

Hi Dima,

thanks for solving the compiler issue. Next problem:

The root interpreter doesn't know the R3B classes like R3BUcesbSource:

```
rplag@lxg0858:~/R3BRoot/macros/r3b/unpack/s438b$ root -l
root [0] .L unpack_ucesb.C
In file included from input_line_9:1:
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:36:2: error: unknown type name
'R3BUcesbSource'
    R3BUcesbSource* source = new R3BUcesbSource(filename, ntuple_options,
    ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:36:31: error: unknown type
name 'R3BUcesbSource'
    R3BUcesbSource* source = new R3BUcesbSource(filename, ntuple_options,
    ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:39:24: error: unknown type
name 'R3BUnpackReader'
    source->AddReader(new R3BUnpackReader(&ucesb_struct));
    ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:45:2: error: unknown type name
'FairRunOnline'
    FairRunOnline* run = new FairRunOnline(source);
    ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:45:27: error: unknown type
name 'FairRunOnline'
    FairRunOnline* run = new FairRunOnline(source);
    ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:51:2: error: unknown type name
'R3BAladinFieldMap'
    R3BAladinFieldMap* magField = new R3BAladinFieldMap("AladinMaps");
    ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:51:36: error: unknown type
name 'R3BAladinFieldMap'
    R3BAladinFieldMap* magField = new R3BAladinFieldMap("AladinMaps");
    ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:59:2: error: unknown type name
'R3BLandRawAna'
    R3BLandRawAna* ana = new R3BLandRawAna("LandRawAna", 1);
    ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:59:27: error: unknown type
name 'R3BLandRawAna'
    R3BLandRawAna* ana = new R3BLandRawAna("LandRawAna", 1);
    ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:65:2: error: use of undeclared
identifier 'FairLogger'
    FairLogger::GetLogger()->SetLogScreenLevel("INFO");
```

^

I tried to include("r3bucsbsource.h") but it doesn't even know the include path (and it needs to include files from many locations like even the ucesb hbook directory). So that can't be the option...

Cheers,
Ralf

Subject: Re: R3B classes unknown in root macro
Posted by [Dmytro Kresan](#) on Thu, 07 Jan 2016 13:07:54 GMT
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Hi Ralf,

In this case all R3BRoot / FairRoot related classes are not known. Did you call the configuration script? Just run "echo \${LD_LIBRARY_PATH}" and your R3B library directory should be in the list.

Cheers,
Dima

Subject: Re: R3B classes unknown in root macro
Posted by [Ralf Plag](#) on Thu, 07 Jan 2016 13:13:39 GMT
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Yes, I did run config.sh. And the library path seems to be ok, see end of output:

```
rplag@lxg0858:~$ cd build
rplag@lxg0858:~/build$ ./config.sh
System during compilation: Debian GNU/Linux 7.9 (wheezy)
                        x86_64
System now              : Debian GNU/Linux 7.9 (wheezy)
                        x86_64
rplag@lxg0858:~/build$ module use /cvmfs/it.gsi.de/modulefiles/
rplag@lxg0858:~/build$ module load compiler/gcc/4.8.4
rplag@lxg0858:~/build$ export CXX=g++
rplag@lxg0858:~/build$ root -l ../R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C
root [0]
Processing ../R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C...
In file included from input_line_9:1:
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:36:2: error: unknown type name
'R3BUcesbSource'
      R3BUcesbSource* source = new R3BUcesbSource(filename, ntuple_options,
```

```

^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:36:31: error: unknown type
name 'R3BUcesbSource'
    R3BUcesbSource* source = new R3BUcesbSource(filename, ntuple_options,
        ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:39:24: error: unknown type
name 'R3BUnpackReader'
    source->AddReader(new R3BUnpackReader(&ucesb_struct));
        ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:45:2: error: unknown type name
'FairRunOnline'
    FairRunOnline* run = new FairRunOnline(source);
        ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:45:27: error: unknown type
name 'FairRunOnline'
    FairRunOnline* run = new FairRunOnline(source);
        ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:51:2: error: unknown type name
'R3BAladinFieldMap'
    R3BAladinFieldMap* magField = new R3BAladinFieldMap("AladinMaps");
        ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:51:36: error: unknown type
name 'R3BAladinFieldMap'
    R3BAladinFieldMap* magField = new R3BAladinFieldMap("AladinMaps");
        ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:59:2: error: unknown type name
'R3BLandRawAna'
    R3BLandRawAna* ana = new R3BLandRawAna("LandRawAna", 1);
        ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:59:27: error: unknown type
name 'R3BLandRawAna'
    R3BLandRawAna* ana = new R3BLandRawAna("LandRawAna", 1);
        ^
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:65:2: error: use of undeclared
identifier 'FairLogger'
    FairLogger::GetLogger()->SetLogScreenLevel("INFO");
        ^
root [1] .q
rplag@lxg0858:~/build$ echo $LD_LIBRARY_PATH
/cvmfs/it.gsi.de/compiler/gcc/4.8.4/lib64:/u/rplag/build/lib:/cvmfs/fair
root.gsi.de/gcc_4.8.4/fairroot/v-15.11_fairsoft-nov15p1_root6/lib:/cvmfs
/fairroot.gsi.de/gcc_4.8.4/fairsoft/nov15p1_root6/lib/root:/cvmfs/fairro
ot.gsi.de/gcc_4.8.4/fairsoft/nov15p1_root6/lib

