Software Development Tutorial

CSV Data Filter

NuWater

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Revision	00

1. Overview

Develop an application that can import csv files (comma separated value), filter the data and export a new csv file containing the filtered data to a file name and location of the user's choice. Refer to section 2 for the functional parameters. The executable file (.exe) as well as a text file (.txt) containing the source code In text format needs to be mailed to wilhelm@nuwater.com . Use the csv named TestCSV to test your application. All errors should be handled, and the user will be notified via message box.

Any of the following languages/compilers may be used to compile a GUI
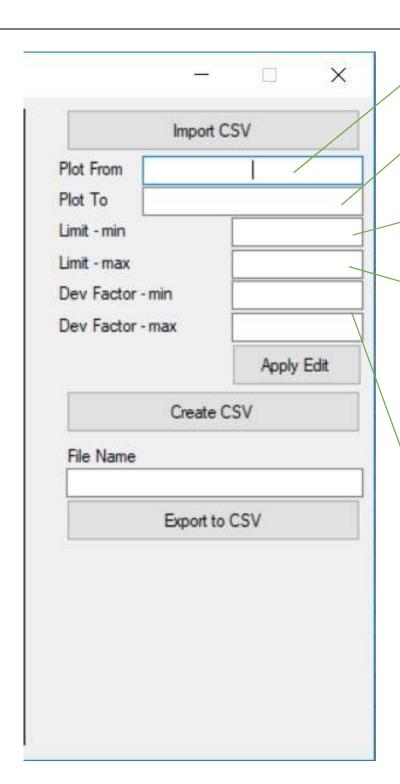- VB.NET
- REAL BASIC
- C#
- PYTHON
- JAVA

2. Overview

2.1 - GUI Layout

Import CSV

Plot From

Plot To

Limit - min

Limit - max

Dev Factor - min

Dev Factor - max

Apply Edit

Create CSV

File Name

Export to CSV

Enter the date and time of the **first** point in the original CSV that you would like to consider for filtering purposes

Enter the date and time of the **last** point in the original CSV that you would like to consider for filtering purposes

All values in the second column (TMP column) **below** this value will not be carried over to the new CSV

All values in the second column (TMP column) **above** this value will not be carried over to the new CSV

While filtering the data, the program will compare the TMP value of the current row to that of the previous row, if the TMP of the current row divided by the TMP of the previous row is higher than the value of "***Dev Factor – min***" and also lower than "***Dev Factor – max***", the value will be passed on to the new CSV file, if any one of the two conditions are not met, the value will be discarded

i.e. :
If TMP @ row 30 is **0.4** and TMP @ row 29 is **0.5** and the parameters are set as follows:

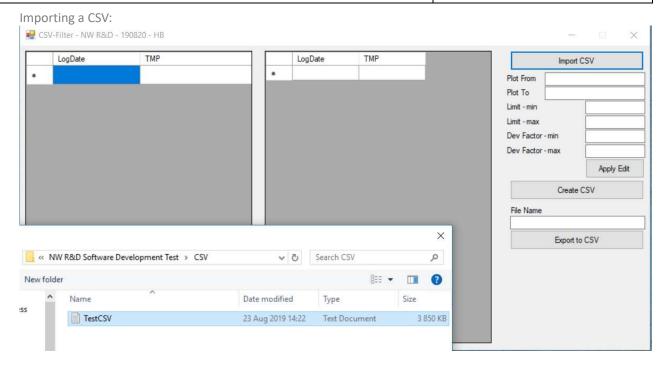Dev Factor – min = 0.7
Dev Factor – max = 1.3

(0.4/0.5) = 0.8

Since $0.8 > 0.7$ **AND** $0.8 < 1.3$, the value will be carried over to the new CSV

