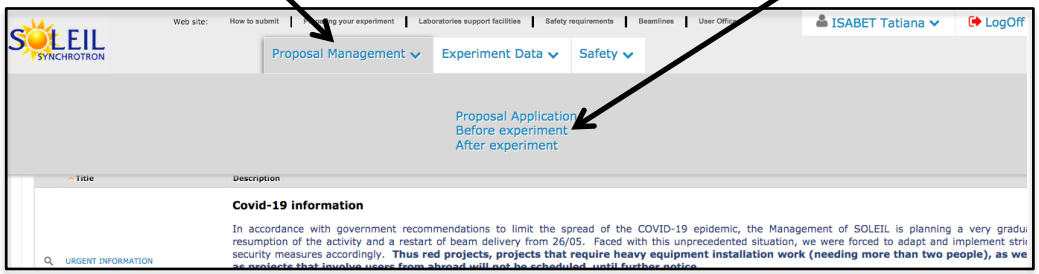
Short manual user guide to PROXIMA-1 beamline

Connection to MXCuBE

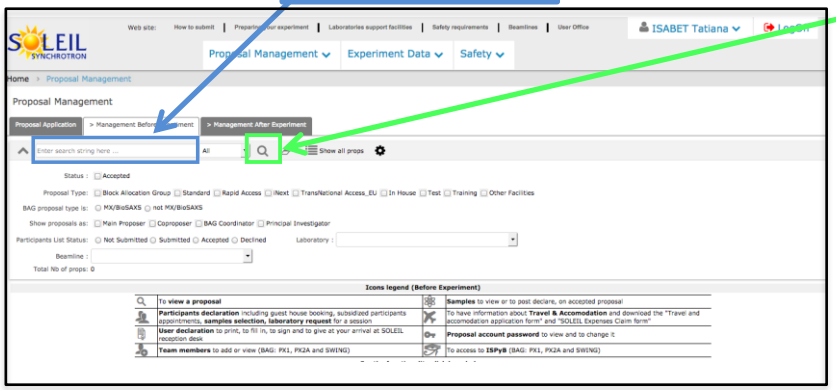
How to find LOGIN/ PASSWORD to connect to MXCuBE and NoMachine

1- Log-in the SunSET : http://sunset.synchrotron-soleil.fr/sun/

2- Click on « Proposal Management », then on « Before experiment »

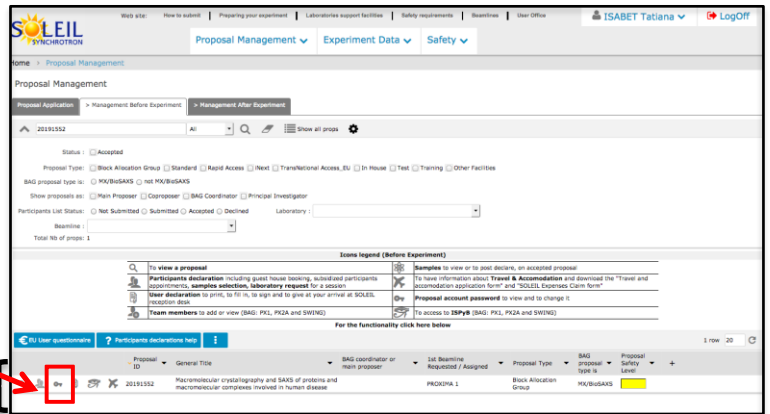


3- Search for your project : Write your project number and then click on the magnifying glass



NB : You will find your project number in the mail sent by the User Office confirming your beamtime.

4- Your project appears in the bottom of the page, click on the key icon to see your password :



Hint : the assigned password can be changed, for convenience purposes, by the PI of the project.

