NeuroML Editorial Board Minutes

Editorial Board meeting 13/5/2014 before OSB workshop Sardinia

In attendance:

Angus Silver, Robert Cannon, Padraig Gleeson, Mike Vella, Sharon Crook (editors) Robert McDougal, Matteo Cantarelli, Adrian Quintana, Boris Marin

1) Review of NeuroML/LEMS release process

- We discussed the variability in the timing of releases and whether a more regular release process is desirable. The overall consensus is that although it may not make sense to make it more regular, some planning and better communication about when a release will occur is needed, as well as communication about what will change. We also should use github milestones and other mechanisms to be able to assign tasks and have a better picture of who is working on different tasks. There is a need to define interfaces that are standardized so that things may change within a component but what is revealed will not change as updates are made. This is the approach which is taking place with Geppetto development, and has started in the <u>ILEMS api branch</u>.
- We discussed progress on integration with the COMBINE specification framework:
 http://co.mbine.org/standards/specification-infrastructure. The main item still needed in order to be compliant with their requirements is stable access to the specification, which can be done when 2.0 is ready, though a thoroughly reviewed beta release, accompanied by an update of the documentation and a PDF version of the specification may also suffice.
- There was discussion of having a more detailed description of the release process online. This has been entered as an issue on github. https://github.com/NeuroML/NeuroML2/issues/32

2) Release beta3

- We discussed some of the items that are included in beta3 which should be ready for release in two or three weeks. See milestone on GitHub.
- Currently there are no significant structural changes, mainly <u>updates to export features of jNeuroML</u>.
- We had a detailed discussion of <u>licensing</u> and what the options are. We will all look at choosealicense.com before making a final decision, but the initial proposal is to use the GPL license for the specifications and BSD for the libraries. We need to consider licensing for models as well and describe best practices on OSB and NeuroML website.

3) LEMS development

• We discussed the widening compatibility gap between <u>iLEMS</u> and <u>iLEMSDev</u>, which is

- likely to persist. However, we need a way to get some of the functions in jLEMSDev into jLEMS. Robert & Padraig will work at this.
- There is a continued need for <u>PyLEMS</u> as a native Python application for parsing, writing & executing LEMS, but no one is available to work on this right now. Any changes/uupdates to the package will be handled as <u>GitHub issues</u>, and Sharon will also include this in the next grant in case no one steps up to do this.
- We discussed ideas for a <u>LEMS logo</u>. This will be submitted as a github issue and we
 will explore other ways to get the community involved with this.
- <u>Updates to LEMS documentation</u> are needed. Some of example code has not been updated.

4) NeuroML website upgrade

- A new version of the NeuroML website is being developed at ASU available at http://spike.la.asu.edu/.
- Over the next week additional changes will be made to simplify the site to be based on Ruby alone rather than Redmine. Files are available at <u>github</u>. Sharon will send around an email asking for any additional feedback and then it will be deployed by the end of May.

5) What is needed for "full" NeuroML v2.0 release?

- We discussed what is needed for v2.0 to be complete. Key additional features are: (1) network templates with integration/compatibility with the PyNN network data model (current features/overlap), (2) "synapse centred" connectivity support, (3) gap junctions, and (4) changing parameters in multiple instances of components.
- We also discussed the issues related to future support for the elements of MorphML that
 are separate from neurons such as <u>paths/polygons/manifolds</u>. These should be
 maintained since they are in previous publications, but in the future, an effort to update to
 currently used methods for these structures is needed. We need to consider Collada and
 interact with other investigators to explore this.
- A more formal and thorough review of elements, naming, and descriptions by editors is needed, and we need to generate PDF documents with specification for the COMBINE interactions.

6) Future of NeuroML

 How do we get more involvement in development/support of NeuroML? One thing that is clear from our discussion is that we need better documentation and better use of GitHub wikis and issues in order to engage a wider community.

SUMMARY TO DO LIST:

- Official release of beta3 in a few weeks
- Survey of community regarding models in NeuroML letting them know what is there and proving a list to prioritize as well as asking for additional models
- Describe release process for the specification and libraries

- Stabilize interfaces so that if stuff behind it changes, interface won't break.
- Decide on licensing issues (specs, OSB, models, libraries)
- Improve documentation with better use of GitHub for development. This is important and is high priority.
- PyLEMS development as an issue on GitHub.
- LEMS logo as a GitHub issue.
- Some exploration with community of standards for describing morphological structures including Collada, work of Helmstaedter, Bhalla and Destexhe.
- GitHub issues related to list of items to "curate" with original papers