LHC Performance Monitoring Web Pages

MPP

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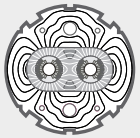
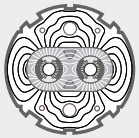
Goal



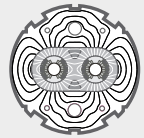
- Provide automatic machine performance analysis fill-by-fill.
- Provide records information for the machine.
- Provide users with a quick overview over what has happened lately.
- Provide users with better analysis tools for their own analysis.

Framework



- Python scripting language used.
- Extraction from the “java extraction interface” (TIMBER)
- Modular/extendible to allow for extraction from other sources as well (e.g. LSA)
- Analysis done mostly using NUMPY, ROOT to some extent.
- Binary formats supported: ROOT, some support for HDF5 but libraries missing on server at the moment.
- Plotting done in ROOT.

What is provided



- Web page showing the analysis output:
  - `http://cern.ch/LHC-Statistics`
- Supertable giving single value summary data on a per fill basis:
- ROOT file per fill, time aligned data for analysis:
  - `http://cern.ch/LHC-Statistics/data.php`
- Summary information in JSON format (simplified xml):
  - `http://cern.ch/LHC-Statistics/PRO/SummaryData/runsummary.json`

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What will come

- Examples on how to use files
- Data from other sources, eLogbook server, optics functions from LSA...
- More plots, users are welcome to contribute.