

Stepped Input Data Analyzer

Josh Wilkins

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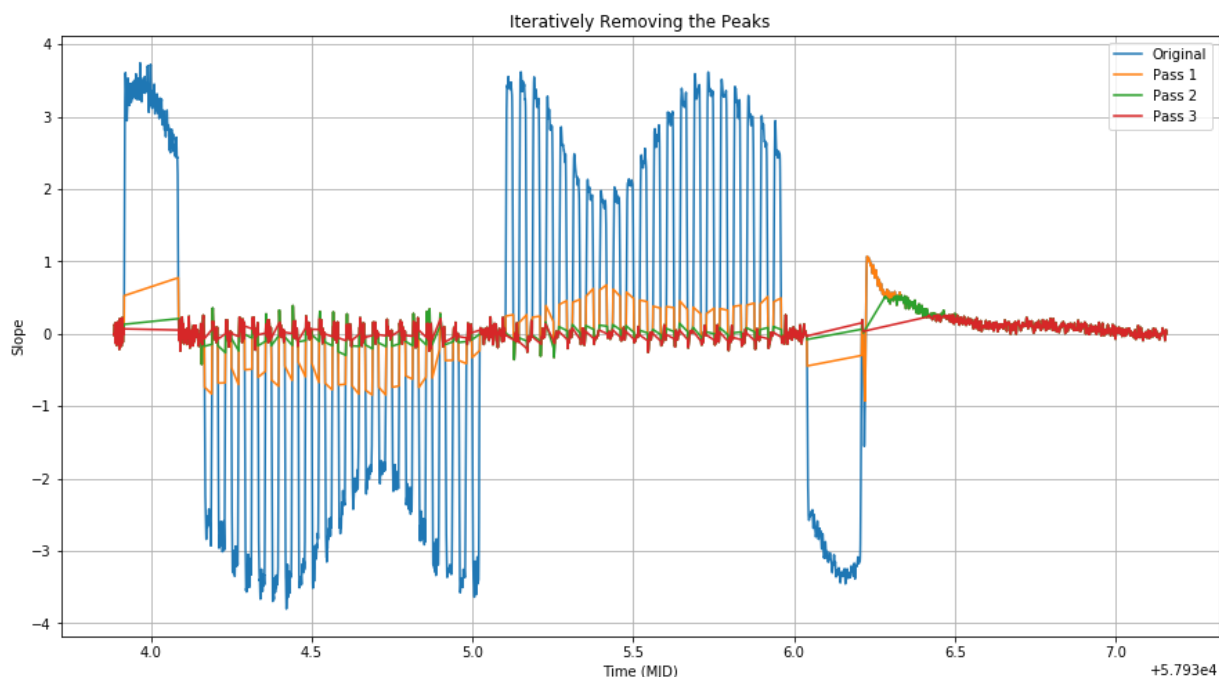
Given a stepped input (such as a step and hold temperature ramp), the output at the 'hold' regions are captured. This script will plot the input and output with these regions. Requires two csv files (file names Input.csv and Output.csv) each with their own MJD times in the first column and the data in the second column. The script returns two csv files; The averaged results and the transient responses. If script fails to work correctly for any reason, set the variable 'tolerance' to some value under the lowest peak in the derivative plot.

