
Subject: Fairsoft_mar15 on OSX 10.11.4 issues

Posted by [Walter Ikegami Andersson](#) on Thu, 14 Apr 2016 15:51:11 GMT

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Hello,

I'm currently trying to install the external packages mar15 for running pandaroot. I've run into a problem when trying to install fairsoft_mar15p3 on a new Mac computer.

I'm running Mac OS X 10.11.4
and Xcode version 7.3 (7D175)

I installed the prerequisites according to the fairroot page;
<https://fairroot.gsi.de/?q=node/106>
which went fine.

These are the settings I'm using:

```
compiler=Clang
debug=no
optimize=no
geant4_download_install_data_automatic=yes
geant4_install_data_from_dir=no
build_python=no
install_sim=yes
SIMPATH_INSTALL=/Users/walan603/fairsoft_mar15/buildFairSoft
platform=macosx
```

The following errors appear during the root installation:

```
In file included from
/Users/walan603/fairsoft_mar15/tools/root/math/vc/src/trigonometric.cpp:20:
In file included from include/Vc/Vc:22:
In file included from include/Vc/vector.h:33:
In file included from include/Vc/sse/vector.h:23:
include/Vc/sse/intrinsics.h:309:17: error: use of undeclared identifier
    '__builtin_ia32_psrlq128'
      c = _mm_srli_si128(_mm_setallone_si128(), 12);
          ^
include/Vc/sse/./common/fix_clang_emmintrin.h:40:12: note: expanded from macro
    '_mm_srli_si128'
    (__m128i)__builtin_ia32_psrlq128((__m128i)(a), (count)*8); }
```

```
In file included from
/Users/walan603/fairsoft_mar15/tools/root/math/vc/src/trigonometric.cpp:20:
In file included from include/Vc/Vc:22:
In file included from include/Vc/vector.h:33:
In file included from include/Vc/sse/vector.h:23:
include/Vc/sse/intrinsics.h:312:17: error: C-style cast from 'void' to '__m128i'
```

(vector of 2 'long long' values) is not allowed

```
c = __mm_slli_si128(__mm_srli_si128(__mm_setallone_si128(), 12), 4);
```

```
^~~~~~
```

include/Vc/sse/./common/fix_clang_emmintrin.h:34:38: note: expanded from macro

```
'__mm_slli_si128'
```

```
(__m128i) __builtin_ia32_pslldq128((__m128i)(a), (count)*8); }
```

and it aborts after awhile.

How do I solve this? I also tried fairsoft mar15p6 and got the same result.

Best regards,
Walter

Subject: Re: Fairsoft_mar15 on OSX 10.11.4 issues
Posted by [Mohammad Al-Turany](#) on Mon, 18 Apr 2016 13:49:04 GMT
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Hallo,

This is a problem in VC and ROOT, for now please edit the file

```
/Users/walan603/fairsoft_mar15/tools/root/math/vc/include/Vc/common/fix_clang_emmintrin.h
```

and replace line 29

```
#ifdef VC_CLANG
```

with

```
#if defined(VC_CLANG) && VC_CLANG < 0x30700
```

this should solve the problem for now tell we get a new release from ROOT.

best,

Mohammad

Subject: Re: Fairsoft_mar15 on OSX 10.11.4 issues
Posted by [Walter Ikegami Andersson](#) on Mon, 18 Apr 2016 14:49:29 GMT
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Thank you for the response.

I changed the line as you suggested and tried to install mar15p6 again. I noticed now that when building root, I get the following message:

```
[ 63%] Linking CXX shared module libXrdCryptossl-4.so
[ 63%] Built target xrdcp-old
Undefined symbols for architecture x86_64:
  "_X509_NAME_hash_old", referenced from:
    XrdCryptosslX509::IssuerHash(int) in XrdCryptosslX509.cc.o
    XrdCryptosslX509::SubjectHash(int) in XrdCryptosslX509.cc.o
    XrdCryptosslX509Crl::IssuerHash(int) in XrdCryptosslX509Crl.cc.o
    XrdCryptosslX509Req::SubjectHash(int) in XrdCryptosslX509Req.cc.o
ld: symbol(s) not found for architecture x86_64
clang: error: linker command failed with exit code 1 (use -v to see invocation)
make[2]: *** [src/libXrdCryptossl-4.so] Error 1
make[1]: *** [src/CMakeFiles/XrdCryptossl-4.dir/all] Error 2
make[1]: *** Waiting for unfinished jobs....
[ 63%] Building CXX object src/CMakeFiles/XrdServer.dir/XrdFrc/XrdFrcReqFile.cc.o
```

and the make ends with an error:

```
[ 74%] Built target XrdCl
[ 74%] Linking CXX shared library libXrdServer.dylib
[ 74%] Built target XrdServer
make: *** [all] Error 2
Problems running make -j9 ...
*** Compiling root .....
cat: /etc/issue: No such file or directory
Copied rootconfig.sh .....
Configure Root .....
```

However, the installation continues and it seems that root is still installed successfully. Is this a problem?

