

| testname                                     | d(old,new)<br>time | %d<br>(old,new) | d(old,new)<br>mem | %d<br>(old,new) | d(tip,fix)<br>time | %d(tip,fix)<br>time | d(tip,fix)<br>mem | %d(tip,fix)<br>mem |
|--|--------------------|-----------------|-------------------|-----------------|--------------------|---------------------|-------------------|--------------------|
| mmgc/ofib.as                                 | (23.00)            | (3%)            | 11605.33          | 9%              | (14.33)            | (2%)                | (18670.93)        | (18%)              |
| v8.5/optimized/raytrace.as                   | (96.33)            | (1%)            | (68.27)           | (3%)            | (106.33)           | (1%)                | (341.33)          | (15%)              |
| sunspider-0.9.1/js/access-nsieve.as          | (0.67)             | (4%)            | 204.80            | 4%              | (0.33)             | (2%)                | (648.53)          | (13%)              |
| jsbench/SOR.as                               | (1,348.00)         | (6%)            | 1024.00           | 1%              | 1894.00            | 8%                  | (4164.27)         | (6%)               |
| sunspider-0.9.1/js/regexp-dna.as             | 0.00               | 0%              | 443.73            | 4%              | (6.67)             | (1%)                | (512.00)          | (5%)               |
| sunspider-0.9.1/js/string-unpack-code.as     | (18.33)            | (1%)            | 102.40            | 1%              | 292.33             | 8%                  | (682.67)          | (4%)               |
| sunspider/s3d-morph.as                       | (2.33)             | (9%)            | (68.27)           | (2%)            | (2.00)             | (7%)                | (136.53)          | (4%)               |
| jsmicro/array-pop-1.as                       | 3.48               | 4%              | (273.07)          | (6%)            | (0.32)             | (0%)                | (170.67)          | (4%)               |
| asmicro/vector-write-C-2.as                  | (1.30)             | (3%)            | (102.40)          | (5%)            | (4.42)             | (4%)                | (68.27)           | (3%)               |
| language/string/typed/substr.as              | (0.67)             | (1%)            | (68.27)           | (1%)            | (0.33)             | (0%)                | (136.53)          | (3%)               |
| language/e4x/concatenatingStringsFromE4X.as  | (0.33)             | (6%)            | (34.13)           | (1%)            | 0.33               | 7%                  | (68.27)           | (2%)               |
| sunspider/as3/s3d-morph.as                   | (2.33)             | (13%)           | (68.27)           | (2%)            | 1.67               | 9%                  | (68.27)           | (2%)               |
| sunspider-0.9.1/typed/access-nsieve.as       | 0.00               | 0%              | 375.47            | 7%              | (0.33)             | (3%)                | (102.40)          | (2%)               |
| sunspider/as3vector/string-validate-input.as | 0.67               | 3%              | (307.20)          | (9%)            | (0.33)             | (1%)                | (68.27)           | (2%)               |
| language/string/append_concat.as             | 0.00               | 0%              | (136.53)          | (1%)            | 0.00               | 0%                  | (443.73)          | (2%)               |
| language/string/typed/append_equal_plus.as   | 1.33               | 3%              | (102.40)          | (0%)            | 0.00               | 0%                  | (409.60)          | (2%)               |
| asmicro/alloc-14.as                          | (0.83)             | (1%)            | 34.13             | 1%              | 0.35               | 0%                  | (68.27)           | (2%)               |
| language/string/substr.as                    | (1.33)             | (1%)            | (204.80)          | (4%)            | 0.00               | 0%                  | (68.27)           | (1%)               |
| language/string/replace.as                   | 0.33               | 0%              | (68.27)           | (1%)            | 44.00              | 13%                 | (68.27)           | (1%)               |
| sunspider-0.9.1/typed/s3d-raytrace.as        | (0.67)             | (11%)           | (102.40)          | (3%)            | 0.33               | 5%                  | (34.13)           | (1%)               |
| v8/crypto.as                                 | (26.33)            | (3%)            | 0.00              | 0%              | (6.33)             | (1%)                | (34.13)           | (1%)               |
| asmicro/bytearray-read-utfbytes-2.as         | (0.17)             | (4%)            | (204.80)          | (7%)            | 0.01               | 0%                  | (34.13)           | (1%)               |
