Subject: Release DEC08
Posted by Volker Friese on Mon, 01 Dec 2008 15:11:09 GMT
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We intend to release a version of CBMROOT with the tag DEC08. This topic is meant for the discussion of the preparations for this release. If you have some wishes to be implemented before the release, or noticed some deficiencies you consider necessary to be taken care of, please report here.

Subject: Release DEC08: Geometries
Posted by Volker Friese on Mon, 01 Dec 2008 15:43:51 GMT
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For the release DEC08, it seems desirable to clean up the geometry directory and remove obsolete geometry files. I try to summarise the current situation, together with some proposals.

MVD: There a two geometry versions, one with two stations (standard) and the other one with three stations. The material budget is 150 mum per station.
In the light of our nowadays knowledge on MAPS, I think a more realistic material budget should be used.

STS: The current standard is 2 pixel + 6 strip stations, which is by now obsolete. The STS group decided to make the 8 strip version the new standard (former: sts_allstrips.geo). We will keep the old one as reference for the next release (sts_hybrid.geo). Both versions are available with additional material for readout and support. Since the implementation of this is rather tentative, and a better one will be available soon, we will leave the passive material still out for the standard geometry.

RICH: The compact RICH version has been validated sufficiently to make it the new standard. The old one will be kept as reference (rich_large.geo). The files rich.geo, rich_He+CH4.geo, rich_L2900-N2-angleM0-angleD0.geo, rich_N2+CH4.geo, and rich_N2.geo are considered obsolete and will be removed.

MUCH: No changes for the available two geometry versions (standard: full system, for charmonium; compact: without last absorber, for low-mass dimuons.)

TRD: There are many geometry files in the repository. The TRD group is requested to identify the relevant ones and remove all others.

TOF: The standard did not change (since two years, by the way.) There is an additonal file named tof_010906.geo. I shall ask the TOF group to qualify this geometry in a better way, or remove it.

ECAL: The two file ecal_FullMC.gei and ECAL_FastMC.geo have also not changed ovet two years. Is the new geometry presented at the recent collaboration meeting mature enough to be put into the repository?

PSD: There is no .geo file; the PSD geometry is created in the code.

Magnet: The magnet_muon.geo has become the standard. This should be reflected in a new

file name (magnet_standard.geo). All other magnet geometries are by now obsolete and should be removed.

Pipe: Of the many geometry files in the repository, three should remain: pipe_rich_standard.geo (compatible with rich_standard), pipe_rich_large.geo (compatible with rich_large), and pipe_much.geo (compatible with MUCH). All other versions should disappear.

[*} Pipe shielding: The two versions corresponding to much_standard and much_compact will stay as they are.

Target: We only have one target geometry (250 mum Au). Do we need a thinner one, too (25 mum)?

I would like to hear your opinions.

Subject: Release DEC08: Standard geometry?
Posted by Volker Friese on Tue, 02 Dec 2008 08:51:39 GMT
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Peter Senger recently criticised the concept of a "standard" geometry. Thus, I would like to trigger a discussion whether you consider this concept useful. I see the following pros and cons:

+ The user knows which default geometry to take for each subsystem, without having to know the details. This is the prime motivation for having a standard geometry at all.

- A "standard" is not well defined - at least, we have different geometries in the electron and muon setups.

- The standard geometry may change from release to release (e.g. STS switches from "hybrid (pixel+strips) to "allstrips"), without that being transparent for the user, as the file name stays the same.

What is your opinion?

Subject: Release DEC08: MUCH
Posted by Volker Friese on Wed, 10 Dec 2008 19:12:09 GMT
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According to the discussion in the CBM Software Meeting, 4 December 2008, the MUCh software in DEC08 will equal that of APR08, with the following exceptions:

The following classes were updated w.r.t LIT tracking and will be taken from trunk:

CbmMuchHit
CbmMuchMatchTracks

CbmMuchTrack
CbmMuchTrackFinder
CbmMuchTrackFinderideal
CbmMuchTrackMatch

The digitisation parameters for the standard and the compact geometry will be taken from A. Kiseleva, see discussion in MUCH forum

A new version of CbmMuchSegmentation, worked on by D. Dutta, is being tested by A. Kiseleva and might enter the release.

Subject: Release branch DEC08 created
Posted by Volker Friese on Wed, 10 Dec 2008 22:05:26 GMT
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The release branch DEC08 was created. You can check it out by

svn co https://subversion.gsi.de/fairroot/cbmroot/release/DEC08

The release corresponds to trunk (and fairbase) revision 4139. An exception is the much directory (see posting above).

Please test and report.

