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Summary of Applications Area Requirements

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Current Situation:

▣ **Experiments install their software in the software areas delivered for each experiment in the WNs**

- 🌐 This includes lower level tools common for all the experiments: AA (Applications Area) software →SEAL, POOL, PI, COOL, GENSER and Geant-4

What we propose you:

▣ **Through SC3 we could provide the versions needed by each experiment in the sites**

- 🌐 Agreements with sites, experiments and the AA group are needed

External Packages

- CLHEP, ROOT, etc
- /afs/cern.ch/sw/lcg/external/<pkg>/<ver>/<plat>

AA project releases

- POOL, COOL, GENSER, etc
- /afs/cern.ch/sw/lcg/app/releases/<proj>/<vers>/<platf>

All the dependencies among packages can be found on:

- http://lcgapp.cern.ch/spi/configChecker.html

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71	external/Boost
1	external/bz2lib
15	external/clhep
6	external/CppUnit
5	external/edg-rls-client
7	external/gccxml
18	external/GSL
1	external/myodbc
32	external/mysql
6	external/mysql++
5	external/Oval
1	external/pcre
43	external/Python
10	external/QMtest
78	external/root
4	external/sqlite
16	external/unixodbc
1	external/uuid
3	external/valgrind
10	external/XercesC
1	external/zlib
283	app/releases/POOL
277	app/releases/SEAL

- **Example for POOL Version 2.0.7**

Used by more than one AA package

Same versions for several AA packages

Optimized with no docs and Log files and not debug versions means about 150-200 MB less for each package

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1 GB for Geant4

- AIDA and UltraLite tools needed by Geant4 already installed by the external packages

1 GB for GENSER

We can:

- **Support more than one version of each package in a delivered area of WNs (about 10 GB can support various versions)**

- **Debug and not urgent versions can be stored locally in each site (AA group can provide us separate packages)**

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All AA packages are compatible with SL (3.x)

- It means, the installation of the binaries should be enough

Tools for automatic installations

SPI Software Distribution Service: Binaries

- Simple solution to use
  - Local installations in the sites
  - Using simplest approach
  - Python downloader script + tar format
  - Easy to handle and reliable (in use since 2003)

- lcg-installation-manager
  - It installs the binary files automatically in each WN already taking account the dependencies and the required versions

Software Distribution from Sources

- Those cases where the compilation is needed
- Simple script to build all
- seti.py (SPI External Tool Installer)
  - Resolve dependencies and get the build order
- First version ready
  - Documented in wiki:
    https://uimon.cern.ch/twiki/bin/view/SPI/SetiHowTo

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- **We propose you to install during the SC3 those common packages needed by all HEP communities in each site**

- **We have the support of the AA group**

- **Discussion with each experiment to understand their needs is required**

- **In any case your software areas will be available always in the sites**