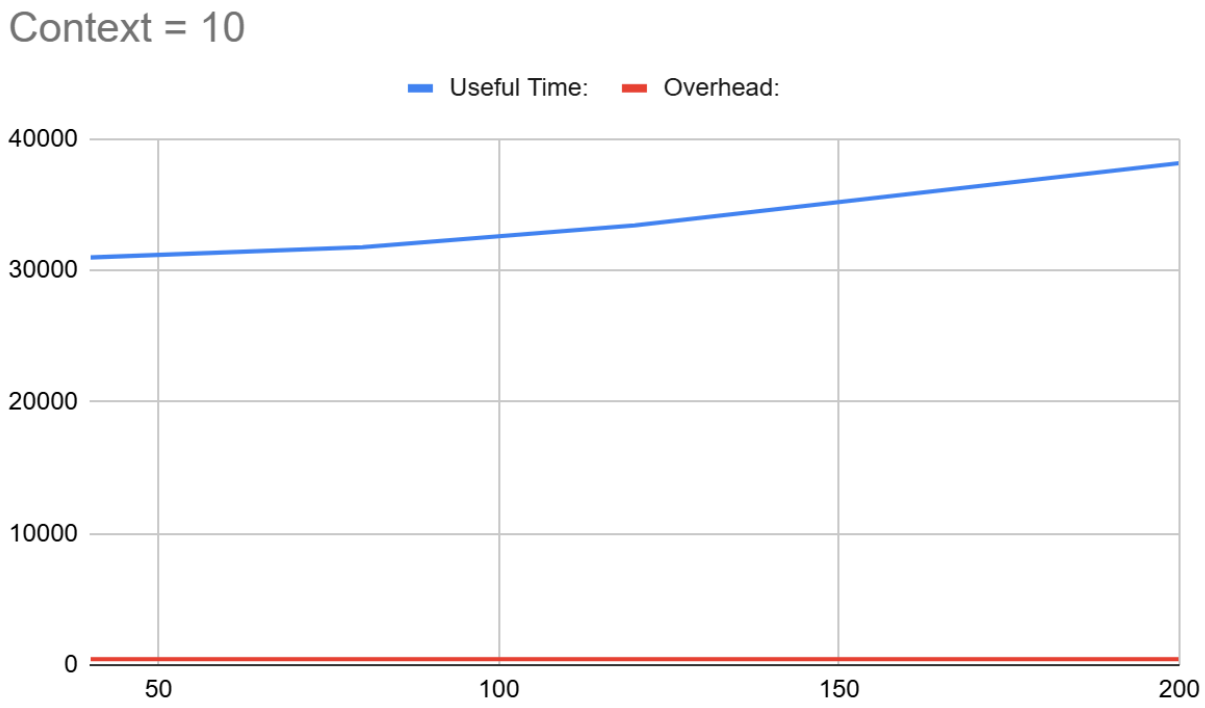
To showcase some of the tests done I made the following tables sorted by Context time displaying the useful time vs the overhead time sorted by ISR Time inputted.

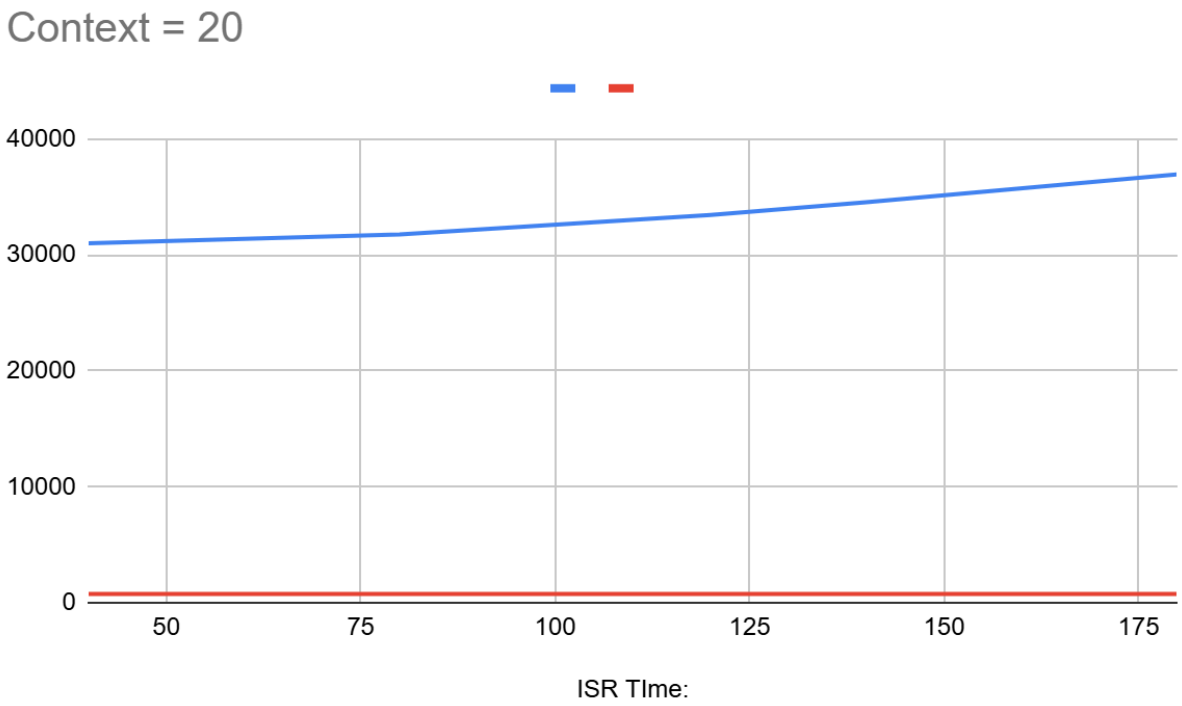
Context = 10:

ISR TIme:	40	80	120	200
Useful Time:	30989	31761	33433	38149
Overhead:	450	450	450	450



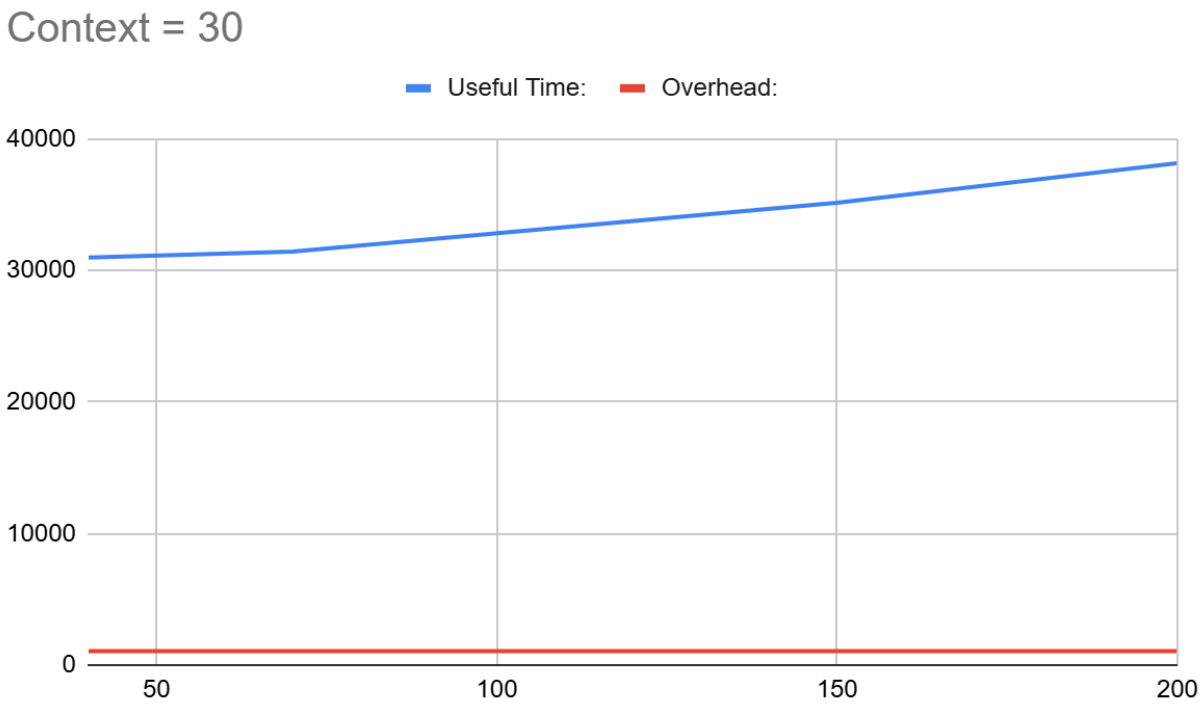
Context = 20:

ISR TIme:	40	80	120	140	180
Useful Time:	30989	31761	33433	34549	36949
Overhead:	750	750	750	750	750



Context = 30:

ISR TIme:	40	70	150	200
Useful Time:	30989	31427	35149	38149
Overhead:	1050	1050	1050	1050



The tables above show that the pattern is that for the same context time the same overhead time for all IST times. However the Useful time increases as the ISR time increases. This means that the highest ISR time takes the longest time but is also most efficient because it has proportionally smaller overhead time compared to useful time.

We also see that as the context time increases the total time also increases. This is just because the context time directly affects the overhead time. This means the most efficient way of doing this is with a context time of 10 and an ISR time of 200.