Subject: Issues on the mvd root geometry 1.0
Posted by Ralf Kliemt on Fri, 22 Feb 2008 14:02:34 GMT
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Hi all, hi Tobias,

I tried a small simulation with the root geometry containing the geometry from the CAD file (Feb. 2008). I get the following segfault from building the geometry:

Quote:#0 0xb792adec in TObjArray::UncheckedAt (this=0xf84, i=0) at include/TObjArray.h:76
#1 0xb6a36b31 in TGeoVolume::GetNode (this=0x87c7520, i=0) at include/TGeoVolume.h:172
#2 0xb2a600f7 in PndMvdDetector::ConstructRootGeometry (this=0x8512fe0) at /home/ralfk/Pandaroot/pandaroot/mvd/MvdMC/PndMvdDetector.cxx:318
#3 0xb2a60303 in PndMvdDetector::ConstructGeometry (this=0x8512fe0) at /home/ralfk/Pandaroot/pandaroot/mvd/MvdMC/PndMvdDetector.cxx:294
#4 0xb3047869 in CbmMCApplication::ConstructGeometry (this=0x8543738) at /home/ralfk/Pandaroot/pandaroot/base/CbmMCApplication.cxx:453
#5 0xafc08fe1 in TG4RunManager::ConfigureRunManager (this=0x86572d0) at run/src/TG4RunManager.cxx:191
#6 0xafc0ad56 in TG4RunManager (this=0x86572d0, runConfiguration=0x8629eb0) at run/src/TG4RunManager.cxx:145
#7 0xafc0e2c9 in TGeant4 (this=0x8651ca0, name=0x84fab5c "TGeant4", title=0x863d16c "The Geant4 Monte Carlo", configuration=0x8629eb0) at run/src/TGeant4.cxx:136

Well It doesn't tell me much. Maybe the file (preliminary state) is broken.

[edit]
Actually I just saw that in this new geometry file exists a TGeoManager as top level object. So the call for the TVolume is not valid. I'll look for a workaround...

Ralf.

