LIM, 28 May 2019

Present: J Heinz, I Razumov, R Hauser, A Kazarov, G Amadio, G Eulisse, S M Muzaffar,

D Konstantinov, M Nowak, P Mato, M Clemencic, G Stewart, I Goulas, W Lampl,

C Delort, J Cervantes Villanueva, B Couturier, G Folger, A Krasznahorkay

Remote: A Valassi, D Castro

Agenda: https://indico.cern.ch/event/824150/

Next meeting: 11 June 2019

Preparation for next release

- Still waiting for the ROOT branch. It should come today or tomorrow; will be added to dev4 as soon as available.
- Reviewing versions of packages; will circulate the proposed upgrades asap.
- Some concerns were raised about the proposal to add Gaudi to the stack (see <u>SPI-1347</u>) and possible interferences with the usage of their own builds by ATLAS and LHCb; careful tests will be performed.

Proposal for 'Layered Software Stacks'

Discussing the issue reported in <u>SPI-1330</u> a proposal for layered software stacks came up which was presented by at the meeting by P Mato (see slides attached to the agenda page). The proposal triggered an intense discussion, whose main points were:

- It might be interesting to have the possibility to change the recipe for a package; this will be investigated
- A Kra was questioning the need for this development; ATLAS has a solution now consisting in rebuilding small sets of packages which they found easy, though rather ATLAS specific; it was agreed that it would not solve the problem triggering the discussion.
- It was generally felt that the proposed solution is flexible and provides many improvements, in addition to solve the original problem.
- W Lam said that ATLAS may be forced to move because the default release will contain now only one version of a given package
- It was noticed that some parts of the new proposal were already practiced by NA61/SHINE
- G Eul (ALICE) said that it would be good to support local builds of some packages with respect to an established release; this is available in AliBuild and supports two user-cases: i) superusers: to be able to modify a given external on the fly; ii) users: to develop locally a single package

- A Kra was worried about possible workflow changes that the new approach will force; it
 was agreed to keep those as tiny as possible. New request via JIRA can be translated
 automatically into new toolchains, with a minimal build performed automatically.
- It was asked what will happen with old releases, for example LCG_88? ATLAS is still
 using LCG_88 because it is the release used for Run 2. Support will probably continue
 as now for LCG_88; it will be re-discussed when some experience with the new options
 will be acquired.
- The concept of flagging the versions used during the official runs as LTS has been raised. The was general agreement on the concept, less on the length of the support period; 2-3 years is felt being on the short side; to be re-discussed.

It was decided to continue with the implementation of the modifications in lcgcmake; an attempt to have this ready for LCG_96 is ongoing.

AoB

- The subject of moving /adopting a new package manager was touched, in particular of what the new tool should provide. It was agreed that, whatever is chosen, it should be ready well before Run 3, i.e. by Q1/2020. It was also agreed that the subject should be discussed elsewhere (e.g. HSF packaging group).
- A Valassi reported that HEPOSLibs have been updated last week. The new releases include three additions requested by the SPI team for LCG releases and SWAN (dvipng, ghostscript, libtiff-devel)
- LHCb is currently getting very large container images for HPC (about 60 GB), due to non optimization of dependencies and of HEPOSLibs.
- LHCb found out that RHEL-based build cannot be used with OpenSUSE