BEAMLINE CONTROL

Beamline opening/closing

The normal conditions are:

Local contact opens the beamline after beam-off day - and can straight away schedule the appropriate beamline close via EPICS.

If beam dumps, the control room will automatically reopen B22 after beam back up.

If the users see the beamline is closed, they can then either use the manual to open it, or contact the local contact (during normal working hours (NWH)) or the control room (outside NWH).

You should find the beamline open and taking beam at the beginning of your experiment, but if it needs to be opened in the event of a beam dump, follow the procedure below.

Opening the IR Beamline

The beamline (not the end stations) is operated through the EPICS Synoptic page which you will find running on the Linux PC in the beamline control area and/or on the laptop at the endstation.

To open the beamline:

- Select Yes from ABSB Open Allowed tab,
- Select Open from FE Beam Permit tab.

If the page above is not shown:

- Login into the Linux machine (Desktop PC of ws001 or ws003) with your fed ID,
- Mouse right click and select "konsole",

- Type "launcher",
- Select "beamlines",
- Click on "BLB22 IR microspectroscopy".

Logging in via the laptop:

- Login in with your fedID and password
- Connect via NX (no machine) to ws001 with your fedID and password
- Once the screen is opened click on the "diamond yellow icon" on the top right of the screen and search for B22 beamline to open the synoptic.
- To move the secondary optic box mirrors, open Box1 for upstream or Box2 for downstream endstation and move M9/M10 pitch and roll.

Basic beamline troubleshooting

If the beamline (not the end station) does not operate, always check first the Machine Status Monitor screen on the inside wall of the experimental cabin:

- o "user mode" must be shown,
- o "current" must be above 200 mA (except in low alpha / special beam conditions)
- o "B22" row must show "beamline shutter" and "optics shutter" in green (i.e. open),
- o "SOFT BEAM ON" monitor on the wall is illuminated in yellow (it means allowed to take beam) when the beamline shutter is open.

N.B. If help with opening/closing the Beamline is required during out of office hours, phone the control room 8899.

Closing the beamline

THE USERS DO NOT NEED TO CLOSE THE BEAMLINE. THE FOLLOWING DESCRIPTION IS ONLY FOR B22 TEAM.

It is essential to leave the beamline in a safe condition, i.e. closing before a shutdown, and before a machine day (before any Tuesday 9 a.m.).

IMPORTANT! Failure to do this could result in serious damage to the beamline optics.

Otherwise, leave the beamline open overnight for the whole duration of your beamtime.

To close the beamline:

- Click "FE beam permit" tab "Close",
- On the tab "Absorber (ABSB) open allowed" click "No".

N.B. When leaving the beamline running overnight phone the EHC (8787) or Control Room (8899) and inform them B22 beamline is open and unattended.

Please consider the environment and turn off the cabins lights except spotlight (for safety).