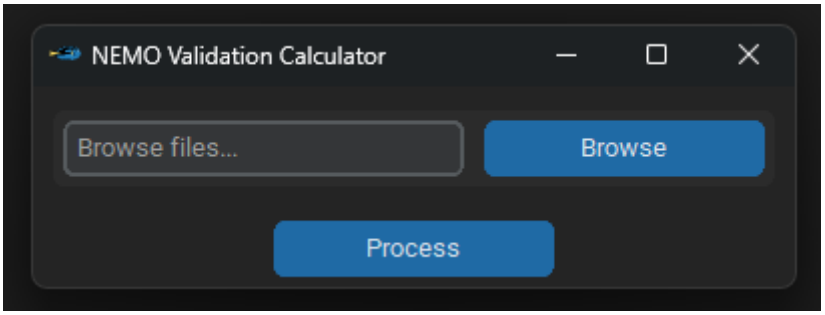
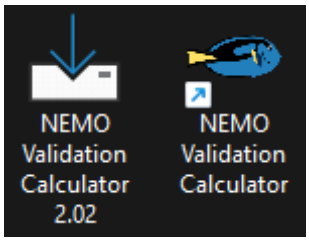
Disclaimer: Due to some of the data containing personal/private information, a complete version of the program is unable to be shared.

Part 1: Generating Descriptive Statistics

- This program has 1 purpose:
    - Generate descriptive statistics based on race conditions
- File input is a simple browse function that prompts the user
- There are error handling features built into the program to ensure that the user inputs the correct file
- There are dynamic features for the performance metrics in case the names are changed in the future
- Unfortunately, many conditional columns (ex. Gender, stroke, etc.) are hard coded as they serve to make the performance metrics dynamic
- Using a series of functions to filter the dataset, the program calculates descriptive statistics and prompts the user to save the output to their desired location.
- The program is available as a downloadable package for users that would prefer to not have the raw script





Below is an small example of the descriptive statistics output

C	D	E	F	G	H	I	J	K
Class	PoolLengt	Distance	Stroke	IsRelay	IsMixed	RelayLeg	Average of Start_BlockTime	StdDev of Start_BlockTime
World	50	50	Freestyle	FALSE	FALSE		0.812	0.225068878
World	50	50	Butterfly	FALSE	FALSE		0.805	0.035
World	50	50	Medley	TRUE	FALSE	1	0.665	0.015
World	50	100	Freestyle	TRUE	FALSE	1	0.7	0.01

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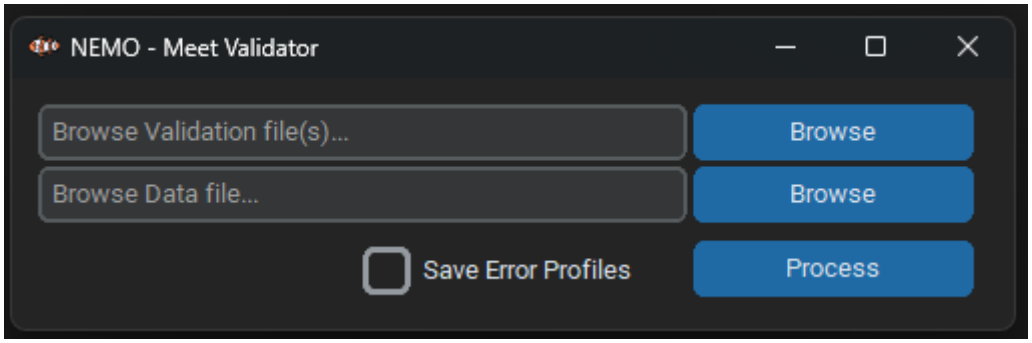
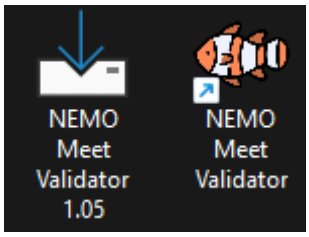
Part 2: Meet Validation

- This program has 2 main purposes:
    1. Detect outliers within a dataset and save them to a separate file to be reviewed
    2. Profile errors based on analyst and error location
- File handling is like the previous program
- The user is required to use validation data (generated in the other program)
- Program is semi-dynamic, like that of the other program
- The program is available as a downloadable package for users that would prefer to not have the raw script





Below is an example of the error profile output (with a reduced number of variables)

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Analyst	Start_Bloc	Start_Brea	Start_Brea	L1_First15	Lap 1_45m	Lap2_45m	Lap3_45m	45m time	45m time	45m time	45m time	Total Events
2	Person 1	1	2	1	0	1	1	0	1	1	0	0	288
3	Person 2	87	9	4	5	7	2	3	2	5	7	0	3857
4	Person 3	8	1	2	1	1	1	3	0	1	2	0	452
5	Person 4	12	5	2	0	0	0	0	0	0	0	0	237
6	Person 5	16	1	1	5	3	3	3	2	3	1	0	3435
7	Person 6	6	5	8	5	5	4	4	7	7	3	0	795