## Ideas on Software Distribution Model

## Librarians and Integrators Meeting (4.6.2013)

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# New CMake build infrastructure

### Fairly simple solution for building exterals now

- get or setup cmake
- checkout lcgcmake package from SVN
- setup C/C++/Fortran compilers
- create workspace area
- configure with **cmake**
- build with make

- On Ixplus set PATH to use one of latest CMake versions (default is 2.6) export PATH=/afs/cern.ch/sw/lcg/external/CMake/2.8.9/Linuxi386/bin:\${PATH}
- Checkout the lcgcmake package from lcgsoft SVN repository svn co svn+ssh://svn.cern.ch/reps/lcgsoft/trunk/lcgcmake
- Create a workspace area in which to perform the builds mkdir lcgcmake-build cd lcgcmake-build
- You may need at this moment to define the compiler to use if different from the native compiler

source /afs/cern.ch/sw/lcg/external/gcc/version/platform/setup.(c)sh

- 5. Configure the build of all externals with cmake cmake -DCMAKE\_INSTALL\_PREFIX=../lcgcmake-install ../lcgcmake
- In order to build against the existing external repository use the option -DLCG\_INSTALL\_PREFIX=/afs/cern.ch/sw/lcg/external to tell the system to look for packages in the LCG area.
- Build and install all external packages make -j
- Or to build a single external package make -j <package> (use make helpto see the list of all available packages)
- You may need to restart de build of a package from beginning in case of obscure errors. The best is to clean a specific package

make clean-<package>

#### http://sftweb.cern.ch/spi/HowtoBuildWithCMake

### New CMake infrastructure

- New release build infrastructure tested every night
  - Results shown on cdash.cern.ch
- Outstanding problems:
  - CORAL and COOL aren't integrated yet
  - The nightly summary page isn't integrated here

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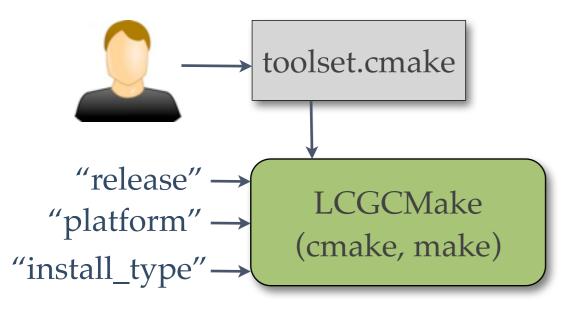
### Building Full Releases

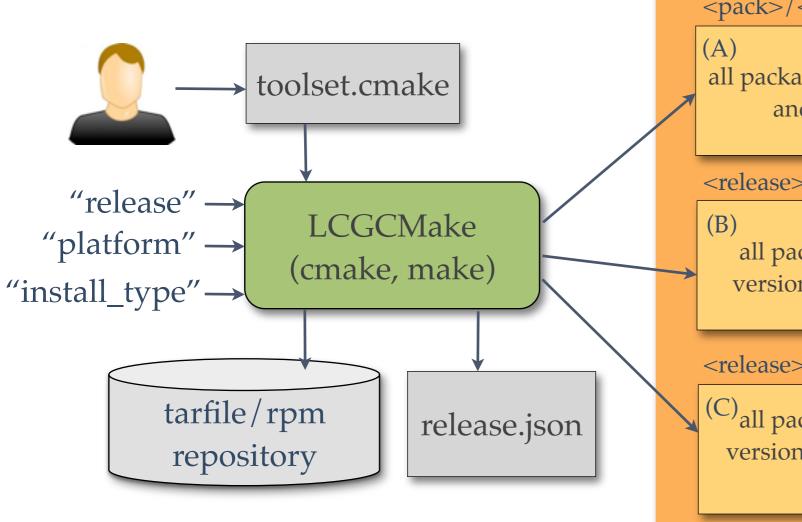
- We propose a **new way** of providing releases
- Preparing the full stack is a much cheaper operation now

two tiets

- Until a real release has been made, new build products will go into an experimental area only
  - the gcc48 build already follows this approach
  - Would like to apply the same to *all platforms* in the -preview slot soon!
- Once the release is cut, it will be made available in
  - CVMFS (for sure)
  - AFS (is that still required?)

• But how will such a release look like?





AFS/CVM-FS <pack>/<vers>\_<id>/<platf> all packages with all versions and all platforms <release>/<pack>/<ver>/<platf>

> all packages with single version and all platforms

<release>/<platf>

(C)<sub>all packages with single</sub> version compacted and all platforms

