B1 vs B2 Performance Drop - Initial Report

This is the first part of more reporting to come, but here's some initial notes:

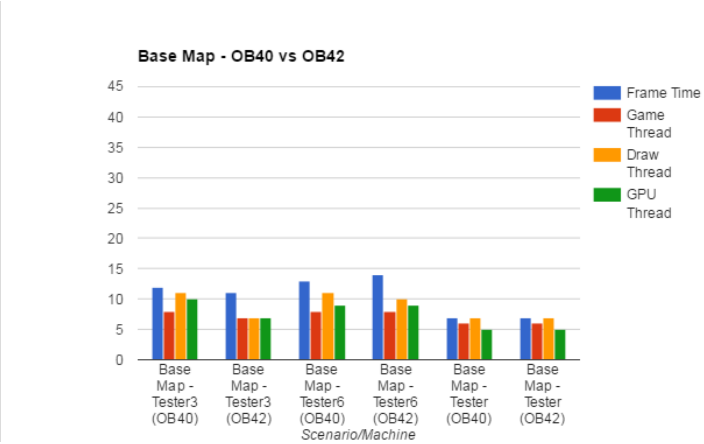
- Ten different common scenarios [such as: fresh spawn, both times firing, battle] were compared on a Min (bucket 1), Medium (bucket 2), and High (bucket 3) machine.
- Scenarios that had high variance between builds had Stat (ustat files) and Script (gprof files) files captured and put HERE!
    - **These scenarios scientifically compared performance in B1 vs. B2 to see if there is a performance difference.** An
- explanation of the scenarios and the results are available HERE!
- **TL;DR at bottom of E-mail**

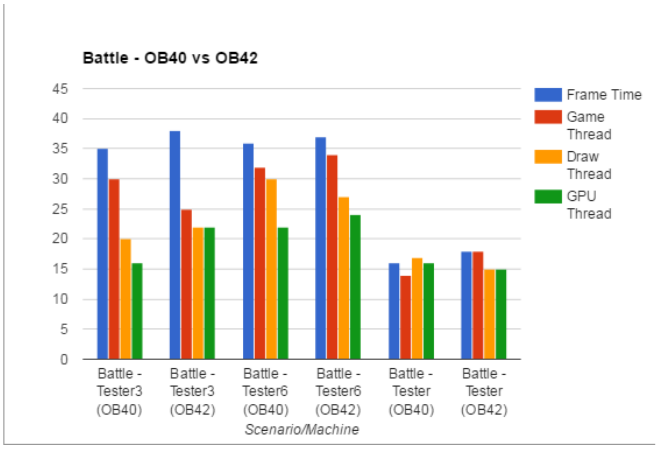
The spreadsheet has multiple tabs for different presentations of the raw data for facilitated consumption:

- *PC-Split Charts* tab show all the gathered data by machine.
- *Thread-Split Charts* tab shows all machines and scenarios split up by Thread (Frame time/Game/Draw/GPU) in separate charts.