Introduction to PROXIMA-1
Data collection

Recommendations / parameters for data collection optimization

Typical transmission settings

- Data characterization : 10-20 % transmission

- Data collection : 50% transmission @ 450mA
  40% transmission @ 500mA

- Helical scan : up to 100% transmission

Visualization interfaces

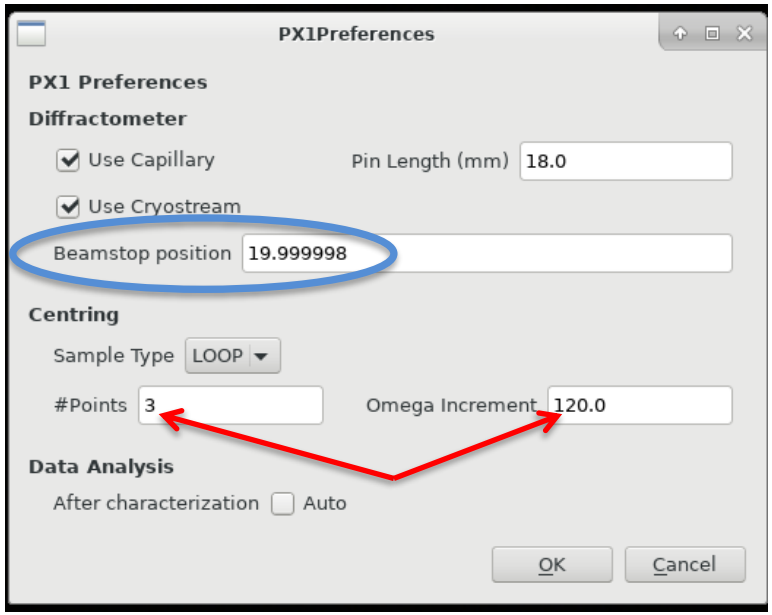
Important :

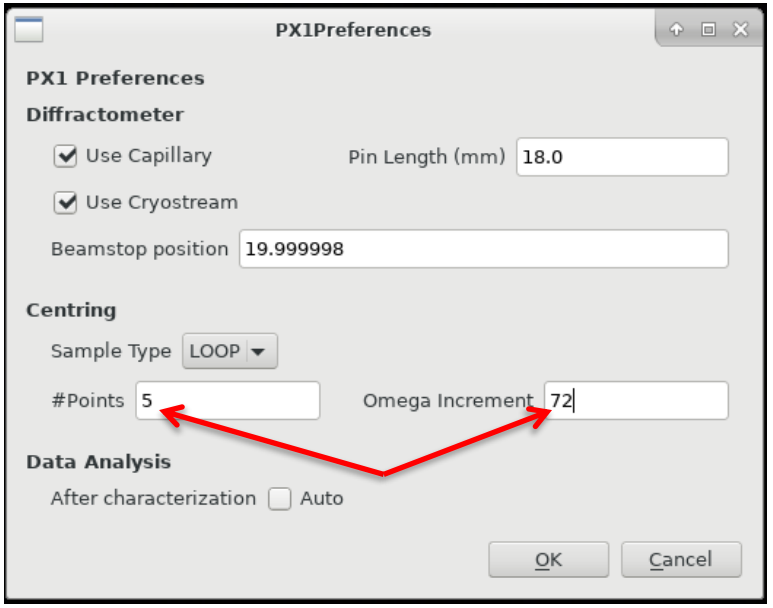
- ADXV is in the « follow » mode (*adxv_follow*) only for characterization visualization (not for standard collection) when *.h5 is replaced by *.cbf in the pattern field of the ADXV Load window.
- ALBULA can be used for live data collection visualization *(in Auto LOAD, EIGER monitor, check if IP address is* 195.221.8.71 port 80 Pause 2)

Centring parameters

Define the number of clicks for centring in the Proxima 1 -> Edit Preferences tab.

Default setting : 3 clicks and 180° Often used alternate setting : 5 clicks and 72°





Beamstop position

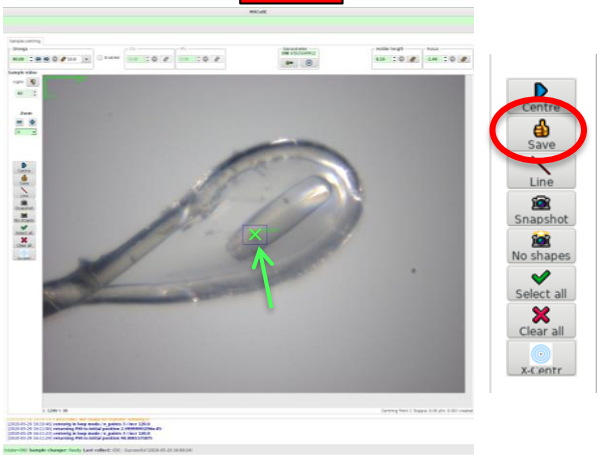
You can change the beamstop position in the Proxima 1 -> Edit Preferences tab