```

Subject: Re: R3B classes unknown in root macro
 Posted by [Dmytro Kresan](#) on Thu, 07 Jan 2016 13:18:56 GMT
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Please try:

```
root -l
[] .L unpack_ucesb.C
[] unpack_ucesb()
```

Subject: Re: R3B classes unknown in root macro
Posted by [Bastian Löher](#) on Thu, 07 Jan 2016 13:23:22 GMT
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Please show the output of

> which root

Subject: Re: R3B classes unknown in root macro
Posted by [Ralf Plag](#) on Thu, 07 Jan 2016 13:23:52 GMT
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I already tried but this makes no difference.

```
rplag@lxg0858:~/R3BRoot/macros/r3b/unpack/s438b$ root -l
root [0] .L unpack_ucesb.C
In file included from input_line_9:1:
/u/rplag/R3BRoot/macros/r3b/unpack/s438b/unpack_ucesb.C:36:2: error: unknown type name
'R3BUcesbSource'
    R3BUcesbSource* source = new R3BUcesbSource(filename, ntuple_options,
    ^
[...]
```

Interestingly, I can still run the r3bsim macro:

```
rplag@lxg0858:~/R3BRoot/macros/r3b$ root -l r3bsim.C
root [0]
Processing r3bsim.C...
[INFO ] FairRootManager::OpenOutFile("r3bsim.root")
[INFO ] Media file used: /u/rplag/R3BRoot/geometry/media_r3b.geo
[INFO ] ===== FairRunSim: Initialising simulation run =====
Info in <TGeoManager::TGeoManager>: Geometry FAIRGeom, FAIR geometry created
[INFO ] FairGeoMedia: Read media
[...]
```

Subject: Re: R3B classes unknown in root macro
Posted by [Ralf Plag](#) on Thu, 07 Jan 2016 13:27:04 GMT
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```
rplag@lxg0858:~/R3BRoot/macros/r3b$ which root
/cvmfs/fairroot.gsi.de/gcc_4.8.4/fairsoft/nov15p1_root6/bin/root
```

Subject: Re: R3B classes unknown in root macro
Posted by [Dmytro Kresan](#) on Thu, 07 Jan 2016 13:35:00 GMT
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Was your r3bsource directory compiled? Please check the output of cmake configuration (whether UCESB was found) and the corresponding libR3Bsource.so library in the R3BRoot lib dir.

Cheers,
Dima

Subject: Re: R3B classes unknown in root macro
Posted by [Ralf Plag](#) on Thu, 07 Jan 2016 14:06:42 GMT
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Ah! Thanks! Now we are getting closer...
I had set UCESB_PATH but UCESB_DIR was required *facepalm*

After fixing this, I still get the following config output:

```
-- Looking for ucesb...
- UCESB_DIR = /u/rplag/ucesb/unpacker
- ucesb_INCLUDE_DIR = /u/rplag/ucesb/unpacker/hbook
- ucesb_LIBRARY_SHARED = ext_data_clnt
- ucesb_LIBRARY_STATIC = ext_data_clnt.o
- ucesb_LIBRARY_DIR = ucesb_LIBRARY_DIR-NOTFOUND
-- Looking for ucesb... - Not found
```

I have now set:

```
echo $UCESB_DIR
/u/rplag/ucesb/unpacker
```

I'm wondering whether my ucesb directory structure is fine: My 'upexps' is on the same level as 'unpacker'. I have compiled and working: unpacker/empty and upexps/s438b. What exactly is the config script looking for?

```
rplag@lxcg0858:~/ucesb$ ls
unpacker  unpackexps  upexps
```

Cheers,
Ralf

Subject: Re: R3B classes unknown in root macro
Posted by [Dmytro Kresan](#) on Thu, 07 Jan 2016 14:22:18 GMT
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This is the fragment from R3BRoot/cmake/modules/Finducesb.cmake :

```
find_path(ucsb_LIBRARY_DIR NAMES "lib${ucsb_LIBRARY_SHARED}.so"
  PATHS $ENV{UCESB_DIR}
  $ENV{UCESB_DIR}/hbook
  NO_DEFAULT_PATH
  DOC "Path to ucsb library files."
)

find_library(ucsb_LIBRARY_STATIC NAMES ${ucsb_LIBRARY_STATIC}
  PATHS $ENV{UCESB_DIR}/hbook
  NO_DEFAULT_PATH
  DOC "Path to ${LIBucsb_STATIC}."
)
```

It means that libext_data_clnt.so and ext_data_clnt.o have to be in UCESB_DIR/hbook

Cheers,
Dima

Subject: Re: R3B classes unknown in root macro
Posted by [Dmytro Kresan](#) on Thu, 07 Jan 2016 14:24:54 GMT
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Since you have solved your UCESB_DIR issue, I would also recommend to try with completely fresh build directory.

Subject: Re: R3B classes unknown in root macro
Posted by [Ralf Plag](#) on Fri, 08 Jan 2016 09:52:18 GMT
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Hi Dima,

yup, libext_data_clnt.so was missing. Kinda strange since the struct_writer and root_writer were successfully built. Anyway, another "make struct_writer" in the hbook directory fixed it. Now, ucsb is found by the config script und the root macro runs.
Thanks again!

Ralf
