NeuroML is a standardised XML based language for computational neuroscience

Version 1.x allowed specification of:

- Detailed neuronal morphologies
- Ion channels
- Synapses
- 3D network structure

Version 2 features:

- Greater range of models
- Easier to extend using LEMS

Where is NeuroML used?

Simulators

NEURON
GENESIS
MOOSE
Brian

Initiatives

OpenWorm
Open Source Brain

Interoperability

PyNN
neuroConstruct

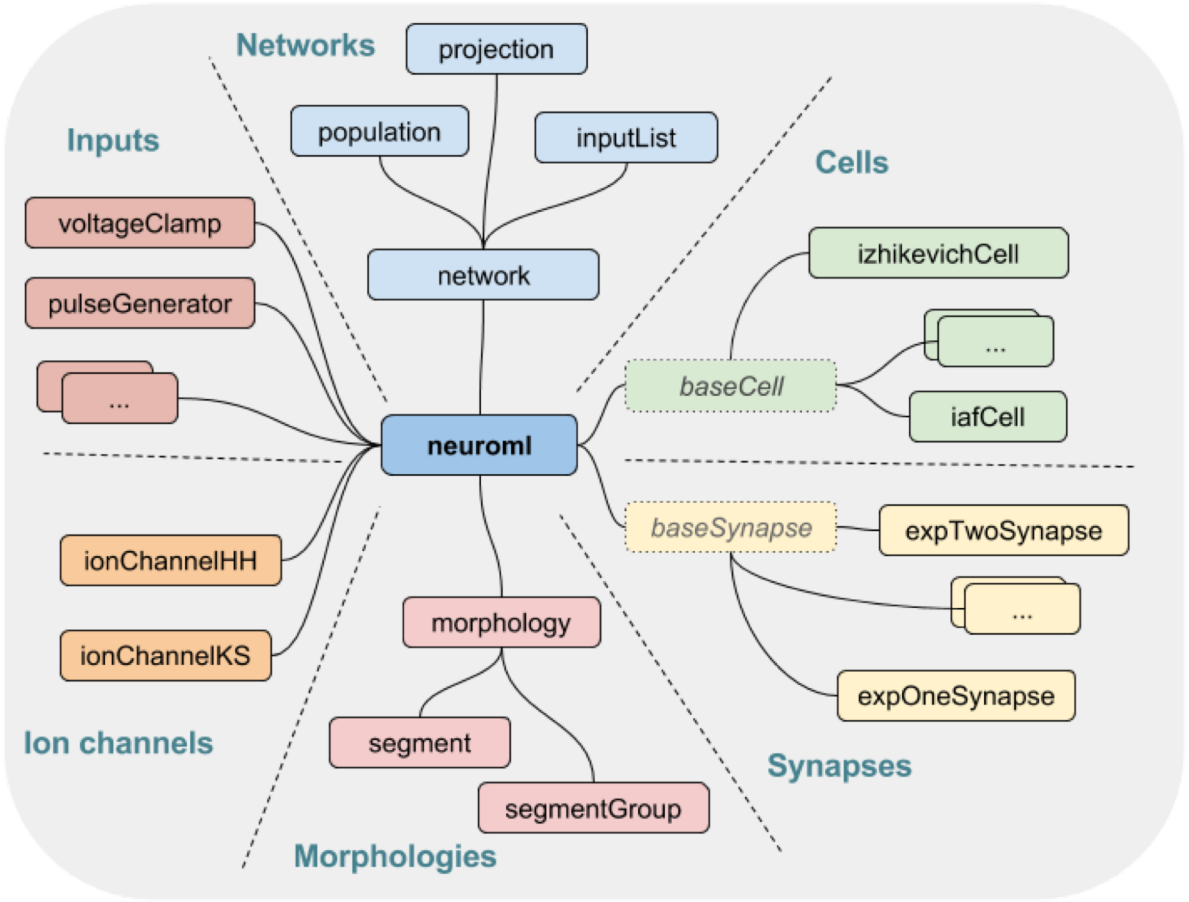
Morphological analysis/ generation

Cx3D
TREES Toolbox
NeuGen

Databases

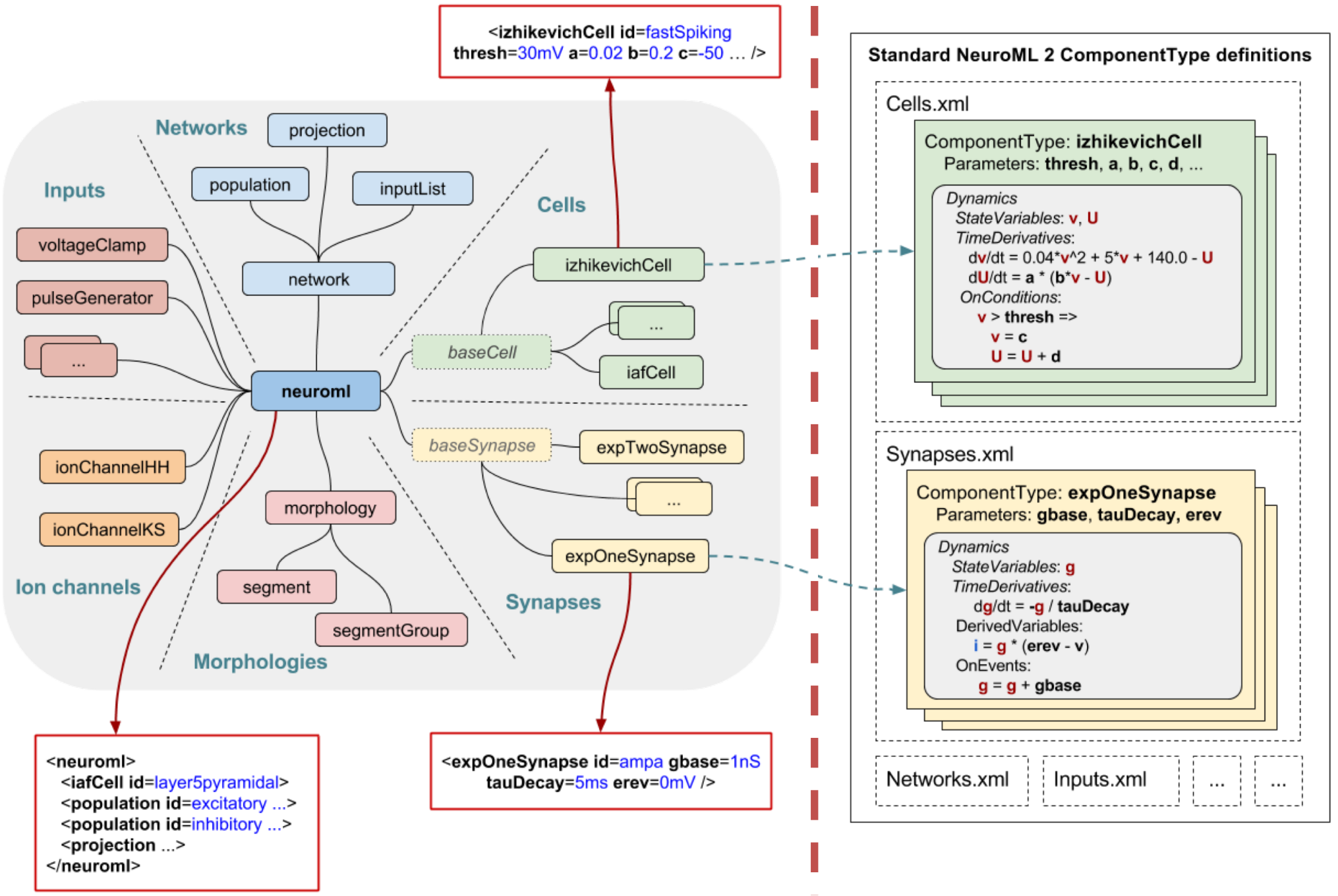
Channelpedia
BBP NMC
NeuroMorpho
Allen Institute Cell Types DB

Scope of NeuroML 2: Ion channels, synapses, cells, networks...

