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Subject: Strange shape for the central part of beam pipe.  
Posted by [donghee](#) on Tue, 11 Aug 2009 09:08:47 GMT  
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Dear beampipe designer,

I have found the building block of beam pipe in pandaroot/passive/PndPipe.cxx  
I'm specially interesting in the central part.

I have seen following argument and definition of beam pipe parameter at central region.  
Quote:

```
// The central part is totally filled because of the crossing operations
```

```
Double_t parPipeCentral[12] = { 0., 360., 3,  
    -32., 0., 8.,  
    -2., 0., .9,  
    20., 0., .9};
```

```
Double_t parPipeVacuumCentral[12] = { 0., 360., 3,  
    -32., 0., 7.9,  
    -2., 0., .873,  
    20., 0., .873};
```

I'm wondering why the region -32 to 20cm in z direction was fully filled.

Even if you define the VacuumCentral afterward, I think that the defined vacuum doesn't use due to previous material definition.

This is something like overlap, which cannot report by compiler.

I assume that is a potential problem for the backward tracking in LHE tracking software.

Probably, that is the reason why we could not see enough tracks when we moving the interaction points to downstream or upstream during LHE tracking.

Do you have some other idea, or could you correct me!

Thank you.

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