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LHCb Core Software Meeting

Date and Location

27-Jan-2010 [🔗](#)
10:30 - 11:30
CERN (2-R-030)

Attendees

Hubert, Illya, Joel, Karol, Marco Ca., Marco Cl. (minutes), Markus, Rob

Subjects

News

- From the Architects Forum
 - ◆ Finalization of the builds of the externals for MacOSX 10.6 (Snow Leopard)
 - ◆ LLVM 2.6 (gcc frontend), gcc 4.5-snapshot installed for testing
 - ◆ New version of gccxml supporting gcc-4.4
 - ◆ CMS suggested to test new Boost (≥ 1.41), with fixes for the warnings

Round Table

Marco Cl.

- Gaudi v21r7 [↗](#) released
- Modified the instruction on the page AddProject to use Subversion
 - ◆ Marco Ca.: the CreateNewPackage page should be removed and only CreateNewPackageSVN should be advertised
- Added the script `tag_package` to LbScripts
 - ◆ equivalent to "cvs rtag", can only tag the "head" version, with a valid version number that must be the same as the one specified in the requirements

Karol

- Trying to improve performances with the gcc builtin function `__builtin_expect` [↗](#)
 - ◆ instructs the compiler about the value we expect for the condition in a branch (`if`) and improved of about 5% the CPU time of a small function when used for the standard pattern `if(msgLevel(MSG::DEBUG))=`
Marco Cl. suggests to add a macro called `=OnMsgLevel(lvl)` in `GaudiCommon.h` that expands to `if(__builtin_expect(msgLevel(lvl), 0))`. It will allow portability (Windows, ICC) and can be seen as a way of simplifying the usage of the common pattern. (A better implementation is possible if we use C++0x new features)
Karol is testing it in Brunel.
 - ◆ It is also possible to provide macros like `LIKELY` or `UNLIKELY` (used in Linux kernel) to help in adopting the branch prediction hints

Joel

- Prepared (with the help of Marco Cl.) the CMT projects `Dirac` and `LHCbDirac`
 - ◆ a pre-release is available for Ganga to test
 - ◆ the new version should be deployed after the software week (to be synchronized with Ganga developers)
- When we deploy a broken tarball on the grid, we must make a new (patch) release because we do not have a way to guarantee that the new version of the tarball has been correctly deployed everywhere. Markus suggests that we compare the MD5 sum of the installed tarballs with those on the web server before running a job. Can be implemented, but for the time being we have to make new releases.

Hubert

- LbScripts v5r0 ready for production
 - ◆ fixed several glitches
 - ◆ includes the script `tag_package`
- Modified the task page of the LHCb Deployment savannah [↗](#)
 - ◆ removed `dbg` and added the deployment strategy (Online, Grid)

Rob

- Problem with Rec v8r0 on Windows [↗](#)
 - ◆ rebuild only the Windows tarball

Marco Ca.

- Problem with some code that relies on the MagneticFieldSvc being registered to the UpdateManagerSvc (see discussion [↗](#)).
 - ◆ Marco Cl. says that it is possible to be registered to the UpdateManagerSvc even without a requested condition (replied to the thread).

Illya

- Implementing a data type field for the tags in the Conditions Database release notes (could be used from the "HLT" type of tags)
 - ◆ What do we do with SIMCOND? The SIMCOND tag should always be specified explicitly. We can use the data type field for bookkeeping anyway.

Markus

- Online v4r36 released
 - ◆ Basic tests done

Hubert: needed to fix the Doxygen configuration files because they were relying on LHCb.

Marco Ca.: Is the overlap with LHCb satisfactory? Shall we remove ODIN?
The possibility of removing ODIN is being tested (mainly to get rid of GaudiObjDesc).

-- MarcoClemencic - 27-Jan-2010

This topic: LHCb > CoreSoftwareMeetingMinutes20100127
Topic revision: r1 - 2010-01-27 - MarcoClemencic



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