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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]<sup>3</sup>):

```
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.