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LHCb Core Software Meeting

Date and Location

12-Sep-2012 [📅](#)
10:30 - 11:35
CERN (2-R-030)

Attendees

Ben Couturier, Gloria Corti, Joel Closier, Marco Cattaneo, Marco Clemencic (minutes), Markus Frank, Stefan Lohn, Thomas Hartmann (Vidyo)

Apologies

Illya Shapoval

Subjects

News

- New equipment in the meeting room
- From LIM
 - ◆ GENSER people will collaborate with SFT to have consistent builds
 - ◆ New release of LCGCMT to be tagged soon (freeze of dev3) on our request, mainly to get SLC6 fixes in the externals and new EMI interfaces
Joel: we may need pygsi from SFT
 - ◆ GCC 4.7.2 seems to solve the C++03/C++11 binary compatibility issue.
 - ◆ Bugfix version of Xrootd announced [↗](#), not clear if it's needed and binary compatible with the one we are using.
- Meeting on Concurrent Programming [↗](#) this afternoon.
- *Virtual* A.F. meeting this week (or the next one)
- Next ITUM announced for the 8th of October (no agenda yet).
- (Marco Cl.) New member of the team from Cincinnati for the management of CondDB

Hot topics

- Problem with SQLite deployment on CVMFS

Round Table

Illya

(From e-mail)

- SQLite CondDB **Upgrade** files are now (starting from SQLDDDB v7r7) distributed together with the regular SQLite CondDB ones. (So when the Update.py script is called the files of both CondDB flavors are installed/updated. Obviously, this means that CondDB Upgrade is now distributed to CVMFS as well. That was a request from Paul.)
- The per-tag 'stripping' of the SQLite CondDB files is introduced to postpone the problem of rapidly growing SQLite files. The corresponding CondDB configuration is automatic so the feature is transparent to the CondDB users. But a more fundamental re-engineering of the CondDB data representation is needed to make it less storage hungry (e.g., XML payload compression).
- There was a problem 'discovered' by the acron job, that pushes SQLite CondDB to CVMFS, which started to fail suddenly. The problem is that if the Update.py is called by the SLC5 system python the expat python module, needed by ElementTree, can not be imported **any more** ("...no module named expat..."). As a workaround Ben added a call to LbLogin to the acron job and has been looking into this problem to understand it better. The problem is dangerous since it may affect(if not already) all LHCb installations on SLC5. Is there any news on this thread?
Ben
fixed with the new version of COMPAT (v1r11)
- The CondDB management twiki has been prepared. That's a required minimum so far. But I will continue extending it with missing procedures/cases/tips (CondDBManagement).
- After a training, I passed the responsibility for the CondDB Upgrade patch management to Sajjan. I will continue supervising this activity until I'm available.

Marco Cl.

- Release of Gaudi to be built on top of the upcoming LCGCMT.
 - ◆ [bug #95733](#): toStream floating point truncation
 - ◆ [patch #5464](#): missing getIfExists wrappers
 - ◆ [patch #5471](#): fixes to GaudiMP
 - ◆ [patch #5518](#): modified SequencerTimerTool to produce histograms
 - ◆ Fixes and improvements to the CMake configuration, including a tool to convert CMT configuration (tested with LHCb)
 - ◆ Will need to remove the hack introduced to avoid AFS stress when using LCGCMT 64
- CMake Configuration status
 - ◆ can convert (almost) the whole LHCb, build it and test it (a couple of packages need *fixes* in requirements)
 - ◆ collaboration with SFT to get builds of CMake and shared configurations
 - ◆ SetupProject integration and runtime dependencies (e.g. data packages) to be sorted out
 - ◆ test with other LHCb projects
- Will resurrect pending tasks

Gloria

- Working on picking up new/fixed generators interfaces in Gauss, so that we can test them and push them before having them in lcgcm/gaudi/lhcb. Should also revise how to use the the dedicated gauss-dev nightly slot to test new hepmc versions, etc.
- Ben working on how to 're-install' libraries for generators on the non-cvms grid sites, where pythia8 compiled with the wrong hepmc has been deployed due to an issue on the build of the tar balls.

Ben

it could be done with the '--overwrite', but it's difficult to trigger it on all the CEs, so I'm preparing a special package to push patches to install areas (via post-install hooks).

- FSR merging issue for MC filtering still open. Memory blow up. For now Alex Shires will investigate using the xml summary BUT issue of combining them as many input and only one output. Would it be possible in production to run the script to merge the xml summary?
- Virtual web server and availability of various tools for more elaborated applications as the one for Performance and Regression.

Marco Ca.

- Error on a missing symbol appearing in the nightlies. Ben and Marco Cl. will investigate.
- Do we change the default CMTCONFIG at CERN? Yes, Ben will change the group login to test at CERN.

Joel

- Dirac built with for 3 CMTCONFIGs (the SLC5 ones)

Stefan

- Almost finished the script to run several profilings concurrently.
- Collecting data on a local database and visualized with Java/Tomcat server. Summaries will go in the Django project, while profiles will stay on a scratch space.
- Initial comparison between gcc-4.3 and gcc-4.6.

Ben

- install_project --overwrite it's a bit too aggressive: will look into it
- New version of Fastjet (3) tested by Victor Coco, will be in a future LCGCMT.
- Worked with Emmanouil to test the workflow of the prototype for performance and regression studies.
- Worked with Thomas to fix SLC6 builds in the nightlies. Mainly problems of missing system libraries. Now pointing to a base-line RPM, to define the basic system.
- Benedikt asked for the list of GENSER generators we use.
- RPM-based distribution
 - ◆ Discussing with ATLAS for RPM-based distribution.
 - ◆ issue with dependencies manager: yum does not work, written a custom one, and ATLAS is using 'apt'.
 - ◆ will work with Benedikt to outsource the build of externals' RPMs
 - ◆ discussion with Marco Cl. to find an alternative mechanism to the update hook in install_project.py (the one used for SQLDDDB)

Markus

- Summer student presented possible memory gains with ROOT. Will present here next week.
 - ◆ work to get the parameters set from options
- New release of Online soon.

Thomas

- SLC6 running, but problems with missing libraries.
- Changed the storing of log files for the web summary to avoid the limits on the number of files in AFS directories.
- Hacked the nightlies scripts to use the new COMPAT for testing. In the future will use the special Windows slot for special settings.

Actions

- Small Meeting/Workshop to define the strategy to address the Conditions Database deployment
Marco Cl.

-- MarcoClemencic - 12-Sep-2012

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