Developers' meeting – minutes
MXCuBE project meeting, Lund, March 2019
DRAFT

The agenda was approved

Minutes of last developers' meeting

In the absence of relevant input from the meeting, approval of the minutes was postponed.

Refactoring Milestones

The draft roadmap was as follows:

M1 2018-12-11 to 2019-03-12 (*v3.0.0-alpha*)
- Structural changes
- PEP-8
- Sphinx documentation with Google Style docstrings
- CI with pytest and Pylint
- Python 3 compatibility
- Working version of mockups

M2 2019-03-15 - date (*v3.0.0-beta.1*)
- AbstractDiffractometer
- AbstractCollect
- AbstractCentering

M3 date 2019-10-15 (*v3.0.0 - "Harmony"*)
- Session - For better "data path" and functionality
- Queue – For a more extendable queue system
- Beamline - Introduction of a "beamline" hardware object
- Using immutable "pure data" objects for passing data

M4?
- **UI-API?**

Milestone M1

is achieved, in the sense that all the major changes have been done, but not all parts of the code have been updated to match. It is agreed that this should be done as soon as reasonably possible by all participants, before the upcoming face-to-face meeting. It is noted that all Qt imports should be removed from the HardwareRepository, and Marcus Oscarsson and Ivars Karpics will look at removing Qt from the last HardwareObject that accesses it, the Camera object.

It was agreed (one participant dissenting) to tag the code at the end of milestone M1 as release '3.0.0α'.

Milestone M2

is the subject of a pull request by Antonia Beteva, and will be finalised at the planned face-to-face meeting (see below). Developers are urgently requested to comment of the structure of the proposal. Technical questions should be dealt with before the face-to-face meeting, which should concentrate on making decisions. Some questions arising:

Q: Where will e.g. access to resolution be anchored? A: In the Beamline object, to be written under milestone M3. TBD.

Q: Should MXCuBE introduce a more general 'program state' vector to be interrogated? A: This will be a huge undertaking and might have to be done bit by bit (if at all); it is bound up with the reorganisation of the queue (in M3); discussion is postponed to the face-to-face meeting.

Milestone M3

This should be taken on at the upcoming face-to-face meeting, together with the finalisation of M2.

Milestone M4

The need for, and definition of, a UI-API, was discussed. Ivars Karpics had made some proposals, and it was discussed whether they fitted better under UI-API, or as the central Beamline Object. The UI-API question was left open, to be looked at again when the project had matured further.

Procedures and Pull Request Etiquette

These points were briefly repeated:
- Mark uncompleted work as WIP
- Make sure the title is relevant – modify it if the contents have gradually changed.
- Large pull requests should preferably be avoided; if this is not possible, the work done should be summarised in a comment at the start.
- If you want someone specific to look at a PR, designate that person as a reviewer.

Future plans

Face-to-face meeting

All agreed on the need for a face-to-face developers' meeting. IK tentatively volunteered organising such a meeting in Hamburg, and it was agreed that it should last 1.5-2 days, like the last one. The meeting was pencilled in for the week of 20-26 May, and Vicente Rey volunteered to make a Doodle poll for the exact date (**ACTION**: VR)

Topics

- As part of the reorganisation, it should be considered to reduce or remove the XML configuration files.
- The UI-API needs to be reconsidered.
- Many more tests are needed. It was discussed how to best organise them, and Rasmus Fogh volunteered to make a practical example of a more systematic set-up for testing attribute presence, types etc. (**ACTION:** RF)
- Serial crystallography was signalled as a topic that might require widespread changes, and it was agreed to start considering this.