

Are-we-fast-yet Linux i386 C and C++ vs LuaJIT

		C++98		LuaJIT 2.0		ObxIDE 0.9.38		ObxIDE 0.9.38		ObxIDE 0.9.107		ObxIDE 0.9.107		ObxIDE 0.9.107		ObxIDE 0.9.107			
		gcc -O2		Lua 5.1		C gen, with GC		C gen, with GC		C gen, with GC		C gen, with GC		C gen, with GC		C gen, with GC			
all times in μ s		n	average	factor	average	factor	average	factor	average	factor	average	factor	average	factor	average	factor	average	factor	
Benchmark:																			
DeltaBlue	12000/1	25	0.1	348	1.0	28	0.1	49	0.1	30	0.1	33	0.1	206	0.6	94	0.3		
Richards	100/1	3'721	0.1	39'705	1.0	2'880	0.1	7'507	0.2	3'990	0.1	4'271	0.1	27'874	0.7	9'444	0.2		
Json	100/1	3'975	0.5	7'859	1.0	3'946	0.5	7'161	0.9	3'642	0.5	6'147	0.8	36'524	4.6				
Havlak	10/1	221'753	0.03	8'185'360	1.0	740'127	0.1	1'046'722	0.1	890'256	0.1	1'091'180	0.1	4'384'254	0.5	2'411'984	0.3		
CD	250/2	1'570	0.1	14'751	1.0	1'347	0.1	2'102	0.1	1'552	0.1	1'759	0.1	7'134	0.5				
Bounce	1500/1	43	0.2	249	1.0	68	0.3	160	0.6	75	0.3	98	0.4	515	2.1	178	0.7		
List	1500/1	76	0.1	676	1.0	90	0.1	200	0.3	88	0.1	92	0.1	364	0.5	180	0.3		
Mandelbrot	500/1	1	0.5	2	1.0	1	0.5	1	0.5	1	0.5	1	0.5	1	0.5	1	0.5		
NBody	250000/1	1	0.1	8	1.0	3	0.4	4	0.5	3	0.4	4	0.5	35	4.4	17	2.1		
Permute	1000/1	120	0.4	328	1.0	132	0.4	294	0.9	146	0.4	212	0.6	949	2.9	302	0.9		
Queens	1000/1	165	0.6	297	1.0	148	0.5	334	1.1	162	0.5	245	0.8	1'428	4.8	327	1.1		
Sieve	3000/1	30	0.3	119	1.0	31	0.3	144	1.2	32	0.3	72	0.6	304	2.6	142	1.2		
Storage	1000/1	741	0.3	2'202	1.0	533	0.2	709	0.3	617	0.3	674	0.3	3'987	1.8	2'234	1.0		
Towers	600/1	159	0.5	299	1.0	260	0.9	489	1.6	254	0.8	339	1.1	1'567	5.2	523	1.7		
sum of averages:		232'380		8'252'203		749'594		1'065'876		900'848		1'105'127		4'465'142		2'425'426			
geomean of factors:				0.19				0.24				0.26		0.33		1.54		2.3	0.67
1/geomean:				5.15		1.00		4.21				3.90		3.02		0.65			1.49
Build time		10.4 s				17 s		9 s		73 s		33 s		7.1 s		6.4 s			
						gcc 4.8.2 -O2		gcc 4.8.2 -O0		cpars 1.22 -O2		cpars 1.22 -O0		ecc 2024-07-21		ecc2 2024-08-11			
						Boem GC 7.2d		Boem GC 7.2d		Boem GC 7.2d		Boem GC 7.2d		Boem GC 7.2d		Boem GC 7.2d			
														chibicc->eigen		cparser->eigen			
				vs. C++:		1.22		2.31											
				vs. gcc -O2:				1.89		1.08		1.39		6.47		2.82			
				vs. gcc -O0:						0.57		0.74		3.42		1.49			

Benchmarks used from <https://github.com/smarr/are-we-fast-yet> commit 770c664 3.4.2020
and <https://github.com/rochus-keller/Are-we-fast-yet>
With ecc2 there are errors in Json and CD, thus left out
Testmachine: HP EliteBook 2530p, Intel Core Duo L9400 1.86GHz, 4GB RAM, Linux i386
All binaries compiled with GCC 4.8.2, if no compiler mentioned otherwise