

I. APPENDIX

A. Summary tables from EMOP

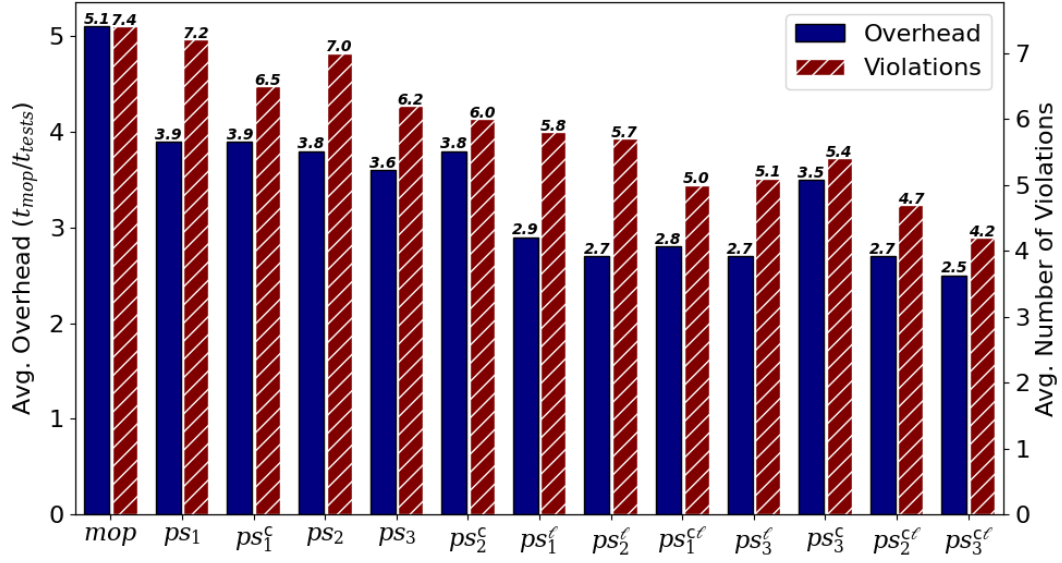


Fig. 1: Summary figure for RPS and VMS (individual).

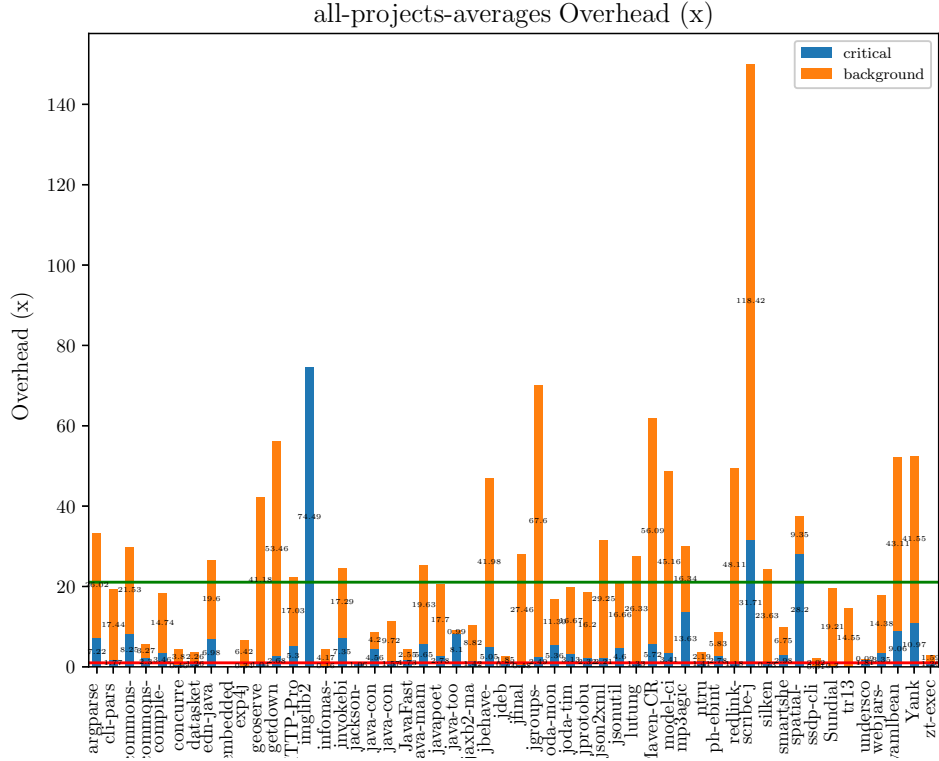


Fig. 2: Summary figure for RPP (individual). The orange line is normal test execution (1, since it is the baseline), and the green line is JavaMOP overhead.

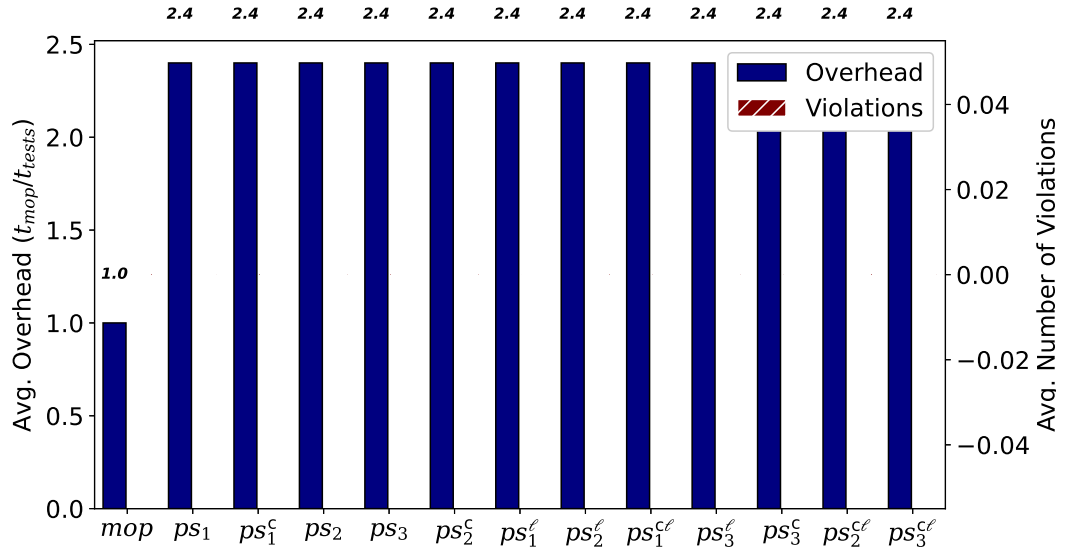


Fig. 3: Summary figure for RPS + VMS (combination).



Fig. 4: Summary figure for RPS + RPP (combination on ps_3^{cl}). The orange line is normal test execution (1, since it is the baseline), and the green line is JavaMOP overhead.

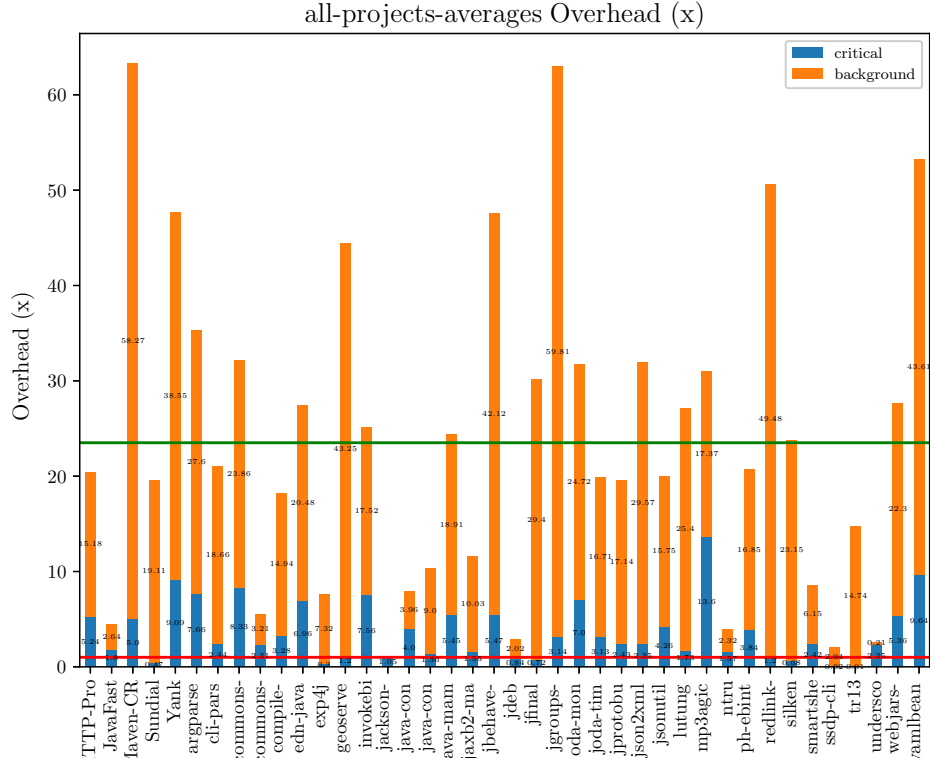


Fig. 5: Summary figure for RPP + VMS (combination). The orange line is normal test execution (1, since it is the baseline), and the green line is JavaMOP overhead.

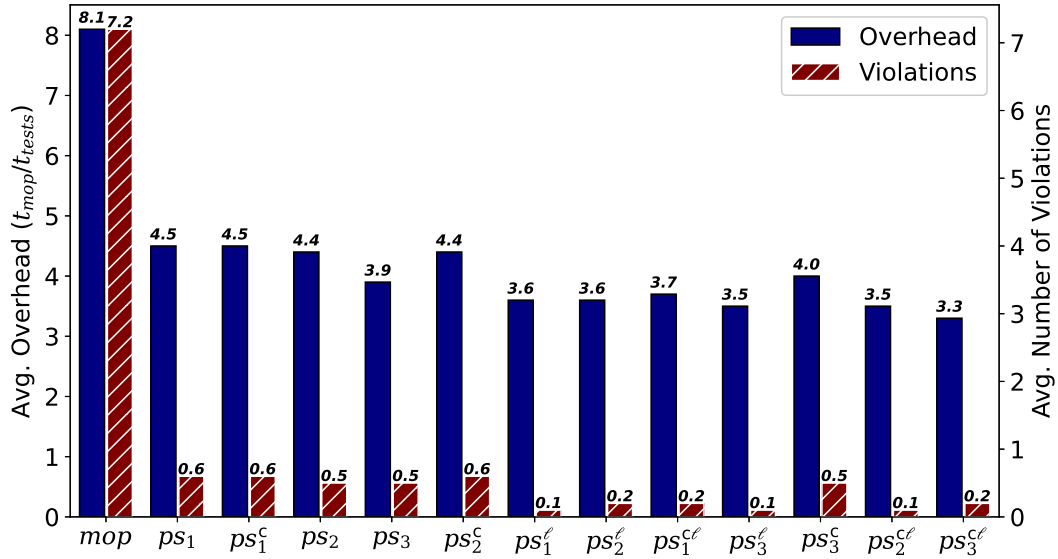


Fig. 6: Summary figure for RPS + RPP + VMS (combination) for projects more than 5x overhead.

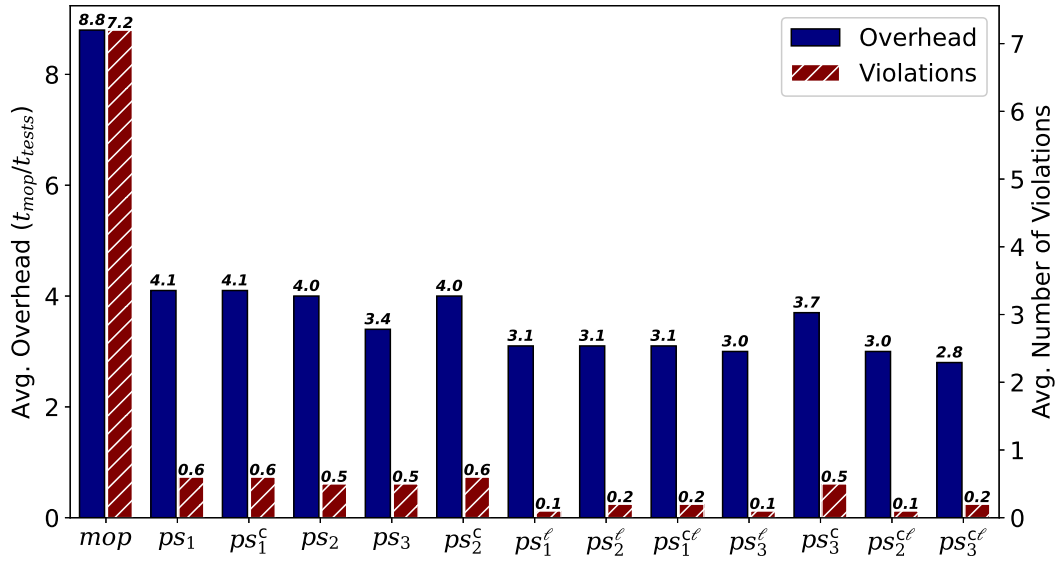


Fig. 7: Summary figure for RPS + RPP + VMS (combination) for projects more than 6x overhead.

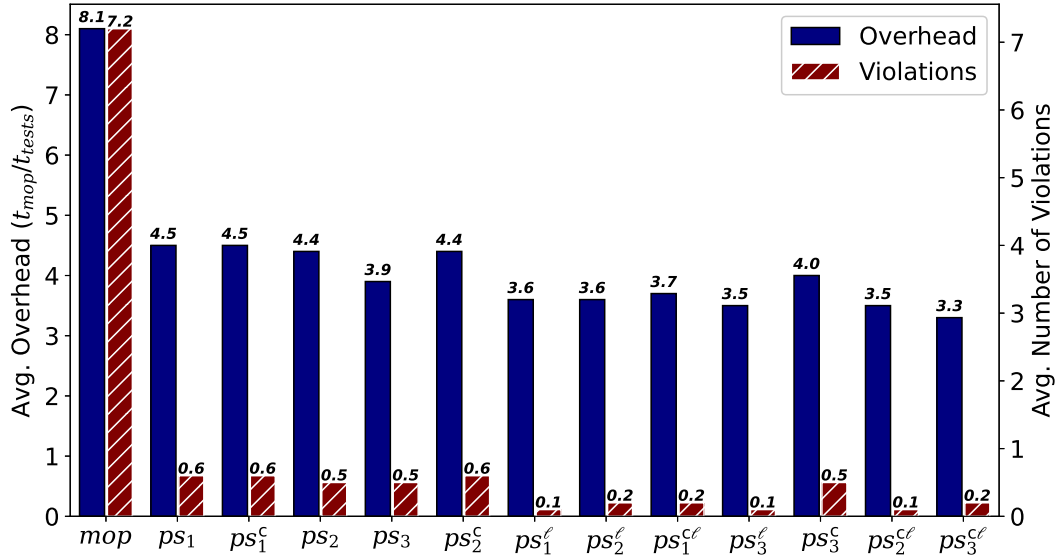


Fig. 8: Summary figure for RPS + RPP + VMS (combination) for projects more than 5x overhead.

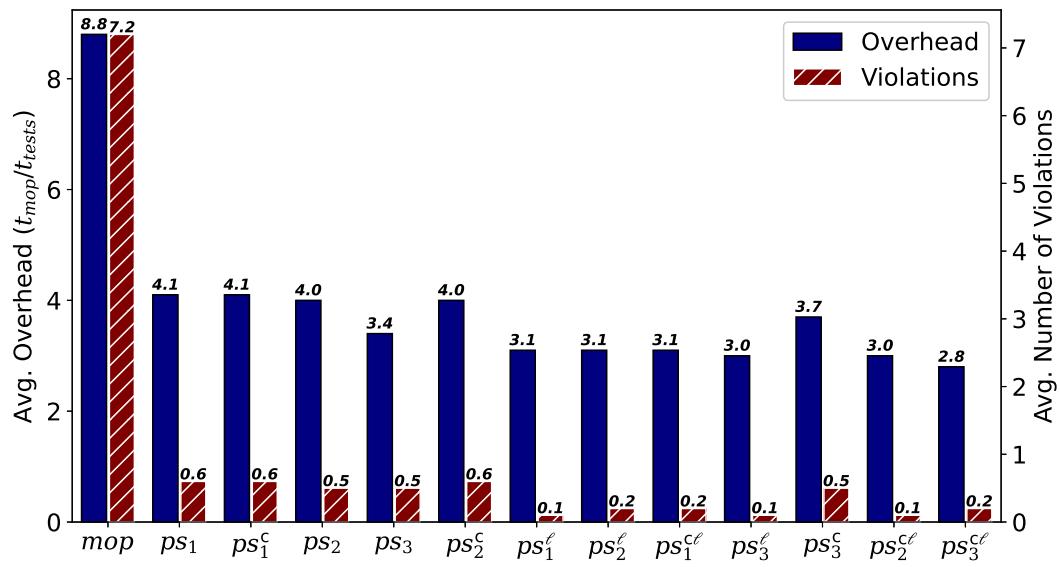
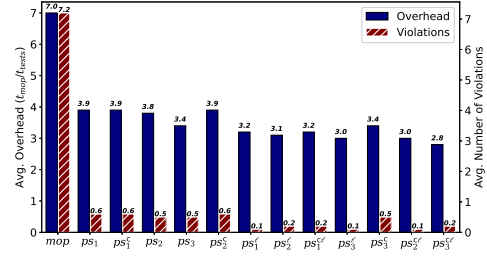
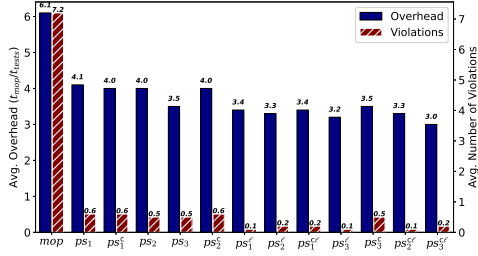


Fig. 9: Summary figure for RPS + RPP + VMS (combination) for projects more than 6x overhead.

TABLE I: Safety summary with unsafe variants and number of unsafe violations found

| Project/sha | Unsafe Variants(Number of unsafe violations) |
|----------------------------|--|
| commons-fileupload/18db2b7 | ps1l(6) ps1cl(6) ps2l(6) ps2cl(6) ps3l(6) ps3cl(6) |
| compile-testing/2678c36 | ps1l(6) ps1cl(6) ps2(2) ps2c(2) ps2l(6) ps2cl(6) ps3(2) ps3c(2) ps3l(6) ps3cl(6) |
| compile-testing/326c53f | ps1l(8) ps1cl(8) ps2l(8) ps2cl(8) ps3l(8) ps3cl(8) |
| compile-testing/3f1f222 | ps1l(6) ps1cl(6) ps2l(6) ps2cl(6) ps3l(6) ps3cl(6) |
| compile-testing/cc5a567 | ps1l(6) ps1cl(6) ps2l(6) ps2cl(6) ps3l(6) ps3cl(6) |
| compile-testing/ebbc462 | ps1l(8) ps1cl(8) ps2(2) ps2c(2) ps2l(8) ps2cl(8) ps3(2) ps3c(2) ps3l(8) ps3cl(8) |
| HTTP-Proxy-Servlet/238dd22 | ps1l(12) ps1cl(12) ps2l(12) ps2cl(12) ps3l(12) ps3cl(12) |
| jaxb2-maven-plugin/22be72a | ps1l(2) ps1cl(2) ps2l(2) ps2cl(2) ps3l(2) ps3cl(2) |
| jaxb2-maven-plugin/2f5dd20 | ps1l(6) ps1cl(6) ps2l(6) ps2cl(6) ps3l(6) ps3cl(6) |
| jaxb2-maven-plugin/5f10668 | ps1l(2) ps1cl(2) ps2l(2) ps2cl(2) ps3(2) ps3c(2) ps3l(2) ps3cl(2) |
| jaxb2-maven-plugin/ca74a04 | ps1l(2) ps1cl(2) ps2l(2) ps2cl(2) ps3l(2) ps3cl(2) |
| jdeb/2a3db71 | ps1l(4) ps1cl(4) ps2l(4) ps2cl(4) ps3l(4) ps3cl(4) |
| jdeb/5051010 | ps1l(4) ps1cl(4) ps2l(4) ps2cl(4) ps3l(4) ps3cl(4) |
| jdeb/79f8453 | ps1l(8) ps1cl(8) ps2l(8) ps2cl(8) ps3l(8) ps3cl(8) |
| jdeb/h2d3867 | ps1l(6) ps1cl(6) ps2l(6) ps2cl(6) ps3l(6) ps3cl(6) |
| jdeb/f95f9cf | ps1l(16) ps1cl(16) ps2l(16) ps2cl(16) ps3l(16) ps3cl(16) |
| ph-ebinterface/74b2640 | ps2(4) ps2c(4) ps2l(6) ps2cl(6) ps3(4) ps3c(4) ps3l(6) ps3cl(6) |
| underscore-java/b1e1ea6 | ps1c(6) ps1cl(6) ps2c(6) ps2cl(6) ps3c(16) ps3cl(16) |
| webjars-locator/9ed8827 | ps1l(2) ps1cl(2) ps2l(2) ps2cl(2) ps3l(2) ps3cl(2) |
| Yank/98a630c | ps2(2) ps2c(2) ps2l(2) ps2cl(2) ps3c(2) ps3cl(2) |



(a) Summary figure for RPS + RPP + VMS (combination) for projects where $t_{mop} - t_{tests}$ takes more than 17 seconds. (b) Summary figure for RPS + RPP + VMS (combination) for projects where $t_{mop} - t_{tests}$ takes more than 34 seconds.

Fig. 10: RPS + RPP + VMS (combination) for projects above some threshold.

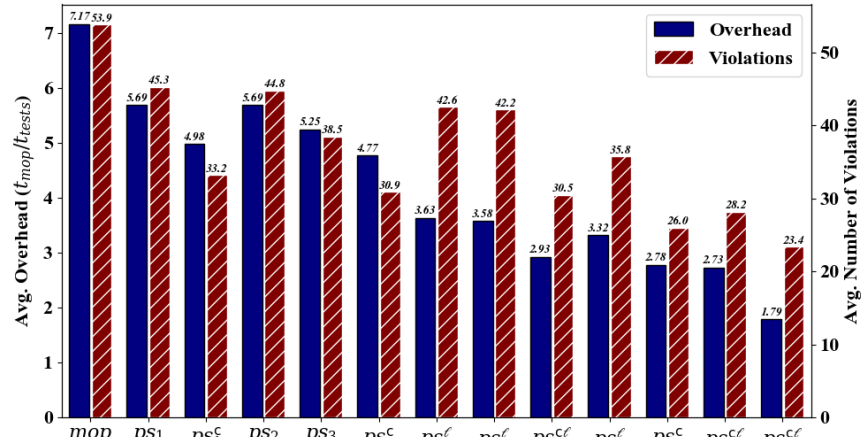
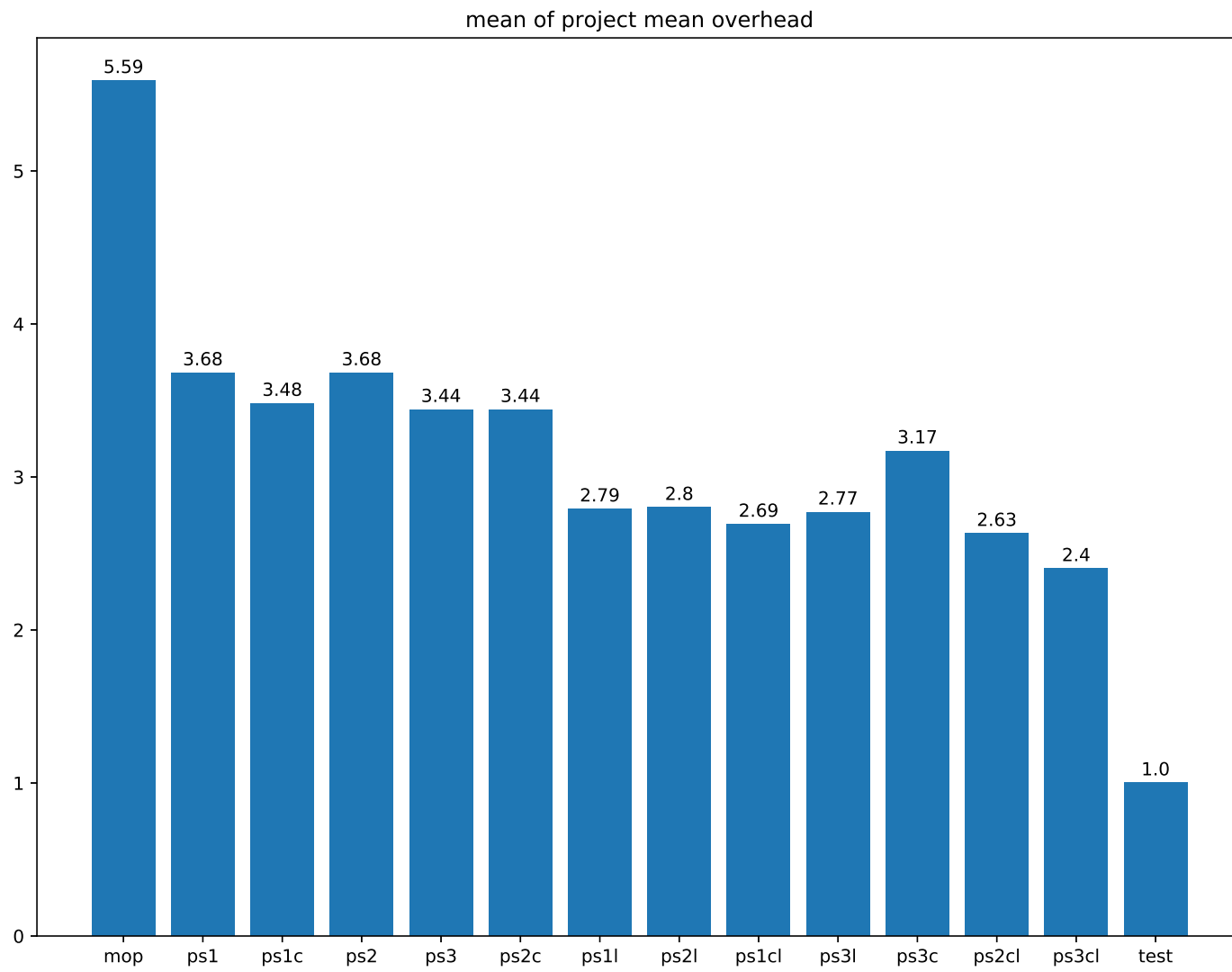
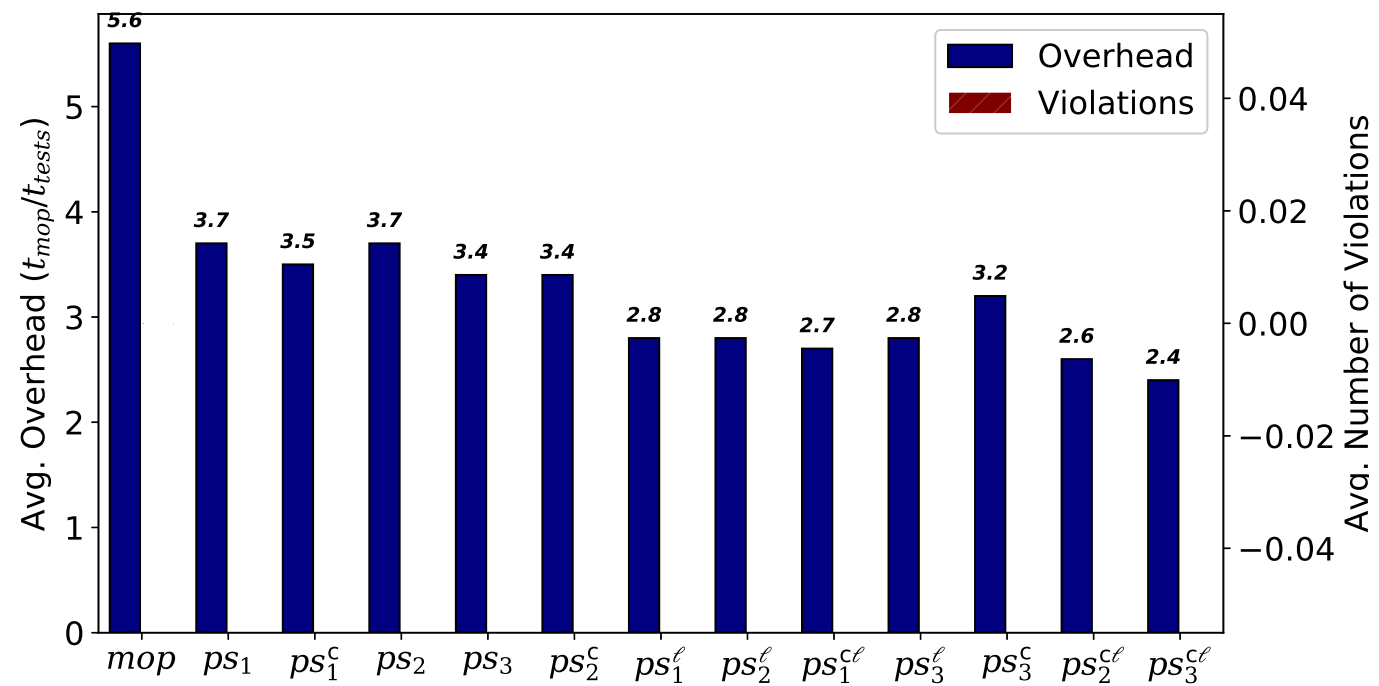
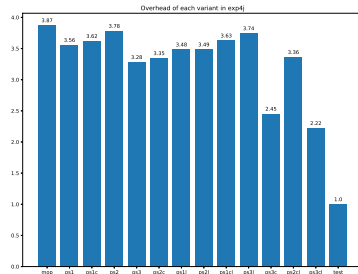


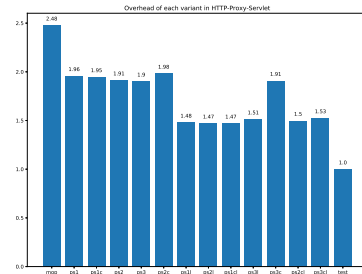
Fig. 11: Runtime overheads of, and violations from JavaMOP and all RPS variants in EMOP for the projects and versions in our earlier paper [?].



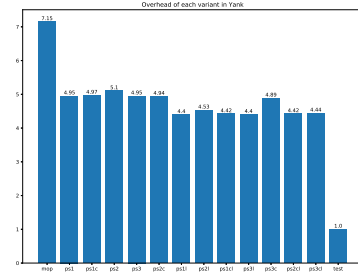




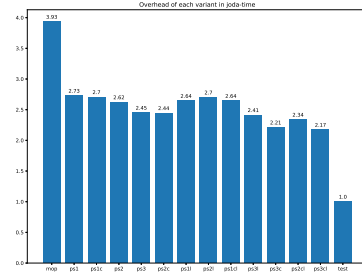
(a) rpstime for exp4j



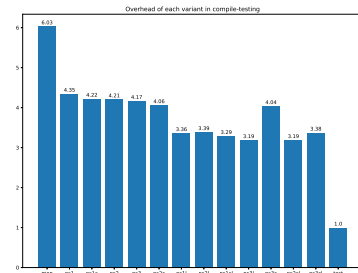
(b) rpstime for HTTP-Proxy-Servlet



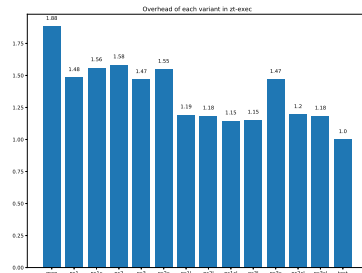
(c) rpstime for Yank



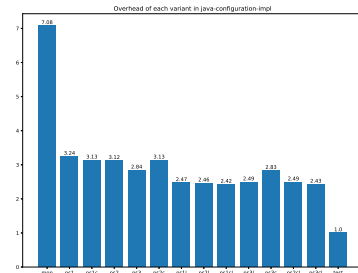
(d) rpstime for joda-time



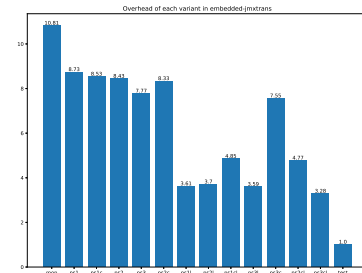
(e) rpstime for compile-testing



(f) rpstime for jt-exec

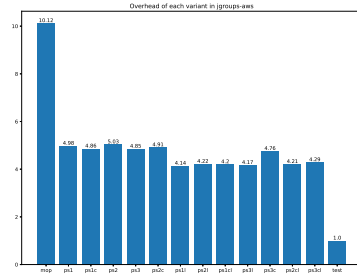


(g) rpstime for java-configuration-impl

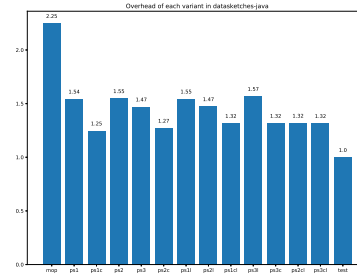


(h) rpstime for embedded-jmxtrans

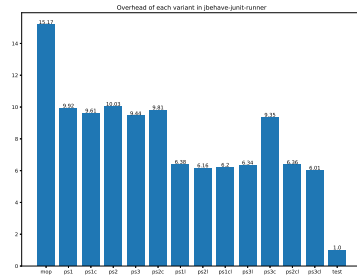
Fig. 12: Plots for rps Part 1



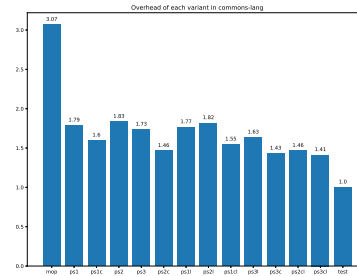
(a) rpstime for jgroups-aws



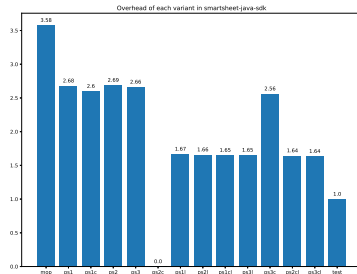
(b) rpstime for datasketches-java



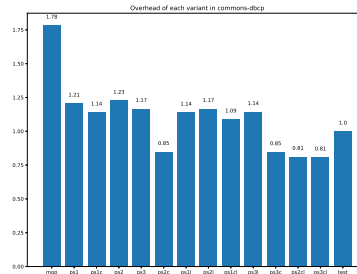
(c) rpstime for jbehave-junit-runner



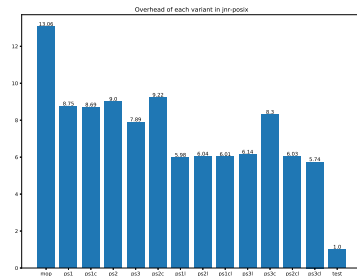
(d) rpstime for commons-lang



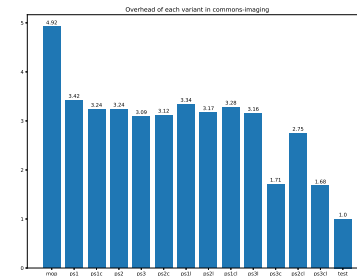
(e) rpstime for smartsheet-java-sdk



(f) rpstime for commons-dbcp



(g) rpstime for jnr-posix



(h) rpstime for commons-imaging

Fig. 13: Plots for rps Part 2

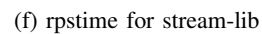
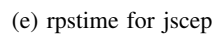
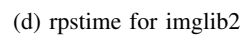
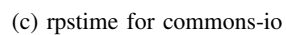
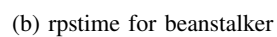
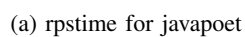


