



Distribution And Installation Of LCG AA Software

Applications Area Meeting

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Overview



- **Introduction/Motivation**
- **Present Status of the Service**
- **Recent extensions**
- **Future planning**



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SPI Software Distribution Service



- **All releases of LCG AA projects can be downloaded from the web**
 - **Initially targeting use case for “remote development”**: full tar ball (src+doc+bin+bin_dbg)
 - **Service exists since 2002**
 - Script to download and install tar-balls of binaries for software of LCG AA projects with all dependencies
 - **Tar balls of binary builds (from release area)**
 - Limited to binaries of platforms build at CERN
 - **Including all needed projects/packages**
 - Dependency information from configuration management and build tool (scram)

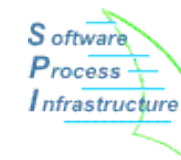


Downloading a project

- **One script (from web page) to download all:**
 - `lcg-installation-manager.py \`
 - `--project COOL_1_2_9 \`
 - `--arch slc3_ia32_gcc323 \`
 - `--prefix $HOME/lcgAA/ download`
 - **Will download COOL 1.2.9 and all it's dependencies**
 - Pool, Coral, Relax, Seal, 27 external
 - **Presently will download <platform>+src by default**
 - “remote development” use case

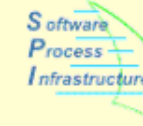


http://spi.cern.ch/lcgsoft



LHC Computing Grid > Application Area > Software Process & Infrastructure

LCG Software Service



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LCG Software

The purpose of the **LCG Software Service** is to provide the LCG projects deliverable (PI, POOL, SEAL, SIMULATION).

Download Area

LCG Projects dependencies to download

External Software

The following table gives the availability of the LCG projects in the corresponding OS_compiler. Each yellow line shows the version dependencies between each project.

[Alphabetic order](#)

[Platform table](#)

[Used in LCG Projects](#)

Important: You should first read the

[How to install LCG software locally on your machine](#)

which explains how to use the downloaded files listed below.

SPI Quick Links

[SPI Home](#)

[SPI Index](#)

[Projects Portal](#)

LCG App. Area

[Home Page](#)

[LCG Agenda](#)

[PI Project](#)

[POOL Project](#)

[SEAL Project](#)

[Simulation Project](#)

[SPI Project](#)

External Links

[CERN](#)

[EP Division](#)

For previous releases, please [see here](#).

AFS Folder

where the project is stored (read only)

Release Notes

provided by the project when the release is announced

download

is a link to the project deliverables (project itself and all the depending packages)

Configuration	SEAL	RELAX	CORAL	POOL	COOL	GENSER (Simulation)	GDML
LCG 42	1_8_1 download	1_0_0 download	1_3_0 download	2_4_0 download	1_2_9 download	1_3_0 download	2_5_0 download
LCG 41	1_8_0 download	0_1_0 download	1_2_2 download	2_3_0 download	1_2_8 download		

[History](#)

Organization under AFS

New feature



- **New since LCG_42: “partitioned” tar balls**
 - Requested by LHCb through LIM
 - One tar ball each for src, doc, <platform>, <platform>_dbg, ...
 - Working on automating platforms other than slc3
 - Which are needed? All (win32, gcc344, amd64, slc4, ...)?
 - Supporting “run on the grid” and “remote development” use cases
 - Download script presently downloads all as we had no request for other behaviour



Download and Distribution Service



- **At present: 203 downloadable tar balls**
 - **Projects + external dependencies**
 - **83 slc3**
 - **83 rh73**
 - **16 win**
 - **14 osx103**
 - **7 cel3**
- **Earliest release available at present**
 - **SEAL_1_3-0, POOL_1_4_0**
 - Dec 2003
 - **AF decides which are kept**



Downloading Tarballs



- **Naming convention for tarballs**
 - **<projVers>__LCG_<platform>.tar.gz**
 - POOL_2_4_0__LCG_slc3_ia32_gcc323.tar.gz
 - root_5.10.00a__LCG_win32_vc71.tar.gz
 - **Dependency information in .info**
 - XML format, easy to parse
- **Available via:**
 - [/afs/cern.ch/sw/lcg/external/distributions/](http://afs.cern.ch/sw/lcg/external/distributions/)
 - <http://cern.ch/service-spi/external/distributions/>



Some statistics



- **Only started today to look**
 - web statistics *since Jan 1st 2006*
- **Lcg-installation-manager.py**
 - **Ca. 600 downloads**
 - Ca. 200 from bots (Google, Seekbot, Yahoo!Slurp, MetaWeb, CERN)
 - Ca. 200 using wget (grid nodes)
 - Ca. 200 others (browsers)
- **Distribution tar balls**
 - **Ca. 16900 downloads (all “__LCG_slc3*gz”)**
 - 60 from bots
 - 37 using wget
 - 15155 using Python-urllib (script)
 - 1709 others (browsers)



Future planning



- **Work ongoing to fully automate the creation of tar balls after project release**
 - Part of the further automation of the post-build procedure
- **Effort started to download source tar balls and (re-)build as needed**
 - Simplifies porting to new platforms (or development work)
 - Re-using build and dependency information from XML files
- **Needs more fine-granular “tags” to define scope**
 - Defining what the package is needed for:
 - Building (cmake for gccxml)
 - Running
 - Plugins
 - Testing
 - Which then will be used to “categorize” download



Additional Information



- SPI project web:
 - <http://spi.cern.ch>
- SPI project wiki pages:
 - <https://twiki.cern.ch/twiki/bin/view/SPI/WebHome>
- LCG Applications Area web:
 - <http://lcgapp.cern.ch>
- LCG web:
 - <http://cern.ch/lcg>

