

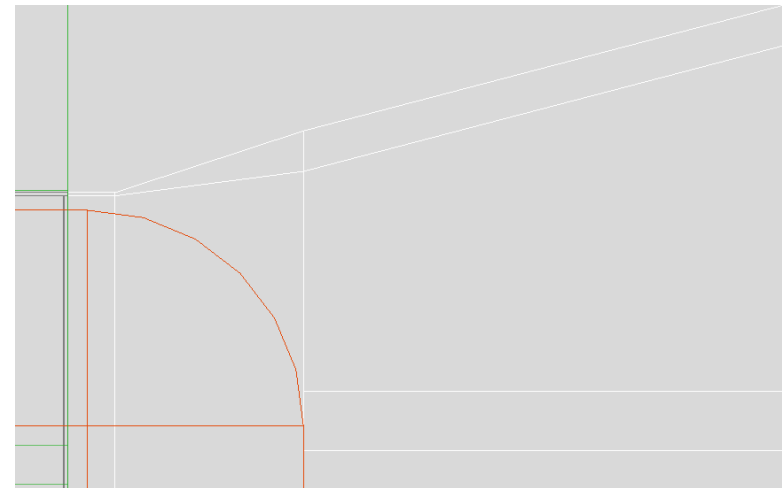
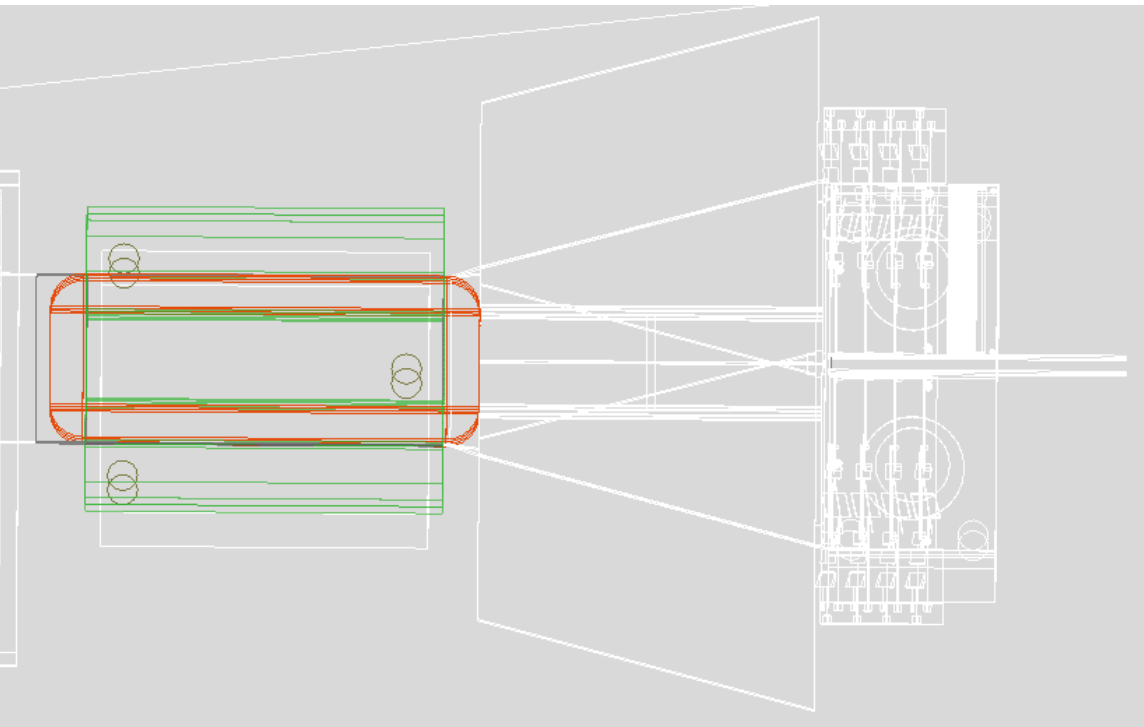
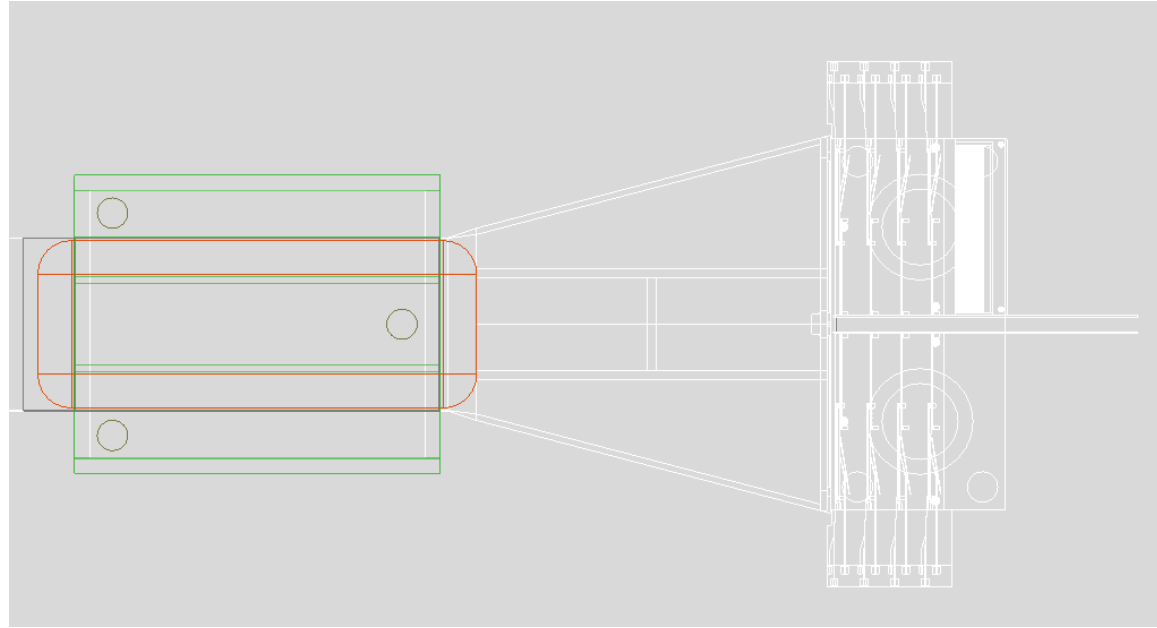
# Update on LUXE GEANT4 Simulation

