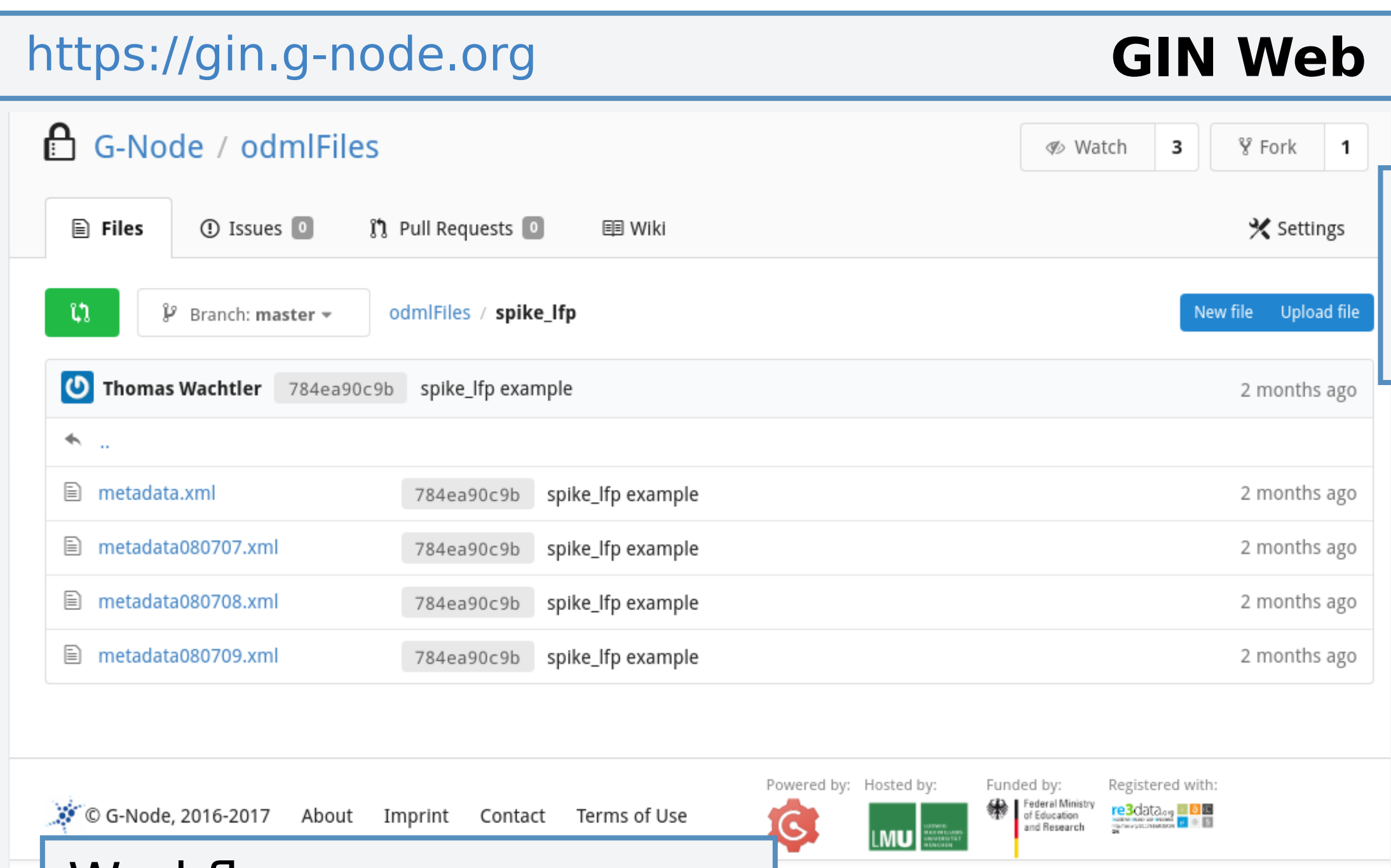


The G-Node Infrastructure (GIN) Services



- Workflow**
- Manual access via web and command line
 - Script automation

GIN Client

```
$ gin login
Login: achilleas
Password: *****
Hello achilleas. You are now logged in.

$ gin get G-Node/odmFiles
Fetching repository 'G-Node/odmFiles'... done.

$ gin ls
Synced:
  metadata.xml
  metadata080707.xml
  metadata080708.xml
  metadata080709.xml

$ |
```



