New Matlab Code

***Naming system for files:***

All file names must contain the following information in no particular order:

**‘dev’ + # + ‘x’** where # is the width of the constrictions

Ex: dev5x

**# + ‘fps’** where # is the frames per second

Ex: 1200fps

It is good practice to also include other information such as magnification, passage number, exposure time, and pressure. Although some of this additional information is saved in the .cine video files, it is more accessible in the file name.

Examples of file names that would work for the code:

dev5x7um\_1000fps\_20x\_200us\_004

dev5x10\_20x\_200us\_600fps\_003

dev7x\_1fps

Examples of file names that will not work for the code:

dev\_5x7\_6\_fps\_01

Information on how to rename in bulk is in the link below:

<http://www.howtogeek.com/111859/how-to-batch-rename-files-in-windows-4-ways-to-rename-multiple-files/>

***Naming of folders:***

The SPSS friendly output compiles all the data into a single spreadsheet. The data is a similar format to the old data output, but it also contains several columns of information that help distinguish between variables so you can upload it straight into SPSS. This information comes from the file path (folder names). If you have one variable, this is simple. Create your parent folder for that day’s data and then create daughter folders within the parent folder that are named the specific treatment. For example, the only variable is pressure:

Parent folder name: 130726

Folders within parent folder: 2psi, 4psi, 6psi, 8psi and 10psi

The SPSS friendly output will then add one column to the right of each case that will be the name of the folder, in this case the pressure.

If you have several variables, such as pressure and drug treatment, keep the same parent and daughter folders as above, but then in each daughter folder, create new daughter folders for each drug treatment. That way, every video is the same number of folders away from the parent directory and the distinction in the SPSS output will be correct. This very important.

Parent folder name: 130726

Folders within parent folder: 2psi, 4psi, 6psi, 8psi and 10psi

Folders within each pressure folder: treatmentA, treatment, treatment

The SPSS friendly output will then add two columns to the right of each case where the first will be the pressure and the second will be the treatment.

You could even run videos through the code from different days, just make sure the length(# of folders) of the file path is the same and the variables are consistent along that path if you want the SPSS output to correctly distinguish between cases. If the path lengths are different, all of the data calculations will still be correct, but the variable naming in the SPSS friendly output will have the most advantageous format. But that brings other issues. The bottom line is keep the same path length for the files you are analyzing if you want to save yourself from copy and pasting later on.