Oleksandr Borysov

LUXE Technical Meeting  
December 1, 2021

# GDML export in G4 v10.7.2 with VecGeom

- Exporting G4 geometry to gdml in NAF using G4 v10.7.2 with VecGeom;
- ([/cvmfs/sft.cern.ch/lcg/views/LCG\\_101](http://cvmfs/sft.cern.ch/lcg/views/LCG_101))
- G4 v10.6 also does not work for another G4Assembly related problem.
- Importing GDML to G4 does not look reasonable;
- The x size of the G4Para equals to its z size in gdml file (export related problem).



# Reporting the problem

## Exporting G4UPara to GDML

■ Geometry, Fields and Transportation



sqyta

2h

Dear Experts,

The problem came when I exported the geometry to gdml in `/cvmfs/sft.cern.ch/lcg/views/LCG_101` which uses Geant4-10.7.2 with VecGeom probably. The problem seems to be in G4UPara as my local installation (without VecGeom) which uses G4Para works properly. The X size of the G4Para exported to gdml via G4UPara equals to its Z size:

```
G4double G4UPara::GetXHalfLength() const
{
    return GetZ();
}
```

It looks like it is also like this in 10.7.3:



gcosmo 

1h

You should report this in the Problem reporting system:

- [Log in to Bugzilla/Geant4](#) 

☒ Solution   ...  Reply



Bugzilla/Geant4 - Problem 2446

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**Problem 2446 - G4UPara::GetXHalfLength()**

Oleksandr Borysov 2021-11-24 09:48:34 CET

[Description](#)

A possible way to demonstrate the problem is to export G4Para to gdml file when internally G4UPara is used (probably when compiled with VecGeom), e.g. `/cvmfs/sft.cern.ch/lcg/views/LCG_101`.  
The X size of the G4Para exported to gdml via G4UPara equals to its Z size:

```
G4double G4UPara::GetXHalfLength() const
{
    return GetZ();
}
```

Gabriele Cosmo 2021-11-24 11:19:25 CET

[Comment 1](#)

Thanks for the report.  
The fix is now submitted to the development master and will be included in next release.