

ROOT'07 Notes for GLAST

Global Feeling

Many great developments are under way. René Brun is worrying about the lack of strong dispute, as opposed to previous workshops. I do not think it means that ROOT is dying. I would rather say that the users' community globally agree with the work schedule and milestones announced by the ROOT team.

Windows/Python Version

The choice of ROOT external product releases is mainly driven by LCG experiments, which are using Visual C++ 7.1 and python 2.4. We should not expect soon some deliverables for Visual C++ 8 or python 2.5, unless arise a strong pressure to move to 64 bits platforms. Whatsoever, the ROOT code is said to be compilable with those releases, and we can ask about it to Bertrand Bellenot (the ROOT team windows "expert") and/or refer to [Gordon Watts Web Site](#) .

Reflex

Great developments are under work. The integration of Reflex and re-factoring of CINT, so-called CINT7, is going on quite quickly, and apparently do not encounter huge problems. Yet there is no official schedule saying which new ROOT release will be based on CINT7.

Wait and see.

Hadd

I made some experiments about merging GLAST MC trees with hadd during the workshop, and discussed the errors directly with Philippe Canal. With ROOT 5.10, when using hadd or our skimmer without loading the data definition libraries, we get the error message :

```
Error in <TBuffer::ReadObject>: trying to read an emulated class
(McPositionHit) to store in a compiled pointer (TObject)
```

This warning message should not be displayed, because the lack of data definitions is harmless when doing a "fast" merge. So, despite the error message, hadd 5.10 should be OK.

ROOT 5.14 is better written for what concerns the issue above, and do not issue the error message. Whatsoever, when using ROOT 5.14d, another error arise :

```
Error in <TClass::Load>: dictionary of class TTreeIndex not found
```

This message corresponds to a real problem, which is affecting only hadd, but not TFileMerger, TChain::Merge() and our skimmer.pl . The fix for hadd is integrated in patch release v5-14-00e and later.

Eric Charles GTrees

At first sight, I recognized nothing in current official ROOT classes which would be related to event collections and or "tags", and nothing about events whose components are split among several files. Maybe there is a place for some kind of "GTrees". Yet it proved difficult to have a productive exchange with ROOT team on that topic. The debate moved to classification indexes, which is not exactly what the GTrees classes are about, as far as I understand.

I recommend we provide some demo prototype, so that we can discuss about concrete code, and avoid terminology misunderstanding. GTrees topic certainly overlap the collections/tags concepts which have been deeply studied by LCG collaborations, and the global expertise of ROOT team about their respective solutions would greatly helps.