Getting Started with labElephant

Note: This document "Getting Started.pdf" can always be accessed from the labEleDocs button on the Edit form. Once the back end is moved to a server location, the "Getting Started" button on the Splash form will no longer be visible.

Section 1: Installation

To install labElephant, download the installer file from the labElephant website (www.labelephant.com). Choose the bit version appropriate for your Office bit version (ILE1x32.accdc for 32-bit, or ILE1x64.accdc for 64-bit). The .accdc extension is your assurance that the installer file is a genuine certified labElephant installer. Run the installer by a double-click on the downloaded file.

The installer does (or has already done) the following:

1. Places a **front end** database file on your computer, in the folder "%USERPROFILE%\AppData\Local\labElephant\", where %USERPROFILE% represents your Windows user name.
2. Sets the front end database path as a trusted location in your Microsoft Access application.
3. Puts a shortcut "labE" on your desktop that targets the front end.
4. Places the **back end** database file in the folder "%USERPROFILE%\Documents\" on your computer. The back-end database file may later be moved to a network lab drive (on a server), if (as is usual) access to the data is required from multiple computers on the network.
5. Places a folder labEleSys in "%USERPROFILE%\Documents\" that contains files important for the proper functioning of labElephant.
6. Places a folder labEleDocs in "%USERPROFILE%\Documents\" that contains help files accessible from labElephant.

On first starting labElephant from the shortcut, the front end links to the back end, and opens to the Splash form.

To complete the installation, labElephant should then be set up by the Principal Investigator (PI) with initial data and default settings for the lab. Permissions for lab personnel are set up in this section. Finally, lab personnel set up their own default settings.

Section 2: Getting Started on One Computer

1. Congratulations if you have already installed labElephant! Open labElephant from the shortcut on your desktop.
2. Select Continue to open the Switchboard form.
3. Check in as John Doe, with the default password "myelephant".
4. On first-time login, you will be asked to identify your computer. User computers new to labElephant are by default allowed access to labElephant, but if a computer is new to labElephant the user is always asked to identify it with a name that the PI can recognize.

5. On login you will also be reminded to enter your digital signature and e-mail address, until those are entered. You can ignore this for now.

6. Edit "John Doe" to the name of the Principal Investigator (PI). From the Edit form, select the "People" button to open the People form. Change the First Name and Last Name fields. Set the path to the PI's root folder using the Set Folder button (Set Folder). The root folder for the user is the user's folder on the lab drive: For example, the root folder for Rob on the lab drive "Z:\H-lab" might be "\Rob\", so that the full path to that folder is "Z:\H-lab\Rob\".

7. Edit Investigations to reflect the lab Investigations. From the Edit form, select the Investigations button. Edit "(edit from Edit)" to a title that reflects the lab research. Investigations may for example be a grant title, or reflect the scope of an area of investigation active in the lab, or may signify a collaboration. Add other Investigations as needed. Close the Investigations form.

8. Edit Projects to reflect the Projects under each Investigation. From the Edit form, select the Projects button to open the Projects form. Projects are a way to organize Experiments that is convenient to the PI, as roughly defined by the Project title. Select the first Investigation from the Investigation drop-down box. Edit "(edit from Edit)" on the subform to be the title for the Project. Add other Projects that fall under this Investigation. Add Projects to any other Investigations, until all the Projects in your lab are covered (or do this later). Close Projects, and Close Edit.

