

## MAUS - Bug #1625

### Segmentation Fault with different Recon and Simulation geometries

12 February 2015 17:45 - Hunt, Christopher

<b>Status:</b>	Open	<b>Start date:</b>	12 February 2015
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Rogers, Chris	<b>% Done:</b>	0%
<b>Category:</b>	Simulation	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>			
<b>Workflow:</b>	New Issue		

#### Description

In running MAUS where the `simulation_geometry_filename` and the `reconstruction_geometry_filename` differ, segmentation faults have been found to occur.

Verified by Durga using a recent release.

I believe that the `BTSolenoid` class stores a static list of field maps for the simulation geometry, and hands out pointers to those fields. When the reconstruction geometry is initialised, `BTFieldConstructor` clears the list and causes new field maps to be inserted, without taking care of the old set of pointers.

I stumbled upon a fudge-fix by commenting out line 74 in `src/legacy/BeamTools/BTFieldConstructor.cc`:  
`BTSolenoid::ClearStaticMaps()`

But I don't think that's the correct way to solve the problem.

Attached is a Valgrind output file showing where the segfault is thrown from.

#### Files

valgrind\_out.txt

267 KB 12 February 2015

Hunt, Christopher