

Benchmark Results

<i>all times in μs</i>	Crystal 0.35.1			Node.js		LuaJIT		Crystal		Ruby		Ruby		Ruby	
	<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>
Benchmark:															
DeltaBlue	12000	19	1.0	65	3.4	345	18.2	95	5.0	754	39.7	636	33.5	694	36.6
Richards	100	1'835	1.0	5'746	3.1	34'879	19.0	13'649	7.4	153'162	83.4	162'006	88.3	181'170	98.7
Json	100	2'887	1.0	5'036	1.7	6'611	2.3	15'653	5.4	57'999	20.1	48'884	16.9	55'908	19.4
Havlak	3	875'193	1.0	727'663	0.8	7'975'396	9.1	2'991'015	3.4	8'908'886	10.2	8'991'145	10.3	12'449'236	14.2
Bounce	1500	62	1.0	142	2.3	217	3.5	248	4.0	1'415	22.8	2'690	43.3	2'991	48.2
List	1500	68	1.0	237	3.5	599	8.8	210	3.1	1'821	26.6	2'631	38.4	2'577	37.7
Mandelbrot	500	1	1.0	14	13.9	2	2.0	1	1.2	12	11.9	10	9.9	17	16.8
Permute	1000	171	1.0	159	0.9	292	1.7	1'493	8.7	3'006	17.6	4'894	28.6	5'511	32.2
Queens	1000	147	1.0	223	1.5	265	1.8	1'122	7.6	3'154	21.4	3'273	22.2	3'522	23.9
Sieve	3000	41	1.0	104	2.6	103	2.5	707	17.4	1'084	26.7	1'525	37.5	1'800	44.3
Storage	1000	662	1.0	314	0.5	2'144	3.2	1'405	2.1	5'101	7.7	5'482	8.3	6'342	9.6
Towers	600	212	1.0	299	1.4	299	1.4	1'695	8.0	4'826	22.8	7'425	35.1	8'874	41.9
geomean of factors:		1.0		2.0		4.0		4.9		21.3		25.0		29.4	
compile time:		45s		0s		0s		8s		0s		0s		0s	
geomean inverted:		0.03		0.07		0.14		0.17		0.72		0.85		1.00	

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, Lua and Ruby compiled on test machine with GCC 4.8.2; Crystal and Node using precompiled binaries

Lua and Ruby built with default options

LuaJIT params, deviations from default values:

```

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

```