Tips for Getting Started with LabArchives

LabArchives is a flexible platform with endless possibilities for customization to match your research workflow. LabArchives allows you to securely store, search, and share your research data. With LabArchives, you can organize your data and use the access management tools to work with your team.

Tip #1: Talk with your team about Notebook Policies

As you use LabArchives, you may want to periodically discuss notebook policies. This can increase efficiency and promote better communication throughout the team. Keep in mind, you can always change a notebook policy in the future as you find a system that works best for you.

- Do we have any funding agency, government, or institution policies that we need to consider?
- Should we organize data by project, date, user, or piece of equipment?
- Do we need to standardize pages or folders in the notebook?
- Should we create standardized formatting and structure or use templates?
- Should we use page signing or witnessing to indicate the final version of a page?
- Should we change the way we are formatting or storing data?
- Do we need to create a standardized list of tags to be used in the notebook?
- Do we need a standardized naming convention for files?
- How should we handle large files or data that is stored in another location?
- Do we need additional devices to access LabArchives?

Tip #2: Share your research notebooks

One of the most helpful features of LabArchives is its ability to share data. You can share data with individuals in your research group or with collaborators. You can setup custom permissions for each notebook, folder, page or entry and you can change an individual's access rights at any time. An individual can have Can Edit, Can View, and No access to different parts of a notebook and they can have a different User Role in each notebook.

You can manage access to the data with User Management, Group Management, Manage My Account, and you can share portions of a notebook from the Notebook Navigator.

In most teams, the PI or Team Manager owns all notebooks and each member of the team has "User" or "Administrator" rights to the appropriate notebooks. Some things to consider when planning notebook access:

- Who should own notebooks?
- Who should be able to share data with others?
- Should we share data with external collaborators or make data publicly accessible?
- Should everyone have access to all data or should we setup custom permissions based on project or user?
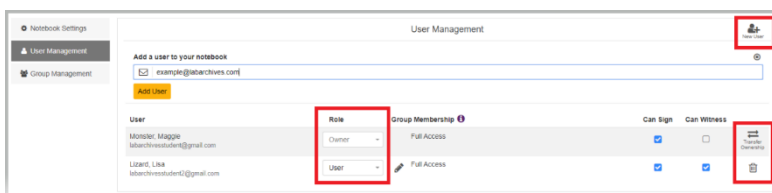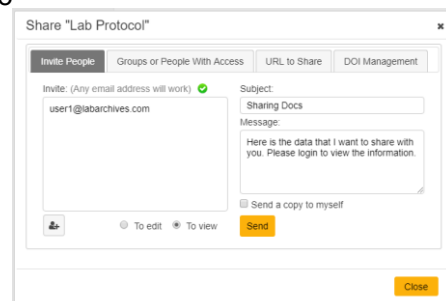
Tip #3: Organize Your Data

LabArchives allows you to create multiple Notebooks, each of which is a completely separate entity. Each Notebook is divided into Folders, sub-Folders, Pages and Entries, much as the file system on your computer. You can rename or move data in the folder structure. Overall, the organization of your Notebook should be tailored to your needs.

Individual Notebooks
- Many teams will create one notebook for each member of the team. You can create a standard notebook for each person.

Project or Grant based notebooks:
- Some teams will organize one notebook based on projects. All data associated with that project would be stored in this notebook and everyone associated with the project would have access.

Shared resource notebook:
- Most teams create a notebook that is shared with everyone. This notebook could contain Protocols, Safety information, weekly meetings, or policies. This is a great way to quickly share data with everyone in the team.

Instrument based notebooks
- You may want to create a notebook for a shared piece of equipment. With LabArchives Folder Monitor, files generated on a piece of equipment could be automatically uploaded to LabArchives.

Date based notebooks
- You may want to organize your notebook by date. You can create folders for each month or year and add pages for each day or week. This can be a great way to document things like equipment calibration information.

Template notebooks
- To standardize a notebook or procedure across everyone in your team, you may want to create templates. Templates can help you maintain consistency and reproducibility across all members of the team.
- Some teams build a standard folder structure and use the clone or Copy from Another Notebook tools to create multiple notebooks with the same structure.
- You can create template pages using several preformatted entries. Each user can select copy existing page to use that template.
- Some teams build custom widgets for the team notebook. Widgets are simple HTML forms that can be used by the entire team in all notebooks.
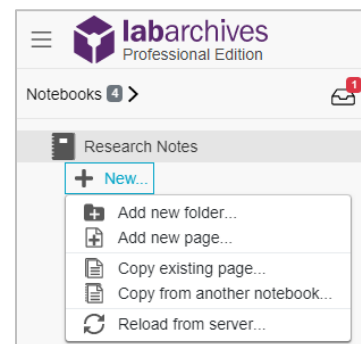
Tip #4: Add Protocols, Safety Information, and Data

Anyone with edit access to the team notebook can add new entries to a page or edit existing entries. You can add rich text entries, headings, and attachments of any file type. Your notebooks could contain protocols, safety information, manuscripts, important files, photos, and any other data that you want to record.

Add Text to your notebook
You can add text to your research notebook using a Rich text entry, heading or plain text entry. Rich text entries support text formatting like highlighting, font size, and you can add tables to the entry. A heading can be used to quickly break up a page. A plain text entry can be used to display code like markdown in your research notebook.

Add Attachments to your research notebook

You can add attachments to your research notebook of any file type. You will see a thumbnail for any file saved and there are viewers for Office documents, PDF's and Images.

- Microsoft Office Documents
  You can edit your Microsoft Office documents by using Office Online. Your edits will be saved automatically. You can also open files on the desktop version of Office using the Microsoft Office Plugin.
- Images
  You can annotate images in your research notebook using the Image annotator.

Manage an inventory or build custom forms with Widgets

Widgets are customizable, interactive HTML forms or applications. Widgets can be tailored for your specific experiment and contain interactive text boxes, buttons, drop-down menus, and more.

With LabArchives, you can use built-in widgets, manage inventory through a database or freezerbox widget, or create your own widget with The Widget Manager.

Tip #5: Promote Data Provenance and Reproducibility

It's becoming increasingly difficult to find the original source for some data. Funding agencies, government organizations, and research institutions across the world are adding policies to encourage data integrity. You should be able to prove where your data came from, who produced this data, and how it was produced.

LabArchives has several tools to promote data provenance with your team. It's also important to discuss the principles of reproducible data as you develop notebook policies and workflows.

Version Control

LabArchives maintains a complete revisions history for every entry and page. Each revision is stored with a timestamp generated by the National Institute of Standards and Technology. You can always revert to a previous version of your data or undelete an item.

Search your research notebook

You can search across all notebooks in your account or you can search through a specific folder. You can enter Boolean (i.e. "AND", "OR", and "NOT") logic, literal phrases, and much more. You may want to develop a standardized file naming convention or use tagging to improve the search results.

Link to other data

You may want to connect data stored in another location to your research notebook. You can link to data stored in LabArchives, to a web address and to a local file. Many teams will add entry links to connect data with a specific version of a protocol. Some teams will add a Share URL to connect data stored in another location to a specific page or entry in the research notebook.

Manage Activities in the notebook

Your team can easily see recent changes to the research notebook using the Activity Feed. This provides you with a chronological view of all logins, edits or deletions. You can also find all entries created or edited by a specific user or all entries made in the last Day, Week or Month using the Notebook Dashboard.

Communicate with your Team Members

You can communicate directly with members of your team using comments. To alert a specific individual, use @ mentions. Comments can be added to any entry and you can receive email notifications or activity feed notifications about comments made in the notebook.