

Collaborate and Publish with ease: The G-Node infrastructure services for Research Data Management in Neuroscience and Beyond



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Maintaining reproducible data workflows while keeping data in sync, backed up, and easily accessible from within and outside the lab is a key challenge in research. To help minimize the time and effort required for these tasks, the GIN services provide support for comprehensive, reproducible and versioned management of scientific data throughout the data lifecycle.

GIN Services for Data Storage, Collaboration and Data Publication



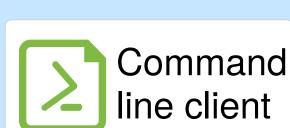
GIN core features

- Access data from any location
- Built-in versioning
- Platform and format independent
- Secure access
- Public and private repositories

In-lab Local Instance

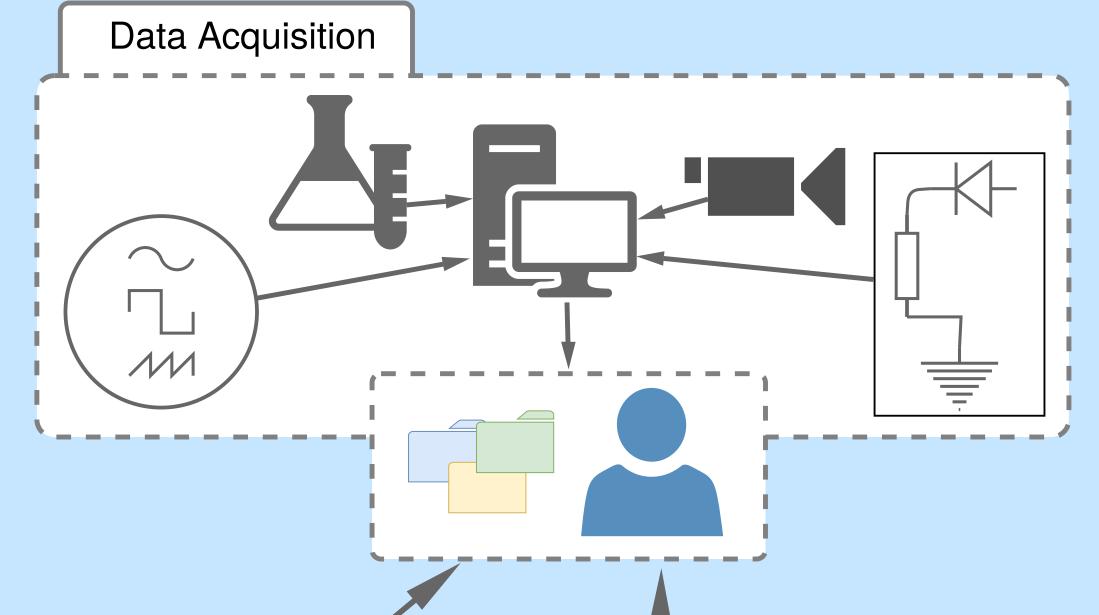






Local Hosting

- GIN is open source
- prebuilt docker containers for easy installation & docker
- use your own data storage



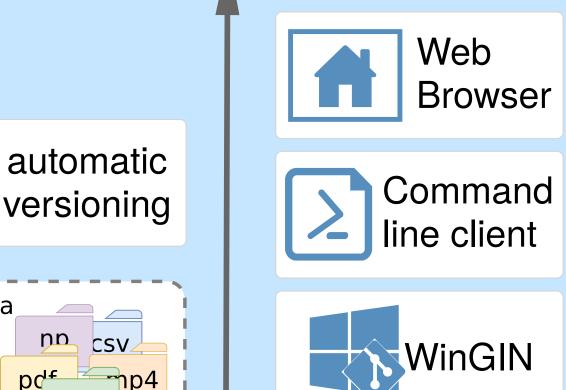
Any data

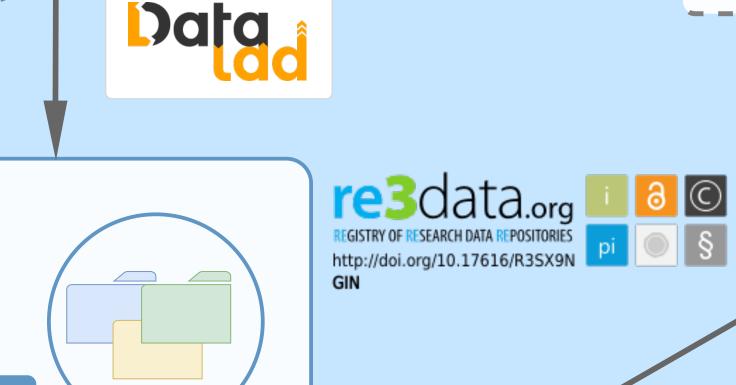
Morphological reconstructions and

electrophysiological recordings of vibration

sensitive honeybee neurons belonging to two

nn csv





♦ git

GIN

Platform

Server

gin.g-node.org

Supporting research data management throughout the data lifecycle

- Version control for code and data
- Efficient collaboration through access control and tracking of changes
- Validation services to ensure data quality
- Data publication (DOI) with a button click

Collaboration



Data Publication and Findability

- User management
- User access levels
- On and offsite collaboration
- Online issues help coordination
- Ensure repository integrity with versioning and "Pull requests"

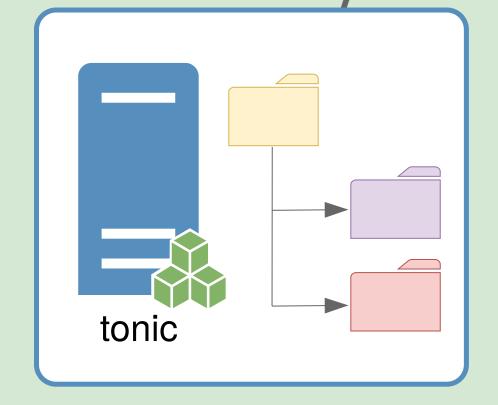
Automation and Validation



Data validation service valid.gin.g-node.org

Automated Data Validation

- Automatically runs validation on selected repositories
- Supported validation formats:
- BIDS
- odML
- NIX
- Easily extensible to more formats
- Format validation contributions are welcome



Automated repository handling

Create custom apps interacting with the GIN API

- Automate repository setup
- Manage lab-wide permissions
- Create repository templates



Data search service gin.g-node.org/explore/data

Findable Data via GIN

- Automatic indexing of text based files
- Online search for repository content
- Interactive rendering of markdown formats



doi.gin.g-node.org



Recommended by:

eLIFE. DOI service



Data Publication

- Persistent identifiers (DOI)
- Easy DOI assignment
- Link to publications

Contact us at

info@g-node.org

Resources and References



Contact: dev@g-node.org

Poster presented at BCCN 2021



GIN (RRID:SCR_015864): BIDS (RRID:SCR 016124): *NIX (RRID:SCR 0*16196): odML (RRID:SCR 001376): Datalad (RRID: $S\overline{R}C$ 003931):

https://gin.g-node.org http://bids.neuroimaging.io http://www.g-node.org/nix http://www.g-node.org/odml https://datalad.org https://github.com/G-Node/tonic



