

LabArchives is designed for organizing, documenting, and sharing research data with teams, departments, and collaborators.

In compliance with the Partners Electronic Lab Notebook (ELN) Policy, LabArchives must be used to **document Research Data and other record keeping activities** including, but not limited to:

- Planning and protocol descriptions
- Data manipulation and analytical procedures
- Important research communications
- Important decisions about the research

This policy pertains to active research projects as of Oct 1, 2019. See our [LabArchives FAQ](#) about what to do for closed studies or studies not actively collecting/using data.

## Data Life Cycle and Storage

Data associated with a research project follow a cycle from collection to destruction that includes use, sharing, storage, and archiving (the “Data Life Cycle”). **Data storage** and locations can change throughout the data life cycle and you will need to document those locations in context of:

1. **Generating or Acquiring Primary Data:** Storage of original, source, or raw data
2. **Using Data:** Storage of project data being regularly analyzed, processed and prepared for publication, grant submission, or provided to a sponsor
3. **Archiving Data:** Storage of data after a project is completed and/or is no longer being analyzed/used regularly

**Data integrity** is a measure of how accurately and reliably Research Data reflect the study’s research activities. Researchers may be called upon to demonstrate the integrity of their Research Data to institutional governance, government agencies, sponsors and publishers. You must ensure that the integrity of the primary data is preserved, and the processes used to publish outcomes are reproducible.

- More about **Partners Research Data Management Requirements** can be found on the [Research Navigator](#).
- There are many secure storage solutions at Partners: <https://rc.partners.org/storage>

## HowTo: Document Research Data

There are two ways to document your research data in compliance with the ELN policy:

- 1) Store data directly in LabArchives, or
- 2) Document / Reference your data storage for each stage of the Data Life Cycle in LabArchives.

### Store Data in LabArchives

- 4GB limit per file
- Allows unlimited number of files
- No vendor limit on total amount of storage

#### LabArchives provides / automates:

- Full audit trail for all entries and actions: username, NIST date and time stamps, signed and “locked” documents, and versions of all documents and actions
- All revisions are kept, no data is deleted (exceptions made with administrator approval for regulatory requests, ex: GDPR)

#### Storing Data Directly in LabArchives allows you to:

- Add comprehensive descriptions and contextual information to experimental data and methodologies
- Create meta-data strategies utilizing the tagging feature, build searchable vocabularie s
- Control user rights, grant access for collaborators, and even allow public access (publish data)
- Automate data uploads/imports using the File Folder Monitor Plugin



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## Reference Data Storage Solutions and Locations

LabArchives supports uploads of files up to 4GB each, with no limit on total amount of files that can be stored. However, there are functional limitations to storing certain types of data in LabArchives, including:

- Files greater than 4GB (e.g. high definition video files, genomic datasets)
- Large file series (e.g. image series with hundreds of sequential images)
- Files that are used regularly by programs that must access the file locally (e.g. nVivo libraries, coding)

We recommend using the best storage solution available (<https://rc.partners.org/storage>) for your data requirements and then reference and document your project data path in LabArchives.

### HowTo Reference:

1. LabArchives Linking Tool: [4.02.2 Linking](#)
2. University of Sydney's Example: [eNotebook Research Data Store Integration Widget](#)

\*More guidance and examples to come with Partners Widget option being explored.

## HowTo: Document Record Keeping Activities

How and where are your methods of data acquisition, analysis and processing stored/maintained? This includes standard operating procedures (SOPs), algorithms, analysis programs, or other information typically included in the materials and methods section of a manuscript. This is the information that gets you from raw data to finalized data and allows for reproducibility.

A few examples on how to integrate LabArchives into your workflow:

### Planning and protocol descriptions

- Use [MS Office Plugin](#) to "Save to LabArchives" within MS Word Documents

### Data manipulation and analytical procedures

- Use [Folder Monitor](#) to automatically save data sets, versions
- Reference GitLab Repo where code or algorithms are stored

### Important research communications and decisions about the research

- Forward important emails to notebooks via [inbox@labarchives.com](mailto:inbox@labarchives.com) from the email address associated with your LabArchives Account.
- Move communications and decisions directly into LabArchives using [comments and mentions](#) (@user tags)

\*We're currently working with different projects to gather examples for all research: Partners Community Notebook.

## References:

**Freezerworks:** <https://rc.partners.org/freezerworks>

Freezerworks is a sample tracking, biorepository management, and freezer inventory program.

**GitLab:** <https://rc.partners.org/gitlab>

GitLab is used to store, manage and version control code. It isn't just for software developers! Biostatisticians, data analysts and data scientists can use GitLab to manage their scripts and algorithms for their stats packages.

**REDCap:** <https://rc.partners.org/redcap/>

REDCap is a web-based application for electronic collection and management of research and clinical study data. Recommended for Primary Data Storage and Archiving clinical research data.

**Partners Secure Storage Solutions:** <https://rc.partners.org/storage>

### LabArchives Knowledgebase Articles:

[7.01 LabArchives Folder Monitor](#)

[4.02.3 Comments and Mentions](#)

[7.02 Microsoft Office Plugin](#)

[7.04 LabArchives Inbox](#)