9. Let's now make a Figure in an Experiment! You can use existing data for this.
   a. Select the appropriate Investigation and Project for the Experiment from the drop-down boxes on the Switchboard form.
   b. Open the Experiments form from the Switchboard by selecting the Experiments button.
   c. If there are no Experiments yet in the Project, you will be asked
   d. Enter a title for the new Experiment in the top Title field.
   e. Select the Figures tab, and click on the "New Figure" button.
   f. Navigate to one of your data files using the binoculars button, and hit "OK".
   g. If the data file is a movie, it will automatically load into the movie player. Otherwise, the file will open: select the data of interest (chart, graph, table etc) and copy it to the clipboard.
   h. Minimize the data file.
   i. Select whether to make both an OLE link and a Pic or just a Pic. OLE links require that the software that opens the data file is an OLE server, e.g. Excel. If you elect to make an OLE link, select "Paste Link" rather than "Paste" as the option on the Paste Special dialog, as this is more economical with back-end storage space.
   j. Close the data file.
   k. Enter a title for the Figure, and add comments into the "Ingot" field next to the Figure.
   l. If you made an OLE link, a double-click on the Figure should reopen the data file. If you made a Pic only, click the Open button to reopen the data file. Either way, you have easy drill-down to the original data. [Tip: if your data is final, use Pic only!]

10. Now let's define the Issues and Outcomes of the Experiment.
    a. Select the Issues tab on the Experiments form, then the Edit Issues button, to open the Issues form.

b. Select the New Issue button ( ) to make a new Issue, and enter the new Issue under "Edit Issue" on the subform. An Issue is essentially a brief statement of the question that the Experiment addresses.

c. Make as many Issues as are needed, then close the Issues form. The new Issue(s) should be listed under the Issues tab on the Experiments form.

d. Select the Issues addressed by the Experiment from the list, and hit "OK".

e. Return to the Figures tab, and select an Issue that this Figure addresses from the "Selected Issues" drop-down box. Then hit the "Paste Fig to Issue" button, to create a new "Issue Outcome" record.

f. Select the "Issue Outcomes" tab, and select the Issue from the drop-down list. The newly made record will show. The "Outcome Ingot" is a copy of the Figure Ingot, and can be edited to specifically focus on the relevance of this Figure to this Issue. After editing, hit the "Update Issue" button ( ) to append this Outcome to the Issue Status record. In this way you can track over time the progress of multiple Issues you are investigating, and easily review (via the Issues form) the experimental data relevant to each Issue.

11. labElephant also makes it easy to track Materials and Methods used in each Experiment. Once these are entered (see "Entering Materials in labElephant" and "Entering Methods in labElephant" in the labEleDocs folder in the back end location), they can be selected from the drop-down lists under the Materials and Methods tab on the Experiments form.

12. labElephant also provides a unique way to link the thought process behind the Experiment to the Experiment itself. Relevant Ingots generated on the Knowledge form that encapsulate that thought process can be marked on the Knowledge form and pasted to the Experiment using the Paste button ( ) under the Rationale tab on the Experiments form. See "Making Nuggets and Ingots in labElephant" and "Using myElephant with Endnote" in the labEleDocs folder in the back end location. The "Additional Rationale" field then can be used to detail the link between the Knowledge Ingot(s) and the Experiment.

13. When a new Experiment is made, repetitious entry of experimental conditions is avoided by using the "Copy conditions to Experiment" buttons, after selecting from the drop-down list a previous Experiment whose conditions are to be copied.

14. For more information on features of the Experiments form, see "Entering Experiments in labElephant" in the labEleDocs folder in the back end location. Using Summary Files, and signing Experiment Reports, are two important topics covered therein.

15. Finally, on most forms, additional context-sensitive help is available from selecting the help button ( ), and/or from a mouse-over of a form control plus "F7" hit. Just a mouse-over on a form control will also reveal some information about that control. Happy trials!

Section 2: Preparing to move the Back End to a Network Location

Oyez, Oyez: 32-user licenses are currently free for 1 year, as an introductory offer!