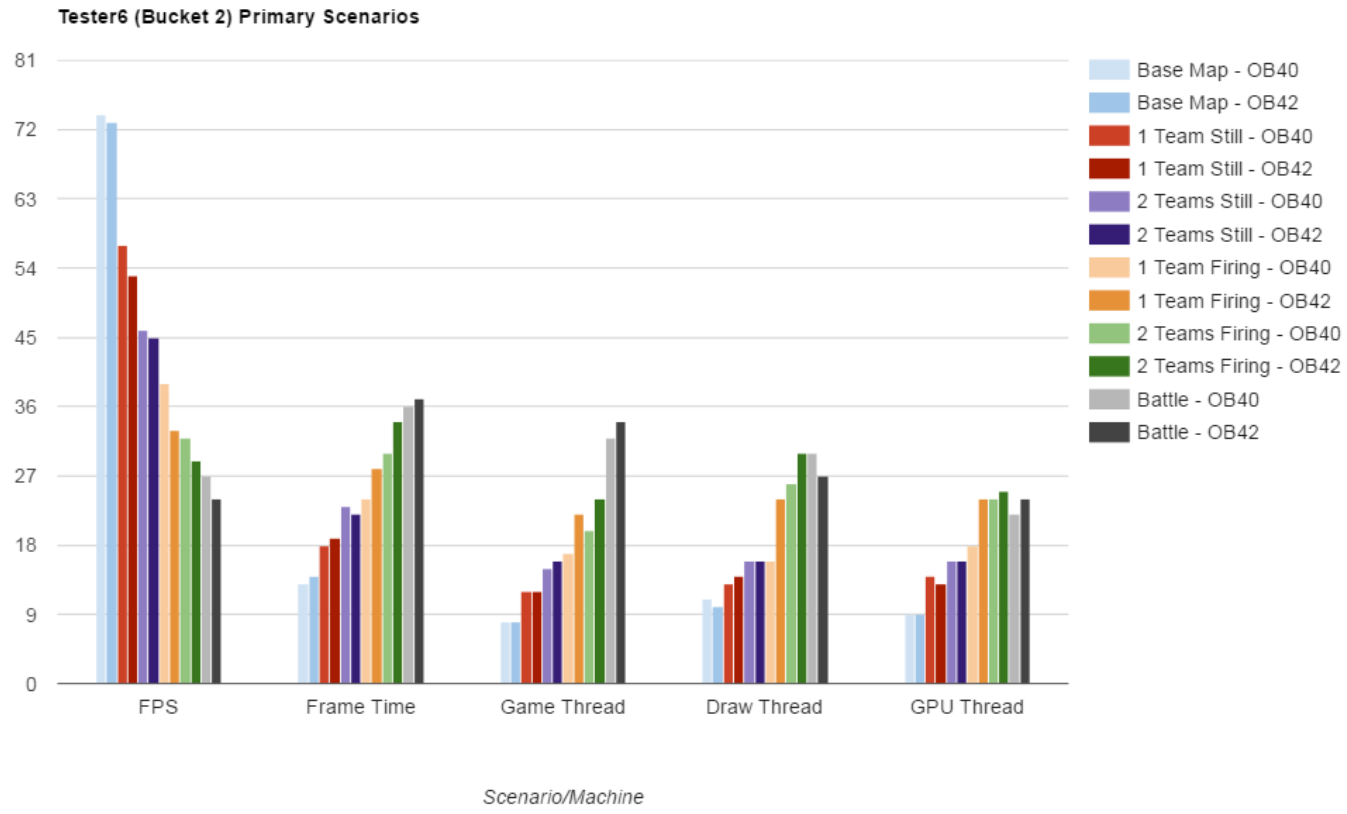
Base Analysis

Base Map vs. Battle (Lower Numbers are better)



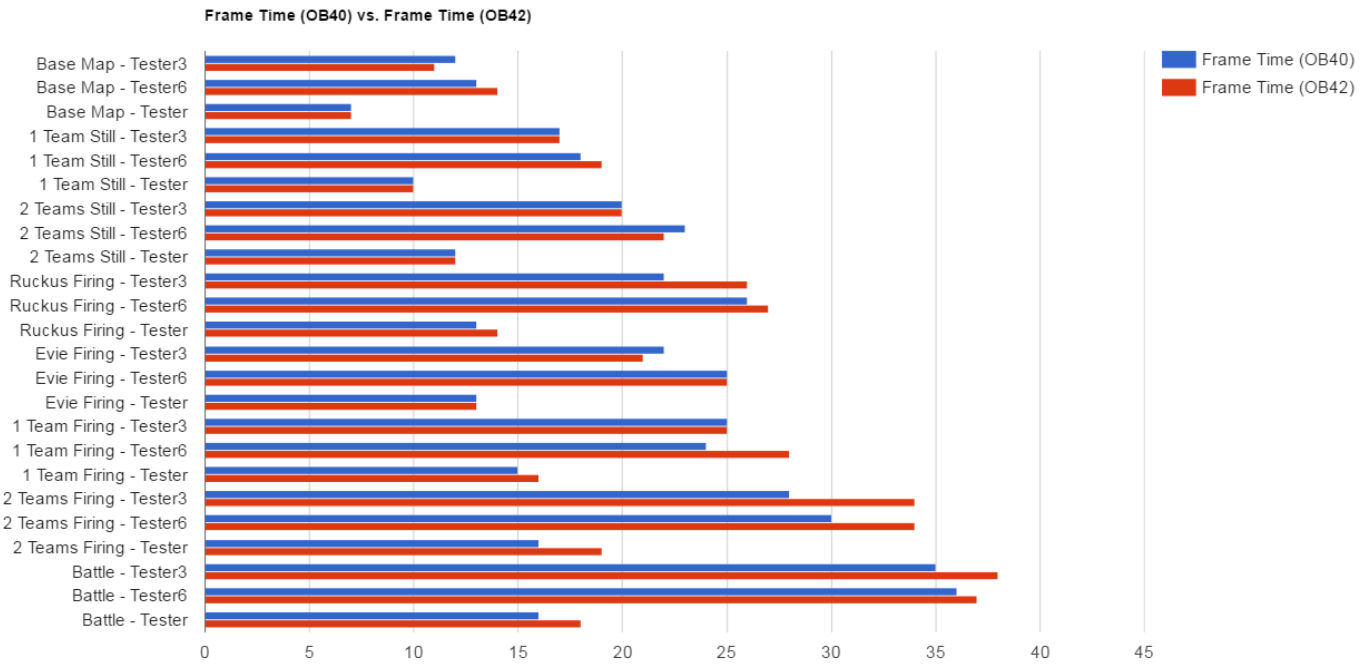


Quick Take: This compares the two polar scenarios, a fresh spawn empty map and full 10 player battle. This shows battle cost. Within this graph, you can see increases in **Battle** between B1 and B2 on multiple threads. This is better illustrated in the next set of charts.