Fig. 14: Plots for rps Part END

TABLE II: Outcomes of RPS (rps) sum time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| exp4j | 1757.1 | 1613.7 | 1642.5 | 1716.2 | 1489.0 | 1517.7 | 1581.0 | 1581.2 | 1646.1 | 1699.1 | 1112.8 | 1525.5 | 1008.3 | 453.7 |
| HTTP-Proxy-Servlet | 1617.1 | 1278.0 | 1270.7 | 1249.3 | 1241.7 | 1294.2 | 966.0 | 960.3 | 960.1 | 987.6 | 1245.9 | 978.0 | 995.4 | 652.7 |
| Yank | 356.0 | 246.5 | 247.5 | 254.0 | 246.5 | 245.9 | 218.9 | 225.7 | 220.1 | 219.1 | 243.3 | 220.2 | 221.2 | 49.8 |
| joda-time | 2081.0 | 1442.9 | 1431.4 | 1386.9 | 1296.3 | 1293.4 | 1398.5 | 1428.3 | 1398.8 | 1276.3 | 1169.6 | 1236.6 | 1149.3 | 529.2 |
| compile-testing | 1844.4 | 1329.1 | 1290.7 | 1286.1 | 1274.0 | 1241.8 | 1028.3 | 1035.7 | 1005.8 | 974.8 | 1234.6 | 975.1 | 1031.9 | 305.7 |
| zt-exec | 386.0 | 304.1 | 320.0 | 324.6 | 300.9 | 317.4 | 244.5 | 242.7 | 234.9 | 236.1 | 301.2 | 244.9 | 242.6 | 204.9 |
| java-configuration-impl | 629.2 | 288.4 | 278.7 | 277.5 | 252.6 | 278.7 | 219.7 | 218.9 | 215.5 | 221.6 | 251.5 | 221.6 | 215.7 | 88.9 |
| embedded-jmxtrans | 2174.5 | 1756.3 | 1715.5 | 1696.2 | 1563.1 | 1675.0 | 726.9 | 744.1 | 974.5 | 722.1 | 1519.3 | 958.9 | 660.5 | 201.1 |
| jgroups-aws | 464.5 | 228.4 | 223.1 | 231.1 | 222.7 | 225.5 | 190.0 | 193.6 | 192.8 | 191.4 | 218.3 | 193.2 | 196.8 | 45.9 |
| datasketches-java | 3785.2 | 2599.6 | 2099.4 | 2606.6 | 2476.2 | 2142.2 | 2600.8 | 2480.4 | 2217.5 | 2641.1 | 2218.9 | 2221.2 | 2216.1 | 1683.3 |
| jbehave-junit-runner | 3524.8 | 2304.2 | 2232.6 | 2328.9 | 2193.1 | 2277.8 | 1482.9 | 1431.2 | 1439.9 | 1472.2 | 2171.2 | 1477.9 | 1396.6 | 232.3 |
| commons-lang | 1254.7 | 731.3 | 653.0 | 750.5 | 709.7 | 598.7 | 722.2 | 743.6 | 632.5 | 668.8 | 585.3 | 598.9 | 577.5 | 409.1 |
| smartsheet-java-sdk | 964.9 | 722.9 | 701.3 | 725.5 | 718.2 | 0.0 | 450.0 | 447.4 | 445.3 | 445.8 | 691.1 | 443.6 | 441.0 | 269.7 |
| commons-dbcp | 1796.3 | 1215.2 | 1148.9 | 1236.4 | 1175.2 | 855.0 | 1148.1 | 1174.7 | 1097.0 | 1151.8 | 853.4 | 818.7 | 814.3 | 1007.1 |
| jnr-posix | 7636.2 | 5116.7 | 5083.9 | 5265.1 | 4615.3 | 5393.9 | 3494.2 | 3530.0 | 3516.4 | 3591.7 | 4852.7 | 3527.6 | 3355.8 | 584.8 |
| commons-imaging | 1723.5 | 1198.4 | 1134.3 | 1135.8 | 1082.7 | 1092.5 | 1169.6 | 1110.9 | 1150.1 | 1105.6 | 599.4 | 963.0 | 586.8 | 350.3 |
| javapoet | 1133.4 | 355.3 | 347.9 | 356.7 | 343.8 | 355.2 | 265.4 | 257.0 | 273.1 | 268.0 | 342.6 | 264.4 | 259.6 | 173.2 |
| beanstalker | 1896.3 | 3193.8 | 3183.0 | 3180.6 | 3010.8 | 3019.7 | 2957.3 | 2962.2 | 3027.4 | 2952.6 | 3182.3 | 3000.7 | 2983.2 | 1331.6 |
| commons-io | 7885.4 | 2670.6 | 2435.9 | 2529.8 | 2480.9 | 2380.8 | 2080.8 | 2082.6 | 1785.9 | 1996.4 | 2151.5 | 1777.5 | 1652.2 | 1939.2 |
| imglib2 | 613.9 | 458.9 | 388.7 | 460.5 | 427.2 | 383.3 | 464.7 | 448.7 | 410.9 | 403.6 | 377.2 | 387.1 | 364.6 | 247.3 |
| jscep | 2142.5 | 1636.1 | 1797.9 | 1570.6 | 1514.4 | 1617.2 | 1133.7 | 1205.3 | 1099.0 | 1140.9 | 1464.9 | 1142.1 | 997.1 | 927.9 |
| stream-lib | 11892.6 | 6896.5 | 2557.8 | 6953.9 | 6149.0 | 2364.3 | 6956.7 | 7620.1 | 2404.9 | 7102.1 | 2772.2 | 2542.7 | 2404.5 | 1729.5 |
| sum | 57559.5 | 37586.7 | 32184.6 | 37522.6 | 34783.3 | 30570.2 | 31500.2 | 32124.6 | 26348.9 | 31468.6 | 29559.2 | 25719.4 | 23771.0 | 13417.2 |
| mean | 2616.3 | 1708.5 | 1462.9 | 1705.6 | 1581.1 | 1389.6 | 1431.8 | 1460.2 | 1197.7 | 1430.4 | 1343.6 | 1169.1 | 1080.5 | 609.9 |

TABLE III: Outcomes of RPS (rps) mean time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|-------------------------|--------|--------|--------|--------|--------|-------|--------|--------|-------|--------|-------|-------|-------|-------|
| exp4j | 35.9 | 32.9 | 33.5 | 35.0 | 30.4 | 31.0 | 32.3 | 32.3 | 33.6 | 34.7 | 22.7 | 31.1 | 20.6 | 9.3 |
| HTTP-Proxy-Servlet | 33.0 | 26.1 | 25.9 | 25.5 | 25.3 | 26.4 | 19.7 | 19.6 | 19.6 | 20.2 | 25.4 | 20.0 | 20.3 | 13.3 |
| Yank | 22.2 | 15.4 | 15.5 | 15.9 | 15.4 | 15.4 | 13.7 | 14.1 | 13.8 | 13.7 | 15.2 | 13.8 | 13.8 | 3.1 |
| joda-time | 42.5 | 29.4 | 29.2 | 28.3 | 26.5 | 26.4 | 28.5 | 29.1 | 28.5 | 26.0 | 23.9 | 25.2 | 23.5 | 10.8 |
| compile-testing | 37.6 | 27.1 | 26.3 | 26.2 | 26.0 | 25.3 | 21.0 | 21.1 | 20.5 | 19.9 | 25.2 | 19.9 | 21.1 | 6.2 |
| zt-exec | 27.6 | 21.7 | 22.9 | 23.2 | 21.5 | 22.7 | 17.5 | 17.3 | 16.8 | 16.9 | 21.5 | 17.5 | 17.3 | 14.6 |
| java-configuration-impl | 27.4 | 12.5 | 12.1 | 12.1 | 11.0 | 12.1 | 9.6 | 9.5 | 9.4 | 9.6 | 10.9 | 9.6 | 9.4 | 3.9 |
| embedded-jmxtrans | 44.4 | 35.8 | 35.0 | 34.6 | 31.9 | 34.2 | 14.8 | 15.2 | 19.9 | 14.7 | 31.0 | 19.6 | 13.5 | 4.1 |
| jgroups-aws | 29.0 | 14.3 | 13.9 | 14.4 | 13.9 | 14.1 | 11.9 | 12.1 | 12.1 | 12.0 | 13.6 | 12.1 | 12.3 | 2.9 |
| datasketches-java | 80.5 | 55.3 | 44.7 | 55.5 | 52.7 | 45.6 | 55.3 | 52.8 | 47.2 | 56.2 | 47.2 | 47.3 | 47.2 | 35.8 |
| jbehave-junit-runner | 71.9 | 47.0 | 45.6 | 47.5 | 44.8 | 46.5 | 30.3 | 29.2 | 29.4 | 30.0 | 44.3 | 30.2 | 28.5 | 4.7 |
| commons-lang | 66.0 | 38.5 | 34.4 | 39.5 | 37.4 | 31.5 | 38.0 | 39.1 | 33.3 | 35.2 | 30.8 | 31.5 | 30.4 | 21.5 |
| smartsheet-java-sdk | 48.2 | 36.1 | 35.1 | 36.3 | 35.9 | 22.5 | 22.5 | 22.4 | 22.3 | 22.3 | 34.6 | 22.2 | 22.1 | 13.5 |
| commons-dbcp | 94.5 | 64.0 | 60.5 | 65.1 | 61.9 | 45.0 | 60.4 | 61.8 | 57.7 | 60.6 | 44.9 | 43.1 | 42.9 | 53.0 |
| jnr-posix | 155.8 | 104.4 | 103.8 | 107.5 | 94.2 | 110.1 | 71.3 | 72.0 | 71.8 | 73.3 | 99.0 | 72.0 | 68.5 | 11.9 |
| commons-imaging | 90.7 | 63.1 | 59.7 | 59.8 | 57.0 | 57.5 | 61.6 | 58.5 | 60.5 | 58.2 | 31.5 | 50.7 | 30.9 | 18.4 |
| javapoet | 59.7 | 18.7 | 18.3 | 18.8 | 18.1 | 18.7 | 14.0 | 13.5 | 14.4 | 14.1 | 18.0 | 13.9 | 13.7 | 9.1 |
| beanstalker | 38.7 | 65.2 | 65.0 | 64.9 | 61.4 | 61.6 | 60.4 | 60.5 | 61.8 | 60.3 | 64.9 | 61.2 | 60.9 | 27.2 |
| commons-io | 415.0 | 140.6 | 128.2 | 133.1 | 130.6 | 125.3 | 109.5 | 109.6 | 94.0 | 105.1 | 113.2 | 93.6 | 87.0 | 102.1 |
| imglib2 | 32.3 | 24.2 | 20.5 | 24.2 | 22.5 | 20.2 | 24.5 | 23.6 | 21.6 | 21.2 | 19.9 | 20.4 | 19.2 | 13.0 |
| jscep | 43.7 | 33.4 | 36.7 | 32.1 | 30.9 | 33.0 | 23.1 | 24.6 | 22.4 | 23.3 | 29.9 | 23.3 | 20.3 | 18.9 |
| stream-lib | 625.9 | 363.0 | 134.6 | 366.0 | 323.6 | 124.4 | 366.1 | 401.1 | 126.6 | 373.8 | 145.9 | 133.8 | 126.6 | 91.0 |
| sum | 2122.7 | 1268.7 | 1001.2 | 1265.4 | 1172.7 | 927.0 | 1105.9 | 1139.1 | 837.1 | 1101.2 | 913.8 | 811.9 | 749.6 | 488.5 |
| mean | 96.5 | 57.7 | 45.5 | 57.5 | 53.3 | 44.1 | 50.3 | 51.8 | 38.0 | 50.1 | 41.5 | 36.9 | 34.1 | 22.2 |

TABLE IV: Outcomes of RPS (rps) exp4j time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 9b5270 | 103.1 | 110.2 | 119.1 | 119.4 | 105.9 | 106.3 | 103.3 | 105.3 | 110.6 | 129.5 | 119.7 | 101.7 | 103.1 | 9.5 |
| abf84e | 106.6 | 101.9 | 100.1 | 108.8 | 99.9 | 92.6 | 105.1 | 101.4 | 120.2 | 128.1 | 75.7 | 104.2 | 61.7 | 9.4 |
| bfaeb2 | 107.3 | 97.9 | 106.8 | 110.5 | 95.0 | 100.6 | 104.6 | 100.8 | 115.9 | 127.8 | 75.3 | 103.7 | 69.4 | 9.5 |
| 4346b2 | 107.3 | 108.7 | 104.6 | 114.8 | 105.2 | 92.7 | 104.4 | 106.7 | 111.3 | 124.4 | 21.4 | 99.2 | 19.3 | 9.3 |
| 16f249 | 112.3 | 108.2 | 108.2 | 116.3 | 97.9 | 94.6 | 105.8 | 102.9 | 108.8 | 127.9 | 22.5 | 101.9 | 20.9 | 9.6 |
| c339cc | 106.9 | 109.9 | 107.1 | 115.9 | 102.3 | 92.2 | 106.7 | 105.5 | 106.5 | 120.9 | 20.8 | 100.2 | 19.6 | 9.6 |
| 224191 | 105.2 | 107.8 | 119.3 | 116.4 | 110.9 | 109.1 | 97.4 | 102.7 | 107.8 | 124.4 | 115.8 | 98.0 | 99.2 | 9.6 |
| 5b63e1 | 104.2 | 106.8 | 113.0 | 111.4 | 98.6 | 90.8 | 104.2 | 99.3 | 108.1 | 124.0 | 68.8 | 91.6 | 62.4 | 9.6 |
| 76ffe6 | 108.3 | 3.4 | 3.4 | 3.4 | 3.4 | 3.2 | 3.7 | 3.6 | 3.4 | 3.6 | 3.3 | 3.1 | 3.4 | 9.4 |
| f80e8b | 104.9 | 98.3 | 102.2 | 110.9 | 20.8 | 93.2 | 105.2 | 103.3 | 107.5 | 24.5 | 13.5 | 101.6 | 13.1 | 9.6 |
| 8ff4f1 | 103.3 | 104.5 | 105.8 | 110.7 | 99.4 | 93.6 | 95.7 | 98.8 | 105.5 | 118.6 | 23.2 | 93.8 | 20.4 | 9.7 |
| 96c52c | 19.6 | 20.1 | 19.9 | 20.7 | 20.0 | 19.9 | 20.9 | 20.9 | 20.5 | 21.0 | 20.4 | 20.4 | 20.0 | 8.9 |
| 9d7620 | 14.0 | 13.4 | 13.7 | 14.2 | 13.5 | 13.7 | 13.3 | 13.4 | 13.2 | 13.2 | 13.8 | 12.7 | 13.2 | 8.9 |
| 1640d4 | 13.7 | 13.1 | 13.0 | 13.5 | 13.1 | 13.1 | 13.0 | 13.2 | 12.6 | 13.4 | 13.4 | 12.4 | 12.5 | 9.1 |
| 377eb0 | 13.7 | 15.0 | 14.8 | 15.4 | 14.9 | 14.6 | 14.2 | 14.2 | 14.4 | 14.7 | 15.8 | 13.9 | 14.2 | 9.0 |
| b5b575 | 14.2 | 14.4 | 14.8 | 14.9 | 14.4 | 14.5 | 14.3 | 14.1 | 13.9 | 14.1 | 14.7 | 13.9 | 13.5 | 9.1 |
| 1f4ac3 | 14.1 | 14.7 | 14.4 | 14.9 | 13.7 | 14.4 | 14.2 | 14.1 | 14.0 | 13.1 | 13.6 | 13.5 | 12.6 | 8.9 |
| f27e78 | 14.0 | 14.6 | 14.2 | 15.1 | 13.3 | 14.0 | 14.3 | 14.4 | 13.9 | 13.2 | 13.8 | 13.7 | 12.7 | 9.0 |
| 59849d | 14.7 | 14.8 | 14.1 | 15.6 | 13.9 | 14.1 | 14.0 | 14.2 | 13.8 | 13.4 | 13.7 | 13.4 | 12.6 | 9.0 |
| a97382 | 15.5 | 15.6 | 15.7 | 16.1 | 15.3 | 15.5 | 15.1 | 15.6 | 15.1 | 16.1 | 15.9 | 15.2 | 15.0 | 9.1 |
| 83de2b | 15.2 | 15.7 | 15.2 | 16.2 | 15.9 | 15.1 | 15.3 | 15.7 | 15.4 | 15.9 | 16.0 | 15.1 | 14.8 | 9.1 |
| 70d59f | 15.2 | 14.9 | 14.4 | 14.9 | 14.5 | 14.2 | 14.6 | 14.7 | 14.6 | 14.7 | 14.7 | 13.8 | 13.9 | 9.1 |
| 49d187 | 15.2 | 14.7 | 14.6 | 15.5 | 14.6 | 15.4 | 14.5 | 14.6 | 14.3 | 15.0 | 14.1 | 14.0 | 12.9 | 9.1 |
| 219dfc | 15.8 | 15.4 | 15.7 | 15.6 | 14.9 | 15.2 | 15.2 | 15.1 | 15.2 | 15.7 | 15.4 | 14.9 | 15.0 | 9.2 |
| eb7ec0 | 15.4 | 14.7 | 14.8 | 14.9 | 14.5 | 14.7 | 14.7 | 15.0 | 14.9 | 14.7 | 14.9 | 14.5 | 14.3 | 9.2 |
| fe0b59 | 15.1 | 15.1 | 15.1 | 15.6 | 14.7 | 14.4 | 14.7 | 15.4 | 14.8 | 15.1 | 15.0 | 13.8 | 13.5 | 9.1 |
| 3d3255 | 15.3 | 15.1 | 15.1 | 15.4 | 15.2 | 14.2 | 14.6 | 14.8 | 15.0 | 15.0 | 14.8 | 13.3 | 13.8 | 9.0 |
| fb1bd8 | 15.0 | 2.9 | 3.2 | 3.3 | 3.0 | 3.1 | 3.3 | 3.3 | 3.3 | 3.1 | 3.2 | 3.0 | 3.2 | 9.2 |
| 377f45 | 15.2 | 15.8 | 15.3 | 16.3 | 15.3 | 15.8 | 15.3 | 15.4 | 14.8 | 15.4 | 15.4 | 15.1 | 14.5 | 9.2 |
| 58938f | 15.8 | 16.1 | 16.3 | 17.1 | 16.1 | 15.9 | 15.7 | 16.0 | 15.2 | 15.8 | 16.2 | 15.1 | 15.2 | 9.2 |
| e329dd | 15.4 | 16.2 | 16.0 | 17.0 | 15.9 | 15.3 | 15.0 | 15.6 | 15.0 | 15.7 | 15.4 | 14.5 | 14.4 | 9.4 |
| 9d257d | 15.8 | 16.0 | 16.0 | 16.5 | 15.9 | 14.9 | 15.2 | 15.3 | 14.9 | 15.1 | 15.5 | 14.5 | 14.3 | 9.3 |
| ee8d81 | 15.4 | 3.3 | 3.2 | 3.3 | 3.2 | 3.1 | 3.1 | 3.4 | 3.3 | 3.2 | 3.2 | 3.2 | 3.1 | 9.4 |
| 403989 | 15.8 | 16.0 | 15.9 | 16.7 | 16.4 | 15.9 | 15.2 | 15.7 | 15.1 | 15.8 | 16.2 | 14.8 | 14.2 | 9.1 |
| 9da6d6 | 15.2 | 16.0 | 15.7 | 17.1 | 15.7 | 15.3 | 15.6 | 15.3 | 15.1 | 15.9 | 15.2 | 14.5 | 14.4 | 9.3 |
| 8df7ad | 15.6 | 15.9 | 15.7 | 16.8 | 16.4 | 15.8 | 15.9 | 15.8 | 16.1 | 15.8 | 15.9 | 15.1 | 15.2 | 9.2 |
| 115238 | 15.6 | 16.1 | 16.1 | 16.6 | 16.3 | 15.6 | 15.6 | 16.2 | 15.4 | 16.1 | 16.1 | 15.4 | 15.3 | 9.1 |
| e977f1 | 15.6 | 16.0 | 16.0 | 17.0 | 14.5 | 15.9 | 15.4 | 15.9 | 15.2 | 14.9 | 14.2 | 15.6 | 13.5 | 9.3 |
| eb606b | 16.2 | 16.3 | 16.4 | 17.0 | 16.5 | 16.3 | 16.2 | 16.3 | 15.5 | 16.6 | 16.3 | 15.6 | 15.4 | 9.4 |
| bc9a8a | 16.1 | 16.1 | 15.8 | 16.5 | 16.4 | 16.4 | 15.6 | 15.5 | 16.3 | 16.0 | 16.8 | 15.6 | 15.1 | 9.1 |
| 0f86d5 | 15.5 | 16.1 | 15.8 | 16.7 | 16.1 | 15.9 | 16.0 | 15.5 | 16.0 | 16.1 | 17.1 | 15.2 | 15.7 | 9.3 |
| fb1103 | 15.8 | 3.2 | 3.2 | 3.3 | 3.1 | 3.2 | 3.3 | 3.4 | 3.3 | 3.5 | 3.2 | 3.1 | 3.0 | 9.3 |
| 2b82f0 | 15.9 | 16.0 | 15.7 | 16.7 | 16.2 | 16.5 | 15.5 | 15.8 | 15.5 | 15.4 | 16.2 | 14.9 | 15.3 | 9.2 |
| e3fbf3 | 16.0 | 16.5 | 16.7 | 17.6 | 16.7 | 16.7 | 16.8 | 16.8 | 16.6 | 16.6 | 16.9 | 16.0 | 16.4 | 9.2 |
| c2f7b9 | 16.3 | 15.2 | 14.7 | 15.8 | 12.5 | 15.1 | 15.1 | 15.8 | 14.9 | 12.8 | 12.8 | 14.5 | 12.3 | 9.4 |
| 1af15f | 16.4 | 16.0 | 16.2 | 16.7 | 16.4 | 15.8 | 16.2 | 15.8 | 15.9 | 15.3 | 16.9 | 15.4 | 15.2 | 9.2 |
| 726228 | 15.7 | 16.0 | 16.1 | 16.4 | 16.4 | 16.1 | 15.6 | 15.8 | 15.5 | 15.8 | 15.9 | 14.8 | 14.7 | 9.3 |
| 12eb15 | 16.1 | 16.5 | 16.6 | 17.5 | 17.1 | 16.7 | 16.2 | 16.4 | 15.6 | 15.8 | 16.7 | 16.1 | 15.2 | 9.2 |
| bae815 | 16.2 | 17.1 | 16.9 | 17.6 | 17.2 | 16.7 | 16.1 | 16.6 | 16.4 | 16.3 | 17.3 | 15.8 | 15.7 | 9.5 |
| sum | 1757.1 | 1613.7 | 1642.5 | 1716.2 | 1489.0 | 1517.7 | 1581.0 | 1581.2 | 1646.1 | 1699.1 | 1112.8 | 1525.5 | 1008.3 | 453.7 |
| mean | 35.9 | 32.9 | 33.5 | 35.0 | 30.4 | 31.0 | 32.3 | 32.3 | 33.6 | 34.7 | 22.7 | 31.1 | 20.6 | 9.3 |

TABLE V: Outcomes of RPS (rps) HTTP-Proxy-Servlet time

| sha | mop | psl | pslc | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|--------|-------|-------|-------|
| 33e505 | 15.3 | 8.9 | 8.9 | 8.5 | 8.4 | 9.2 | 7.1 | 6.8 | 6.9 | 7.8 | 8.6 | 7.2 | 7.6 | 3.0 |
| 4b1e27 | 15.5 | 8.1 | 8.2 | 7.8 | 7.7 | 8.6 | 6.2 | 6.4 | 6.1 | 6.7 | 7.8 | 6.6 | 6.8 | 3.0 |
| 98985b | 15.0 | 8.1 | 8.1 | 8.0 | 7.6 | 8.7 | 6.4 | 6.6 | 6.2 | 6.5 | 7.8 | 6.5 | 6.6 | 2.9 |
| 1d5413 | 15.6 | 7.9 | 8.5 | 8.2 | 8.3 | 8.2 | 6.2 | 6.2 | 6.2 | 7.0 | 8.0 | 6.3 | 6.6 | 2.9 |
| cb3a0b | 15.0 | 7.9 | 8.4 | 8.0 | 7.8 | 8.4 | 6.3 | 6.2 | 6.0 | 6.6 | 7.9 | 6.3 | 6.5 | 3.0 |
| fa9d71 | 15.1 | 3.7 | 3.6 | 3.3 | 3.1 | 3.5 | 3.8 | 3.5 | 3.4 | 3.5 | 3.5 | 3.4 | 3.6 | 3.0 |
| 58e91f | 14.8 | 15.1 | 14.5 | 14.3 | 14.6 | 15.2 | 6.9 | 7.1 | 7.1 | 7.3 | 14.2 | 6.9 | 7.6 | 3.0 |
| 8a41cf | 15.3 | 14.7 | 14.2 | 13.9 | 9.4 | 15.1 | 7.1 | 6.6 | 6.5 | 6.7 | 9.0 | 7.1 | 6.7 | 3.0 |
| 6925e1 | 15.7 | 13.6 | 13.6 | 12.9 | 13.3 | 14.1 | 6.8 | 6.6 | 6.5 | 7.0 | 13.3 | 7.2 | 7.2 | 3.0 |
| 5500d9 | 15.8 | 17.2 | 17.2 | 16.7 | 17.0 | 18.6 | 17.5 | 16.8 | 16.9 | 18.0 | 17.1 | 17.9 | 17.4 | 3.1 |
| 32401f | 16.8 | 14.3 | 13.8 | 13.7 | 13.2 | 14.5 | 7.1 | 7.2 | 6.9 | 7.3 | 14.2 | 7.1 | 7.9 | 2.9 |
| b8405e | 16.0 | 14.1 | 14.1 | 13.4 | 13.4 | 14.1 | 7.2 | 7.1 | 7.5 | 7.2 | 13.4 | 7.5 | 7.2 | 3.0 |
| c93ca1 | 16.2 | 14.0 | 13.9 | 13.1 | 13.6 | 14.4 | 7.1 | 7.1 | 7.1 | 7.5 | 13.3 | 7.3 | 7.3 | 2.9 |
| e9cc22 | 16.7 | 13.9 | 14.5 | 13.7 | 13.8 | 14.6 | 7.7 | 7.4 | 7.3 | 7.8 | 14.2 | 7.8 | 7.9 | 3.1 |
| 1e3a0c | 16.7 | 13.7 | 13.7 | 13.5 | 9.8 | 13.9 | 7.4 | 7.1 | 7.0 | 7.5 | 9.5 | 7.7 | 7.4 | 3.2 |
| 60fe09 | 16.4 | 14.1 | 14.2 | 13.7 | 13.8 | 14.9 | 7.4 | 7.3 | 7.0 | 7.7 | 13.7 | 7.5 | 8.0 | 3.4 |
| 0afcc5 | 19.0 | 20.8 | 20.1 | 19.2 | 19.9 | 21.1 | 19.7 | 19.2 | 19.5 | 20.8 | 19.5 | 20.8 | 20.5 | 5.3 |
| 72583c | 27.0 | 24.6 | 25.0 | 23.9 | 24.0 | 25.4 | 17.8 | 17.9 | 17.7 | 18.0 | 23.9 | 18.0 | 18.0 | 13.3 |
| 417b86 | 27.2 | 24.2 | 24.6 | 23.9 | 23.8 | 24.6 | 17.5 | 17.3 | 17.4 | 17.7 | 23.7 | 18.0 | 17.9 | 13.4 |
| c67d99 | 27.4 | 24.6 | 24.0 | 23.9 | 24.2 | 24.6 | 17.2 | 17.6 | 17.2 | 17.5 | 24.2 | 17.3 | 18.0 | 13.4 |
| cf2f89 | 31.9 | 30.3 | 30.1 | 29.3 | 29.3 | 30.8 | 22.8 | 22.7 | 22.9 | 23.0 | 29.4 | 22.9 | 23.1 | 18.4 |
| 5eb89e | 33.1 | 29.7 | 29.6 | 29.6 | 29.2 | 30.1 | 22.9 | 22.4 | 22.8 | 23.3 | 29.5 | 22.7 | 23.0 | 18.4 |
| a69a17 | 32.8 | 29.6 | 29.4 | 29.1 | 29.1 | 30.3 | 22.6 | 22.4 | 22.3 | 22.9 | 29.8 | 22.7 | 23.0 | 18.4 |
| bfc7d7 | 32.4 | 29.3 | 29.7 | 29.5 | 29.2 | 29.8 | 22.6 | 22.4 | 22.5 | 23.0 | 29.5 | 23.2 | 23.2 | 18.6 |
| db06a4 | 32.4 | 3.8 | 4.0 | 3.4 | 3.6 | 3.9 | 3.6 | 3.5 | 3.6 | 4.0 | 3.5 | 3.8 | 3.9 | 18.6 |
| 9df9bb | 32.1 | 29.8 | 29.8 | 29.3 | 29.0 | 30.0 | 22.9 | 22.3 | 22.4 | 22.7 | 29.8 | 23.4 | 23.0 | 18.5 |
| 2b2d95 | 32.2 | 33.2 | 33.1 | 33.0 | 33.0 | 33.2 | 33.2 | 32.7 | 32.8 | 34.2 | 33.2 | 33.7 | 34.1 | 18.7 |
| 89f716 | 32.1 | 29.8 | 29.6 | 29.1 | 29.2 | 29.8 | 22.6 | 22.8 | 22.9 | 23.1 | 29.0 | 23.1 | 23.4 | 18.5 |
| a58a72 | 31.7 | 29.2 | 29.3 | 28.8 | 28.8 | 29.2 | 22.6 | 22.5 | 22.4 | 22.9 | 29.1 | 22.7 | 22.6 | 18.4 |
| 6cabde | 31.7 | 29.6 | 29.2 | 28.8 | 28.9 | 29.5 | 22.2 | 22.5 | 22.5 | 22.9 | 29.3 | 23.1 | 23.1 | 18.3 |
| a5b6ec | 31.7 | 3.9 | 3.6 | 3.3 | 3.4 | 3.7 | 3.5 | 3.6 | 3.4 | 3.5 | 3.5 | 3.4 | 3.7 | 18.4 |
| d9b90d | 31.9 | 32.9 | 33.0 | 32.9 | 33.1 | 34.3 | 33.5 | 33.2 | 32.8 | 33.5 | 33.1 | 33.3 | 33.8 | 18.4 |
| 5caba4 | 32.8 | 29.8 | 29.4 | 28.8 | 29.0 | 29.5 | 22.7 | 22.5 | 22.7 | 22.9 | 29.4 | 23.1 | 23.5 | 18.4 |
| 3bcd87 | 32.2 | 33.5 | 33.2 | 33.0 | 33.5 | 33.5 | 34.6 | 32.9 | 32.8 | 33.6 | 33.6 | 33.4 | 34.7 | 18.4 |
| 5ee88f | 32.0 | 29.3 | 29.2 | 28.8 | 29.0 | 29.3 | 22.9 | 22.5 | 22.5 | 23.1 | 29.0 | 22.8 | 23.1 | 18.4 |
| 3050d5 | 32.1 | 29.5 | 29.3 | 28.7 | 28.7 | 29.8 | 22.3 | 22.8 | 22.2 | 22.8 | 29.6 | 23.4 | 23.2 | 18.4 |
| babd76 | 32.3 | 29.8 | 29.6 | 28.8 | 28.9 | 29.7 | 22.4 | 22.5 | 22.5 | 22.7 | 29.1 | 22.6 | 22.7 | 18.4 |
| 4defd0 | 32.8 | 29.2 | 29.6 | 28.6 | 29.1 | 29.9 | 22.3 | 22.4 | 22.3 | 22.7 | 29.0 | 23.1 | 23.1 | 18.4 |
| 22d442 | 46.6 | 48.1 | 47.1 | 46.8 | 46.9 | 48.2 | 46.6 | 46.4 | 47.0 | 48.5 | 47.4 | 46.9 | 49.2 | 19.2 |
| 238dd2 | 61.8 | 65.6 | 62.5 | 61.4 | 63.0 | 64.4 | 62.5 | 63.1 | 63.1 | 65.0 | 64.2 | 63.4 | 65.0 | 19.9 |
| 34edf5 | 63.2 | 49.3 | 49.7 | 49.8 | 48.5 | 49.9 | 25.3 | 25.2 | 24.9 | 25.7 | 48.9 | 25.4 | 25.5 | 20.7 |
| cec23d | 64.1 | 65.4 | 65.0 | 65.1 | 65.9 | 66.5 | 64.5 | 64.4 | 65.5 | 66.6 | 64.4 | 65.5 | 67.5 | 21.1 |
| fb734f | 64.6 | 49.6 | 49.7 | 48.4 | 48.9 | 50.4 | 25.3 | 25.0 | 25.7 | 25.4 | 48.5 | 25.5 | 25.8 | 21.0 |
| d75353 | 63.6 | 50.0 | 49.7 | 49.4 | 46.1 | 50.2 | 25.3 | 25.8 | 24.9 | 25.4 | 46.0 | 25.5 | 25.9 | 21.0 |
| 36c6a0 | 64.8 | 4.2 | 4.5 | 4.1 | 4.4 | 4.6 | 4.4 | 4.3 | 4.3 | 4.7 | 4.2 | 4.5 | 4.7 | 20.8 |
| a5d4b6 | 64.0 | 3.8 | 3.8 | 4.1 | 3.6 | 4.0 | 4.1 | 3.9 | 3.6 | 4.2 | 3.8 | 4.1 | 4.2 | 20.8 |
| c17fb9 | 63.1 | 49.7 | 49.5 | 49.3 | 48.9 | 50.3 | 25.1 | 25.2 | 25.7 | 25.6 | 49.6 | 25.7 | 26.3 | 20.9 |
| 7ad6d4 | 64.3 | 66.4 | 65.8 | 65.4 | 64.9 | 67.0 | 64.9 | 64.7 | 65.7 | 67.8 | 64.8 | 65.2 | 68.3 | 20.8 |
| 531709 | 64.3 | 49.8 | 49.6 | 49.3 | 49.4 | 50.7 | 25.5 | 25.6 | 25.2 | 25.7 | 49.1 | 25.4 | 25.9 | 20.8 |
| sum | 1617.1 | 1278.0 | 1270.7 | 1249.3 | 1241.7 | 1294.2 | 966.0 | 960.3 | 960.1 | 987.6 | 1245.9 | 978.0 | 995.4 | 652.7 |
| mean | 33.0 | 26.1 | 25.9 | 25.5 | 25.3 | 26.4 | 19.7 | 19.6 | 19.6 | 20.2 | 25.4 | 20.0 | 20.3 | 13.3 |

TABLE VI: Outcomes of RPS (rps) Yank time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 5709ce | 21.7 | 21.9 | 22.5 | 22.7 | 21.4 | 22.4 | 21.3 | 22.0 | 21.5 | 22.2 | 21.1 | 21.6 | 22.4 | 3.0 |
| 76e782 | 21.4 | 15.9 | 16.1 | 16.7 | 15.9 | 15.9 | 7.8 | 8.1 | 8.0 | 7.8 | 16.0 | 7.4 | 7.4 | 3.0 |
| b26e90 | 22.6 | 3.0 | 2.8 | 2.9 | 3.2 | 3.0 | 3.0 | 3.4 | 3.2 | 3.1 | 3.0 | 3.0 | 3.0 | 3.0 |
| afbca2 | 21.7 | 21.6 | 22.4 | 23.3 | 21.8 | 21.8 | 21.6 | 22.1 | 22.4 | 21.7 | 21.8 | 22.0 | 22.1 | 2.9 |
| 9245c9 | 21.8 | 3.0 | 2.7 | 2.9 | 2.9 | 2.7 | 3.0 | 3.0 | 2.9 | 2.9 | 2.8 | 2.8 | 2.8 | 2.9 |
| 88a0df | 21.3 | 15.3 | 14.9 | 15.2 | 15.5 | 14.6 | 6.6 | 7.1 | 6.7 | 6.6 | 15.3 | 7.1 | 6.3 | 3.0 |
| cc7c44 | 21.9 | 21.5 | 22.2 | 22.6 | 22.1 | 22.3 | 22.0 | 22.6 | 21.9 | 21.8 | 22.0 | 21.8 | 22.4 | 2.9 |
| 6fd980 | 21.7 | 2.9 | 2.8 | 2.8 | 2.9 | 2.9 | 2.8 | 3.0 | 2.8 | 2.8 | 2.8 | 2.9 | 2.7 | 2.9 |
| 24ff95 | 21.7 | 22.1 | 22.7 | 22.9 | 22.2 | 22.2 | 22.7 | 23.5 | 22.6 | 22.4 | 22.1 | 22.4 | 22.5 | 2.9 |
| cfb9b8 | 22.0 | 22.7 | 22.3 | 23.0 | 22.2 | 22.7 | 21.5 | 23.4 | 21.8 | 22.2 | 21.9 | 22.2 | 22.6 | 3.0 |
| 580435 | 22.0 | 23.3 | 22.4 | 24.0 | 23.0 | 23.7 | 22.3 | 23.2 | 22.4 | 22.5 | 22.7 | 23.1 | 23.0 | 3.1 |
| 6752dc | 22.5 | 3.3 | 3.1 | 3.3 | 3.1 | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 | 3.4 | 3.3 | 3.1 | 2.9 |
| a13462 | 22.5 | 22.6 | 23.7 | 23.7 | 23.2 | 22.4 | 23.2 | 23.0 | 23.5 | 22.6 | 22.5 | 22.5 | 23.2 | 2.9 |
| ed0e73 | 22.7 | 16.5 | 16.9 | 17.0 | 16.8 | 16.4 | 8.0 | 8.3 | 8.0 | 7.9 | 16.4 | 7.9 | 7.9 | 3.7 |
| 1f3139 | 23.2 | 3.8 | 3.6 | 3.7 | 4.0 | 3.8 | 3.8 | 3.9 | 3.8 | 3.8 | 3.7 | 3.9 | 3.8 | 3.7 |
| 1031dc | 25.4 | 27.0 | 26.4 | 27.2 | 26.3 | 26.0 | 25.9 | 26.2 | 25.6 | 25.5 | 25.8 | 26.1 | 25.9 | 3.8 |
| sum | 356.0 | 246.5 | 247.5 | 254.0 | 246.5 | 245.9 | 218.9 | 225.7 | 220.1 | 219.1 | 243.3 | 220.2 | 221.2 | 49.8 |
| mean | 22.2 | 15.4 | 15.5 | 15.9 | 15.4 | 15.4 | 13.7 | 14.1 | 13.8 | 13.7 | 15.2 | 13.8 | 13.8 | 3.1 |