The Beamstop default position is 20 mm

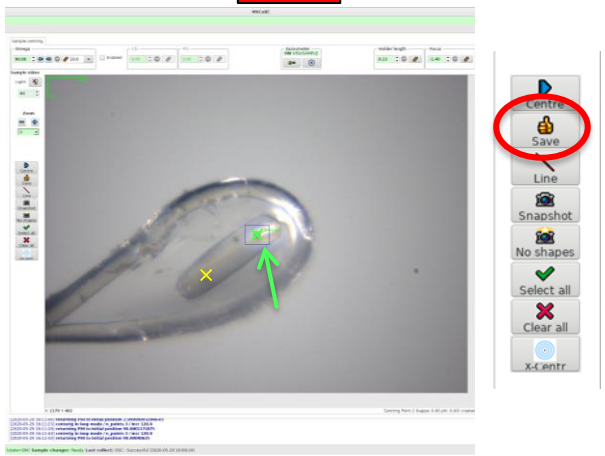
The beamstop may be moved from 10 to 40 mm from the sample.

Helical scan

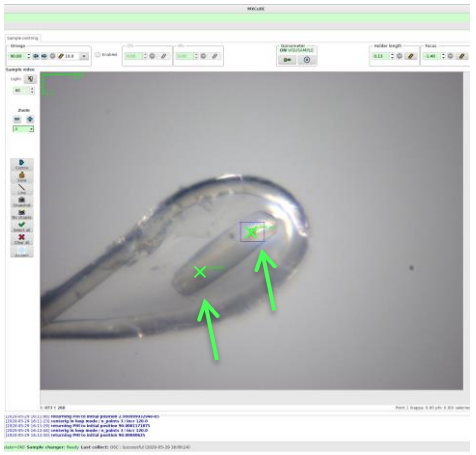
1- center on the first point then save



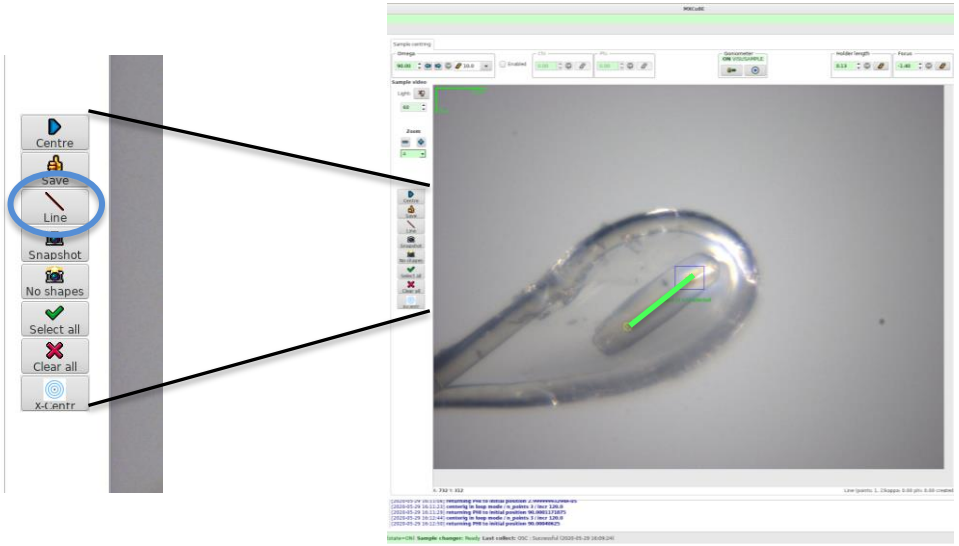
2- center on the second point then save



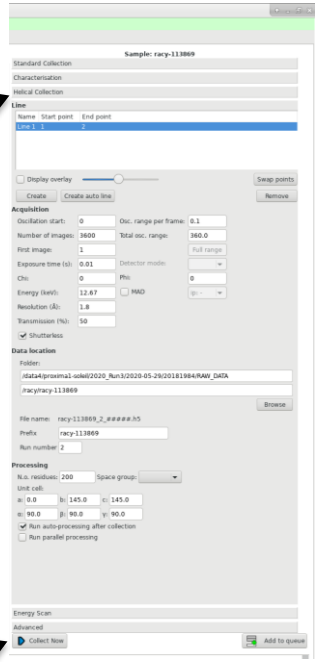
3- select the two defined centers (Click 1st - **Ctrl** Click 2nd)



