AR Security 11/1

Allie Craddock & Casie Peng

Scans

- Finished three trials for three room types!
- Found averages for each performance indicator after combining the three trials
- Need a way to output data into neat table for reading

blinds_comb.txt

data_analysis > blinds_comb.txt

Metric	Mean	Median	Standard Deviation
wearable	5.85e+06	5.70e+06	3.84e+05
soc	1.26e+06	1.24e+06	1.64e+05
cvip	1.70e+06	1.63e+06	3.13e+05
cpu	1.26e+06	1.18e+06	3.84e+05
gpu	1.76e+06	1.05e+05	2.31e+06
5v_sys	6.84e+06	6.75e+06	4.13e+05
wlan	2.38e+05	2.33e+05	2.50e+04
nvme_pwr1	1.62e+03	0.00e+00	9.68e+03
nvme_pwr3	3.30e+04	5.00e+03	1.04e+05
nvme_pwr2	6.28e+03	4.00e+03	4.29e+03
vddp_run	6.90e+04	6.80e+04	3.33e+03
vddp_s5	6.84e+04	6.80e+04	1.28e+03
LPDDR_PWR	2.68e+06	2.67e+06	1.48e+05
PROC_TOT_PWR	6.01e+06	4.87e+06	2.35e+06
THERM_TOT_PWR	8.69e+06	7.64e+06	2.36e+06
THERM_TOT_PWR-throttle	2.50e+07	2.50e+07	0.00e+00
Tboard_soc1tmp	1.25e+02	1.24e+02	1.84e+00
Tdiode_soc1tmp	1.23e+02	1.22e+02	2.21e+00
battery	9.12e+01	9.12e+01	3.98e-01
chrgr	1.17e+02	1.17e+02	1.78e+00
ddr1	1.23e+02	1.23e+02	1.95e+00
ddr2	1.21e+02	1.21e+02	1.99e+00
mem	1.14e+02	1.14e+02	1.53e+00
mero2	1.24e+02	1.24e+02	1.99e+00
vrm	1.21e+02	1.20e+02	1.95e+00

windows_comb.txt

data_analysis > windows_comb.txt

Metric	Mean	Median	Standard Deviation
wearable	6.49e+06	6.50e+06	1.31e+05
soc	1.29e+06	1.26e+06	1.76e+05
cvip	1.66e+06	1.54e+06	3.64e+05
cpu	1.22e+06	1.13e+06	3.78e+05
gpu	1.89e+06	1.88e+05	2.27e+06
5v_sys	7.53e+06	7.56e+06	2.29e+05
wlan	2.41e+05	2.35e+05	2.60e+04
nvme_pwr1	2.60e+03	0.00e+00	1.40e+04
nvme_pwr3	3.53e+04	5.00e+03	1.11e+05
nvme_pwr2	6.47e+03	4.00e+03	4.86e+03
vddp_run	6.91e+04	6.80e+04	3.56e+03
vddp_s5	6.83e+04	6.80e+04	1.43e+03
LPDDR_PWR	2.67e+06	2.66e+06	1.36e+05
PROC_TOT_PWR	6.11e+06	5.07e+06	2.29e+06
THERM_TOT_PWR	8.78e+06	7.80e+06	2.31e+06
THERM_TOT_PWR-throttle	2.50e+07	2.50e+07	0.00e+00
Tboard_soc1tmp	1.25e+02	1.26e+02	2.37e+00
Tdiode_soc1tmp	1.23e+02	1.23e+02	2.44e+00
battery	9.02e+01	9.01e+01	1.55e+00
chrgr	1.17e+02	1.17e+02	2.00e+00
ddr1	1.24e+02	1.23e+02	2.18e+00
ddr2	1.22e+02	1.21e+02	2.09e+00
mem	1.14e+02	1.14e+02	2.12e+00
mero2	1.24e+02	1.24e+02	2.24e+00
vrm	1.21e+02	1.21e+02	2.11e+00