Subject: Re: Issues on the mvd root geometry 1.0
Posted by Ralf Kliemt on Tue, 26 Feb 2008 17:28:13 GMT
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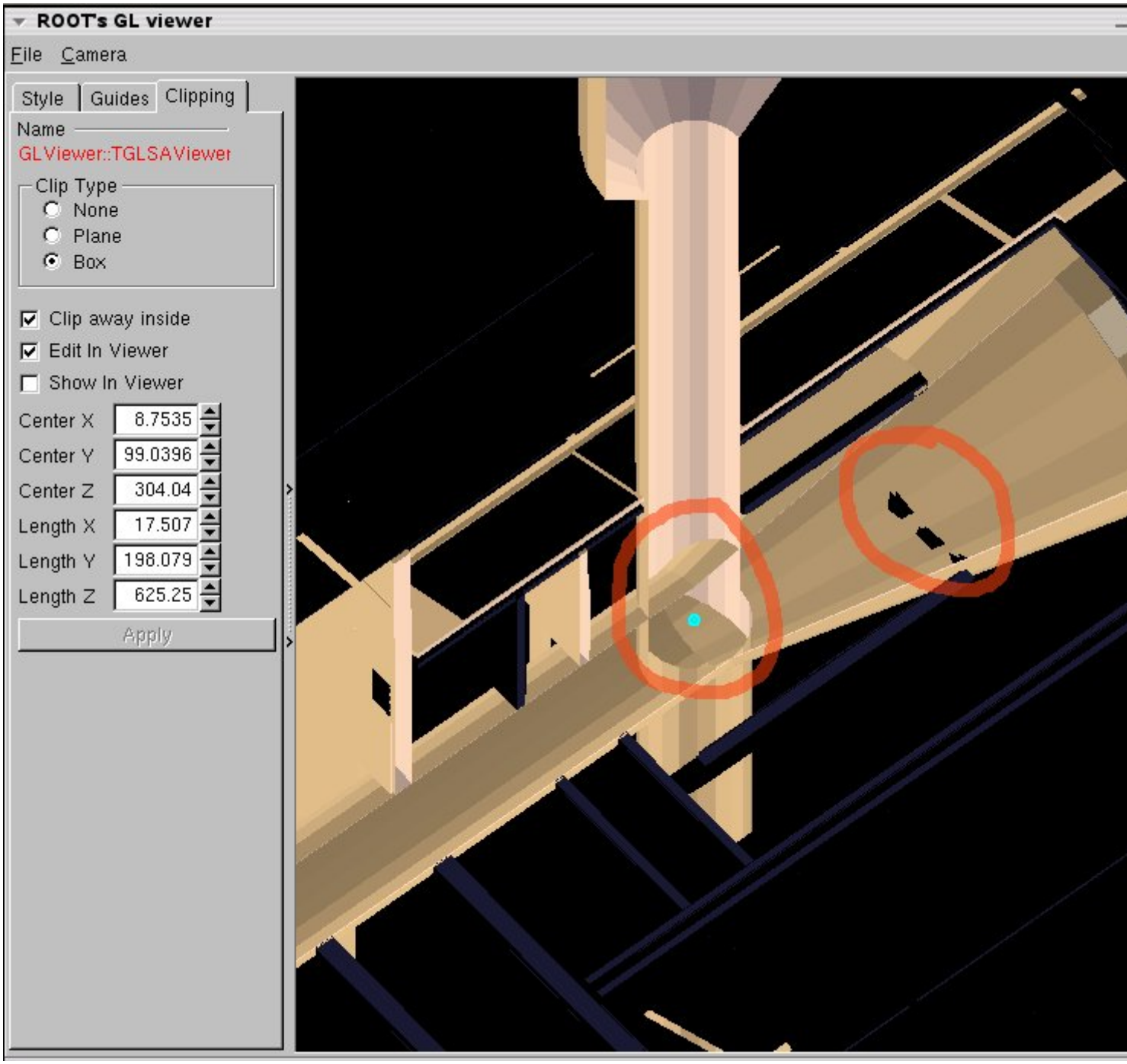
Hi again -
here is a small report on overlaps in the new geometry with the beam-target cross:

Ralf.

File Attachments
1) overlaps.jpg, downloaded 1677 times



Subject: Re: Issues on the mvd root geometry 1.0
Posted by Ralf Kliemt on Thu, 03 Apr 2008 16:20:57 GMT
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Hi all,

Here my notes on the next geometry. I.e. the rev. 2420 which holds the geometry/MVD_1.0_Pv-1.0_Sv-1.0.root