In [1]: ▶ *# Imports*↔

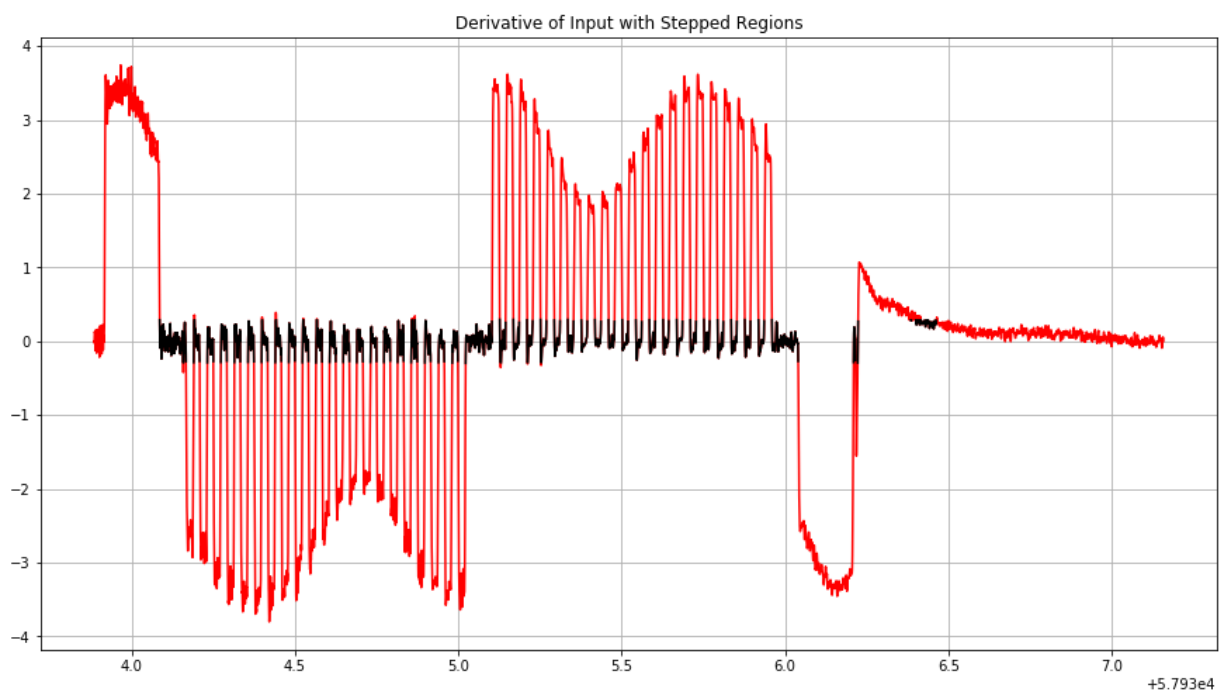
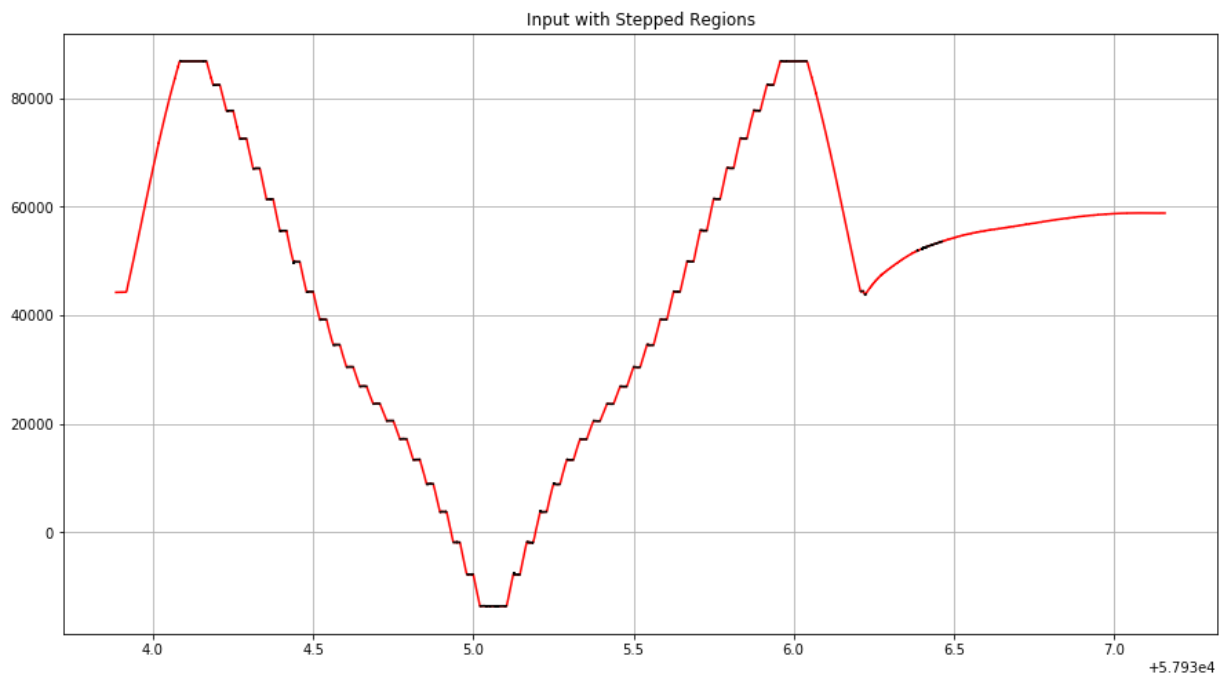
In [2]: ▶ *# Grabbing the Input Data*↔

