

Benchmark Results

	Crystal 0.35.1			Node.js			Pharo		Pharo		LuaJIT		LjSOM		LjSOM		SOM++	
	<i>all times in μs</i>	--release	--no-debug	12.16	12.16	7.0.5	7.0.5	8.0.0	8.0.0	2.0	2.0	0.8.0	0.8.0	0.7.2	0.7.2	2020-06-28	2020-06-28	
Benchmark:	<i>n</i>	<i>average</i>	<i>factor</i>	<i>average</i>	<i>factor</i>	<i>average</i>	<i>factor</i>	<i>average</i>	<i>factor</i>	<i>average</i>	<i>factor</i>	<i>average</i>	<i>factor</i>	<i>average</i>	<i>factor</i>	<i>average</i>	<i>factor</i>	
DeltaBlue	12000	19	1.0	65	3.4	61	3.2	60	3.2	345	18.2	N/A	N/A	N/A	N/A	15'157	798.6	
Richards	100	1'835	1.0	5'746	3.1	12'608	6.9	12'820	7.0	34'879	19.0	N/A	673'622	158.5	4'514'873	2459.9		
Json	100	2'887	1.0	5'036	1.7	17'761	6.2	17'407	6.0	6'611	2.3	N/A	290'908	100.8	1'703'273	590.0		
Havlak	3	875'193	1.0	727'663	0.8	1'771'912	2.0	1'800'268	2.1	7'975'396	9.1	N/A	48'358'870	55.3	250'603'441	286.3		
Bounce	1500	62	1.0	142	2.3	313	5.0	300	4.8	217	3.5	7'166	115.4	23'766	382.6	139'120	2239.8	
List	1500	68	1.0	237	3.5	537	7.8	543	7.9	599	8.8	2'938	42.9	1'944	28.4	209'833	3066.0	
Mandelbrot	500	1	1.0	14	13.9	1	1.0	2	2.0	2	2.0	39	38.6	65	64.4	133	131.7	
Permute	1000	171	1.0	159	0.9	588	3.4	579	3.4	292	1.7	5'402	31.6	12'210	71.3	161'279	942.3	
Queens	1000	147	1.0	223	1.5	439	3.0	447	3.0	265	1.8	7'131	48.4	28'019	190.2	182'358	1237.8	
Sieve	3000	41	1.0	104	2.6	254	6.3	256	6.3	103	2.5	10'254	252.4	28'161	693.2	177'643	4372.6	
Storage	1000	662	1.0	314	0.5	488	0.7	496	0.7	2'144	3.2	16'539	25.0	23'323	35.2	112'755	170.3	
Towers	600	212	1.0	299	1.4	829	3.9	888	4.2	299	1.4	6'774	32.0	25'859	122.2	195'259	922.8	
geomean of factors:			1.0			2.0		3.3		3.6		4.0		52.6		108.7		888.1
compile time:		45s			0s		0s		0s		0s		0s		0s		0s	
geomean inverted:			0.25			0.50		0.84		0.90		1.00		13.24		27.35		223.43

Benchmarks used from <https://github.com/smarr/are-we-fast-yet> commit 770c664 3.4.2020

NOTE: CD didn't work on any of the Lua VMs, thus left out

NOTE: NBody caused an exception in Crystal, thus left out

Test machine: HP EliteBook 2530p, Intel Core Duo L9400 1.86GHz, 4GB RAM, Linux i386

LuaJIT, SOM++ and LjSOM compiled on test machine with GCC 4.8.2; Crystal and Node using precompiled binaries

LjSOM LuaJIT params, deviations from default values:

```

maxtrace 100000
maxrecord 40000
maxside 100
maxsnap 1000
sizemcode 64
maxmcode 5120

```