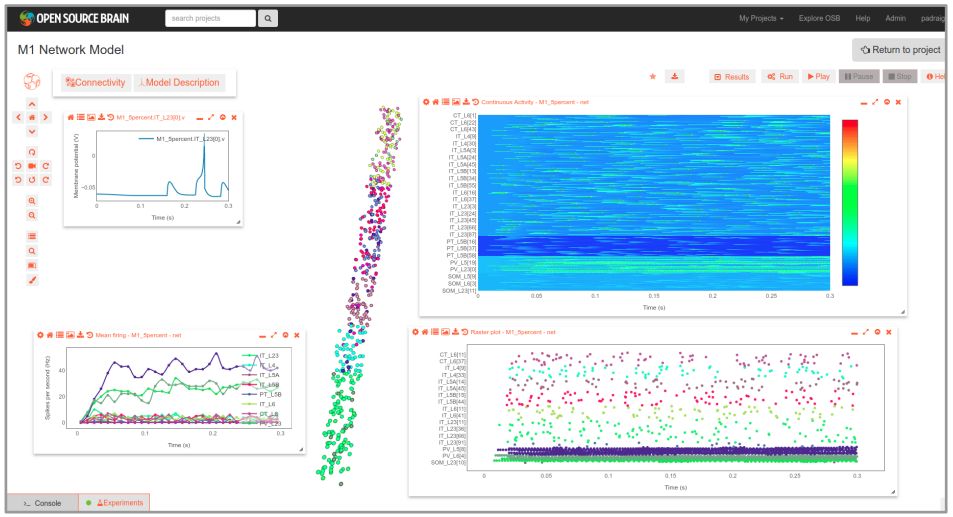


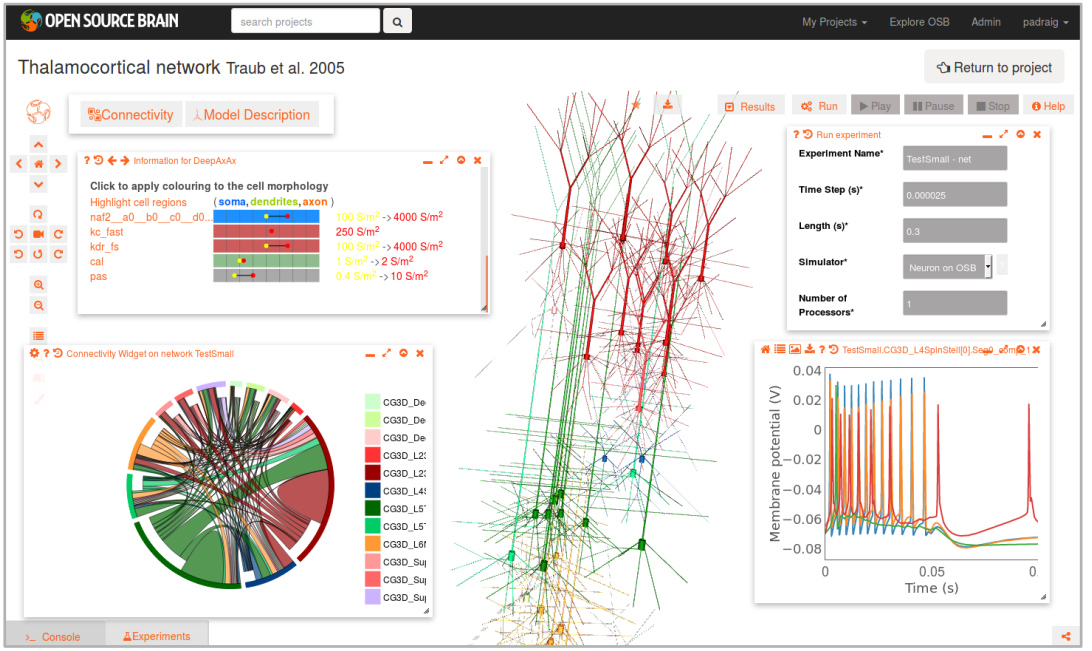
NeuroML 2 files set parameters…

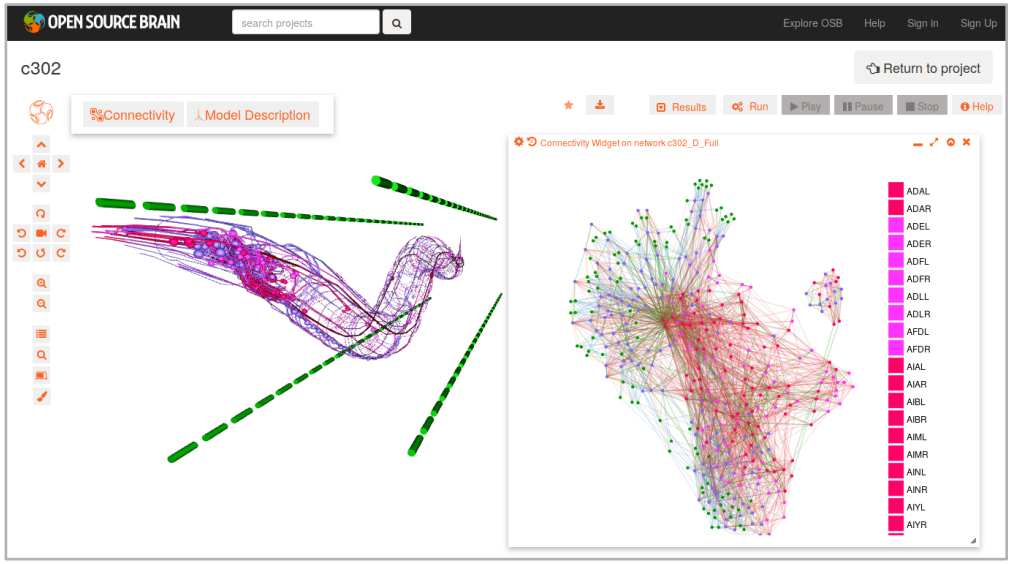
…LEMS files define the dynamics

