

Analysis Workbook. Account Setup

Getting an Account

Every user who wants to access LCLS data needs to have valid SLAC UNIX account. Getting a SLAC account for new user involves filling request forms and is usually done by proposal primary investigator (PI). The process is described on [LCLS User Resources page](#).

Analysis farm

Once the new UNIX account is established the user receives an access to LCLS analysis machines. The names of the hosts that users can use for interactive purposes (including doing interactive analysis) may depend on the particular experiment, the list is usually communicated to the PI. In addition to interactive hosts there is a dedicated processing farm for batch jobs. More information about computing at LCLS can be found [here](#).

Logging in

The LCLS analysis machines are accessible from a SLAC network through the "bastion host":

```
pslogin
```

and from outside of SLAC using the node:

```
psexport.slac.stanford.edu
```

To login to analysis host one has to first login to a dedicated "gateway" (`pslogin` or `psexport`), then connect to one of the analysis hosts through the `psananeh` (for experiments in NEH) or `psanafeh` (for experiments in FEH) "gateway". The only login type supported by LCLS machines is `ssh`. Here is the example of the login session from SLAC general network:

```
yakut % ssh pslogin
pslogin % ssh psananeh # or psanafeh
psana105 %
```

Currently all LCLS machines run the same operating system which is RedHat Enterprise Linux 5 (RHEL5).

Setting Up Account

For the analysis software to work correctly it has to run in a correct environment. LCLS Analysis environment consists of few environment variables that either point to a location of specific directories or define some configuration options such as type of the machine, compiler versions, etc. Users do not need to set environment variables manually, instead users need to execute just one simple command which defines the complete environment. The command that needs to be run from Bourne-type shell (e.g. `bash`) is:

```
. /reg/g/psdm/etc/ana_env.sh
```

For C-type shell (e.g. `tcsh`) the command should be:

```
source /reg/g/psdm/etc/ana_env.csh
```

The above command needs to be executed every time when user logs in, for convenience it should be added to the user's shell login script. In case of `bash` shell here is the line of code that should be placed into `~/.bashrc` file:

```
test -f /reg/g/psdm/etc/ana_env.sh && . /reg/g/psdm/etc/ana_env.sh
```

For `tcsh` the following code should be added to `~/.cshrc`:

```
if ( -f /reg/g/psdm/etc/ana_env.csh ) source /reg/g/psdm/etc/ana_env.csh
```

For Advanced Users



Environment variables and setup scripts are documented on [Environment Setup](#) page.

Obtaining Kerberos ticket

If you plan to work with code repository and use commands like `svn`, `addpkg`, etc. then for authorization you will need to obtain a Kerberos ticket. Ticket can be obtained at any time after you logged in by running command `kinit` which will prompt you for your regular password. Kerberos ticket is valid for 25 hours after which time one needs to re-run the command. Without ticket `svn` will print an error message "authorization failed" when it tries to access repository (some `svn` commands do not require repository access).