In [3]: ▶ *# Grabbing the Output Data*↔

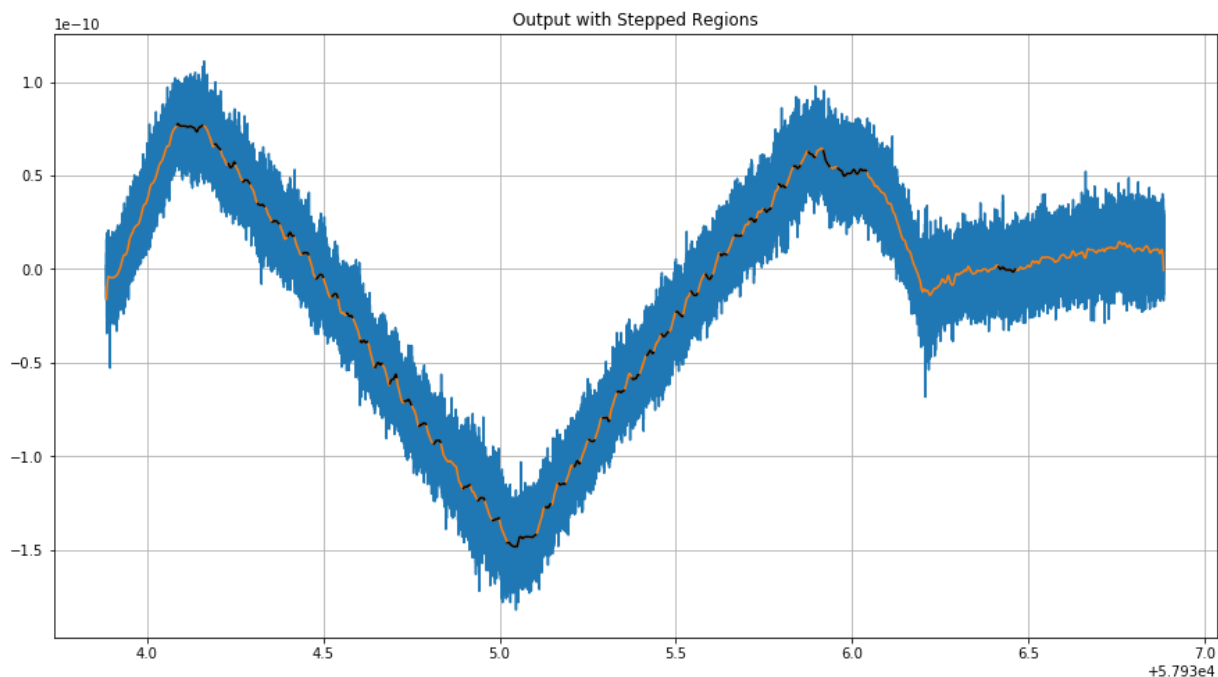
In [31]: ▶ *# Removing Sloped Regions of the Input*↔



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In [5]: ▶ # Grabbing 'hold' Regions of the Input↔
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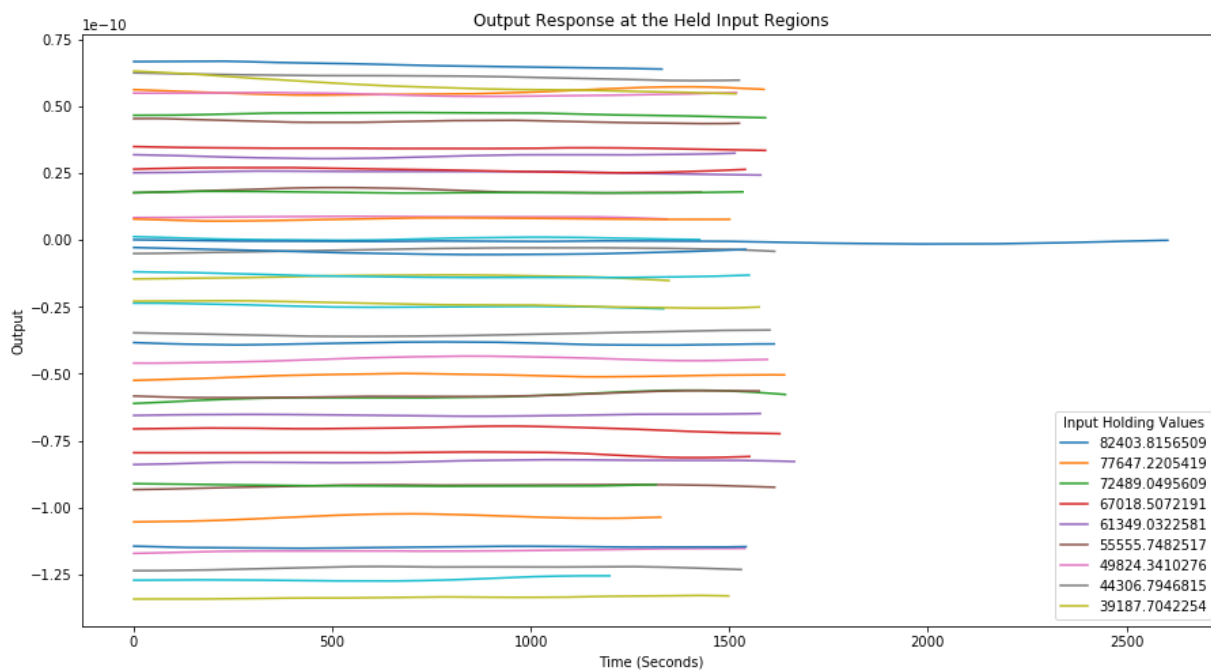


