Report Compiler Documentation

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**Installation**

Before running the program, you will need to install the required software and Python modules. If you haven’t already, install Anaconda. For Windows, refer to the webpage, <https://docs.anaconda.com/anaconda/install/windows/>, for step-by-step instructions.

If you already have Anaconda installed, ensure that it is the latest version. If not, follow these instructions to update from an older version: <https://docs.anaconda.com/anaconda/install/update-version/>.

Once Anaconda is installed, you have the option of creating a new environment to run the program in. Instructions on how to do that are provided here, <https://conda.io/projects/conda/en/latest/user-guide/tasks/manage-environments.html#activating-an-environment>.

Next, activate your environment by:

1. Open Anaconda Prompt
2. Type command conda activate my\_env where “my\_env” is the name of your created environment
   1. If you did not create a new environment, you can use the default one by typing conda activate base
3. Keep Anaconda Prompt open

Check that your numpy and pandas module are the most recent version. To update these modules,

1. Type command conda update numpy (into Anaconda Prompt)
2. Type command conda update pandas

You will need to install the following Python modules: openpyxl, xls2xlsx, xlwings. Execute the following:

1. Type command conda install openpyxl (into Anaconda Prompt)
2. Type command pip install xls2xlsx
3. Type command conda install xlwings

Lastly, download the Assembly Survey Report folder from the following Github link: <https://github.com/charlescheng091703/Assembly-Survey-Report>. Unzip the folder and save it to the desired location in your local file system.

You should be good to go once you’ve completed these steps without any errors.

**Program Use**

To use the program, you will first need to create a folder with name “DLM#-1###”, where “#”s are placeholders for variable characters, in the Assembly Survey Report folder. For example, if you want to create a report for module DLMB-1040, you will need to create a file named “DLMB-1040”.

Then, you will need to import the necessary files into the folder which you have just created. Those files should be named:

1. CENTERS.csv
2. FIDUCIALS.xls
3. INFO.csv
4. SA Report.xls
5. USMN - Unified Spatial Metrology Network.xls
6. CDB Magnet List.xlsx

Once you the module’s folder created and the necessary files inside that folder, you need to

1. Open Anaconda Navigator
2. Launch Jupyter Notebooks
3. Navigate to the file, Report Complier.ipynb, and open it
4. Press the Run button or select the first cell and press “Shift” + “Enter” on your keyboard
5. Modify the module name text box to be the desire module to create a report for
6. Press the “Create assembly survey report” button
7. Wait roughly 30 seconds to a minutes for the program to run
   1. In this time, you should be seeing progress statements appear
   2. The program will open and close the Excel application in the background. There is no need to interact with these windows unless permission to a file is requested (this should not occur if file permissions are set to read and write for all files within the module folder).
   3. Important: do not press the button again before “Done!” is printed or an error is thrown
   4. If an error is thrown, please contact me by email and include a screenshot of the error.
8. Repeat steps 5-7 for other desired modules