

MXCuBE Developers meeting, 4/10/2018 - DRAFT

Present (virtually): Antonia Beteva, Gerard Bricogne, Rasmus Fogh, Michael Hellmig, Huling ???, Ivars Karpics, Peter Keller, Marcus Oscarsson, Milan Prica, Roberto. Martin Savko, Jordi Andreu (partially), Martin Savko (partially)

Apologies: Mikel Eguiraun,

1. Minutes of last meeting, and matters arising

The minutes of the last meeting were not discussed, and are deemed to be approved.

2. Status reports

Rasmus Fogh: reported successful tests of native data collection workflow at ID30B, and an upcoming first test of the workflow at ALBA.

Milan Prica, Roberto: In the process of installation and upgrading. A problem with file names used by the detector has been solved, and work in is progress on characterisation. Meanwhile there is a customer request for setting up a new custom collection method.

Marcus Oscarsson, Antonia Beteva: Currently refactoring MXCuBE 3, working on code layout and organisation, not on content. Have done a test merge of the two main HardwareObject branches and noted differences and problems.

Michael Hellmig: Currently in a short shutdown, and busily upgrading the active version to master.

Martin Savko: Has just now resumed work on MXCuBE, and is working on calibration and a new automatic loop centring routine. Code should be submitted shortly. A three week shutdown is coming up.

3. Preparation for face-to-face refactoring meeting

The main goal of the upcoming meeting is to carry out merging between the two main HardwareObjects branches, and associated clean-up. It was agreed that this merge should have the highest priority until completed, and that the addition of new features should be frozen during the merge.

IK had proposed a list of homework to serve as the minimal preparation for the developers meeting, mainly checking in all code (including configuration xmls), listing the HardwareObjects in use, and running a mockup version for testing; and the present meeting accepted the proposal. It was agreed that in preparation for the November meeting people should look at differences and merging issues, and that MO would add a series of exercises to the homework list.

MO suggested (and the meeting approved) that the current master branch should be renamed 2.3 that then should be merged with branch 2.2 into a new master. After testing the new master branch should be renamed (or forked to ???) branch 3.0. Once at branch 3.0 we should shift to semantic versioning, with the monthly meetings deciding on when to bump the version number and keeping track of what was and was not included in each bump.

MO and AB had carried out a trial merge and reported on the result (see <https://github.com/mxcube/HardwareRepository/blob/merge-master-into-2.2> and the merge-notes.txt files here included). The actual merge took about 2.5 hours. The most obvious mismatches were in SampleInformation, and in the numbering of motor states. More important were the notable differences in the Collection and Diffractometer objects, and it was proposed to harmonise these two classes at the November meeting immediately after the merge. This was agreed. Once the main merging task is safe, the November meeting will try to do additional harmonisation and clean-up in so far as practical. This includes removing unused files (as indicated by the list of HardwareObjects used), merging any other duplicate or near-duplicate files, adding a testing framework and tests, and discussing / setting up coding standards.

After the November meeting the critical task is to get the new, merged branch into actual use at beamlines, tested, and adopted.

After some discussion it is agreed that further integration (application layer v. UI-API v. defined interface for HardwareObject layer, further use of abstract objects, etc.) should be considered only after the first round of merging was safely on its way. IK is asked to check with Gleb Bourenkov about the requirements he feels would be necessary for any shared interface / application layer, as this point was crucial in making the decision to interrupt the work on the UI-API. A discussion of future plans and approaches will be put on the agenda for the end of the November face-to-face meeting, and discussions will continue with the aim to produce an agreed planning document to present to the steering committee a month before the March MZCuBE meeting in Lund. The specific plans will depend on the experience and ideas we get during the merge process.

Next Meeting

The next meeting will be the face-to-face meeting at ESRF, 15-16 November..