In [6]: ▶ *# Converting to Time Axis of Output↔*



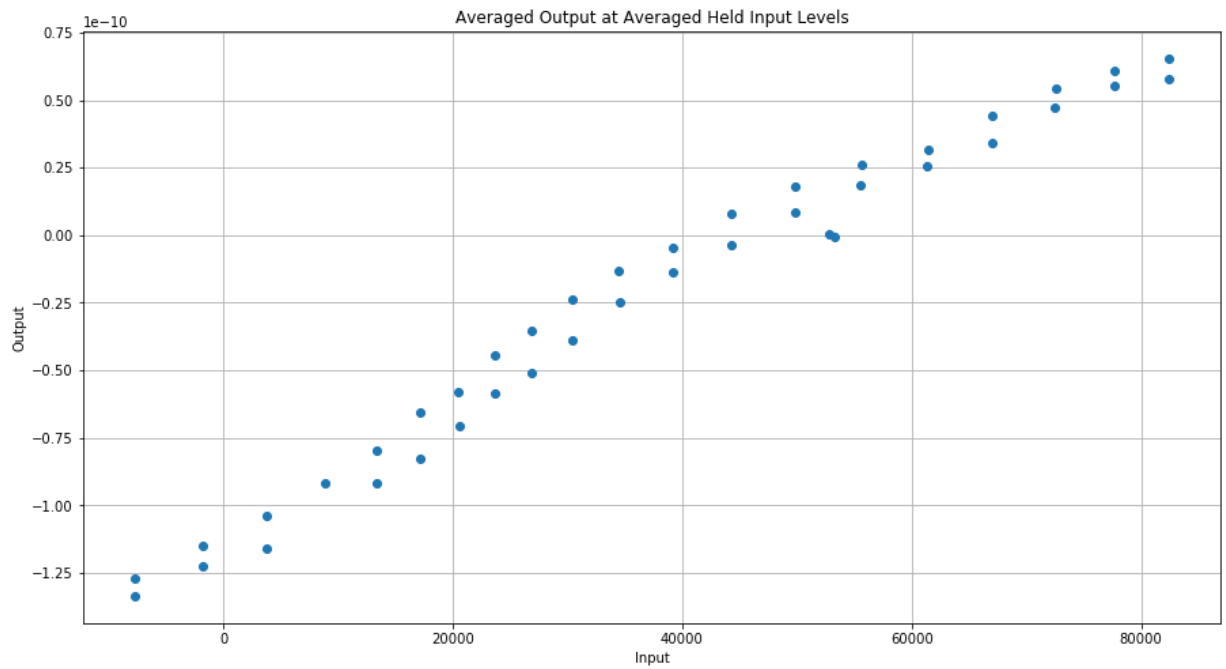
In [12]: ▶ *# Removing Abnormally/Incorrect short/long times↔*

In [13]: ▶ *# Plotting each Region of Data↔*



In [14]: ▶ *# Creating csv File of Transient Results↔*

In [15]: ▶ *# Plotting Averaged Results↔*



In [11]: ▶ *# Creating csv File of Results↔*