4- Click on the line icon to draw the line between the two points



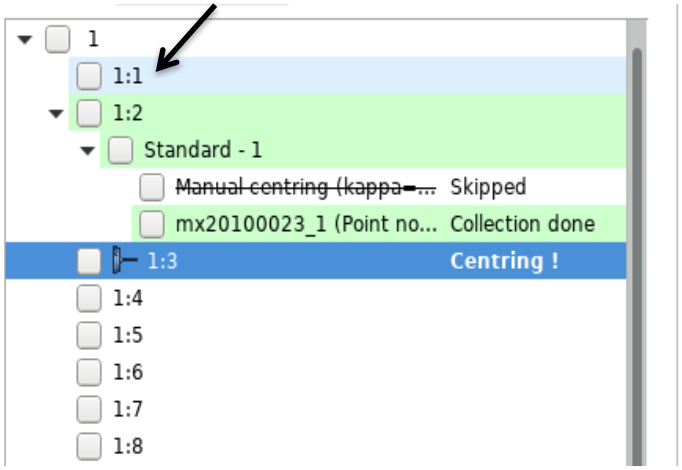
5- Fill acquisition parameters in the helical collection tab



6- Start data collection

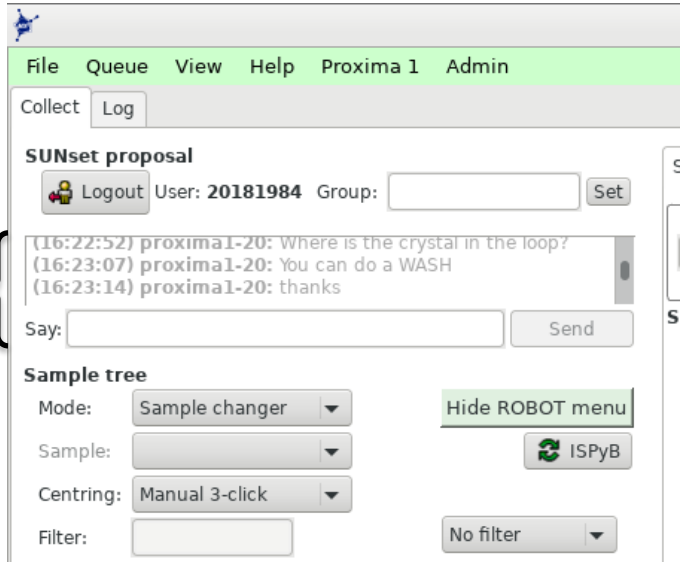
Misc. Features

- a light blue color will highlight every mounted samples on the tree view that have been unmounted without being exposed to X-rays.



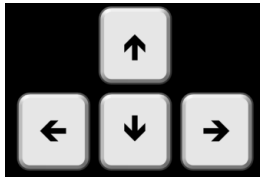
- Above the Tree view a chat window will allow you to interact with the local contact

Chat windows



Shortcuts during centering

- Centering by Double clicking : double clicking on the loop will bring it on the beam.



