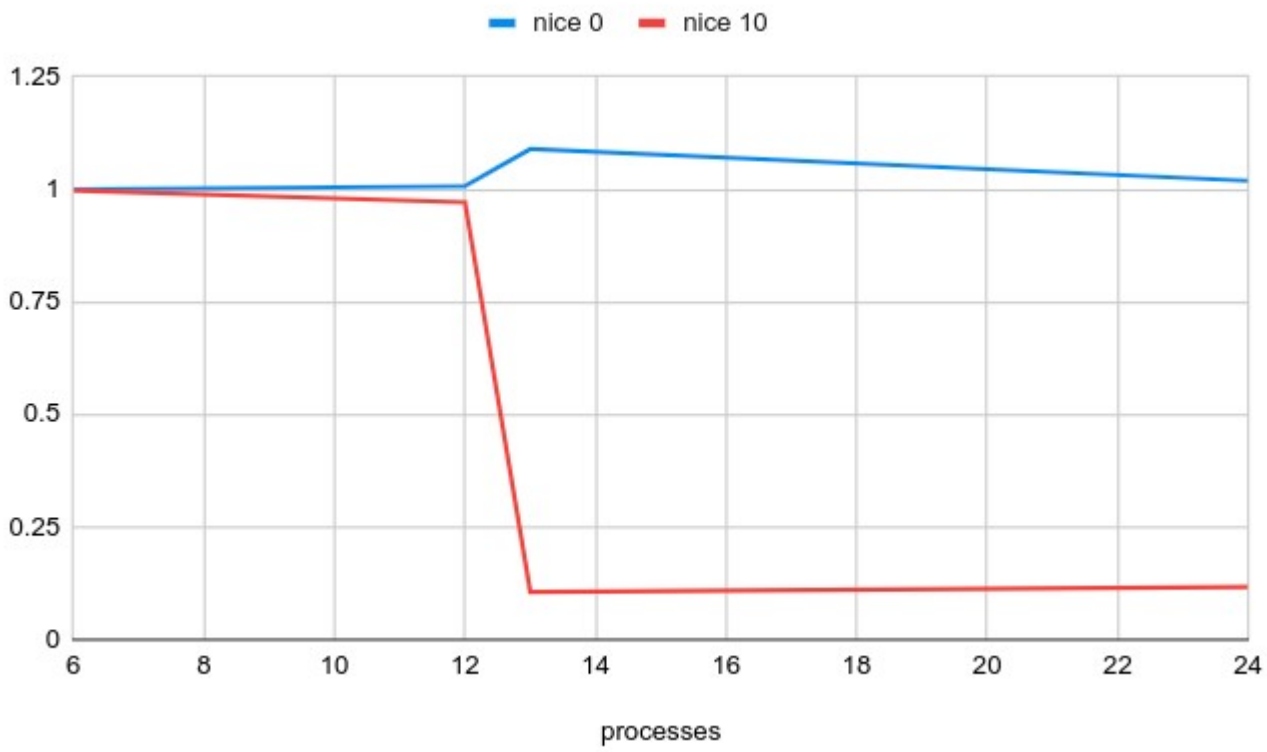
The laptop has 6 cores and 12 threads. When the number of process was less or equal to 12, the Task 0 CPU time percentage was independent with nice value. When the number of process was larger than 12, the Task 0 CPU time drastically dropped as nice value of 10 is equivalent to weight 0.1074 while nice value of 0 is equivalent to weight 1.0.



The x-axis of the diagram above is the number of processes running, and the y-axis of the diagram above is the normalized run-time. After normalizing the run-time, for processes larger than 12 the normalized run time drops to around 0.1. Therefore, we can conclude that nice value appears to not affect things for small numbers of processes relative to the processes.

Appendix

24 processes nice 0		24 processes nice 10		13 processes nice 0		13 processes nice 10	
process number	total CPU time (s)	process number	total CPU time (s)	process number	total CPU time (s)	process number	total CPU time (s)
0	2.515036	0	0.28865	0	4.736494	0	0.483295
1	2.607945	1	2.867589	1	4.957331	1	4.949737
2	2.422459	2	2.632763	2	4.258437	2	4.940585
3	2.562636	3	2.492358	3	3.471117	3	4.972904
4	2.413574	4	2.885742	4	4.905415	4	4.963456
5	2.456576	5	2.507277	5	4.793287	5	4.785784
6	2.325472	6	2.377325	6	4.127389	6	4.98968
7	2.457765	7	2.875783	7	3.655791	7	4.767318
8	2.456743	8	2.511845	8	4.789335	8	4.92106
9	2.494488	9	2.544333	9	3.973123	9	4.974309
10	2.420726	10	2.351808	10	4.44204	10	4.709473
11	2.452427	11	2.907654	11	4.485509	11	4.992479
12	2.381691	12	2.311569	12	3.93791	12	4.905365
13	3.106665	13	3.08226				
14	2.463563	14	2.878829				
15	2.285425	15	2.696377				
16	2.424901	16	2.30023				
17	2.420893	17	2.405082				
18	2.385422	18	2.29719				
19	2.398013	19	2.310537				
20	2.524363	20	2.299602				
21	2.459654	21	2.365839				
22	2.468489	22	2.477495				
23	2.329919	23	2.731052				

12 processes nice 0		12 processes nice 10		6 processes nice 0		6 processes nice 10	
process number	total CPU time (s)	process number	total CPU time (s)	process number	total CPU time (s)	process number	total CPU time (s)
0	4.982453	0	4.821908	0	5.000169	0	4.980476
1	4.994973	1	4.887916	1	5.000138	1	4.999658
2	4.956896	2	4.983863	2	4.99965	2	5.000017
3	4.932813	3	4.987099	3	5.000098	3	4.999983
4	4.981296	4	4.990232	4	5.000011	4	5.00005
5	4.760907	5	4.981223	5	5.000083	5	4.985128
6	4.973343	6	4.992423				
7	4.953455	7	4.986246				
8	4.958268	8	4.996916				
9	4.910476	9	4.993608				
10	4.987134	10	4.971626				
11	4.989391	11	4.98698				