

Minutes for the LIM Meeting - 19 June 2023

Attendees: Bertrand Bellenot, Marco Clemencic, James Catmore, Johannes Elmsheuser, Reiner Hauser, Andrei Kazarov, Dmitri Konstantinov (chair), Attila Krasznahorkay, Ewelina Lobodzinska, Nicholas Styles, Gerardo Ganis.

Excused: Andre Sailer, Giulio Eulisse

Nightly builds

Dmitri presented the latest updates added to the nightly builds. Some of them, such as eigen, dask-jobqueue, and panel, were requested explicitly through JIRA tickets. Many of the updates were made to meet the version requirements of these specific software packages.

In addition to the previously mentioned upgrades, some concrete versions of the software packages have been patched to support gcc13/clang16 features. The patched versions include Gaudi-v36r12, RooUnfold-3.0.0, cepgen-1.1.0, sherpa-2.2.15, Garfield++, torch-2.0.1, Qt6-6.5.1, VTK-9.2.6, blas-0.3.20.openblas, coin3d-3.1.3p2, fastjet-3.4.0p1, ftjam-2.5.2, igprof-5.9.16, xqilla-2.3.4, and grpcio-1.54.0.

Attila noticed a "slight" step in the ACTS version update. He mentioned that he understands why ACTS is not currently used from LCG, as it is undergoing active development, and it is likely that individuals are using their own builds of the software.

Dmitri provided a brief overview of the pending requests:

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SPI-2370: Carl Vuosalo requested an update to frontier_client, with the
specific version being 2.10.2.
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* Atilla: not too concerned, it should not be a problem for ATLAS, it is
used in one place only.
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SPI-2371: Andrea Sciaba submitted a request for a new version of Coffea and
its dependencies.
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SPI-2366: There is a request to add the *accelerate* package and update the
transformers package.
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SPI-2371: Another request was made for LangChain to be updated to the
bleeding edge version.
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These requests are currently pending and will be addressed accordingly.

Johannes asked if there are any plans within LCG to update Gaudi in nightlies to r14. It was mentioned that the previous version, r13, had several C++20 related issues. It was further mentioned that Marco Clemencic, the developer of Gaudi, plans to release r14 tonight. This upcoming release is expected to address the C++20 issues present in the previous version.

Marco Clemencic asked if there were any problems with the LHCb development builds, as they were unable to see GitConfDb there. Dmitri reassured Marco that the nightlies were working properly and promised to investigate the matter offline.

Andrei Kazarov asked if there were any plans within LCG to update tbb (Threading Building Blocks). Dmitri replied that the version of tbb had been frozen due to previous issues with Gaudi. Attila reminded everyone that a long time ago, Intel had intended to remove certain parts of the tbb API, which was the reason for freezing the version.

Marco and Attila both confirmed that the necessary fixes had been implemented, indicating that the version of tbb could be updated.

After a discussion, it was decided to attempt updating tbb to the latest version to identify any potential issues.

Layers and Releases:

Dmitri informed the group that after a few hiccups, the new ATLAS layers, LCG_102b_ATLAS_21/22, have been successfully built and deployed.

Regarding the preparation for LCG_103a, good progress has been made over the past two weeks. However, Dmitri mentioned that they have not attempted to build the "aarch64-el9-gcc13-opt" configuration yet due to an issue with the compiler (NB: it was an issue related to compilers, it was caused by some misconfiguration of LCGMake-jeniins parameters for testing stage)

Considering the significant changes in the software stack, the question arose whether to continue with LCG_103a, as it uses the same ROOT version, or if it would be more appropriate to refer to it as "LCG_104."

The question of the LCG release naming sparked a lengthy discussion. ATLAS representatives, Johannes and Attila, expressed that they did not have a strong opinion and would accept either naming choice.

After thorough deliberation, the following points were agreed upon:

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* Historically, patched releases have used the same version of ROOT. In this case, the new release maintains the same major-minor version of ROOT as LCG_103. However, it was acknowledged that this convention is not set in stone.
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* The current state of the master branch, which will be used for the next release, differs significantly from LCG_103. Therefore, it seems appropriate to consider naming it LCG_104, even though it shares the same version of ROOT as LCG_103.
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The LHCb, represented by Marco, made the final decision to name the upcoming release LCG_104. This choice was made considering the significant differences between the current master branch and LCG_103, even though they share the same version of ROOT.

Roundtable:

During the roundtable discussion, Nicholas Styles from ATLAS raised the topic of migrating to e19 and inquired about the possibility of building LCG_102 with e19. He mentioned that such a possibility would be highly beneficial for their plans.

Dmitri acknowledged the importance of the request and assured Nicholas that they would assess the feasibility of building LCG_102 with e19.