

# eBIC BAG Remote User Training for Cryo-ET (TOMO5)

[Date of Training]



Hosted virtually – times are UK local time

[\[Zoom link\]](#)

Organiser(s): Lorna Malone (eBIC)

## Day 1

### Instructor demonstration, student learning (all groups)

|             |                     |  |
|-------------|---------------------|--|
| 09:30–10:00 | <b>Arrival:</b>     | Welcome and Intro on virtual platform  |
| 10:00–10:50 | <b>Session 1-0:</b> | Remote session, ISPyB sample shipping, NoMachine   |
| 10:50–11:00 | Break               |  |
| 11:00–12:00 | <b>Session 1-1:</b> | Intro to TOMO, manual image acquisition, presets, image shift calibrations, atlas set up |
| 12:00–13:00 | Lunch               |  |
| 13:00–13:45 | <b>Session 1-2:</b> | <b>Screening:</b> Atlas inspection, navigation, and record keeping                       |
| 13:45–14:45 | <b>Session 1-3:</b> | <b>Session setup:</b> Target area setup & target refinement                              |
| 14:45–15:00 | Break               |  |
| 15:00–16:00 | <b>Session 1-4:</b> | <b>Collection:</b> Alignments (TOMO), start collection, on-the-fly analysis              |

## Day 2

### Student practise (split into groups)

|             |                     |   |
|-------------|---------------------|---|
| 10:00–11:00 | <b>Session 2-0:</b> | Student 1 – Presets, image shift calibrations, atlas set up             |
| 11:00–12:00 | <b>Session 2-1:</b> | Student 1 – Atlas inspection, target area set-up & target refinement    |
| 12:00–13:00 | Lunch               |   |
| 13:00–13:50 | <b>Session 3-0:</b> | Student 2 – Presets, image shift calibrations, atlas set up             |
| 13:50–14:45 | <b>Session 3-1:</b> | Student 2 – Atlas inspection, target area set-up & target refinement    |
| 14:45–15:00 | Break               |   |
| 15:00–16:00 | <b>Session 4-0:</b> | Students 1&2 – Alignments (TOMO), start collection, on-the-fly analysis |

## Day 3

### Student practise (split into groups)

|             |                     |   |
|-------------|---------------------|---|
| 10:00–11:00 | <b>Session 5-0:</b> | Student 3 – Presets, image shift calibrations, atlas set up             |
| 11:00–12:00 | <b>Session 5-1:</b> | Student 3 – Atlas inspection, target area set-up & target refinement    |
| 12:00–12:45 | Lunch               |   |
| 12:45–13:30 | <b>Session 6-0:</b> | Student 4 – Presets, image shift calibrations, atlas set up             |
| 13:30–14:15 | <b>Session 6-1:</b> | Student 4 – Atlas inspection, target area set-up & target refinement    |
| 14:15–15:00 | Break               |   |
| 15:00–16:00 | <b>Session 7-0:</b> | Students 3&4 – Alignments (TOMO), start collection, on-the-fly analysis |

End of course

## Student timetable

| Date                      | Mon | Tue                         | Wed                           | Thu                            | Fri |
|---------------------------|-----|-----------------------------|-------------------------------|--------------------------------|-----|
| <b>Microscope</b>         |     |                             |                               |                                |     |
| <b>Session ID</b>         |     | Session ID                  | Session ID                    | Session ID                     |     |
| <b>Group</b>              |     | Group 1/ 2 / 3              | Group 1                       | Group 1                        |     |
| <i>Instructor</i>         |     | <b>Instructor 1 / 2 / 3</b> | Instructor 1                  | Instructor 1                   |     |
| <i>Student controller</i> |     | -                           | <b>Student 1 - Student 2</b>  | <b>Student 3 - Student 4</b>   |     |
| <i>Student observer</i>   |     | All                         | Student 3 - Student 4         | Student 1 - Student 2          |     |
| <b>Microscope</b>         |     |                             |                               |                                |     |
| <b>Session ID</b>         |     | Session ID                  | Session ID                    | Session ID                     |     |
| <b>Group</b>              |     | Group 2                     | Group 2                       | Group 2                        |     |
| <i>Instructor</i>         |     | <b>Instructor 2</b>         | Instructor 2                  | Instructor 2                   |     |
| <i>Student controller</i> |     | -                           | <b>Student 5 - Student 6</b>  | <b>Student 7 - Student 8</b>   |     |
| <i>Student observer</i>   |     | -                           | Student 7 - Student 8         | Student 5 - Student 6          |     |
| <b>Microscope</b>         |     |                             |                               |                                |     |
| <b>Session ID</b>         |     | Session ID                  | Session ID                    | Session ID                     |     |
| <b>Group</b>              |     | Group 3                     | Group 3                       | Group 3                        |     |
| <i>Instructor</i>         |     | <b>Instructor 3</b>         | Instructor 3                  | Instructor 3                   |     |
| <i>Student controller</i> |     | -                           | <b>Student 9 - Student 10</b> | <b>Student 11 - Student 12</b> |     |
| <i>Student observer</i>   |     | -                           | Student 11 - Student 12       | 1) Student 9 - 2) Student 10   |     |

