

Unfortunately after updating both:

fts.geo (geometry directory)

PndFtsMapCreator (fts directory)

The issue with the tube mapping mentioned previously still exists.

For my part, i solved the problem for the FTS digitizer by taking the tube geometrical information directly from the TGeoManager nodes and i am storing the tube geometry directly in the PndFtsHit structure (for now)

When i run the FTS digitizer using both the new tube mapping (with the updated fts.geo) i am getting now a systematic X coordinate mismatch i.e :
In the text dump that follows, one has to compare geometrical information

- from the MC points (Geant point)
- from the mapper (Tube from mapper)
- from the TGeoManager directly (Tgeo Tube position) :

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-l- Tubeld -----> 5758
-l- Geant Point -----> X Y Z 69.0942 : 11.3914 : 607.028
-l- Tube From Mapper -----> X Y Z 75.245 : 0 : 606.995

-l- Tube from TGeo: Rmin Rmax dz 0 : 0.505 : 59
-l- TGeo Translation i= 0 : 69.185
-l- TGeo Translation i= 1 : 0
-l- TGeo Translation i= 2 : 606.995
-l- TGeo Rotation:
i= 0 : 1 i= 1 : 0 i= 2 : 0 i= 3 : 0 i= 4 : 0 i= 5 : 1 i= 6 : 0 i= 7 : 1 i= 8 : 0
-l- TGeo: Tube position X: 69.185 Y:0 Z:606.995 R_meas: 0.121848

-l- Tubeld -----> 6170
-l- Geant Point -----> X Y Z 69.4256 : 11.412 : 607.964
-l- Tube From Mapper -----> X Y Z 87.87 : 0 : 607.87

-l- Tube from TGeo: Rmin Rmax dz 0 : 0.505 : 59
-l- TGeo Translation i= 0 : 69.69
-l- TGeo Translation i= 1 : 0
-l- TGeo Translation i= 2 : 607.87
-l- TGeo Rotation:
i= 0 : 1 i= 1 : 0 i= 2 : 0 i= 3 : 0 i= 4 : 0 i= 5 : 1 i= 6 : 0 i= 7 : 1 i= 8 : 0
-l- TGeo: Tube position X: 69.69 Y:0 Z:607.87 R_meas: 0.277454

-l- Tubeld -----> 6581
-l- Geant Point -----> X Y Z 70.6534 : 11.4883 : 611.426
-l- Tube From Mapper -----> X Y Z 101.893 : 0 : 611.49
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-l- Tube from TGeo: Rmin Rmax dz 0 : 0.505 : 59
-l- TGeo Translation i= 0 : 71.477
-l- TGeo Translation i= 1 : 0
-l- TGeo Translation i= 2 : 611.49
-l- TGeo Rotation:
i= 0 : 0.996195 i= 1 : 0 i= 2 : -0.0871557 i= 3 : 0.0871557 i= 4 : 0 i= 5 : 0.996195 i= 6 : 0 i= 7 :
1 i= 8 : 0
-l- TGeo: Tube position X: 71.477 Y:0 Z:611.49 R_meas: 0.190151

-l- Tubeld -----> 6992
-l- Geant Point -----> X Y Z 70.986 : 11.5091 : 612.362
-l- Tube From Mapper -----> X Y Z 114.566 : 0 : 612.365

-l- Tube from TGeo: Rmin Rmax dz 0 : 0.505 : 59
-l- TGeo Translation i= 0 : 71.9839
-l- TGeo Translation i= 1 : 0
-l- TGeo Translation i= 2 : 612.365
-l- TGeo Rotation:
i= 0 : 0.996195 i= 1 : 0 i= 2 : -0.0871557 i= 3 : 0.0871557 i= 4 : 0 i= 5 : 0.996195 i= 6 : 0 i= 7 :
1 i= 8 : 0
-l- TGeo: Tube position X: 71.9839 Y:0 Z:612.365 R_meas: 0.0175759