

ISPyB Developers Meeting

31.10.2019

Berlin-Schmöckwitz

- For the next 6 months SOLEIL is elected to convene the monthly developers' meetings.
- The meeting is asked if anybody is using the old screening tables that are slated to be removed in a refactoring proposal? No one is, apparently.
- Could the database model of ESRF and DLS be brought into one model? Answer is: hardly. Too many differences
- Discussion went around topics that were also subject in the F2F Developer Meeting in September - according to it's minutes.

Maybe a decision should be made, whether the collaboration should focus only on one system: ISPyB or SynchWeb?

Situation is:

- The development of ISPyB is mainly done by ESRF and DLS, but the diverging data model is a source of incompatibilities and conflicts.
- DLS (and other sites, like Elettra) is using SynchWeb as backend and GUI, which is not part of the collaboration
- ESRF (and other sites) is using ISPyB java backend and EXI as GUI
- EXI is not part of the collaboration. But the old ISPyB GUI is no longer supported. DLS uses PHP rather than Java for their SynchWeb.
- The two sites use different web technologies, DLS uses a REST API for reading and writing, while ESRF uses REST for reading but SOAP for writing. The API organisation is also different between the two sites.
- The steering committee may not be fully aware of the differences.

Which way should new sites go? Couldn't we find a way to have a common system?

- A possible solution could be to start developing a common API which consists of microservices.
- This would make the software more granular and generic, which DLS sees as an advantage even for their internal organisation.
- And with having a less monolithic but more granular system, more people could contribute (like in MXCuBE) without breaking the whole system.
- Also the data model needs to be more flexible.
- Alex de Maria wonders about guaranteeing data consistency if data are in separate database, but for practical purposes CRIMS seems to manage, using UUID to link between tables.

- Neil Smith would like to see a presentation of the CRIMS system. DLS will make a proposal.
- The collaboration is felt to be a help rather than a burden (after all), and people are still hopeful.
- ESRF has no benefit from major data model changes for incorporating additional techniques and does not have the resources to carry them out. They might be willing to accept the changes if someone else could provide the resources.
- Global Phasing raises the industry need for being able to access data from multiple synchrotrons in a consistent manner.
- Apart from the microservices proposal, there might be long term possibilities in agreeing on a shared Python-level API – Diamond already has several internal APIs in use (high or low level).
- Graph-QL might serve as the foundation for an alternative UI – this might form a useful student project, and Diamond hopes to be able to report on this in 6-12 months
- The general agreement is that there are possibilities for closer collaboration, though no specific agreement. The developers should meet as soon as possible to consider alternatives and share out the work.
- In the joint discussion with the steering committee it is argued which layers should be seen as part of the ‘backend’ (and so part of the collaboration). The predominant view was that the collaboration could be seen as including not only the data model and database layer, but also the API layer on top of it.