Importing a CSV:
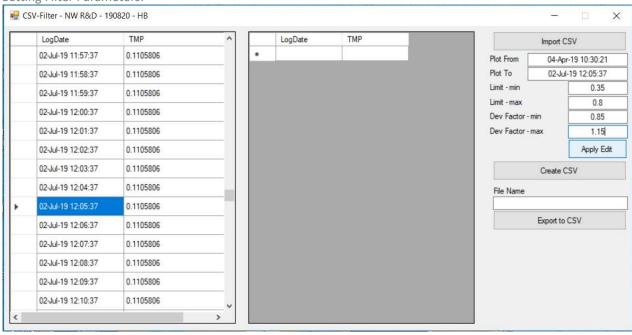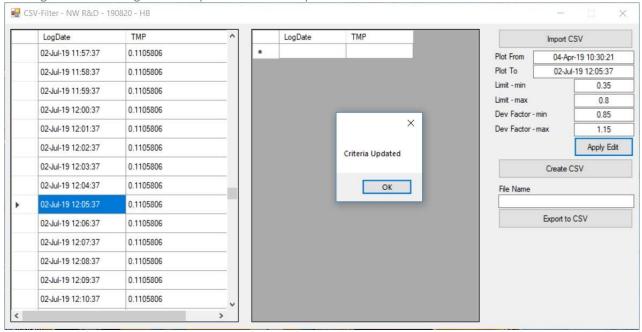

Setting Filter Parameters:
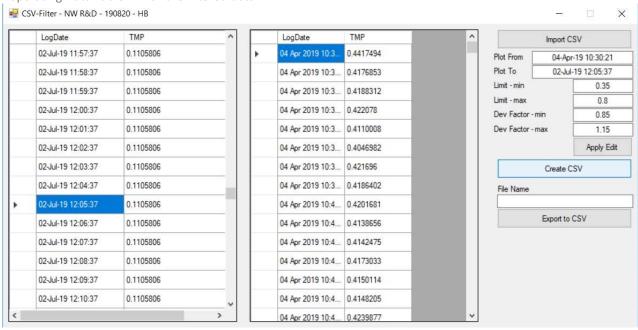
Message box confirming that filter parameters were updated:

Populating Data Table 2 with the filtered data:

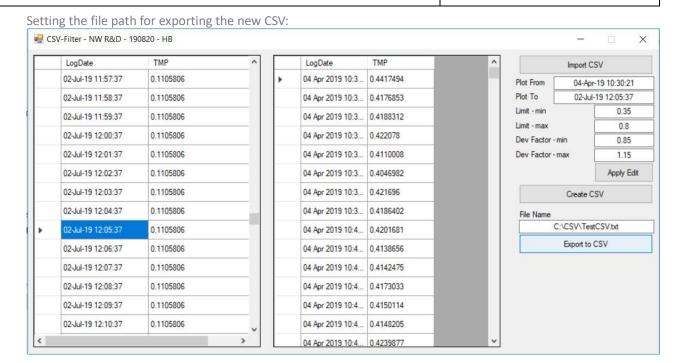Setting the file path for exporting the new CSV:
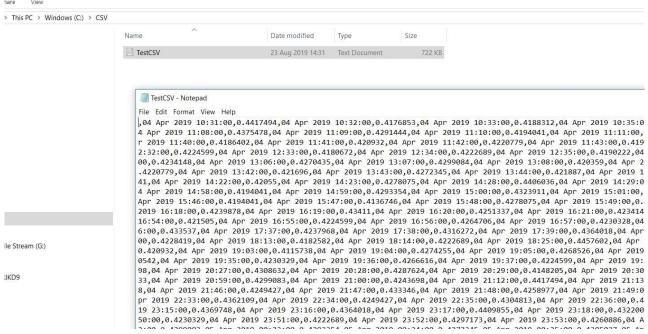

New CSV as text file in the specified location:

TIPS:
- Even if you're application does not function as intended send the files for review before the due date
- When importing dates, one might consider parsing a substring to change the date and time formatting