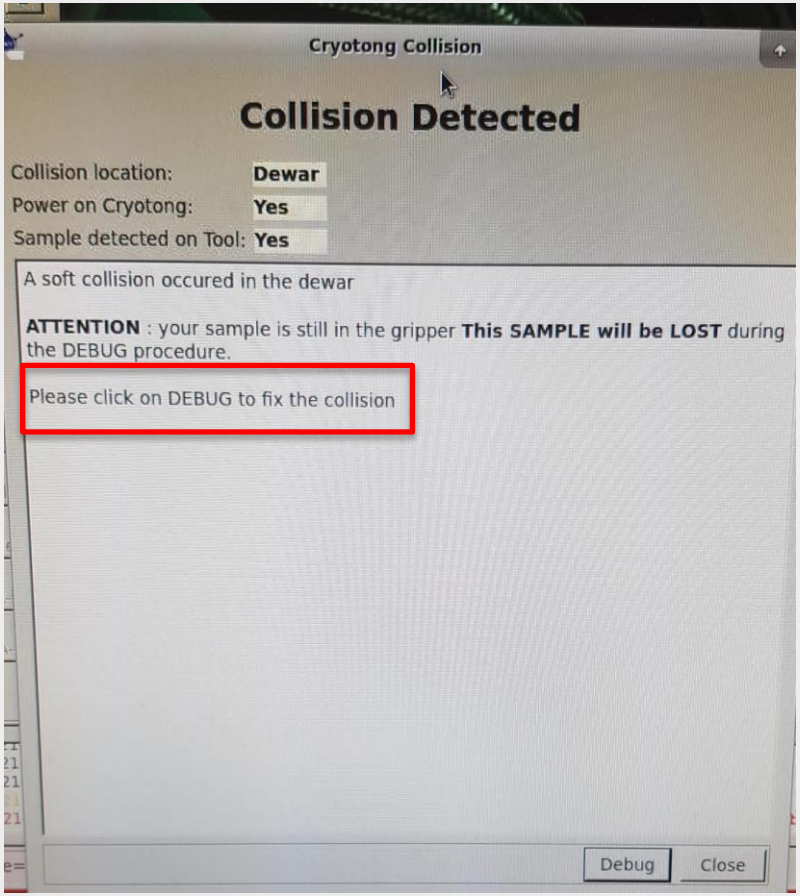
- Keyboard arrows : using keyboard arrows will slide the loop/crystal position within the camera window plane.

Fixes on issues that might happen on PROXIMA1

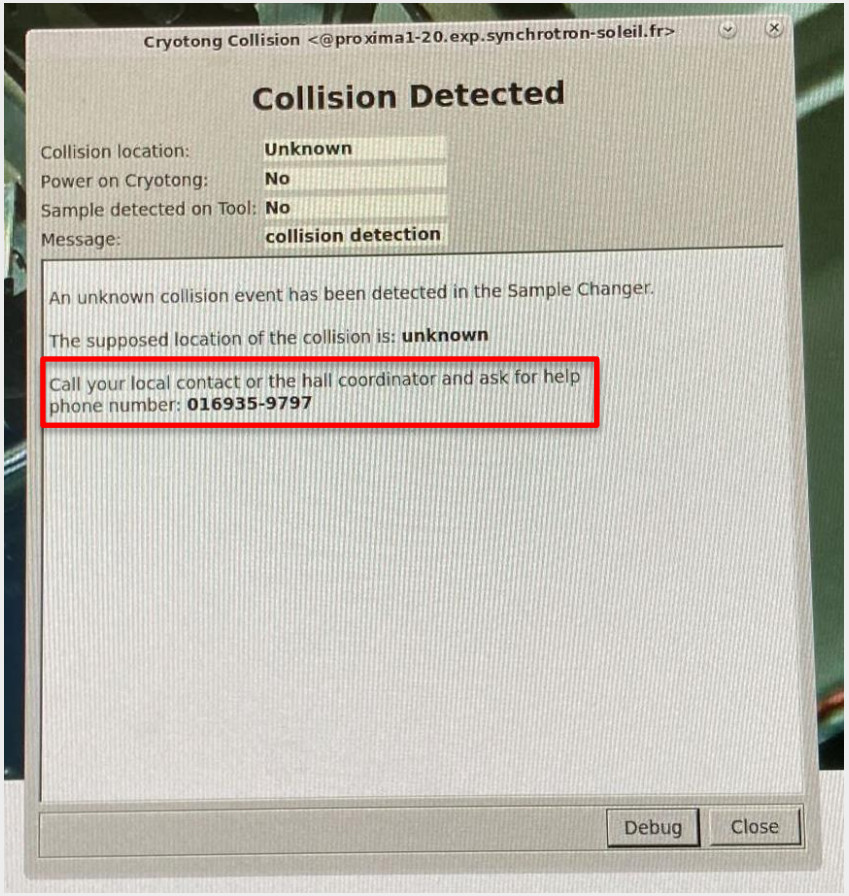
Issue : Robot stay stuck (at the goniometer or in the dewar).