When the PI has tried out labElephant and decides that it would be good for lab personnel to be able to use it from any computer, the back end database needs to be moved to the lab folder on the intranet server. Before making that move, the Principal Investigator should ensure that their own data set-up has been completed, and also some initial data about lab personnel, as follows. If the PI sets up labElephant well, this sets a good example for other users in the lab. To complete set-up:

1. Enter your digital signature and your e-mail address, if not already done. The digital signature is important because users of labElephant can protect their intellectual property by digitally signing their experimental records. To make a digital signature, sign your name on a piece of paper, scan it to a .jpg file, open it in photo editing software such as Microsoft Paint, select a rectangle around your signature, crop to that rectangle, select the signature, and select Copy, to copy it to the clipboard. Then open the Signature form in labElephant: open the Edit form, and select the **Signature** button. Paste the signature from the clipboard into labElephant and close the Signature form. Similarly, use Edit/E-mail to enter your e-mail address. E-mail address entry is important for all lab personnel for two reasons. First, it allows notification when one lab person sends papers to another within labElephant. Second, it allows the Principal investigator to send a newly reset password generated by labElephant to be sent to lab personnel who lose or forget their passwords.

2. **Ensure that you have reset your labElephant password** from its default value of "myelephant". This is important for each user to do because it protects their identity within labElephant, which is important for the validity of their digital signature. Also, remote access to labElephant requires that the user has changed their password from the default. To change your password, select the **Edit** button on the Switchboard form to open the edit form, and select the **Password** button. Change your password, press Enter, and close the Password form. **It is critical that the PI makes a record of the new PI password and stores it in a safe place**.
   Lab personnel can have their passwords reset from within labElephant, but there is at present no mechanism for restoring a lost or forgotten PI password.

3. Set your default settings. From the Edit form, select the Defaults button to open the Defaults form. Default settings are individual to each lab person, and speed up file location by taking the user directly to the directory where different types of file are stored on the lab drive. Enter your default settings for the default paths using the "Set Folder" button.
   In Experiments:
   Plans: the folder where your experimental plans are located; this will show as the default path under the Materials and Methods tab on the Experiments form.
   Data: the folder closest to where "other data files" are located; this will show as the default path under the Addendum tab on the Experiments form.
   Figures: the folder closest to where your experimental data is located; this will be the default path for "Path to File" under the Figures tab on the Experiments form. It may be the same location as for "other data files".
   Summary files: the folder closest to where your summary files are located; this will show as the default path for new Summary files under the Summary Files tab on the Experiments form.
   In Methods:

Protocol: the folder where your Methods protocol descriptions are located; this will be the default path for the Protocol path on new records of Method Versions, on the Methods form.

Data: the folder where your Additional data links for Version are located; this will be the default path on new records under the Additional data links for Version tab, on the Methods form.

In Literature:

.pdfs: the folder where you keep your pdf files of papers you download from PubMed; also the folder where pdfs will be put that other lab personnel may send to you.

Literature files: the folder where you keep your Medline-format text files or RIS format text files that are exported from PubMed, and/or the RIS format text files that are exported from Endnote or Endnote Web. The RIS files should have the same name as the Medline-format files, but with "RIS" added at the end of the file name, before the period (see "Using labElephant with Endnote" for more details).

eMail files: the default path of the folder where e-mails that are important enough to be tracked in labElephant can be saved (Save As from your e-mail application).

Literature File Format: Select RIS format if you plan to use labElephant in conjunction with a recent version of bibliographic software such as Endnote Web or Endnote (recommended). Collections of papers from the literature can be exported from these programs in RIS format, and these RIS format files can then be imported into labElephant. RIS format files contain the identification numbers used by these programs to identify each paper in text references, and hence allow creation of text in labElephant that can be pasted into Word or other word processing software, for generation of bibliographies. If instead you will be importing files exported by PubMed directly into labElephant, without using bibliographic software, select PubMed Medline as the default Literature File Format. Select "None" if you do not plan to import text files.

Literature File Extension: If you selected RIS format, the File Extension will be "*.txt" by default, and should not be changed. Both your PubMed MEDLINE text files and your RIS files should be saved with this extension. If you selected PubMed MEDLINE, "*.txt" is also a good choice, but you can use your own default extension if you wish. This field on the Defaults form must begin with "*."

Bibliography software: Select one, or None if you do not use bibliography software.

