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Subject: Using cmake

Posted by [Ralf Kliemt](#) on Fri, 15 Jun 2007 13:07:34 GMT

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Here is a short note for you how to use the cmake:

A New build:

You starting point are the complete external packages and the source of pandaroot. It should look like this:

```
...fairroot/cbmsoft> ls  
cern configure.sh generators pandaroot SetEnv.sh tools transport
```

Now set the SIMPATH variabele, like:

```
cbmsoft/export SIMPATH=$PWD
```

Make an empty build directory. (name it as you want to)

```
cbmsoft>mkdir cbuild  
cbmsoft>cd cbuild
```

Generate the makefiles. (this replaces the reconf and configure from the automake-based way)

```
cbmsoft/cbuild>cmake ../pandaroot
```

Load the local enviroment.

```
cbmsoft/cbuild>. config.sh
```

Begin compiling:

```
cbmsoft/cbuild>make install
```

Notes:

To run your macros on this build you have to load the cbuild/config.sh

[Edit: Mohammeds suggestion on the simpath added.]

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Subject: Re: Using cmake

Posted by [Mohammad Al-Turany](#) on Mon, 18 Jun 2007 06:38:24 GMT

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Hi,

you do not really need the SetEnv.sh any more, all you need is the SIMPATH, So you can do export SIMPATH=(path to external packages i.e. cbmsoft/) then continue as Ralf described:

```
cbmsoft/cbuild>cmake ../pandaroot
```

Load the local environment.  
cbmsoft/cbuild>. config.sh

Begin compiling:  
cbmsoft/cbuild>make install

#### Notes

To run your macros on this build you have to load the cbuild/config.sh

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Subject: Re: Using cmake

Posted by [Tobias Stockmanns](#) on Thu, 21 Jun 2007 12:47:42 GMT

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Dear Ralf,

on my PC the described procedure to use cmake is not working. I always get the following error messages (just the beginning):

```
-- Check for working C compiler: /usr/bin/gcc
-- Check for working C compiler: /usr/bin/gcc -- works
-- Check size of void*
-- Check size of void* - done
-- Check for working CXX compiler: /usr/bin/c++
-- Check for working CXX compiler: /usr/bin/c++ -- works
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/Experimental
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/Nightly
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/Continuous
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/NightlyMemoryC heck
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/NightlyStart
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/NightlyUpdate
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/NightlyConfigu re
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/NightlyBuild
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/NightlyTest
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/NightlyCoverag e
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/NightlyMemChec k
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/NightlySubmit
```

```

CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ExperimentalStart
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ExperimentalUpdate
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ExperimentalConfigure
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ExperimentalBuild
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ExperimentalTest
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ExperimentalCoverage
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ExperimentalMemCheck
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ExperimentalSubmit
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ContinuousStart
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ContinuousUpdate
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ContinuousConfigure
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ContinuousBuild
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ContinuousTest
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ContinuousCoverage
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ContinuousMemCheck
CMake Error: Could not get source file entry for
/home/kph/kph/stockman/fairroot/cbmsoft/cbuild/CMakeFiles/ContinuousSubmit
-- You're not using the GSI installation of the external packages.
-- If any problems occur this can be due to the fact that the macros
-- were mostly tested at GSI. If you find any problems please contact
-- f.uhlig@gsi.de
-- Found root of the simulation software at /home/kph/stockman/fairroot/cbmsoft
-- Found ROOT version "5.14/00" at "/home/kph/kph/stockman/fairroot/cbmsoft/tools/root"
-- Found GEANT3: /home/kph/kph/stockman/fairroot/cbmsoft/transport/geant3/lib/tgt_linux/libgeant321.so
-- Found PLUTO: /home/kph/stockman/fairroot/cbmsoft/generators/lib
-- Found Generators: /home/kph/stockman/fairroot/cbmsoft/generators/lib
-- Found GEANT4: /home/kph/stockman/fairroot/cbmsoft/transport/geant4/lib/Linux-g++
-- Found GEANT4VMC:
/home/kph/stockman/fairroot/cbmsoft/transport/geant4_vmc/lib/tgt_linux
-- Found CLHEP: /home/kph/stockman/fairroot/cbmsoft/cern/clhep/lib
CMake Error: Error in cmake code at
/home/kph/kph/stockman/fairroot/cbmsoft/pandaroot/CMakeLists.txt:86:
ADD_SUBDIRECTORY not given a binary directory but the given source directory
"/home/kph/kph/kph/stockman/fairroot/cbmsoft/pandaroot/base" is not a subdirectory of
"/home/kph/kph/stockman/fairroot/cbmsoft/pandaroot". When specifying an out-of-tree source
a binary directory must be explicitly specified.

