System Tests Report

Engineering Model – v3r0407p13 (no big news, based on GR v4r7)

GlastRelease – v6r0, v6r1, v6r1p1, v6r1p2, v6r2, v6r2p1, v6r2p2
   New TkrRecon, Root upgrade, Trigger bits defined in enums
   (each of these broke the systests and required a not-backward compatible upgrade of the systest code)
GlastRelease v6r0
New TkrRecon, New Root, New trigger bit definition

VerticalGamma100MeV

Number of events with at least one track has remained the same, the number of vertices/event has increased and the number of tracks/vertex has decreased
Number of hits/track

Only get even number of hits/track for the new recon.

System Tests, Feb 28 2005
Track energy plot now diverging from old recon distribution. Tracy says that this is expected.
Distribution (of z) and number of vertices has changed.
Number of fits tracks/event has increased. The number of events with at least one track has remained constant.

However, there has been a large jump in cpu usage!

System Tests, Feb 28 2005
Later Releases

v6r2p1: Problem with some precompiled sources (chime spectrum). Trigger bits changed.

What is this?
Later Releases

v6r2p2: Still a problem with some precompiled sources, introduced a bug with G4Propagator.

v6r2p3: Compiled sources have been fixed but still have a problem with G4Propagator.

v6r2p4: systests not yet run.
Cpu usage – allgamma

v6r2p2 (new G4Propagator)
v6r1
v6r0

System Tests, Feb 28 2005
cpu usage - background average

Also a factor of 2 slowdown.
PSF

I had a quick look to see if I could find a performance improvement accompanying the cpu usage jump.

<table>
<thead>
<tr>
<th></th>
<th>v5r0p2</th>
<th>v6r0</th>
<th>v6r1p2</th>
</tr>
</thead>
<tbody>
<tr>
<td>N(&lt;20 deg)</td>
<td>18122</td>
<td>18166</td>
<td>18180</td>
</tr>
<tr>
<td>N(&lt;3 deg)</td>
<td>8447</td>
<td>7652</td>
<td>7811</td>
</tr>
<tr>
<td>N(&lt;2 deg)</td>
<td>5228</td>
<td>4607</td>
<td>4711</td>
</tr>
</tbody>
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