- Platform independent
- Secure access
- Public and private repositories

Main features

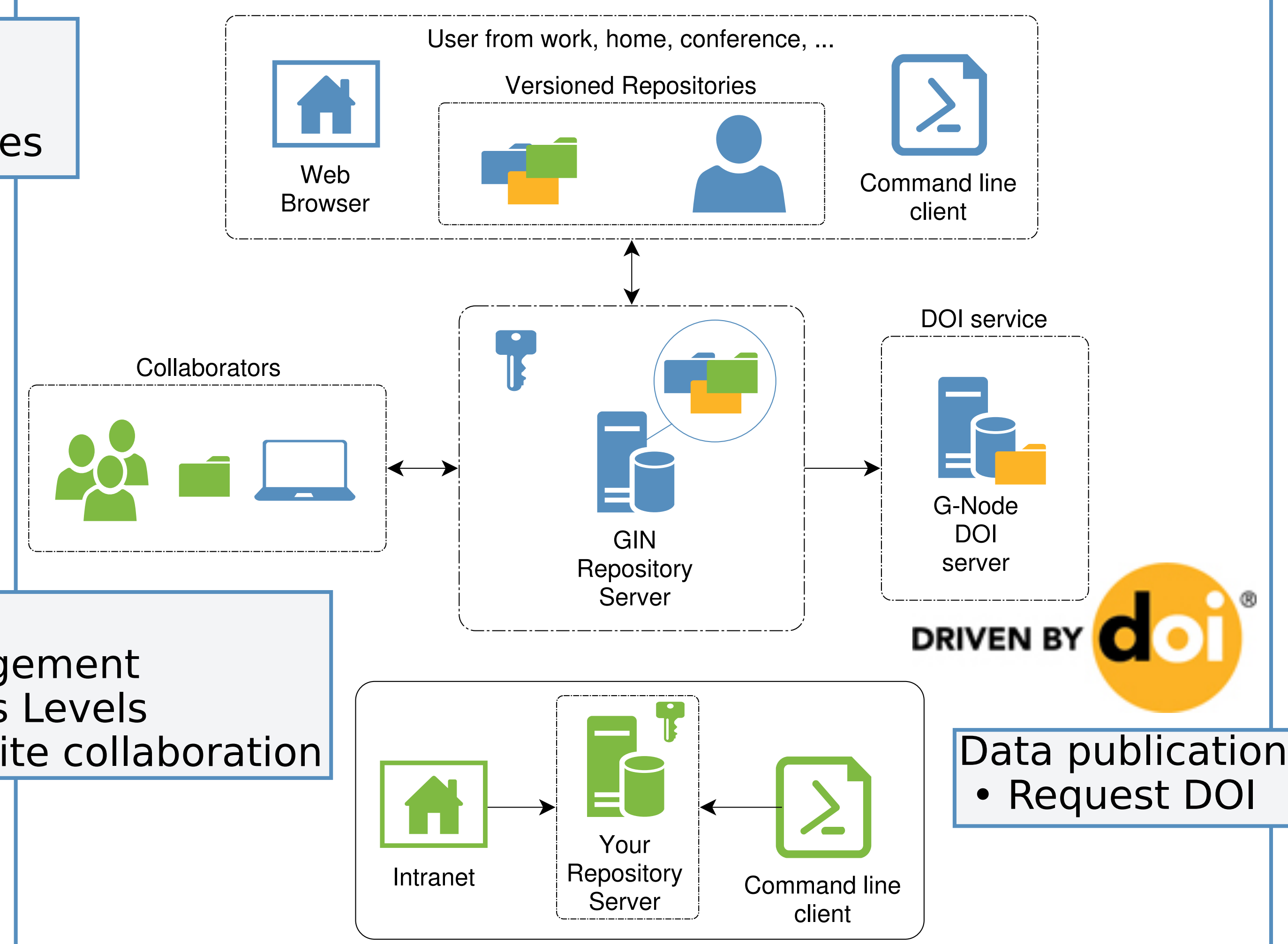
- Access data from any location
- Backup
- Built in versioning



