

How to create a step

Steps are the core part to configure jobs. They contain all the relevant information about the software version, the configuration files, the input and output data types and so on. They can be created from the Dirac web portal [using the lhcb_tech role](#).

The easiest thing is to select a given application from the Application drop down menu, e.g. Brunel, and duplicate a step that is already there and is the most similar to the processing needed. So you can right click on the relevant step and select "Duplicate".

* Step Manager screenshot:

The screenshot shows the LHCb Step Manager interface. On the left, there are configuration panels for 'Settings', 'Portal configuration', and 'Activ desktop configuration'. The 'Portal configuration' panel includes fields for User (corvo), Group (lhcb_tech), Setup (LHCb-Production), Theme (Grey), and tabs. The main area displays a table of steps with columns: Id, Name, Processing pass, Application, Version, Visible, and Usable. The 'Application' column is set to 'Brunel'. The table contains numerous rows of step configurations, including details like 'Reco16 for MC 2016 - LDST', 'Reco15a for MC 2015 - Signal pGun', and various 'FULL-Reco16-cond-2016' entries.

The web portal now will show a page with a lot of fields to be filled:

* Fill in the blanks:

The screenshot shows the 'LHCb Step Manager [Untitled 1]' window. On the left, there are panels for 'Settings' (User: corvo, Group: lhcb_tech, Setup: LHCb-Production, Theme: Grey) and 'Activ desktop configuration' (Name: None, Automatic tab change: Disable). The main area is 'New step definition' with the following fields:

- Name: Reco16Smog for 2015 pA
- Processing pass: Reco16Smog
- Application: Brunel v50r1
- System config: x86_64-slc6-gcc49-opt
- MC TCK:
- Option files: \$APP_CONFIGOPTS/Brunel/DataType-2015.py;\$APP_CONFIGOPTS/Brunel/PbPb-GECs.py;\$APP_CONFIGOPTS/Brunel/PVreco-smog2016.py
- Options format:
- Multicore: No
- Extra packages: AppConfig.v3r272
- Runtime project: Select Runtime Project if desired
- CondDB: cond-20160517
- DDDB: dddb-20150724
- DQTag:
- Visible: Yes
- Usable: Yes
- File types:

File type	Visible
RAW	Yes
- Output:

File type	Visible
BRUNELHIST	Yes
FULLDST	Yes

At the bottom, there are 'Save' and 'Cancel' buttons.

- Name: put a name which is meaningful for the processing
- Processing pass: here you have to stick to this convention
- Application: select the right application (should be already there) and version
- System config: this is the value of the CMTCONFIG environment variable which should drive the selection of the gcc version and the opt-imized or dbg-ed libraries
- Option files: here you must put the configuration files that will drive the correct configuration of the application and the jobs
- Extra Packages: the version of AppConfig that contains the right configuration for the application
- CondDB and DDDb: these two fields define the tag of the LHCb Condition database and Detector Description database
- Visible: this flag drives the visibility of the processing pass and consequently the BKK path that will be created. Typically you want to mark visible, e.g., a Stripping pass, but not a Merging one, which is not useful to characterize the processing
- Usable: this flag drives the usability of the step and its visibility in the list of available steps when creating a new production. If the Usable flag is set to "Obsolete", the step won't appear, meaning that it's been superseded by a newer one
- File types: the application, depending on the configuration files, will take different input and will generate different output file types. In case of, for example, Stripping and Merging productions, the output file types of the Stripping step must match the Input file types of the Merging one.

-- MarcoCorvo - 2016-11-07

This topic: LHCb > HowToCreateAStep

Topic revision: r1 - 2016-11-07 - MarcoCorvo



Copyright &© 2008-2020 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.

Ideas, requests, problems regarding TWiki? Send feedback