

DRAFT

MXCuBE Developer's Meeting

Whereby, October 23rd, 2025

Meeting Minutes

Participants

Marcus Oscarsson, Antonia Beteva, Yan Walesch, Mathis Loussert (ERSF)

Fabien Coronis, Dominika Trojanowska, Matheus Luis, Elmir Yagudin, Zac Panepoucci (MAX IV)

Rasmus Fogh. (Global Phasing)

Lais do Carmo (ESS)

Michael Helling (BESSY)

Annie Heroux

Joseph Brunzelle, Pamela Focia (APS)

Jose Gabadinhio (ALBA)

Andrey Gruzinov (DESSY)

Martin Savko (SOLEIL)

Pedro Benetton (LNLS)

Allesandro Olivo (Elettra)

Next MXCuBE / ISPyB meeting

MO asks if there are any questions related to the Oxford MXCuBE meeting. Some participants mentioned that it was complicated to register for the meeting. AB verified the registration functionality during the meeting and shared the right link. RF recaps the agenda for the meeting that will be on 17-19 November 2025, at Diamond, with the ISPyB meeting beginning at lunchtime on the 17th, 18th for scientific talks, and the 19th for the MXCuBE meeting. The scientific talks will be centered around industrial data collection, sample shipment, and tracking.

Cyber security

MO explained that the cybersecurity audit requested by ESRF is now done. ESRF hired an external company, CGI, to perform a cybersecurity audit and SAST on the “mxcube” and “mxcube” projects.

The process took about two weeks and was performed in three steps: one introductory meeting with the handover of the project source code and explanation of the project, a second threat modeling workshop, and a final result presentation meeting.

The threat modeling workshop was performed so that the company, CGI, could get a better idea of how the application is deployed and used at ESRF. This workshop also included explanations from the MXCuBE developers on how the application internals work.

The audit was performed by certified “Checkmarx” engineers. Each potential weakness is linked to a CWE (<https://cwe.mitre.org/index.html>). The audit found the overall MXCuBE application to be resilient against cybersecurity attacks without any critical vulnerabilities, scoring 71 out of 100 (A score of 80 is considered to be a good application). MO mentions that removing deprecated and unused code from the analysis would take the MXCuBE score closer to 80%.

MO shows the contents of the report written by CGI and explains the general parts of the results. MO will investigate exactly in which way the report can be shared with the MXCuBE community.

Abstract Diffractometer

AB gives an update on the current state of the development regarding the Abstract Diffractometer. The current implementation has been tested on one of the ESRF beamlines during the last weeks, but it is still not in production. AB encourages everybody to have a look at the current PR:

<https://github.com/mxcube/mxcubecore/pull/1386>

AB stresses that the development contains some breaking changes, mostly because logic that was once part of the Diffractometer implementation has been moved to AbstractSampleView. These changes need to be accounted for in UI code, ie.

<https://github.com/mxcube/mxcubeweb/pull/1881>

Both MO and AB note that it's quite time-consuming to keep rebasing these PRs on the current “develop” branch. AB and MO therefore propose that the developments are kept in a separate branch until the end of November, which would give the other developers some time to test and validate the development before merging into “develop”.