Subject: Re: Group velocity for Cherenkov photon propagation in G3/G4 Posted by Mohammad Al-Turany on Wed, 26 Jan 2011 20:23:04 GMT View Forum Message <> Reply to Message

Hi Jochen,

Quote:Would you have a suggestion how I can access in PndDrc.cxx the TOF of the particle and subtract it?

if what you need is to the velocity inside the bar, then the easiest way is to register both track length and time when entering the bar. i.e:

```
if ( gMC->IsTrackEntering() ) {
```

```
fTime_in = gMC->TrackTime() * 1.0e09;
fLength_in = gMC->TrackLength();
```

}

and when exiting (or at certain position or time)

```
if (gMC->IsTrackExiting()) {
```

```
fTime_out = gMC->TrackTime() * 1.0e09;
fLength_out = gMC->TrackLength();
```

}

then you can subtract the time and length, would this solve the problem?

Quote:And is TrackLength() a "clean" quantity, which contains only the path inside the bar? Or do I need to make a correction to get the path that corresponds to the corrected TrackTime() value I need to use?

The track length is always from the vertex.

Hope this will help.

best regards

Mohammad