

LCLS use of Matlab

LCLS use of Matlab

Manuals

- [Matlab Programmer's Guide](#)
- [EPICS Channel Access Interface for Scilab and Matlab](#)
- [High Level Applications using Matlab](#)
- [Aida](#)

Files	Host Access	Location
Source	SLAC Unix farm	/afs/slac/g/lcls/epics/extensions/src/labca
	SLAC Unix farm	/afs/slac/g/lcls/matlab
Log	lcls-dev	/home/matlab

MATLAB Testing: Subsystem Interface Control

- [Temporary List of PVs for Matlab Apps](#)
- [Simulation PV List for Testing](#)

Interfaces and PV Lists by Subsystem or Device

- [Magnets](#)
- LLRF Subsystem
 - see attached file LLRF Control Design Specification (*.pdf), especially section 3.4 VME Software Design, pg. 34
- Laser Subsystem
- BPMs
- [Wire Scanners](#)
- PMTs
- Toroids
- Faraday Cups
- OTRs
- YAGs
- Bunch Length Monitor
- MPS
- [Vacuum Subsystem](#)
- Beam Synchronous Acquisition and Control (BSAC database of the slc-aware IOC)
- Beam Synchronous Event Requests and Timing Triggers

Notes

- [Programmers Notes for GUI Related Issues](#)
- [Useful functions from MATLAB image processing toolbox](#)

Frequently Asked Questions:

Q: Where do I put changes to the standard environment setup?

A: Put them in `/home/physics/<username>/ENVS`.

See `/home/physics/zelazny/ENVS` for an example.

Q: How do I check things out of cvs?

A: To checkout software (you only need to do this once):

```
cd /home/physics/zelazny
cvs co matlab/toolbox
```

Q: How do I put things back in cvs?

A: To put software into cvs:

```
cd /home/physics/zelazny/matlab/toolbox
cvs commit -m "comment" <filename>
```

Q: How do I release to production?

A: To make software available to others, type the following `cvs2prod`

Q: How do I get files from /afs to the channel access network?

A: To get a file from /afs that's not in cvs:

```
scp loos@lcls-prod02:~loos/controls/profmon/profmon_setup.m .
```

Q: Where are the Matlab data files?

A:

lcls-srv01: `ls -als $MATLABDATAFILES`

lcls-prod02: `ls -als ls /mccfs2/u1/lcls/matlab`

SLAC web browsers: [click here](#)

Q: I'm totally lost, what do I do?

A: Call Mike Zelazny x3673 (cell) 650/814-1418