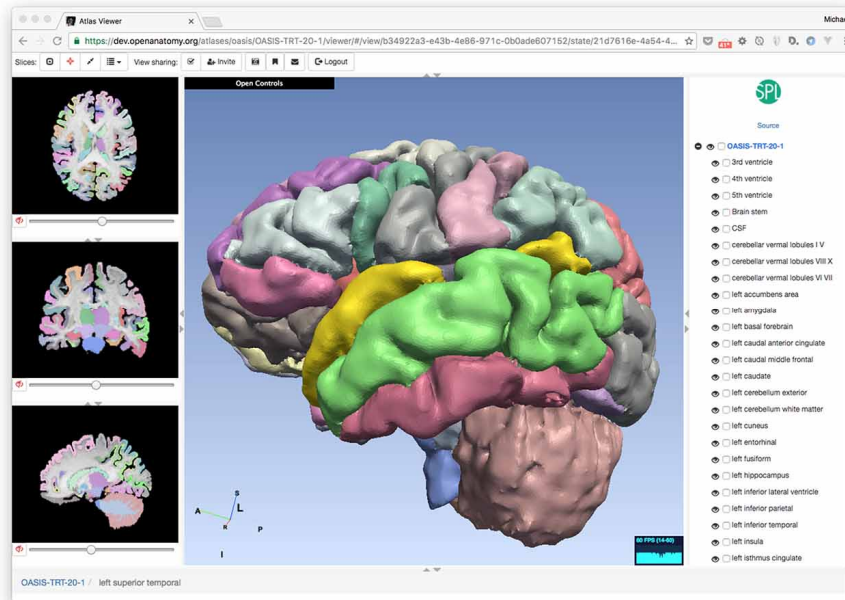




Open Anatomy Local Installation



Open Anatomy Browser.



Local Installation.

The SPL's Anatomy Browser project brings a rich, highly detailed, hierarchical view of human anatomy to ordinary computers or workstations. In order to use it with the current atlases, there is no software installation needed, just using Java applets through the web browser, so only the Java software environment is needed.

The files to be used in the installation process should be downloaded from our moodle server.

1. Installation of node.js and npm
2. Loading an atlas
 - For the visualization of an atlas it is necessary the use two modules:
 - MrrmlToJson, responsible for the transformation of the Slicer scenario to a JSON format.
 - OABrowser, the visualizer of the data represented in the JSON structure (OABrowser).

It is necessary that both modules be saved into the atlas directory.

For example, in the "utils /" directory. By recommendation, atlases should be controlled through a git repository to avoid loss of data. The different modules, mrrmlToJson and OABrowser, must be introduced in the atlas as git submodules.

```
git submodule add git@toby.iui.bs.ulpgc.es:ahguedes/mrrmlToJson.git mrrmlToJson
```



```
git submodule add git@toby.iui.bs.ulpgc.es:ahguedes/oabrowser.git viewer
```

As previously stated, it is recommended that the modules be located in the same directory, so that these commands should be executed in the internal directory of the atlas intended for modules ("utils /"), this way the modules will be localized in this directory.

It is also recommended the use of the repositories located on the gitlab "Toby" server.

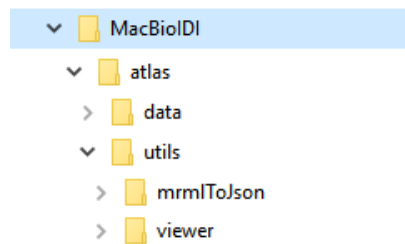


Fig. 1. Directory structure.

Following these steps the atlas directory must be similar to the one in Fig. 1.

3. Preparation of the atlas Json structure, through the *mrm1ToJson* script. Loading an atlas

- The file `configMrm1ToJson.js` located in “utils/mrm1ToJson” must be copied in the parent directory “utils/”.
- File configuration. These are the fields to configure:

mrm1FileLocation: path of the Slicer mrm1 document.

colorTableFileLocation: path of the colors table file.

vtkFilesDirectory: directory of the vtk files.

jsonResultFilename: where is the Json structure saved.

jsonLDResultFileName: where is the structure relations document

jsonHashResultFileName: where the hash (DataSources) document is saved for the different identifiers.

backgroundImages: the path for the files .nrrd.

- Installation of the dependencies of the script. In the directory “utils/mrm1ToJson/” execute the command:

```
npm install
```

- Execute the script:

```
node.js mrm1ToJson.js
```



This way, we must now have the atlasStructure.json, the atlasStructureLD.json and the atlasStructureHash.json files that are necessary for the OABrowser to work. Although it is possible to have only the atlasStructure.json file.

4. Configuration of the OABrowser:

- Installation of the dependencies through npm in the root directory of the repository.

```
..<oabrowser_dir> $ npm install
```

- The dependencies installed are found in the directory "<oabrowser_dir> / node_modules". In this directory, we locate the webpack and execute the script to create the bundle of the oabrowser. It is recommended that the bundle be generated in the "build/" directory located inside the root directory of the oabrowser.

```
<oabrowser_dir> $ node_modules/webpack/bin/webpack.js . build/
```

- An example configuration file is found in the <oabrowser_dir> / conf / directory. We must copy the configAtlasViewer_default.js file to the parent directory, change the name to configAtlasViewer.js, and configure it:

atlasStructurePath: localization of the atlas file atlasStructure.json.

Throughout these steps everything should be working.

It is possible to check using the service *http-server* provided by nodejs:

```
npm install -g http-server
```

Now we can start the service in the root directory of the atlas and by accessing the URL of the OABrowser module (<http://localhost:8080/utis/viewer/>) to load the atlas.



References.

- [1] <https://www.ncbi.nlm.nih.gov/pubmed/28396633>