

Hi,
I committed the geometry in svn, and launched the check of overlaps for ONLY the new beam pipe.
This is what I obtained:

```
=====
STAGE 1: Overlap checking by sampling within 10 microns
=====
Info in <TGeoNodeMatrix::CheckOverlaps>: Checking overlaps for cave and daughters within 0.001
Info in <TGeoNodeMatrix::CheckOverlaps>: Checking overlaps by sampling <s> for cave and daughters
Info in <TGeoNodeMatrix::CheckOverlaps>: === NOTE: Extrusions NOT checked with sampling option ! ===
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 2 overlaps adding-up to 3049.03 +/- 280.686 [cm3] for daughters of BeamPipe
Check overlaps:  [=====] 11 [100.00 %] TIME 00:00:54
Info in <TGeoNodeMatrix::CheckOverlaps>: Number of illegal overlaps/extrusions : 2
```

```
=====
STAGE 2: Global overlap/extrusion checking within 10 microns
=====
Info in <TGeoNodeMatrix::CheckOverlaps>: Checking overlaps for cave and daughters within 0.001
Check overlaps:  [=====] 11 [100.00 %] TIME 00:00:00
Info in <TGeoNodeMatrix::CheckOverlaps>: Number of illegal overlaps/extrusions : 2
```

```
=====
STAGE 3: Propagating 1000000 tracks starting from vertex
and counting number of boundary crossings...
=====
```

```
Transporting tracks [=====] 1000000 [100.00 %] TIME 00:00:06
Time for crossing 2050289 boundaries: 6.08e+06 [ms]
Time per track for full geometry traversal: 6.08 [ms], per crossing: 2.96544 [ms]
```

```
=====
STAGE 4: How much navigation time per volume per next+safety call
=====
Time for volume cave (assemb=0): 0.67 [ms] ndaughters=1 ncross=1024810
Time for volume BeamPipe (assemb=1): 0.82 [ms] ndaughters=9 ncross=1025479
Time for volume gvhesr (shape=VATvalve100): 0.43 [ms] ndaughters=0 ncross=239
Time for volume pipeup (shape=pipeup): 0.24 [ms] ndaughters=0 ncross=291
Time for volume ktmpump (shape=ktmpump): 0.6 [ms] ndaughters=0 ncross=983
Time for volume Tpump (shape=Tpumps): 1.46 [ms] ndaughters=0 ncross=2605
Time for volume pipeTSup (shape=pipeTSup): 0.25 [ms] ndaughters=0 ncross=16487
Time for volume Tcross (shape=Tcross): 1.62 [ms] ndaughters=0 ncross=997875
Time for volume pipeTSdown (shape=pipeTSdown): 0.25 [ms] ndaughters=0 ncross=2619
Time for volume crossTSTMPs (shape=crossTSTMPs): 2.57 [ms] ndaughters=0 ncross=4060
Time for volume DipolePip (shape=Dippip): 1.98 [ms] ndaughters=0 ncross=320
```

```
STAGE 4 completed [=====/] 11 [ 91.67 %]  
root [9] gGeoManager.PrintOverlaps()  
=== Overlaps for FAIRGeom ===  
= Overlap ov00000: BeamPipe/gvhesr_0 overlapping BeamPipe/pipeup_0 ovlp=0.0825  
= Overlap ov00001: BeamPipe/crossTSTMPs_0 overlapping BeamPipe/DipolePip_0  
ovlp=0.005  
root [10]
```

Two internal overlaps are present, maybe some fixes are needed.
