Data Analysis - Original documentation

Documentation Portal

The most current Data Analysis documentation is being developed at the LCLS Data Analysis. Users of online monitoring with Psana will find the psana document helpful. Much of the below documentation has already been incorporated into the new portal.

Analysis Workbook

LCLS's collects data to XTC files, upon request these are translated to HDF5 files. To analyze the former, you need to make use of one of the LCLS analysis frameworks (or write your own). The latter can be analyzed with commercial or other software suites.

- Getting Started - General information about LCLS data, releases, software packages and how to set up your analysis jobs.

Analysis Frameworks

- C++ Framework (for analyzing XTC files, HDF5 support forthcoming)
    - Psana User Manual - Old
    - Psana Reference Manual - Old
    - Psana Module Catalog - Old
- Python Framework(for analyzing XTC files, HDF5 support forthcoming)
    - Pyana User Manual
    - Pyana Reference Manual
    - Pyana Examples
- Data analysis with myana
  (Developed for/by the online group, but can also be used for offline analysis of XTC files)
    - A Simple Online Analysis Example
    - Myana User Guide
    - Myana Reference Manual
    - Myana Examples

Analysis Tools

- XTC Explorer - Old. A GUI interface to *pyana* data analysis of XTC files.
- HDF5 Explorer - Old A GUI tool to explore the HDF5 structure and make plots from the data.
- How to access HDF5 data from Python
- User Interface to Translator
- An example script for handling job submission to the batch system (copy and configure it for your experiment): submitter.pl

Detector Data Types

- Devices and Datatypes
- XTC data format: pdsdata Reference Manual
- CSPAD Alignment