Collaboration

- User management
- User Access Levels
- On and offsite collaboration

GIN services diagram



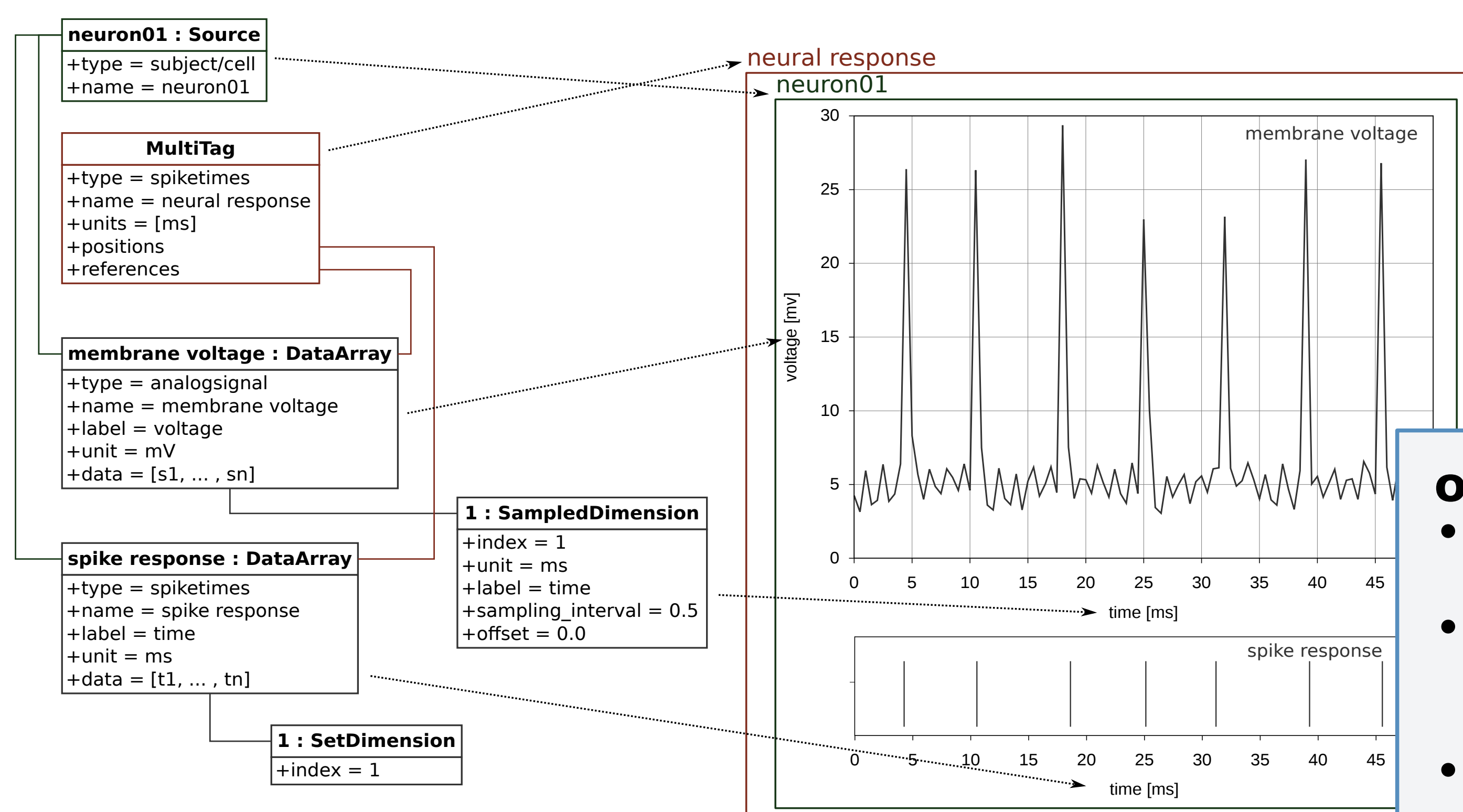
Formats and Data models

The NIX format

- Open data format
- Store data, analysis results, and metadata conveniently in the same file
- Descriptive associations between data, analysis results, and metadata