TABLE VII: Outcomes of RPS (rps) joda-time time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 381cca | 42.4 | 29.4 | 28.0 | 28.5 | 28.5 | 29.5 | 28.7 | 29.1 | 28.4 | 28.4 | 27.9 | 27.7 | 27.7 | 10.4 |
| eaaff1 | 43.0 | 33.6 | 33.0 | 32.8 | 33.3 | 34.2 | 32.2 | 34.3 | 32.6 | 32.5 | 32.9 | 32.2 | 32.7 | 11.2 |
| ca7bec | 42.7 | 10.7 | 10.5 | 9.9 | 10.5 | 11.0 | 10.2 | 11.0 | 10.2 | 10.1 | 10.4 | 9.8 | 9.9 | 10.7 |
| 4d84d8 | 42.6 | 33.2 | 33.4 | 32.7 | 31.5 | 24.3 | 31.7 | 33.6 | 32.6 | 32.2 | 20.7 | 23.0 | 19.3 | 10.9 |
| f81758 | 41.8 | 32.9 | 32.7 | 32.3 | 32.0 | 24.0 | 31.7 | 33.9 | 32.5 | 31.9 | 20.6 | 22.7 | 19.8 | 10.8 |
| dc4376 | 42.8 | 27.4 | 21.1 | 27.4 | 17.3 | 21.2 | 26.8 | 28.3 | 20.2 | 16.7 | 15.3 | 20.1 | 15.0 | 10.7 |
| fb2063 | 42.3 | 34.4 | 33.2 | 32.1 | 32.3 | 25.4 | 32.9 | 33.5 | 32.9 | 31.1 | 22.3 | 23.6 | 20.4 | 10.5 |
| 262448 | 41.2 | 32.7 | 32.4 | 29.2 | 18.4 | 22.5 | 31.8 | 29.9 | 32.2 | 18.4 | 15.7 | 20.9 | 15.6 | 10.5 |
| 53922f | 42.9 | 33.4 | 33.2 | 32.9 | 32.9 | 34.7 | 32.5 | 33.9 | 33.4 | 31.8 | 32.2 | 33.6 | 33.0 | 11.0 |
| 114403 | 42.2 | 32.9 | 32.6 | 32.1 | 32.2 | 34.1 | 32.0 | 33.6 | 32.2 | 31.3 | 31.6 | 31.7 | 31.9 | 10.6 |
| 52757e | 42.1 | 33.0 | 33.0 | 32.8 | 32.1 | 33.7 | 31.6 | 34.5 | 32.3 | 32.4 | 32.1 | 33.0 | 31.9 | 10.8 |
| acff94 | 41.9 | 10.4 | 10.2 | 9.2 | 9.3 | 10.0 | 10.4 | 10.2 | 10.0 | 10.2 | 9.5 | 9.3 | 9.4 | 10.5 |
| 67e9e5 | 41.8 | 33.5 | 33.7 | 32.7 | 33.3 | 34.8 | 32.6 | 33.6 | 33.1 | 32.8 | 33.5 | 33.6 | 32.7 | 10.5 |
| 1e7b4b | 42.5 | 33.4 | 34.7 | 33.1 | 33.3 | 34.3 | 33.4 | 33.8 | 33.1 | 32.7 | 32.7 | 33.0 | 32.7 | 10.7 |
| b3fdbc | 42.4 | 10.3 | 10.3 | 9.3 | 10.1 | 9.9 | 10.4 | 10.3 | 10.1 | 10.2 | 9.7 | 9.9 | 9.6 | 10.4 |
| 66825d | 42.8 | 33.8 | 33.9 | 33.8 | 33.0 | 34.9 | 32.9 | 33.4 | 33.0 | 32.2 | 33.6 | 33.3 | 33.3 | 10.7 |
| 3ba701 | 41.7 | 34.2 | 34.0 | 34.3 | 33.1 | 25.5 | 33.9 | 34.7 | 33.8 | 31.7 | 21.2 | 24.1 | 20.3 | 11.0 |
| b90efa | 42.2 | 10.3 | 10.2 | 9.7 | 9.8 | 9.9 | 10.0 | 10.2 | 9.6 | 10.1 | 9.6 | 9.6 | 9.5 | 10.5 |
| e917d7 | 42.4 | 34.8 | 34.0 | 33.7 | 35.0 | 35.0 | 33.3 | 35.0 | 34.2 | 33.3 | 33.3 | 33.8 | 33.8 | 10.6 |
| c5c681 | 42.7 | 34.7 | 35.2 | 34.5 | 33.5 | 26.2 | 33.6 | 35.3 | 33.8 | 32.7 | 21.6 | 24.1 | 20.8 | 10.3 |
| dfc0d8 | 43.0 | 35.2 | 33.8 | 33.3 | 33.4 | 35.9 | 33.3 | 35.2 | 33.3 | 32.5 | 33.3 | 34.0 | 34.4 | 10.3 |
| f871b0 | 41.7 | 34.8 | 33.9 | 34.0 | 34.0 | 35.0 | 33.6 | 34.3 | 33.2 | 32.5 | 33.4 | 34.3 | 33.2 | 10.8 |
| a7e167 | 42.4 | 11.1 | 10.5 | 10.1 | 10.5 | 11.0 | 12.0 | 11.1 | 11.1 | 10.6 | 10.4 | 11.1 | 10.4 | 11.5 |
| 5f98d6 | 42.2 | 9.8 | 10.4 | 9.9 | 9.8 | 10.0 | 10.4 | 9.8 | 10.0 | 10.4 | 10.1 | 9.9 | 9.7 | 10.8 |
| a0aead | 41.8 | 34.7 | 35.8 | 34.3 | 33.7 | 25.7 | 34.5 | 35.5 | 34.0 | 32.7 | 22.6 | 24.4 | 20.9 | 11.0 |
| e9b136 | 42.8 | 10.6 | 10.9 | 9.6 | 10.5 | 10.9 | 10.8 | 11.2 | 10.6 | 11.3 | 10.0 | 10.5 | 10.3 | 10.9 |
| b72a1f | 42.4 | 36.1 | 35.9 | 35.9 | 35.0 | 37.2 | 34.5 | 36.4 | 35.7 | 34.8 | 35.5 | 36.1 | 35.3 | 11.0 |
| 6a4ee6 | 42.6 | 37.0 | 36.6 | 35.8 | 36.8 | 36.8 | 35.8 | 36.9 | 35.2 | 34.6 | 35.6 | 36.8 | 35.2 | 10.5 |
| f4a109 | 42.4 | 35.8 | 36.5 | 35.0 | 34.8 | 37.0 | 34.3 | 36.1 | 35.1 | 34.0 | 35.3 | 37.6 | 35.0 | 10.8 |
| 8429e5 | 42.9 | 36.7 | 36.2 | 33.0 | 32.3 | 24.8 | 35.3 | 34.0 | 35.7 | 32.1 | 21.2 | 23.3 | 20.0 | 11.2 |
| 124fd3 | 42.0 | 10.2 | 10.6 | 9.7 | 9.9 | 10.0 | 10.6 | 10.2 | 10.3 | 10.1 | 10.4 | 10.2 | 9.9 | 11.1 |
| ac9b98 | 42.0 | 36.5 | 36.4 | 34.1 | 32.5 | 24.8 | 35.8 | 33.9 | 35.5 | 31.3 | 21.6 | 23.9 | 19.8 | 10.5 |
| adacfb | 42.3 | 11.5 | 10.8 | 10.0 | 10.3 | 10.3 | 10.8 | 10.6 | 9.9 | 10.4 | 9.9 | 9.9 | 10.3 | 10.7 |
| d4a2c3 | 43.0 | 45.2 | 46.1 | 45.8 | 44.5 | 47.8 | 45.6 | 47.5 | 47.0 | 44.6 | 45.1 | 46.2 | 46.6 | 11.1 |
| 638153 | 42.5 | 36.6 | 36.9 | 36.8 | 36.1 | 38.0 | 34.9 | 36.2 | 35.4 | 34.5 | 35.5 | 36.2 | 35.7 | 11.2 |
| 5a3cb2 | 42.1 | 36.4 | 37.5 | 34.1 | 32.5 | 25.3 | 35.1 | 34.9 | 36.3 | 31.8 | 22.2 | 23.9 | 19.5 | 11.0 |
| e98903 | 42.9 | 10.3 | 10.9 | 10.2 | 9.8 | 10.6 | 11.0 | 11.0 | 10.1 | 9.9 | 10.8 | 11.1 | 10.4 | 11.0 |
| b65434 | 43.4 | 10.3 | 10.8 | 9.7 | 10.0 | 10.6 | 10.8 | 10.8 | 10.1 | 10.9 | 9.8 | 10.4 | 10.1 | 11.2 |
| 8213a1 | 43.4 | 37.1 | 36.8 | 35.9 | 35.8 | 37.8 | 35.1 | 36.8 | 35.7 | 34.9 | 36.4 | 35.8 | 35.7 | 11.1 |
| 75ab8c | 43.1 | 10.8 | 10.6 | 10.0 | 10.0 | 10.9 | 10.4 | 10.5 | 10.0 | 10.6 | 10.2 | 10.3 | 10.0 | 10.6 |
| ed9d0a | 42.8 | 36.7 | 36.1 | 36.3 | 36.0 | 37.0 | 35.1 | 36.2 | 36.0 | 34.6 | 36.0 | 35.7 | 35.6 | 10.9 |
| e2f678 | 43.2 | 37.6 | 37.8 | 37.5 | 36.7 | 39.6 | 35.5 | 36.7 | 36.6 | 35.3 | 36.8 | 37.0 | 36.3 | 11.0 |
| 12559d | 42.3 | 43.9 | 44.4 | 42.9 | 42.8 | 45.9 | 42.3 | 44.5 | 42.6 | 41.8 | 43.2 | 42.0 | 42.0 | 10.8 |
| 804e5d | 43.3 | 43.8 | 43.1 | 39.8 | 37.7 | 30.8 | 40.6 | 41.0 | 42.3 | 37.0 | 27.1 | 29.3 | 26.0 | 10.8 |
| bdc70 | 42.9 | 42.1 | 41.9 | 39.2 | 24.4 | 30.4 | 40.4 | 39.8 | 40.5 | 23.6 | 21.5 | 28.0 | 20.3 | 10.6 |
| 87deb3 | 42.0 | 15.3 | 15.5 | 14.1 | 15.1 | 15.1 | 15.5 | 15.7 | 15.1 | 14.9 | 14.8 | 15.3 | 14.3 | 11.1 |
| 52a03c | 42.6 | 42.0 | 41.8 | 39.0 | 23.2 | 29.0 | 40.2 | 39.5 | 40.1 | 24.3 | 20.7 | 28.3 | 21.0 | 10.9 |
| c13ba8 | 42.3 | 42.6 | 41.6 | 39.1 | 23.4 | 30.3 | 41.0 | 40.5 | 40.8 | 23.5 | 21.8 | 28.2 | 20.8 | 10.8 |
| 872d99 | 42.3 | 42.6 | 41.7 | 38.9 | 23.5 | 29.8 | 40.6 | 39.4 | 40.4 | 24.0 | 21.6 | 28.1 | 21.4 | 10.5 |
| sum | 2081.0 | 1442.9 | 1431.4 | 1386.9 | 1296.3 | 1293.4 | 1398.5 | 1428.3 | 1398.8 | 1276.3 | 1169.6 | 1236.6 | 1149.3 | 529.2 |
| mean | 42.5 | 29.4 | 29.2 | 28.3 | 26.5 | 26.4 | 28.5 | 29.1 | 28.5 | 26.0 | 23.9 | 25.2 | 23.5 | 10.8 |

TABLE VIII: Outcomes of RPS (rps) compile-testing time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|-------|
| 6b89cd | 31.8 | 23.6 | 22.3 | 23.0 | 23.2 | 22.1 | 13.0 | 13.3 | 13.0 | 12.5 | 21.9 | 12.6 | 13.5 | 5.7 |
| fe6edd | 30.4 | 18.2 | 17.3 | 17.9 | 18.6 | 16.9 | 11.8 | 11.4 | 10.9 | 10.6 | 17.5 | 10.8 | 11.3 | 5.7 |
| 8e9ce9 | 30.9 | 32.1 | 30.7 | 31.6 | 31.9 | 31.1 | 32.1 | 32.5 | 31.3 | 30.7 | 31.2 | 30.5 | 32.3 | 5.6 |
| 4006c1 | 31.3 | 31.7 | 31.8 | 30.4 | 31.9 | 31.0 | 30.9 | 32.5 | 32.1 | 31.8 | 31.8 | 30.5 | 32.1 | 5.8 |
| e5e4ee | 31.4 | 23.0 | 21.4 | 22.7 | 22.5 | 21.5 | 12.6 | 13.1 | 12.5 | 12.3 | 21.7 | 12.5 | 12.6 | 5.8 |
| 4dd5fd | 31.3 | 32.6 | 32.4 | 31.9 | 31.7 | 30.7 | 31.4 | 31.9 | 31.6 | 31.3 | 32.2 | 30.1 | 32.2 | 5.7 |
| 0ef7e5 | 32.1 | 9.8 | 9.3 | 9.3 | 9.1 | 8.5 | 9.7 | 9.4 | 9.0 | 8.8 | 9.0 | 8.7 | 9.7 | 5.6 |
| cc5a56 | 31.3 | 32.5 | 31.5 | 31.6 | 32.6 | 31.1 | 31.8 | 32.0 | 32.4 | 30.0 | 31.7 | 30.9 | 32.0 | 5.8 |
| 49c254 | 33.6 | 33.7 | 33.3 | 32.5 | 33.6 | 32.3 | 32.8 | 32.6 | 32.8 | 32.2 | 33.0 | 31.5 | 33.7 | 5.7 |
| ebbc46 | 31.8 | 33.3 | 34.0 | 32.7 | 33.2 | 32.7 | 33.4 | 33.3 | 32.9 | 32.1 | 33.4 | 31.3 | 34.6 | 6.1 |
| 762247 | 36.9 | 28.4 | 27.1 | 27.1 | 27.6 | 27.2 | 13.4 | 13.4 | 13.6 | 12.9 | 26.4 | 13.2 | 13.6 | 6.2 |
| 99aed6 | 38.3 | 27.0 | 27.1 | 26.4 | 27.3 | 25.5 | 13.7 | 13.1 | 12.4 | 12.2 | 26.0 | 12.7 | 13.6 | 5.9 |
| 2678c3 | 38.8 | 40.0 | 37.8 | 38.0 | 39.0 | 36.2 | 38.1 | 39.3 | 37.2 | 36.6 | 39.2 | 38.0 | 38.7 | 6.3 |
| acf6ae | 37.9 | 38.3 | 37.6 | 38.0 | 38.3 | 35.9 | 37.6 | 38.7 | 37.5 | 37.2 | 39.2 | 39.1 | 39.7 | 6.1 |
| 7d31b5 | 38.8 | 29.0 | 27.9 | 28.5 | 29.2 | 26.5 | 13.3 | 13.6 | 13.1 | 12.8 | 26.9 | 12.7 | 12.9 | 6.3 |
| 3f1f22 | 37.9 | 40.5 | 39.8 | 38.1 | 38.5 | 36.3 | 38.3 | 40.1 | 37.6 | 37.6 | 38.3 | 37.1 | 39.8 | 6.5 |
| 0f4e55 | 37.4 | 5.0 | 5.1 | 4.6 | 4.9 | 4.6 | 4.8 | 5.0 | 4.6 | 4.8 | 4.7 | 4.7 | 4.9 | 6.1 |
| 20f6d4 | 39.8 | 28.3 | 27.3 | 27.9 | 28.0 | 25.0 | 13.2 | 13.5 | 12.3 | 12.5 | 25.7 | 11.5 | 12.2 | 6.2 |
| 6b3290 | 37.7 | 29.3 | 28.5 | 28.7 | 28.3 | 27.2 | 13.9 | 13.9 | 12.9 | 13.1 | 26.7 | 13.1 | 13.4 | 6.2 |
| 9ec074 | 38.9 | 29.8 | 28.5 | 27.8 | 27.9 | 27.1 | 14.3 | 14.0 | 13.4 | 13.5 | 26.8 | 12.9 | 13.2 | 6.2 |
| 38f6d0 | 38.0 | 29.3 | 28.0 | 28.0 | 27.2 | 28.0 | 13.7 | 13.7 | 13.6 | 13.0 | 26.2 | 12.4 | 13.1 | 6.2 |
| ac382a | 38.7 | 4.9 | 4.8 | 4.6 | 5.2 | 4.8 | 4.9 | 5.0 | 4.8 | 4.4 | 4.9 | 4.5 | 5.0 | 6.0 |
| dd93c0 | 39.4 | 4.9 | 5.2 | 4.9 | 4.9 | 4.5 | 4.8 | 4.9 | 4.8 | 4.8 | 4.9 | 4.7 | 4.9 | 6.3 |
| d34c5c | 37.9 | 24.4 | 23.1 | 23.4 | 22.1 | 22.0 | 12.6 | 12.6 | 12.0 | 11.5 | 21.8 | 11.9 | 11.9 | 6.3 |
| f04802 | 38.0 | 28.1 | 26.5 | 26.7 | 10.2 | 25.5 | 12.8 | 13.4 | 12.4 | 9.1 | 9.9 | 11.5 | 10.0 | 6.3 |
| b3d432 | 38.5 | 28.8 | 27.0 | 27.0 | 10.7 | 25.7 | 14.1 | 13.6 | 12.9 | 10.0 | 10.5 | 12.2 | 11.8 | 6.1 |
| e95757 | 38.4 | 6.1 | 6.1 | 5.8 | 6.0 | 5.1 | 5.4 | 5.8 | 5.8 | 5.6 | 6.0 | 5.6 | 5.7 | 6.1 |
| b4eaa9 | 39.3 | 30.0 | 29.1 | 29.1 | 29.4 | 27.7 | 15.1 | 14.4 | 13.9 | 14.0 | 27.5 | 13.1 | 13.9 | 6.5 |
| ffc732 | 38.7 | 5.9 | 5.9 | 6.1 | 5.8 | 5.6 | 6.3 | 6.0 | 5.5 | 5.7 | 5.4 | 5.4 | 6.0 | 6.4 |
| b867b4 | 39.5 | 5.6 | 5.9 | 6.2 | 5.9 | 5.5 | 6.0 | 5.9 | 5.8 | 5.7 | 5.8 | 5.5 | 5.8 | 6.3 |
| 90f7d6 | 38.1 | 6.3 | 6.0 | 6.2 | 6.2 | 5.7 | 6.4 | 6.2 | 6.4 | 5.5 | 6.0 | 5.9 | 6.6 | 6.6 |
| 2a47a5 | 38.8 | 6.5 | 6.1 | 6.4 | 6.4 | 5.9 | 6.0 | 6.8 | 6.3 | 6.1 | 6.2 | 5.6 | 6.6 | 6.3 |
| cd2c0a | 39.0 | 30.0 | 29.1 | 27.3 | 28.8 | 26.2 | 14.7 | 14.4 | 14.2 | 13.1 | 27.7 | 13.4 | 14.1 | 6.6 |
| 80a9ee | 40.3 | 30.4 | 28.7 | 29.1 | 30.4 | 28.1 | 15.0 | 14.6 | 14.3 | 13.7 | 29.4 | 13.2 | 14.6 | 6.4 |
| 95c749 | 39.8 | 43.2 | 41.8 | 40.7 | 42.0 | 39.9 | 42.2 | 42.9 | 40.6 | 39.8 | 40.8 | 39.6 | 41.6 | 6.4 |
| a959de | 40.8 | 31.9 | 30.6 | 30.9 | 32.0 | 29.6 | 15.1 | 15.1 | 14.7 | 14.2 | 31.0 | 14.2 | 15.8 | 7.1 |
| 1f8424 | 39.7 | 31.0 | 30.3 | 30.4 | 29.5 | 29.7 | 14.8 | 14.3 | 14.2 | 13.6 | 28.4 | 13.3 | 14.1 | 6.6 |
| cb6486 | 41.0 | 42.5 | 41.2 | 42.3 | 41.5 | 39.4 | 40.9 | 41.1 | 41.1 | 40.1 | 40.6 | 40.2 | 43.6 | 6.4 |
| c46b1b | 39.7 | 42.1 | 42.7 | 42.0 | 43.8 | 40.1 | 42.4 | 42.3 | 40.8 | 40.7 | 41.2 | 40.9 | 44.2 | 6.5 |
| bcad50 | 40.1 | 43.9 | 41.1 | 41.0 | 42.1 | 40.2 | 41.2 | 42.9 | 41.2 | 39.8 | 40.6 | 39.3 | 42.8 | 6.1 |
| 620d23 | 39.6 | 41.3 | 40.5 | 41.4 | 43.0 | 40.4 | 41.8 | 42.3 | 40.8 | 39.9 | 40.6 | 40.4 | 42.4 | 6.3 |
| 626025 | 41.5 | 41.8 | 41.9 | 41.7 | 41.2 | 40.3 | 43.2 | 42.3 | 42.0 | 39.6 | 40.9 | 39.6 | 43.0 | 6.7 |
| 3b9095 | 39.6 | 42.8 | 42.3 | 41.1 | 42.0 | 41.0 | 41.7 | 41.4 | 40.7 | 39.9 | 41.4 | 39.3 | 42.4 | 6.1 |
| fd1e44 | 40.5 | 30.6 | 30.3 | 30.2 | 30.7 | 28.6 | 14.5 | 15.2 | 14.5 | 13.1 | 28.2 | 13.4 | 13.3 | 6.6 |
| 1fee4c | 40.4 | 6.1 | 5.9 | 6.1 | 6.2 | 5.9 | 6.4 | 5.8 | 5.8 | 5.3 | 5.8 | 5.8 | 6.3 | 6.6 |
| b748f6 | 40.1 | 43.4 | 41.9 | 41.8 | 42.4 | 41.4 | 41.6 | 42.9 | 41.7 | 40.4 | 41.1 | 40.1 | 41.8 | 6.5 |
| 115014 | 40.5 | 42.7 | 41.8 | 41.7 | 43.4 | 41.4 | 43.4 | 42.1 | 41.4 | 40.8 | 42.2 | 40.4 | 44.2 | 6.5 |
| 5dc482 | 39.7 | 31.6 | 30.1 | 29.0 | 30.7 | 27.8 | 14.6 | 14.6 | 14.2 | 13.4 | 29.7 | 13.0 | 14.1 | 6.7 |
| 1148d3 | 40.6 | 6.7 | 6.3 | 6.3 | 6.9 | 6.5 | 6.9 | 6.7 | 6.2 | 6.3 | 6.6 | 6.2 | 6.6 | 6.8 |
| sum | 1844.4 | 1329.1 | 1290.7 | 1286.1 | 1274.0 | 1241.8 | 1028.3 | 1035.7 | 1005.8 | 974.8 | 1234.6 | 975.1 | 1031.9 | 305.7 |
| mean | 37.6 | 27.1 | 26.3 | 26.2 | 26.0 | 25.3 | 21.0 | 21.1 | 20.5 | 19.9 | 25.2 | 19.9 | 21.1 | 6.2 |

TABLE IX: Outcomes of RPS (rps) zt-exec time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| c58216 | 26.0 | 17.7 | 18.2 | 19.2 | 17.8 | 18.9 | 17.4 | 17.0 | 16.6 | 16.7 | 17.4 | 17.5 | 16.9 | 13.1 |
| c5b972 | 25.5 | 23.6 | 25.3 | 24.5 | 23.8 | 25.2 | 18.4 | 18.6 | 17.8 | 18.5 | 23.7 | 18.5 | 18.2 | 13.2 |
| e8609f | 25.4 | 3.2 | 3.5 | 3.3 | 3.4 | 3.4 | 3.4 | 3.4 | 3.5 | 3.3 | 3.4 | 3.5 | 3.4 | 13.1 |
| d964c0 | 25.9 | 24.0 | 25.5 | 25.2 | 24.3 | 24.7 | 18.7 | 17.9 | 17.6 | 18.5 | 23.9 | 18.2 | 18.4 | 13.3 |
| d6766d | 28.0 | 26.3 | 27.5 | 27.4 | 25.5 | 26.8 | 20.7 | 20.2 | 19.6 | 19.5 | 25.7 | 20.8 | 20.4 | 15.3 |
| 46c33c | 28.0 | 26.1 | 27.4 | 27.5 | 25.5 | 27.1 | 20.2 | 20.3 | 20.0 | 19.8 | 25.8 | 20.8 | 19.9 | 14.9 |
| fa782b | 28.5 | 25.7 | 26.4 | 27.1 | 22.9 | 26.2 | 20.1 | 20.5 | 19.2 | 18.7 | 22.5 | 19.8 | 19.0 | 15.8 |
| 28ceb1 | 28.5 | 25.9 | 27.0 | 27.8 | 25.7 | 27.1 | 20.6 | 20.3 | 19.7 | 19.8 | 25.9 | 20.3 | 20.5 | 15.3 |
| eebd89 | 28.6 | 25.5 | 26.6 | 27.0 | 25.5 | 26.9 | 20.2 | 20.4 | 19.7 | 19.5 | 25.2 | 20.5 | 19.9 | 15.2 |
| 7a7a4b | 28.5 | 25.5 | 27.0 | 27.5 | 25.5 | 26.4 | 20.1 | 20.3 | 19.6 | 19.4 | 26.4 | 20.1 | 20.0 | 15.2 |
| 8ff8fa | 28.3 | 25.5 | 27.2 | 27.7 | 25.7 | 26.9 | 20.4 | 20.1 | 19.7 | 19.9 | 25.9 | 20.6 | 21.0 | 15.3 |
| a47b4c | 28.6 | 25.5 | 26.4 | 28.1 | 25.7 | 26.5 | 20.2 | 20.0 | 19.4 | 19.6 | 25.7 | 20.4 | 20.5 | 15.2 |
| 0a5f14 | 28.0 | 3.2 | 3.5 | 3.3 | 3.0 | 3.3 | 3.4 | 3.1 | 3.1 | 3.1 | 3.1 | 3.3 | 3.3 | 15.0 |
| 6bdce0 | 28.2 | 26.7 | 28.6 | 29.0 | 26.6 | 28.0 | 20.7 | 20.4 | 19.5 | 19.9 | 26.5 | 20.7 | 21.1 | 15.1 |
| sum | 386.0 | 304.1 | 320.0 | 324.6 | 300.9 | 317.4 | 244.5 | 242.7 | 234.9 | 236.1 | 301.2 | 244.9 | 242.6 | 204.9 |
| mean | 27.6 | 21.7 | 22.9 | 23.2 | 21.5 | 22.7 | 17.5 | 17.3 | 16.8 | 16.9 | 21.5 | 17.5 | 17.3 | 14.6 |

TABLE X: Outcomes of RPS (rps) java-configuration-impl time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| cd27a2 | 19.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.4 | 3.7 | 3.3 | 3.4 | 3.5 | 3.4 | 3.4 | 3.2 |
| cd1a4d | 20.1 | 8.9 | 8.0 | 8.8 | 8.9 | 8.7 | 7.1 | 6.8 | 6.7 | 7.0 | 8.3 | 6.7 | 7.0 | 3.3 |
| 26bb9f | 20.6 | 7.7 | 7.6 | 7.9 | 7.8 | 7.8 | 6.0 | 5.8 | 6.0 | 6.3 | 8.0 | 6.4 | 6.2 | 3.3 |
| becbb1 | 20.3 | 7.7 | 7.4 | 7.5 | 5.9 | 7.6 | 6.5 | 5.9 | 5.8 | 5.9 | 5.8 | 6.0 | 5.9 | 3.3 |
| e61648 | 21.2 | 21.8 | 22.1 | 21.5 | 21.8 | 21.7 | 21.4 | 21.8 | 21.5 | 22.2 | 21.5 | 21.8 | 21.6 | 3.3 |
| 97a683 | 21.0 | 8.1 | 7.8 | 8.1 | 6.0 | 8.1 | 6.1 | 6.3 | 5.7 | 6.3 | 5.8 | 6.1 | 5.8 | 3.5 |
| 08363d | 21.0 | 8.5 | 7.8 | 8.0 | 8.0 | 7.9 | 6.2 | 6.1 | 5.9 | 6.5 | 7.6 | 6.6 | 6.2 | 3.6 |
| cee296 | 20.9 | 3.4 | 3.4 | 3.5 | 3.4 | 3.5 | 3.3 | 3.4 | 3.3 | 3.5 | 3.3 | 3.8 | 3.6 | 3.4 |
| 5ba64c | 21.0 | 6.2 | 5.8 | 6.1 | 6.2 | 6.1 | 5.6 | 5.9 | 5.9 | 5.7 | 6.1 | 6.0 | 6.0 | 3.3 |
| 67efdf | 21.3 | 6.1 | 5.7 | 6.1 | 6.0 | 6.2 | 5.6 | 5.7 | 6.2 | 6.2 | 6.0 | 6.1 | 5.9 | 3.4 |
| 866f72 | 21.2 | 6.4 | 6.0 | 6.3 | 6.3 | 6.2 | 6.1 | 6.1 | 6.3 | 6.3 | 6.3 | 6.7 | 6.2 | 3.5 |
| 00a783 | 21.2 | 6.2 | 6.0 | 6.4 | 6.3 | 6.2 | 6.3 | 6.5 | 5.7 | 6.4 | 6.3 | 6.0 | 6.1 | 3.5 |
| b99f46 | 22.7 | 11.4 | 10.9 | 12.1 | 11.5 | 11.5 | 7.1 | 7.2 | 6.9 | 7.6 | 11.1 | 7.2 | 7.0 | 3.9 |
| 470fdf | 34.6 | 34.8 | 34.7 | 34.6 | 33.9 | 34.5 | 34.5 | 34.4 | 34.3 | 34.3 | 34.6 | 34.4 | 34.2 | 4.4 |
| 26cd1e | 35.0 | 14.4 | 13.2 | 14.5 | 7.1 | 14.2 | 8.0 | 8.0 | 7.2 | 7.0 | 7.3 | 7.7 | 7.1 | 4.3 |
| 459f7b | 35.0 | 14.6 | 14.1 | 14.1 | 7.4 | 14.7 | 7.9 | 7.8 | 8.0 | 7.4 | 7.1 | 8.0 | 6.9 | 4.6 |
| ef6525 | 33.2 | 14.7 | 14.1 | 14.4 | 7.5 | 14.3 | 8.1 | 8.1 | 7.5 | 7.2 | 7.3 | 7.9 | 7.1 | 4.3 |
| b68766 | 34.5 | 4.3 | 3.8 | 4.2 | 4.4 | 4.2 | 4.0 | 4.1 | 3.9 | 4.2 | 4.2 | 4.3 | 4.2 | 4.4 |
| 88ada8 | 33.6 | 14.1 | 13.9 | 14.1 | 14.1 | 14.6 | 7.7 | 7.9 | 8.0 | 8.4 | 14.1 | 8.1 | 8.2 | 4.3 |
| bd8bf4 | 36.6 | 38.5 | 37.3 | 37.4 | 37.5 | 38.3 | 37.9 | 37.5 | 37.5 | 38.6 | 38.2 | 38.0 | 37.4 | 4.4 |
| 39fe0a | 36.3 | 15.4 | 14.4 | 7.1 | 7.2 | 7.3 | 7.7 | 7.1 | 7.2 | 7.4 | 6.9 | 7.2 | 7.1 | 4.6 |
| 7d7c4e | 37.8 | 27.5 | 27.0 | 27.1 | 27.9 | 27.3 | 9.1 | 8.8 | 8.7 | 9.4 | 27.9 | 9.2 | 8.7 | 4.3 |
| ed86d0 | 40.3 | 4.2 | 4.1 | 4.3 | 4.2 | 4.1 | 4.0 | 4.0 | 3.9 | 4.3 | 3.9 | 4.2 | 4.0 | 4.7 |
| sum | 629.2 | 288.4 | 278.7 | 277.5 | 252.6 | 278.7 | 219.7 | 218.9 | 215.5 | 221.6 | 251.5 | 221.6 | 215.7 | 88.9 |
| mean | 27.4 | 12.5 | 12.1 | 12.1 | 11.0 | 12.1 | 9.6 | 9.5 | 9.4 | 9.6 | 10.9 | 9.6 | 9.4 | 3.9 |

TABLE XI: Outcomes of RPS (rps) embedded-jmxtrans time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|--------|-------|-------|-------|
| 1b2955 | 27.0 | 25.0 | 24.8 | 25.4 | 24.6 | 24.4 | 10.4 | 10.6 | 11.3 | 10.5 | 24.9 | 10.7 | 10.4 | 2.9 |
| ef88f3 | 27.2 | 23.3 | 24.0 | 23.0 | 23.0 | 22.0 | 9.4 | 9.7 | 9.8 | 9.2 | 22.0 | 9.0 | 9.3 | 3.0 |
| 64e65a | 26.6 | 23.6 | 23.0 | 24.2 | 17.4 | 23.1 | 10.4 | 10.4 | 9.6 | 9.1 | 16.2 | 9.6 | 8.1 | 3.2 |
| 51e075 | 26.9 | 3.7 | 3.6 | 3.9 | 3.7 | 3.6 | 3.8 | 3.9 | 3.7 | 4.2 | 3.9 | 3.6 | 3.8 | 3.0 |
| 5bffe4 | 27.4 | 23.6 | 23.2 | 22.8 | 22.4 | 21.9 | 9.2 | 9.3 | 9.4 | 9.4 | 22.2 | 9.2 | 9.5 | 3.3 |
| 59e1a4 | 27.0 | 23.4 | 23.1 | 23.1 | 21.9 | 22.3 | 9.5 | 9.7 | 9.7 | 9.4 | 21.8 | 9.4 | 9.1 | 2.9 |
| bf18d2 | 27.3 | 23.6 | 23.0 | 22.8 | 21.9 | 22.0 | 9.4 | 9.6 | 9.7 | 9.5 | 21.6 | 9.0 | 9.3 | 3.0 |
| 62c71b | 46.3 | 45.6 | 45.8 | 45.2 | 44.7 | 45.5 | 44.9 | 45.9 | 44.7 | 44.9 | 45.0 | 45.0 | 45.0 | 3.8 |
| e4a4c2 | 45.0 | 36.5 | 36.1 | 36.0 | 30.5 | 35.8 | 9.3 | 9.7 | 38.8 | 8.8 | 29.4 | 38.6 | 7.3 | 3.3 |
| 345190 | 45.9 | 38.5 | 38.6 | 36.2 | 36.5 | 36.5 | 9.9 | 10.1 | 9.9 | 9.6 | 36.3 | 9.0 | 9.6 | 3.3 |
| a672b6 | 45.0 | 36.6 | 35.6 | 35.6 | 30.5 | 35.4 | 9.6 | 9.8 | 9.0 | 9.2 | 30.2 | 8.7 | 6.9 | 3.4 |
| 4f713f | 45.8 | 38.8 | 38.6 | 36.0 | 36.3 | 36.3 | 9.5 | 10.2 | 9.8 | 9.5 | 36.6 | 9.2 | 9.1 | 3.2 |
| 78bb73 | 45.4 | 36.3 | 36.1 | 35.7 | 30.7 | 35.1 | 9.2 | 9.6 | 38.8 | 8.9 | 29.7 | 39.0 | 7.5 | 3.2 |
| 4bea3b | 45.0 | 38.8 | 38.8 | 37.0 | 36.2 | 36.6 | 9.4 | 9.8 | 10.1 | 10.1 | 36.5 | 9.2 | 9.7 | 3.3 |
| 1f8b32 | 45.4 | 37.0 | 35.8 | 35.9 | 21.6 | 34.8 | 9.4 | 9.6 | 38.6 | 8.3 | 20.8 | 38.1 | 7.2 | 3.4 |
| 616624 | 45.2 | 36.1 | 35.3 | 35.1 | 21.4 | 34.9 | 9.6 | 9.8 | 38.3 | 8.6 | 20.3 | 38.0 | 7.6 | 3.3 |
| 656e0c | 45.2 | 39.3 | 38.1 | 36.5 | 36.3 | 36.5 | 9.9 | 10.0 | 10.0 | 9.5 | 36.1 | 9.6 | 8.8 | 3.3 |
| d5a3ad | 45.1 | 37.5 | 36.7 | 37.0 | 25.3 | 36.6 | 9.4 | 9.9 | 38.7 | 8.4 | 24.2 | 38.6 | 7.0 | 3.2 |
| dc83d7 | 45.8 | 3.5 | 3.5 | 3.3 | 3.4 | 3.6 | 3.4 | 3.4 | 3.4 | 3.6 | 3.5 | 3.5 | 3.6 | 3.4 |
| 865ea1 | 44.3 | 37.0 | 37.2 | 35.8 | 33.9 | 36.5 | 9.9 | 9.6 | 9.2 | 9.4 | 33.0 | 8.6 | 7.9 | 3.2 |
| 6e849a | 47.0 | 36.3 | 35.9 | 35.8 | 30.6 | 35.3 | 9.5 | 10.1 | 9.1 | 9.3 | 29.6 | 8.5 | 7.2 | 3.2 |
| 8f848b | 45.9 | 37.9 | 37.2 | 36.9 | 36.5 | 36.8 | 9.7 | 10.3 | 9.7 | 10.3 | 35.8 | 9.3 | 8.2 | 3.1 |
| e373b6 | 45.4 | 46.2 | 45.5 | 44.4 | 45.0 | 45.2 | 45.9 | 45.4 | 44.8 | 45.5 | 44.8 | 45.4 | 45.2 | 3.3 |
| 531f04 | 46.1 | 39.5 | 38.9 | 37.5 | 37.5 | 38.0 | 10.0 | 10.3 | 10.3 | 10.2 | 37.3 | 9.8 | 10.0 | 3.2 |
| 4d8cc3 | 44.8 | 41.9 | 42.0 | 40.6 | 39.0 | 39.7 | 10.7 | 10.5 | 10.2 | 10.2 | 37.7 | 9.1 | 8.0 | 3.4 |
| 6d7f22 | 45.7 | 41.6 | 41.8 | 38.5 | 38.2 | 38.4 | 10.5 | 10.1 | 10.7 | 10.1 | 38.8 | 9.7 | 9.7 | 3.4 |
| a1a71d | 45.1 | 3.9 | 3.7 | 3.5 | 3.7 | 3.5 | 3.6 | 3.7 | 3.7 | 3.5 | 3.4 | 3.5 | 3.7 | 3.4 |
| d7f390 | 44.4 | 44.4 | 40.4 | 39.7 | 37.0 | 39.7 | 10.3 | 10.2 | 9.0 | 10.4 | 35.3 | 8.8 | 7.8 | 3.5 |
| 7afbce | 45.1 | 3.9 | 3.9 | 3.5 | 3.7 | 3.4 | 3.4 | 3.8 | 3.6 | 3.8 | 3.6 | 3.5 | 3.6 | 3.4 |
| 3474fc | 48.2 | 47.8 | 47.2 | 45.9 | 46.9 | 46.9 | 46.6 | 47.0 | 46.8 | 47.3 | 46.4 | 46.2 | 47.3 | 3.3 |
| 0ad3b2 | 48.2 | 48.5 | 48.1 | 47.1 | 48.1 | 47.7 | 47.0 | 48.6 | 48.8 | 47.4 | 47.1 | 47.6 | 47.3 | 3.7 |
| 12d9ed | 47.9 | 39.1 | 37.2 | 38.4 | 36.5 | 37.5 | 11.2 | 11.9 | 10.2 | 11.7 | 35.4 | 9.4 | 8.4 | 3.6 |
| 8580ef | 48.0 | 39.2 | 37.4 | 38.4 | 36.7 | 37.2 | 11.5 | 11.9 | 10.3 | 11.3 | 35.3 | 9.6 | 8.2 | 3.6 |
| dc18de | 49.6 | 48.7 | 47.3 | 48.0 | 48.0 | 47.5 | 48.4 | 47.9 | 48.6 | 48.4 | 48.2 | 48.2 | 47.8 | 3.6 |
| ee17a6 | 48.0 | 42.8 | 40.6 | 41.3 | 38.8 | 39.8 | 11.8 | 12.1 | 9.6 | 11.8 | 36.1 | 9.1 | 7.9 | 3.6 |
| a54258 | 47.7 | 42.6 | 40.0 | 41.9 | 25.1 | 39.9 | 11.4 | 11.8 | 9.2 | 10.3 | 22.9 | 9.1 | 7.0 | 3.5 |
| 89df2c | 48.4 | 38.8 | 37.6 | 38.8 | 35.3 | 37.7 | 11.6 | 11.5 | 39.7 | 11.4 | 31.5 | 39.3 | 7.4 | 3.8 |
| b81845 | 48.7 | 43.0 | 40.5 | 43.3 | 39.2 | 40.0 | 11.7 | 12.7 | 39.6 | 11.3 | 36.4 | 39.3 | 7.8 | 3.4 |
| 53a984 | 48.8 | 39.2 | 37.9 | 38.5 | 34.9 | 37.0 | 11.5 | 12.1 | 39.7 | 11.1 | 31.9 | 39.4 | 7.9 | 3.7 |
| 11c7de | 47.6 | 38.7 | 37.5 | 38.1 | 34.2 | 36.8 | 11.4 | 11.9 | 39.7 | 11.4 | 31.8 | 39.1 | 7.8 | 3.6 |
| 1ed452 | 47.7 | 45.8 | 45.4 | 40.4 | 40.5 | 40.8 | 12.3 | 12.2 | 12.5 | 11.9 | 39.8 | 11.6 | 11.9 | 3.5 |
| 48412f | 48.2 | 44.7 | 43.8 | 40.3 | 40.7 | 40.9 | 12.3 | 12.4 | 12.5 | 11.9 | 40.1 | 11.7 | 11.8 | 3.6 |
| bfd614 | 49.0 | 45.0 | 43.8 | 42.1 | 41.3 | 41.8 | 12.1 | 12.2 | 12.1 | 12.1 | 39.8 | 10.9 | 10.6 | 3.7 |
| bfb812 | 48.4 | 48.2 | 47.1 | 46.9 | 47.5 | 47.2 | 47.0 | 47.5 | 47.4 | 48.4 | 47.2 | 47.4 | 48.6 | 3.6 |
| 93c572 | 48.4 | 42.3 | 39.7 | 41.5 | 37.9 | 39.9 | 12.2 | 12.5 | 9.5 | 11.8 | 35.2 | 9.7 | 7.9 | 3.7 |
| fb570a | 48.5 | 4.1 | 3.9 | 3.6 | 3.7 | 3.7 | 3.9 | 4.1 | 4.1 | 3.7 | 3.8 | 3.9 | 3.9 | 3.7 |
| f11867 | 50.3 | 46.8 | 46.0 | 45.1 | 44.4 | 44.8 | 14.8 | 15.1 | 14.7 | 19.4 | 42.6 | 13.8 | 13.0 | 10.2 |
| fc4ca5 | 50.2 | 44.8 | 42.2 | 44.0 | 27.7 | 42.5 | 14.0 | 14.4 | 11.3 | 12.0 | 25.8 | 11.6 | 9.6 | 10.2 |
| 4f1ce2 | 64.6 | 62.5 | 61.9 | 61.8 | 62.1 | 61.7 | 34.7 | 39.2 | 34.4 | 33.6 | 61.5 | 38.7 | 38.3 | 25.2 |
| sum | 2174.5 | 1756.3 | 1715.5 | 1696.2 | 1563.1 | 1675.0 | 726.9 | 744.1 | 974.5 | 722.1 | 1519.3 | 958.9 | 660.5 | 201.1 |
| mean | 44.4 | 35.8 | 35.0 | 34.6 | 31.9 | 34.2 | 14.8 | 15.2 | 19.9 | 14.7 | 31.0 | 19.6 | 13.5 | 4.1 |

