Using atlas data as a spatial reference for a result of a realistic neural network simulation

Model download

From
http://www.3dbar.org:8080/getPreview?cafDatasetName=aba2011;structureName=grey,VPL,SSp-bfd1,SSp-bfd2Slash3,SSp-
The Allen Mouse Brain Reference Atlas, 2011 Segmentation download the following VRLM high quality models:

- http://www.3dbar.org:8080/getReconstruction?cafDatasetName=aba2011&structureName=grey&qualityPreset=high
  Basic cell groups and regions,
- http://www.3dbar.org:8080/getReconstruction?cafDatasetName=aba2011&structureName=VPL&qualityPreset=high
  Ventral posterolateral nucleus of the thalamus,
- http://www.3dbar.org:8080/getReconstruction?cafDatasetName=aba2011&structureName=SSp-bfd1&qualityPreset=
  Primary somatosensory area, barrel field, layer 1,
- http://www.3dbar.org:8080/getReconstruction?cafDatasetName=aba2011&structureName=SSp-bfd2Slash3&qualityF
  Primary somatosensory area, barrel field, layer 2/3,
- http://www.3dbar.org:8080/getReconstruction?cafDatasetName=aba2011&structureName=SSp-bfd4&qualityPreset=
  Primary somatosensory area, barrel field, layer 4,
- http://www.3dbar.org:8080/getReconstruction?cafDatasetName=aba2011&structureName=SSp-bfd5&qualityPreset=
  Primary somatosensory area, barrel field, layer 5,
- http://www.3dbar.org:8080/getReconstruction?cafDatasetName=aba2011&structureName=SSp-bfd6a&qualityPreset
  Primary somatosensory area, barrel field, layer 6a,
- http://www.3dbar.org:8080/getReconstruction?cafDatasetName=aba2011&structureName=SSp-bfd6b&qualityPreset
  Primary somatosensory area, barrel field, layer 6b.

Download also a model of a of the barrel cortex collumn. Unwrap downloaded archives.

Model loading

Run http://www.paraview.org ParaView software. Open downloaded *.wrl and *.vtk files. Click *Apply*.

- 1 - Open Grayscale Image... - Tutorial: How to use labeled volumes?
- 2 - Choose NIfTI volume you extracted - Tutorial: How to use labeled volumes?
- 4 - Choose 'Segmentation', then 'Load from image' - Tutorial: How to use labeled volumes?
- 5 - Select the same NIfTI file - Tutorial: How to use labeled volumes?
- 7 - "Segmentation", "Load Label Descriptions..." - Tutorial: How to use labeled volumes?
- 8 - Select file with the lookup table - Tutorial: How to use labeled volumes?
- 9 - - Tutorial: How to use labeled volumes?
- 10 - Click 'update mesh' button - Tutorial: How to use labeled volumes?
- 11 - "Segmentation", "Export As Surface Mesh" - Tutorial: How to use labeled volumes?
- 12 - - Tutorial: How to use labeled volumes?
- 13 - Downloading labeled volume from 'Atlas Details' tab - Tutorial: How to use labeled volumes?
- 14 - Downloading labeled volume from 'Live preview' tab - Tutorial: How to use labeled volumes?
- 15 - You have to be logged in in order to access the *Custom Reconstruction Wizzard. Structures loaded in* Live preview *window are automatically transferred to the reconstruction wizard. - Accessing the Custom Reconstruction Wizzard*