```

Current CMake stack:

/home/kph/kph/stockman/fairroot/cbmsoft/pandaroot/CMakeLists.txt;/usr/local/ikp/share/cmake-2.4/Modules/CMakeCInformation.cmake;/usr/local/ikp/share/cmake-2.4/Modules/CMakeCXXInformation.cmake

I hope somebody has an idea what the reason for this error is.

Thank you.

Tobias

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Subject: Re: Using cmake

Posted by [Florian Uhlig](#) on Fri, 22 Jun 2007 17:35:08 GMT

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Hi Tobias

I haven't seen anything like this error messages before.  
I have no good idea what this could be so i only can guess.

Which version of cmake do you use?  
You need at least version 2.4.3?

How old is your local copy of pandaroot?

If i interpret the error messages correctly your pandaroot  
instllation is in the same directory as the external packages. Is this correct?  
Can you try to install pandaroot somewhere else and try again.

How did you install cmake? On your own or did you use a tool provided by your linux  
distribution?

Up to now this are only questions and no answers, but i have first to understand what is going  
on.

Ciao

Florian

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Subject: Re: Using cmake

Posted by [Tobias Stockmanns](#) on Mon, 25 Jun 2007 07:44:06 GMT

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Hi Florian,

I could partly solve the problem. Somehow the LD\_LIBRARY\_PATH variable was modified  
during compilation and all the path values pointed to an very old version. After rebooting my

Linux system (I always thought that this only helps on Windows machines ) cmake finishes now without errors. Unfortunately make still does not work. It stops immediately with the following error message:

```
Building CXX object base/CMakeFiles/Base.dir/CbmBaseContFact.o
cc1plus: error: unrecognized command line option "-ffriend-injection"
make[2]: *** [base/CMakeFiles/Base.dir/CbmBaseContFact.o] Error 1
make[1]: *** [base/CMakeFiles/Base.dir/all] Error 2
make: *** [all] Error 2
```

I am using cmake 2.4.6. This was installed from my SysAdmin on our local workstation cluster.

My local copy of pandaroot is at rev. 950.

I hope you have an idea what the reason for this problem is.

Ciao

Tobias

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Subject: Re: Using cmake

Posted by [Florian Uhlig](#) on Mon, 25 Jun 2007 08:35:06 GMT

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Hi Tobias

I think this problem i now well, since we had it on friday with cbm.

If i am correct you have a compiler version 4.0.? . If this is the case please update the main CMakeLists.txt.

The problem is that compiler flag -ffriend-injection is only known and needed from gcc version 4.1.0 I thought the flag is also needed for version 4.0.?, so i had an error in the check. This is corrected in SVN since revision 985.

Ciao

Florian

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Subject: Re: Using cmake

Posted by [Tobias Stockmanns](#) on Mon, 25 Jun 2007 09:44:21 GMT

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Dear Florian,

the problem is fixed now. I updated to rev. 985 and it compiles.

Thank you for your help!