### Demonstration

Practice and observation (group 1)

Practice and observation (group 2)

Practice and observation (group 3)

## eBIC BAG User Training Programme

To improve the efficiency and effectiveness of eBIC BAG user sessions and to help users get the most from their sessions, you have been selected by your BAG coordinator and scheduled for remote BAG user training. This is a 3-day remote session on an eBIC microscope. This is standard operator training and will ensure you have 100% coverage in your knowledge, as well as to equip you for the unique challenges of remote operation, with Local Contact support. For you, we aim to help you get the most from your sessions and for us, we expect you to act as a local knowledge point to assist others in your BAG with their remote sessions.

You will be provided with 1 day of remote demonstration by expert eBIC staff and then over 2 days be given the opportunity to set up remote sessions and troubleshoot any gaps in your knowledge. The schedule presents the course structure, but you will find greater detail in our User Guides which closely represent our training curriculum. This course will be using standard in-house samples prepared by eBIC staff.

### Instructions to attendees

- Please download (or update to the latest version) and set up the following prior to the course start:  
 Microsoft Teams (<https://www.microsoft.com/en-gb/microsoft-teams/free>)  
 NoMachine (<https://www.nomachine.com>)
- Please check you know your FedID and can log in to Diamond systems:  
<https://www.diamond.ac.uk/Users/Experiment-at-Diamond/IT-User-Guide.html>  
<https://uas.diamond.ac.uk>
- If you need to change you Diamond FedID password:  
<https://access.stfc.ac.uk>
- Please refer to the programme and visual timetable to confirm which days you will control the microscope session and on which days you will observe.

- Please confirm prior to your remote visit that you can access and log in to nx-cloud via NoMachine.  
[https://www.diamond.ac.uk/dam/jcr:ad94932c-1a9a-4301-b597-21509731a994/NoMachine\\_access\\_check.pdf](https://www.diamond.ac.uk/dam/jcr:ad94932c-1a9a-4301-b597-21509731a994/NoMachine_access_check.pdf)
- **Please download and consult the appropriate user guides for your training session:**  
<https://www.diamond.ac.uk/Instruments/Biological-Cryo-Imaging/eBIC/User-Guide/User-guide-downloads.html>

|                                    |  |
|------------------------------------|--|
| <b>Quick remote access guide:</b>  | Relevant for checking your NoMachine access  |
| <b>Remote access and analysis:</b> | User guide (applicable to all user sessions) |
| <b>Single particle analysis:</b>   | EPU user guide                               |
| <b>Tomography:</b>                 | Tomo5 user guide                             |
- You will be sent a virtual meeting invitation prior to the start of your course.
- Please note that we will be recording the sessions for training purposes. **\*Disclaimer\*** It may be the case that your screen name or video is captured on the recording – if you strongly prefer not to be recorded, please contact [lorna.malone@diamond.ac.uk](mailto:lorna.malone@diamond.ac.uk) to advise of your preference in advance of your session.
- You will be asked to provide feedback on the course after attending and we would really appreciate your response.
- We ask everyone to keep their cameras on throughout the course to enable better interaction.
- This course aims to be informal and inclusive, so please feel free to interact with the instructors the same as you would at an in-person course