Want to create Dynamic website for results of an experiment to be shown. Experiments done in Runs, so Run 1 has its own data, Run 2 has its own, etc.

A screenshot of a computer

Description automatically generatedFor each Run, there should be a total of around 6 graphs. Organised in such a way that they are in 2x2 by columns like picture below.

Some experiments like IV scan have different number of times done for a run. So, for Run 1, there may be data to plot 1 IV scan. For Run 2 there may be 3 IV scans. So, its varied.

Current file called “main\_tests.py” in the “Tests” folder has data for all the heatmap graphs like the one above. This file has a function where it gives you the file needed to plot the “Strobe Delay” file. In total there are 3 of these tests. One is pts, threshold and last is strobe delay and their formatting is identical.

It gives you a dictionary where the Key is the Run number, and the value is a list of all the ROOT files needed to plot the strobe delay map for that particular Run. E.G below

**'Run\_14': ['strun14\_20.root', 'strun14\_36.root', 'strun14\_4.root']**

This would be all the files needed to plot the Strobe Delay map for Run\_14. Plotting is fairly easy.

For some other plots like the “IV\_2.py” file we have again a dictionary which has a list of lists, which is formatted similarly to above, but it looks like this. It is a dictionary where for Run\_29 as shown the first element will be the 1st IV scan done in Run 29, which is a list where 1st list is the currents and 2nd is the voltages. 2nd item of that list would be next IV scan etc.. This Test and the file called Noise Channel are formatted similar to each other. Also, would like multiple of these.

A computer screen shot of a keyboard

Description automatically generated

And so for this we would like a drop down where we could pick a particular IV Scan that we want to display.

For the noise\_channel the dictionary only contains the y values. As x-values are just [1,2,3,4..,1280] corresponding 1 to first item in noise channel, 2with 2nd item, etc..

Also would like Page 2 to be used as comparing the data that we would need muiltiple of. SO IV scan we would like to compare 1st IV scan with 2nd IV scan. 1st IV Scan with 3rd IV scan. So first IV Scan will be individually compared with the other IV scans. Would like to do statistical comparison (which I can do myself)

Please let me know if you have any questions.