
Subject: Re: Error during PndTpcElectronicsTask
Posted by [StefanoSpataro](#) on Mon, 20 Dec 2010 17:18:16 GMT
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Just few comments from my side:

Felix Boehmer wrote on Mon, 20 December 2010 17:55: Dear Stefano,

The problem seen by Tobias Weber could be really anything - to me this just looks like CINT stumbled into some kind of uncontrolled behavior (maybe due to bad alloc).

If the problem is really "anything", then I am wondering why it is since six months that we have it and nobody was able to fix it (or most probably almost nobody has tried).

Quote:

Generally, the cross-reference to other TPC objects via pointers was necessary at the time they were introduced, since no such mechanism existed prior to Tobias' FairLink approach. It maybe is not pretty, but is no bit worse than keeping index lists to TClonesArray entries - also in terms of memory consumption!

If the crashes are really connected to this but only appear when the FairLinks are used, then it looks like handling of objects members with pointer type is not done correctly inside the FairLinks (considering also that the cross-reference using pointers inside the TPC classes has been around for quite some time).

The feeling is that links increase the amount of allocated memory in the object in a non-linear way, and maybe it fights against the TPC data structure (which is the only code using pointers; we had something in EMC but we have taken them out). It is a matter of fact that now this kind of crash appears in TPC and not with other code, at least in digitization.

Quote:

Can the people who experience these crashes please try to reproduce this problem with and without FairLinks, keeping an eye on memory consumption at the time of the crash (a simple "top" should suffice). Also it might help to compile the macros used for a more sensible crash stack.

I have already spent enough time on this, giving all the details in the forum on how to reproduce the crash. I could not check memory consumption because it takes hours before the crash appears. Links cannot be taken out so easily, because of FairHits inheritance. In my case, removing them but from PndTpcCluster, the macro worked. But again, running the code which create PndTpcCluster, I had again the same problem.

Quote:

Right now it is really hard to hunt down the problem, as I have never seen these crashes for myself, nor am I familiar what happens inside the FairLinks in full detail.

Does it means that you have tried to run 10k DPM events and the consequent digitization

without crashes at all?