A collision (soft or hard) occured :
A pop up window will show up accordingly a will tell you the procedure to follow.

Pop up for soft collision

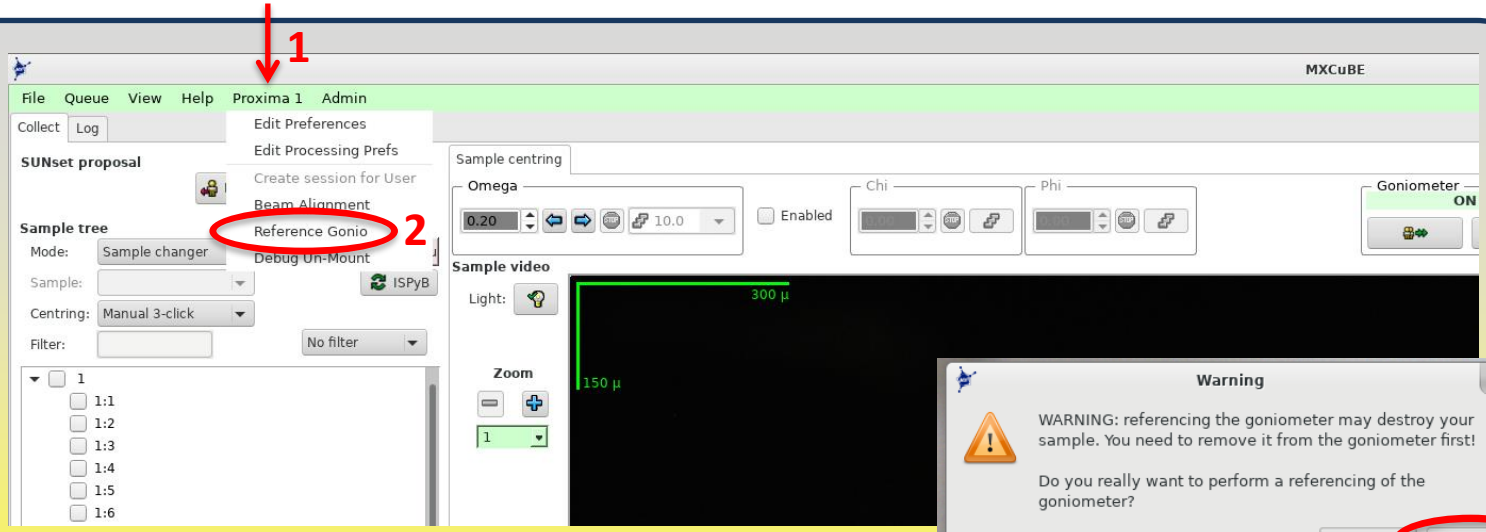


Pop up for hard collision



Issue：Grayed out angle fields preventing the goniometer action

Fix :

