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LHCb Core Software Meeting

Date and Location

18-Jan-2012
10:30 - 11:30
CERN (2-R-030)

Attendees

Ben Couturier, Illya Shapoval, Joel Closier, Marco Cattaneo, Marco Clemencic (minutes), Markus Frank, Olivier Callot, Thomas Hartmann (EVO)

Subjects

News

- Core Software Programme of Work
  - Marco Ca. is preparing the summary of the long term plan
  - it has been agreed to use a mixture of TWiki (to group in a single place all the tasks) and savannah (to keep track of the progress)
- From the LIM
  - reported that we are not going to jump on Python 2.7 yet, so we will build the next release on top of LCG 62a
    - LCG 63 with Python 2.7 will still be prepared for us to test and get ready
  - gcc46 and icc(11) platforms will be added to LCGCMT 62a
  - SLC6 has higher priority than icc12 and LLVM/clang
    - it was asked if anybody needs 32 bits builds on SLC6; as long as SLC5 is supported we do not need 32 bits SLC6, afterwards we will need to evaluate the status
  - reported that we are not interested in the new CMT because it doesn't improve the setup time
  - LCG nightly slots to be reshuffled to match the current plans
- Forum on Concurrent Programming Models and Frameworks in the afternoon
- Architects Forum on Thursday
  - nothing special to report, except NeuroBayes

Round Table

Marco Cl.

- Profiling of SetupProject and test of new CMT
  - added a '--profile' option to SetupProject, using the standard Python profile module
  - a simple test showed that, on a cold AFS cache, almost all the 19 seconds spent to set up DaVinci were spent in CMT (reduced to about 5s on a hot cache).
  - the new version of CMT improves a lot the build time (overhead) by reducing the number of times the requirements files are read, but that does not improve the setup time because they are read anyway only once
- DoD dynamic configuration
  - implemented the extension of the DataOnDemandSvc that allows a dynamic configuration via a tool
  - Marco Cl. agreed with Chris that it's more efficient if he also produces the packing/unpacking implementation of the tool, instead of explaining all is needed (BTW, Chris thought that both packing and unpacking configuration would have been generated in this way, while Marco Cl. though it would have been done in Python options)
- Gaudi realease
  - Daya Bay will not use anymore Gaudi and the LHCb detector description, so there is no need to complete the migration; nevertheless, we agreed to apply the changes required to make DetDesc independent from LHCb
  - Gaudi v23r0 should be ready by the end of next week

Joel

- Alarms from lxbuild, most probably due to the failure of the AFS servers hosting our release area
  - nightly builds restarted by Thomas
- Internal discussion in LHCbDirac on how to use the SVN repository
  - the trunk will be used for the release candidate, while private developments will go in branches
- LHCbDirac tarballs will be generated daily from the trunk and it will be possible to install them for testing on a development machine (improving communication between developers to reduce interference).

Olivier

- About to start working on packing and unpacking of particle, and on the usage of converters instead of algorithms.

Ben

- Performance testing with gcc 4.6
  - need to use a local installation to have stable results, but gcc 4.6 is available only in the nightlies
- Modifying LbScripts (genLogin) to produce a version of the group_login script that allows the set up from CVMFS (conditional to the presence a special file in the home directory).
- Paused the development of the gccxml gcc plugin.
- SFT people asked when Thomas can come to CERN so that they can have a meeting to make the point on the development/deployment of the new LCG nightly build system.
  - Thomas cannot come before mid February. Once the date is known, we will set up the

meeting with SFT.
- Added the '--profile' option to the Script base class in LbScripts, so that we can get profile information on most of the Python scripts we have.
- Marco Ca.: what is the status of the LHCb Scripts savannah?
  - took over the ownership
  - several open bug reports, many already fixed, other to be prioritized (discussing it with Rob and Patrick)

Illya

- Initial prototype implementation of a Gaudi "Parallelizer" (a sequencer that executes the algorithms in parallel), using tasks and a thread pool.
- Marco Ca.: Status of SQLite deployment?
  - installation on CERNVM still to be automated
  - to be discussed with Joel how to monitor the load on the web server
  - there may be a problem if the users are still using the variable `SQLDDDBROOT` to find the database files (`$SQLDDDBROOT/db` must be replaced with `$SQLITEDBPATH`), e.g. in the Online
- Marco Ca.: there has been a problem in the 1st of January triggered by the presence of a closed IOV (ending on 31/12/2012) in one set of conditions (Rich). Several minor glitches and features have appeared and are being fixed, but a consequence is that if we rerun Reco10, we may get different results.

Markus

- Problem with the head version of RootCnv, so a fixed version has to be used in the nightlies.
- After Sasha's fix to some of the problems in the option parser, all the problems disappeared.

Thomas

- Working on a web interface to control the nightly builds (stop, start, restart, etc.). Still to implement the privileges, which should be based on e-groups and SSO.

-- MarcoClemencic - 19-Jan-2012

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Topic revision: r3 - 2012-01-19 - MarcoClemencic