Subject: Geo generation
Posted by Oleg on Thu, 11 Aug 2016 13:43:37 GMT
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Hi,

I would like to generate a new geometry file for the active target.
Actually it is only to add a He gas media.
So the script create_actar_helium.C is made which differs from the original create_actar.C with
the lines added:

```
 FairGeoMedium* mHe     = geoMedia->getMedium("helium");
 if ( ! mHe ) Fatal("Main", "FairMedium helium not found");
 geoBuild->createMedium(mHe);
 TGeoMedium* pMed4 = gGeoMan->GetMedium("helium");
 if ( ! pMed4 ) Fatal("Main", "Medium helium not found");
```

If I run it, there is an error:

```
root [0] .x create_actar_helium_geo.C("helium")
IncrementalExecutor::executeFunction: symbol
'_ZN4ROOT4Math9gv_detail7convertERKNS0_9AxisAngleERNS0_10Rotation3DE'
unresolved while linking function '_GLOBAL__sub_I_cling_module_6'!
You are probably missing the definition of
ROOT::Math::gv_detail::convert(ROOT::Math::AxisAngle const&, ROOT::Math::Rotation3D&)
Maybe you need to load the corresponding shared library?
warning: cannot find function 'create_actar_helium_geo()'; falling back to .L
```

What is a problem?

Oleg.

Subject: Re: Geo generation
Posted by Dmytro Kresan on Fri, 12 Aug 2016 07:22:42 GMT
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1. I can not reproduce your error with loading of libraries. Check if your environment is properly
set up. Run the ". ./config.sh" in the build directory, type make to check that all libraries are
build. Test whether you can run other macros in this shell. NOTE: this
create_actar_helium_geo.C has to be placed in R3BRoot/macros/r3b/geo directory, and has to
be executed from there. I expect this causes crash.
2. If you change the name of macro, you need to change the name of the function in it. Both
should match.
3. The code fragment you posted here, already exist in create_actar_geo.C. Duplication will
lead to error.

Best regards,
Dima

Subject: Re: Geo generation
Posted by Oleg on Mon, 15 Aug 2016 12:46:07 GMT
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I run . ./config.sh and then make. All is OK.
The script name was wrong, sorry.
I changed it so now the function name and the script name are the same.
It does not work anyway.

It is correct, I changed the existing create_actar_geo.C due to I wanted to correct the error there -
the gar in the detector must be helium, not Ar - CO2.

Subject: Re: Geo generation
Posted by Oleg on Mon, 15 Aug 2016 13:45:04 GMT
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The problem was the rootlogon.C script was not read and excute before the creation of the geometry.

So the generation of the new geometry works.
Additional problem - changing the line in r3bsim.C
from:

TMap detGeo;
  detGeo.Add(new TObjString("ACTAR"),   new TObjString("actar_arco2.geo.root"));

to:

TMap detGeo;
  detGeo.Add(new TObjString("ACTAR"),   new TObjString("actar_helium.geo.root"));

created an error:

root -l r3bsim.C
root [0]
Processing r3bsim.C...
RandomEngineRoot:
    Generator type: TRandom3
    Seed: 2979099621
[INFO   ] Actar: geometry file actar_helium.geo.root not found in standard path
[FATAL] [15.08.2016 15:35:45] We stop the execution of the process at this point.

both files - actar_arco2.geo.root and actar_helium.geo.root are in the same directory.

Oleg.

The framework looks for geometry files in $VMCWORKDIR/geometry/ path. VMCWORKDIR environment variable is set by default to R3BRoot source directory. In this case the different R3BRoot path was configured.