

Sony DPT-RP1 Lab Notebook

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7/22/2018

1 Introduction

This is documentation for a small lab notebook management program based on the Sony DPT-RP1 "Digital Paper" tablet. The program currently supports the following features:

- Combining multiple pdfs into larger pdf files (Journals).
- Associating metadata with entries for easy search.
- Autodetection of handwritten rectangles and image placement.
- Autodetection of pdf additions/deletions from Journals.
- Table of contents (with entry titles).
- Index section for keywords.

In the future, I wish to add the following features to the program:

- Making the user input more error robust.
- More effecient compiling (raster vs vector)
- GUI for notebook management.

2 Installation

The python file **labnotebook.py** and the latex file **template.tex** provide the basis of this program. Installation of the program, simply consists of moving these files to the right locations and setting up a home directory for your lab notebook. For now, the program may be installed by running **labnotebook_installer.py**. Note that the installer will query you for a directory in which to place your lab notebook. This **Lab_Notebook** directory may be moved at any time to a new filepath.

The installer will create a folder called **Lab_Notebook** within the path that you specified. Within this folder will be the following files:

labnotebook.py: Contains the core of the software. Be careful if you try to modify this file. **template.tex:** A latex template that is used by **labnotebook.py** when generating journal pdfs. **labnotebook.bat/sh:** A batch or bash file which can be run activate the library manager.

3 Usage

Using this software revolves around manipulating the **Lab_Notebook** directory while the library manager (**labnotebook.py**) is running in the background. To activate the library manager run **labnotebook.bat/sh** or simply run `python labnotebook.py` from the terminal. While the library manager is active you may perform any of the following actions to edit your journals:

New Journal: To make a new journal, simply add a new folder within your **Lab_Notebook** directory. This will automatically create a new journal whose name will correspond to the directory's name.

New Imagenote: To add a new pdf from the DPT-RP1, add the new pdf to the **New_Imagenotes** subdirectory within a journal directory of your choice. You will be queried for image files to insert at all detected rectangles. Note: this will increase the filesize of these pdfs because they will be converted from a vector to a raster format. Working on a way to make this more efficient.

New Note: To add a new pdf which does not come from the DPT-RP1, add the new pdf to the **New_Note** subdirectory within a journal directory of your choice. Note: this will increase the filesize of these pdfs because they will be converted from a vector to a raster format. Working on a way to make this more efficient.

Delete Note: To delete a pdf from your journal, find the note in the **Notes** subdirectory and delete it. You can delete more than one note at a time in this manner.

Note: I recommend that you do not make any but the above alterations to the **Lab_Notebook** directory or its subdirectories while the library manager is running. Doing so may result in corruption of the library filesystem.