

MXCuBE Code Camp – 9-11 October 2023  
Lund. Hybrid

<https://indico.maxiv.lu.se/event/5224/>

Attendees:

Pedro Benetton, Axel Bocciarelli, Leticia Capovilla, Cecilia Casadei, José Gabriel Centeno Gabadinho, Steven Wohl, Matt Clarke, Fabien Coronis, Nicola Demitri, Mikel Eguiraun, Aaron Finke, Jean Baptiste Florial, Rasmus Fogh, Andrey Gruzinov, Michael Hellmig, Francisco Hernandez Vivanco, Annie Heroux, Loïc Huder, Elmir Jagudin, bao kangwen, Boyi Liao, Rafael Lyra, Mirko Milas, Nicolas Moliterno, Jie Nan, Alberto Nardella, Tomasz Noga, Jacob Oldfield, Alessandro Olivo, Marcus Oskarsson, Felipe Ramos, Martin Savko, Dominika Trojanowska, Yupu Zhang, Lukasz Zytniak (36 people)

\* Not completely accurate, not all remote participants were registered

All slides are in the indico timetable page linked with their session.

Questions raised during the camp:

- Making redis database optional for mxcube web. It is currently needed for the DataPublisher functionality as well as for saving the state of the queue. The latter can be removed. It would be nice to run CI without redis.
- Future transition to asyncio. It seems it would be nice to do, but so far it has not been an issue, gevent is still alive and maintained
- A doc + linting camp at the next MXCuBE/ISPYB meeting. Everyone agreed that it would be good to have this although a bit tight in time so more likely for spring 2024
- Documentation needs:
  - o Software architecture of mxcube and mxcube web. Structure of the redux store, how to transition to functional components (Axel gave a nice live code session on this purpose)
  - o Data flow on actions/reducers; from actions triggered by activity by the user (button click) but also for async communication coming from hardware objects emitted signals
  - o [WEB] Difference between adapters and components in the server codebase
  - o Developers don't know all the functionality present in mxcube
  - o JSONSchema convention
  - o All signals that are being emitted, their purpose, listeners etc.
  - o Loading one single hardware object for testing purposes
  - o Usage of python debugger tools, for a profiler tool check <https://github.com/plasma-umass/scalene>
  - o How one can get live data plotting in the UI, e.g. for energy scans
  - o Regarding the future of ISPYB. We could have a generic LIMS object that does the abstraction so as long as we have a clear API we could be safe, or at least not in too much pain