

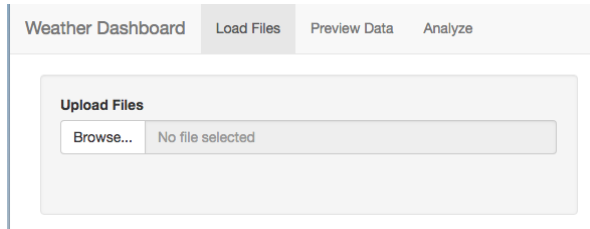
Weather Dashboard User Guide

August 2018

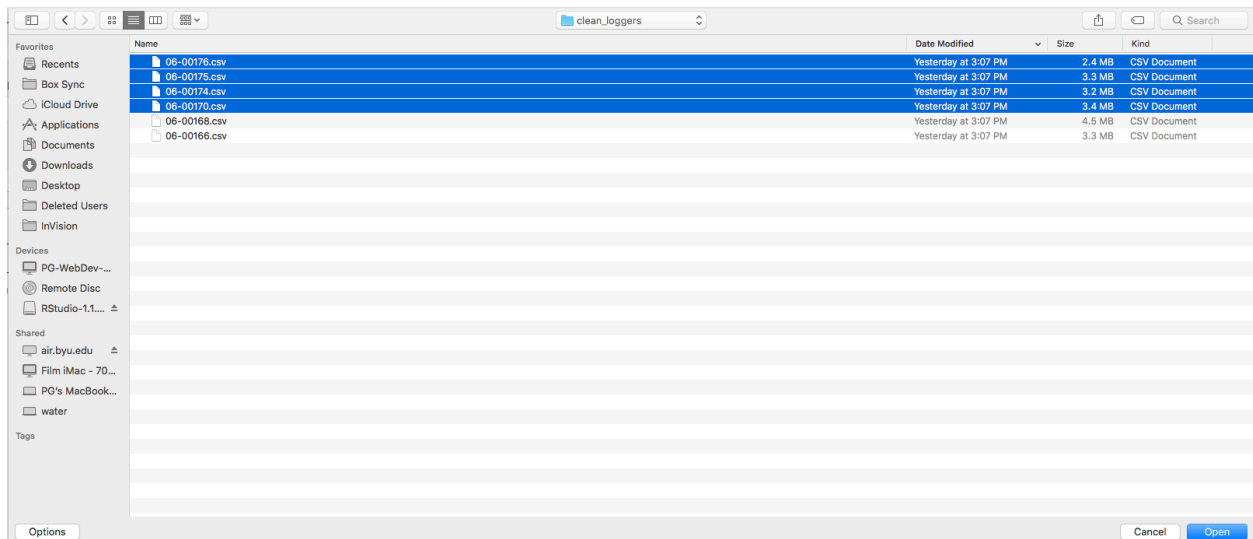
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Loading Files

To load files first be sure you are on the Load Files tab.
Next to select the files to upload, click on the Browse button.



You should now have a popup with access to your file system. Select the files you wish to upload then click Open in the bottom left. Note: currently only CSV (comma separated values) file format is supported.



Your files will now begin uploading. This could take several minutes depending on the size of the files. The uploading process will remove all non-alpha numeric character from column names. Once uploaded the file names should appear in the dataset display table at the bottom of the screen.

More files can be uploaded at any time by the same process.

Assigning Groups

By default, when files are uploaded they are assigned to Group1. To change one or more files' group:

1. Select the file(s) by clicking on them in the dataset display table. A selected file will be highlighted in a pale blue color.
2. Enter a new group name in the text area labeled “Enter Name of Group”.
3. Click “Group Selected Files” to change the group of the selected files to the previously entered name.

The screenshot displays the 'Weather Dashboard' interface with tabs for 'Load Files', 'Preview Data', and 'Analyze'. The 'Load Files' tab is active, showing an 'Upload Files' section with a 'Browse...' button and a 'No file selected' status. To the right, the 'Enter Name of Group' section contains a text input field with 'Group2' and a 'Group Selected Files' button. Below these sections, a table displays a list of files with columns for 'id', 'filename', and 'group'. The first two rows are highlighted in blue, indicating they are selected. The table shows four entries: two assigned to 'Group2' and two to 'Group1'. At the bottom, a pagination bar indicates 'Showing 1 to 4 of 4 entries' with 'Previous', '1', and 'Next' buttons.

	id	filename	group
1	a1	06-00176.csv	Group2
2	a2	06-00175.csv	Group2
3	a3	06-00174.csv	Group1
4	a4	06-00170.csv	Group1

You may create as many groups as you choose.

Data Previewing

In order for the application to recognize columns of data from various files as the same information, the column names **must be identical**. The Preview Data tab provides an opportunity for you to see the first 10 rows of any dataset and rename columns if needed. Input files often have small inconsistencies in column names. It is important to double check the data you are interested in has consistent column names across all sets. Names that are not common across sets cannot be analyzed against other sets.

