✳ LCLS Production Cheat Sheet

₁ Added by <u>Greg White</u>, last edited by <u>Greg White</u> on Jan 29, 2009

DRAFT

Servers

Most important servers for interactive development and apps:
lcls-builder for building and releasing software
lcls-srv01 for running interactive applications, like SEAL, matlab etc
Complete list of LCLS control system Unix Hosts - <u>http://www.slac.stanford.edu/grp/cd/soft/unix/slaconly/lclsUNIX.html</u>
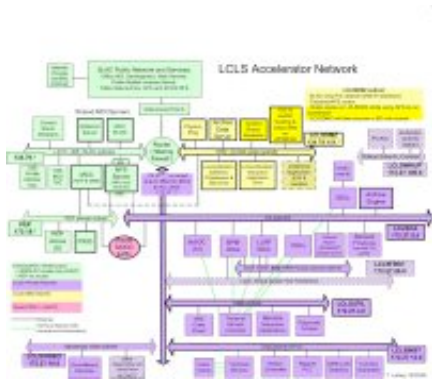
Accounts

physics
softegr
iocegr
physics and softegr will ask you whether you want to use a profile in your name, mainly for storing matlab preferences.

LCLS Network

Control room environment

login as physics

Software release

Define the following environment variable

```
export CVSROOT=:ext:<username>@lcls-prod02:/afs/slac/g/lcls/cvs/
```

Changing some software

The process is to cehck it out of cvs into some area of your own choosing. Then edit it, and commit it back into cvs. Then update the release area with your changed software.
cvs co -d $CVSROOT <module> or pathname
make your changes
cvs commit -m "your comment"

```
[softegr@lcls-builder ~]$ cd $LCLS_ROOT
[softegr@lcls-builder lcls]$ cvs co tools/script/aidalistI.sql
greg@lcls-prod02's password:
U tools/script/aidalistI.sql
```

Q: tags? What's tag syntax

Key environment vars

LCLS_ROOT
LCLS_ …
others

Logging into LCLS CA (lcls production)

Connect to lcls-builder, from AFS, go through a DMZ machine like lcls-prod02. Eg

```
ssh -lgreg lcls-prod02
ssh -lsoftegr lcls-builder
```

Directories

Note that to change software in these directories you must be logged in as the user (physics, or softegr etc) that owns the directory, or you won't be able to do the cvs update.
epics/:
package/:
physics/:
physics/package/:
rtems/:
${LCLS_ROOT}/tools/: mainly configuration files and scripts for executables hosted in other directories, like epics/extensions, physics/package etc.
$LCLS_ROOT/tools/script/: executable and sourced scripts dumping ground.
Data files go in $LCLS_DATA.

Data Area

Data area is defined by $LCLS_DATA.
On CA network, this is

```
/u1/lcls/
```

The data area is mounted on lcls-prod02 as

```
/mccfs2/u1/lcls/
```

The data area is available on the (SLAC only) web at: http://mccaso.slac.stanford.edu/u1/lcls/

Copying files from AFS to LCLS CA

To Copy files **from AFS to LCLS CA** you must **PULL to CA (eg lcls-builder) from lcls-prod02**, since firstly the AFS filesystem is not available on lcls-builder, secondly SCCS PUB network machines (loosely also called "AFS") cannot be logged into directly from machines on LCLS CA (like an OPI or lcls-builder), and thirdly the SSH authentication tickets and tokens for individuals are not set up in the LCLS CA machines. So, you have to pull to an LCLS CA machine's NFS filessytem, from the AFS filesystem. E.g.

Log in as softegr on lcls-builder:

```
[softegr@lcls-builder conf]> $ pwd
/usr/local/lcls/physics/package/aida/conf
[softegr@lcls-builder conf]> $ scp greg@lcls-prod02:/afs/slac/g/cd/soft/ref/packa
```

The "." is important - it means copy to here with the same name.

Copying files from LCLS CA to AFS

To Copy files **from LCLS CA to AFS** you must **PULL to lcls-prod02, from CA (eg lcls-srv01)**. E.g.

Log in with your AFS account on lcls-prod02:

```
kinit (giving your password)
[lcls-prod02]:u/cd/greg> scp physics@lcls-srv01:greg/tmp/xalcheck/checkDevices.ou
```

The "." is important - it means copy to here with the same name.

Scripts

How to determine whether a script is executing in development or LCLS Production.

Courtesy of Jingchen.

```
if [ -d /afs/slac/g/lcls ]; then
        # must be a host on the public networks,
        # then you can go on to use, e.g., $HOSTNAME (or other criteria
        # like IP) to determine if it is on DMZ
        if [ -z `echo $HOSTNAME | grep lcls-` ]; then
                # must be a AFS host but on other public networks
        else
                # must be a AFS host on DMZ
        fi
elif [ -d /usr/local/lcls ]; then
        # must be a host on the CA network
else
        echo "ERROR: this ${HOSTNAME} is not supported for LCLS dev/prod"
        exit 1
fi
```

Aida on LCLS Production

The necessary jar files for running Aida on LCLS CA are in:

```
/usr/local/lcls/physics/package/{aida,err,except}/lib/*.jar
```

The URL of the Aida NameServer IOR file, as visible from the LCLS CA network, is:

```
http://mccas0.slac.stanford.edu/aida/NameServer${AIDA_MODE}.ior
```

where AIDA_MODE must be valued "DEV" or "PROD". For production data, this will be PROD.

CVS Examples

Removing a file from CVS.

Remove with cvs remove

```
[softegr@lcls-builder script]$ cvs remove aidalistI.sql
greg@lcls-prod02's password:
cvs remove: scheduling `aidalistI.sql' for removal
cvs remove: use 'cvs commit' to remove this file permanently
[softegr@lcls-builder script]$ cvs commit -m "moved to tools/oracle" aidalistI.sq
```

Naming

Henrik's MAD - EPICS - SLC name translator, is here in CVS:
http://www.slac.stanford.edu/cgi-wrap/cvsweb/matlab/toolbox/model_nameConvert.m?cvsroot=LCLS

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