| asmicro/array-sort-2.as                      | 0.03               | 1%              | (170.67)          | (5%)            | (0.03)             | (1%)                | (34.13)           | (1%)               |
| language/e4x/simpleStringConcatenation.as    | 0.33               | 25%             | (34.13)           | (1%)            | 0.00               | 0%                  | (34.13)           | (1%)               |
| misc/bytearray-to-vector-be.as               | 0.88               | 0%              | 102.40            | 3%              | (1.66)             | (0%)                | (34.13)           | (1%)               |
| language/string/static_latin1_array_50.as    | (1.00)             | (1%)            | 204.80            | 2%              | (0.33)             | (0%)                | (68.27)           | (1%)               |
| jsbench/Crypt.as                             | 32.00              | 1%              | (1570.13)         | (1%)            | 7.00               | 0%                  | (648.53)          | (1%)               |
| sunspider-0.9.1/js/s3d-raytrace.as           | 1.33               | 3%              | (34.13)           | (1%)            | 2.67               | 5%                  | (34.13)           | (1%)               |
| language/string/static_latin1_array_100.as   | (2.00)             | (1%)            | 170.67            | 1%              | 0.67               | 0%                  | (34.13)           | (0%)               |
| asmicro/alloc-0.as                           | 0.09               | 0%              | 0.00              | 0%              | (0.11)             | (0%)                | 0.00              | 0%                 |
| asmicro/alloc-1.as                           | (0.21)             | (0%)            | 0.00              | 0%              | (0.08)             | (0%)                | 0.00              | 0%                 |
| asmicro/alloc-11.as                          | 0.17               | 1%              | 0.00              | 0%              | 0.02               | 0%                  | 0.00              | 0%                 |
| asmicro/alloc-12.as                          | 0.11               | 1%              | 0.00              | 0%              | 0.08               | 0%                  | 0.00              | 0%                 |
| asmicro/alloc-13.as                          | (0.40)             | (0%)            | 0.00              | 0%              | 0.08               | 0%                  | 0.00              | 0%                 |
| asmicro/alloc-2.as                           | (1.22)             | (5%)            | 0.00              | 0%              | 0.11               | 0%                  | 0.00              | 0%                 |
| asmicro/alloc-4.as                           | 0.64               | 1%              | 0.00              | 0%              | 0.02               | 0%                  | 0.00              | 0%                 |
| asmicro/alloc-5.as                           | 0.72               | 2%              | 0.00              | 0%              | 0.29               | 1%                  | 0.00              | 0%                 |
| asmicro/alloc-6.as                           | 0.84               | 1%              | 0.00              | 0%              | 0.87               | 1%                  | 0.00              | 0%                 |
| asmicro/alloc-7.as                           | (0.14)             | (0%)            | 0.00              | 0%              | (0.19)             | (0%)                | 0.00              | 0%                 |

| testname                                    | d(old,new)<br>time | %d<br>(old,new) | d(old,new)<br>mem | %d<br>(old,new) | d(tip,fix)<br>time | %d(tip,fix)<br>time | d(tip,fix)<br>mem | %d(tip,fix)<br>mem |
|---|--------------------|-----------------|-------------------|-----------------|--------------------|---------------------|-------------------|--------------------|
| sunspider/string-fasta.as                   | (1.67)             | (3%)            | (204.80)          | (10%)           | (6.00)             | (12%)               | 68.27             | 3%                 |
| asmicro/vector-write-Number-2.as            | 0.20               | 0%              | (68.27)           | (2%)            | (0.67)             | (0%)                | 102.40            | 3%                 |
| asmicro/vector-write-Object-1.as            | (1.12)             | (2%)            | (102.40)          | (5%)            | (0.02)             | (0%)                | 68.27             | 3%                 |
| asmicro/vector-write-Object-2.as            | (0.07)             | (0%)            | (102.40)          | (5%)            | (1.24)             | (2%)                | 68.27             | 3%                 |