TABLE XII: Outcomes of RPS (rps) jgroups-aws time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| e7896f | 1.8 | 2.3 | 2.3 | 2.3 | 2.2 | 2.4 | 2.2 | 2.3 | 2.4 | 2.3 | 2.1 | 2.3 | 2.5 | 1.8 |
| 4b32fa | 2.0 | 3.7 | 3.5 | 3.8 | 3.9 | 3.5 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.9 | 3.7 | 1.9 |
| bef770 | 1.9 | 2.3 | 2.4 | 2.4 | 2.3 | 2.4 | 2.3 | 2.4 | 2.4 | 2.5 | 2.2 | 2.3 | 2.4 | 1.9 |
| 0c4990 | 2.0 | 7.2 | 6.8 | 7.7 | 6.8 | 7.3 | 6.8 | 7.2 | 6.9 | 7.2 | 7.0 | 6.6 | 7.2 | 1.8 |
| c5e9f0 | 1.9 | 5.4 | 4.9 | 5.5 | 5.1 | 5.1 | 4.9 | 5.2 | 4.9 | 5.1 | 4.7 | 4.9 | 5.3 | 1.9 |
| 83fa1c | 25.9 | 26.5 | 26.3 | 26.6 | 25.6 | 25.8 | 25.3 | 25.4 | 25.8 | 26.4 | 25.5 | 26.0 | 26.3 | 3.4 |
| 83da98 | 25.2 | 3.4 | 3.1 | 3.4 | 3.3 | 3.4 | 3.1 | 3.3 | 3.3 | 3.4 | 3.3 | 3.1 | 3.3 | 2.9 |
| f70cbf | 29.0 | 29.6 | 29.1 | 30.3 | 29.6 | 29.6 | 29.5 | 29.7 | 29.5 | 29.3 | 29.4 | 29.9 | 30.4 | 3.2 |
| 1091a4 | 29.7 | 24.3 | 24.3 | 24.3 | 24.6 | 24.2 | 7.7 | 8.2 | 7.9 | 7.8 | 23.6 | 7.8 | 8.2 | 3.0 |
| b3f243 | 26.3 | 26.0 | 25.1 | 26.3 | 25.7 | 25.9 | 25.0 | 25.6 | 25.5 | 24.9 | 24.8 | 25.8 | 26.2 | 3.0 |
| 741c3d | 53.8 | 52.6 | 50.7 | 53.0 | 49.8 | 51.5 | 51.3 | 51.7 | 51.5 | 50.4 | 50.9 | 51.6 | 52.3 | 3.6 |
| 2ac9b9 | 52.5 | 3.5 | 3.8 | 3.6 | 3.5 | 3.5 | 3.5 | 3.4 | 3.6 | 3.6 | 3.4 | 3.6 | 3.8 | 3.5 |
| 480443 | 53.6 | 3.7 | 3.6 | 3.5 | 3.8 | 3.4 | 3.6 | 3.7 | 3.5 | 3.6 | 3.6 | 3.7 | 3.5 | 3.4 |
| 771d8f | 52.4 | 12.5 | 12.4 | 13.2 | 12.4 | 13.0 | 7.4 | 7.9 | 7.6 | 7.3 | 12.1 | 7.5 | 7.6 | 3.5 |
| 1388b8 | 52.6 | 12.8 | 12.2 | 12.2 | 12.5 | 12.4 | 6.7 | 6.8 | 7.0 | 6.9 | 11.3 | 7.0 | 7.3 | 3.6 |
| a90a3e | 53.8 | 12.6 | 12.3 | 12.8 | 11.5 | 12.0 | 7.0 | 7.3 | 7.4 | 7.1 | 10.7 | 7.1 | 7.0 | 3.5 |
| sum | 464.5 | 228.4 | 223.1 | 231.1 | 222.7 | 225.5 | 190.0 | 193.6 | 192.8 | 191.4 | 218.3 | 193.2 | 196.8 | 45.9 |
| mean | 29.0 | 14.3 | 13.9 | 14.4 | 13.9 | 14.1 | 11.9 | 12.1 | 12.1 | 12.0 | 13.6 | 12.1 | 12.3 | 2.9 |

TABLE XIII: Outcomes of RPS (rps) datasketches-java time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| e2fb43 | -89.4 | -82.1 | -53.6 | -80.8 | -77.7 | -53.2 | -81.7 | -77.5 | -54.7 | -80.6 | -56.2 | -57.2 | -56.2 | -41.9 |
| 1ba334 | -88.1 | -82.3 | -51.6 | -80.7 | -74.9 | -52.1 | -81.3 | -79.0 | -56.1 | -81.1 | -54.3 | -54.6 | -55.5 | -43.2 |
| 1436f3 | -86.6 | -80.6 | -62.8 | -80.9 | -78.6 | -62.3 | -81.9 | -76.3 | -64.8 | -82.3 | -63.9 | -63.7 | -64.3 | -42.4 |
| ad19fb | 85.2 | 54.0 | 52.6 | 54.9 | 50.3 | 53.7 | 54.6 | 53.8 | 55.4 | 54.7 | 56.6 | 55.6 | 54.7 | 42.1 |
| 843c40 | 87.4 | 22.1 | 20.6 | 21.6 | 20.9 | 20.7 | 21.6 | 20.1 | 21.7 | 21.7 | 21.9 | 21.8 | 21.7 | 43.5 |
| 4a8281 | -88.2 | -81.6 | -63.1 | -78.5 | -76.1 | -62.6 | -81.3 | -79.3 | -64.8 | -84.9 | -65.5 | -65.8 | -65.7 | -41.5 |
| 856926 | -87.8 | -88.1 | -55.5 | -90.0 | -83.3 | -56.4 | -84.7 | -83.9 | -58.1 | -86.8 | -57.7 | -58.7 | -57.0 | -42.9 |
| 1cc496 | -88.7 | -91.1 | -54.0 | -83.7 | -77.6 | -57.1 | -84.6 | -85.5 | -58.9 | -79.2 | -54.3 | -56.8 | -54.2 | -43.1 |
| 4ede21 | -89.9 | -87.6 | -54.2 | -86.8 | -82.3 | -55.8 | -85.3 | -81.8 | -57.3 | -85.8 | -57.4 | -56.9 | -56.8 | -41.9 |
| 851ec9 | -89.8 | -82.7 | -63.6 | -80.9 | -75.4 | -62.7 | -82.2 | -80.4 | -66.7 | -81.7 | -65.9 | -67.4 | -67.2 | -42.8 |
| fcc7e1 | -87.7 | -85.6 | -63.6 | -83.3 | -81.9 | -66.3 | -85.0 | -82.6 | -67.7 | -84.0 | -66.6 | -68.4 | -69.1 | -41.2 |
| 75f72c | -85.2 | -87.1 | -63.0 | -82.9 | -73.4 | -64.9 | -86.2 | -81.1 | -65.4 | -80.4 | -66.3 | -66.4 | -63.9 | -42.4 |
| b27fff | 83.9 | 85.7 | 63.0 | 82.1 | 79.0 | 66.5 | 88.4 | 79.9 | 65.0 | 83.8 | 64.7 | 67.8 | 66.3 | 39.6 |
| 23ae68 | 84.8 | 83.0 | 60.3 | 81.4 | 78.6 | 64.6 | 83.5 | 79.5 | 66.2 | 83.2 | 67.4 | 65.4 | 65.8 | 39.8 |
| 20a6b0 | 85.2 | 81.6 | 62.2 | 83.8 | 80.8 | 65.0 | 84.6 | 80.5 | 65.0 | 84.1 | 67.3 | 68.9 | 66.3 | 40.7 |
| 08e0e2 | 86.5 | 78.0 | 49.9 | 76.6 | 72.4 | 51.2 | 78.8 | 74.7 | 52.5 | 78.4 | 52.5 | 53.8 | 52.2 | 39.6 |
| f3a611 | 89.7 | 83.8 | 52.2 | 79.4 | 74.3 | 51.4 | 84.1 | 79.5 | 54.5 | 79.2 | 52.4 | 56.4 | 52.3 | 40.8 |
| 1c524d | 86.1 | 83.5 | 62.9 | 84.1 | 77.6 | 63.4 | 84.8 | 82.6 | 64.8 | 85.6 | 65.7 | 64.9 | 64.4 | 40.3 |
| 562887 | 85.3 | 22.2 | 19.8 | 21.1 | 20.0 | 21.2 | 21.4 | 20.4 | 21.8 | 22.1 | 21.9 | 21.9 | 21.8 | 40.9 |
| f0d5e1 | -75.6 | -44.4 | -42.3 | -45.0 | -41.6 | -42.4 | -44.9 | -40.9 | -44.7 | -45.3 | -44.0 | -43.6 | -44.5 | -31.8 |
| cf919f | -75.5 | 21.4 | 20.0 | 21.7 | 20.3 | 21.2 | 21.5 | 21.0 | 21.7 | 21.5 | 22.0 | 21.2 | 21.5 | -31.8 |
| 70f181 | 74.2 | 42.9 | 40.9 | 43.2 | 64.3 | 41.1 | 42.9 | 40.3 | 42.7 | 70.0 | 43.1 | 42.5 | 43.1 | 31.5 |
| e2d8f0 | 75.8 | 43.4 | 41.2 | 43.7 | 40.1 | 41.5 | 42.9 | 41.5 | 44.2 | 43.1 | 43.8 | 43.3 | 43.1 | 31.5 |
| 91b26c | 75.9 | 43.8 | 42.0 | 44.3 | 40.7 | 42.6 | 43.3 | 41.2 | 43.8 | 44.6 | 44.2 | 44.4 | 44.5 | 30.6 |
| 92cc12 | -76.0 | -43.9 | -41.1 | -45.2 | -41.2 | -42.4 | -43.6 | -43.2 | -44.2 | -44.7 | -43.7 | -43.8 | -44.1 | -31.3 |
| 3ca1be | 77.2 | 43.8 | 40.4 | 44.4 | 40.4 | 41.4 | 42.8 | 40.6 | 43.2 | 42.7 | 42.5 | 43.7 | 43.1 | 30.7 |
| 55e820 | 76.0 | -44.1 | 41.3 | 44.8 | 40.7 | 41.8 | 43.0 | 41.1 | 44.0 | 43.6 | 43.4 | 44.1 | 43.5 | 31.0 |
| 11672b | 76.2 | 43.6 | 42.2 | 44.8 | 40.6 | 41.5 | 42.9 | 41.1 | 44.4 | 43.3 | 43.8 | 43.9 | 43.3 | 31.8 |
| 83c11b | 75.3 | 45.0 | 43.3 | 46.7 | 42.4 | 43.9 | 45.4 | 42.8 | 44.9 | 45.1 | 45.2 | 44.6 | 44.9 | 31.6 |
| d93a6b | 76.2 | 44.1 | 41.1 | 45.3 | 41.1 | 42.0 | 43.5 | 42.1 | 45.0 | 43.5 | 44.0 | 44.0 | 44.1 | 30.9 |
| 5aba00 | -74.4 | -43.0 | -41.3 | -44.9 | -40.2 | -41.9 | -43.5 | -41.4 | -43.2 | -43.2 | -43.1 | -43.8 | -43.4 | -31.3 |
| 9622f1 | -73.8 | 21.5 | 20.1 | 22.5 | 20.2 | 20.7 | 22.2 | 20.5 | 21.7 | 21.6 | 21.3 | 21.3 | 22.2 | -31.9 |
| ac0aa6 | 78.7 | 43.5 | 41.6 | 45.1 | 42.9 | 41.8 | 44.3 | 42.0 | 44.1 | 43.2 | 44.6 | 43.6 | 44.6 | 31.6 |
| 0eda5e | 74.7 | 44.5 | 41.2 | 45.3 | 40.9 | 43.3 | 44.6 | 41.8 | 44.2 | 44.2 | 45.4 | 43.8 | 44.4 | 31.5 |
| 6d9e9e | 78.4 | 43.6 | 42.2 | 44.7 | 69.5 | 42.2 | 43.4 | 42.1 | 43.9 | 74.9 | 50.9 | 43.3 | 51.2 | 31.6 |
| 42eb24 | 76.0 | 44.8 | 42.2 | 45.5 | 42.8 | 42.9 | 45.0 | 42.1 | 45.4 | 44.8 | 44.5 | 44.6 | 45.7 | 32.1 |
| 063d1a | 74.3 | 43.7 | 41.7 | 45.5 | 41.7 | 42.2 | 44.2 | 41.6 | 44.1 | 44.7 | 44.1 | 44.2 | 43.7 | 32.1 |
| 3a6f18 | 76.3 | 46.6 | 43.7 | 47.6 | 43.7 | 45.0 | 47.5 | 43.8 | 47.7 | 47.3 | 46.4 | 46.5 | 47.1 | 33.5 |
| ce9bed | 76.5 | 44.6 | 41.9 | 46.7 | 43.3 | 43.3 | 45.9 | 43.0 | 45.7 | 45.6 | 45.3 | 45.1 | 45.0 | 32.0 |
| 045e38 | 75.6 | 49.3 | 46.4 | 50.3 | 45.8 | 48.2 | 48.9 | 47.1 | 49.1 | 47.9 | 49.2 | 48.7 | 48.9 | 32.1 |
| 85a09d | 78.1 | 43.1 | 40.3 | 45.9 | 40.3 | 41.5 | 44.2 | 41.5 | 42.4 | 43.5 | 43.6 | 43.8 | 43.4 | 32.2 |
| 4a82e4 | 75.3 | 21.5 | 20.4 | 23.1 | 19.9 | 21.0 | 22.1 | 20.5 | 21.6 | 21.5 | 21.7 | 21.2 | 22.0 | 32.2 |
| e5081d | 78.7 | 21.6 | 21.1 | 22.8 | 20.6 | 21.1 | 23.0 | 20.3 | 21.9 | 21.4 | 22.1 | 22.5 | 22.0 | 32.6 |
| 499a44 | 76.2 | 43.9 | 42.0 | 45.3 | 41.6 | 43.4 | 44.8 | 42.2 | 43.8 | 45.9 | 44.6 | 45.3 | 44.1 | 31.9 |
| 320a3d | 74.3 | 21.5 | 21.3 | 22.4 | 20.6 | 21.4 | 23.0 | 21.1 | 22.6 | 21.6 | 22.1 | 21.5 | 21.7 | 31.6 |
| d6ce71 | 76.4 | 45.4 | 42.7 | 47.0 | 42.4 | 43.7 | 45.7 | 42.9 | 45.6 | 46.2 | 44.9 | 44.6 | 46.3 | 34.5 |
| 28ec92 | 78.3 | 74.1 | 45.2 | 79.6 | 71.2 | 45.7 | 75.7 | 72.3 | 46.5 | 76.5 | 46.8 | 45.9 | 45.3 | 33.0 |
| sum | 3785.2 | 2599.6 | 2099.4 | 2606.6 | 2476.2 | 2142.2 | 2600.8 | 2480.4 | 2217.5 | 2641.1 | 2218.9 | 2221.2 | 2216.1 | 1683.3 |
| mean | 80.5 | 55.3 | 44.7 | 55.5 | 52.7 | 45.6 | 55.3 | 52.8 | 47.2 | 56.2 | 47.2 | 47.3 | 47.2 | 35.8 |

TABLE XIV: Outcomes of RPS (rps) jbehave-junit-runner time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 989cea | 69.6 | 39.8 | 38.2 | 41.1 | 39.8 | 40.6 | 10.9 | 10.5 | 10.4 | 11.0 | 37.7 | 10.5 | 9.3 | 4.8 |
| 9f8fe5 | 71.7 | 41.1 | 40.5 | 42.2 | 40.3 | 40.8 | 10.1 | 9.8 | 9.8 | 10.1 | 40.8 | 9.7 | 9.6 | 4.7 |
| 3c2e58 | 69.9 | 41.2 | 39.4 | 42.0 | 38.6 | 40.8 | 10.5 | 10.0 | 9.5 | 10.4 | 37.4 | 9.9 | 8.7 | 4.8 |
| 6756fd | 71.4 | 41.1 | 39.6 | 42.7 | 39.3 | 41.4 | 10.2 | 10.4 | 9.7 | 10.3 | 37.0 | 10.0 | 8.7 | 4.8 |
| eafa46 | 69.0 | 44.9 | 44.0 | 38.2 | 36.0 | 36.1 | 10.1 | 9.3 | 9.3 | 9.9 | 35.9 | 8.5 | 8.2 | 4.8 |
| 15cc3d | 71.8 | 3.6 | 3.5 | 3.4 | 3.3 | 3.4 | 3.5 | 3.3 | 3.6 | 3.4 | 3.3 | 3.6 | 3.3 | 4.8 |
| 0be34d | 68.5 | 31.1 | 29.1 | 31.7 | 29.9 | 29.7 | 9.7 | 9.6 | 8.4 | 9.8 | 28.9 | 8.6 | 8.1 | 4.7 |
| c76b75 | 69.6 | 45.7 | 43.5 | 43.0 | 40.8 | 40.9 | 10.7 | 10.0 | 9.9 | 10.3 | 39.8 | 10.4 | 8.7 | 4.8 |
| 1c33a7 | 69.6 | 46.6 | 44.9 | 46.9 | 45.8 | 46.1 | 11.1 | 10.7 | 11.2 | 11.2 | 45.7 | 11.3 | 11.3 | 4.8 |
| 63b64b | 68.5 | 68.9 | 68.4 | 69.5 | 67.3 | 70.3 | 70.9 | 68.1 | 69.9 | 71.8 | 68.8 | 70.7 | 69.4 | 5.0 |
| 8dc4ee | 68.4 | 44.7 | 43.2 | 45.1 | 39.6 | 43.6 | 10.5 | 10.0 | 9.5 | 10.4 | 39.8 | 10.5 | 8.8 | 4.8 |
| c78e51 | 68.2 | 44.9 | 42.9 | 45.3 | 41.4 | 44.7 | 10.5 | 9.8 | 9.5 | 9.9 | 40.3 | 10.2 | 9.2 | 4.7 |
| 9c0b8a | 70.5 | 68.8 | 67.5 | 70.6 | 70.2 | 69.2 | 70.1 | 68.5 | 69.7 | 70.2 | 66.5 | 70.1 | 67.2 | 4.8 |
| b68a9c | 69.2 | 7.7 | 7.5 | 7.9 | 7.2 | 7.6 | 7.7 | 7.6 | 7.3 | 7.5 | 7.4 | 7.8 | 7.3 | 4.9 |
| a0d064 | 69.9 | 3.2 | 2.9 | 3.5 | 3.1 | 3.4 | 3.4 | 3.1 | 3.1 | 3.2 | 3.2 | 3.3 | 3.1 | 4.7 |
| 338958 | 70.5 | 45.0 | 42.9 | 37.6 | 36.6 | 35.8 | 10.4 | 9.1 | 9.5 | 9.7 | 34.8 | 8.4 | 8.0 | 4.9 |
| 0faec4 | 70.3 | 7.4 | 7.3 | 7.3 | 7.4 | 7.4 | 7.5 | 7.4 | 7.5 | 7.4 | 7.2 | 7.5 | 7.1 | 4.7 |
| d43f4f | 68.7 | 69.2 | 67.3 | 70.9 | 66.7 | 70.7 | 70.5 | 68.2 | 69.7 | 69.4 | 67.7 | 70.6 | 68.4 | 4.7 |
| 747125 | 68.9 | 69.1 | 67.0 | 70.0 | 68.3 | 70.1 | 69.8 | 69.7 | 67.4 | 70.5 | 67.3 | 70.6 | 68.1 | 4.7 |
| d46a70 | 69.4 | 68.6 | 69.8 | 69.8 | 69.2 | 68.8 | 71.7 | 68.5 | 67.6 | 72.1 | 68.5 | 72.2 | 71.2 | 4.8 |
| f37f4d | 68.8 | 3.2 | 3.1 | 3.0 | 3.4 | 3.1 | 3.1 | 3.3 | 3.2 | 3.0 | 2.9 | 3.2 | 3.3 | 4.7 |
| 72f54c | 68.8 | 44.4 | 42.9 | 45.9 | 40.0 | 44.8 | 10.4 | 10.2 | 10.0 | 10.3 | 39.3 | 10.1 | 9.1 | 4.6 |
| 1a9ed5 | 69.3 | 72.4 | 68.6 | 71.8 | 70.2 | 72.1 | 72.7 | 68.5 | 69.1 | 70.8 | 68.3 | 73.4 | 68.6 | 4.7 |
| 545f67 | 70.8 | 46.8 | 45.1 | 46.5 | 45.9 | 46.6 | 10.9 | 10.4 | 10.8 | 10.6 | 45.6 | 11.0 | 10.1 | 4.8 |
| c7bc45 | 70.3 | 45.8 | 43.8 | 45.9 | 45.1 | 45.2 | 10.1 | 9.7 | 9.9 | 10.1 | 44.8 | 10.1 | 9.6 | 4.8 |
| f61eec | 73.1 | 71.2 | 70.1 | 74.7 | 70.9 | 71.8 | 74.6 | 72.1 | 72.9 | 72.9 | 69.4 | 75.0 | 69.9 | 4.7 |
| 45bb8c | 70.5 | 72.0 | 69.5 | 74.9 | 70.5 | 71.3 | 74.7 | 70.3 | 71.6 | 72.8 | 72.8 | 73.3 | 71.5 | 4.6 |
| 25e4c7 | 71.9 | 72.0 | 69.7 | 74.8 | 71.4 | 72.8 | 71.9 | 73.1 | 82.2 | 74.6 | 74.0 | 72.9 | 70.3 | 4.9 |
| df7e89 | 72.2 | 71.2 | 72.3 | 74.0 | 70.7 | 72.2 | 75.1 | 70.8 | 70.8 | 72.8 | 71.7 | 75.8 | 69.9 | 4.7 |
| 678357 | 70.5 | 48.1 | 46.5 | 48.9 | 46.9 | 47.7 | 10.7 | 10.1 | 10.0 | 10.8 | 46.7 | 10.2 | 9.7 | 4.6 |
| 25d1fe | 70.1 | 48.5 | 46.8 | 48.8 | 41.6 | 47.6 | 10.3 | 10.3 | 10.0 | 10.3 | 40.5 | 10.4 | 8.3 | 4.6 |
| 1c1f87 | 69.6 | 71.0 | 69.9 | 74.0 | 70.5 | 71.2 | 72.0 | 70.6 | 69.3 | 72.6 | 70.8 | 72.2 | 68.6 | 4.6 |
| ac017b | 69.6 | 47.8 | 46.7 | 49.1 | 46.8 | 48.2 | 10.8 | 9.9 | 10.2 | 10.0 | 46.0 | 9.9 | 9.3 | 4.6 |
| e893ae | 69.5 | 47.8 | 46.9 | 48.3 | 42.0 | 47.0 | 10.5 | 10.0 | 9.8 | 10.1 | 41.4 | 9.9 | 8.9 | 4.5 |
| a2df3c | 72.0 | 70.6 | 69.6 | 74.1 | 70.1 | 72.8 | 75.0 | 70.6 | 69.6 | 72.9 | 70.0 | 74.7 | 68.8 | 4.6 |
| 530cf4 | 75.7 | 78.0 | 76.1 | 77.6 | 75.8 | 76.8 | 77.3 | 75.9 | 75.6 | 79.8 | 74.4 | 78.8 | 75.8 | 4.7 |
| d037a8 | 75.0 | 3.4 | 3.2 | 3.3 | 3.2 | 3.1 | 3.3 | 3.1 | 3.1 | 3.1 | 3.1 | 3.3 | 3.0 | 4.6 |
| 7bc0fd | 74.9 | 50.2 | 48.3 | 51.9 | 49.6 | 50.3 | 10.3 | 9.7 | 10.1 | 10.2 | 48.2 | 10.1 | 9.5 | 4.6 |
| 69879e | 74.8 | 50.3 | 47.3 | 49.9 | 43.7 | 48.4 | 10.3 | 10.4 | 9.8 | 10.6 | 41.6 | 10.0 | 8.6 | 4.8 |
| f8d201 | 75.0 | 49.4 | 46.8 | 50.4 | 32.6 | 49.3 | 10.2 | 10.1 | 9.7 | 9.9 | 31.3 | 10.0 | 7.9 | 4.5 |
| 9dbc92 | 76.6 | 78.5 | 75.2 | 79.7 | 75.4 | 77.7 | 79.4 | 76.0 | 76.8 | 78.6 | 78.4 | 79.8 | 75.9 | 4.8 |
| 4b015a | 76.1 | 50.7 | 47.8 | 51.7 | 50.0 | 50.6 | 11.4 | 10.5 | 11.2 | 11.1 | 48.2 | 10.7 | 10.1 | 5.1 |
| 2a2882 | 76.9 | 52.2 | 49.2 | 51.4 | 45.8 | 50.6 | 10.8 | 10.3 | 10.4 | 10.4 | 43.4 | 10.7 | 9.1 | 4.9 |
| b18c7d | 76.4 | 3.7 | 3.3 | 3.6 | 3.5 | 3.5 | 3.6 | 3.6 | 3.7 | 3.5 | 3.3 | 3.7 | 3.4 | 4.7 |
| 253c76 | 79.0 | 51.7 | 50.1 | 53.7 | 51.8 | 52.6 | 11.5 | 11.0 | 10.7 | 11.3 | 50.5 | 11.1 | 9.8 | 4.8 |
| 6859e0 | 76.6 | 3.6 | 3.2 | 3.7 | 3.6 | 3.7 | 3.6 | 3.3 | 3.6 | 3.7 | 3.5 | 3.7 | 3.3 | 4.9 |
| 4b48b2 | 78.3 | 3.6 | 3.3 | 4.0 | 3.4 | 3.6 | 3.5 | 3.7 | 3.5 | 3.7 | 3.5 | 3.9 | 3.5 | 4.7 |
| d1321c | 79.1 | 79.5 | 76.3 | 79.4 | 77.2 | 79.3 | 80.2 | 78.6 | 78.4 | 79.8 | 78.9 | 80.9 | 77.0 | 4.8 |
| 2c2d55 | 79.6 | 84.0 | 81.3 | 85.1 | 80.8 | 82.5 | 85.0 | 81.7 | 81.5 | 83.4 | 80.7 | 84.5 | 79.9 | 4.8 |
| sum | 3524.8 | 2304.2 | 2232.6 | 2328.9 | 2193.1 | 2277.8 | 1482.9 | 1431.2 | 1439.9 | 1472.2 | 2171.2 | 1477.9 | 1396.6 | 232.3 |
| mean | 71.9 | 47.0 | 45.6 | 47.5 | 44.8 | 46.5 | 30.3 | 29.2 | 29.4 | 30.0 | 44.3 | 30.2 | 28.5 | 4.7 |

TABLE XV: Outcomes of RPS (rps) commons-lang time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20de43 | 66.2 | 10.1 | 10.3 | 11.3 | 11.2 | 10.5 | 10.9 | 11.1 | 10.1 | 10.5 | 10.5 | 10.7 | 10.6 | 21.1 |
| 8dae1f | 65.3 | 48.5 | 50.6 | 50.6 | 52.7 | 43.1 | 48.5 | 48.8 | 48.5 | 48.7 | 43.1 | 42.3 | 41.9 | 22.1 |
| 4f9285 | 66.0 | 49.0 | 48.4 | 49.8 | 50.7 | 41.3 | 48.0 | 49.5 | 48.2 | 48.3 | 42.0 | 41.2 | 41.0 | 21.6 |
| 22c304 | 65.8 | 48.9 | 32.6 | 49.9 | 34.2 | 33.1 | 48.0 | 49.9 | 32.0 | 32.8 | 28.0 | 32.5 | 28.2 | 22.0 |
| 101227 | 65.4 | 49.9 | 32.3 | 51.3 | 33.2 | 31.7 | 48.4 | 49.4 | 31.9 | 32.0 | 27.9 | 32.6 | 27.9 | 21.2 |
| e863dc | 65.2 | 49.4 | 49.7 | 50.3 | 51.9 | 42.4 | 48.5 | 52.0 | 48.0 | 47.7 | 42.4 | 42.3 | 41.4 | 21.4 |
| f7cbda | 65.9 | 49.4 | 50.8 | 51.1 | 51.8 | 43.0 | 49.3 | 49.7 | 47.8 | 48.2 | 42.2 | 42.3 | 41.4 | 21.6 |
| 6049e7 | 65.9 | 10.0 | 10.0 | 10.7 | 11.1 | 10.1 | 10.4 | 10.7 | 10.1 | 10.1 | 10.4 | 11.0 | 10.5 | 21.9 |
| 7d061e | 65.8 | 45.2 | 31.9 | 45.9 | 47.7 | 31.4 | 43.6 | 44.7 | 29.8 | 43.1 | 32.5 | 30.7 | 31.2 | 21.9 |
| bfb43d | 66.2 | 10.3 | 10.1 | 11.0 | 10.6 | 9.8 | 10.7 | 10.7 | 10.2 | 10.0 | 10.1 | 10.5 | 10.4 | 21.5 |
| d8ec01 | 66.3 | 54.8 | 35.8 | 55.3 | 56.0 | 35.9 | 54.2 | 55.0 | 34.8 | 53.6 | 34.3 | 35.6 | 32.3 | 21.8 |
| 6dfc3e | 68.8 | 49.4 | 33.6 | 50.7 | 29.5 | 33.6 | 48.7 | 49.1 | 30.8 | 28.5 | 27.7 | 32.4 | 27.9 | -21.5 |
| 5fb74a | 65.9 | 9.9 | 10.2 | 10.6 | 10.8 | 10.5 | 10.2 | 11.1 | 10.2 | 10.5 | 10.1 | 10.7 | 10.2 | 21.6 |
| c614fb | 65.8 | 53.8 | 53.9 | 55.7 | 57.1 | 46.3 | 53.0 | 55.0 | 52.2 | 53.8 | 46.8 | 47.1 | 46.2 | -21.4 |
| 0b70b0 | 67.5 | 67.8 | 67.5 | 68.2 | 70.2 | 66.9 | 67.5 | 70.5 | 67.5 | 68.6 | 68.5 | 67.1 | 68.5 | 21.5 |
| 63f11e | 64.6 | 8.7 | 8.6 | 9.1 | 9.7 | 8.8 | 9.1 | 9.4 | 8.9 | 9.0 | 8.9 | 9.3 | 8.5 | 21.4 |
| f5ebb9 | 66.3 | 53.0 | 53.7 | 54.6 | 55.6 | 45.4 | 52.2 | 52.9 | 51.4 | 51.6 | 45.0 | 46.3 | 44.8 | 21.5 |
| e72654 | 65.7 | 8.4 | 8.7 | 8.5 | 9.2 | 8.7 | 9.0 | 9.3 | 8.7 | 8.7 | 9.0 | 8.9 | 8.7 | 21.2 |
| d57505 | 66.0 | 54.8 | 54.4 | 55.8 | 56.5 | 46.3 | 52.3 | 54.7 | 51.4 | 53.1 | 46.0 | 45.5 | 45.8 | 21.0 |
| sum | 1254.7 | 731.3 | 653.0 | 750.5 | 709.7 | 598.7 | 722.2 | 743.6 | 632.5 | 668.8 | 585.3 | 598.9 | 577.5 | 409.1 |
| mean | 66.0 | 38.5 | 34.4 | 39.5 | 37.4 | 31.5 | 38.0 | 39.1 | 33.3 | 35.2 | 30.8 | 31.5 | 30.4 | 21.5 |

TABLE XVI: Outcomes of RPS (rps) smartsheet-java-sdk time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1d2e47 | -47.3 | -32.0 | -31.5 | -31.9 | -32.4 | | -23.1 | -22.8 | -22.6 | -22.4 | -32.2 | -22.5 | -22.6 | -17.3 |
| 509364 | -47.2 | -32.4 | -30.7 | -32.1 | -32.5 | | -21.7 | -21.5 | -20.7 | -22.0 | -31.9 | -21.6 | -21.1 | -17.5 |
| 5c83a1 | -47.5 | -36.5 | -35.7 | -36.7 | -36.9 | | -23.4 | -23.3 | -23.0 | -23.2 | -36.1 | -23.6 | -23.3 | -17.6 |
| 43a4f7 | -47.9 | -36.2 | -34.8 | -36.6 | -36.3 | | -23.3 | -23.1 | -22.5 | -23.2 | -34.2 | -22.5 | -21.8 | -17.8 |
| 240ee7 | -47.9 | -37.6 | -35.9 | -37.3 | -36.1 | | -23.9 | -23.7 | -23.4 | -24.0 | -34.7 | -22.6 | -22.0 | -18.0 |
| 4ea223 | -47.9 | -41.5 | -40.9 | -41.6 | -42.0 | | -24.9 | -25.2 | -25.6 | -25.7 | -40.7 | -25.0 | -25.1 | -18.3 |
| 177fc4 | -48.0 | -40.7 | -39.9 | -40.9 | -41.1 | | -24.1 | -23.9 | -24.1 | -23.9 | -40.5 | -23.8 | -24.1 | -18.0 |
| 2844b0 | -49.4 | -41.4 | -40.3 | -41.2 | -41.5 | | -24.6 | -24.5 | -24.0 | -23.8 | -40.4 | -24.9 | -24.1 | -18.1 |
| 97ecb7 | -48.6 | -42.0 | -41.4 | -42.0 | -42.4 | | -25.6 | -25.4 | -25.5 | -25.4 | -41.3 | -25.4 | -25.4 | -18.4 |
| 94d558 | -49.7 | -42.0 | -40.5 | -41.4 | -42.0 | | -25.6 | -24.7 | -25.1 | -24.9 | -40.9 | -24.3 | -25.4 | -18.4 |
| de3432 | 50.3 | 42.2 | 40.0 | 41.6 | 30.8 | | 25.0 | 24.7 | 23.7 | 23.5 | 30.2 | 25.0 | 22.7 | 18.5 |
| 4bedcb | 48.9 | 4.4 | 4.1 | 4.5 | 4.5 | | 4.4 | 4.3 | 4.4 | 4.4 | 4.3 | 4.4 | 4.6 | 18.3 |
| ae8ebd | 46.3 | 47.7 | 46.6 | 48.2 | 49.5 | | 47.5 | 46.4 | 47.3 | 45.8 | 46.1 | 46.4 | 47.7 | 6.4 |
| 60de51 | 45.4 | 36.5 | 34.4 | 36.0 | 36.9 | | 14.9 | 14.7 | 14.1 | 14.8 | 34.3 | 14.3 | 14.0 | 6.4 |
| 78c50e | 46.4 | 36.2 | 36.5 | 37.2 | 36.9 | | 14.9 | 14.7 | 14.5 | 14.9 | 35.2 | 14.4 | 14.0 | 6.5 |
| 9aa37d | 49.1 | 49.5 | 48.1 | 50.4 | 50.8 | | 48.8 | 50.0 | 49.7 | 49.7 | 48.9 | 48.5 | 48.8 | 6.8 |
| 73be08 | 49.2 | 38.5 | 37.7 | 40.2 | 39.6 | | 16.2 | 16.4 | 16.3 | 15.9 | 37.7 | 16.1 | 16.0 | 6.8 |
| aa7861 | 49.4 | 5.5 | 5.0 | 5.1 | 5.1 | | 5.1 | 4.9 | 5.2 | 5.0 | 4.9 | 5.3 | 5.1 | 6.7 |
| 5a20f2 | 48.4 | 37.8 | 36.2 | 38.0 | 38.0 | | 14.5 | 14.8 | 14.6 | 14.8 | 35.5 | 13.9 | 14.1 | 6.6 |
| cbe2f7 | 50.2 | 42.2 | 41.2 | 42.7 | 42.8 | | 18.6 | 18.3 | 18.9 | 18.6 | 41.3 | 19.3 | 19.0 | 7.3 |
| sum | 964.9 | 722.9 | 701.3 | 725.5 | 718.2 | 0.0 | 450.0 | 447.4 | 445.3 | 445.8 | 691.1 | 443.6 | 441.0 | 269.7 |
| mean | 48.2 | 36.1 | 35.1 | 36.3 | 35.9 | | 22.5 | 22.4 | 22.3 | 22.3 | 34.6 | 22.2 | 22.1 | 13.5 |

