Subject: Millepede could not be created.
Posted by Jarok on Sat, 29 Oct 2016 17:17:44 GMT
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Hallo,

I tried to install the last version of the external packages in a Ubuntu 16.04 (64 bit) machine with the Root6 option. From another users I found out that it seems to be problem between Root6 and gcc5, so I downgraded to gcc-4.9 and compiled with this version. During the installation I get the error:

[100%] Linking CXX shared library libMille.so
[100%] Built target Mille
Install the project...
-- Install configuration: "Release"
-- Installing: /home/jose/Simulacion/external/root6/lib/libMille.so
-- Installing: /home/jose/Simulacion/external/root6/include/Mille.h
*** ERROR: Millepede could not be created.
*** End installation of external packages with Errors***

What could be the problem?

Thank you very much.

Subject: Re: Millepede could not be created.
Posted by Jarok on Mon, 31 Oct 2016 07:55:08 GMT
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Hello again.

I found in this forum that another person had problems with millepede (was not in the tittle)

https://forum.gsi.de/index.php?t=tree&th=4642&start=0&

One of the answers suggested that the problem is caused because the gfortran version is below 4.9. In my case, I use the gfortran version 5.4.0

Any other thoughts?

Thank you again.

Jose

Subject: Re: Millepede could not be created.
Posted by Florian Uhlig on Mon, 31 Oct 2016 08:10:35 GMT
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Hi Jarok,

could you please attach a log file with the complete output from the millepede compilation.

Ciao

Florian

Subject: Re: Millepede could not be created.
Posted by Jarok on Mon, 31 Oct 2016 13:51:27 GMT
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Hello;

this is the output (gcc-4.9.3 and gfortran 5.4.0)

Hope it helps.

Jose

File Attachments
1) output_root6.txt, downloaded 436 times

Subject: Re: Millepede could not be created.
Posted by Florian Uhlig on Mon, 31 Oct 2016 14:08:28 GMT
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Hi Jarok,

the problem is due to the linkage of the pede executable.

Quote:
gcc -Wall -O3 \
 -o pede mpdef.o mpdalc.o mpmod.o mpbits.o mpqldec.o mptest1.o mptest2.o mille.o mpnum.o mptext.o mphistab.o minresDataModule.o minresModule.o minresqlpDataModule.o minresqlpBlasModule.o minresqlpModule.o randoms.o vertpr.o linesrch.o Dbandmatrix.o pede.o readc.o -lgfortran -lm -lgomp -L= -lz
/usr/bin/ld: no se puede encontrar -lgfortran
collect2: error: ld returned 1 exit status
Makefile:115: fallo en las instrucciones para el objetivo 'pede'
make: *** [pede] Error 1

Somehow gcc can not find the corresponding gfortran library.

Looking at the following compilation unit for me it looks like that there is a mismatch between the fortran and c++ versions.

Quote:

-- The Fortran compiler identification is GNU 5.4.0
-- Check for working Fortran compiler: /usr/bin/gfortran
-- Check for working Fortran compiler: /usr/bin/gfortran -- works
-- Detecting Fortran compiler ABI info
-- Detecting Fortran compiler ABI info - done
-- Checking whether /usr/bin/gfortran supports Fortran 90
-- Checking whether /usr/bin/gfortran supports Fortran 90 -- yes
-- The C compiler identification is GNU 4.9.3
-- The CXX compiler identification is GNU 4.9.3

Could it be that you have only installed the c and c++ compilers of gcc version 4.9.3 but not the fortran compiler?

Ciao

Florian

Subject: Re: Millepede could not be created.
Posted by Jarok on Mon, 31 Oct 2016 14:13:22 GMT
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Hello,

so if I understand you properly the gcc and gfortran should be in the same version...because the fortran compiler is installed and working:

-- The Fortran compiler identification is GNU 5.4.0
-- Check for working Fortran compiler: /usr/bin/gfortran
-- Check for working Fortran compiler: /usr/bin/gfortran -- works

Thank you for your answer

Jose

Subject: Re: Millepede could not be created.
Posted by Florian Uhlig on Mon, 31 Oct 2016 14:29:32 GMT
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Hi,

normally gcc knows where to find the gfortran library because this is a build-in path. In your case the gfortran library is installed at a different location. There are now two differen possibilities to solve the problem. Either you install the proper version of gfortran. Then gcc should find the gfortran library during the linking or you define the proper gfortran location in the link command. I would favor the second option because otherwise you have to recompile with the new fortran compiler.

Could you please execute the following command and report the result.

Quote:
gfortran -print-file-name=libgfortran.so

Ciao

Florian

Subject: Re: Millepede could not be created.
Posted by Jarok on Mon, 31 Oct 2016 14:33:50 GMT
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The result:

/usr/lib/gcc/x86_64-linux-gnu/5/libgfortran.so

Subject: Re: Millepede could not be created.
Posted by Florian Uhlig on Mon, 31 Oct 2016 15:41:42 GMT
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Hi,

this is okay. Please chenge the following lines in scrips/install_millepede.sh

Quote:
```
  if [ "$platform" = "macosx" ];
  then
    fortran_filepath=$(gfortran -print-file-name=libgfortran.dylib)
    fortran_libdir=$(dirname $fortran_filepath)
    mysed "-lgfortran " "-L${fortran_libdir} -lgfortran " Makefile has_slash
  fi
```

to

Quote:
```
#  if [ "$platform" = "macosx" ];
#  then
    fortran_filepath=$(gfortran -print-file-name=libgfortran.so)
    fortran_libdir=$(dirname $fortran_filepath)
    mysed "-lgfortran " "-L${fortran_libdir} -lgfortran " Makefile has_slash
#  fi
```

and recompile. I hope that this change will solve your problem.

Ciao

Florian

Subject: Re: Millepede could not be created.
Posted by Jarok on Mon, 31 Oct 2016 18:43:47 GMT
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Hello again.

Unfortunately I still get the same problem

Jose

Subject: Re: Millepede could not be created.
Posted by Dmitry Blau on Tue, 28 Mar 2017 17:33:30 GMT
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It seems that in Ubuntu gcc-4.9 there is no gfortran installed by default, only in gcc-5. It should be manually installed
sudo apt-get install gfortran-4.9
Than compilation works.

Subject: Re: Millepede could not be created.
Posted by Florian Uhlig on Tue, 28 Mar 2017 17:42:38 GMT
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Why do you choose specific versions of the packages. Normally you do

sudo apt-get install gcc g++ gfortran

Please check the DEPENDENCIES file in the FairSoft source directory.
