

Sheet1

Please input system parameters:

Memory size (KB):	2048
Maximum uninterrupted cpu time for a process (ms):	500
Average I/O operation time (ms):	2250
Simulation length (ms):	250000
Average time between process arrivals (ms):	5000
Simulating.....done.	

Simulation statistics:

Number of completed processes:	12
Number of created processes:	56
Number of (forced) process switches:	92
Number of processed I/O operations:	117
Average throughput (processes per second):	0,048

Total CPU time spent processing:	73711
Fraction of CPU time spent processing:	29,48%
Total CPU time spent waiting:	176289
Fraction of CPU time spent waiting:	70,52%

Largest occurring memory queue length:	39
Average memory queue length:	20,18286
Largest occurring cpu queue length:	2
Average CPU queue length:	0,0084
Largest occurring I/O queue length:	6
Average I/O queue length:	4,156968
Average # of times a process has been placed in memory queue:	1
Average # of times a process has been placed in cpu queue:	2,375
Average # of times a process has been placed in I/O queue:	2,142857

Average time spent in system per process:	20833
Average time spent waiting for memory per process:	37586
Average time spent waiting for cpu per process:	5309
Average time spent processing per process:	1316
Average time spent waiting for I/O per process:	5309
Average time spent in I/O per process:	20763

Det virker som vi får høyere throughput ved lange tildelte «tidskvanter», men det ser og Jeg har også prøvd med forskjellige mengder minne, men det virker til å ha mindre bet I/O-tid betyr mye, men her er også algoritmen FIFO, og det er lite vi kan gjøre med det.

Sheet1

2048	2048	2048	2048	2048	2048	2048
500	2000	100	20	150	2	2
225	225	225	225	225	225	225
250000	250000	250000	250000	250000	250000	250000
5000	5000	5000	5000	5000	5000	50
36	44	45	42	44	48	47
58	50	51	54	51	56	4934
343	6	2253	12200	1312	109694	124360
329	382	407	387	413	421	434
0,144	0,176	0,18	0,168	0,176	0,192	0,188
248414	212698	245143	248247	225501	219997	249347
99,37%	85,08%	98,057198	99,30%	90,20%	87,998802	99,74%
1586	37302	4857	1753	24499	30003	653
0,63%	14,92%	1,94%	0,70%	9,7996	12,00%	0,26%
16	1	2	8	4	5	4880
8,611848	0,031092	0,224544	2,26968	1,254956	1,189636	2439,4146
7	5	6	6	8	5	7
4,355872	1,522312	2,803912	2,922356	2,240532	2,323108	4,496292
5	3	4	5	5	5	5
0,09324	0,081684	0,124856	0,101888	0,119376	0,111496	0,143704
1	1	1	1	1	1	1
6,3965516	8,62	8,960784	8,037037	9,019608	8,446428	0,098905556
5,672414	7,64	8,019608	7,166665	8,117647	7,517857	0,087961085
6944	5681	5555	5952	5681	5208	5319
29683	176	1085	6847	5710	3830	97413
30217	11183	18381	19837	15753	14605	25559
4283	4253	4806	4597	4421	3928	50
30217	11183	18381	19837	15753	14605	2559
2071	1905	2041	2030	2083	1940	2104

også ut som ekstremt lave «tidskvanter» gir nesten like god ytelse.
ydning for throughput
. Selv med mye minne blir ikke tida god med høy I/O-bruk

Sheet1

2048	2048	2048	2048	400	16000	160000
5000	5000	1	10000	500	500	500
225	225	225	225	225	225	2250
250000	250000	250000	250000	250000	250000	250000
5000	500	500	500	5000	5000	5000

44	52	43	52	45	48	8
51	485	482	507	51	54	49
0	0	248965	0	298	297	90
388	460	378	456	409	430	111
0,176	0,208	0,172	0,208	0,18	0,192	0,032

216287	249640	248965	249205	236846	245038	68961
86,51%	99,86%	99,59%	99,68%	94,74%	98,02%	27,58%
33713	360	1035	795	13154	4962	181039
13,49%	0,14%	0,41%	0,32%	5,26%	1,98%	72,42%

3	429	434	449	7	5	32
0,202728	210,88147	217,89854	221,15341	3,67862	0,660612	15,224868
6	6	7	8	4	7	4
1,41514	4,331968	4,559172	5,02002	1,852056	2,884948	0,011356
4	6	4	6	3	5	8
0,114188	0,294136	0,098132	0,21634	0,163244	0,142912	5,561596
1	1	1	1	1	1	1
8,588235	1,0618557	0,88381743	1,0138067	8,980392	8,962963	2,5918367
7,607843	0,9484536	0,7842324	0,8994083	8,019608	7,962963	2,4081633

5681	4807	5813	4807	5555	5208	31250
381	83829	90209	94342	18740	3440	0
10430	21606	27819	23790	13463	17453	3290
4240	514	516	491	4644	4537	1407
10430	21606	27819	23790	13463	17453	3290
1956	1994	1964	1990	2057	2063	31367