TABLE XVII: Outcomes of RPS (rps) commons-dbcip time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|-------|-------|-------|--------|
| dba639 | -94.7 | 6.4 | 6.1 | 6.1 | 6.1 | 6.1 | 5.6 | 6.1 | 5.9 | 6.3 | 6.3 | 6.4 | 6.2 | -52.9 |
| 141671 | -94.2 | 6.1 | 5.6 | 6.0 | 5.7 | 5.7 | 5.8 | 5.7 | 6.1 | 6.3 | 6.0 | 6.1 | 6.4 | -52.7 |
| b19355 | -94.1 | -93.5 | -63.7 | -95.7 | -92.6 | -64.0 | -87.8 | -90.3 | -60.5 | -91.0 | -62.8 | -60.3 | -59.6 | -52.6 |
| 43a618 | -94.6 | -91.9 | -91.3 | -95.3 | -91.8 | -62.7 | -87.1 | -89.1 | -86.6 | -89.5 | -62.3 | -59.6 | -59.1 | -52.7 |
| 4475a0 | -93.5 | -92.8 | -92.7 | -94.3 | -93.4 | -62.9 | -87.4 | -90.0 | -88.0 | -89.8 | -63.2 | -59.8 | -59.5 | -52.6 |
| 43e1ab | -95.1 | 5.5 | 5.8 | 6.1 | 5.9 | 6.2 | 5.8 | 5.8 | 6.0 | 6.5 | 6.2 | 6.1 | 6.2 | -53.1 |
| 8c0391 | -94.6 | 5.6 | 5.7 | 6.1 | 5.6 | 5.6 | 5.4 | 6.0 | 5.8 | 6.4 | 6.4 | 6.1 | 6.3 | -52.8 |
| 12f80f | -94.8 | 6.1 | 5.8 | 6.1 | 5.6 | 5.5 | 5.7 | 6.2 | 6.1 | 6.0 | 6.2 | 6.1 | 6.6 | -53.1 |
| 3ba469 | -94.6 | 6.3 | 6.6 | 7.2 | 6.5 | 6.9 | 6.3 | 7.0 | 6.5 | 7.0 | 7.0 | 6.8 | 7.2 | -53.5 |
| 0f656a | -95.1 | -57.8 | -57.4 | -58.6 | -57.4 | -57.5 | -57.5 | -58.7 | -57.9 | -57.7 | -57.6 | -57.4 | -57.4 | -53.2 |
| 6bcbad | -94.4 | -93.7 | -93.2 | -95.3 | -93.9 | -64.0 | -87.9 | -90.3 | -88.4 | -91.1 | -63.9 | -60.3 | -61.1 | -53.0 |
| 0b5b1b | -95.1 | -94.4 | -92.1 | -96.1 | -93.6 | -63.1 | -88.3 | -90.0 | -88.6 | -90.8 | -63.3 | -61.4 | -59.7 | -53.2 |
| f74029 | -94.5 | -92.9 | -63.6 | -90.0 | -57.8 | -60.7 | -87.8 | -86.4 | -59.9 | -57.9 | -58.4 | -59.2 | -57.5 | -53.3 |
| 8a1c11 | -94.0 | -94.5 | -92.5 | -95.7 | -93.2 | -64.2 | -88.3 | -91.5 | -87.7 | -91.4 | -62.9 | -60.8 | -60.4 | -53.2 |
| e65434 | -94.3 | -93.8 | -93.5 | -95.3 | -93.0 | -63.9 | -88.6 | -90.2 | -88.8 | -91.2 | -64.5 | -60.5 | -61.3 | -53.3 |
| 861879 | -94.8 | -93.5 | -92.7 | -96.4 | -92.3 | -63.9 | -88.2 | -90.2 | -88.3 | -89.5 | -63.6 | -60.2 | -59.3 | -53.0 |
| 6641cc | -94.7 | -93.6 | -93.9 | -95.5 | -93.4 | -63.6 | -87.9 | -90.2 | -88.4 | -91.0 | -63.6 | -60.2 | -59.7 | -52.9 |
| 840871 | -94.7 | -92.8 | -93.4 | -95.6 | -93.3 | -64.9 | -88.6 | -91.0 | -88.3 | -91.3 | -63.8 | -60.8 | -60.3 | -53.1 |
| 6a6504 | -94.6 | -94.1 | -93.2 | -95.1 | -94.2 | -63.7 | -88.1 | -90.0 | -89.3 | -91.1 | -65.2 | -60.5 | -60.6 | -52.8 |
| sum | 1796.3 | 1215.2 | 1148.9 | 1236.4 | 1175.2 | 855.0 | 1148.1 | 1174.7 | 1097.0 | 1151.8 | 853.4 | 818.7 | 814.3 | 1007.1 |
| mean | 94.5 | 64.0 | 60.5 | 65.1 | 61.9 | 45.0 | 60.4 | 61.8 | 57.7 | 60.6 | 44.9 | 43.1 | 42.9 | 53.0 |

TABLE XVIII: Outcomes of RPS (rps) jnr-posix time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 496890 | 143.2 | 29.0 | 29.0 | 30.8 | 29.2 | 31.4 | 19.9 | 20.2 | 20.6 | 21.3 | 30.5 | 20.4 | 20.3 | 12.3 |
| ba4016 | 146.1 | 68.8 | 67.9 | 72.9 | 69.4 | 72.2 | 28.8 | 29.1 | 28.9 | 30.3 | 74.2 | 28.9 | 27.7 | 12.2 |
| 220614 | 145.6 | -75.5 | 75.9 | 79.8 | 41.4 | 78.8 | 30.6 | 30.8 | 30.0 | 24.4 | 41.8 | 30.6 | 20.6 | 12.2 |
| 28a09c | 143.8 | 75.6 | 74.8 | 79.5 | 76.2 | 79.9 | 30.9 | 31.2 | 31.1 | 33.4 | 81.6 | 31.1 | 30.4 | 12.2 |
| a03b2e | 145.9 | 76.7 | -75.9 | 78.6 | 59.8 | 83.2 | 30.4 | 30.7 | 30.6 | 29.2 | 59.7 | 30.5 | 24.4 | 12.2 |
| 6c8812 | -2.5 | -2.4 | -2.4 | -2.3 | -2.4 | -2.5 | -2.3 | -2.4 | -2.4 | -2.5 | -2.6 | -2.2 | -2.4 | -2.3 |
| 6d3956 | 144.6 | 75.7 | 75.2 | 79.1 | 60.0 | 79.5 | 30.3 | 30.8 | 30.5 | 29.4 | 60.6 | 30.6 | 24.6 | 12.5 |
| 40396a | -2.3 | -2.2 | -2.4 | -2.6 | -2.3 | -2.5 | -2.3 | -2.3 | -2.3 | -2.6 | -2.5 | -2.3 | -2.4 | -2.5 |
| e935f8 | 143.3 | 80.9 | 79.2 | 83.6 | 63.4 | 83.9 | 31.7 | 31.4 | 32.1 | 31.0 | 65.5 | 32.0 | 25.2 | 12.4 |
| 40fa74 | 160.6 | 89.5 | 87.7 | 89.7 | 87.6 | 90.7 | 33.1 | 34.2 | 33.4 | 35.4 | 91.5 | 33.8 | 33.1 | 12.8 |
| 1548fb | 155.6 | 85.5 | 85.4 | 88.2 | 81.5 | 89.4 | 32.5 | 32.4 | 32.6 | 33.8 | 85.1 | 31.5 | 26.6 | 12.7 |
| 5eed6f | 157.1 | 86.5 | 84.6 | 88.1 | 82.6 | 88.9 | 32.5 | 32.7 | 32.7 | 33.6 | 84.7 | 31.2 | 27.1 | 12.7 |
| dcd57f | 155.8 | 87.2 | 85.7 | 88.7 | 82.7 | 88.5 | 32.8 | 32.7 | 32.8 | -33.7 | 82.5 | 31.8 | 26.9 | 12.6 |
| 35f3bf | 171.5 | 162.6 | 160.8 | 166.0 | 162.7 | 171.7 | 161.0 | 162.5 | 159.3 | 167.1 | 167.7 | 159.3 | 160.1 | 12.8 |
| d4a2ab | 170.3 | 82.7 | 82.3 | 84.8 | 34.6 | 87.4 | 31.8 | 31.8 | 32.0 | 22.3 | 36.5 | 32.6 | 19.3 | 12.8 |
| edcead | 170.6 | 161.2 | 160.3 | 164.3 | 163.5 | 169.3 | 160.3 | 159.7 | 162.3 | 170.8 | 170.6 | 162.7 | 160.4 | 12.9 |
| 8962f9 | 170.1 | 90.1 | 91.3 | 94.3 | 93.0 | 95.8 | 33.6 | 34.1 | 34.6 | 35.7 | 97.2 | 34.4 | 33.5 | 12.9 |
| cd4525 | 170.3 | 81.4 | 82.8 | 87.0 | 33.6 | 87.3 | 31.6 | 31.9 | 31.0 | 22.2 | 36.1 | 31.3 | 19.5 | 13.0 |
| e8502f | 168.3 | 82.6 | 82.0 | 86.9 | 33.8 | 86.3 | 31.6 | 32.5 | 30.6 | 22.1 | 36.4 | 31.6 | 19.8 | 12.9 |
| 62c6a3 | -1.1 | -1.1 | -1.2 | -1.1 | -1.2 | -1.3 | -1.2 | -1.1 | -1.1 | -1.2 | -1.3 | -1.2 | -1.1 | -1.2 |
| f65dff | 170.0 | 160.5 | 159.0 | 165.6 | 163.1 | 170.0 | 161.3 | 160.0 | 162.4 | 169.2 | 172.4 | 160.4 | 162.4 | 12.8 |
| 0bde3f | 172.1 | 161.5 | 160.9 | 164.4 | 163.2 | 170.6 | 159.5 | 162.3 | 165.4 | 169.0 | 172.5 | 161.8 | 161.2 | 12.9 |
| 9b0780 | 171.9 | 99.6 | 100.0 | 104.8 | 100.7 | 106.5 | 34.9 | 34.9 | 34.6 | 36.3 | 107.5 | 35.5 | 33.4 | 12.8 |
| cf12ff | 167.8 | 160.6 | 159.2 | 165.3 | 163.2 | 174.1 | 159.4 | 163.2 | 162.0 | 169.4 | 173.6 | 163.9 | 162.3 | 13.0 |
| a17daf | 173.5 | 170.2 | 166.1 | 171.2 | 174.0 | 176.1 | 167.3 | 169.5 | 167.4 | 173.6 | 176.8 | 168.8 | 171.8 | 12.9 |
| 71d8d3 | 179.5 | 103.2 | 103.3 | 111.0 | 89.1 | 112.7 | 35.3 | 34.9 | 35.7 | 34.6 | 90.1 | 34.4 | 28.9 | 12.9 |
| 28d0c8 | 175.0 | 168.3 | 166.4 | 170.9 | 170.8 | 175.0 | 166.4 | 166.9 | 168.2 | 175.1 | 182.0 | 171.5 | 167.0 | 12.8 |
| 7be191 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.2 | -1.1 | -1.1 |
| cecb9b | -1.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.2 | -1.2 | -1.2 | -1.1 | -1.1 | -1.2 | -1.1 | -1.1 | -1.1 |
| 850f7b | 180.4 | 167.4 | 168.3 | 172.1 | 171.3 | 175.8 | 170.6 | 173.9 | 172.4 | 176.1 | 180.7 | 171.7 | 169.7 | 13.2 |
| c5a412 | 174.1 | 105.1 | 104.9 | 111.1 | 105.4 | 111.9 | 36.5 | 36.1 | 36.3 | 38.7 | 111.3 | 36.4 | 36.0 | 13.2 |
| 752f60 | 183.4 | 110.6 | 110.6 | 115.9 | 112.1 | 115.6 | 38.0 | 37.9 | 38.5 | 39.9 | 118.4 | 38.6 | 37.1 | 13.6 |
| bc5484 | 184.5 | 110.1 | 110.5 | 114.5 | 89.8 | 116.3 | 37.2 | 37.6 | 37.6 | 37.2 | 92.2 | 37.6 | 29.8 | 13.4 |
| 44b67f | 186.3 | 113.2 | 106.7 | 112.5 | 17.4 | 113.6 | 35.9 | 36.5 | 35.9 | 18.9 | 18.1 | 36.0 | 18.2 | 13.9 |
| de7b93 | 184.6 | 6.2 | 5.6 | 5.7 | 5.8 | 5.3 | 5.5 | 5.6 | 5.4 | 5.6 | 5.6 | 5.2 | 5.4 | 13.6 |
| 2537ee | 182.8 | 178.8 | 176.9 | 180.4 | 176.8 | 188.0 | 177.1 | 177.9 | 178.6 | 188.3 | 190.0 | 180.6 | 179.3 | 13.7 |
| 7d4317 | 185.7 | 5.4 | 5.1 | 5.4 | 5.2 | 5.7 | 5.1 | 5.2 | 5.4 | 5.6 | 5.5 | 5.1 | 5.1 | 13.4 |
| ce0a9a | 184.8 | 111.6 | 111.3 | 115.3 | 111.6 | 116.3 | 37.2 | 38.6 | 37.9 | 40.5 | 119.2 | 38.2 | 38.3 | 13.9 |
| 16bedc | 185.7 | 175.1 | 178.6 | 180.6 | 177.2 | 194.1 | 176.5 | 181.1 | 179.7 | 189.4 | 190.7 | 179.4 | 179.1 | 13.7 |
| 46f849 | 185.4 | 176.9 | 176.9 | 180.9 | 179.4 | 189.0 | 177.8 | 181.9 | 177.4 | 188.3 | 191.9 | 179.3 | 177.6 | 13.7 |
| 21e451 | 186.3 | 179.4 | 177.2 | 181.7 | 179.2 | 187.3 | 176.8 | 180.7 | 177.7 | 191.8 | 190.8 | 181.1 | 178.4 | 13.4 |
| 1e1024 | 186.8 | 180.7 | 180.6 | 182.7 | 182.8 | 195.5 | 176.9 | 181.2 | 178.5 | 188.0 | 192.4 | 178.6 | 179.0 | 13.6 |
| abbc4e | 188.5 | 111.7 | 113.4 | 115.5 | 112.9 | 118.1 | 37.9 | 37.9 | 38.5 | 39.4 | 119.0 | 38.5 | 36.9 | 13.7 |
| c2e2f6 | 195.7 | 185.6 | 186.0 | 194.2 | 188.4 | 196.6 | 189.7 | 187.9 | 186.2 | 197.3 | 199.5 | 189.1 | 185.8 | 13.8 |
| 7935cb | 194.9 | 121.2 | 119.5 | 126.0 | 98.3 | 126.5 | 38.4 | 36.9 | 37.9 | 38.0 | 99.5 | 36.7 | 30.6 | 13.6 |
| 03a4a3 | 198.9 | 189.9 | 186.7 | 193.7 | 188.8 | 198.0 | 188.8 | 190.7 | 191.2 | 200.3 | 210.6 | 193.2 | 190.4 | 14.0 |
| 73813c | -196.1 | -123.2 | -119.2 | -123.6 | -50.8 | -127.0 | -38.0 | -38.1 | -37.2 | -28.6 | -51.9 | -37.5 | -23.7 | -13.8 |
| 99c3b5 | -195.3 | -121.3 | -121.8 | -124.8 | -124.0 | -127.3 | -37.0 | -37.9 | -37.2 | -39.9 | -128.0 | -38.1 | -36.7 | -13.7 |
| ce6e2b | -195.3 | -119.8 | -120.2 | -125.0 | -50.9 | -128.1 | -37.7 | -38.1 | -37.7 | -28.3 | -51.5 | -38.1 | -24.1 | -13.7 |
| sum | 7636.2 | 5116.7 | 5083.9 | 5265.1 | 4615.3 | 5393.9 | 3494.2 | 3530.0 | 3516.4 | 3591.7 | 4852.7 | 3527.6 | 3355.8 | 584.8 |
| mean | 155.8 | 104.4 | 103.8 | 107.5 | 94.2 | 110.1 | 71.3 | 72.0 | 71.8 | 73.3 | 99.0 | 72.0 | 68.5 | 11.9 |

TABLE XIX: Outcomes of RPS (rps) commons-imaging time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| cfeffl | 90.3 | 74.2 | 69.3 | 67.3 | 66.3 | 81.6 | 69.8 | 65.7 | 69.1 | 69.3 | 33.3 | 67.6 | 31.4 | 20.8 |
| 212727 | 90.6 | 77.9 | 77.0 | 72.6 | 72.4 | 42.5 | 74.5 | 71.6 | 74.0 | 72.3 | 32.5 | 32.1 | 31.4 | 17.8 |
| a9cca2 | 89.8 | 10.1 | 11.0 | 9.3 | 9.2 | 9.8 | 10.3 | 9.3 | 9.6 | 9.4 | 9.3 | 10.2 | 9.5 | 19.8 |
| 8a583a | 89.7 | 76.8 | 72.1 | 72.5 | 71.9 | 45.1 | 74.7 | 71.8 | 75.5 | 72.6 | 31.6 | 30.9 | 33.1 | 17.6 |
| f46d64 | 89.2 | 10.9 | 9.7 | 9.5 | 8.8 | 9.8 | 10.4 | 9.0 | 9.6 | 9.4 | 9.0 | 9.8 | 9.0 | 17.7 |
| a32cb5 | 91.1 | 78.7 | 71.7 | 73.4 | 57.6 | 81.5 | -75.4 | 72.6 | 74.2 | 58.6 | 25.6 | 72.3 | 27.6 | 18.2 |
| 6962d8 | 90.3 | 76.3 | 72.8 | 75.2 | 57.0 | 80.0 | 75.4 | 71.7 | 74.5 | 59.2 | 25.5 | 72.3 | 24.8 | 22.5 |
| 62c8e6 | 90.7 | 96.2 | 92.9 | 91.4 | 90.3 | 98.3 | 94.3 | 89.8 | 93.0 | 92.6 | 92.8 | 92.4 | 93.3 | 18.1 |
| ae548a | 91.5 | 91.4 | 83.9 | 86.7 | 80.7 | 90.3 | 89.2 | 85.0 | 87.6 | 82.0 | 29.4 | 85.2 | 29.8 | 19.4 |
| 41d5cf | 90.0 | 10.0 | 9.5 | 9.7 | 8.8 | 10.4 | 9.7 | 9.1 | 9.7 | 9.5 | 9.4 | 9.7 | 9.5 | 18.3 |
| b43743 | 91.9 | 10.0 | 9.4 | 9.3 | 9.4 | 9.6 | 10.0 | 9.1 | 10.3 | 9.3 | 9.2 | 9.7 | 8.9 | 17.9 |
| fb0be4 | 91.4 | 91.8 | 88.6 | 87.7 | 84.9 | 92.6 | 89.0 | 84.7 | 87.9 | 86.6 | 41.3 | 86.7 | 39.4 | 17.9 |
| 611c3b | 91.0 | 24.2 | 24.1 | 23.0 | 22.6 | 34.9 | 23.9 | 22.9 | 24.3 | 23.8 | 23.2 | 23.9 | 23.6 | 17.9 |
| 40ab2c | 91.0 | 10.0 | 9.2 | 9.2 | 8.9 | 9.9 | 10.4 | 9.1 | 9.8 | 9.7 | 9.7 | 9.8 | 9.2 | 17.5 |
| c5ca63 | 90.7 | 90.6 | 85.5 | 86.3 | 85.6 | 61.9 | 89.3 | 84.5 | 87.5 | 86.2 | 45.0 | 43.2 | 40.1 | 17.6 |
| 4701b9 | 91.3 | 90.0 | 85.7 | 87.2 | 85.7 | 53.5 | 89.9 | 84.7 | 87.4 | 85.8 | 40.5 | 40.3 | 40.1 | 17.7 |
| 7862d6 | 91.1 | 93.4 | 87.5 | 89.4 | 89.2 | 93.7 | 92.1 | 87.1 | 89.4 | 91.7 | 47.4 | 89.9 | 44.3 | 18.2 |
| 51880b | 91.4 | 92.9 | 87.4 | 88.2 | 86.6 | 94.6 | 91.1 | 86.5 | 87.8 | 89.0 | 42.4 | 88.8 | 40.4 | 17.7 |
| 0a6149 | 90.4 | 92.9 | 87.2 | 88.0 | 86.6 | 92.3 | 90.1 | 86.8 | 88.8 | 88.5 | 42.3 | 88.1 | 41.5 | 17.7 |
| sum | 1723.5 | 1198.4 | 1134.3 | 1135.8 | 1082.7 | 1092.5 | 1169.6 | 1110.9 | 1150.1 | 1105.6 | 599.4 | 963.0 | 586.8 | 350.3 |
| mean | 90.7 | 63.1 | 59.7 | 59.8 | 57.0 | 57.5 | 61.6 | 58.5 | 60.5 | 58.2 | 31.5 | 50.7 | 30.9 | 18.4 |

TABLE XX: Outcomes of RPS (rps) javapoet time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 16cd72 | 59.2 | 40.5 | 40.4 | 40.8 | 39.1 | 40.1 | 18.4 | 18.3 | 19.4 | 18.8 | 38.5 | 18.8 | 18.3 | 8.0 |
| 868524 | 58.4 | 39.7 | 38.6 | 39.9 | 38.2 | 39.1 | 17.3 | 17.4 | 18.0 | 17.8 | 37.9 | 17.5 | 17.6 | 8.5 |
| 61b0fa | 60.1 | 40.9 | 39.8 | 40.5 | 38.2 | 40.1 | 18.3 | 17.4 | 19.5 | 18.5 | 38.8 | 18.4 | 18.1 | 8.2 |
| bc65a0 | 58.6 | 40.7 | 39.4 | 40.4 | 39.8 | 40.3 | 18.1 | 17.9 | 19.1 | 18.7 | 38.8 | 18.3 | 17.2 | 8.4 |
| 19b9d7 | 59.2 | 12.1 | 11.9 | 11.9 | 11.7 | 12.0 | 11.8 | 11.0 | 12.3 | 12.3 | 11.6 | 11.8 | 11.5 | 8.1 |
| 01f707 | 58.0 | 12.1 | 11.6 | 11.8 | 11.5 | 11.6 | 11.7 | 11.5 | 12.0 | 11.9 | 11.6 | 11.9 | 11.5 | 8.4 |
| fa5c19 | 57.9 | 12.6 | 12.2 | 12.4 | 11.6 | 12.1 | 12.4 | 11.8 | 12.2 | 12.0 | 11.7 | 12.0 | 12.1 | 8.3 |
| ff50d7 | 58.7 | 12.2 | 11.9 | 12.0 | 11.6 | 12.1 | 12.0 | 11.3 | 12.1 | 12.1 | 11.5 | 11.9 | 11.8 | 8.2 |
| b66d3d | 57.7 | 12.5 | 11.9 | 12.0 | 11.4 | 12.0 | 11.9 | 11.5 | 11.9 | 11.9 | 11.5 | 12.0 | 11.8 | 8.2 |
| 414da3 | 57.1 | 11.8 | 11.4 | 11.8 | 14.4 | 11.5 | 11.4 | 11.4 | 11.7 | 12.3 | 14.8 | 11.6 | 11.7 | 8.3 |
| 647b93 | 59.7 | 13.8 | 12.7 | 13.2 | 12.7 | 13.5 | 13.1 | 13.4 | 13.8 | 13.5 | 12.8 | 13.4 | 12.8 | 10.0 |
| e11279 | 60.9 | 13.4 | 13.3 | 13.5 | 12.8 | 14.4 | 13.9 | 13.5 | 13.9 | 14.0 | 13.0 | 13.3 | 12.9 | 10.0 |
| 40dfa0 | 61.4 | 13.7 | 13.4 | 13.8 | 13.2 | 14.3 | 13.6 | 13.3 | 14.2 | 13.6 | 13.0 | 13.4 | 13.3 | 10.0 |
| 4cd975 | 59.7 | 13.9 | 13.5 | 14.7 | 13.6 | 14.2 | 13.7 | 13.3 | 14.2 | 13.7 | 13.4 | 13.8 | 13.4 | 10.1 |
| ca12c7 | 61.0 | 12.4 | 13.0 | 13.5 | 12.7 | 13.2 | 13.5 | 12.3 | 13.0 | 13.0 | 12.6 | 12.9 | 12.6 | 10.3 |
| 08c714 | 62.0 | 12.8 | 13.3 | 12.9 | 12.3 | 13.0 | 13.5 | 12.6 | 13.5 | 13.3 | 12.3 | 13.1 | 12.9 | 10.1 |
| a5694a | 62.1 | 13.6 | 13.6 | 13.8 | 13.4 | 13.9 | 13.2 | 12.8 | 14.1 | 13.4 | 13.1 | 13.5 | 13.6 | 10.1 |
| 384395 | 61.0 | 13.8 | 13.3 | 13.9 | 13.0 | 14.3 | 13.7 | 13.0 | 14.8 | 14.0 | 12.9 | 14.0 | 13.6 | 10.1 |
| f5b1b6 | 60.6 | 12.9 | 12.7 | 13.9 | 12.5 | 13.6 | 13.7 | 13.1 | 13.5 | 13.3 | 12.6 | 12.9 | 12.9 | 10.0 |
| sum | 1133.4 | 355.3 | 347.9 | 356.7 | 343.8 | 355.2 | 265.4 | 257.0 | 273.1 | 268.0 | 342.6 | 264.4 | 259.6 | 173.2 |
| mean | 59.7 | 18.7 | 18.3 | 18.8 | 18.1 | 18.7 | 14.0 | 13.5 | 14.4 | 14.1 | 18.0 | 13.9 | 13.7 | 9.1 |

TABLE XXI: Outcomes of RPS (rps) beanstalker time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 11a1a8 | 23.3 | 33.7 | 35.0 | 35.1 | 32.1 | 32.5 | 32.8 | 33.0 | 33.3 | 32.3 | 33.9 | 32.6 | 33.2 | 12.9 |
| d3d9cc | 24.1 | 35.7 | 35.3 | 35.3 | 33.4 | 34.2 | 32.6 | 32.9 | 33.2 | 32.2 | 36.6 | 33.3 | 32.8 | 12.9 |
| fc343a | 24.0 | 35.2 | 34.9 | 34.2 | 32.7 | 32.4 | 32.6 | 32.3 | 34.4 | 32.6 | 35.4 | 32.8 | 33.5 | 12.9 |
| 8dc528 | 29.9 | 46.2 | 47.0 | 46.1 | 44.3 | 43.5 | 44.3 | 44.6 | 45.1 | 43.2 | 46.8 | 44.4 | 44.6 | 16.8 |
| 966ec5 | -21.7 | -26.9 | -27.0 | -27.2 | -26.2 | -26.1 | -25.8 | -25.8 | -26.2 | -25.9 | -27.9 | -26.3 | -26.3 | -12.2 |
| 7c2a4a | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 0.9 | 1.0 | 0.9 | 1.1 | 0.9 | 1.0 | 0.9 |
| 68cf11 | 1.1 | 1.0 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 01a6eb | 30.6 | 46.7 | 45.8 | 47.2 | 43.8 | 43.4 | 41.7 | 41.4 | 42.4 | 41.9 | 47.1 | 42.7 | 42.2 | 17.6 |
| 871176 | 30.2 | 47.9 | 46.8 | 46.9 | 45.0 | 44.6 | 42.9 | 43.5 | 44.2 | 42.2 | 48.2 | 43.9 | 44.1 | 17.2 |
| e99f0a | 35.8 | 55.3 | 55.2 | 54.7 | 52.7 | 52.6 | 52.1 | 52.3 | 53.8 | 51.5 | 55.0 | 53.4 | 53.4 | 21.3 |
| 70237c | 37.1 | 57.3 | 57.4 | 57.5 | 54.7 | 54.6 | 53.8 | 53.2 | 55.6 | 52.1 | 57.8 | 54.6 | 53.8 | 21.3 |
| cb517b | 36.0 | 56.0 | 55.2 | 56.0 | 52.6 | 53.5 | 51.1 | 50.5 | 52.5 | 51.1 | 56.1 | 52.6 | 51.5 | 21.4 |
| 195fbc | 35.8 | 56.4 | 56.1 | 55.6 | 53.5 | 53.1 | 52.1 | 52.4 | 54.3 | 52.0 | 57.1 | 52.1 | 52.0 | 21.3 |
| ddf253 | 35.6 | 56.4 | 55.8 | 56.1 | 53.5 | 54.1 | 51.4 | 51.2 | 52.9 | 51.3 | 57.0 | 52.1 | 51.9 | 20.9 |
| 89c2ea | 36.3 | 56.2 | 55.8 | 56.7 | 52.3 | 53.3 | 52.1 | 51.1 | 53.0 | 51.7 | 55.6 | 51.9 | 51.8 | 21.2 |
| effb25 | 35.9 | 55.4 | 55.4 | 54.8 | 52.7 | 52.0 | 51.4 | 51.1 | 51.5 | 51.2 | 54.9 | 52.0 | 51.9 | 21.0 |
| fe9fc8 | 35.6 | 60.0 | 59.4 | 59.0 | 55.6 | 56.1 | 54.0 | 53.6 | 55.1 | 54.5 | 59.6 | 54.7 | 54.6 | 21.4 |
| 0e57c6 | 36.2 | 54.3 | 54.6 | 55.0 | 51.4 | 52.5 | 49.1 | 48.9 | 50.9 | 49.4 | 53.6 | 50.1 | 50.4 | 21.6 |
| 246867 | 36.3 | 55.5 | 55.2 | 54.6 | 51.7 | 52.2 | 51.3 | 50.8 | 52.4 | 50.4 | 55.9 | 51.2 | 51.6 | 20.9 |
| ed882c | 42.1 | 66.8 | 65.8 | 65.9 | 62.7 | 63.0 | 59.4 | 59.9 | 62.0 | 59.6 | 66.4 | 61.2 | 59.4 | 25.0 |
| fa900c | 41.9 | 64.1 | 64.4 | 64.1 | 60.7 | 60.8 | 58.5 | 58.9 | 60.5 | 58.7 | 64.7 | 59.8 | 58.3 | 25.2 |
| d5387d | 41.3 | 63.2 | 62.3 | 63.4 | 59.0 | 60.8 | 55.7 | 56.3 | 57.2 | 56.1 | 62.8 | 57.3 | 56.4 | 25.1 |
| 276985 | 42.2 | 64.6 | 65.0 | 64.3 | 61.6 | 62.1 | 59.1 | 59.4 | 60.4 | 59.6 | 64.0 | 59.9 | 59.2 | 25.3 |
| 53790c | 42.4 | 65.8 | 64.7 | 64.7 | 61.1 | 61.4 | 58.6 | 59.3 | 60.9 | 59.0 | 64.0 | 60.9 | 59.1 | 25.2 |
| d92ac2 | 42.2 | 64.8 | 64.8 | 64.7 | 61.3 | 61.2 | 58.1 | 59.6 | 61.1 | 59.0 | 63.8 | 59.7 | 58.7 | 25.0 |
| 57b569 | 41.7 | 69.6 | 69.2 | 69.1 | 65.3 | 65.9 | 61.7 | 62.7 | 63.5 | 62.3 | 68.9 | 62.8 | 62.7 | 25.3 |
| dc0bfb | 41.0 | 65.8 | 65.8 | 65.1 | 61.5 | 61.8 | 61.7 | 62.0 | 63.5 | 61.4 | 65.5 | 61.9 | 61.4 | 24.7 |
| 5599aa | 42.3 | 64.5 | 64.9 | 64.8 | 61.1 | 61.9 | 59.1 | 60.0 | 60.8 | 58.8 | 64.7 | 59.4 | 59.9 | 24.8 |
| 97f130 | 41.3 | 65.1 | 65.8 | 66.2 | 61.4 | 61.9 | 59.7 | 60.3 | 61.9 | 60.0 | 65.6 | 62.4 | 60.1 | 24.8 |
| 35549e | 33.8 | 58.9 | 60.1 | 59.4 | 55.6 | 55.8 | 56.1 | 55.3 | 57.4 | 56.3 | 58.7 | 58.4 | 56.4 | 25.7 |
| 3566e8 | 33.6 | 57.9 | 56.8 | 57.2 | 54.8 | 54.4 | 52.6 | 53.0 | 53.9 | 52.6 | 57.3 | 54.3 | 52.0 | 25.6 |
| 69dbfa | 33.6 | 60.3 | 60.2 | 59.1 | 55.6 | 56.3 | 54.8 | 54.7 | 55.1 | 54.5 | 58.3 | 56.1 | 55.1 | 25.3 |
| edaba6 | -31.7 | -60.3 | -59.7 | -60.3 | -56.0 | -57.7 | -54.7 | -55.2 | -55.7 | -55.4 | -59.7 | -55.9 | -54.8 | -23.2 |
| caed60 | 34.5 | 53.8 | 54.2 | 54.4 | 50.4 | 50.5 | 50.7 | 50.7 | 52.2 | 50.8 | 53.7 | 52.3 | 51.5 | 25.6 |
| c45847 | 34.8 | 68.2 | 67.1 | 67.8 | 64.4 | 65.0 | 62.0 | 62.9 | 63.9 | 63.4 | 68.8 | 63.5 | 64.3 | 25.5 |
| 28d121 | 33.9 | 68.0 | 68.4 | 66.9 | 63.9 | 63.5 | 62.1 | 63.4 | 63.8 | 62.8 | 66.8 | 63.0 | 63.9 | 25.6 |
| 702ded | 33.8 | 69.4 | 67.9 | 67.4 | 64.4 | 63.9 | 62.8 | 63.2 | 63.8 | 62.6 | 68.1 | 63.4 | 63.8 | 25.6 |
| 736c69 | 34.1 | 53.9 | 53.6 | 53.4 | 50.4 | 50.8 | 50.7 | 51.1 | 52.1 | 50.9 | 53.8 | 51.4 | 51.4 | 25.9 |
| e57574 | 33.4 | 54.3 | 53.2 | 54.0 | 50.3 | 51.1 | 50.6 | 50.7 | 53.0 | 50.7 | 54.1 | 52.1 | 52.2 | 26.2 |
| d87076 | 34.3 | 53.8 | 54.8 | 53.6 | 50.9 | 51.3 | 50.1 | 51.1 | 52.3 | 50.7 | 53.9 | 52.3 | 51.7 | 25.8 |
| e859da | 75.9 | 144.7 | 145.0 | 143.7 | 137.0 | 136.8 | 137.0 | 137.0 | 139.9 | 136.5 | 143.9 | 137.5 | 137.9 | 64.9 |
| 40357a | 75.7 | 139.8 | 139.7 | 140.8 | 132.3 | 132.4 | 133.0 | 132.0 | 135.5 | 132.1 | 139.6 | 134.2 | 133.9 | 65.1 |
| 332f14 | -22.2 | -24.0 | -24.2 | -24.2 | -22.7 | -22.9 | -23.2 | -23.0 | -23.8 | -23.1 | -24.4 | -23.4 | -23.6 | -21.1 |
| c7e905 | 66.6 | 127.6 | 126.2 | 127.4 | 119.1 | 119.2 | 121.3 | 120.1 | 122.5 | 120.0 | 125.9 | 121.1 | 120.9 | 56.6 |
| ec5fc3 | 68.0 | 119.1 | 118.7 | 117.2 | 111.9 | 111.9 | 113.2 | 113.1 | 113.5 | 112.8 | 119.0 | 112.7 | 113.6 | 57.8 |
| a1d8eb | 67.4 | 131.6 | 130.1 | 130.5 | 124.3 | 123.1 | 123.1 | 122.1 | 123.4 | 121.8 | 130.1 | 122.6 | 123.0 | 56.7 |
| a53ecd | 67.1 | 130.7 | 129.8 | 129.8 | 124.9 | 124.4 | 121.7 | 121.5 | 123.8 | 121.3 | 129.6 | 123.0 | 122.4 | 57.1 |
| 620e45 | 66.8 | 129.4 | 129.8 | 130.7 | 124.5 | 123.1 | 121.1 | 121.4 | 123.1 | 120.7 | 129.1 | 122.7 | 122.3 | 57.2 |
| cd171f | -50.2 | -96.8 | -97.0 | -96.5 | -91.3 | -92.0 | -91.6 | -91.9 | -94.0 | -91.8 | -96.6 | -92.7 | -92.0 | -48.0 |
| sum | 1896.3 | 3193.8 | 3183.0 | 3180.6 | 3010.8 | 3019.7 | 2957.3 | 2962.2 | 3027.4 | 2952.6 | 3182.3 | 3000.7 | 2983.2 | 1331.6 |
| mean | 38.7 | 65.2 | 65.0 | 64.9 | 61.4 | 61.6 | 60.4 | 60.5 | 61.8 | 60.3 | 64.9 | 61.2 | 60.9 | 27.2 |

