

MAUS - Bug #1943

Problem making MAUS v2.9.1 on Ubuntu 16.04

11 October 2017 15:46 - Boyd, Steven

Status:	Closed	Start date:	11 October 2017
Priority:	Normal	Due date:	
Assignee:	Franchini, Paolo	% Done:	100%
Category:	Build System	Estimated time:	0.00 hour
Target version:	MAUS-v3.0.0		
Workflow:	New Issue		

Description

I've run into several issues compiling third party software due to missing libraries etc which I've dealt with to date. However can't even tell what the problem is here. Seems as if G4analysis library is not found but I could be misdiagnosing this. During G4 compile I note a message

```
-- Installing: /home/boyd/mice_analysis/MAUS-v2.9.1/third_party/install/lib/libG4analysis.so  
-- Set runtime path of "/home/boyd/mice_analysis/MAUS-v2.9.1/third_party/install/lib/libG4analysis.so" to ""
```

Don't know if that's the issue though. Install.log has been attached.

History

#1 - 11 October 2017 19:12 - Dobbs, Adam

Hi Steve,

OK, I have looked through your log. The G4Analysis issue has cropped up before, even when, as here, GEANT4 looks like it has built perfectly well. I note a few other issues however:

- CDB third party libs failed to build - install yacc (yet-another-compiler) from the Ubuntu repositories (I'll add it to the list of dependencies)
- DOxygen failed to build as bison was missing - install bison and libbison-dev (already a listed dependency, best to make sure everything else listed at <http://micewww.pp.rl.ac.uk/projects/maus/wiki/Install>, Ubuntu section is installed too (some of the lib names may need a little tweaking when searching for them from the repos))
- G4Beamline failed to build - but you probably won't need it, nor does anything else depend on it, so can ignore

Other notes:

- The latest MAUS version is 3.0.0, I suggest installing that rather than 2.9.1
- GCC will build by default as a third party, however Ubuntu 16 has a sufficiently modern compiler built-in, so you can save huge amount of time and disk space by building with:

```
./install_build_test.bash --use-system-gcc true -j N
```

where N is the number of cores you wish to build on (note the gap between the -j and the N).

I strongly suggest rebuilding in clean directory.

Let me know how that goes. If it fails again, we will try something else.

AD

#2 - 12 October 2017 13:08 - Boyd, Steven

- File *install.log* added

- Target version set to MAUS-v3.0.0

Followed all that - installed all indicated packages, built MAUS-v.3.0 from scratch. Unfortunately it still fails just after compiling maus-apps. install.log attached...

#3 - 12 October 2017 18:18 - Dobbs, Adam

Hi Steve,

Hmmmm, interesting. OK -- could you please send me the exact set of commands you used to start the build, right down to making the directory. It's still hanging on the G4Analysis library...

Best, AD

#4 - 12 October 2017 20:44 - Boyd, Steven

It's the basic build. I download the source tarball

```
gunzip MAUS-v.3.0.0.tar.gz
tar xvf MAUS-v3.0.0.tar
cd MAUS-v3.0.0
./install_build_test.bash
```

- then I let it go....and go....until it hits the G4analysis issue. The "set runtime path " message happens with G4analysis, G4digit, G4error_propagation, and in fact all the other libG4*.so libraries.

All the libraries were built and exist in MAUS-v3.0.0/third_party/install/lib

In this directory there is also a Geant4-9.6.2 directory which seems to contain a self-referential directory link. In MAUS-v3.0.0/third_party/install/lib/Geant4-9.6.2 there is a directory Linux-g++ which seems to be a link to '..' (e.g. ls -l this Geant4 directory gives 'Linux-g++ -> ..'). Don't know if that's anything.1

#5 - 12 October 2017 20:50 - Boyd, Steven

Incidentally - I'll be there tomorrow with my laptop so you can look at the build "in person" if you like....

#6 - 12 October 2017 21:37 - Dobbs, Adam

Excellent - yes a look in person would be helpful. Meanwhile, try using this build command, again in a clean directory:

```
./install_build_test.bash --use-system-gcc true
```

This will tell it to build with the Ubuntu in-house gcc, not build gcc separately, which may help.

I have seen this G4 issue before (both Jan and myself have encountered it), but never firmly diagnosed the cause...

#7 - 12 October 2017 21:38 - Dobbs, Adam

The build on Tom's laptop is going well incidentally... I'll race you to a working MAUS version at Warwick.

#8 - 13 October 2017 11:25 - Boyd, Steven

- *File install.log added*

Interesting. The build using Ubuntu's native gcc compiler seems to have worked (and the geant messages look like red herrings). Well, sort of worked. It seems to have crashed in the unit tests but I can't work out why. Install.log is attached.

#9 - 10 November 2017 11:03 - Franchini, Paolo

- *Assignee changed from Dobbs, Adam to Franchini, Paolo*

Hi Steve,

could you please try to run the test test_cpp_unit.py manually?

#10 - 27 February 2019 11:31 - Franchini, Paolo

- *Status changed from Open to Closed*

- *% Done changed from 0 to 100*

I assume we can close this.

Files

install.log	22.5 MB	11 October 2017	Boyd, Steven
install.log	22.8 MB	12 October 2017	Boyd, Steven
install.log	11.7 MB	13 October 2017	Boyd, Steven