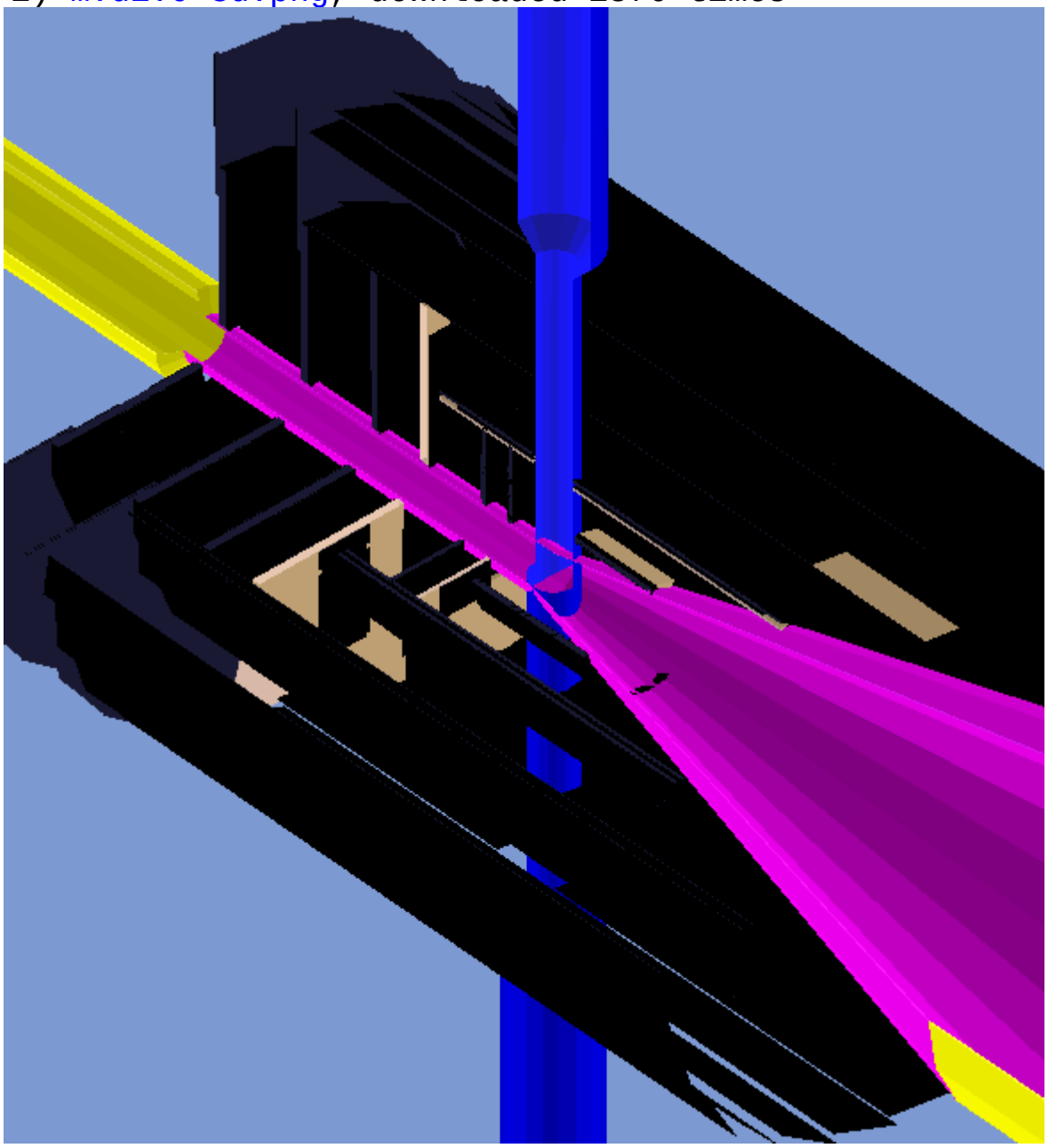
I ran a simulation and I get the following when I draw the geometry:

Please note that there are overlaps with the beampipe! Additionally I have the feeling that the mvd geometry is not read in 1:1 because it seems some support material is missing (optically on the root ogl output).

Greetings from Dresden.
Ralf.