| asmicro/array-write-int-2.as                | (0.78)             | (2%)            | (34.13)           | (1%)            | 0.09               | 0%                  | 102.40            | 3%                 |
| language/e4x/usingAppendChildAndE4X.as      | 0.67               | 2%              | (204.80)          | (6%)            | 0.00               | 0%                  | 136.53            | 4%                 |
| jsmicro/alloc-14.as                         | (0.46)             | (1%)            | 34.13             | 1%              | (0.22)             | (0%)                | 170.67            | 4%                 |
| language/string/typed/replace.as            | 12.33              | 4%              | 204.80            | 3%              | 62.67              | 18%                 | 238.93            | 4%                 |
| language/string/typed/slice.as              | 0.00               | 0%              | (546.13)          | (7%)            | (0.33)             | (0%)                | 307.20            | 4%                 |
| v8.5/untyped/richards.as                    | (3.67)             | (1%)            | (68.27)           | (3%)            | 16.00              | 3%                  | 102.40            | 4%                 |
| sunspider-0.9.1/js/crypto-aes.as            | 0.67               | 3%              | (102.40)          | (5%)            | (0.67)             | (3%)                | 102.40            | 5%                 |
| v8.5/js/crypto.as                           | (46.00)            | (5%)            | (102.40)          | (5%)            | (11.67)            | (1%)                | 102.40            | 5%                 |
| asmicro/bytearray-read-bytes-1.as           | 0.25               | 1%              | (102.40)          | (4%)            | (0.22)             | (1%)                | 136.53            | 5%                 |
| jsmicro/lookup-array-in-1.as                | (20.98)            | (2%)            | (477.87)          | (8%)            | 19.31              | 2%                  | 307.20            | 5%                 |
| sunspider-0.9.1/typed/regexp-dna.as         | 0.00               | 0%              | 1058.13           | 8%              | (13.00)            | (2%)                | 546.13            | 5%                 |
| language/e4x/addingToXMLList.as             | 1.00               | 8%              | (307.20)          | (8%)            | (1.00)             | (8%)                | 238.93            | 6%                 |
| jsbench/typed/FFT.as                        | (0.33)             | (0%)            | 955.73            | 4%              | 0.67               | 0%                  | 1228.80           | 6%                 |
| sunspider/as3/s3d-cube.as                   | 0.00               | 0%              | (102.40)          | (5%)            | (0.67)             | (5%)                | 136.53            | 6%                 |
| v8/typed/deltablue.as                       | 12.00              | 0%              | (341.33)          | (8%)            | (27.00)            | (1%)                | 273.07            | 6%                 |
| sunspider/access-nsieve.as                  | 0.67               | 3%              | (443.73)          | (11%)           | (0.67)             | (3%)                | 273.07            | 6%                 |
| v8.5/untyped/deltablue.as                   | (3.67)             | (0%)            | (409.60)          | (10%)           | (19.67)            | (1%)                | 273.07            | 6%                 |
| sunspider-0.9.1/typed/crypto-aes.as         | (0.33)             | (2%)            | (102.40)          | (5%)            | 0.00               | 0%                  | 136.53            | 6%                 |
| jsmicro/array-shift-1.as                    | 0.17               | 0%              | 34.13             | 1%              | (1.21)             | (2%)                | 341.33            | 7%                 |
| asmicro/bytearray-write-utf-1.as            | 0.02               | 0%              | (102.40)          | (4%)            | (0.13)             | (0%)                | 204.80            | 7%                 |
| asmicro/lookup-negindex-array-1.as          | 5.49               | 1%              | 0.00              | 0%              | 6.19               | 1%                  | 204.80            | 7%                 |
| asmicro/lookup-negindex-object-1.as         | 7.48               | 1%              | 0.00              | 0%              | 0.00               | 0%                  | 204.80            | 7%                 |
| v8.5/js/raytrace.as                         | (12.67)            | (1%)            | (512.00)          | (15%)           | (4.33)             | (1%)                | 238.93            | 7%                 |
| v8.5/optimized/deltablue.as                 | (16.33)            | (0%)            | (273.07)          | (6%)            | (59.00)            | (1%)                | 341.33            | 7%                 |
