

## Remote Control Session Training Information

### Emergency Contacts:

- Floor Coordinator: 306-657-3639
  - Available on-site 24 hours a day.
- University of Saskatchewan Security: 306-966-5555
- Staff On-Call:
  - See <http://cmcf.lightsource.ca/> for staff on call during your scheduled remote session, and for contact information.
  - For connection or software issues arising after 11:00PM, send an email explaining the problem to CMCF staff and expect a response first thing the next morning.
- HSE Department: 306-227-3113

### Connecting through the NX Client:

1. Download and install the NX client from <http://www.nomachine.com/>. Make sure to install the Version 3.4 Client not the Version 4 No-machine client currently being beta-tested.
2. The first time the program is run, it will launch the connection wizard.
  - a) Enter "CLS 08B1-1" in the **Session** field.
  - b) Enter [cmcf.lightsource.ca](http://cmcf.lightsource.ca) in the **Host** field.
  - c) Enter 2222 in the **Port** field.
  - d) Select LAN as the Internet Connection Type.
  - e) In the next screen, select UNIX, GNOME, and Available Area. KDE is not supported.
3. Once the configuration is complete, a login dialog will appear.
  - a) Use your CMCF login name and password (the same one you use on the beamline while on-site at the CLS or on MxLIVE). If you have forgotten your login information, let us know and we will send it to you again.
  - b) Remember to select the session name you specified in the previous step, and login.
4. *Additional Notes:*
  - Access to the beamline is only available during your scheduled session time. If you are unable to connect during your scheduled beam time, notify local contact staff by phone.
  - Only one connection is allowed at a time. Logging in from another machine will close the previous session.
  - When you are finished, **log out** of the system normally. Closing the NX client will not close your session. (If your local machine crashes or needs to be rebooted, you will not lose your session and can simply log in again to the same active session.)
  - Simultaneously transferring large amounts of data while using the NX client may negatively impact the performance of the NX client.

### Confirming the Start of the Remote Experiment:

- Before beginning a remote session, confirm with CMCF staff by phone that samples are prepared in the automounter and the beamline is ready to use.

## Manuals and Beamline Documentation:

- All updated beamline documentation is located on the CMCF website in the User Manual (<http://cmcf.lightsource.ca/user-guide/>).

## Robot Operations Procedures:

- Uploading a spreadsheet to MxLIVE prior to the experiment may make it easier to find your samples in the automounter. (This can also be done through MxDC at run time, but requires that the spreadsheet be made available to the remote machine, either through email or the assistance of CMCF staff.)
- Samples can be selected and mounted from the **Samples** tab in MxDC.
  - Crystals can be selected from the list of Available Crystals or from the Automounter pane by clicking on a port. To mount a selected crystal, click Mount.
  - The robot tongs take ~30s to cool down and ~90s to warm up after use. To limit cool down/warm up times, simply Mount subsequent crystals. Before mounting a crystal, the automounter will first dismount the mounted crystal.
- Sample screening can be done from the **Screening** tab in MxDC.
  - Select the desired crystals and check the desired actions to be performed on each selected crystal. If Process Results is selected, a screening report generated by AutoProcess will become available on the **Processing Results** tab.

## Monitoring Hutch Activity and Beam Status:

- Monitor hutch activity using the Hutch Camera in MxDC. Move the camera around and zoom in or out to view the entire hutch.
  - Robot and detector motion are forbidden while the endstation is occupied. If you see someone in the hutch during your remote session, cease robot operations immediately and contact staff by phone.
- Beam status may be monitored in a number of ways:
  - The bottom status bar on MxDC shows beamline mode, shutter status, and storage ring current.
  - All items in the Beamline Status Checks area on the **Beamline Setup** tab of MxDC should be green for normal beamline operations.
  - The storage ring machine status may be monitored through the CLS website: [http://www.lightsource.ca/operations/machine\\_status.php](http://www.lightsource.ca/operations/machine_status.php).
  - CLS Floor Coordinators maintain a Twitter feed with beam operations updates at <http://twitter.com/CLSFC>. For updates on your cell phone, text “follow CLSFC” to 21212. To discontinue, text “off CLSFC” to 21212.