# **LCLS Controls System First-Time Users**

## LCLS Control System First-Time Users

#### References

- Starting the LCLS Home Screen from Linux
- Starting the LCLS Home Screen from Windows
- Starting the LCLS Home Screen from Mac

#### Step 1: Get a Unix account

Apply for a Unix account from Scientific Computing and Computing Services (SCCS). Click here for the SLAC Computing Guidelines and to obtain the SLAC Account Request Form.

#### Step 2: Become authorized to connect to the LCLS control system

First you must generate an ssh key; click here for instructions.

You will need to become a member of one of the following shared accounts in order to gain access to the LCLS control system:

Shared Account	Type of User
physics	LCLS physicists
Iclsops	LCLS operators
acclegr	engineers, maintenance, etc.
iocegr	software developers

Send email to Ken Brobeck informing him that you have generated your ssh key, and request that he add you to one of the shared accounts listed above.

## Windows Users ONLY Steps 3-7

### Step 3: Install software on your computer

Install XWin32 and SecureCRT or No Machine NX Client, on your computer. This version of SecureCRT is licsened by Stanford, and you will neee a SUNet ID to download.

Please be aware that you need administrator privileges to install both programs to your computer.

#### Step 4: Configure SecureCRT

After installing SecureCRT, follow these instructions to configure it.

#### 1. Enable forwarding of displays

Open SecureCRT

Close the Connect window

In the Options menu, select Global Options

Click Default Session

Click Edit Default Settings button

Click Remote/X11

Check Forward X11 packets box

Click OK

Click Yes

Click OK

# 2. Map delete keys and copy select Click Default Session

Click Edit Default Settings button

Click Mapped Keys

Check Backspace send delete

Check Delete sends backspace

Click OK

Click Terminal

Check Copy on select

Check Paste on middle button

Click OK

#### 3. SSH2 Authentification

Open SecureCRT

Close the Connect window

In the Options menu, select Global Options

Click Default Session

Click Edit Default Settings button

Click SSH2

Check GSSAPI and move up to top of Authentification list

Highlight GSSAPI, and click Properties

Select Method Auto Detect and Delegation Full, Click OK

Check Kerberos under Key exchange

Check Kerberos w/Group Exchange under Key exchange

Check diffie-hellman-group under Key exchange

Check diffie-hellman-group14 under Key exchange Check diffie-hellman under Key exchange

Click OK

Click Yes

Click OK

### 4. Create a profile to connect to lcls-prod02

Click the Connect icon (the leftmost icon at the top of the SecureCRT window)

Click the New Session icon (the third icon from the left in the Connect window)

For Hostname, enter lcls-prod02.slac.stanford.edu

For Username, enter your Unix account name

For Session name, type lcls-prod02

Click Finish

### LCLS Home Short-Cuts

Step 5 (optional): Set up one-click access to LCLS Home (from SLAC network)

These instructions will automate step 5, allowing you to load LCLS Home very easily using SecureCRT.

Open SecureCRT

In the Connect window, click the New Session icon (the third icon from the left)

Click Next

For Hostname, type lcls-prod02.slac.stanford.edu

For Username, enter your Unix account name

Click Next

For Session name, type LCLS Home (SLAC network)

Click Finish

Right-click LCLS Home (SLAC network) and select Properties

Click Logon Scripts

Check Automate logon box

Uncheck Hide box

For the first Expect line, type lcls-prod02 \$

For the first Send line, type ssh physics@lcls-srv02 or lclsops@lcls-srv02 or acclegr@lcls-srv02, depending on which group account you were added to in Step 2

For the second Expect line, type ]:

For the second send line type the profile number, such as 0

For the third Expect line, type ~UWC\_TOKEN\_START~1288207725688~UWC\_TOKEN\_END~

For the third Send line, type Iclshome

Click OK

Now when you load SecureCRT and click LCLS Home (SLAC network), LCLS Home will load automatically.

Step 6 (optional): Set up one-click access to LCLS Home (from offsite)

These instructions will automate step 5, allowing you to load LCLS Home very easily using SecureCRT.

Open SecureCRT

In the Connect window, click the New Session icon (the third icon from the left)

Click Next

For Hostname, type flora.slac.stanford.edu

For Username, enter your Unix account name

Click Next

For Session name, type LCLS Home (offsite)

Click Finish

Right-click LCLS Home (offsite) and select Properties

Click Logon Scripts

Check Automate logon box

Uncheck Hide box

For the first Expect line, type \$

For the first Send line, type ssh lcls-prod02

For the second Expect line, type lcls-prod02 \$

For the second Send line, type ssh physics@lcls-srv02 or lclsops@lcls-srv02 or acclegr@lcls-srv02, depending on which group account you were added to in Step 2

For the third Expect line, type ~UWC\_TOKEN\_START~1288207725689~UWC\_TOKEN\_END~

For the third Send line, type IcIshome

Click OK

Now when you load SecureCRT and click LCLS Home (offsite), LCLS Home will load automatically.

## Troubleshooting

If you cannot bring up the IcIshome from a SecureCRT window

- 1. double check the X11 forward has been set.
- 2. See Step 4.1 above.

If the error message when trying to bring up Iclshome is something like

physics@Icls-srv02 \$ Xlib: connection to "localhost:12.0" refused by server Xlib: Invalid MIT-MAGIC-COOKIE-1 key xterm Xt error: Can't open display: localhost:12.0

1. Verify that you've implimented Step 4.3

If you still cann't bring up Iclshome

1. Verify that you have X-Win32 running. You should see an X icon on the menu bar. If the X-Win32 icon isn't there, then start X-Win32 and try to bring up IcIshome again.

If you are still having trouble.

- 1. Use the SSH2 program Putty and SSH to lcls-prod02
- 2. Bring up an xterm on lcls-prod02 by typing "xterm &"

If an xterm appears, then the problem is with the SecureCRT setup, and you will need to contact your desktop admin.

If an xterm does not appear, then the problem is more than likey a security (firewall) issue and you will need to contact your desktop admin.