| jsbench/LUFact.as                           | 113.33             | 3%              | 4061.87           | 6%              | (37.00)            | (1%)                | 5154.13           | 8%                 |
| v8.5/typed/deltablue.as                     | (27.00)            | (1%)            | (443.73)          | (10%)           | (28.33)            | (1%)                | 375.47            | 8%                 |
| sunspider/as3/crypto-md5.as                 | (0.33)             | (4%)            | 0.00              | 0%              | (1.00)             | (11%)               | 204.80            | 9%                 |
| sunspider/as3vector/s3d-morph.as            | (0.33)             | (4%)            | 0.00              | 0%              | 0.00               | 0%                  | 204.80            | 9%                 |
| v8/deltablue.as                             | 41.00              | 2%              | (512.00)          | (13%)           | (20.67)            | (1%)                | 477.87            | 10%                |
| sunspider-0.9.1/typed/string-unpack-code.as | (10.67)            | (0%)            | (1297.07)         | (8%)            | 306.00             | 9%                  | 1638.40           | 10%                |
| language/e4x/appendChildAndString.as        | 1.00               | 3%              | (204.80)          | (5%)            | (0.67)             | (2%)                | 477.87            | 11%                |
| sunspider/access-nbody.as                   | (1.00)             | (2%)            | (648.53)          | (16%)           | 1.67               | 3%                  | 648.53            | 14%                |
| sunspider-0.9.1/typed/string-fasta.as       | 0.67               | 3%              | (716.80)          | (18%)           | (1.67)             | (8%)                | 716.80            | 15%                |
| jsbench/Series.as                           | 208.67             | 3%              | (2184.53)         | (6%)            | 71.00              | 1%                  | 6724.27           | 17%                |
| sunspider/as3/access-nsieve.as              | 0.00               | 0%              | (102.40)          | (2%)            | 0.33               | 3%                  | 1024.00           | 21%                |

| testname                                | d(old,new)<br>time | %d<br>(old,new) | d(old,new)<br>mem | %d<br>(old,new) | d(tip,fix)<br>time | %d(tip,fix)<br>time | d(tip,fix)<br>mem | %d(tip,fix)<br>mem |
|---|--------------------|-----------------|-------------------|-----------------|--------------------|---------------------|-------------------|--------------------|
| sunspider/math-cordic.as                | (1.67)             | (4%)            | (1399.47)         | (36%)           | 2.67               | 7%                  | 1536.00           | 28%                |
| jsbench/FFT.as                          | (52.67)            | (1%)            | (21060.27)        | (35%)           | 177.00             | 3%                  | 22971.73          | 28%                |
| v8/typed/raytrace.as                    | (84.33)            | (1%)            | (512.00)          | (17%)           | 51.33              | 1%                  | 1467.73           | 32%                |
| sunspider-0.9.1/js/s3d-morph.as         | (4.33)             | (11%)           | (3003.73)         | (55%)           | 2.33               | 5%                  | 2730.67           | 33%                |
| misc/boishack.as                        | (1.00)             | (0%)            | (6109.87)         | (56%)           | (2.00)             | (1%)                | 5666.13           | 34%                |
| sunspider-0.9.1/typed/s3d-morph.as      | (5.00)             | (16%)           | (3072.00)         | (56%)           | 3.33               | 10%                 | 3037.87           | 35%                |
| sunspider-0.9.1/js/math-partial-sums.as | 1.00               | 1%              | (2252.80)         | (58%)           | 3.33               | 2%                  | 2321.07           | 37%                |
| v8.5/js/earley-boyer.as                 | 45.33              | 4%              | (7099.73)         | (60%)           | (41.33)            | (3%)                | 6963.20           | 37%                |
| v8.5/untyped/earley-boyer.as            | 53.33              | 4%              | (7270.40)         | (62%)           | (44.00)            | (4%)                | 6963.20           | 37%                |
| v8/typed/earley-boyer.as                | 53.00              | 4%              | (6929.07)         | (60%)           | (20.67)            | (2%)                | 6963.20           | 37%                |
| v8.5/js/deltablue.as                    | 4.00               | 1%              | (3106.13)         | (74%)           | (7.67)             | (2%)                | 2560.00           | 37%                |