To preview a dataset simply click to select it from the dataset display table on the right-hand side.

Column Name

Rename Column

Delete Column

Show 10 entries

	filename	group
1	06-00176.csv	Group2
2	06-00175.csv	Group2
3	06-00174.csv	Group1
4	06-00170.csv	Group1

Showing 1 to 4 of 4 entries

Previous

1

Next

Generate Group Data

Generate Hour Data

Generate Day Data

Generate Month Data

date	1TemperatureC	1RH	1atmkPa	2minWet450thresh	2minWet450thresh1	2Counts	3kPaPotential	3SoilTemperatureC	4mmVWC
2/23/2017 10:45	19.10	0.27	84.83	0	0	438	-218.00	9.80	0.27
2/23/2017 11:00	19.20	0.30	84.84	0	0	438	-147.80	9.50	0.27
2/23/2017 11:15	19.50	0.32	84.84	0	0	438	-88.50	9.30	0.27
2/23/2017 11:30	19.60	0.34	84.84	0	0	438	-65.90	9.30	0.27
2/23/2017 11:45	18.00	0.47	84.83	0	0	438	-56.00	9.30	0.27
2/23/2017 12:00	17.50	0.49	84.83	0	0	439	-49.50	9.40	0.27
2/23/2017 12:15	17.70	0.46	84.82	0	0	439	-45.00	9.50	0.27
2/23/2017 12:30	18.10	0.45	84.82	0	0	439	-41.90	9.50	0.27
2/23/2017 12:45	17.80	0.42	84.83	0	0	439	-39.50	9.60	0.27
2/23/2017 13:00	17.70	0.44	84.82	0	0	439	-37.30	9.70	0.27

Rename a column

1. Selected the desired column from the preview area on the right
2. Type the new column name into the text area label "Column Name" in the top left corner of the screen. Note: Use only alpha numeric characters in column names, no spaces or special characters (such as % # ° etc...)
3. Click "Rename Column"

Weather Dashboard

Load Files

Preview Data

Analyze

Column Name

NewColumnName

Rename Column

Delete Column

Show 10 entries

	filename	group
1	06-00176.csv	Group2
2	06-00175.csv	Group2
3	06-00174.csv	Group1
4	06-00170.csv	Group1

Showing 1 to 4 of 4 entries

Previous

1

Next

Generate Group Data

Generate Hour Data

Generate Day Data

Generate Month Data

date	1TemperatureC	1RH	1atmkPa	2minWet450thresh	2minWet450thresh1	2Counts	3kPaPotential	3SoilTemperatureC	4mmVWC
2/23/2017 10:45	19.10	0.27	84.83	0	0	438	-218.00	9.80	0.27
2/23/2017 11:00	19.20	0.30	84.84	0	0	438	-147.80	9.50	0.27
2/23/2017 11:15	19.50	0.32	84.84	0	0	438	-88.50	9.30	0.27
2/23/2017 11:30	19.60	0.34	84.84	0	0	438	-65.90	9.30	0.27
2/23/2017 11:45	18.00	0.47	84.83	0	0	438	-56.00	9.30	0.27
2/23/2017 12:00	17.50	0.49	84.83	0	0	439	-49.50	9.40	0.27
2/23/2017 12:15	17.70	0.46	84.82	0	0	439	-45.00	9.50	0.27
2/23/2017 12:30	18.10	0.45	84.82	0	0	439	-41.90	9.50	0.27
2/23/2017 12:45	17.80	0.42	84.83	0	0	439	-39.50	9.60	0.27
2/23/2017 13:00	17.70	0.44	84.82	0	0	439	-37.30	9.70	0.27

The date column

Absolutely crucial for analysis and combining groups is the date column. The column containing the date and time information **must be named “date”**.

Generating Additional Data Sets

At the bottom of the side bar on the left are four buttons. “Generate Group Data”, “Generate Hour Data”, “Generate Day Data” and “Generate Month Data”.

Generate Group Data: This will aggregate all datasets of the same group into one dataset. The various sets will be merged on the “date” column and will only include the columns present in all datasets. (This is why the date column and matching column names are so important).

Generate Hour Data: All datasets will be condensed down into hourly data. Three output datasets will be created for each individual dataset and group set, one of mean, maximum and minimum values for each hour.

Generate Day Data: All datasets will be condensed down into daily data. Three output datasets will be created for each individual dataset and group set, one of mean, maximum and minimum values for each day.

Generate Month Data: All datasets will be condensed down into monthly data. Three output datasets will be created for each individual dataset and group set, one of mean, maximum and minimum values for each month.

Note: Generating the additional datasets can take several minutes depending on the size of the data sets.

After clicking the “Generate Group Data” button you will see new datasets in the dataset display table bearing the names of their respective groups. See below for example.