Close the Defaults form. Endnote, available from Clarivate Analytics, is the industry standard software tool for publishing and managing bibliographies, citations and references. Endnote Web is a free on-line version good for student use, but with limited bibliographic styles. labElephant Software has no connection to Clarivate Analytics.

4. Set some labElephant settings for your lab. From the Edit form, select the "PI settings" button to open the PI Settings form. This form is only available to the Principle Investigator.

   Application Settings: Enter a **lab title** (up to 3 lines), that will appear on the Switchboard form on startup. To start a new line, hit "Ctrl Enter".

   Lab Folder Name: When labElephant is first started, this comes up as "Documents" folder as that is where the back end database resides. However, your lab folder is likely on a server. Use the "Set Folder" button to navigate to your lab folder, and "Select Folder". When you are ready to move the back end to the server (Section 3), the lab folder is where it should be moved to.

Path to Vault: labElephant provides a way to create digitally signed reports of Experiments that are automatically stored in a folder specifically for that purpose. That can be a folder that you create in the lab drive, or any location that you specify that is recognizable to your file system. This is important because these records constitute evidence that can be the basis of intellectual property claims. Enter this path using the Set Folder button.

Path to Materials Reports: Reports generated on the Materials form that list inventory will be placed in the folder specified here.

Close the PI Settings form. Later you can change other settings on this form (see "Setting PI Settings in labElephant.pdf".

5. Add lab personnel names on the People form. Their passwords will also be "myelephant" by default, and they can change them later when they log in. Close & reopen the People form. The Root Folder for each user can be set either by the PI or by the user.

   a. Set your Knowledge permissions for other users. On the People form, select yourself (solid triangular record selector, on the left of the record):
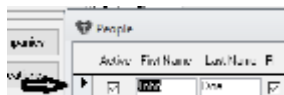
   and then select the people on the subform below who you wish to be able to see your Knowledge form:
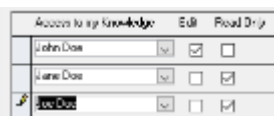
   With "Edit" permission, others cannot add or delete records on your Knowledge form, but they can change text on existing records. With "Read Only" permission (the default setting), others can see records on your Knowledge form, but cannot add to or delete your records, or change text on them. (They can make their own records, of course, when they sign in as themselves). Granting others Read Only permission is especially useful for fostering the sharing of thoughts on specific papers, as even from their own Knowledge form others can see Nuggets you have made on any paper that they have imported into labElephant or that you have sent to them from labElephant. But, if you wish to keep information on your Knowledge form private, do not give anyone but yourself access to your Knowledge.

   b. Set the Investigation and Project permissions. On the Investigations form, add people (in addition to yourself) who you wish to have access to data in Projects under this Investigation. People can be added to all Projects under an investigation after Projects are defined, by selecting the "Add to All Projects" button that is enabled when a person is selected. Select the Make Projects checkbox only if you wish them to be able to create (Own) their own Projects under the Investigation. As Project owners, lab personnel can set their own permissions for those Projects, for all other People. The default setting is to reserve the Make Projects capability for the PI. If you wish to add people to all Projects under an Investigation, close the Projects form, re-open the Investigations form, select the Investigation, select the person, and use the "Add to All Projects"

button. Otherwise, on the Projects form, select a Project, and add people individually (in addition to yourself) on the subform below who will have access to data in that Project. Select Edit if you wish them to be able to edit and add experimental data records under this Project. Figure records that are "Deleted" can be "Undeleted", from Edit/Undelete Figures. Assign People and permissions to all Projects in this way. Any person who is assigned permission on a Project will automatically be assigned permission for the Investigation of which that Project is a part, whether or not Make Projects is checked.

    c. Note: The "PI" field on the People form remains unchecked for new users by default. The PI can confer PI status to another user to allow that user to conduct PI functions when the PI is unable to, for any reason. PI status confers access (if Temp PIs are granted full access on the PI Settings form, see below) from the Edit form to the Investigations form, the Projects form, the PI Settings form, the Funds form, and the ability to Globally replace text strings in paths. The PI also has automatic Edit privileges for Experiments under all Projects, and the ability to make new Investigations and Projects.

