

LIM, May 22, 2023

Connected/present: André Sailer (Chair), Andrei Kazarov, Attila Krasznahorkay, Bertrand Bellenot, Dmitri Konstantinov, Giulio Eulisse, Ilias Goulas, Johannes Elmsheuser, Marcin Novak, Marco Clemencic, Nicholas Styles, Pere Mato, Reiner Hauser

Apologies:

Indico:

<https://indico.cern.ch/event/1287836/>

Next Meeting:

June 5, 2023

1 Nightlies

Andre presented the list of added and updated packages in the nightly builds.

New packages that were added are: black, cfgv, pathspec, identify, meson, nodeenv, pre_commit, regex, tokenizers, utf8cpp, versioneer, VTK.

Updated packages are: astroid 2.15.5, boost 1.82.0, clhep 2.4.6.4, dask 2023.4.0, distlib 0.3.6, distributed 2023.4.0, filelock 3.12.0, flake8 6.0.0, glib 2.76.2 (N.b.: this is *not* glibc), gl2ps 1.4.2, hadoop 3.3.5, hepmp3 3.2.6, iminuit 2.21.3, importlib_metadata 6.0.0, isort 5.12.0, julia 1.9.0, lazy_object_proxy 1.9.0, lightning_utilities 0.8.0, mccabe 0.7.0, msgpack 1.0.5, mysql 10.5.20, packaging 23.1, platformdirs 3.5.0, pycodestyle 2.10.5, pyflakes 3.0.1, pylint 2.17.4, pythran 0.13.1, pytorch_lightning 2.0.2, soupsieve 2.4.1, virtualenv 20.23.0, wrapt 1.15.0, zict 3.0.0

These updates were partially due to the efforts to integrate the new gcc13 (and clang16) compilers with the c++20 standard. Partially due to requests for additions or updates.

ATLAS mentioned that the versions of, e.g., flake8 now match what they previously installed themselves.

Andre also mentioned that two processes in the openloops build had to be dropped, as they were no longer available pplljl2_nf5_notridr pplljl2_nf5_sr. And tests for the GitCondDB package were disabled, due to an incompatibility with gcc13 ([GitCondDB#20](#)).

1.1 c++20 status

Andre reported on the work in progress on the integration of gcc13/clang16 and c++20, and the currently known issues. For dev4lhcb the known problematic packages, at the time of the

LIM were: texinfo, podio, LCIO, RELAX. For Clang16 the list was: bison, blas, fastjet, gettext, gperf, texinfo, xqilla, pythia6, grpcio, ruamel_yaml_clib.

2 Releases and Layers

2.1 Preparation for LCG_103a

With the new ROOT release, discussion turned to the preparation of LCG_103a, where requests are collected in [SPI-2356](#). Work on the new compilers first has to be finished, but no-one expressed any urgency for this new release at the moment.

In this context, Marco inquired of ATLAS whether they still need Gaudi compatibility with gcc8 and c++14. Attila responded that the least is gcc11 and c++17.

3 Other Issues

It was decided that the CentOS Stream 9 builds could now be disabled, as their alma9 (e19) builds have been available for some time. The LHCb Matrix was also switched over to alma9.

4 AOB

4.1 ATLAS

Johannes mentioned that the previous blocker mentioned by ATLAS was circumvented now, but another issue in pyROOT has shown up. Usually these things only show up when many of the ATLAS header files are exposed to ROOT, so reproduction is not straight forward.

4.2 LHCb

Marco brought up the existing merge request [!1665](#), which should be integrated. The issue was that linking was done against “executables”, which is no longer possible with the new linker, so these have to be changed to shared objects.

4.3 ROOT

NTR

4.4 ALICE

Giulio stated that ALICE have merged 6.28/04, and that everything seems to be fine so far. They have to make sure that c++17 is not broken in new release, but there were some issues with headers from Boost when creating dictionaries.

He also requested to be notified if there are any issues with c++20, which was seconded and thirded by LHCb and ATLAS.