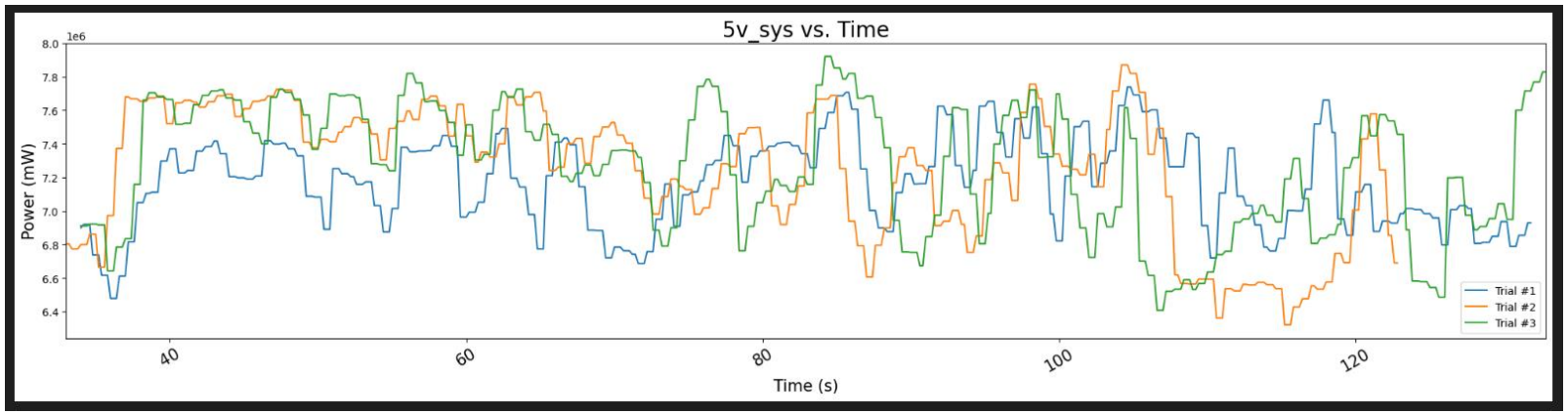
hallway_comb.txt M

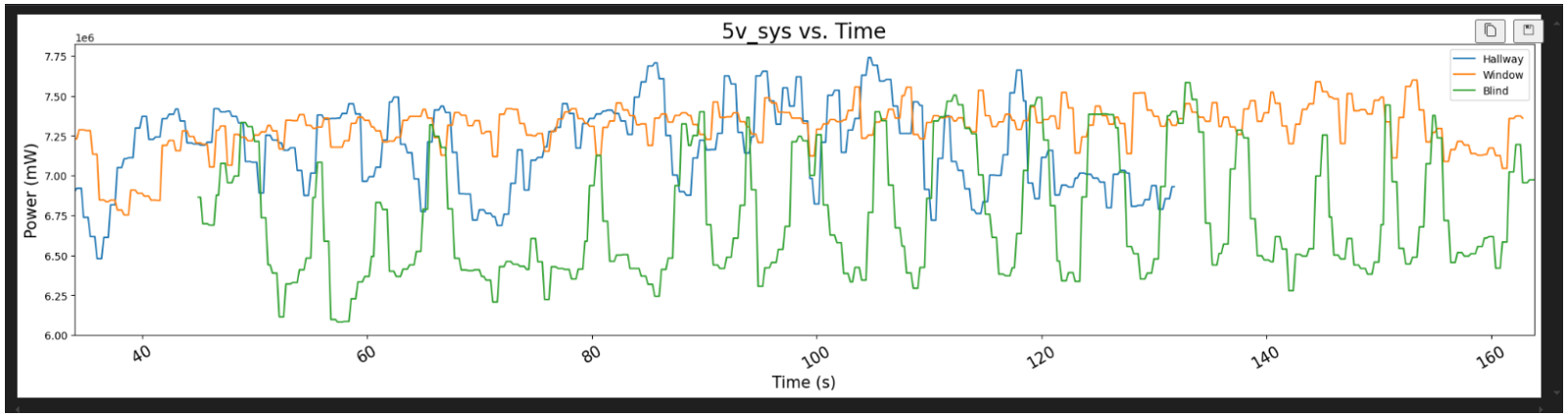
data_analysis > hallway_comb.txt

Metric	Mean	Median	Standard Deviation
wearable	6.13e+06	6.20e+06	3.38e+05
soc	1.27e+06	1.26e+06	1.50e+05
cvip	1.53e+06	1.46e+06	2.46e+05
cpu	1.29e+06	1.23e+06	3.93e+05
gpu	1.72e+06	1.05e+05	2.25e+06
5v_sys	7.23e+06	7.26e+06	3.51e+05
wlan	2.31e+05	2.28e+05	1.96e+04
nvme_pwr1	1.92e+03	0.00e+00	9.50e+03
nvme_pwr3	3.92e+04	5.00e+03	1.21e+05
nvme_pwr2	6.16e+03	4.00e+03	3.66e+03
vddp_run	6.88e+04	6.80e+04	3.25e+03
vddp_s5	6.80e+04	6.80e+04	1.35e+03
LPDDR_PWR	2.63e+06	2.61e+06	1.11e+05
PROC_TOT_PWR	6.14e+06	5.12e+06	2.33e+06
THERM_TOT_PWR	8.77e+06	7.77e+06	2.34e+06
THERM_TOT_PWR-throttle	2.50e+07	2.50e+07	0.00e+00
Tboard_soc1tmp	1.25e+02	1.24e+02	2.05e+00
Tdiode_soc1tmp	1.22e+02	1.22e+02	2.15e+00
battery	9.55e+01	9.55e+01	1.87e+00
chrgr	1.17e+02	1.16e+02	1.98e+00
ddr1	1.23e+02	1.22e+02	2.06e+00
ddr2	1.21e+02	1.20e+02	2.05e+00
mem	1.14e+02	1.13e+02	1.91e+00
mero2	1.24e+02	1.23e+02	2.07e+00
vrm	1.21e+02	1.20e+02	2.04e+00

