Subject: Bug in writing/processing TClonesArray in timebased sim digitisation stage

Posted by Marcel Tiemens on Fri, 15 Jul 2016 12:38:28 GMT View Forum Message <> Reply to Message

NOTE: I tested this using the EMC only, but it looks like it could be a more general bug.

When trying to see if the timebased simulation at very low rate (200 Hz) would give the same (or at least, very similar) output as the eventbased simulation, I uncovered a bug. It turns out that, for some reason, the first event returns 0 digis (and also 0 waveforms), and is therefore lost, and the last event is written to the tree twice. As a result of the latter, after sorting, the corresponding digis will appear in the output file twice. This leads to the energies of the clusters that are made using those digis being doubled as well.

FYI, apart from this, it looks like the low rate timebased simulation does indeed produce similar results to the eventbased simulation. So, there's some good news there.