TABLE XXII: Outcomes of RPS (rps) commons-io time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2196ff | 411.4 | 21.1 | 20.3 | 20.3 | 21.1 | 20.6 | 20.7 | 20.6 | 21.2 | 20.6 | 20.3 | 21.3 | 20.7 | 101.5 |
| 65657b | 414.5 | 20.8 | 20.2 | 20.6 | 20.6 | 21.6 | 20.9 | 20.5 | 20.0 | 19.5 | 19.6 | 21.1 | 19.5 | 101.2 |
| 6e2ac1 | 415.7 | 251.0 | 229.6 | 239.2 | 246.9 | 234.9 | 191.2 | 192.3 | 184.0 | 192.7 | 214.5 | 179.1 | 160.0 | 101.7 |
| b014a0 | 415.1 | 21.6 | 20.9 | 19.9 | 21.2 | 21.6 | 19.3 | 20.5 | 21.5 | 19.9 | 19.5 | 20.8 | 19.7 | 101.5 |
| dcf6e8 | 412.2 | 174.9 | 155.0 | 167.4 | -163.4 | 158.7 | 150.4 | 151.3 | 130.2 | 140.0 | 151.8 | 130.6 | 125.9 | 102.7 |
| 84a0d9 | 408.8 | 176.2 | 155.4 | 166.8 | 174.0 | 158.7 | 150.4 | 150.6 | 130.5 | 150.5 | 155.0 | 129.9 | -129.0 | 102.1 |
| 10c8db | 412.3 | 174.9 | 154.7 | 166.7 | 172.5 | 158.3 | 151.7 | 151.4 | 130.1 | 149.5 | 154.9 | 130.6 | 128.9 | 102.3 |
| 2bacf6 | 414.1 | 22.0 | 19.8 | 19.5 | 20.9 | 20.4 | 20.6 | 20.4 | 20.1 | 20.4 | 19.7 | 19.9 | 19.7 | 101.8 |
| 4f50c3 | 418.1 | 179.5 | 159.9 | 170.7 | 177.5 | 165.7 | 152.9 | 151.0 | 130.1 | 150.3 | 159.1 | 131.1 | 129.4 | 102.8 |
| 30280a | 413.1 | 179.6 | 159.3 | 172.5 | 178.1 | 165.0 | 152.0 | 152.9 | 130.4 | 152.2 | 160.0 | 132.1 | 129.7 | 101.7 |
| 9cd312 | 407.3 | 179.5 | 159.7 | 170.7 | 178.3 | 165.3 | 151.9 | 149.7 | 131.6 | 152.4 | 159.2 | 130.9 | 128.9 | 101.7 |
| c1b64e | 410.9 | 21.4 | 18.7 | 19.3 | 21.1 | 20.9 | 20.1 | 20.4 | 20.8 | 19.9 | 19.4 | 21.2 | 19.6 | 101.9 |
| 65c4a9 | 409.2 | 20.6 | 20.2 | 19.5 | 21.5 | 21.3 | 20.0 | 20.2 | 21.8 | 20.1 | 19.7 | 20.3 | 20.6 | 101.6 |
| 86cc77 | 423.0 | 21.1 | 20.4 | 19.8 | 21.3 | 21.0 | 20.4 | 20.2 | 20.9 | 20.8 | 19.8 | 20.9 | 20.3 | 103.5 |
| d3fc1a | 422.9 | 21.8 | 19.7 | 19.2 | 20.6 | 20.9 | 19.5 | 20.3 | 21.0 | 19.8 | 20.2 | 20.2 | 19.6 | 101.7 |
| d19259 | 420.8 | 313.3 | -250.1 | 294.6 | 308.5 | 258.5 | 211.2 | 213.0 | 158.8 | 211.6 | 238.3 | 158.6 | 139.9 | 103.0 |
| ed15b0 | 420.5 | 313.8 | 248.2 | 296.0 | 256.7 | 258.1 | 213.4 | 212.8 | 157.7 | 192.8 | 199.6 | 158.7 | 133.4 | 102.1 |
| 459ceb | 419.1 | 278.4 | 220.6 | 262.7 | 180.5 | -227.2 | 201.7 | 201.4 | 152.1 | 150.7 | 161.2 | 151.9 | 128.1 | 101.6 |
| 947c01 | 416.5 | 279.0 | 383.3 | 264.2 | 276.1 | 262.3 | 192.7 | 193.1 | 183.1 | 192.5 | 239.9 | 178.3 | 159.4 | 103.0 |
| sum | 7885.4 | 2670.6 | 2435.9 | 2529.8 | 2480.9 | 2380.8 | 2080.8 | 2082.6 | 1785.9 | 1996.4 | 2151.5 | 1777.5 | 1652.2 | 1939.2 |
| mean | 415.0 | 140.6 | 128.2 | 133.1 | 130.6 | 125.3 | 109.5 | 109.6 | 94.0 | 105.1 | 113.2 | 93.6 | 87.0 | 102.1 |

TABLE XXIII: Outcomes of RPS (rps) imglib2 time

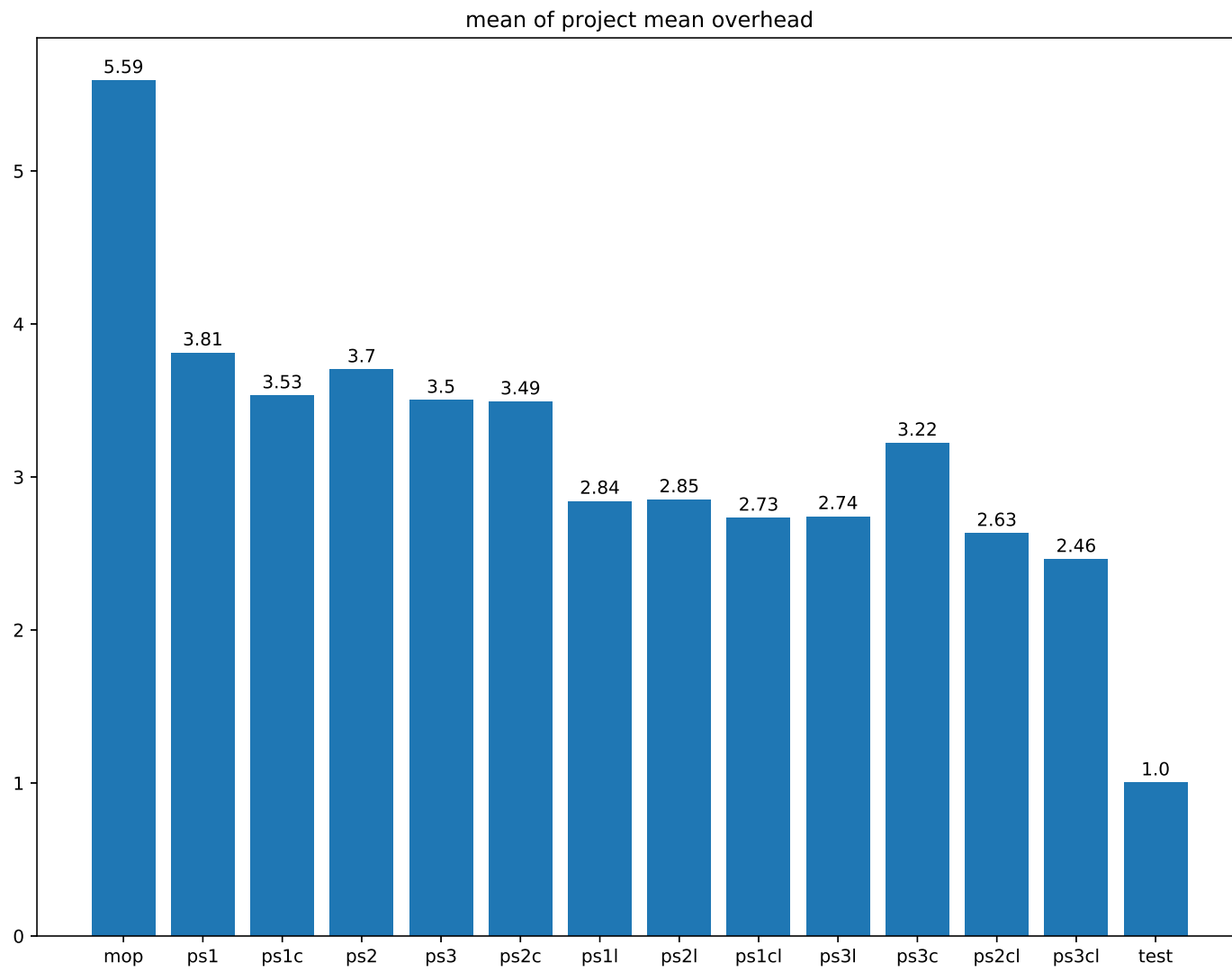
| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 311bb3 | 31.6 | 18.5 | 17.7 | 18.5 | 18.6 | 17.6 | 18.8 | 18.1 | 18.2 | 17.3 | 18.0 | 18.2 | 17.6 | 12.6 |
| e45314 | 31.2 | 15.9 | 15.4 | 16.1 | 16.5 | 15.7 | 16.7 | 15.7 | 16.2 | 15.4 | 16.2 | 16.0 | 15.5 | 12.5 |
| 2d6644 | 31.2 | 26.8 | 25.7 | 27.2 | 27.9 | 25.3 | 27.4 | 26.8 | 27.5 | 26.6 | 25.2 | 25.0 | 24.6 | 12.6 |
| ca346b | 31.5 | 24.5 | 16.8 | 23.6 | 24.5 | 16.9 | 24.5 | 23.1 | 17.4 | 23.4 | 16.2 | 16.7 | 16.0 | 12.9 |
| 28c941 | 31.4 | 29.3 | 22.1 | 29.4 | 30.5 | 21.3 | 29.6 | 29.1 | 22.1 | 28.9 | 21.0 | 20.9 | 20.2 | 12.9 |
| f835a8 | 31.0 | 6.7 | 6.5 | 6.7 | 6.9 | 6.7 | 7.2 | 6.1 | 7.0 | 6.4 | 6.7 | 6.6 | 6.4 | 12.3 |
| a735f9 | 31.1 | 29.2 | 27.4 | 29.0 | 30.1 | 26.7 | 29.4 | 28.1 | 28.9 | 28.2 | 27.9 | 27.1 | 26.3 | 13.1 |
| bba835 | 31.3 | 16.1 | 15.0 | 17.2 | 15.5 | 16.2 | 16.9 | 16.2 | 16.7 | 15.1 | 15.2 | 15.9 | 15.8 | 12.9 |
| e2f354 | 31.2 | 29.8 | 27.5 | 29.8 | 31.1 | 27.3 | 29.7 | 28.6 | 29.6 | 28.5 | 27.9 | 28.0 | 26.8 | 12.4 |
| 897b86 | 31.5 | 6.5 | 6.3 | 6.5 | 6.7 | 6.0 | 6.8 | 6.7 | 6.7 | 6.4 | 6.2 | 6.5 | 6.4 | 12.9 |
| 59cf72 | 31.4 | 29.2 | 27.7 | 30.0 | 30.7 | 27.3 | 29.5 | 28.8 | 29.3 | 29.0 | 28.2 | 27.5 | 26.5 | 12.6 |
| 1941a7 | 31.6 | 29.4 | 27.4 | 29.8 | 30.5 | 26.8 | 29.7 | 28.5 | 29.6 | 28.8 | 27.4 | 27.6 | 26.4 | 12.7 |
| ca903a | 33.8 | 35.9 | 34.8 | 36.1 | 36.2 | 34.3 | 36.4 | 35.3 | 36.7 | 35.2 | 35.5 | 34.7 | 34.6 | 13.4 |
| 1fe7da | 33.8 | 30.9 | 21.2 | 31.0 | 31.6 | 20.5 | 30.8 | 30.4 | 22.7 | 29.2 | 20.4 | 21.1 | 18.6 | 13.5 |
| d5e69f | 33.8 | 7.3 | 7.1 | 6.6 | 7.0 | 6.9 | 7.6 | 7.4 | 7.6 | 7.2 | 7.3 | 7.2 | 6.5 | 13.3 |
| b34e8b | 33.7 | 30.6 | 20.0 | 30.9 | 16.8 | 19.8 | 30.8 | 30.4 | 21.2 | 15.6 | 16.9 | 20.7 | 16.2 | 13.6 |
| 43e04d | 34.0 | 30.4 | 20.3 | 29.7 | 16.9 | 19.3 | 30.8 | 28.6 | 20.9 | 15.7 | 16.2 | 18.6 | 15.8 | 13.6 |
| 156d36 | 34.4 | 30.7 | 28.9 | 31.1 | 32.2 | 28.3 | 31.4 | 30.3 | 31.0 | 30.2 | 28.5 | 28.7 | 28.2 | 13.7 |
| 599cd1 | 34.1 | 31.0 | 20.6 | 31.6 | 17.2 | 20.6 | 30.7 | 30.5 | 21.7 | 16.4 | 16.4 | 20.1 | 16.2 | 13.7 |
| sum | 613.9 | 458.9 | 388.7 | 460.5 | 427.2 | 383.3 | 464.7 | 448.7 | 410.9 | 403.6 | 377.2 | 387.1 | 364.6 | 247.3 |
| mean | 32.3 | 24.2 | 20.5 | 24.2 | 22.5 | 20.2 | 24.5 | 23.6 | 21.6 | 21.2 | 19.9 | 20.4 | 19.2 | 13.0 |

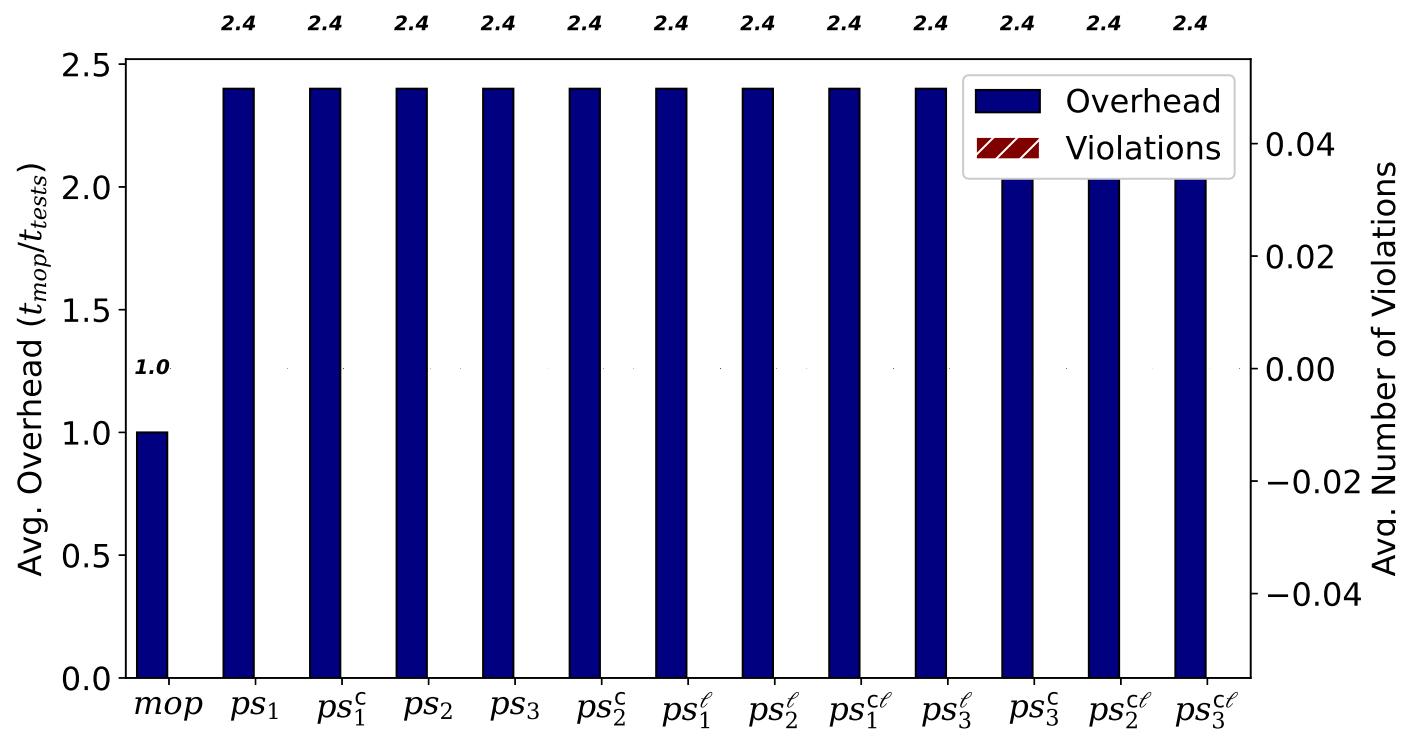
TABLE XXIV: Outcomes of RPS (rps) jscep time

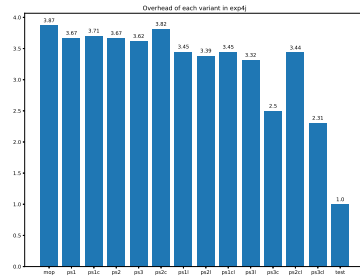
| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| e553d4 | 46.9 | 38.5 | 39.5 | 39.4 | 38.2 | 37.9 | 28.1 | 28.1 | 27.8 | 28.2 | 37.3 | 27.0 | 27.0 | 21.9 |
| ce7b9a | 47.9 | 47.5 | 50.5 | 47.9 | 48.1 | 49.9 | 48.2 | 47.7 | 49.2 | 48.1 | 48.0 | 49.3 | 48.2 | 21.8 |
| 8cd073 | 47.6 | 42.6 | 43.8 | 39.0 | 39.7 | 39.4 | 28.4 | 27.3 | 26.8 | 27.2 | 38.2 | 26.0 | 26.1 | 21.8 |
| 6e794a | 47.7 | 43.4 | 44.6 | 42.4 | 38.9 | 43.6 | 28.2 | 27.9 | 27.5 | 27.4 | 38.2 | 28.4 | 26.6 | 22.3 |
| c77163 | 33.7 | 28.5 | 31.0 | 29.2 | 19.0 | 29.5 | 14.5 | 14.0 | 13.8 | 12.8 | 18.8 | 13.2 | 11.9 | 7.6 |
| da5108 | 33.8 | 28.9 | 30.5 | 28.7 | 28.6 | 28.5 | 13.8 | 14.0 | 13.7 | 13.6 | 27.5 | 12.8 | 12.3 | 8.1 |
| 7cc074 | 33.8 | 3.8 | 3.8 | 3.6 | 3.6 | 3.8 | 3.7 | 3.3 | 3.7 | 3.7 | 3.6 | 3.7 | 3.5 | 8.0 |
| 886eac | 33.4 | 30.5 | 31.3 | 30.0 | 30.4 | 31.0 | 15.0 | 14.3 | 14.2 | 14.0 | 29.2 | 13.8 | 13.6 | 7.7 |
| 6404ef | 34.2 | 3.3 | 3.8 | 3.4 | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.5 | 7.9 |
| a039b8 | 34.2 | 12.2 | 13.3 | 12.7 | 12.4 | 12.9 | 11.2 | 11.3 | 11.3 | 11.3 | 12.2 | 11.3 | 10.9 | 8.1 |
| c45090 | 33.2 | 3.3 | 3.7 | 3.5 | 3.2 | 3.5 | 3.5 | 3.4 | 3.3 | 3.2 | 3.1 | 3.5 | 3.1 | 8.0 |
| 2af66c | 33.9 | 29.2 | 30.9 | 29.7 | 18.7 | 30.1 | 14.0 | 14.0 | 12.6 | 12.4 | 18.0 | 13.6 | 11.5 | 7.8 |
| ab5a7f | 33.3 | 30.3 | 32.0 | 30.0 | 24.8 | 31.2 | 14.6 | 13.8 | 13.9 | 13.5 | 25.0 | 14.3 | 12.2 | 8.1 |
| afd8e1 | 33.2 | 30.4 | 32.3 | 30.9 | 30.8 | 31.5 | 14.6 | 14.3 | 14.3 | 14.9 | 29.9 | 14.4 | 12.8 | 8.1 |
| 1cf7dd | 33.7 | 30.7 | 32.2 | 29.5 | 28.7 | 31.0 | 14.2 | 14.0 | 13.8 | 13.9 | 27.9 | 14.2 | 12.9 | 7.8 |
| c27515 | 33.2 | 29.4 | 31.5 | 28.0 | 28.0 | 28.2 | 13.6 | 13.6 | 13.4 | 13.5 | 26.6 | 12.1 | 11.8 | 7.6 |
| e4683d | 32.9 | 30.0 | 31.3 | 28.6 | 28.7 | 29.0 | 14.5 | 13.8 | 13.6 | 13.9 | 27.5 | 13.3 | 12.4 | 7.9 |
| 9a58e1 | 33.8 | 30.0 | 31.4 | 28.4 | 28.1 | 28.3 | 14.0 | 13.6 | 13.0 | 13.3 | 26.7 | 13.0 | 11.7 | 7.5 |
| 661ba5 | 33.9 | 29.7 | 31.0 | 21.0 | 21.1 | 21.0 | 14.0 | 12.5 | 12.5 | 12.0 | 20.1 | 11.8 | 10.7 | 8.1 |
| 298ec2 | 33.2 | 29.5 | 30.4 | 29.3 | 18.7 | 30.1 | 13.8 | 13.7 | 12.6 | 11.6 | 17.8 | 12.9 | 11.2 | 7.8 |
| 71cc1e | 33.5 | 29.5 | 31.0 | 29.4 | 18.8 | 29.1 | 14.0 | 13.9 | 12.9 | 12.4 | 18.0 | 13.2 | 10.9 | 7.5 |
| d30047 | 33.0 | 29.7 | 31.9 | 29.4 | 27.4 | 30.3 | 14.0 | 13.9 | 13.3 | 13.6 | 26.2 | 13.9 | 11.5 | 7.6 |
| 2c828e | 32.6 | 26.8 | 27.9 | 26.3 | 22.9 | 27.1 | 13.1 | 13.6 | 11.7 | 13.2 | 22.3 | 12.5 | 11.8 | 7.8 |
| fa7653 | 32.9 | 30.7 | 33.2 | 31.4 | 31.5 | 32.2 | 15.0 | 15.2 | 15.5 | 15.4 | 31.2 | 16.0 | 15.4 | 7.3 |
| 9284fb | 33.0 | 30.2 | 31.6 | 28.1 | 28.4 | 27.8 | 13.4 | 13.1 | 13.0 | 13.6 | 27.2 | 12.0 | 11.5 | 8.0 |
| 795bcb | 33.4 | 29.8 | 31.7 | 30.0 | 28.5 | 31.3 | 13.8 | 13.9 | 13.5 | 14.0 | 27.8 | 14.0 | 12.4 | 7.7 |
| 8f11a9 | 34.0 | 30.5 | 32.3 | 30.5 | 29.1 | 30.8 | 14.8 | 14.4 | 13.9 | 14.5 | 27.6 | 14.5 | 12.9 | 8.0 |
| b64cb3 | 33.2 | 3.4 | 3.7 | 3.5 | 3.5 | 3.7 | 3.5 | 3.3 | 3.6 | 3.4 | 3.5 | 3.9 | 3.7 | 7.8 |
| 338fad | 34.2 | 3.4 | 3.7 | 3.5 | 3.6 | 3.8 | 3.4 | 3.3 | 3.6 | 3.5 | 3.5 | 3.7 | 3.6 | 7.8 |
| 2e6948 | 33.7 | 34.1 | 36.2 | 35.2 | 34.9 | 35.8 | 34.0 | 34.1 | 35.2 | 34.5 | 34.8 | 35.6 | 34.5 | 7.8 |
| e5cf30 | 34.0 | 29.7 | 32.0 | 28.9 | 29.3 | 28.9 | 14.1 | 14.2 | 13.8 | 14.1 | 28.5 | 14.7 | 12.5 | 8.3 |
| 42bb03 | 33.2 | 29.3 | 31.1 | 28.2 | 28.5 | 28.4 | 13.7 | 13.7 | 13.9 | 13.9 | 26.9 | 13.1 | 12.3 | 7.5 |
| a40f7b | 34.1 | 29.1 | 30.5 | 23.1 | 18.5 | 23.3 | 14.1 | 13.1 | 13.3 | 12.2 | 18.0 | 12.0 | 10.9 | 7.5 |
| 35b503 | 34.9 | 29.7 | 30.9 | 30.6 | 27.5 | 30.9 | 14.7 | 14.5 | 13.9 | 14.6 | 27.1 | 14.0 | 12.5 | 7.6 |
| daabb3 | 34.6 | 29.6 | 30.7 | 21.3 | 21.4 | 21.3 | 14.2 | 12.6 | 13.5 | 12.5 | 21.1 | 12.1 | 11.4 | 7.8 |
| abe114 | 33.1 | 29.4 | 31.1 | 29.8 | 21.7 | 30.2 | 14.2 | 14.3 | 13.5 | 13.6 | 21.0 | 13.5 | 11.8 | 7.4 |
| 647e36 | 34.1 | 3.6 | 4.0 | 3.6 | 3.7 | 3.9 | 3.5 | 3.7 | 3.6 | 3.3 | 3.5 | 3.6 | 3.3 | 8.2 |
| 727d01 | 33.4 | 35.0 | 37.0 | 34.6 | 34.7 | 35.8 | 35.9 | 34.8 | 35.6 | 34.6 | 34.7 | 35.0 | 34.1 | 8.3 |
| 848385 | 33.3 | 29.9 | 30.9 | 21.7 | 21.8 | 21.7 | 14.9 | 13.1 | 13.2 | 13.4 | 20.8 | 12.2 | 11.8 | 7.7 |
| f0b104 | 33.7 | 33.8 | 36.1 | 33.0 | 34.5 | 35.5 | 34.2 | 34.0 | 34.8 | 34.4 | 34.3 | 34.7 | 33.2 | 7.8 |
| 97bf71 | 33.7 | 29.7 | 32.5 | 20.9 | 22.5 | 21.1 | 14.3 | 12.5 | 13.3 | 12.4 | 20.6 | 11.3 | 10.7 | 8.1 |
| 615b24 | 35.3 | 36.1 | 39.7 | 36.3 | 36.3 | 37.8 | 37.8 | 35.7 | 37.4 | 36.3 | 36.2 | 37.5 | 35.4 | 7.7 |
| a712db | -107.2 | -104.6 | -122.3 | -89.4 | -98.5 | -105.8 | -91.4 | -86.3 | -111.6 | -111.6 | -109.9 | -116.5 | -77.7 | -70.0 |
| d5c64b | -87.5 | 3.4 | 3.8 | 3.2 | 3.5 | 3.7 | 3.5 | 3.3 | 3.6 | 3.4 | 3.5 | 3.7 | 3.3 | -63.7 |
| 19f366 | -101.3 | -95.4 | -110.4 | -101.0 | -104.7 | -91.4 | -72.1 | -95.5 | -77.0 | -81.3 | -95.1 | -88.2 | -93.2 | -92.5 |
| 94a361 | -84.6 | -90.8 | -92.0 | -92.1 | -81.9 | -123.7 | -78.4 | -117.3 | -78.5 | -122.1 | -79.6 | -73.2 | -70.8 | -84.8 |
| 40295a | -93.5 | 3.5 | 3.7 | 3.4 | 3.4 | 3.9 | 3.6 | 3.4 | 3.5 | 3.4 | 3.3 | 3.7 | 3.3 | -68.7 |
| fee2a5 | -93.3 | -97.4 | -143.0 | -107.8 | -108.5 | -92.8 | -96.0 | -113.1 | -58.5 | -64.7 | -85.6 | -97.4 | -64.7 | -89.1 |
| 3c9dd9 | -106.6 | -96.1 | -114.4 | -79.4 | -92.0 | -81.6 | -98.5 | -113.5 | -95.9 | -88.9 | -94.4 | -94.0 | -62.3 | -74.0 |
| sum | 2142.5 | 1636.1 | 1797.9 | 1570.6 | 1514.4 | 1617.2 | 1133.7 | 1205.3 | 1099.0 | 1140.9 | 1464.9 | 1142.1 | 997.1 | 927.9 |
| mean | 43.7 | 33.4 | 36.7 | 32.1 | 30.9 | 33.0 | 23.1 | 24.6 | 22.4 | 23.3 | 29.9 | 23.3 | 20.3 | 18.9 |

TABLE XXV: Outcomes of RPS (rps) stream-lib time

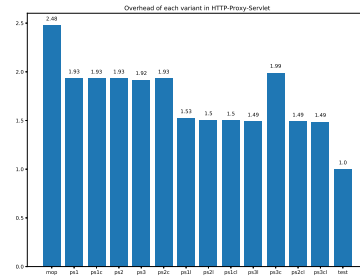
| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6a6645 | 582.8 | 648.9 | 109.6 | 354.3 | 450.9 | 109.4 | 525.9 | 495.2 | 107.8 | 640.5 | 116.1 | 113.2 | 103.1 | 88.5 |
| 91d215 | 581.8 | 96.6 | 87.7 | 99.9 | 94.6 | 87.4 | 96.6 | 98.6 | 85.4 | 98.9 | 93.1 | 92.8 | 85.1 | 90.1 |
| c0e238 | 594.8 | 91.7 | 89.6 | 95.6 | 87.9 | 84.0 | 91.7 | 94.3 | 84.8 | 94.2 | 93.1 | 92.1 | 83.8 | 88.6 |
| 63255d | 858.6 | 602.0 | 95.2 | 416.6 | 441.0 | 93.0 | 535.1 | 632.1 | 90.2 | 560.5 | 100.2 | 99.2 | 90.6 | 87.8 |
| 0f2183 | 601.2 | 633.7 | 93.0 | 493.9 | 373.9 | 93.2 | 533.3 | 578.0 | 86.8 | 633.9 | 96.2 | 97.0 | 87.8 | 89.8 |
| 98b913 | 647.7 | 571.6 | 92.3 | 594.5 | 376.1 | 91.3 | 516.3 | -617.1 | 86.7 | 547.8 | 97.6 | 95.4 | 87.5 | 89.3 |
| 43aecb | 664.5 | 339.2 | 95.3 | 358.4 | 442.7 | 93.6 | 489.9 | 589.2 | 89.5 | 623.3 | 99.3 | 97.4 | 93.4 | 88.9 |
| 0c33f1 | 477.9 | 514.2 | 91.4 | 504.3 | 380.4 | 91.8 | 479.0 | 659.0 | 87.5 | 540.1 | 95.8 | 96.6 | 90.4 | 89.5 |
| 0eca17 | 599.7 | 541.2 | 91.3 | 608.4 | 372.5 | 90.6 | 405.5 | 493.7 | 86.4 | 303.6 | 97.1 | 96.4 | 89.1 | 88.6 |
| 7433ea | 471.2 | 581.1 | 95.2 | 581.8 | 445.9 | 93.5 | 391.1 | 592.0 | 89.0 | 504.4 | 99.7 | 99.8 | 89.1 | 88.3 |
| 8da108 | 712.9 | 480.7 | 148.9 | 660.3 | 420.5 | 148.8 | 565.1 | 654.1 | 144.8 | 583.1 | 157.7 | 160.5 | 142.4 | 90.5 |
| 7d085a | 509.9 | 4.4 | 4.4 | 4.3 | 4.3 | 4.1 | 4.4 | 4.5 | 4.1 | 3.9 | 4.3 | 4.2 | 4.0 | 90.2 |
| 22654f | 757.3 | 89.2 | 87.4 | 90.9 | 84.8 | 87.1 | 90.1 | 92.0 | 85.5 | 88.0 | 92.3 | 94.2 | 84.8 | 90.3 |
| 35a0d3 | 456.3 | 304.4 | 465.1 | 465.2 | 394.4 | 351.8 | 279.6 | 491.6 | 427.0 | 428.7 | 472.6 | 476.6 | 406.2 | 87.1 |
| b5fc30 | 600.6 | 450.2 | 490.8 | 571.5 | 578.6 | 434.4 | 626.4 | 466.1 | 442.7 | 495.8 | 619.3 | 392.8 | 467.0 | 87.1 |
| 3ac200 | 747.9 | 158.7 | 99.0 | 164.3 | 173.3 | 99.0 | 167.9 | 158.8 | 95.5 | 162.1 | 106.3 | 107.1 | 96.7 | 98.7 |
| f0518e | 715.4 | 171.2 | 107.0 | 170.9 | 175.2 | 106.9 | 179.1 | 169.9 | 102.7 | 166.3 | 113.5 | 111.5 | 103.7 | 105.0 |
| 8f31aa | 536.4 | 468.4 | 126.6 | 568.1 | 691.8 | 115.6 | 819.8 | 579.9 | 122.0 | 481.6 | 122.7 | 120.9 | 110.8 | 105.6 |
| 573fa7 | 775.4 | 149.0 | 88.1 | 150.9 | 160.4 | 88.7 | 159.8 | 154.1 | 86.4 | 145.5 | 95.0 | 94.9 | 88.7 | 85.5 |
| sum | 11892.6 | 6896.5 | 2557.8 | 6953.9 | 6149.0 | 2364.3 | 6956.7 | 7620.1 | 2404.9 | 7102.1 | 2772.2 | 2542.7 | 2404.5 | 1729.5 |
| mean | 625.9 | 363.0 | 134.6 | 366.0 | 323.6 | 124.4 | 366.1 | 401.1 | 126.6 | 373.8 | 145.9 | 133.8 | 126.6 | 91.0 |