Subject: First bug: compilation error in MUCH (E. Litvinenko)
Posted by Volker Friese on Thu, 11 Dec 2008 16:51:03 GMT
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Dear Volker,

The fresh "DEC08" download resulted in the following error during compilation:

[[47%] Generating CbmMuchDict.cxx, CbmMuchDict.h
Error: cannot open file "CbmMuchGeoScheme.h"
/u/litvinen/DEC08/much/CbmMuchHit.h:22:
Warning: Error occurred during reading source files
Warning: Error occurred during dictionary source generation
!!!Removing /u/litvinen/DEC08/build/much/CbmMuchDict.cxx
/u/litvinen/DEC08/build/much/CbmMuchDict.h !!!
Error: /misc/cbmsoft/Debian3.1/jul08/fairsoft/tools/root/bin/rootcint:
error loading headers...

Probably, not all files were commited to svn after the latest changes.

Regards,
Elena Litvinenko

Subject: CbmMuchHit backdated
Posted by Volker Friese on Thu, 11 Dec 2008 16:53:55 GMT
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You are right. CbmMuchHit in trunk uses CbmMuchGeoScheme, which is not included in this release. So, the class was backdated to release APR08. Compilation should now work.

Sorry for not noticing this before.

Subject: Reconstruction macro: no STS tracks found (A. Maevskaya)
Posted by Volker Friese on Thu, 11 Dec 2008 17:00:51 GMT
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Dear Volker,

i installed your branch this morning and tryed to run macro/run/run_sim.C
and run_reco.C . run_sim.C worked as always, but run_reco did not find any
track!

Log file is in attachment....

Best regards
Alla

File Attachments
1) reco.log, downloaded 674 times

Subject: Re: Reconstruction macro: no STS tracks found (A. Maevskaya)
Posted by Volker Friese on Thu, 11 Dec 2008 17:02:31 GMT
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Hmmm...thanks for the notice; I will have a look.

Since everything except much is taken from trunk: I wonder why it worked in the trunk version. Did you check?

Subject: Re: Release DEC08
Posted by Florian Uhlig on Fri, 12 Dec 2008 07:18:39 GMT
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Hello Volker

In the run.C macro there wer still old geometries which results in a crash of the macro. I corrected this and now it works.
But i realized thet we have a problem with the "new" magnet geometrie and the sts_allstrips_full geometrie. Using this two
together results in illegal overlaps of parts of the last STS station and the magnet.
Since we normaly only check the standars setup, every user who uses differnt setups should check the geometry for overlaps.

Ciao

Florian

Subject: STS geometries
Posted by Volker Friese on Fri, 12 Dec 2008 12:40:23 GMT
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In the release branch, there are up to now the old STS geometries "standard" and "allstrips". According to the decision of the STS group (see forum), the allstrips geometry should be the new standard. I changed that accordingly. The old standard (2 pixel + 6 strip stations) was renamed to "sts_hybrid.geo" and "sts_hybrid_full.geo", respectively.

This, of course, does not remove the problem with the overlap of magnet geometry and (now) sts_standard_full.geo, which we still have to resolve.

Subject: Problem with CbmRootManager
Posted by Volker Friese on Fri, 12 Dec 2008 14:34:27 GMT
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I tracked the problem described above to the CbmStsDigitise task. It seems not to see any CbmStsPoints, although the array STSPoints is there:

+ STSDigitize : 0.0001 s, points 0, failed 0, outside 0, multihits 0, digis 0

I notice that there was a change in CbmRootManager three days ago (one day before the release branch was created (see SVN trac). So, I tried to use the version of CbmRootManager from APR08, and that works:

+ STSDigitize : 0.0733 s, points 6711, failed 0, outside 0, multihits 247, digis 13153

The change in CbmRootManager looks rather harmless; no idea why it screws up things.

The same thing seems to happen with MVD (CbmMvdHitProducer does not see MVDPoints), but, strangely enough, not to TOF (CbmTofHitProducer works in bose cases).

Subject: ...fixed
Posted by Volker Friese on Tue, 16 Dec 2008 11:14:50 GMT
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The problem with CbmRootManager was fixed. The revision of the externals for release DEC08 was reset to 4163. Things should work now properly. I tested run_sim.C and run_reco.C and saw nothing unusual.

B.t.w.: The reason why the TofHitProducer worked was that it used the method CbmRootmanager::ActivateBranch instead of CbmRootManager::GetObject.

Subject: ECAL directory updated
Posted by Volker Friese on Thu, 18 Dec 2008 11:55:15 GMT
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The ecal directory in the release branch was updated to the trunk revision 4169 in order to take into account last-minute changes by Mikhail Prokudin which are necessary for the production to come. This concerns the changesets 4156, 4157, 4159, 4160, and 4169.

Subject: Release DEC08: Wiki page
Posted by Volker Friese on Thu, 02 Apr 2009 16:50:44 GMT
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Finally, I set up a Wiki page with instructions how to use and install the DEC08 release. Please have a look and update it w.r.t. the section "New features" and "Known bugs and deficiencies":

DEC08 release Wiki page