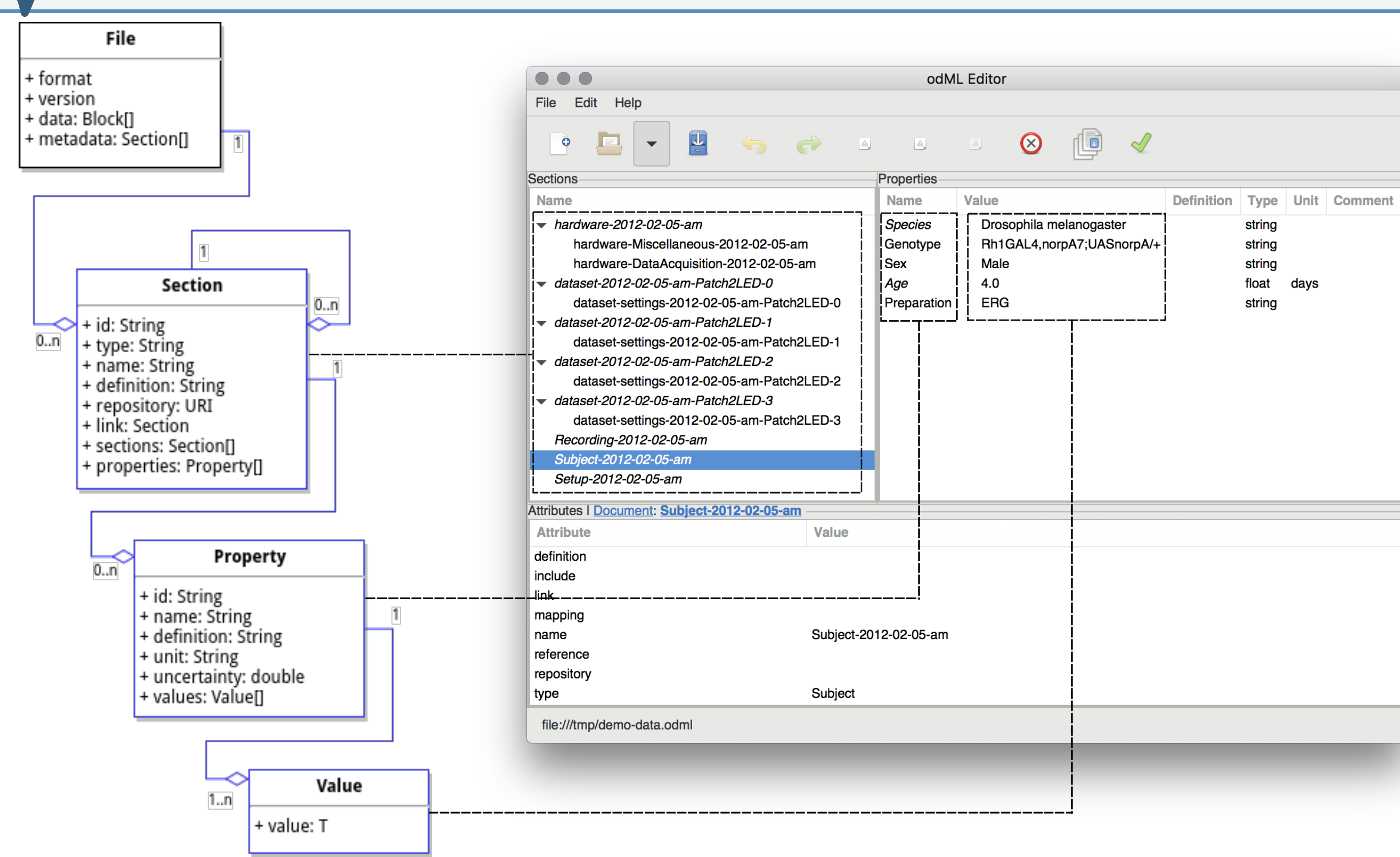
The NIX data model



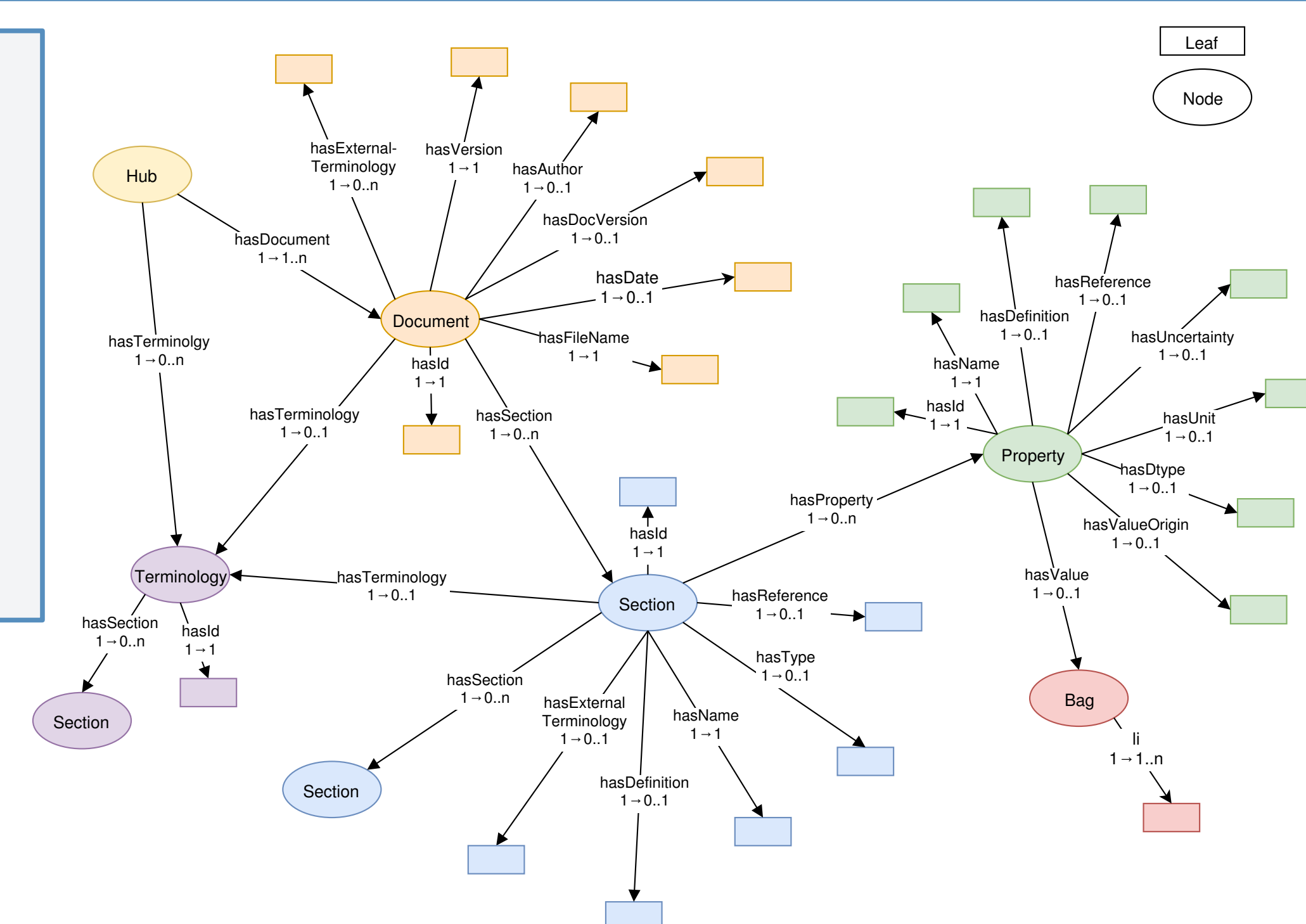
Libraries

- Free open source libraries for: C++, Python, Matlab, Java
- NIX IO for Neo: Saving and loading fully supported

odML Metadata format: Schema and GUI



RDF schema for the odML data model



odML

- The metadata format embedded in NIX
- Standalone metadata can be written and read using the odML library
- Export odML data to RDF: Query metadata using semantic web technologies



Resources

This work was performed in connection with the activities of the HDF5 working group of the INCF Electrophysiology Data Sharing Task Force Supported by BMBF grant 01GQ1302.

Contact: dev@g-node.org

<https://gin.g-node.org>
<https://github.com/G-Node/nix>
<https://github.com/G-Node/python-odml>
<https://github.com/G-Node/gin-cli>
<https://github.com/G-Node/gogs>
<http://neuralensemble.org/neo>
<http://neuralensemble.org/elephant>