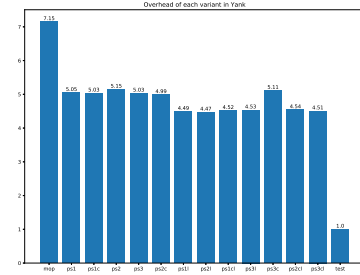




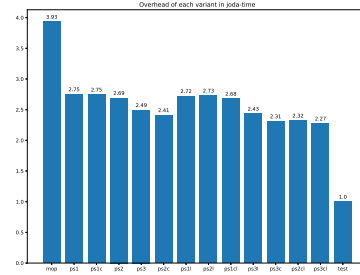
(a) rps-vmstime for exp4j



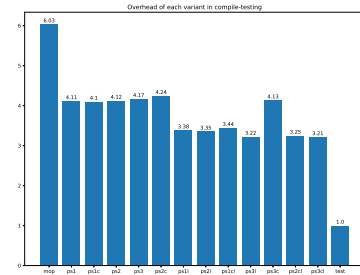
(b) rps-vmstime for HTTP-Proxy-Servlet



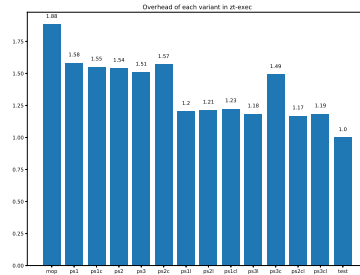
(c) rps-vmstime for Yank



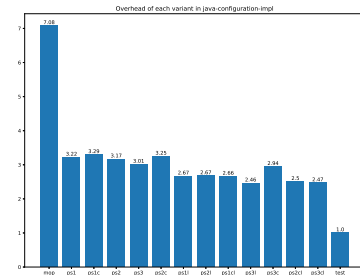
(d) rps-vmstime for joda-time



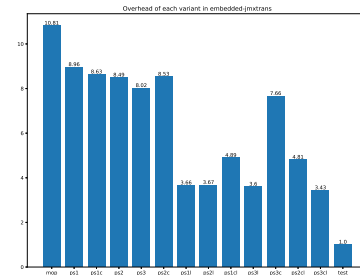
(e) rps-vmstime for compile-testing



(f) rps-vmstime for jt-exec

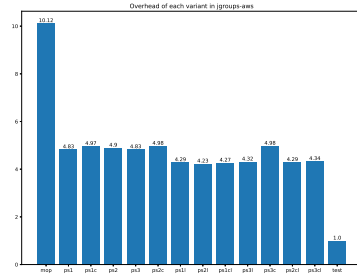


(g) rps-vmstime for java-configuration-impl

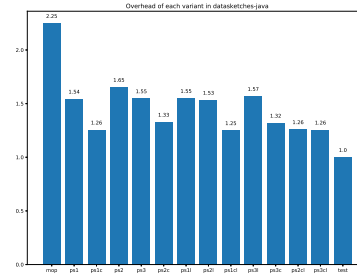


(h) rps-vmstime for embedded-jmxttrans

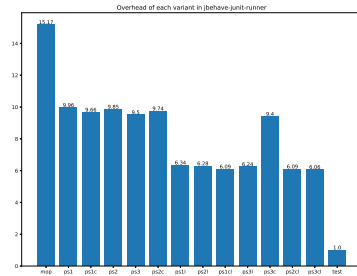
Fig. 15: Plots for rps-vms Part 1



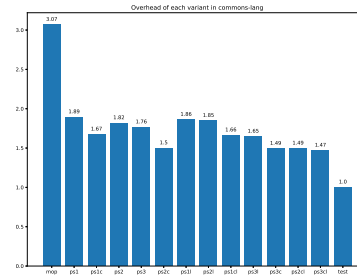
(a) rps-vmtime for jgroups-aws



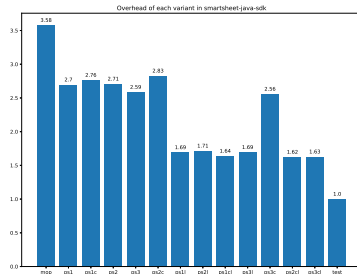
(b) rps-vmtime for datasketches-java



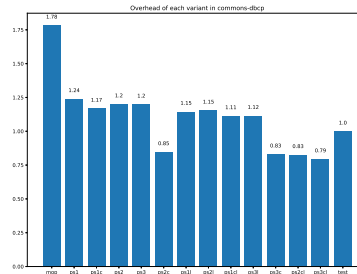
(c) rps-vmtime for jbehave-junit-runner



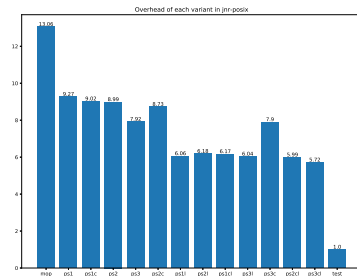
(d) rps-vmtime for commons-lang



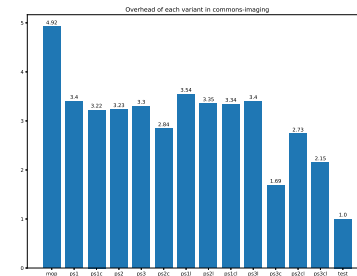
(e) rps-vmtime for smartsheet-java-sdk



(f) rps-vmtime for commons-dbcp

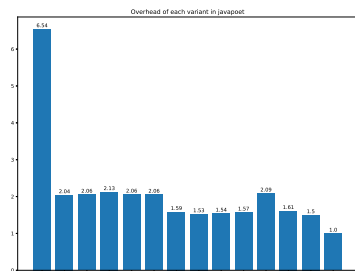


(g) rps-vmtime for jnr-posix

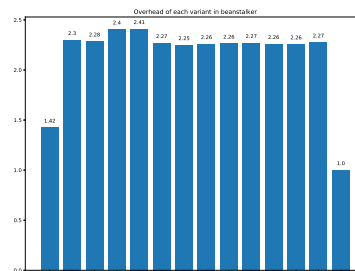


(h) rps-vmtime for commons-imaging

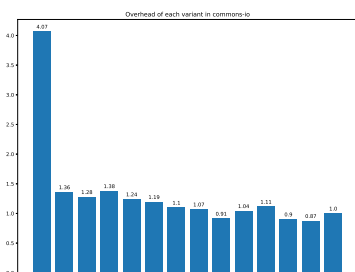
Fig. 16: Plots for rps-vms Part 2



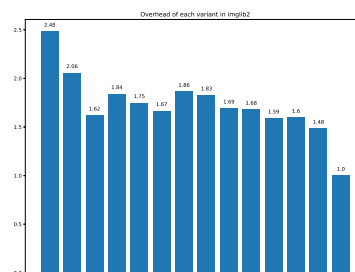
(a) rps-vmtime for javapoet



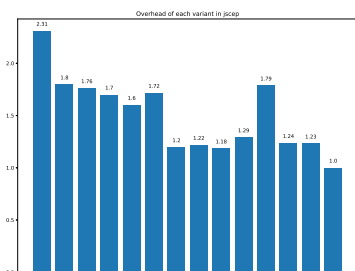
(b) rps-vmtime for beanstalker



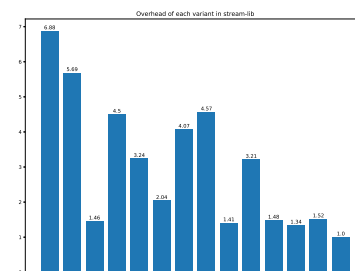
(c) rps-vmtime for commons-io



(d) rps-vmtime for imglib2



(e) rps-vmtime for jscep



(f) rps-vmtime for stream-lib

Fig. 17: Plots for rps-vms Part END

TABLE XXVI: Outcomes of RPS (rps-vms) sum time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| exp4j | 1757.1 | 1665.5 | 1681.9 | 1664.1 | 1642.9 | 1731.1 | 1565.9 | 1536.7 | 1564.0 | 1505.3 | 1134.2 | 1558.7 | 1046.8 | 453.7 |
| HTTP-Proxy-Servlet | 1617.1 | 1262.5 | 1261.2 | 1261.9 | 1252.2 | 1261.5 | 995.7 | 982.0 | 980.1 | 973.1 | 1299.8 | 973.0 | 970.7 | 652.7 |
| Yank | 356.0 | 251.4 | 250.7 | 256.3 | 250.6 | 248.4 | 223.6 | 222.6 | 224.9 | 225.8 | 254.6 | 226.1 | 224.4 | 49.8 |
| joda-time | 2081.0 | 1455.9 | 1453.0 | 1424.0 | 1319.8 | 1275.8 | 1440.2 | 1444.5 | 1417.5 | 1287.9 | 1222.3 | 1229.0 | 1203.5 | 529.2 |
| compile-testing | 1844.4 | 1257.1 | 1253.5 | 1259.7 | 1274.6 | 1296.8 | 1034.0 | 1024.6 | 1052.5 | 985.2 | 1263.4 | 993.0 | 981.9 | 305.7 |
| zt-exec | 386.0 | 324.5 | 317.9 | 315.9 | 309.6 | 321.8 | 246.9 | 248.8 | 251.1 | 242.8 | 305.8 | 239.7 | 242.9 | 204.9 |
| java-configuration-impl | 629.2 | 286.1 | 292.8 | 281.6 | 267.6 | 288.6 | 237.0 | 237.6 | 236.4 | 218.8 | 261.7 | 222.6 | 219.3 | 88.9 |
| embedded-jmxtrans | 2174.5 | 1801.4 | 1735.3 | 1707.1 | 1612.5 | 1714.9 | 735.1 | 738.4 | 983.4 | 723.4 | 1540.7 | 966.4 | 690.7 | 201.1 |
| jgroups-aws | 464.5 | 221.7 | 228.0 | 224.8 | 221.8 | 228.4 | 196.8 | 194.3 | 196.0 | 198.1 | 228.5 | 197.1 | 199.0 | 45.9 |
| datasketches-java | 3785.2 | 2598.5 | 2113.4 | 2782.8 | 2604.8 | 2236.3 | 2608.8 | 2581.0 | 2104.1 | 2640.6 | 2221.6 | 2119.7 | 2113.3 | 1683.3 |
| jbehave-junit-runner | 3524.8 | 2313.5 | 2245.0 | 2288.7 | 2207.8 | 2263.1 | 1473.0 | 1459.9 | 1414.6 | 1449.6 | 2183.6 | 1415.4 | 1408.4 | 232.3 |
| commons-lang | 1254.7 | 774.2 | 684.5 | 743.3 | 721.7 | 612.8 | 760.8 | 755.2 | 680.0 | 673.3 | 610.2 | 611.5 | 600.5 | 409.1 |
| smartsheet-java-sdk | 964.9 | 727.0 | 745.4 | 730.3 | 697.4 | 762.6 | 456.1 | 462.5 | 441.9 | 456.7 | 689.8 | 437.8 | 439.0 | 269.7 |
| commons-dbc | 1796.3 | 1248.5 | 1176.8 | 1209.6 | 1208.1 | 853.4 | 1153.9 | 1163.1 | 1121.5 | 1123.7 | 836.7 | 831.8 | 800.5 | 1007.1 |
| jnr-posix | 7636.2 | 5422.7 | 5277.5 | 5255.3 | 4632.3 | 5103.2 | 3544.5 | 3616.7 | 3607.9 | 3531.3 | 4620.4 | 3503.3 | 3343.3 | 584.8 |
| commons-imaging | 1723.5 | 1191.2 | 1128.9 | 1132.3 | 1156.4 | 995.6 | 1241.7 | 1174.4 | 1170.3 | 1190.3 | 591.6 | 957.8 | 752.5 | 350.3 |
| javapoet | 1133.4 | 353.7 | 356.2 | 368.2 | 356.6 | 356.0 | 274.9 | 264.3 | 267.3 | 272.3 | 361.7 | 279.3 | 259.7 | 173.2 |
| beanstalk | 1896.3 | 3061.2 | 3042.5 | 3201.3 | 3207.2 | 3021.0 | 2993.6 | 3007.4 | 3013.5 | 3023.2 | 3008.1 | 3004.1 | 3029.2 | 1331.6 |
| commons-io | 7885.4 | 2635.9 | 2477.7 | 2671.9 | 2403.8 | 2315.1 | 2130.2 | 2073.7 | 1770.7 | 2019.8 | 2159.8 | 1748.4 | 1695.4 | 1939.2 |
| imglib2 | 613.9 | 508.6 | 400.5 | 455.1 | 432.2 | 412.0 | 460.7 | 451.8 | 418.4 | 415.1 | 393.2 | 394.7 | 366.8 | 247.3 |
| jscep | 2142.5 | 1666.9 | 1633.5 | 1576.7 | 1484.7 | 1592.1 | 1109.2 | 1129.7 | 1098.5 | 1197.2 | 1657.4 | 1146.9 | 1142.4 | 927.9 |
| stream-lib | 11892.6 | 9833.0 | 2516.9 | 7781.2 | 5598.2 | 3528.6 | 7041.8 | 7895.4 | 2430.7 | 5554.5 | 2560.0 | 2315.1 | 2622.3 | 1729.5 |
| sum | 57559.5 | 40861.1 | 32273.4 | 38592.2 | 34862.9 | 32419.3 | 31924.1 | 32664.6 | 26445.2 | 29908.1 | 29405.2 | 25371.4 | 24352.4 | 13417.2 |
| mean | 2616.3 | 1857.3 | 1467.0 | 1754.2 | 1584.7 | 1473.6 | 1451.1 | 1484.8 | 1202.1 | 1359.5 | 1336.6 | 1153.2 | 1106.9 | 609.9 |

TABLE XXVII: Outcomes of RPS (rps-vms) mean time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|-------|-------|-------|
| exp4j | 35.9 | 34.0 | 34.3 | 34.0 | 33.5 | 35.3 | 32.0 | 31.4 | 31.9 | 30.7 | 23.1 | 31.8 | 21.4 | 9.3 |
| HTTP-Proxy-Servlet | 33.0 | 25.8 | 25.7 | 25.8 | 25.6 | 25.7 | 20.3 | 20.0 | 20.0 | 19.9 | 26.5 | 19.9 | 19.8 | 13.3 |
| Yank | 22.2 | 15.7 | 15.7 | 16.0 | 15.7 | 15.5 | 14.0 | 13.9 | 14.1 | 14.1 | 15.9 | 14.1 | 14.0 | 3.1 |
| joda-time | 42.5 | 29.7 | 29.7 | 29.1 | 26.9 | 26.0 | 29.4 | 29.5 | 28.9 | 26.3 | 24.9 | 25.1 | 24.6 | 10.8 |
| compile-testing | 37.6 | 25.7 | 25.6 | 25.7 | 26.0 | 26.5 | 21.1 | 20.9 | 21.5 | 20.1 | 25.8 | 20.3 | 20.0 | 6.2 |
| zt-exec | 27.6 | 23.2 | 22.7 | 22.6 | 22.1 | 23.0 | 17.6 | 17.8 | 17.9 | 17.3 | 21.8 | 17.1 | 17.3 | 14.6 |
| java-configuration-impl | 27.4 | 12.4 | 12.7 | 12.2 | 11.6 | 12.5 | 10.3 | 10.3 | 10.3 | 9.5 | 11.4 | 9.7 | 9.5 | 3.9 |
| embedded-jmxtrans | 44.4 | 36.8 | 35.4 | 34.8 | 32.9 | 35.0 | 15.0 | 15.1 | 20.1 | 14.8 | 31.4 | 19.7 | 14.1 | 4.1 |
| jgroups-aws | 29.0 | 13.9 | 14.3 | 14.0 | 13.9 | 14.3 | 12.3 | 12.1 | 12.3 | 12.4 | 14.3 | 12.3 | 12.4 | 2.9 |
| datasketches-java | 80.5 | 55.3 | 45.0 | 59.2 | 55.4 | 47.6 | 55.5 | 54.9 | 44.8 | 56.2 | 47.3 | 45.1 | 45.0 | 35.8 |
| jbehave-junit-runner | 71.9 | 47.2 | 45.8 | 46.7 | 45.1 | 46.2 | 30.1 | 29.8 | 28.9 | 29.6 | 44.6 | 28.9 | 28.7 | 4.7 |
| commons-lang | 66.0 | 40.7 | 36.0 | 39.1 | 38.0 | 32.3 | 40.0 | 39.7 | 35.8 | 35.4 | 32.1 | 32.2 | 31.6 | 21.5 |
| smartsheet-java-sdk | 48.2 | 36.3 | 37.3 | 36.5 | 34.9 | 38.1 | 22.8 | 23.1 | 22.1 | 22.8 | 34.5 | 21.9 | 21.9 | 13.5 |
| commons-dbc | 94.5 | 65.7 | 61.9 | 63.7 | 63.6 | 44.9 | 60.7 | 61.2 | 59.0 | 59.1 | 44.0 | 43.8 | 42.1 | 53.0 |
| jnr-posix | 155.8 | 110.7 | 107.7 | 107.3 | 94.5 | 104.1 | 72.3 | 73.8 | 73.6 | 72.1 | 94.3 | 71.5 | 68.2 | 11.9 |
| commons-imaging | 90.7 | 62.7 | 59.4 | 59.6 | 60.9 | 52.4 | 65.4 | 61.8 | 61.6 | 62.6 | 31.1 | 50.4 | 39.6 | 18.4 |
| javapoet | 59.7 | 18.6 | 18.7 | 19.4 | 18.8 | 18.7 | 14.5 | 13.9 | 14.1 | 14.3 | 19.0 | 14.7 | 13.7 | 9.1 |
| beanstalk | 38.7 | 62.5 | 62.1 | 65.3 | 65.5 | 61.7 | 61.1 | 61.4 | 61.5 | 61.7 | 61.4 | 61.3 | 61.8 | 27.2 |
| commons-io | 415.0 | 138.7 | 130.4 | 140.6 | 126.5 | 121.8 | 112.1 | 109.1 | 93.2 | 106.3 | 113.7 | 92.0 | 89.2 | 102.1 |
| imglib2 | 32.3 | 26.8 | 21.1 | 24.0 | 22.7 | 21.7 | 24.2 | 23.8 | 22.0 | 21.8 | 20.7 | 20.8 | 19.3 | 13.0 |
| jscep | 43.7 | 34.0 | 33.3 | 32.2 | 30.3 | 32.5 | 22.6 | 23.1 | 22.4 | 24.4 | 33.8 | 23.4 | 23.3 | 18.9 |
| stream-lib | 625.9 | 517.5 | 132.5 | 409.5 | 294.6 | 185.7 | 370.6 | 415.5 | 127.9 | 292.3 | 134.7 | 121.8 | 138.0 | 91.0 |
| sum | 2122.7 | 1433.9 | 1007.3 | 1317.3 | 1159.0 | 1021.7 | 1124.0 | 1162.2 | 843.8 | 1023.9 | 906.5 | 797.8 | 775.8 | 488.5 |
| mean | 96.5 | 65.2 | 45.8 | 59.9 | 52.7 | 46.4 | 51.1 | 52.8 | 38.4 | 46.5 | 41.2 | 36.3 | 35.3 | 22.2 |

TABLE XXVIII: Outcomes of RPS (rps-vms) exp4j time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 9b5270 | 103.1 | 122.4 | 126.8 | 111.4 | 124.6 | 123.5 | 111.3 | 99.1 | 107.9 | 107.3 | 120.9 | 100.6 | 102.2 | 9.5 |
| abf84e | 106.6 | 105.7 | 113.7 | 105.3 | 104.9 | 117.4 | 112.3 | 103.3 | 102.2 | 106.7 | 78.8 | 109.5 | 66.2 | 9.4 |
| bfaeb2 | 107.3 | 111.0 | 108.6 | 105.1 | 116.7 | 120.4 | 101.1 | 98.9 | 116.5 | 104.7 | 71.3 | 109.3 | 61.4 | 9.5 |
| 4346b2 | 107.3 | 107.6 | 112.2 | 108.4 | 111.0 | 112.1 | 100.0 | 97.6 | 99.8 | 101.6 | 20.6 | 94.4 | 20.3 | 9.3 |
| 16f249 | 112.3 | 109.8 | 113.3 | 115.5 | 122.9 | 109.4 | 102.9 | 101.3 | 99.6 | 101.2 | 22.3 | 100.1 | 21.0 | 9.6 |
| c339cc | 106.9 | 110.6 | 113.1 | 109.2 | 118.7 | 117.3 | 101.8 | 103.5 | 97.9 | 102.9 | 21.7 | 103.1 | 22.0 | 9.6 |
| 224191 | 105.2 | 115.8 | 122.7 | 114.3 | 122.9 | 121.4 | 97.2 | 97.0 | 100.3 | 102.5 | 120.0 | 101.6 | 110.8 | 9.6 |
| 5b63e1 | 104.2 | 106.9 | 95.9 | 113.0 | 113.6 | 111.2 | 98.2 | 92.2 | 96.0 | 97.8 | 66.1 | 98.3 | 76.4 | 9.6 |
| 76ffe6 | 108.3 | 3.8 | 3.8 | 3.7 | 4.1 | 3.6 | 3.4 | 3.5 | 3.7 | 3.8 | 3.8 | 3.5 | 3.5 | 9.4 |
| f80e8b | 104.9 | 103.9 | 95.1 | 105.4 | 22.5 | 108.5 | 102.9 | 101.1 | 97.9 | 21.9 | 14.1 | 104.5 | 13.3 | 9.6 |
| 8ff4f1 | 103.3 | 103.7 | 96.6 | 104.4 | 113.6 | 108.2 | 92.7 | 94.6 | 95.3 | 101.0 | 20.3 | 93.7 | 20.5 | 9.7 |
| 96c52c | 19.6 | 20.3 | 21.1 | 20.3 | 20.7 | 20.9 | 20.8 | 20.7 | 20.7 | 21.2 | 21.3 | 20.6 | 20.9 | 8.9 |
| 9d7620 | 14.0 | 13.6 | 14.0 | 13.8 | 14.0 | 14.6 | 13.3 | 13.4 | 13.4 | 14.1 | 14.6 | 13.5 | 13.6 | 8.9 |
| 1640d4 | 13.7 | 13.3 | 13.5 | 13.6 | 13.6 | 13.9 | 13.1 | 13.2 | 13.3 | 13.5 | 13.6 | 12.8 | 12.9 | 9.1 |
| 377eb0 | 13.7 | 14.9 | 15.5 | 15.5 | 16.0 | 15.5 | 14.3 | 14.4 | 14.6 | 14.7 | 15.9 | 14.0 | 14.4 | 9.0 |
| b5b575 | 14.2 | 14.7 | 15.4 | 14.7 | 15.6 | 15.6 | 14.3 | 14.1 | 14.0 | 14.5 | 15.1 | 14.1 | 14.4 | 9.1 |
| 1f4ac3 | 14.1 | 14.7 | 15.0 | 14.7 | 14.0 | 14.8 | 14.3 | 13.9 | 14.0 | 13.8 | 14.1 | 14.0 | 13.1 | 8.9 |
| f27e78 | 14.0 | 15.0 | 15.2 | 15.1 | 14.4 | 15.0 | 14.2 | 14.1 | 14.4 | 13.7 | 14.2 | 14.0 | 13.0 | 9.0 |
| 59849d | 14.7 | 15.0 | 15.3 | 14.8 | 14.0 | 15.0 | 14.0 | 14.7 | 14.5 | 13.7 | 14.1 | 14.1 | 12.8 | 9.0 |
| a97382 | 15.5 | 15.8 | 16.2 | 15.8 | 16.1 | 16.1 | 15.1 | 15.2 | 15.5 | 15.6 | 16.0 | 15.3 | 15.5 | 9.1 |
| 83de2b | 15.2 | 16.2 | 16.3 | 16.0 | 16.1 | 16.4 | 15.3 | 15.4 | 15.5 | 15.8 | 16.6 | 15.3 | 15.2 | 9.1 |
| 70d59f | 15.2 | 14.9 | 15.3 | 15.2 | 15.2 | 15.2 | 14.3 | 14.5 | 14.7 | 14.9 | 15.2 | 14.7 | 14.1 | 9.1 |
| 49d187 | 15.2 | 15.1 | 15.3 | 15.4 | 14.9 | 15.1 | 14.5 | 14.4 | 14.9 | 14.8 | 14.4 | 14.6 | 13.4 | 9.1 |
| 219dfc | 15.8 | 15.3 | 15.5 | 15.5 | 15.5 | 15.9 | 15.1 | 15.0 | 15.3 | 15.6 | 16.4 | 15.5 | 15.5 | 9.2 |
| eb7ec0 | 15.4 | 14.6 | 15.3 | 14.7 | 15.0 | 15.1 | 14.5 | 14.8 | 14.6 | 14.7 | 15.4 | 14.4 | 14.9 | 9.2 |
| fe0b59 | 15.1 | 15.1 | 15.6 | 15.2 | 15.5 | 15.3 | 14.5 | 14.6 | 14.6 | 14.9 | 15.3 | 13.9 | 14.3 | 9.1 |
| 3d3255 | 15.3 | 15.1 | 15.4 | 15.0 | 15.6 | 15.5 | 14.5 | 14.8 | 15.0 | 15.3 | 15.0 | 14.0 | 14.5 | 9.0 |
| fb1bd8 | 15.0 | 3.5 | 3.5 | 3.4 | 3.7 | 3.6 | 3.4 | 3.4 | 3.4 | 3.5 | 3.8 | 3.5 | 3.5 | 9.2 |
| 377f45 | 15.2 | 16.1 | 16.6 | 16.3 | 16.1 | 16.1 | 15.6 | 15.6 | 15.5 | 16.0 | 16.0 | 15.1 | 14.3 | 9.2 |
| 58938f | 15.8 | 16.0 | 16.8 | 16.6 | 16.0 | 16.8 | 15.6 | 15.5 | 15.8 | 16.1 | 17.4 | 15.9 | 15.6 | 9.2 |
| e329dd | 15.4 | 16.0 | 16.6 | 16.5 | 16.5 | 16.2 | 15.3 | 15.3 | 15.2 | 15.7 | 15.9 | 14.6 | 14.8 | 9.4 |
| 9d257d | 15.8 | 16.4 | 16.5 | 16.5 | 16.3 | 15.9 | 14.9 | 15.0 | 15.5 | 15.6 | 16.1 | 14.5 | 14.6 | 9.3 |
| ee8d81 | 15.4 | 3.4 | 3.5 | 3.5 | 3.3 | 3.7 | 3.4 | 3.5 | 3.6 | 3.4 | 3.6 | 3.5 | 3.4 | 9.4 |
| 403989 | 15.8 | 16.1 | 16.8 | 16.2 | 16.3 | 16.8 | 15.3 | 15.3 | 15.5 | 15.4 | 16.7 | 15.2 | 14.9 | 9.1 |
| 9da6d6 | 15.2 | 16.0 | 16.9 | 16.6 | 16.3 | 16.1 | 15.0 | 15.2 | 15.5 | 15.7 | 16.4 | 14.6 | 14.5 | 9.3 |
| 8df7ad | 15.6 | 16.2 | 16.7 | 16.3 | 17.1 | 17.1 | 15.5 | 15.7 | 15.7 | 16.4 | 17.1 | 15.4 | 15.3 | 9.2 |
| 115238 | 15.6 | 15.8 | 16.6 | 16.6 | 16.8 | 16.5 | 15.7 | 15.7 | 15.6 | 15.8 | 17.4 | 15.9 | 15.2 | 9.1 |
| e977f1 | 15.6 | 16.4 | 16.8 | 15.9 | 14.8 | 16.4 | 16.0 | 15.5 | 15.9 | 15.2 | 14.4 | 15.4 | 13.6 | 9.3 |
| eb606b | 16.2 | 16.5 | 17.1 | 16.7 | 16.8 | 17.2 | 15.8 | 16.0 | 15.8 | 16.7 | 16.9 | 15.8 | 15.4 | 9.4 |
| bc9a8a | 16.1 | 16.5 | 16.7 | 16.0 | 16.8 | 16.5 | 15.5 | 15.4 | 15.5 | 16.1 | 17.2 | 15.4 | 15.6 | 9.1 |
| 0f86d5 | 15.5 | 16.3 | 16.9 | 16.1 | 17.0 | 16.7 | 15.8 | 15.8 | 16.0 | 16.2 | 17.6 | 15.6 | 15.8 | 9.3 |
| fb1103 | 15.8 | 3.5 | 3.5 | 3.5 | 3.7 | 3.8 | 3.5 | 3.5 | 3.4 | 3.6 | 3.6 | 3.5 | 3.4 | 9.3 |
| 2b82f0 | 15.9 | 15.7 | 16.1 | 16.2 | 16.3 | 16.7 | 15.4 | 15.2 | 15.3 | 15.9 | 17.1 | 15.3 | 15.1 | 9.2 |
| e3fbf3 | 16.0 | 16.8 | 17.8 | 16.8 | 17.3 | 17.7 | 16.6 | 16.4 | 16.5 | 16.7 | 17.7 | 16.7 | 16.7 | 9.2 |
| c2f7b9 | 16.3 | 15.8 | 15.8 | 15.7 | 13.3 | 15.7 | 15.0 | 15.4 | 14.8 | 13.3 | 13.5 | 14.9 | 12.3 | 9.4 |
| 1af15f | 16.4 | 16.8 | 17.0 | 16.7 | 16.2 | 16.7 | 15.5 | 15.5 | 15.5 | 15.8 | 17.2 | 16.1 | 15.8 | 9.2 |
| 726228 | 15.7 | 16.0 | 16.6 | 16.2 | 16.6 | 16.6 | 15.2 | 15.8 | 15.3 | 16.0 | 16.3 | 15.6 | 14.8 | 9.3 |
| 12eb15 | 16.1 | 17.2 | 17.9 | 17.1 | 16.6 | 17.6 | 16.2 | 16.5 | 16.1 | 16.8 | 17.3 | 16.3 | 15.9 | 9.2 |
| bae815 | 16.2 | 17.5 | 17.4 | 17.3 | 17.7 | 17.9 | 16.2 | 16.1 | 16.6 | 17.0 | 18.0 | 16.4 | 16.2 | 9.5 |
| sum | 1757.1 | 1665.5 | 1681.9 | 1664.1 | 1642.9 | 1731.1 | 1565.9 | 1536.7 | 1564.0 | 1505.3 | 1134.2 | 1558.7 | 1046.8 | 453.7 |
| mean | 35.9 | 34.0 | 34.3 | 34.0 | 33.5 | 35.3 | 32.0 | 31.4 | 31.9 | 30.7 | 23.1 | 31.8 | 21.4 | 9.3 |

TABLE XXIX: Outcomes of RPS (rps-vms) HTTP-Proxy-Servlet time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|--------|-------|-------|-------|
| 33e505 | 15.3 | 8.7 | 9.1 | 9.0 | 8.7 | 9.0 | 8.0 | 7.6 | 7.6 | 7.5 | 9.6 | 7.3 | 7.2 | 3.0 |
| 4b1e27 | 15.5 | 8.3 | 8.4 | 8.2 | 8.0 | 7.8 | 6.8 | 6.6 | 6.5 | 6.4 | 9.0 | 6.5 | 6.4 | 3.0 |
| 98985b | 15.0 | 8.3 | 8.2 | 8.1 | 8.7 | 8.0 | 6.6 | 6.5 | 6.4 | 6.4 | 8.4 | 6.5 | 6.8 | 2.9 |
| 1d5413 | 15.6 | 7.8 | 8.3 | 8.3 | 8.3 | 8.2 | 6.9 | 6.7 | 6.5 | 6.5 | 8.9 | 6.5 | 6.3 | 2.9 |
| cb3a0b | 15.0 | 8.2 | 8.3 | 8.2 | 8.0 | 8.1 | 6.7 | 6.5 | 6.8 | 6.6 | 9.2 | 6.5 | 6.3 | 3.0 |
| fa9d71 | 15.1 | 3.8 | 3.9 | 3.8 | 3.9 | 4.0 | 3.9 | 3.8 | 3.8 | 4.0 | 4.3 | 3.8 | 3.8 | 3.0 |
| 58e91f | 14.8 | 14.2 | 14.5 | 14.2 | 14.7 | 14.3 | 7.5 | 7.2 | 7.3 | 7.2 | 15.6 | 7.2 | 7.5 | 3.0 |
| 8a41cf | 15.3 | 14.1 | 14.3 | 14.3 | 9.6 | 14.6 | 7.4 | 7.1 | 7.1 | 6.7 | 10.2 | 7.2 | 6.6 | 3.0 |
| 6925e1 | 15.7 | 13.7 | 13.3 | 13.4 | 13.1 | 13.0 | 7.3 | 7.2 | 7.1 | 6.9 | 14.2 | 6.9 | 7.1 | 3.0 |
| 5500d9 | 15.8 | 16.7 | 17.6 | 16.9 | 17.0 | 17.5 | 17.9 | 17.7 | 17.5 | 17.4 | 18.6 | 17.4 | 17.5 | 3.1 |
| 32401f | 16.8 | 13.7 | 14.2 | 13.9 | 13.8 | 13.6 | 7.7 | 7.5 | 7.3 | 7.3 | 14.7 | 7.1 | 7.3 | 2.9 |
| b8405e | 16.0 | 13.8 | 13.6 | 13.6 | 13.8 | 13.9 | 7.8 | 7.9 | 7.5 | 7.5 | 14.0 | 7.6 | 7.4 | 3.0 |
| c93ca1 | 16.2 | 13.7 | 13.9 | 13.5 | 13.6 | 13.8 | 7.7 | 7.3 | 7.4 | 7.3 | 14.3 | 7.4 | 7.4 | 2.9 |
| e9cc22 | 16.7 | 13.9 | 13.8 | 14.1 | 14.0 | 14.2 | 7.9 | 7.8 | 7.5 | 7.7 | 14.7 | 7.5 | 7.6 | 3.1 |
| 1e3a0c | 16.7 | 13.8 | 13.4 | 13.4 | 9.8 | 13.4 | 7.8 | 7.5 | 7.5 | 7.1 | 10.6 | 7.1 | 6.7 | 3.2 |
| 60fe09 | 16.4 | 13.6 | 13.9 | 13.9 | 14.0 | 13.9 | 7.8 | 8.0 | 7.6 | 8.0 | 14.8 | 7.5 | 7.7 | 3.4 |
| 0afcc5 | 19.0 | 20.4 | 20.4 | 20.2 | 19.9 | 19.8 | 20.9 | 20.4 | 20.2 | 20.0 | 21.0 | 19.6 | 20.0 | 5.3 |
| 72583c | 27.0 | 24.2 | 24.2 | 24.3 | 24.1 | 24.1 | 18.0 | 17.6 | 17.6 | 17.5 | 25.0 | 17.9 | 17.6 | 13.3 |
| 417b86 | 27.2 | 24.1 | 24.2 | 24.3 | 24.2 | 24.3 | 17.9 | 17.8 | 17.6 | 17.7 | 24.5 | 17.7 | 17.9 | 13.4 |
| c67d99 | 27.4 | 24.1 | 24.0 | 24.3 | 24.1 | 23.8 | 17.8 | 17.8 | 17.6 | 17.4 | 25.0 | 17.9 | 17.5 | 13.4 |
| cf2f89 | 31.9 | 29.6 | 29.6 | 29.6 | 29.9 | 29.6 | 23.2 | 23.0 | 23.0 | 23.1 | 30.5 | 22.9 | 22.7 | 18.4 |
| 5eb89e | 33.1 | 29.3 | 29.4 | 29.7 | 29.5 | 29.7 | 23.3 | 22.9 | 22.8 | 22.6 | 30.1 | 22.9 | 23.0 | 18.4 |
| a69a17 | 32.8 | 29.3 | 29.6 | 29.1 | 29.4 | 29.4 | 23.0 | 22.5 | 22.9 | 22.9 | 30.6 | 22.8 | 22.6 | 18.4 |
| bfd7d | 32.4 | 29.7 | 29.3 | 29.3 | 29.4 | 29.3 | 23.1 | 22.8 | 23.1 | 22.9 | 30.7 | 22.8 | 22.7 | 18.6 |
| db06a4 | 32.4 | 4.2 | 3.9 | 3.9 | 4.1 | 3.9 | 4.1 | 4.2 | 4.0 | 4.1 | 4.4 | 4.0 | 4.0 | 18.6 |
| 9df9bb | 32.1 | 29.5 | 29.3 | 29.5 | 29.5 | 29.7 | 23.0 | 23.2 | 22.7 | 23.0 | 30.6 | 23.1 | 22.9 | 18.5 |
| 2b2d95 | 32.2 | 33.0 | 32.9 | 33.3 | 32.9 | 32.9 | 33.3 | 33.2 | 33.3 | 33.1 | 34.3 | 33.3 | 32.8 | 18.7 |
| 89f716 | 32.1 | 29.5 | 29.6 | 29.3 | 29.0 | 29.6 | 23.5 | 23.0 | 23.5 | 23.0 | 30.0 | 22.8 | 23.0 | 18.5 |
| a58a72 | 31.7 | 28.8 | 29.0 | 29.2 | 28.6 | 29.3 | 22.9 | 23.0 | 22.7 | 22.6 | 29.7 | 22.6 | 22.5 | 18.4 |
| 6cabde | 31.7 | 28.8 | 29.2 | 29.2 | 29.3 | 29.3 | 23.1 | 22.5 | 22.8 | 22.5 | 29.6 | 22.8 | 22.8 | 18.3 |
| a5b6ec | 31.7 | 3.8 | 3.7 | 3.7 | 3.6 | 3.8 | 3.9 | 3.9 | 3.9 | 3.8 | 4.1 | 3.6 | 3.5 | 18.4 |
| d9b90d | 31.9 | 33.1 | 33.0 | 33.3 | 33.3 | 33.4 | 33.5 | 33.4 | 33.5 | 33.2 | 34.4 | 33.0 | 32.7 | 18.4 |
| 5caba4 | 32.8 | 29.5 | 29.3 | 29.1 | 29.3 | 29.2 | 23.1 | 22.8 | 23.1 | 23.0 | 30.0 | 22.8 | 22.8 | 18.4 |
| 3bcd87 | 32.2 | 33.5 | 33.2 | 33.4 | 33.6 | 33.3 | 33.5 | 33.8 | 33.6 | 33.3 | 34.2 | 32.8 | 33.5 | 18.4 |
| 5ee88f | 32.0 | 29.0 | 29.0 | 29.0 | 29.0 | 28.9 | 23.0 | 23.1 | 23.0 | 22.6 | 29.7 | 22.7 | 22.6 | 18.4 |
| 3050d5 | 32.1 | 29.4 | 29.0 | 29.0 | 29.2 | 29.5 | 23.1 | 22.6 | 22.7 | 22.6 | 30.1 | 22.5 | 22.9 | 18.4 |
| babd76 | 32.3 | 28.8 | 28.9 | 29.1 | 29.3 | 28.9 | 22.9 | 22.8 | 22.8 | 22.8 | 29.5 | 23.0 | 22.6 | 18.4 |
| 4defd0 | 32.8 | 29.6 | 29.5 | 29.2 | 29.2 | 29.2 | 22.8 | 22.8 | 22.8 | 22.8 | 29.9 | 22.7 | 22.8 | 18.4 |
| 22d442 | 46.6 | 47.0 | 46.7 | 46.8 | 47.5 | 46.7 | 48.3 | 46.8 | 47.3 | 46.8 | 49.0 | 46.6 | 46.9 | 19.2 |
| 238dd2 | 61.8 | 63.4 | 61.9 | 63.2 | 62.9 | 62.9 | 65.1 | 63.4 | 64.5 | 62.5 | 65.6 | 63.0 | 62.3 | 19.9 |
| 34edf5 | 63.2 | 48.7 | 48.6 | 48.6 | 49.0 | 49.1 | 25.6 | 25.5 | 25.7 | 25.3 | 50.7 | 25.7 | 25.3 | 20.7 |
| cec23d | 64.1 | 64.5 | 64.8 | 64.9 | 65.0 | 65.4 | 66.9 | 65.3 | 65.8 | 65.6 | 67.0 | 64.6 | 64.9 | 21.1 |
| fb734f | 64.6 | 49.6 | 48.5 | 49.3 | 48.8 | 48.7 | 26.0 | 25.2 | 25.3 | 25.4 | 50.8 | 25.4 | 25.7 | 21.0 |
| d75353 | 63.6 | 48.8 | 49.0 | 48.9 | 46.8 | 48.7 | 25.8 | 25.9 | 25.7 | 25.8 | 47.9 | 25.5 | 25.2 | 21.0 |
| 36c6a0 | 64.8 | 4.7 | 4.4 | 4.5 | 4.4 | 4.5 | 5.0 | 4.6 | 4.6 | 4.7 | 4.8 | 4.6 | 4.6 | 20.8 |
| a5d4b6 | 64.0 | 4.2 | 4.2 | 4.4 | 4.3 | 4.2 | 4.3 | 4.3 | 4.1 | 4.1 | 4.4 | 4.4 | 4.3 | 20.8 |
| c17fb9 | 63.1 | 49.0 | 48.8 | 49.1 | 48.9 | 48.9 | 26.3 | 25.9 | 25.8 | 25.2 | 51.2 | 25.9 | 26.0 | 20.9 |
| 7ad6d4 | 64.3 | 65.3 | 65.7 | 65.2 | 65.4 | 65.0 | 67.6 | 66.7 | 65.3 | 65.4 | 68.6 | 65.7 | 65.0 | 20.8 |
| 531709 | 64.3 | 49.5 | 49.6 | 49.2 | 49.7 | 49.3 | 26.2 | 26.1 | 25.8 | 25.4 | 50.6 | 25.5 | 25.4 | 20.8 |
| sum | 1617.1 | 1262.5 | 1261.2 | 1261.9 | 1252.2 | 1261.5 | 995.7 | 982.0 | 980.1 | 973.1 | 1299.8 | 973.0 | 970.7 | 652.7 |
| mean | 33.0 | 25.8 | 25.7 | 25.8 | 25.6 | 25.7 | 20.3 | 20.0 | 20.0 | 19.9 | 26.5 | 19.9 | 19.8 | 13.3 |

TABLE XXX: Outcomes of RPS (rps-vms) Yank time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 5709ce | 21.7 | -22.1 | -22.0 | -22.4 | -21.3 | -21.1 | -21.8 | -21.5 | -21.8 | -22.2 | -22.3 | -21.9 | -21.6 | 3.0 |
| 76e782 | 21.4 | 16.5 | 16.0 | 17.6 | 16.4 | 17.0 | 7.4 | 8.4 | 8.0 | 8.2 | 16.6 | 7.9 | 7.9 | 3.0 |
| b26e90 | 22.6 | 3.6 | 3.4 | 3.5 | 3.6 | 3.3 | 3.5 | 3.4 | 3.4 | 3.4 | 3.5 | 3.2 | 3.4 | 3.0 |
| afbca2 | 21.7 | 23.3 | 22.4 | 23.0 | 22.4 | 22.2 | 22.7 | 22.0 | 22.5 | 22.7 | 22.6 | 23.0 | 22.7 | 2.9 |
| 9245c9 | 21.8 | 3.3 | 3.0 | 3.5 | 3.2 | 3.2 | 3.0 | 3.1 | 3.3 | 3.1 | 3.1 | 3.2 | 3.0 | 2.9 |
| 88a0df | 21.3 | 15.7 | 15.6 | 15.6 | 15.9 | 15.3 | 6.5 | 7.2 | 6.9 | 6.6 | 15.5 | 7.0 | 6.8 | 3.0 |
| cc7c44 | 21.9 | 22.2 | 22.2 | 22.7 | 22.7 | 22.3 | 22.3 | 21.9 | 22.2 | 22.5 | 22.6 | 22.8 | 22.4 | 2.9 |
| 6fd980 | 21.7 | 3.2 | 3.1 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.3 | 3.1 | 3.2 | 3.1 | 3.2 | 2.9 |
| 24ff95 | 21.7 | 22.2 | 22.8 | 23.7 | 22.2 | 21.9 | 23.5 | 22.1 | 22.7 | 23.2 | 24.0 | 23.5 | 23.1 | 2.9 |
| cfb9b8 | 22.0 | 22.0 | 22.5 | 22.2 | 22.8 | 22.2 | 22.5 | 22.2 | 22.4 | 22.3 | 22.7 | 22.6 | 22.3 | 3.0 |
| 580435 | 22.0 | 23.5 | 23.6 | 24.0 | 22.5 | 22.9 | 22.6 | 22.4 | 22.9 | 23.5 | 23.6 | 22.7 | 23.0 | 3.1 |
| 6752dc | 22.5 | 3.6 | 3.6 | 3.7 | 3.8 | 3.8 | 3.5 | 3.7 | 3.6 | 3.5 | 3.4 | 3.5 | 3.4 | 2.9 |
| a13462 | 22.5 | 22.5 | 23.1 | 22.8 | 22.8 | 22.9 | 22.8 | 22.7 | 23.2 | 22.7 | 23.5 | 22.9 | 22.8 | 2.9 |
| ed0e73 | 22.7 | 17.0 | 17.0 | 17.1 | 16.9 | 16.6 | 7.7 | 8.4 | 8.6 | 7.8 | 16.9 | 7.6 | 7.9 | 3.7 |
| 1f3139 | 23.2 | 4.1 | 4.0 | 4.3 | 4.2 | 4.3 | 3.9 | 4.2 | 4.1 | 4.2 | 4.2 | 4.1 | 4.0 | 3.7 |
| 1031dc | 25.4 | 26.5 | 26.5 | 27.0 | 26.6 | 26.2 | 26.6 | 26.3 | 26.0 | 26.6 | 26.8 | 26.9 | 27.1 | 3.8 |
| sum | 356.0 | 251.4 | 250.7 | 256.3 | 250.6 | 248.4 | 223.6 | 222.6 | 224.9 | 225.8 | 254.6 | 226.1 | 224.4 | 49.8 |
| mean | 22.2 | 15.7 | 15.7 | 16.0 | 15.7 | 15.5 | 14.0 | 13.9 | 14.1 | 14.1 | 15.9 | 14.1 | 14.0 | 3.1 |

