Connected/present: André Sailer (Chair), Andrei Kazarov, Attila Krasznahorkay, Ben Couturier, Bertrand Bellonot, Dmitri Konstantinov, Ewelina Lobodzinska, Gerri Ganis, Guilherme Amadio, Ilias Goulas, James Catmore, Johannes Elmsheuser, Marco Clemencic, Nick Styles, Nicolas Lurkin, Pere Mato, Reiner Hauser

Apologies: Giulio

Indico: https://indico.cern.ch/event/1221190/

Next Meeting: December 5, 2022

1 Nightlies

New packages:

• Updated packages:
  – EDM4hep (07.01), podio (00.16), delphes (3.5.1pre03); madgraph5amc (3.4.1-atlasTest, SPI-2243)

• dev4: aarch64
  – Added all packages that compile; some issues with tests to resolve
  – See https://gitlab.cern.ch/sft/lcgcmake/-/blob/master/cmake/toolchain/heptools-devARM.cmake

• dev5lhcb: (SPI-2245)
  – Added aarch64 build: removed catboost, tensorflow, xqilla compared to x86_64
  – Some failures happening in the test, more in aarch64-dbg build. This flavour was never done before.

2 Releases and Layers

• LCG_102b: aarch64 RPMs still missing

• LCG_102b_LHCB_Core (SPI-2234) created
Marco: Only one version of Core needed. Also in principle not needed to put these on Sft Cvmfs, because they will be published on the LHCb CVMFS

LCG_102b_LHCB_7 should be created

- LCG_102b_ATLAS_3/4 (SPI-2240)
  - Waiting to figure out an issue for madgraph

3 Other Issues

- New ROOT release 6.26/10
  - Mostly for fixes for mac13
  - gcc12 fixed in /08 or /10? Probably in /08 already, check if some fix for gcc12 was still in /10?
  - Bertrand to check with Axel
  - Decide later if we make a new LCG build
    * A fix for python 3.11 might still be missing from this tag, but wouldn’t be a problem for LCG builds
- Binutils 2.39 (SPI-2214)
  - Johannes is testing with ATLAS clang 15 and it works
  - Marco: What are the changes?
  - Johannes: mostly DWARF symbol fixes in zeromq, for example, only for clang, not needed for gcc.
- Stacks with newer openssl (SPI-2072, SPI-2191)
  - ATLAS OK to wait for CentOS9
  - LHCB can also wait for CentOS9
- Nightlies publication issues (SPI-2239)
  - Issue with publisher fixed (too small CVMFS caches), still a bit slow (or just many stacks have to be installed)
- New PDF sets, fragmentation functions added (SPI-2248, SPI-2249)

4 AOB

4.1 LHCb

- Marco: About ARM
  Using CentOS9 on puppet for the ARM VM, using containers to build CentOS7. Need to use eoscp to get build artifacts out of the container. Easiest would be to do if SFT could provide CentOS9 for aarch64.
– Note from Attila: ATLAS is using centos7-aarch64 for physics validation to reduce variance

• Marco: What is aarch64? Need to know which level of ARM V7? V8? Random?
  – Andre: Openblas is set to ARMV8
  – Ben: Different versions available in gcc (ARMV8.1-A, ARMV8.2-A, ARMV8.3-A, …)
  – Marco: Would it be possible to rename aarch64 to ARMV8-A?
  – Attila: ATLAS not in favour of that, aarch64 in sync with cmake expectations
  – Marco: How to know which instruction set the builds are targeting?
  – See document -¿, awaiting PR from Marco about instruction set versions
    * Then re-consider moving LCG builds to newer instruction set level

4.2 ATLAS
NTR

4.3 ROOT
NTR

4.4 ALICE
NTR

4.5 NA62
NTR

• Gerri: CERN it partially moving away fro CentOS8/9; problem for experiments?
• LHCB: do not care, but what about new CernVM?
• Gerri: There is a new CernVM version 5, currently based on CentOS8
• ATLAS: as long as OS is based on open RHEL, see also which OS the big cloud providers are using, but future is uncertain.