

Dangless vs Oscar: performance overhead difference analysis

Benchmark	Baseline run time (seconds)	VMCalls / second	VMCall arg fixups / second	Allocations / second	Allocated pages / second	Average pages per allocation	Baseline TLB misses / second	Baseline TLB miss rate	Dangless TLB misses / second	Dangless TLB miss rate	Dangless TLB miss rate increase	Dangless extra TLB misses / second	Dangless overhead	Oscar overhead
401.bzip2	1023,816	0,06	0,04	0,03	217,17	7.666,90	6.289,94	0,0006%	16.395,33	0,0014%	<b>160,71%</b>	<b>10.105</b>	<b>1,30%</b>	0,00%
403.gcc	479,326	7,12	1,04	6.814,98	62.294,02	9,14	216.917,62	0,0480%	1.113.210,02	0,2424%	<b>405,36%</b>	<b>896.292</b>	<b>15,20%</b>	25,00%
429.mcf	471,984	1,92	1,90	0,02	909,10	53.635,00	12.846.253,73	1,2473%	27.511.884,44	2,6666%	<b>113,79%</b>	<b>14.665.631</b>	<b>11,50%</b>	0,00%
433.milc	681,409	2,79	0,09	9,56	31.652,62	3.310,57	2.975.529,65	0,1702%	6.352.485,35	0,3608%	<b>111,95%</b>	<b>3.376.956</b>	<b>10,70%</b>	5,50%
444.namd	821,979	2,47	2,33	1,62	15,61	9,66	4.159,48	0,0001%	11.676,43	0,0003%	<b>180,71%</b>	<b>7.517</b>	<b>0,40%</b>	0,00%
445.gobmk	748,740	2,86	0,49	295,77	405,08	1,37	167.224,10	0,0207%	264.514,97	0,0327%	<b>58,16%</b>	<b>97.291</b>	<b>2,50%</b>	0,50%
447.dealll	1961,820	24,56	4,51	77.101,32	78.585,16	1,02	156.016,14	0,0038%	3.784.373,87	0,0910%	<b>2310,45%</b>	<b>3.628.358</b>	<b>7,40%</b>	190,00%
450.soplex	558,581	6,65	6,56	421,05	16.267,06	38,63	1.009.551,73	0,0896%	1.990.533,10	0,1765%	<b>97,08%</b>	<b>980.981</b>	<b>3,00%</b>	4,00%
453.povray	420,569	62,85	62,55	5.773,20	5.810,77	1,01	644.333,66	0,0186%	817.333,98	0,0236%	<b>26,78%</b>	<b>173.000</b>	<b>0,00%</b>	5,00%
456.hmmer	1576,148	0,05	0,05	634,55	644,75	1,02	487,17	0,0000%	16.330,74	0,0007%	<b>3251,75%</b>	<b>15.844</b>	<b>2,30%</b>	0,70%
458.sjeng	826,666	4,16	0,46	0,01	53,17	7.325,00	1.075.473,71	0,0451%	2.584.436,21	0,1083%	<b>140,29%</b>	<b>1.508.962</b>	<b>1,10%</b>	1,00%
462.libquantum	691,407	0,11	0,06	0,23	451,64	1.976,36	111.731,74	0,0027%	202.265,41	0,0049%	<b>81,05%</b>	<b>90.534</b>	<b>0,00%</b>	2,50%
464.h264ref	1310,727	1,02	0,43	79,99	280,35	3,50	292.563,62	0,0096%	1.041.361,00	0,0342%	<b>255,93%</b>	<b>748.797</b>	<b>0,00%</b>	4,50%
470.lbm	494,989	1,40	1,38	0,01	211,51	14.956,57	945.490,04	0,0261%	1.889.080,11	0,0522%	<b>99,79%</b>	<b>943.590</b>	<b>0,30%</b>	0,00%
473.astar	786,287	1,36	0,08	1.420,12	1.727,83	1,22	2.019.874,37	0,1248%	8.834.553,01	0,5454%	<b>337,21%</b>	<b>6.814.679</b>	<b>24,60%</b>	40,00%
482.sphinx3	1408,159	4,72	4,34	10.101,62	12.881,82	1,28	942.437,77	0,0268%	2.732.663,95	0,0776%	<b>189,67%</b>	<b>1.790.226</b>	<b>3,00%</b>	8,00%
483.xalancbmk	1287,433	15,22	12,86	104.980,66	116.862,27	1,11	1.334.302,14	0,0385%	23.822.298,92	0,6835%	<b>1675,31%</b>	<b>22.487.997</b>	<b>19,80%</b>	305,00%