LIM, August 15, 2022

Connected: Dmitri Konstantinov, Andre Sailer, ...

Indico: https://indico.cern.ch/event/1187389/

Updates in nightlies/devs since the last meeting

- SPI-2206 Pytest-xdist 2.5.0 (with deps - execnet and pytest_forked) added to nightlies and to 102a (LHCb) ** The pytest-xdist plugin extends pytest with new test execution modes, the most used being distributing tests across multiple CPUs to speed up test execution**
- SPI-2195 Platforms gcc12+centos7 and gcc12+centos9 are added into nightlies, gcc10 and gcc10fp are removed from nighlies.
- SPI-1669 Add include-what-you-use to clang platforms.
- SPI-2204 Deploy Spark 3.3 to LCG 102 / 102swan (in devs already for sometime)
- SPI-2200 latest cuda 11.7 for centos7 added to "contrib".

Bug fixes:

- SPI-2203 Kerberos5 libary for xrootd was not built for centos9 platforms (for LCG_102), reported by ATLAS
    - check enforced by -DFORCE_ENABLED=ON
    - xrootd upgraded to 5.4.3
    - fixed in nightlies and ready for patch release.
- SPI-2193 Missing XCB plugin in Qt5 builds.
    - Qt5 recipe is updated
    - libxkbcommon added to HepOSlib and "removed" from LCG stack.

LCG Releases

- LCG_102 won't be updated with gcc12 as this requires too many changes.
- Preparation for LCG_102a SPI-2202:
    - ROOT 6.26.06 (08 with RadLen/IntLen fix for Geant4Units?)
        - Ben and Marco on vacation for two more weeks.
    - TODO: DD4hep updates
    - SPI-2193: Geant4, QT5 with xcb plugin
    - SPI-2203: xrootd 5.4.3 (with kerberos plugin build for cs9)

    - SPI-2204: spark 3.3.0 for swan
    - SPI-2195: updates needed for gcc12
    - SPI-2198: pytorch_cluster
    - SPI-2206: pytest-xdist
    - TODO: garfield++ fixed hash

- A request from LHCb for a patch release 101a with the fix on computation of the radiation and nuclear interaction lengths to 6.24
    - https://github.com/root-project/root/issues/11080
- SPI-2181 LCG_102_ATLAS_2 (HEPMC2) - ATLAS layer.
    - Platforms: x86+gcc11+centos7, aarch64+gcc11+centos7, x86+gcc11+centos9
    - READY
- SPI-2199 LCG_101_ATLAS_25/26 with Superchic 4.14
    - pending

items for discussion:

- SPI-2191 **OpenSSL in CentOS7**.
    - **Johannes**: as reported by Reiner in SPI-2191 there are now 2 packages (Python cryptography and OT 5.15.2) that require OpenSSL 1.1 in CentOS7, esp. the QT 5.15.2 dependency is a blocker for us to move forward with LCG_102 - what are the best options ? Add OpenSSL 1.1 to the LCG_102 stack (with the risk to be stuck with a version in case of security updates) or take it from the openssl11 package in the EPEL repository and ask to add it to HEP_OSlib ? It works fine on CentOS9 since that ships compat-openssl 1.1 by default.
    - openssl 1.1 can be installed from epel.
    - openssl 1.1 is installed as openssl11
    - were able to build 3.10 again openssl11
    - what are potential problems in having the LCG stack built with mixture of openssl 1.0 and openssl 1.1?
    - dev3/4python310?
- TensorRT in LCG stack:
    - TensorRT license (https://docs.nvidia.com/deeplearning/tensorrt/sla/)
    - create cvmfs/projects accessible to CERN only?
    - delete header files at post-install step?
- JIRA
    - A change in JIRA license agreement for CERN (cost could increase by 10x)
    - SPI has a special lifetime(?) licence

Roundtable

Next Meeting: August 29, 2022