Table of Contents

How to name a processing pass

This twiki page sets the rules for how to create a name of a processing pass. For the time being this will apply for data processing workflows only

Note: I chose Backus-Naur form ☐ for the notation

General Info

The processing pass is part of a bookkeeping path and denotes how the data underneath had been created, e.g. "Real Data/Reco16/Stripping26" is the processing pass inside the bookeeping path below

💡 **Example Bookkeeping Path:** /LHCb/Collision16/Beam6500GeV-VeloClosed-MagDown/Real Data/Reco16/Stripping26/90000000/BHADRON.MDST

General Rule

A processing pass for real data always starts with the string **Real Data**, following this an optional number of *workflow passes*. Each of the *workflow passes* corresponds to a data processing activity, e.g. reconstruction, stripping, turbo.

```
<processing pass> ::== "Real Data"<workflow pass>
<workflow pass> ::== "" | "/"<workflow activity><workflow version><workflow bugfix><special workf
```

The *workflow pass* consists at least of a *workflow activity* and a *workflow version*. Optionally a *workflow bugfix* version and a string for a *special workflow* may follow.

💡 Example for the 2016 reconstruction workflow pass for data reconstruction (consisting of *worklow pass, workflow version*): **Reco16**

💡 Example for the 2016 protonhelium data reconstruction worfklow pass (consisting of *workflow pass, workflow version, special workflow*): **Reco16Smog**

Workflow Activity

The *workflow activity* is a string which denotes which workflow was run to produced the data underneath this processing pass. E.g. **Reco** usually corresponds to running a version of the Brunel reconstruction, **Stripping** and **Turbo** to running DaVinci (with different options)

```
<workflow activity> ::== "Reco" | "Stripping" | "Turbo"
```

💡 The list of strings for different *workflow activities* may grow in the future

Workflow Version

```
<workflow version> ::== <digit><digit>
```

💡 By coincidence the workflow version "16" corresponds with the calendar year in which the data is taken "2016" - this has not been and not necessarily will be always the case.

💡 If the *workflow version* is below 10 the first digit needs to be **0** (e.g. see **Turbo02** in 2016)

Workflow Bugfix

In case there is a major change in how the workflow processes the data an optional *workflow bugfix* letter can be appended to the *workflow version* number. If this bugfix version should be applied or not shall be discussed with the managers of the different applications of the relevant workflow. The first bugfix shall be letter **a**, the second **b**, etc

```
<worfklow bugfix> ::== "" | <lowercase letter>
```

💡 The first bugfix version for the 2016 reconstruction processing pass shall be **Reco16a**

Special Workflow

In case of special workflows - usually for data processing other than proton-proton collisions - the last entry of a *workflow pass* shall denote this activity

```
<special workflow> ::== "" | "Lead" | "pLead" | "Smog" | "LeadSmog"
```

The current list of possible *special workflows* is

special workflow string	collision type
Lead	lead-lead
pLead	proton-lead or lead-proton
Smog	proton collisions with injections of gas into the velo, e.g. proton-argon, proton-neon, proton-helium, etc.
LeadSmog	lead collisions with injection of gas into the velo, e.g. lead-argon, lead-neon, etc.

💡 Example *workflow pass*: **Reco16Smog**

The obvious notations

For completeness the backus-naur forms of the remaining needed notations:

```
<digit> ::== "0" | "1" | "2" | "3" | "4" | "5" | "6" | "7" | "8" | "9"
<lowercase letter> ::== "a" | "b" | "c" | "d" | "e" | "f" | "g" | "h" | "i" | "j" | "k" | "l" | "
```

-- StefanRoiser - 2016-07-12

This topic: LHCb > HowToCreateAProcessingPass
Topic revision: r1 - 2016-07-12 - StefanRoiser