6. Set your path defaults. From the Edit form, select the Defaults button to open the Defaults form. Default settings are individual to each lab person, and speed up file location by taking the user directly to the directory where different types of file are stored on the lab drive. Enter your default settings for the paths using the Set Folder button:

In Experiments:

Plans: the folder where your experimental plans are located; this will show as the default path under the Materials and Methods tab on the Experiments form.

Data: the folder closest to where "other data files" are located; this will show as the default path under the Addendum tab on the Experiments form.

Figures: the folder closest to where your experimental data is located; this will show as the default path for "Path to File" under the Figures tab on the Experiments form. It may be the same location as for "other data files".

Summary files: the folder closest to where your summary files are located; this will show as the default path for new Summary files under the Summary Files tab on the Experiments form.

In Methods:

Protocol: the folder where your Methods protocol descriptions are located; this will show as the default path for the Protocol path on new records of Method Versions, on the Methods form.

Data: the folder where your Additional data links for Version are located; this will show as the default path on new records under the Additional data links for Version tab, on the Methods form.

In Literature:

.pdfs: the folder where you keep your pdf files of papers you download from PubMed; also the folder where pdfs will be put that other lab personnel may send to you. **Literature files:** the folder where you keep your Medline-format text files that are exported from PubMed, and also the RIS format text files that are exported from Endnote or Endnote Web. The RIS files should have the same name as the Medline-format files, but with "RIS" added at the end of the file name, before the period (see "Using labElephant with Endnote" for more details).

eMail files: the default path of the folder where e-mails that are important enough to be tracked in labElephant can be saved (Save As from your e-mail application).

Literature File Format: Select RIS format if you plan to use labElephant in conjunction with a recent version of bibliographic software such as Endnote Web or Endnote (recommended). Collections of papers from the literature can be exported from these programs in RIS format, and these RIS format files can then be imported into labElephant. RIS format files contain the identification numbers used by these programs to identify each paper in text references, and hence allow creation of text in labElephant that can be pasted into Word or other word processing software, for generation of bibliographies. If instead you will be importing files exported by PubMed directly into labElephant, without using bibliographic software, select PubMed Medline as the default Literature File Format. Select "None" if you do not plan to import text files.

Literature File Extension: If you selected RIS format, the File Extension will be "*.txt" by default, and should not be changed. Both your PubMed Medline text files and your RIS files should be saved with "*.txt" extension. If you selected PubMed Medline, "*.txt" is also a good choice, but you can use your own default extension if you wish. This field on the Defaults form must begin with "*."

Bibliography software: Select one, or None if you do not use bibliography software.

Close the Defaults form. This choice determines the format of references pasted into Ingots, so that Ingot text can be "copy and paste" into a Word document, as a skeleton of the text for your manuscript or grant application, and the Endnote add-in in Word will format it for your chosen bibliography style (see "Using labElephant with Endnote.pdf").

Section 3: Moving the Back End to a Network Location

Once set-up is complete, the PI can move the back end to the lab folder on the server. Be aware that, once moved, you will be supplied with a code specific to your network, and you will be asked to obtain a license and keycode from the labElephant website. You will need to enter that keycode before you can continue to use labElephant on the network. To move the back end:

1. Select the ( ) button on the Switchboard form to open the Move Back End form.
2. Navigate to the lab folder on the network, using the Set Folder button, and Select Folder.
3. Select the button to move the back end.
4. Obtain a license and keycode from the labElephant website, and enter it as directed.
5. Once the license code is obtained and entered, lab personnel can then join labElephant by a double-click on the file JLE1x32.accde or JLE1x64.accde (depending on the bit-version of Office on their computer), found in the labEleSys folder at the new back end location.