Column Name

Rename Column

Delete Column

Show 10 entries

	filename	group
1	06-00176.csv	Group2
2	06-00175.csv	Group2
3	06-00174.csv	Group1
4	06-00170.csv	Group1
5	Group2	
6	Group1	

Showing 1 to 6 of 6 entries Previous 1 Next

Generate Group Data

Generate Hour Data

Generate Day Data

Generate Month Data

Similarly, after clicking the Generate Time Data buttons you will see three new datasets for each previously existing set appear in the dataset display table. The new data sets will be named according to their original dataset and the type of aggregated data they contain. For example, the mean hourly data for a dataset named “dataset1.csv” would be called “dataset1.csv-hourly-data-mean”. See below for an example of daily datasets.

Column Name

Rename Column

Delete Column

Show 10 entries

	filename	group
1	06-00176.csv	Group2
2	06-00175.csv	Group2
3	06-00174.csv	Group1
4	06-00170.csv	Group1
5	Group2	
6	Group1	
7	06-00176.csv-daily-data-mean	
8	06-00176.csv-daily-data-max	
9	06-00176.csv-daily-data-min	
10	06-00175.csv-daily-data-mean	

Showing 1 to 10 of 24 entries Previous 1 2 3 Next

Generate Group Data

Generate Hour Data

Generate Day Data

Generate Month Data

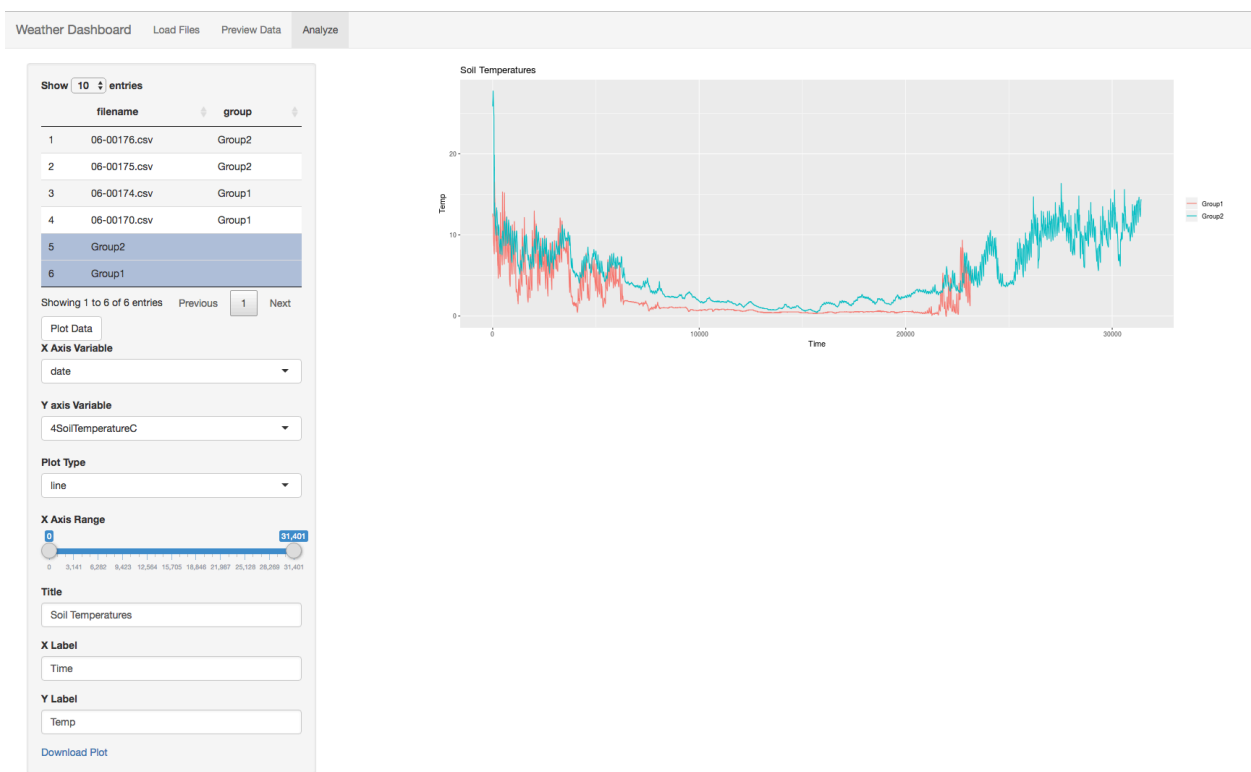
Analyze

In the dataset preview table within the Analyze tab you will see all the same datasets you uploaded, edited and created in the other portions of the app.

Plotting Data

To plot data,

1. Select the dataset(s) you would like to work with from the dataset preview area
2. Choose the variables for the x and y axis from the drop-down menus
3. Choose a plot type (Point, Line or Point & Line)
4. If you are using date as the x axis you can also use the X axis range selector to narrow the amount of data displayed
5. Click “Plot Data”



At the bottom of the side bar you will also find text areas for adding labels to the plot. You can add a title, x axis and y axis label.

You may also download the plot by clicking “Download Plot” at the very bottom left of the screen.