| v8.5/optimized/earley-boyer.as          | 52.00              | 4%              | (7133.87)         | (61%)           | (37.33)            | (3%)                | 7304.53           | 38%                |
| v8.5/typed/earley-boyer.as              | 39.33              | 3%              | (7509.33)         | (64%)           | (30.00)            | (2%)                | 7372.80           | 39%                |
| v8/earley-boyer.as                      | 46.00              | 4%              | (6826.67)         | (58%)           | (23.67)            | (2%)                | 7475.20           | 39%                |
| sunspider/as3/date-format-tofte.as      | 10.67              | 8%              | (2730.67)         | (70%)           | (4.33)             | (3%)                | 2628.27           | 40%                |
| sunspider/date-format-tofte.as          | 3.33               | 2%              | (2662.40)         | (68%)           | 0.67               | 0%                  | 2764.80           | 41%                |
| jsbench/typed/Moldyn.as                 | (515.00)           | (15%)           | (27545.60)        | (549%)          | (2.67)             | (0%)                | 3174.40           | 42%                |
| jsbench/SparseMatmult.as                | (122.67)           | (2%)            | (25565.87)        | (69%)           | 417.67             | 5%                  | 28057.60          | 44%                |
| sunspider-0.9.1/js/math-cordic.as       | (5.00)             | (13%)           | (3481.60)         | (88%)           | 4.67               | 11%                 | 3276.80           | 45%                |
| sunspider/s3d-cube.as                   | (9.67)             | (19%)           | (3345.07)         | (78%)           | 9.67               | 16%                 | 3447.47           | 45%                |
| sunspider-0.9.1/js/access-nbody.as      | (5.67)             | (10%)           | (3481.60)         | (86%)           | 6.00               | 10%                 | 3379.20           | 45%                |
| asmicro/oop-1.as                        | (0.10)             | (2%)            | (5905.07)         | (144%)          | 0.01               | 0%                  | 3481.60           | 46%                |
| jsmicro/oop-1.as                        | (0.17)             | (3%)            | (4266.67)         | (104%)          | 0.07               | 2%                  | 3481.60           | 46%                |
| language/describetype/desctypeperf.as   | 26.33              | 5%              | (3584.00)         | (94%)           | (26.00)            | (6%)                | 3549.87           | 49%                |
| sunspider-0.9.1/js/s3d-cube.as          | 2.00               | 4%              | (4983.47)         | (111%)          | (0.67)             | (1%)                | 5188.27           | 53%                |
| jsbench/Euler.as                        | (248.00)           | (5%)            | (20275.20)        | (131%)          | 301.33             | 6%                  | 20787.20          | 57%                |
| misc/boids.as                           | (8.00)             | (1%)            | (8328.53)         | (189%)          | 10.00              | 1%                  | 8396.80           | 66%                |
| v8/raytrace.as                          | (263.67)           | (7%)            | (8908.80)         | (192%)          | 205.00             | 6%                  | 9352.53           | 67%                |
| v8.5/untyped/raytrace.as                | (303.67)           | (7%)            | (9250.13)         | (199%)          | 281.67             | 7%                  | 9796.27           | 68%                |
| jsmicro/alloc-3.as                      | 5.79               | 50%             | (33075.20)        | (734%)          | (3.38)             | (19%)               | 12219.73          | 77%                |
| asmicro/alloc-3.as                      | 5.61               | 47%             | (33041.07)        | (733%)          | (3.47)             | (19%)               | 12834.13          | 78%                |
| asmicro/alloc-9.as                      | (4.60)             | (30%)           | (15872.00)        | (352%)          | 4.52               | 42%                 | 16452.27          | 79%                |
| asmicro/alloc-8.as                      | (4.37)             | (29%)           | (16315.73)        | (362%)          | 4.36               | 41%                 | 16622.93          | 79%                |
| jsmicro/alloc-9.as                      | (4.31)             | (29%)           | (16520.53)        | (364%)          | 4.24               | 41%                 | 17066.67          | 79%                |
| jsmicro/alloc-8.as                      | (4.50)             | (30%)           | (16349.87)        | (363%)          | 4.27               | 41%                 | 16964.27          | 79%                |
