Issues About Next LCG Upgrades

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09/04/01 DB US Offline

Outline

LCGCMT

CMTUSERCONTEXT

Package/Project Upgrade Versions

Summary

LCG_Settings

LCG_Settings: Platform definitions

- Tags derived from implicit CMT defined ones: "host-*"
- Tags derived from explicit settings: "target-*"
- We have always relied on implicit tags:
  - "uncharacterized_linux" for new platforms
  - No use of CMTCONFIG for explicitly settings
  - This is opposite (implicit settings) from the way everyone else does it (explicit settings)

To do:

1. Make sure all our hosts have targets
2. Define CMTCONFIG names if not already done
3. Integrate this new style into main setup.sh

→ maybe leverage CMTUSERCONTEXT (see below).

LCG_Builders

`LCG_Builders`: LCG/AA's build system

- Under `lcgcmt/`
- Driven by `LDG_Configuration` (package versions) and CMT
- Each package has scripts to do get, config, make, install.
  - Similar to dybinst but more formalized/organized.
- Produces the same external/ layout as we currently use
- Can take tarballs from local file or via http (I added)[1]
- Can be used as a back end to dybinst
- Notes on testing it are in the wiki[2]

To do:

- A bit more testing
- Investigate how to integrate packages CERN doesn't use
- Refactor dybinst to use this new method.

[1] `https://savannah.cern.ch/support/index.php?107674`

[2] `https://wiki.bnl.gov/dayabay/index.php?title=LCG_Builders`

CMTUSERCONTEXT

I learned about something new: "CMTUSERCONTEXT":

- Set to a path containing a `requirements` file.
- Use `requirements` file to override all others
- Kind of like NuWa-trunk/setup/requirements but affects more than just user environment.

To do:

- Learn how to use this
- Move our local mods to CERN of `requirements` files into here

Versions

ROOT	5.18.00f → 5.22.00a
GCCXML	0.7 → 0.9
LCGCMT	v53a → v56
Gaudi	v19r7 → v20r4
LHCb	v23r3 → v26r2

- Some CERN hosted projects: CVS → SVN, requires dybinst fixing.
- Upgrades of ROOT and GCCXML required for GCC 4.3

We can stay at Geant4.9.1p01 or upgrade to 4.9.2. I think this must be determined by the Simulation group.

Summary

- To support GCC 4.3 (critical for Debian stable users)[3]
  - upgrade to enjoy the fixes of others, or
  - (re)fix a lot of code by hand
- New things learned about LCGCMT
  - `LCG_Settings` cleaned up, we should move to explicit configurations.
  - `LCG_Builders` will provide a way to improve dybinst and reduce divergence with CERN.
  - Dybinst will need over-hall in any case to deal with CVS to SVN changes, and cleaning old / adding new patches.
  - `CMTUSERCONTEXT` allows local overrides of CMT, use this to reduce local mods to LCGCMT, Gaudi and LHCb.

[3] Me!!!