
Subject: Re: URGENT: geane - coordinate system
Posted by [Sebastian Neubert](#) on Fri, 28 Sep 2007 12:17:31 GMT
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Hi!

I have look into CbmTrackParP and I found the place where the confusion sets in:

```
TVector3 positionsd = util.FromMARSToSDCoord(TVector3(fX, fY, fZ), forigin, fiver, fjver,
fkver);
  fU = positionsd.X(); // CHECK
  fV = positionsd.Y(); // CHECK
  fW = positionsd.Z(); // CHECK
```

Since fV and fW are used in the trackrepresentation it is implicetely assumed, that X is along the track. So it has indeed nothing to do with the beam-axis.

In other words:

I would like to have: pos=(1,1,0) mom=(0.1,0,1) in MARS

when being projected onto a plane
o(0,0,0) u(1,0,0) v(0,1,0)

to give
v=1; w=1; v'=0.1; w'=0;

this is currently not the case because of the code shown above.
instead one would get
u=1; v=1; u'=0.1; v'=0;

In principle we should use fU and fV or build in some conversion somewhere.
Still thinking about it....

Cheers! Sebastian.