Tobias

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Subject: Re: Using cmake

Posted by [Florian Uhlig](#) on Mon, 25 Jun 2007 10:01:39 GMT

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Hi Tobias

Nice to hear that everything works fine now.

Ciao

Florian

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Subject: Error when calling config.sh

Posted by [Sebastian Neubert](#) on Tue, 26 Jun 2007 12:33:46 GMT

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Hi! I observe the following bug. Can anyone help me, please?

```
sneubert@darjeeling:~/scratch/PANDA/FAIRRoot/cbuildDev$ cmake ../pandarootDev/
-- Check for working C compiler: /usr/bin/gcc
-- Check for working C compiler: /usr/bin/gcc -- works
-- Check size of void*
-- Check size of void* - done
-- Check for working CXX compiler: /usr/bin/c++
-- Check for working CXX compiler: /usr/bin/c++ -- works
-- You're not using the GSI installation of the external packages.
-- If any problems occur this can be due to the fact that the macros
-- were mostly tested at GSI. If you find any problems please contact
-- f.uhlig@gsi.de
-- Found root of the simulation software at /afs/e18/panda/SIM/FAIRRoot/cbmsoft
-- Looking for Root...
-- Looking for Root... - found /afs/e18/panda/SIM/FAIRRoot/cbmsoft/tools/root/bin/root
-- Looking for Root... - version 5.14/00
-- Looking for GEANT3...
-- Looking for GEANT3... - found
/afs/e18/panda/SIM/FAIRRoot/cbmsoft/transport/geant3/lib/tgt_linux/libge ant321.so
-- Looking for Pluto...
-- Looking for Pluto... - found /afs/e18/panda/SIM/FAIRRoot/cbmsoft/generators/lib
-- Looking for Pythia6...
-- Looking for Pythia6... - found /afs/e18/panda/SIM/FAIRRoot/cbmsoft/generators/lib
-- Looking for GEANT4...
-- Looking for GEANT4... - found
/afs/e18/panda/SIM/FAIRRoot/cbmsoft/transport/geant4/lib/Linux-g++
```

```
-- Looking for GEANT4VMC...
-- Looking for GEANT4VMC... - found
/afs/e18/panda/SIM/FAIRRoot/cbmsoft/transport/geant4_vmc/lib/tgt_linux
-- Looking for VGM...
-- Looking for VGM... - found
/afs/e18/panda/SIM/FAIRRoot/cbmsoft/transport/vgm.2.08.04/lib/Linux-g++
-- Looking for CLHEP...
-- Looking for CLHEP... - found /afs/e18/panda/SIM/FAIRRoot/cbmsoft/cern/clhep/lib
-- Configuring done
-- Generating done
-- Build files have been written to: /afs/e18/user/sneubert/scratch/PANDA/FAIRRoot/cbuildDev
sneubert@darjeeling:~/scratch/PANDA/FAIRRoot/cbuildDev$ . config.sh
bash: GEANT4_DIR-NOTFOUND/env.sh: No such file or directory
```

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Subject: Re: Error when calling config.sh  
Posted by [Florian Uhlig](#) on Tue, 26 Jun 2007 12:52:30 GMT  
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Hi Sebastian

There is a file missing/at the wrong place in your GEANT4 installation. In the subdirectory transport/geant4 below \$SIMPATH the file env.sh is missing. Copy the file from transport/geant4/source to transport/geant4. Then everything should work.

Ciao

Florian

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Subject: Re: Error when calling config.sh  
Posted by [Stefano Spataro](#) on Tue, 26 Jun 2007 13:10:21 GMT  
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Hello,  
I had this problem several weeks ago,  
maybe something wrong is happening in the installation of external packages.  
The next (if we will ever have a next release of external packages) release should fix this problem, I don't know in which machines it does happen (with my gentoo for sure).

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Subject: Re: Using cmake  
Posted by [Sebastian Neubert](#) on Tue, 26 Jun 2007 14:14:15 GMT  
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Thank you guys!

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