

### #5 - 14 Mar 2012 17:24 - Andreas Huggel

I feel this is an issue for which there should be a common solution for all compilers. Does it work if you change the headers as suggested and also change std::fseek et al. to ::fseek? That would be more in-line with the C++ standard.

### #6 - 24 Jul 2013 15:37 - Robin Mills

- Category set to build

- Status changed from Feedback to Closed

- Assignee set to Robin Mills

- Target version set to 0.24

I am closing this issue as I believe it is resolved in the 0.24 release. If you disagree, please file a new issue on dev.exiv2.org (and if possible, please reference this issue).