| scimark/LU.as                           | (184.33)           | (9%)            | (24917.33)        | (401%)          | 195.33             | 9%                  | 24917.33          | 80%                |
| jsbench/typed/Euler.as                  | (1,008.67)         | (17%)           | (24166.40)        | (280%)          | 145.33             | 8%                  | 27716.27          | 80%                |
| jsmicro/alloc-10.as                     | (2.39)             | (18%)           | (18636.80)        | (414%)          | 2.02               | 18%                 | 18397.87          | 81%                |
| asmicro/alloc-10.as                     | (2.43)             | (18%)           | (18773.33)        | (417%)          | 2.26               | 20%                 | 18807.47          | 81%                |

| testname                        | d(old,new)<br>time | %d<br>(old,new) | d(old,new)<br>mem | %d<br>(old,new) | d(tip,fix)<br>time | %d(tip,fix)<br>time | d(tip,fix)<br>mem | %d(tip,fix)<br>mem |
|---------------------------------|--------------------|-----------------|-------------------|-----------------|--------------------|---------------------|-------------------|--------------------|
| scimark/SOR.as                  | (258.00)           | (16%)           | (25668.27)        | (411%)          | 310.00             | 16%                 | 26112.00          | 82%                |
| jsmicro/parseFloat-1.as         | (6.35)             | (9%)            | (20275.20)        | (483%)          | (12.46)            | (18%)               | 22289.07          | 84%                |
| scimark/FFT.as                  | (210.67)           | (15%)           | (26419.20)        | (561%)          | 247.33             | 15%                 | 26248.53          | 85%                |
| asmicro/array-write-Number-2.as | (3.17)             | (17%)           | (25224.53)        | (560%)          | 3.31               | 21%                 | 25156.27          | 85%                |
| jsbench/Moldyn.as               | (1,005.33)         | (14%)           | (26828.80)        | (546%)          | 1162.33            | 14%                 | 27545.60          | 85%                |
| floatBench/dbl/numInc.as        | (1,758.00)         | (31%)           | (27784.53)        | (603%)          | 1999.33            | 27%                 | 26726.40          | 86%                |
| floatBench/dbl/numSub.as        | (2,601.33)         | (30%)           | (29184.00)        | (633%)          | 2924.00            | 26%                 | 26828.80          | 86%                |
| jsbench/typed/Series.as         | (710.33)           | (14%)           | (27170.13)        | (577%)          | 751.00             | 14%                 | 27545.60          | 86%                |
| asmicro/try-2.as                | 3.19               | 20%             | (24439.47)        | (597%)          | (3.00)             | (16%)               | 24507.73          | 86%                |
| floatBench/dbl/numNeg.as        | (905.67)           | (32%)           | (26999.47)        | (586%)          | 1011.33            | 27%                 | 27136.00          | 86%                |
| jsmicro/try-2.as                | 3.01               | 20%             | (25838.93)        | (631%)          | (2.38)             | (13%)               | 24746.67          | 86%                |
| floatBench/dbl/numAdd.as        | (2,629.33)         | (29%)           | (29696.00)        | (644%)          | 2977.00            | 25%                 | 27374.93          | 86%                |
| floatBench/dbl/numMul.as        | (2,616.67)         | (31%)           | (27340.80)        | (593%)          | 2998.33            | 27%                 | 27374.93          | 86%                |
| asmicro/array-write-Number-1.as | (5.01)             | (19%)           | (26726.40)        | (593%)          | 5.48               | 26%                 | 26794.67          | 86%                |
| floatBench/dbl/numDec.as        | (1,747.33)         | (31%)           | (27238.40)        | (591%)          | 1985.00            | 27%                 | 27716.27          | 86%                |
| floatBench/dbl/numDiv.as        | (2,607.00)         | (30%)           | (26965.33)        | (585%)          | 2966.00            | 27%                 | 27921.07          | 86%                |
| jsmicro/for-2.as                | (51.43)            | (20%)           | (26999.47)        | (613%)          | 58.16              | 30%                 | 26589.87          | 86%                |
| floatBench/dbl/numMod.as        | (138.67)           | (7%)            | (27682.13)        | (659%)          | 119.33             | 6%                  | 26692.27          | 87%                |
| jsmicro/for-3.as                | (43.35)            | (23%)           | (26828.80)        | (595%)          | 45.00              | 31%                 | 28979.20          | 87%                |