
Subject: Shared libs for EvtGenModels -- "No memory for static"

Posted by [mpeliz](#) on Fri, 27 Nov 2009 23:08:51 GMT

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Hello,

I would like to interface EvtGen to PandaROOT. Therefore I need shared libraries for the EvtGenBase and EvtGenModels packages. Compiling the first one within PandaROOT using cmake works fine. For the EvtGenModels I got a strange error when compiling, which seems to be related to CINT. At least the error message shown below is pointing in this direction.

The error comes from EvtIntervalDecayAmp.hh line 112 which says

```
static EvtId B0=EvtPDL::getId("B0");
```

I think a static is appropriate in the given context and removing the static would be a workaround rather than a solution for the problem. Let me emphasize that there are several occurrences of this construct in the package.

A GOOGLE search for the error message points me only to threads in ROOT talk, where workarounds are given which could not be applied in our case (<http://root.cern.ch/root/roottalk/roottalk08/0865.html>), i.e. we could not change the ordering of the statements as proposed there (and I am in doubt if this would help).

Has someone an idea how I can solve this issue?

Best regards,

Marc

----- Error message from make -----

```
Error: No memory for static commands\5\0
/data/puru2/marc/proot/trunk/pgenerators/EvtGen/EvtGenModels/EvtInterval
DecayAmp.hh:112:
Error: No memory for static commands\5\0
/data/puru2/marc/proot/trunk/pgenerators/EvtGen/EvtGenModels/EvtInterval
DecayAmp.hh:113:
Warning: Error occurred during reading source files
Warning: Error occurred during dictionary source generation
!!!Removing /data/puru2/marc/proot/build/pgenerators/EvtGen/EvtGenDict.cxx
/data/puru2/marc/proot/build/pgenerators/EvtGen/EvtGenDict.h !!!
Error: /data/puru2/marc/proot/fairsoft/tools/root/bin/rootcint: error loading headers...
make[2]: *** [pgenerators/EvtGen/EvtGenDict.cxx] Error 1
make[1]: *** [pgenerators/EvtGen/CMakeFiles/evtgen.dir/all] Error 2
```

Subject: Re: Shared libs for EvtGenModels -- "No memory for static"

Posted by [mpeliz](#) on Mon, 30 Nov 2009 14:08:10 GMT

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Hello,

further investigation of the problem strengthen my initial guess that rootcint causes the problem.

Adding a `#ifndef __ROOTCINT__` to the `EvtIntervalDecayAmp.hh` header file prevents this file to be "parsed/processed" by cint.

Therefore my question now is: Is it possible to disable the usage of cint for this package, e.g. in the CMake file of the package?

For all your efforts many thanks in advance.

Best regards,

Marc

Subject: Re: Shared libs for EvtGenModels -- "No memory for static"

Posted by [Mohammad Al-Turany](#) on Mon, 30 Nov 2009 14:28:58 GMT

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Hallo Marc,

In principle yes, in the CMakeList.txt you have to remove the lines:

```
set(XXX_LINKDEF XXXLinkDef.h)
set(XXX_DICTIONARY ${CMAKE_CURRENT_BINARY_DIR}/XXXDict.cxx)
ROOT_GENERATE_DICTIONARY("${XXX_HEADERS}" "${XXX_LINKDEF}"
"${XXX_DICTIONARY}" "${INCLUDE_DIRECTORIES}")
SET(XXX_SRCS ${XXX_SRCS} ${XXX_DICTIONARY})
```

but I think also you have to modify the CMakeList.txt at other places a, this I can not really judge without taking a look to the file.

but if you do this then you will not be able to call or to use these classes from within CINT, So can you tell me what is the goal of this? What do you mean by interfacing the EvtGen to PandaRoot? is it meant to be something like the DpmDirect stuff or something else?

regards

Mohammad

Subject: Re: Shared libs for EvtGenModels -- "No memory for static"

Posted by [mpeliz](#) on Tue, 01 Dec 2009 11:47:38 GMT

Hi Mohammad,

thanks for pointing me to this. Actually I used a CMakefile file from another package, where this stuff was in. Maybe this was not a good choice for my purposes.

In the first place the interface should make the production of intermediate output files between the event generation and the simulation obsolete. So this is something similar you have applied for the DPM generator. More generalized the interface should be able to handle different generators (cosmics, DPM, UrQMD, ...), but this would be the next step.

However, together with Bertram I managed to start the generator from rootcint. Now the problem is that a symbol from the static cernlib is missing.

I am aware that this topic was discussed several times before but I think we never get a final conclusion. Is it possible to make shared libs of the cernlib or use the static libs in rootcint? Or is there a limitation?

Best regards,
Marc

Subject: Re: Shared libs for EvtGenModels -- "No memory for static"
Posted by [Mohammad Al-Turany](#) on Tue, 01 Dec 2009 13:26:05 GMT
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Hi Marc,

Quote:

I am aware that this topic was discussed several times before but I think we never get a final conclusion. Is it possible to make shared libs of the cernlib or use the static libs in rootcint? Or is there a limitation?

Yes, there is also the so called UNIGEN developed by CBM, HADES, CERES and ALICE which cover most generators, but in PANDA we never really get to a conclusion.

About the shared library it is possible, and there is no limitation. my question is do you use gfortran or g77 to compile CERNLIB, as far as I remember there are some problems with gfortran.

anyway maybe we can discuss this directly next week.

Mohammad

Subject: Re: Shared libs for EvtGenModels -- "No memory for static"

Posted by [mpeliz](#) on Tue, 01 Dec 2009 13:52:49 GMT

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Hi Mohammad,

for the compilation of EvtGen fortran code I used g77.

Do you have the cernlib sources with a working Makefile to produce the shared libs? Maybe I can use this to generate some libs for SL4?

If that works, the easiest way would be to include the cernlib as an external package in the future. But we can discuss this issue further on next week.

Best regards,
Marc

Subject: Re: Shared libs for EvtGenModels -- "No memory for static"

Posted by [Johan Messchendorp](#) on Tue, 01 Dec 2009 18:40:55 GMT

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Hi Marc,

You can take a look at the following Wiki site:

<http://wiki.gsi.de/cgi-bin/view/Personalpages/UnitedGenerators>

Well, whatever you use as interface, the real "problem" is to deal with gfortran/g77 and the cernlib stuff. At some point in time, we have to make it all work with gfortran. This might be a big struggle... dont know.

Greetings,

Johan.