File Attachments

1) mvd1.0-3d.png, downloaded 1376 times



Subject: Re: Issues on the mvd root geometry 1.0
Posted by Ralf Kliemt on Thu, 03 Apr 2008 16:22:00 GMT
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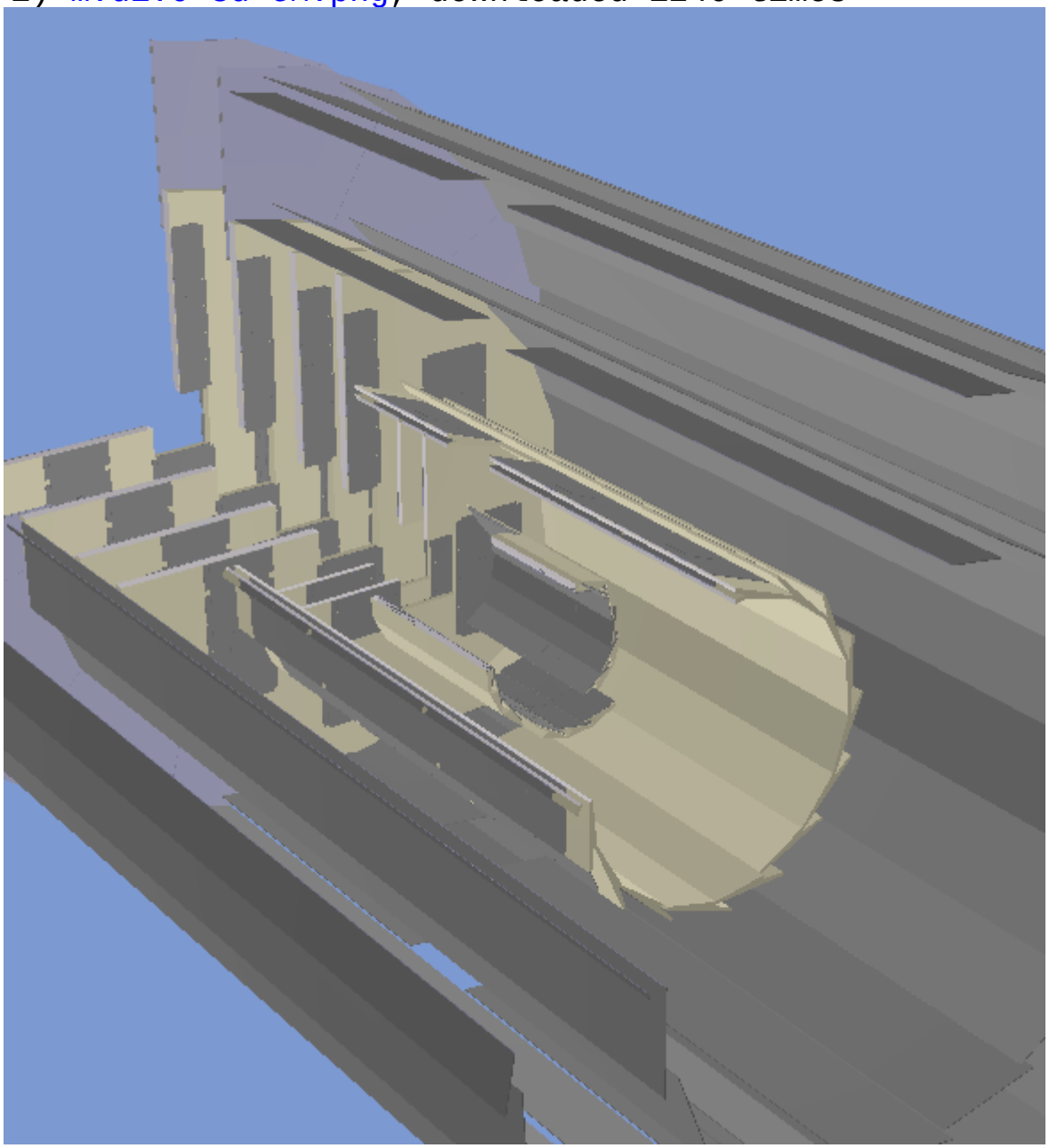
Short follow-up with the geometry dorectly drawn by the geomanager from inside the file:

Ralf

File Attachments

1) mvd1.0-3d-GM.png, downloaded 1246 times



Subject: Re: Issues on the mvd root geometry 1.0
Posted by StefanoSpataro on Thu, 03 Apr 2008 16:38:47 GMT
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The beampipe geometry was just converted from the step file of the old framework. So it can be that it is not updated, and that is maybe the reason of the overlaps.

Subject: Re: Issues on the mvd root geometry 1.0
Posted by Ralf Kliemt on Mon, 14 Apr 2008 15:45:59 GMT
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Hello,

I think we run into trouble with our geometry file: The trapezoid sensors are somehow missing in Geant.
To give you an impression there is a picture of Radiation length points for Mvd & pipes in the attatchment.
You can see in the forward region (right plot shows r-z projection) clearly the two forward strip disks missing. I wonder why.

I'll try to figure out. Maybe Tobias could have a short look into the conversion process again....
There are two things in my mind: 1st is this trapezoid shape causing trouble with Geant. The second could be some missing media information.

Ciao, Ralf.

File Attachments

1) material10.ps, downloaded 818 times