
Subject: Re: negative masses in geometry (TG3)
Posted by [Mohammad Al-Turany](#) on Wed, 20 Apr 2011 13:19:21 GMT
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Hi Olaf,

it could be a bug in TGeoXtru::Capacity:

Quote:

```
Double_t TGeoXtru::Capacity() const
{
// Compute capacity [length^3] of this shape.
  Int_t iz;
  Double_t capacity = 0;
  Double_t area, dz, sc1, sc2;
  TGeoXtru *xtru = (TGeoXtru*)this;
  xtru->SetCurrentVertices(0.,0.,1.);
  area = fPoly->Area();
  for (iz=0; iz<fNz-1; iz++) {
    dz = fZ[iz+1]-fZ[iz];
    if (TGeoShape::IsSameWithinTolerance(dz,0)) continue;
    sc1 = fScale[iz];
    sc2 = fScale[iz+1];
    capacity += (area*dz/3.)*(sc1*sc1+sc1*sc2+sc2*sc2);
  }
  return capacity;
}
```

in the line `dz = fZ[iz+1]-fZ[iz]`; if `fZ[iz+1]` is smaller than `fZ[iz]` then you get a negative value.
Anyway I did not find the volume "Supporto2" in the geometry. can you please tell me where to find it or post a root file with a TGeoManager having this problem.

regards

Mohammad