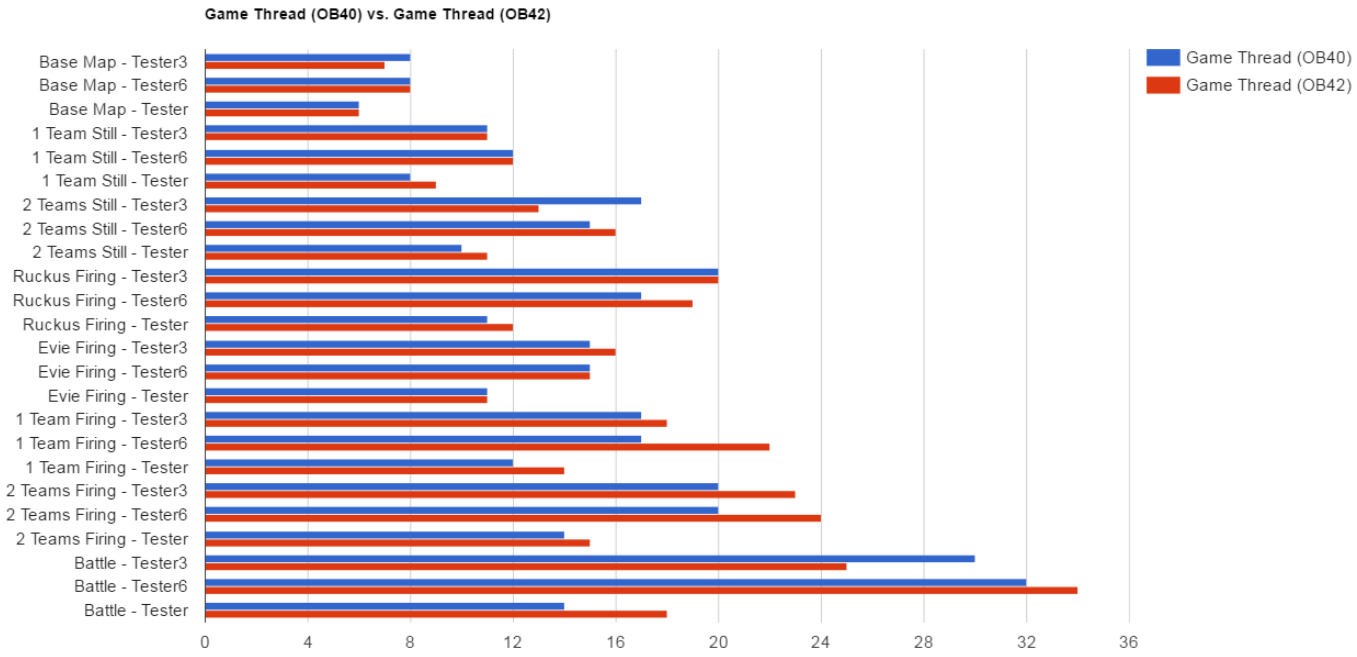
Quick Take: This chart is using just Tester6 only data points. The light shade is B1 and matching darker shade is B2. You can start to see a pattern of **Game Thread**, **Draw Thread & GPU Thread** being worse for most scenarios in B2 vs. B1. This starts to provide some clues supporting the 15-20FPS drop we saw in last months Performance Report. This also shows the inverse relationship between FPS and Frame Time.

All charts split up by machine in the PC-Split Chart tab of the spreadsheet.



Quick Take: Frame time [lower is better] is the most generic stat to look at. It is a "you're only as good as your worst thread" type of metric. This

shows B2 is worse for a majority of the scenarios on each machine. Frame time is then broken into Game (CPU), Draw and GPU threads and usually bound to whichever is worse.



Quick Take: Since **Game Thread** appeared to show more frequent & larger differences, chart included above. You can clearly see increases between B1 and B2 per machine on most scenarios. Two teams auto-firing on a loop specifically had a larger gap, and battle on 2/3 of the machines.

All threads are broken down in charts in the Thread-Split Charts tab.