
Subject: negative masses in geometry (TG3)

Posted by [Olaf Hartmann](#) on Wed, 20 Apr 2011 12:36:40 GMT

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Dear all,

when calculating the masses of the volumes in PandaRoot, I observed i.a. several masses with negative values, which actually comes from a negative volume size (!). Example:

Calculating the physical volume (which for a TGeoXtru is [length]³):

```
root [43] gGeoManager->GetVolume("Supporto2")->Capacity()  
(const Double_t)(-4.86071999981845693e+03)
```

These are the geo parameters of this object:

```
root [42] gGeoManager->GetVolume("Supporto2")->InspectShape()  
*** Shape Supporto2: TGeoXtru ***  
  Nz   = 2  
  List of (x,y) of polygon vertices:  
  x = 134.00000 y = 184.00000  
  x = 130.51000 y = 184.00000  
  x = 130.51000 y = 176.00000  
  x = 134.00000 y = 176.00000  
  x = 134.00000 y = 178.00000  
  x = 156.70000 y = 178.00000  
  x = 156.70000 y = 176.00000  
  x = 159.20000 y = 176.00000  
  x = 159.20000 y = 184.00000  
  x = 156.70000 y = 184.00000  
  x = 156.70000 y = 182.00000  
  x = 134.00000 y = 182.00000  
  plane 0: z= -0.00000 x0= 0.00000 y0= 0.00000 scale= 1.00000  
  plane 1: z= 2.00000 x0= 0.00000 y0= 0.00000 scale= 1.00000  
  Bounding box:  
*** Shape Supporto2: TGeoBBox ***  
  dX = 14.34500  
  dY = 4.00000  
  dZ = 1.00000  
  origin: x= 144.85500 y= 180.00000 z= 1.00000
```

Shouldn't it be that values like volume and mass always come out with positive values?
Of course I can ask for the abs value in the code to avoid negative values.

Cheers
Olaf.