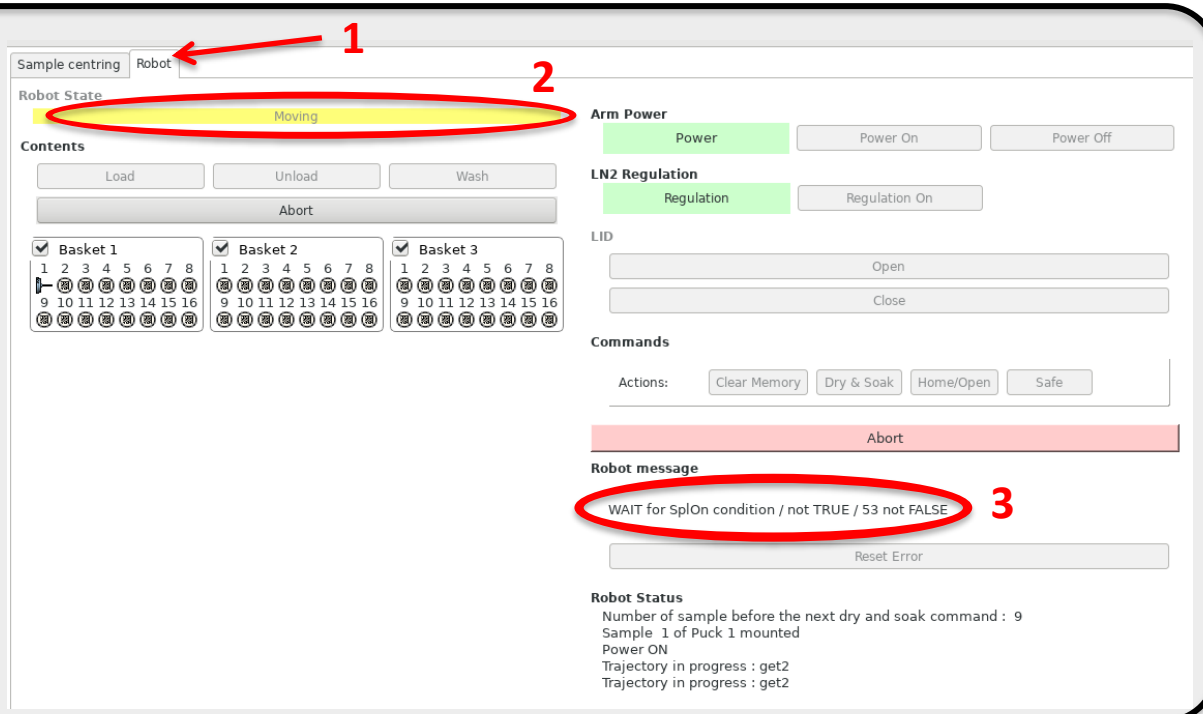


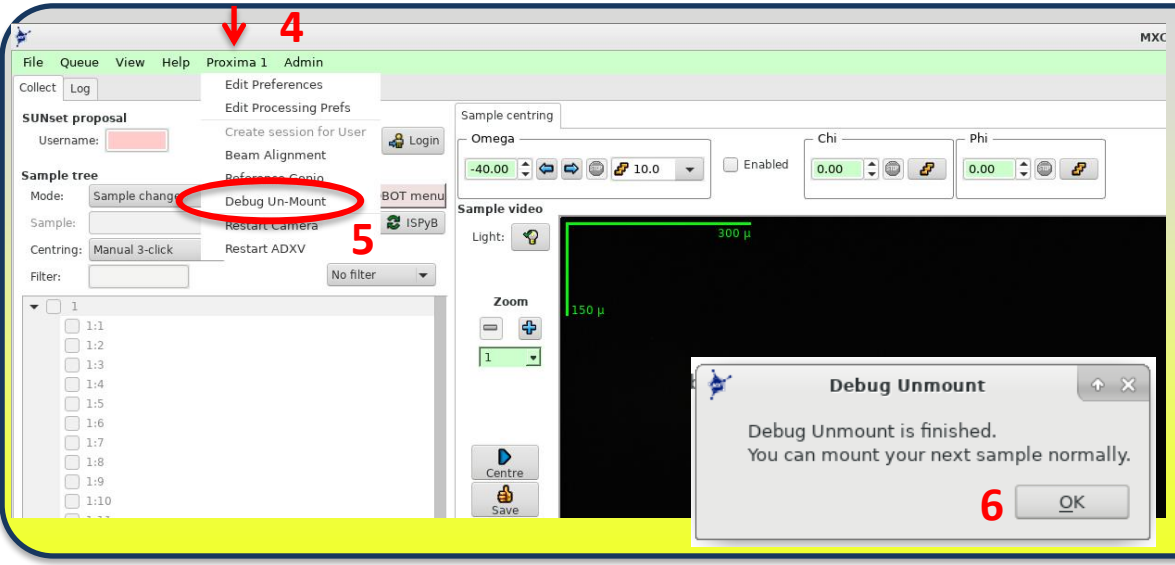
- In Proxima1 tab (1), click on **Reference Gonio** command (2).
- Then Confirm **ok** (3) in the pop up window to launch the referencing procedure
- At the end of the procedure you can go on mounting the next sample (the one on the gonio during the procedure is lost)

Issue : Robot won't execute a mount or unmount command (frozen).