Furthermore, now I run into these kind of errors when building pluto

```
Users/walan603/fairsoft_mar15/buildFairSoft/include/root/ThreadLocalStorage.h:228:4: error:
  thread-local storage is not supported for the current target
  TTHREAD_TLS(T*) ptr = NULL;
  ^
/Users/walan603/fairsoft_mar15/buildFairSoft/include/root/ThreadLocalStorage.h:103:29: note:
  expanded from macro 'TTHREAD_TLS'
# define TTHREAD_TLS(type) thread_local type
                        ^
/Users/walan603/fairsoft_mar15/buildFairSoft/include/root/ThreadLocalStorage.h:229:4: error:
  thread-local storage is not supported for the current target
  TTHREAD_TLS(Bool_t) isInit(kFALSE);
  ^
/Users/walan603/fairsoft_mar15/buildFairSoft/include/root/ThreadLocalStorage.h:103:29: note:
  expanded from macro 'TTHREAD_TLS'
# define TTHREAD_TLS(type) thread_local type
```

and the installation ends with

```
**** Checking libraries in /Users/walan603/fairsoft_mar15/buildFairSoft/lib ****
*** ERROR: Pluto could not be created.
*** End installation of external packages with Errors***
```

How can I solve this?

Thank you in advance,
Walter

Subject: Re: Fairsoft_mar15 on OSX 10.11.4 issues
Posted by [Mohammad Al-Turany](#) on Tue, 19 Apr 2016 07:08:54 GMT
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Hi,

These are problems which we get before with ROOT and apple clang

<https://sft.its.cern.ch/jira/browse/ROOT-6524>

The problem is that the ROOT team does not support ROOT5 any more and it will be hard to ask them to correct this, they said since one year that they will stop even the bug fixes in ROOT5.

I tested with ROOT 6 and every thing works without problems (just the one correction I send to you before!) can you go to ROOT 6?

best,

Mohammad

Subject: Re: Fairsoft_mar15 on OSX 10.11.4 issues
Posted by [Walter Ikegami Andersson](#) on Tue, 24 May 2016 15:07:19 GMT
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Hello Mohammad,

changing to ROOT6, along with you proposed fix solved the problem.
I successfully installed fairsoft_nov15p5 on my computer.

Now, I run into problems when installing FairRoot 15.11b. First, I get this error when calling CMake:

-- The compiler during the compilation of FairSoft is different from the current one.
CMake Error at cmake/modules/CheckCompiler.cmake:64 (Message):
This is seen as an error. If you know that the setting is correct you can
silence the error by using the CMake flag -DUSE_DIFFERENT_COMPILER=TRUE
Call Stack (most recent call first):
CMakeLists.txt:55 (Check_Compiler)

-- Configuring incomplete, errors occurred!

When I use the suggested CMake flag, the configuration completes. However, when compiling FairRoot with make, I get this error:

```
[ 30%] Built target Base
[ 30%] Linking CXX shared library ../../lib/libfairmq_logger.dylib
ld: file not found: @rpath/libboost_chrono.dylib for architecture x86_64
clang: error: linker command failed with exit code 1 (use -v to see invocation)
make[2]: *** [lib/libfairmq_logger.15.11.0.dylib] Error 1
make[1]: *** [fairmq/logger/CMakeFiles/fairmq_logger.dir/all] Error 2
make: *** [all] Error 2
```

Is there a quick fix to this problem? I'll also post it on the FairRoot forum.

Thank you in advance,
Walter

Subject: Re: Fairsoft_mar15 on OSX 10.11.4 issues
Posted by [Florian Uhlig](#) on Tue, 24 May 2016 15:40:11 GMT
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Hi Walter,

I have never seen the error. I will try to check on my system if I can reproduce it.

Could you please check if you find the needed boost library

libboost_chrono.dylib

in the directory

\$SIMPATH/lib

Ciao

Florian

Subject: Re: Fairsoft_mar15 on OSX 10.11.4 issues
Posted by [Walter Ikegami Andersson](#) on Tue, 24 May 2016 16:30:09 GMT
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Dear Florian,

thank you for the quick response. I do have the boost library libboost_chrono.dylib in buildFairSoft/lib/.

It seems like there was a related issue posted here:
<https://forum.gsi.de/index.php?t=msg&th=4879&start=0&>

However, I need to run FairRoot nov15 in order to run Pandaroot trunk.

Best regards,
Walter

Subject: Re: Fairsoft_mar15 on OSX 10.11.4 issues
Posted by [Dmytro Kresan](#) on Wed, 25 May 2016 07:51:54 GMT
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Dear Walter,

This linking issue when using Clang 7.3 is resolved in FairRoot v-15.11c (third patch). Can you please try if you can compile PandaRoot with this release?

Best regards,
Dima

Subject: Re: Fairsoft_mar15 on OSX 10.11.4 issues
Posted by [Walter Ikegami Andersson](#) on Wed, 25 May 2016 15:50:12 GMT
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Thank you for the input!

Using FairRoot v-15.11c solved the problem. FairSoft nov15p5 and FairRoot v15.11 is now running on my system.
I've now stumbled upon some problems when trying to compile PandaRoot. This, however, I will post on the panda root forum.

Best regards,
Walter
