"Building Block" Examples

(use the navigation panel on the left to go through the examples)

The model we believe to be way of the future for LCLS analysis (and FEL/lightsource analysis around the world) is that users be able to put together simple /short python "building blocks" to quickly express the complexity of their experiment. Many of these building blocks are publicly available on the web, and so can be reused around the world.

This section will show short/simple working example scripts that demonstrate the most common building blocks (at the time of this writing, the longest is 26 lines). **Follow these building-block steps (in order) to learn how to access your data** (you only need to know your experiment name (e.g. cxi86715) and a run number). These examples do not show all possible complex uses of the building blocks, but we include links to more detailed documentation where appropriate.

For clarity, examples are intentionally kept brief with minimal graphics, and some are inefficient from a programmatic point of view. Also, the examples use the new simpler DataSource "smd" mode which will only work for experiments after October 2015 (although the analysis group can generate the appropriate files for older experiments).

All scripts shown in this section can be copied with a command similar to this (note the "." at the end of the line):

```
cp -r /sdf/group/lcls/ds/ana/tutorials/psana1_examples .
cd psana1_examples
```

Or you can find them in git here: https://github.com/chrisvam/psana1_examples.git.

These small scripts should be run from a "psana" machine in s3df (use "ssh -X psana") and are described in the following sections.