In the Robot tab (1 - after clicking on « Show Robot menu » on the main window-)

- The Robot is in moving state (2)
- In the robot message field there is the following error message : « WAIT for SplOn condition / not TRUE / 53 not FALSE » (3)





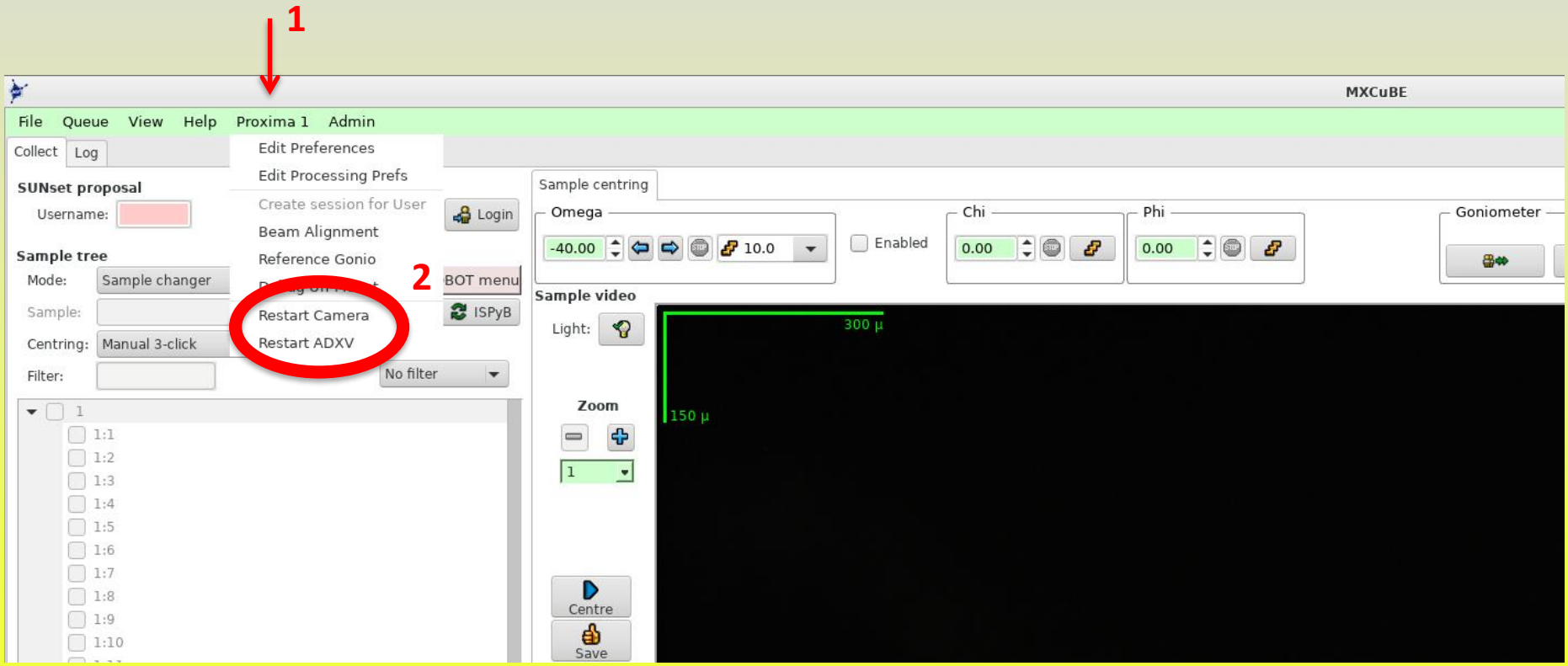
Fix :

- In Proxima1 tab (4), click on **Debug Un-Mount** command (5).
- Then Confirm **ok** (6) in the pop up window informing that the procedure is finished.
- You can mount the next sample

Bugs：ADXV frozen or visualization screen whited/blacked out

Fix :

- In Proxima1 tab (1), click on **Restart Camera <u>or</u> Restart ADXV** command (2) accordingly.



Bug : for stopping a started data collection/characterization

Fix :

Uncheck all the currently checked sample boxes (1-2) before clicking on STOP (3)