

Warning: These results are preliminary - use with caution (they may e.g. be from different browser versions). Official results are published on the [results page](#).

The benchmark was run on a Razer Blade 15 Advanced (i7-8750H, 64 GB RAM, Fedora 36 (Linux 5.17.3, mitigations=off, Wayland), Chrome 102.0.5005.61 (64-bit)) using the puppeteer benchmark driver.

Which frameworks? ▾

Which benchmarks? ▾

Display mode

median results ▾

Which implementations? ▾

Keyed results

Keyed implementations create an association between the domain data and a dom element by assigning a 'key'. If data changes the dom element with that key will be updated. In consequence inserting or deleting an element in the data array causes a corresponding change to the dom.

Duration in milliseconds ± 95% confidence interval (Slowdown = Duration / Fastest)

Name Duration for...	vanillajs	sycamore- v0.6.0	silkenweb- v0.3.0	dominator- v0.5.0	yew- v0.19.3
Implementation notes	772				
create rows creating 1,000 rows	111.8 ± 7.0 (1.00)	126.7 ± 6.3 (1.13)	132.8 ± 6.6 (1.19)	143.3 ± 8.4 (1.28)	163.3 ± 10.1 (1.46)
replace all rows updating all 1,000 rows (5 warmup runs).	87.8 ± 2.1 (1.00)	122.3 ± 2.8 (1.39)	128.2 ± 0.5 (1.46)	126.7 ± 4.7 (1.44)	148.0 ± 5.7 (1.69)
partial update updating every 10th row for 1,000 rows (3 warmup runs). 16x CPU slowdown.	186.9 ± 2.1 (1.06)	200.5 ± 2.8 (1.13)	176.8 ± 2.5 (1.00)	194.8 ± 2.7 (1.10)	203.7 ± 2.4 (1.15)
select row highlighting a selected row. (no warmup runs). 16x CPU slowdown.	25.5 ± 0.7 (1.00)	33.3 ± 1.1 (1.31)	28.8 ± 0.8 (1.13)	29.6 ± 0.6 (1.16)	37.4 ± 1.1 (1.47)
swap rows swap 2 rows for table with 1,000 rows. (5 warmup runs). 4x CPU slowdown.	52.9 ± 0.4 (1.00)	57.4 ± 0.8 (1.09)	62.8 ± 3.4 (1.19)	56.7 ± 0.7 (1.07)	57.9 ± 0.9 (1.10)
remove row removing one row. (5 warmup runs).	24.9 ± 1.4 (1.00)	27.6 ± 2.2 (1.11)	33.1 ± 0.6 (1.33)	27.3 ± 1.1 (1.10)	27.2 ± 0.7 (1.09)
create many rows creating 10,000 rows	893.0 ± 41.8 (1.00)	1,432.5 ± 22.3 (1.60)	1,304.6 ± 9.7 (1.46)	1,303.5 ± 6.6 (1.46)	2,309.7 ± 24.5 (2.59)
append rows to large table appending 1,000 to a table of 10,000 rows. 2x CPU slowdown.	203.4 ± 3.9 (1.00)	261.4 ± 4.7 (1.28)	273.3 ± 3.9 (1.34)	267.8 ± 4.2 (1.32)	342.4 ± 5.8 (1.68)
clear rows clearing a table with 1,000 rows. 8x CPU slowdown.	59.4 ± 1.6 (1.00)	77.2 ± 1.5 (1.30)	88.8 ± 1.4 (1.49)	107.5 ± 2.5 (1.81)	141.7 ± 2.3 (2.39)

Name Duration for...	vanillajs	sycamore- v0.6.0	silkenweb- v0.3.0	dominator- v0.5.0	yew- v0.19.3
geometric mean of all factors in the table	1.01	1.25	1.28	1.29	1.55
compare: Green means significantly faster, red signifi- cantly slower	compare	compare	compare	compare	compare

Startup metrics (lighthouse with mobile simulation)

Name	vanillajs	sycamore- v0.6.0	silkenweb- v0.3.0	dominator- v0.5.0	yew- v0.19.3
consistently in- teractive a pessimistic TTI - when the CPU and network are both definitely very idle. (no more CPU tasks over 50ms)	1,963.4 ± 3.4 (1.04)	1,967.8 ± 7.4 (1.05)	1,969.6 ± 7.4 (1.05)	1,957.6 ± 11.4 (1.04)	1,880.0 ± 2.2 (1.00)
main thread work cost total amount of time spent doing work on the main thread. in- cludes style/lay- out/etc.	261.2 ± 40.5 (1.50)	243.2 ± 21.2 (1.40)	313.6 ± 87.4 (1.80)	174.0 ± 105.2 (1.00)	225.9 ± 33.4 (1.30)
total kilobyte weight network transfer cost (post-compression) of all the resources loaded into the page.	150.3 ± 0.0 (1.00)	285.7 ± 0.0 (1.90)	260.2 ± 0.0 (1.73)	246.1 ± 0.0 (1.64)	331.2 ± 0.0 (2.20)
geometric mean of all factors in the table	1.16	1.41	1.48	1.19	1.42

Memory allocation in MBs ± 95% confidence interval

Name	vanillajs	sycamore- v0.6.0	silkenweb- v0.3.0	dominator- v0.5.0	yew- v0.19.3
ready memory Memory usage after page load.	1.5 (1.00)	1.5 (1.04)	1.6 (1.07)	1.7 (1.14)	1.6 (1.05)
run memory Memory usage after adding 1000 rows.	1.4 (1.00)	1.7 (1.17)	1.8 (1.24)	2.0 (1.35)	2.0 (1.35)
update every 10th row for 1k rows (5 cycles) Memory usage after clicking update every 10th row 5 times	1.5 (1.00)	1.7 (1.16)	1.7 (1.19)	1.8 (1.22)	1.8 (1.23)
replace 1k rows (5 cycles) Memory usage after clicking create 1000 rows 5 times	1.7 (1.00)	2.0 (1.17)	2.0 (1.18)	2.2 (1.28)	2.0 (1.17)
creating/clearing 1k rows (5 cy- cles) Memory usage after creating and clearing 1000 rows 5 times	1.2 (1.00)	1.4 (1.16)	1.4 (1.17)	1.4 (1.16)	1.4 (1.15)

Name	vanillajs	sycamore-v0.6.0	silkenweb-v0.3.0	dominator-v0.5.0	yew-v0.19.3
geometric mean of all factors in the table	1.00	1.14	1.17	1.23	1.18

Known issues and notes

[634](#) [Issue]: The HTML structure for the implementation is not fully correct.

[772](#) [Note]: Implementation uses manual DOM manipulations

[796](#) [Note]: Implementation uses explicit requestAnimationFrame calls

[800](#) [Note]: View state on the model

[801](#) [Note]: Implementation uses manual event delegation