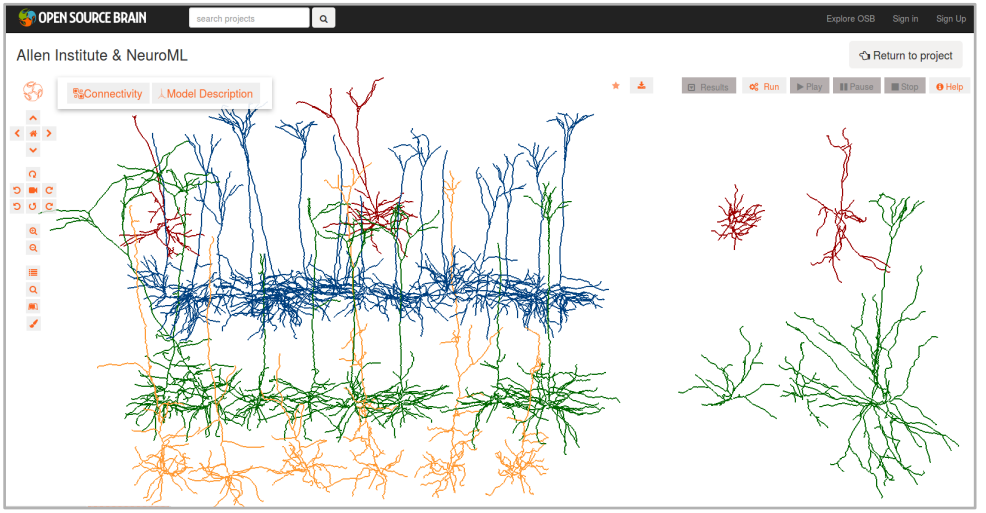


Where can I find (and visualize/analyse/simulate) NeuroML 2 models?









Try http://www.opensourcebrain.org!

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