

# Test Beam Data Flow and Software

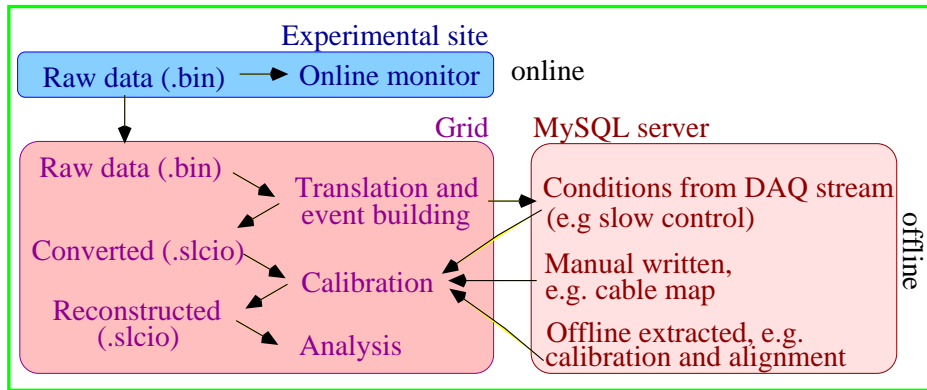
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# Data Flow in a Nutshell

- 1 DAQ software (Paul Dauncey)  $\Rightarrow$  raw data in binary format (.bin)
- 2 Raw data copied to GRID:
  - DESY dcache, on tape
  - and LYON, for safety
- 3 Convert raw data to LCIO type with the **LCIO converter**:
  - stable program, unchanged since beginning
  - in GRID jobs
- 4 **Data reconstruction**
  - i.e. calibration, based on information from the data base
  - information in data base written during conversion to LCIO type, and later, by experts
  - list of Marlin processors
  - scripts to automatically generate Marlin steering files for reconstruction
  - reconstruction done centrally, by one knowledgeable person
  - resulting files stored on the GRID
- 5 **Data analysis**
  - based on ILC software  $\Rightarrow$  Marlin processors

# Data Flow in a Nutshell - continued



# Software from the User's Point of View

- CALICE software centrally installed at DESY:

```
flcini calice_pro_test  
caliceMarlin <your steer file>
```

## Data analysis

- Beginner stage:
  - use the *RootTreeWriter*, which produces ROOT tree files, with basic quantities
  - write your own tree, via *engines*
- Advanced stage:
  - write your own Marlin processors
  - starting example: *HelloWorldProcessor* in *calice\_torso* package