Plotting

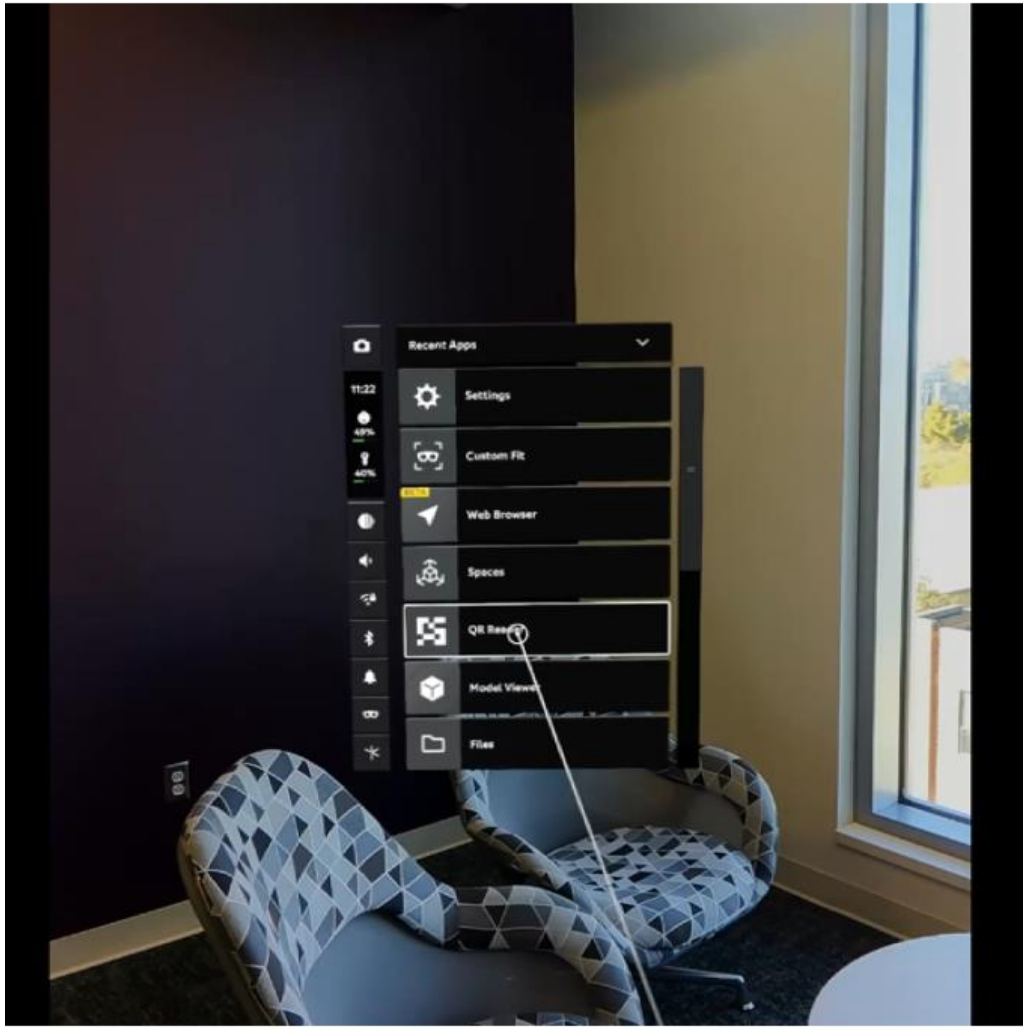
- Still need to rewrite function that plots three trials of two room types side-by-side for comparison
- Fixed legend names for more clarity





BURGS Presentation Week!

- Video Demos
- Reviewing Previous Work
- Reviewing Progress
- Reflecting on future processes



Unity

- Got Spatial Meshes to show up!
- Going to figure out how to use the profiler from there next week (as well as debugging my project to work)
- Going to try to collect data in the next couple of weeks once profiler is set up and procedures are made

Current Questions

- What's the best way to deal with noise in data analysis?
  - Another BURGS team did a window-sliding technique to make some of the important performance indicators more neat (aka. With CPU)
  - Any libraries which help with this?