

Production Operations Procedure: Deploying LHCb Software on the Grid

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Description: How to define the list of LHCb software to be deployed on the Grid, adding and removing software versions.

Tools To Use:

Configuration Service Browser

Useful Links:

SAM Test Page - <https://lcb-sam.cern.ch:8443/sam/sam.py>

DIRAC CS Page:

<https://lhcbweb.pic.es/DIRAC/systems/configuration/managementRemoteConfig>

Procedure:

The list of LHCb software to install is maintained in the CS in the following section:

`/Operations/SoftwareDistribution`

where the following options exist:

- /Operations/SoftwareDistribution/Active

There is the entire list of 'Active' software that may be installed for all system configurations.

- /Operations/SoftwareDistribution/Deprecated

The list of software that will be removed during the installation test.

- /Operations/SoftwareDistribution/<SYSTEM CONFIGURATION>

The current system configurations supported by LHCb include:

`slc3_ia32_gcc323`, `slc4_ia32_gcc34` and `slc4_amd64_gcc34`

In order to install e.g. Brunel v32r5 for `slc4_ia32_gcc34` the software tag "Brunel.v32r5" should be added to the "Active" and "slc4_ia32_gcc34" sections.

When a software version becomes deprecated it should be removed from the "Active" and "<SYSTEM CONFIGURATION>" sections and added to the Deprecated list.

SAM jobs will automatically query the CS for the latest software depending on the system configuration of the CE it runs at.

The following CS section defines the OS compatibilities for the discovered system configurations:

- **/Resources/Computing/OSCompatibility/<SYSTEM CONFIG>**

This means that an slc3_ia32_gcc323 site will only install slc3 software from the SoftwareDistribution section. An slc4_ia32_gcc34 site will install slc3_ia32_gcc323 and slc4_ia32_gcc34 compatible software and an slc4_amd64_gcc34 site will install all slc3_ia32_gcc323 and slc4_ia32_gcc34 in addition to slc4_amd64_gcc34.

After an update to the list of software the SAM tests should be triggered to run and the software versions should be checked in the list reported to the SAM test results page.

