LIM, September 11, 2023

Connected/present:	André Sailer (Chair), Andrei Kazarov, Attila Krasznahorkay, Ben Couturier, Dmitri Konstantinov, Ewelina Lobodzinska, Gerri Ganis, Giulio Eulisse, Ilias Goulas, Johannes Elmsheuser, Marcin Nowak, Marco Clemencic, Reiner Hauser
Apologies:	Stefan Ghinescu
Indico:	https://indico.cern.ch/event/1323445/
Next Meeting:	September 25, 2023

1 Nightlies

Andre reported on the changed packages in the nightly builds By request of a use the *polars* packages was added (SPI-2406). The following packages were updated:superchic 4.2**p2** (SPI-2402); plotly 5.**16.1** (SPI-2410); cupy 12.**2.0** (Cuda stacks) (SPI-2411); libxml2 2.**10.4** (SPI-2417), libxml2 was also removed from system packages for el8, el9, and libxslt 1.1.**38** was updated due to changed return value of `xml2-config`; pyhf 0.7.**4** (SPI-2419); spark 3.**5.0-rc1** (SPI-2405). For spark, Andre elaborated further that in dev4 a combination of hadoop 3.3.4 together with spark 3.4.1 is used, which will also go into LCG_104a, as one user reported that the combination of spark 3.5.0 and hadoop 3.3.5 was not working for accessing files via S3. Finally xrootd 5.**6.0** and podio 00.16.**07** were updated as well. Finally Andre explained, that the Qt5 recipe was modified to enable the xcb feature on ubuntu (SPI-2409): xcb enabled on ubuntu.

A question about the use of ubuntu lead to philosophical debate about the need of the experiments to support different operating system flavours.

2 Releases and Layers

It was stated that LCG_104 (SPI-2356) was released and that preparation for LCG_104a (SPI-2412) has started, which will among other things include ROOT 6.28/06, and that detailed information about other changes can be found in the JIRA ticket. Andre highlighted that from the SPI point of view, only the fix for GTK3 dependent system packages should still be included (SPI-2418). None of the attending LHC experiments planning an immediate adoption of this release. In particular ATLAS is waiting for the resolution or better understanding of an issue in ROOT (https://github.com/root-project/root/issues/13410).

With respect to a new LCG_103cuda (SPI-2387) requested by LHCb, the discussion concluded that one will wait for further instructions before deploying this layer. In particular the changes to introduce more CUDA architectures (SPI-2384), could not yet be tested by LHCb.

ATLAS thanked the SPI team for their efforts to create the new layers of LCG_104_ATLAS_1/2 and LCG_102b_ATLAS_27/28, and remarked that so far their testing shows good results.

3 Other Issues

Andre reported that so far the views rejected any file called `decimal.h` (SPI-2413), which is a legitimate part of the arrow and mysql packages. While this is part of the c++ standard library, its presence in subfolders is not an issue, and this change should not affect anyone.

4 Round the Table

4.1 ATLAS

ATLAS had no further remarks

4.2 LHCb

LHCb stated that they are still working on adapting the nightly builds to dev4, in particular the updates for *catboost* (requested in SPI-2394) still need to be resolved, as previously available header files were used in the LHCb code base, but shouldn't have been used. Once these issues are resolved LHCb will ask for a new layer.

ATLAS asked whether LHCb was already using el9-gcc13 with the new ROOT and the c++20 standard, as ATLAS were observing some numerical differences in the seventh digit with respect to other builds. LHCb responded that they are currently using el9 with gcc12, and have not yet compared with the other build, but also that they do not check for identical results.

ATLAS was also wondering, whether LHCb was still using gcc11, to which the response was that they have moved to gcc12 already.

4.3 ROOT

N/C

4.4 ALICE

ALICE had nothing to report.

4.5 NA62

Stefan reported by email that there was nothing to report from their side.