TABLE XXXI: Outcomes of RPS (rps-vms) joda-time time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 381cca | 42.4 | 28.7 | 29.2 | 30.0 | 28.9 | 28.9 | 28.4 | 30.1 | 29.2 | 27.8 | 29.1 | 28.1 | 28.6 | 10.4 |
| eaaff1 | 43.0 | 33.6 | 34.1 | 33.7 | 33.1 | 33.7 | 33.2 | 34.0 | 34.2 | 33.0 | 34.4 | 32.7 | 33.7 | 11.2 |
| ca7bec | 42.7 | 10.6 | 11.2 | 10.4 | 10.6 | 10.8 | 12.5 | 10.9 | 10.9 | 10.4 | 10.5 | 10.0 | 10.8 | 10.7 |
| 4d84d8 | 42.6 | 33.8 | 33.4 | 33.2 | 32.4 | 23.7 | 33.1 | 34.0 | 32.7 | 32.4 | 20.8 | 22.3 | 20.5 | 10.9 |
| f81758 | 41.8 | 33.5 | 33.5 | 33.0 | 32.4 | 23.9 | 33.6 | 34.0 | 32.2 | 31.9 | 21.4 | 22.8 | 20.7 | 10.8 |
| dc4376 | 42.8 | 27.6 | 21.9 | 28.0 | 17.5 | 21.8 | 27.1 | 28.5 | 20.1 | 16.2 | 16.9 | 20.7 | 16.4 | 10.7 |
| fb2063 | 42.3 | 34.5 | 34.5 | 32.7 | 33.1 | 25.3 | 34.1 | 34.1 | 33.4 | 31.7 | 22.0 | 23.8 | 21.6 | 10.5 |
| 262448 | 41.2 | 33.4 | 33.5 | 30.1 | 18.8 | 22.6 | 33.7 | 29.9 | 32.3 | 18.3 | 16.6 | 20.9 | 16.9 | 10.5 |
| 53922f | 42.9 | 34.7 | 33.8 | 33.6 | 33.1 | 33.0 | 32.8 | 34.3 | 33.7 | 33.6 | 34.4 | 33.5 | 33.9 | 11.0 |
| 114403 | 42.2 | 32.9 | 33.4 | 33.9 | 32.7 | 32.8 | 33.4 | 34.1 | 32.6 | 32.0 | 32.7 | 32.9 | 32.8 | 10.6 |
| 52757e | 42.1 | 33.9 | 33.6 | 33.2 | 32.8 | 33.2 | 32.8 | 34.2 | 34.3 | 32.7 | 34.2 | 32.6 | 33.6 | 10.8 |
| acff94 | 41.9 | 10.3 | 10.5 | 10.4 | 10.6 | 10.5 | 10.9 | 10.8 | 10.7 | 10.1 | 10.2 | 9.9 | 10.7 | 10.5 |
| 67e9e5 | 41.8 | 34.2 | 34.7 | 33.5 | 33.6 | 33.2 | 33.7 | 34.3 | 33.2 | 32.9 | 34.7 | 32.7 | 33.8 | 10.5 |
| 1e7b4b | 42.5 | 34.7 | 33.6 | 34.7 | 33.4 | 33.7 | 33.2 | 33.8 | 33.5 | 32.3 | 34.3 | 33.2 | 33.1 | 10.7 |
| b3fdbc | 42.4 | 10.5 | 11.1 | 10.4 | 10.3 | 10.5 | 10.6 | 10.6 | 10.2 | 9.9 | 11.2 | 9.8 | 10.5 | 10.4 |
| 66825d | 42.8 | 34.4 | 34.2 | 34.7 | 33.9 | 33.5 | 34.0 | 35.3 | 34.1 | 33.0 | 34.7 | 33.2 | 34.4 | 10.7 |
| 3ba701 | 41.7 | 35.7 | 35.1 | 34.4 | 32.6 | 25.4 | 35.0 | 35.6 | 33.8 | 33.0 | 22.3 | 24.2 | 21.3 | 11.0 |
| b90efa | 42.2 | 10.2 | 10.4 | 10.5 | 10.2 | 10.7 | 10.5 | 10.5 | 10.9 | 10.1 | 10.6 | 10.1 | 10.9 | 10.5 |
| e917d7 | 42.4 | 34.2 | 34.2 | 35.0 | 34.9 | 34.9 | 34.6 | 35.1 | 34.7 | 34.2 | 34.9 | 34.0 | 35.3 | 10.6 |
| c5c681 | 42.7 | 35.0 | 35.2 | 34.7 | 33.9 | 25.6 | 34.9 | 35.6 | 34.9 | 33.2 | 22.8 | 23.4 | 22.5 | 10.3 |
| dfc0d8 | 43.0 | 34.3 | 34.7 | 34.6 | 34.2 | 34.8 | 34.1 | 34.9 | 34.2 | 33.6 | 34.6 | 33.9 | 33.8 | 10.3 |
| f871b0 | 41.7 | 34.9 | 34.3 | 34.2 | 34.1 | 34.4 | 34.8 | 34.8 | 33.8 | 33.3 | 35.6 | 32.8 | 33.4 | 10.8 |
| a7e167 | 42.4 | 11.1 | 11.4 | 11.1 | 10.9 | 11.5 | 11.9 | 11.1 | 11.1 | 11.0 | 11.4 | 10.8 | 11.6 | 11.5 |
| 5f98d6 | 42.2 | 10.4 | 10.9 | 10.5 | 10.6 | 10.7 | 11.0 | 10.8 | 10.5 | 10.1 | 11.2 | 10.5 | 11.1 | 10.8 |
| a0aead | 41.8 | 35.2 | 35.8 | 35.4 | 34.3 | 25.8 | 35.5 | 36.0 | 35.5 | 32.9 | 23.6 | 24.0 | 22.5 | 11.0 |
| e9b136 | 42.8 | 11.2 | 11.7 | 10.9 | 11.0 | 10.8 | 11.3 | 11.1 | 11.0 | 10.5 | 10.7 | 10.3 | 11.2 | 10.9 |
| b72a1f | 42.4 | 36.5 | 37.4 | 35.9 | 35.7 | 35.7 | 36.3 | 36.4 | 35.3 | 34.8 | 36.8 | 35.6 | 36.3 | 11.0 |
| 6a4ee6 | 42.6 | 36.5 | 36.5 | 37.0 | 36.6 | 37.0 | 36.6 | 37.3 | 35.3 | 35.9 | 36.9 | 35.9 | 36.3 | 10.5 |
| f4a109 | 42.4 | 36.7 | 35.8 | 36.1 | 36.3 | 35.6 | 36.1 | 36.7 | 34.6 | 35.8 | 37.1 | 34.8 | 36.7 | 10.8 |
| 8429e5 | 42.9 | 36.7 | 37.4 | 34.5 | 32.2 | 24.8 | 36.0 | 34.5 | 35.9 | 31.9 | 22.8 | 23.6 | 21.2 | 11.2 |
| 124fd3 | 42.0 | 10.4 | 11.1 | 11.0 | 10.4 | 10.6 | 10.7 | 10.7 | 11.5 | 10.0 | 10.6 | 10.3 | 10.8 | 11.1 |
| ac9b98 | 42.0 | 36.5 | 36.9 | 35.3 | 32.4 | 25.1 | 37.3 | 34.6 | 36.1 | 31.6 | 22.2 | 23.7 | 21.5 | 10.5 |
| adacfb | 42.3 | 10.8 | 11.3 | 10.8 | 10.6 | 10.9 | 10.9 | 10.7 | 10.6 | 10.1 | 11.0 | 10.5 | 10.8 | 10.7 |
| d4a2c3 | 43.0 | 46.8 | 45.3 | 44.6 | 44.9 | 45.2 | 47.1 | 49.0 | 46.5 | 45.6 | 45.9 | 46.5 | 48.1 | 11.1 |
| 638153 | 42.5 | 37.1 | 37.1 | 36.9 | 36.6 | 36.6 | 35.5 | 36.8 | 36.2 | 35.0 | 37.4 | 36.2 | 37.2 | 11.2 |
| 5a3cb2 | 42.1 | 37.2 | 37.0 | 34.2 | 32.8 | 25.0 | 36.2 | 35.0 | 36.6 | 32.3 | 23.1 | 23.2 | 21.5 | 11.0 |
| e98903 | 42.9 | 10.6 | 11.5 | 10.7 | 10.5 | 11.2 | 10.6 | 11.0 | 10.3 | 10.2 | 11.2 | 10.5 | 10.9 | 11.0 |
| b65434 | 43.4 | 10.8 | 10.9 | 10.9 | 11.2 | 10.8 | 10.9 | 10.6 | 10.9 | 10.2 | 10.8 | 10.7 | 11.2 | 11.2 |
| 8213a1 | 43.4 | 37.3 | 37.2 | 36.5 | 36.7 | 36.4 | 36.4 | 36.9 | 36.1 | 35.9 | 36.6 | 35.4 | 36.2 | 11.1 |
| 75ab8c | 43.1 | 11.2 | 11.3 | 11.2 | 10.9 | 10.9 | 11.2 | 11.1 | 10.6 | 10.3 | 12.0 | 10.5 | 11.0 | 10.6 |
| ed9d0a | 42.8 | 37.4 | 36.6 | 36.4 | 36.8 | 36.7 | 36.1 | 36.9 | 35.5 | 35.8 | 37.5 | 35.6 | 36.6 | 10.9 |
| e2f678 | 43.2 | 37.4 | 38.2 | 36.8 | 37.3 | 37.0 | 36.6 | 37.9 | 36.4 | 35.8 | 37.8 | 37.3 | 37.8 | 11.0 |
| 12559d | 42.3 | 44.4 | 43.4 | 43.9 | 43.6 | 43.6 | 42.3 | 44.0 | 41.9 | 42.4 | 44.8 | 42.4 | 43.1 | 10.8 |
| 804e5d | 43.3 | 43.4 | 43.4 | 40.9 | 38.6 | 31.3 | 42.3 | 41.2 | 41.0 | 37.5 | 28.1 | 28.4 | 26.8 | 10.8 |
| bdc70 | 42.9 | 42.9 | 41.7 | 39.2 | 24.3 | 30.1 | 41.2 | 39.9 | 40.4 | 22.8 | 22.3 | 27.2 | 22.0 | 10.6 |
| 87deb3 | 42.0 | 15.5 | 16.0 | 15.7 | 15.8 | 15.6 | 15.8 | 15.7 | 16.2 | 15.0 | 16.0 | 15.1 | 16.2 | 11.1 |
| 52a03c | 42.6 | 41.5 | 41.8 | 40.3 | 23.6 | 29.4 | 40.9 | 39.7 | 41.0 | 23.0 | 22.0 | 27.6 | 22.0 | 10.9 |
| c13ba8 | 42.3 | 42.3 | 42.6 | 39.2 | 24.2 | 30.4 | 40.8 | 40.0 | 40.4 | 22.7 | 21.8 | 27.6 | 22.0 | 10.8 |
| 872d99 | 42.3 | 42.4 | 42.7 | 39.1 | 23.6 | 29.9 | 41.6 | 39.9 | 40.8 | 23.2 | 21.9 | 27.4 | 21.7 | 10.5 |
| sum | 2081.0 | 1455.9 | 1453.0 | 1424.0 | 1319.8 | 1275.8 | 1440.2 | 1444.5 | 1417.5 | 1287.9 | 1222.3 | 1229.0 | 1203.5 | 529.2 |
| mean | 42.5 | 29.7 | 29.7 | 29.1 | 26.9 | 26.0 | 29.4 | 29.5 | 28.9 | 26.3 | 24.9 | 25.1 | 24.6 | 10.8 |

TABLE XXXII: Outcomes of RPS (rps-vms) compile-testing time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|-------|-------|
| 6b89cd | 31.8 | 22.1 | 21.6 | 22.1 | 23.4 | 22.4 | 13.3 | 13.3 | 13.4 | 12.9 | 23.3 | 12.6 | 12.3 | 5.7 |
| fe6edd | 30.4 | 17.3 | 16.4 | 17.5 | 17.9 | 17.4 | 11.6 | 11.9 | 11.5 | 11.1 | 17.9 | 10.7 | 10.7 | 5.7 |
| 8e9ce9 | 30.9 | 30.1 | 30.3 | 30.6 | 33.2 | 31.3 | 32.0 | 30.9 | 32.9 | 30.3 | 31.6 | 30.9 | 30.9 | 5.6 |
| 4006c1 | 31.3 | 30.2 | 30.4 | 30.4 | 32.6 | 31.4 | 31.5 | 31.5 | 33.2 | 31.1 | 32.4 | 30.3 | 30.6 | 5.8 |
| e5e4ee | 31.4 | 22.0 | 21.5 | 22.1 | 23.3 | 22.3 | 13.0 | 13.0 | 13.4 | 12.6 | 22.1 | 12.4 | 11.7 | 5.8 |
| 4dd5fd | 31.3 | 30.1 | 30.6 | 31.8 | 33.1 | 32.4 | 32.0 | 32.1 | 32.6 | 30.3 | 32.0 | 31.2 | 31.9 | 5.7 |
| 0ef7e5 | 32.1 | 9.0 | 9.0 | 8.9 | 10.1 | 9.6 | 9.3 | 9.4 | 9.4 | 9.2 | 9.3 | 9.1 | 9.3 | 5.6 |
| cc5a56 | 31.3 | 30.3 | 30.5 | 30.8 | 32.7 | 31.8 | 31.5 | 32.0 | 32.3 | 30.5 | 32.9 | 30.5 | 30.2 | 5.8 |
| 49c254 | 33.6 | 32.2 | 31.4 | 32.0 | 33.3 | 32.9 | 32.6 | 32.5 | 33.4 | 31.4 | 33.4 | 31.7 | 31.6 | 5.7 |
| ebbc46 | 31.8 | 32.1 | 33.0 | 31.6 | 33.0 | 33.4 | 34.1 | 32.1 | 33.8 | 31.8 | 33.4 | 32.4 | 33.2 | 6.1 |
| 762247 | 36.9 | 26.7 | 26.5 | 26.9 | 27.5 | 27.3 | 13.6 | 13.4 | 14.4 | 13.5 | 27.6 | 13.1 | 13.2 | 6.2 |
| 99aed6 | 38.3 | 25.5 | 25.7 | 25.6 | 27.0 | 26.9 | 13.4 | 13.2 | 13.5 | 13.0 | 27.5 | 12.4 | 12.1 | 5.9 |
| 2678e3 | 38.8 | 37.2 | 36.7 | 36.9 | 38.1 | 38.1 | 38.5 | 38.7 | 39.5 | 37.0 | 38.6 | 37.1 | 38.1 | 6.3 |
| acf6ae | 37.9 | 37.8 | 37.1 | 37.6 | 38.8 | 37.9 | 39.0 | 37.4 | 38.8 | 37.9 | 38.4 | 37.3 | 36.8 | 6.1 |
| 7d31b5 | 38.8 | 27.6 | 26.6 | 27.1 | 28.1 | 28.3 | 13.9 | 13.2 | 13.5 | 13.0 | 27.7 | 12.2 | 12.3 | 6.3 |
| 3f1f22 | 37.9 | 36.7 | 37.1 | 37.3 | 39.8 | 38.5 | 38.3 | 38.0 | 38.5 | 37.5 | 39.4 | 37.1 | 36.8 | 6.5 |
| 0f4e55 | 37.4 | 5.0 | 5.1 | 4.9 | 5.5 | 5.3 | 5.3 | 5.2 | 5.6 | 4.9 | 5.4 | 4.9 | 4.9 | 6.1 |
| 20f6d4 | 39.8 | 26.7 | 26.8 | 26.1 | 27.1 | 26.6 | 13.4 | 13.1 | 13.4 | 12.9 | 26.6 | 12.0 | 12.3 | 6.2 |
| 6b3290 | 37.7 | 27.4 | 27.2 | 27.5 | 27.6 | 28.7 | 13.8 | 13.8 | 14.2 | 13.4 | 26.8 | 13.1 | 13.1 | 6.2 |
| 9ec074 | 38.9 | 27.5 | 26.9 | 27.5 | 27.5 | 28.3 | 13.7 | 13.5 | 14.2 | 12.7 | 26.7 | 13.3 | 12.8 | 6.2 |
| 38f6d0 | 38.0 | 26.9 | 27.3 | 27.3 | 26.5 | 28.2 | 13.7 | 13.7 | 14.2 | 13.4 | 26.6 | 13.0 | 12.2 | 6.2 |
| ac382a | 38.7 | 5.3 | 5.0 | 5.0 | 5.2 | 5.3 | 5.3 | 5.1 | 5.5 | 5.1 | 5.2 | 4.9 | 5.1 | 6.0 |
| dd93c0 | 39.4 | 4.9 | 5.2 | 5.3 | 5.6 | 5.3 | 5.5 | 5.2 | 5.2 | 5.0 | 5.5 | 5.1 | 4.7 | 6.3 |
| d34c5c | 37.9 | 23.2 | 22.7 | 22.9 | 23.0 | 23.7 | 12.7 | 12.2 | 12.8 | 11.9 | 22.9 | 11.6 | 11.6 | 6.3 |
| f04802 | 38.0 | 25.6 | 26.0 | 26.2 | 10.4 | 26.7 | 13.5 | 12.9 | 13.1 | 9.6 | 9.8 | 12.1 | 9.6 | 6.3 |
| b3d432 | 38.5 | 27.2 | 25.9 | 27.6 | 10.9 | 27.3 | 14.0 | 13.5 | 13.7 | 10.4 | 10.8 | 12.5 | 10.8 | 6.1 |
| e95757 | 38.4 | 5.7 | 6.0 | 5.8 | 5.9 | 6.0 | 5.9 | 6.2 | 6.3 | 5.5 | 6.2 | 5.9 | 5.8 | 6.1 |
| b4eaa9 | 39.3 | 28.4 | 27.9 | 28.2 | 28.3 | 29.8 | 14.7 | 14.3 | 15.0 | 13.6 | 27.9 | 13.7 | 13.1 | 6.5 |
| ffc732 | 38.7 | 5.6 | 5.6 | 5.9 | 5.8 | 6.2 | 6.3 | 6.4 | 6.5 | 5.7 | 6.2 | 6.1 | 6.0 | 6.4 |
| b867b4 | 39.5 | 6.0 | 5.8 | 5.8 | 6.3 | 5.8 | 6.3 | 5.9 | 6.3 | 5.5 | 5.8 | 6.0 | 6.0 | 6.3 |
| 90f7d6 | 38.1 | 6.3 | 5.8 | 6.4 | 6.4 | 6.8 | 6.3 | 6.3 | 6.6 | 6.3 | 6.2 | 6.6 | 6.2 | 6.6 |
| 2a47a5 | 38.8 | 6.5 | 6.3 | 6.4 | 6.4 | 6.9 | 6.6 | 6.9 | 6.6 | 6.3 | 6.9 | 6.6 | 6.6 | 6.3 |
| cd2c0a | 39.0 | 28.7 | 27.8 | 27.4 | 28.2 | 28.3 | 14.2 | 14.2 | 14.5 | 13.4 | 29.2 | 13.5 | 12.9 | 6.6 |
| 80a9ee | 40.3 | 28.7 | 28.4 | 29.4 | 29.6 | 28.6 | 14.3 | 14.0 | 14.5 | 14.4 | 29.5 | 13.3 | 14.5 | 6.4 |
| 95e749 | 39.8 | 41.2 | 40.9 | 40.2 | 41.7 | 41.7 | 42.6 | 42.0 | 41.8 | 40.3 | 42.5 | 39.9 | 40.8 | 6.4 |
| a959de | 40.8 | 30.2 | 30.3 | 30.2 | 31.0 | 30.8 | 15.2 | 15.4 | 15.9 | 14.7 | 31.1 | 14.4 | 14.8 | 7.1 |
| 1f8424 | 39.7 | 30.1 | 29.3 | 29.8 | 29.5 | 30.9 | 14.9 | 14.4 | 14.7 | 13.9 | 29.3 | 14.2 | 13.1 | 6.6 |
| cb6486 | 41.0 | 40.3 | 40.8 | 40.6 | 42.5 | 42.2 | 41.4 | 41.6 | 43.0 | 39.7 | 41.4 | 41.0 | 40.4 | 6.4 |
| c46b1b | 39.7 | 39.8 | 40.4 | 40.8 | 42.4 | 42.1 | 42.7 | 41.7 | 43.3 | 40.1 | 42.3 | 42.4 | 40.7 | 6.5 |
| bcad50 | 40.1 | 40.0 | 40.9 | 40.8 | 43.1 | 41.3 | 42.3 | 42.2 | 42.9 | 40.4 | 41.8 | 40.1 | 40.8 | 6.1 |
| 620d23 | 39.6 | 40.2 | 40.4 | 39.7 | 42.8 | 41.7 | 41.1 | 42.0 | 41.7 | 40.0 | 41.1 | 41.2 | 39.7 | 6.3 |
| 626025 | 41.5 | 39.6 | 41.1 | 40.1 | 42.5 | 41.6 | 41.5 | 42.0 | 43.1 | 40.2 | 42.2 | 41.5 | 40.6 | 6.7 |
| 3b9095 | 39.6 | 40.2 | 40.8 | 40.7 | 41.9 | 41.1 | 41.3 | 41.4 | 43.1 | 40.9 | 42.5 | 41.1 | 40.9 | 6.1 |
| fd1e44 | 40.5 | 29.3 | 29.4 | 29.8 | 29.6 | 29.9 | 14.6 | 14.2 | 15.2 | 13.7 | 28.9 | 13.3 | 13.0 | 6.6 |
| 1fee4c | 40.4 | 6.1 | 6.1 | 5.8 | 6.1 | 6.4 | 6.4 | 6.3 | 6.8 | 6.0 | 6.7 | 6.0 | 5.7 | 6.6 |
| b748f6 | 40.1 | 40.2 | 40.1 | 40.0 | 42.5 | 42.9 | 42.9 | 42.5 | 43.5 | 40.9 | 41.5 | 40.7 | 40.8 | 6.5 |
| 115014 | 40.5 | 41.4 | 41.1 | 40.7 | 42.2 | 41.9 | 42.2 | 42.5 | 43.2 | 40.2 | 43.9 | 42.2 | 40.5 | 6.5 |
| 5dc482 | 39.7 | 29.7 | 28.9 | 28.8 | 31.5 | 30.1 | 14.2 | 14.5 | 14.9 | 14.1 | 29.6 | 13.4 | 13.4 | 6.7 |
| 1148d3 | 40.6 | 6.2 | 6.6 | 6.9 | 7.0 | 6.6 | 7.4 | 6.7 | 7.1 | 6.7 | 6.7 | 6.4 | 6.6 | 6.8 |
| sum | 1844.4 | 1257.1 | 1253.5 | 1259.7 | 1274.6 | 1296.8 | 1034.0 | 1024.6 | 1052.5 | 985.2 | 1263.4 | 993.0 | 981.9 | 305.7 |
| mean | 37.6 | 25.7 | 25.6 | 25.7 | 26.0 | 26.5 | 21.1 | 20.9 | 21.5 | 20.1 | 25.8 | 20.3 | 20.0 | 6.2 |

TABLE XXXIII: Outcomes of RPS (rps-vms) zt-exec time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| c58216 | 26.0 | 18.7 | 18.5 | 18.3 | 18.1 | 18.2 | 17.3 | 17.6 | 17.9 | 17.3 | 18.0 | 16.9 | 17.0 | 13.1 |
| c5b972 | 25.5 | 25.3 | 24.9 | 24.7 | 24.6 | 24.8 | 18.5 | 18.6 | 19.1 | 18.6 | 23.9 | 17.8 | 18.3 | 13.2 |
| e8609f | 25.4 | 4.1 | 3.8 | 3.7 | 3.9 | 4.3 | 4.1 | 4.0 | 3.9 | 3.8 | 3.9 | 3.7 | 3.7 | 13.1 |
| d964c0 | 25.9 | 26.0 | 24.8 | 24.5 | 24.8 | 25.8 | 18.6 | 18.3 | 18.9 | 18.4 | 24.7 | 18.2 | 18.7 | 13.3 |
| d6766d | 28.0 | 27.6 | 27.4 | 26.7 | 26.2 | 28.2 | 20.4 | 20.9 | 21.0 | 19.9 | 26.1 | 19.9 | 20.3 | 15.3 |
| 46c33c | 28.0 | 27.8 | 26.9 | 27.4 | 26.3 | 27.1 | 20.6 | 20.7 | 20.9 | 20.6 | 26.1 | 19.8 | 20.1 | 14.9 |
| fa782b | 28.5 | 27.1 | 26.7 | 26.2 | 23.1 | 26.3 | 20.8 | 20.8 | 20.3 | 19.5 | 22.5 | 19.5 | 19.4 | 15.8 |
| 28ceb1 | 28.5 | 27.3 | 26.9 | 26.8 | 26.3 | 27.1 | 20.9 | 20.7 | 20.7 | 20.5 | 25.6 | 20.3 | 20.4 | 15.3 |
| eebd89 | 28.6 | 26.9 | 26.5 | 26.5 | 26.5 | 27.1 | 20.1 | 20.8 | 20.9 | 19.9 | 25.8 | 19.8 | 20.0 | 15.2 |
| 7a7a4b | 28.5 | 27.2 | 26.5 | 26.6 | 26.3 | 26.7 | 20.2 | 20.3 | 20.7 | 19.9 | 26.0 | 20.1 | 20.2 | 15.2 |
| 8ff8fa | 28.3 | 27.5 | 27.0 | 27.1 | 26.3 | 28.0 | 20.6 | 20.9 | 21.1 | 20.4 | 26.5 | 20.0 | 19.9 | 15.3 |
| a47b4c | 28.6 | 26.9 | 26.7 | 26.3 | 26.3 | 26.6 | 20.6 | 20.5 | 20.7 | 20.2 | 26.5 | 20.0 | 20.7 | 15.2 |
| 0a5f14 | 28.0 | 4.0 | 3.7 | 3.6 | 3.6 | 3.6 | 3.5 | 3.7 | 3.7 | 3.6 | 3.6 | 3.5 | 3.7 | 15.0 |
| 6bdce0 | 28.2 | 28.1 | 27.7 | 27.6 | 27.3 | 27.9 | 20.6 | 20.9 | 21.2 | 20.3 | 26.5 | 20.2 | 20.6 | 15.1 |
| sum | 386.0 | 324.5 | 317.9 | 315.9 | 309.6 | 321.8 | 246.9 | 248.8 | 251.1 | 242.8 | 305.8 | 239.7 | 242.9 | 204.9 |
| mean | 27.6 | 23.2 | 22.7 | 22.6 | 22.1 | 23.0 | 17.6 | 17.8 | 17.9 | 17.3 | 21.8 | 17.1 | 17.3 | 14.6 |

TABLE XXXIV: Outcomes of RPS (rps-vms) java-configuration-impl time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| cd27a2 | 19.6 | 3.7 | 3.9 | 3.8 | 4.0 | 3.8 | 3.7 | 3.9 | 4.2 | 3.8 | 4.0 | 3.8 | 3.7 | 3.2 |
| cd1a4d | 20.1 | 8.6 | 9.2 | 8.5 | 8.7 | 9.3 | 7.5 | 7.5 | 7.4 | 6.8 | 9.0 | 6.8 | 6.7 | 3.3 |
| 26bb9f | 20.6 | 7.6 | 8.3 | 7.7 | 7.8 | 8.3 | 6.7 | 6.6 | 6.6 | 6.1 | 7.9 | 6.1 | 5.9 | 3.3 |
| becbb1 | 20.3 | 7.3 | 8.5 | 7.9 | 6.2 | 7.9 | 6.4 | 6.7 | 6.7 | 6.0 | 6.2 | 6.1 | 6.4 | 3.3 |
| e61648 | 21.2 | 22.1 | 21.9 | 22.0 | 23.3 | 21.7 | 23.4 | 22.5 | 22.9 | 22.1 | 21.8 | 22.1 | 21.6 | 3.3 |
| 97a683 | 21.0 | 8.1 | 8.1 | 8.0 | 6.2 | 8.4 | 7.2 | 6.9 | 6.7 | 6.2 | 6.4 | 6.5 | 6.1 | 3.5 |
| 08363d | 21.0 | 7.8 | 8.1 | 7.8 | 8.5 | 8.5 | 7.0 | 6.7 | 6.4 | 6.2 | 7.9 | 6.3 | 6.2 | 3.6 |
| cee296 | 20.9 | 3.8 | 3.9 | 3.9 | 4.1 | 3.9 | 3.9 | 4.2 | 3.9 | 3.8 | 3.8 | 3.7 | 3.7 | 3.4 |
| 5ba64c | 21.0 | 6.1 | 6.0 | 6.4 | 6.4 | 6.5 | 6.4 | 6.5 | 6.2 | 5.9 | 6.4 | 6.1 | 6.0 | 3.3 |
| 67efdf | 21.3 | 6.0 | 6.4 | 6.1 | 6.5 | 6.4 | 6.3 | 6.5 | 6.4 | 6.0 | 6.3 | 6.0 | 6.4 | 3.4 |
| 866f72 | 21.2 | 6.4 | 6.7 | 6.3 | 6.8 | 6.7 | 6.8 | 7.0 | 6.5 | 6.3 | 7.1 | 6.3 | 6.2 | 3.5 |
| 00a783 | 21.2 | 6.5 | 6.6 | 6.4 | 7.0 | 6.7 | 7.0 | 6.6 | 6.7 | 6.1 | 6.5 | 6.2 | 6.2 | 3.5 |
| b99f46 | 22.7 | 11.1 | 11.8 | 11.8 | 12.7 | 11.7 | 7.5 | 8.0 | 7.8 | 7.4 | 12.3 | 6.9 | 7.3 | 3.9 |
| 470fdf | 34.6 | 35.2 | 34.9 | 35.1 | 37.1 | 36.4 | 35.7 | 36.7 | 36.5 | 33.8 | 34.9 | 34.9 | 34.5 | 4.4 |
| 26cd1e | 35.0 | 14.3 | 14.4 | 14.8 | 7.7 | 15.5 | 8.6 | 8.8 | 8.4 | 7.1 | 7.6 | 7.8 | 7.2 | 4.3 |
| 459f7b | 35.0 | 14.7 | 14.4 | 14.2 | 7.8 | 14.6 | 8.8 | 8.5 | 8.7 | 7.0 | 8.1 | 8.1 | 7.4 | 4.6 |
| ef6525 | 33.2 | 14.2 | 14.1 | 14.5 | 7.6 | 14.4 | 8.4 | 8.9 | 8.7 | 7.2 | 7.5 | 7.9 | 7.4 | 4.3 |
| b68766 | 34.5 | 4.2 | 4.5 | 4.5 | 4.2 | 4.7 | 4.4 | 4.7 | 4.8 | 4.6 | 4.5 | 4.4 | 4.3 | 4.4 |
| 88ada8 | 33.6 | 14.1 | 14.5 | 14.3 | 15.1 | 14.8 | 8.6 | 8.4 | 8.7 | 7.9 | 14.9 | 7.9 | 8.1 | 4.3 |
| bd8bf4 | 36.6 | 38.1 | 38.5 | 38.1 | 39.9 | 38.3 | 39.2 | 39.4 | 39.4 | 38.2 | 38.7 | 38.0 | 37.9 | 4.4 |
| 39fe0a | 36.3 | 14.7 | 15.3 | 7.5 | 7.7 | 7.6 | 8.7 | 7.8 | 8.6 | 7.1 | 7.2 | 7.4 | 6.9 | 4.6 |
| 7d7c4e | 37.8 | 27.3 | 27.6 | 27.3 | 28.0 | 27.8 | 9.8 | 10.0 | 9.7 | 8.9 | 27.7 | 9.0 | 8.8 | 4.3 |
| ed86d0 | 40.3 | 4.3 | 4.8 | 4.5 | 4.5 | 4.7 | 5.0 | 4.8 | 4.6 | 4.5 | 4.8 | 4.3 | 4.2 | 4.7 |
| sum | 629.2 | 286.1 | 292.8 | 281.6 | 267.6 | 288.6 | 237.0 | 237.6 | 236.4 | 218.8 | 261.7 | 222.6 | 219.3 | 88.9 |
| mean | 27.4 | 12.4 | 12.7 | 12.2 | 11.6 | 12.5 | 10.3 | 10.3 | 10.3 | 9.5 | 11.4 | 9.7 | 9.5 | 3.9 |

TABLE XXXV: Outcomes of RPS (rps-vms) embedded-jmxtrans time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|--------|-------|-------|-------|
| 1b2955 | 27.0 | 25.9 | 25.2 | 24.4 | 25.5 | 25.5 | 10.6 | 10.8 | 11.6 | 10.7 | 25.0 | 10.7 | 11.9 | 2.9 |
| ef88f3 | 27.2 | 24.9 | 23.6 | 22.4 | 22.9 | 22.7 | 9.6 | 9.8 | 9.5 | 9.7 | 22.3 | 9.4 | 9.9 | 3.0 |
| 64e65a | 26.6 | 24.9 | 23.2 | 23.2 | 17.5 | 24.3 | 10.5 | 10.7 | 9.6 | 9.7 | 16.6 | 9.5 | 8.3 | 3.2 |
| 51e075 | 26.9 | 4.3 | 4.2 | 4.0 | 4.2 | 4.2 | 3.9 | 4.0 | 4.1 | 4.2 | 4.2 | 4.0 | 4.0 | 3.0 |
| 5bffe4 | 27.4 | 24.1 | 24.1 | 22.3 | 22.7 | 22.7 | 9.5 | 9.6 | 9.5 | 9.3 | 22.0 | 9.2 | 9.6 | 3.3 |
| 59e1a4 | 27.0 | 24.1 | 23.6 | 22.3 | 23.9 | 22.7 | 9.6 | 9.5 | 9.7 | 9.5 | 22.4 | 9.2 | 9.8 | 2.9 |
| bf18d2 | 27.3 | 25.3 | 23.9 | 22.2 | 22.8 | 22.6 | 9.4 | 9.7 | 9.7 | 9.4 | 22.5 | 9.4 | 10.2 | 3.0 |
| 62c71b | 46.3 | 46.5 | 45.5 | 45.5 | 46.2 | 45.8 | 44.7 | 45.6 | 45.8 | 44.6 | 45.7 | 45.2 | 45.7 | 3.8 |
| e4a4c2 | 45.0 | 37.6 | 36.1 | 36.1 | 33.1 | 36.6 | 9.4 | 9.5 | 39.4 | 9.2 | 30.5 | 38.8 | 7.6 | 3.3 |
| 345190 | 45.9 | 39.9 | 38.5 | 36.6 | 37.7 | 37.1 | 10.0 | 10.2 | 10.0 | 9.9 | 36.9 | 9.7 | 10.0 | 3.3 |
| a672b6 | 45.0 | 37.3 | 35.8 | 36.2 | 32.6 | 36.3 | 9.4 | 9.7 | 8.9 | 9.3 | 30.2 | 8.7 | 7.9 | 3.4 |
| 4f713f | 45.8 | 39.2 | 39.0 | 36.6 | 38.1 | 37.4 | 9.7 | 9.8 | 9.9 | 9.7 | 36.2 | 9.1 | 9.5 | 3.2 |
| 78bb73 | 45.4 | 37.9 | 36.4 | 36.2 | 32.1 | 36.4 | 9.5 | 9.7 | 39.1 | 9.0 | 30.4 | 38.8 | 8.1 | 3.2 |
| 4bea3b | 45.0 | 40.1 | 39.2 | 36.5 | 37.5 | 37.3 | 9.9 | 10.1 | 9.9 | 10.0 | 36.7 | 9.7 | 9.9 | 3.3 |
| 1f8b32 | 45.4 | 37.7 | 35.8 | 35.3 | 22.2 | 35.8 | 9.5 | 9.6 | 38.7 | 8.7 | 20.8 | 38.4 | 7.2 | 3.4 |
| 616624 | 45.2 | 37.2 | 36.0 | 35.3 | 22.0 | 35.6 | 9.6 | 9.5 | 38.6 | 8.6 | 21.4 | 38.5 | 7.7 | 3.3 |
| 656e0c | 45.2 | 39.6 | 39.1 | 36.4 | 37.7 | 37.0 | 10.0 | 9.8 | 10.1 | 9.7 | 37.0 | 9.6 | 9.8 | 3.3 |
| d5a3ad | 45.1 | 38.6 | 37.3 | 38.0 | 26.2 | 37.0 | 9.8 | 9.7 | 38.6 | 8.7 | 24.1 | 38.5 | 7.4 | 3.2 |
| dc83d7 | 45.8 | 4.1 | 4.2 | 3.9 | 4.1 | 4.1 | 3.9 | 3.7 | 4.0 | 3.9 | 4.1 | 3.7 | 4.0 | 3.4 |
| 865ea1 | 44.3 | 38.8 | 37.7 | 35.8 | 35.0 | 36.8 | 9.9 | 9.8 | 9.5 | 9.8 | 33.2 | 8.8 | 8.5 | 3.2 |
| 6e849a | 47.0 | 37.7 | 36.7 | 36.3 | 32.0 | 37.1 | 9.7 | 9.8 | 9.1 | 9.4 | 30.3 | 9.0 | 7.9 | 3.2 |
| 8f848b | 45.9 | 38.5 | 38.1 | 37.0 | 38.1 | 37.5 | 10.1 | 10.3 | 10.2 | 9.8 | 36.4 | 9.6 | 8.5 | 3.1 |
| e373b6 | 45.4 | 46.7 | 45.1 | 45.5 | 46.3 | 45.6 | 45.2 | 44.7 | 45.8 | 44.3 | 44.4 | 45.3 | 45.7 | 3.3 |
| 531f04 | 46.1 | 40.2 | 39.3 | 37.9 | 38.6 | 38.3 | 10.2 | 10.4 | 10.8 | 10.1 | 37.5 | 10.0 | 10.3 | 3.2 |
| 4d8cc3 | 44.8 | 43.2 | 42.1 | 40.7 | 39.4 | 40.6 | 10.6 | 10.5 | 10.4 | 10.2 | 37.9 | 9.1 | 8.6 | 3.4 |
| 6d7f22 | 45.7 | 42.7 | 41.6 | 38.5 | 39.3 | 39.4 | 10.6 | 10.1 | 10.4 | 10.1 | 38.1 | 9.9 | 10.2 | 3.4 |
| a1a71d | 45.1 | 4.2 | 4.1 | 3.9 | 4.2 | 3.9 | 3.8 | 4.1 | 4.1 | 3.9 | 4.2 | 3.9 | 4.1 | 3.4 |
| d7f390 | 44.4 | 42.3 | 40.1 | 40.2 | 38.4 | 40.5 | 10.2 | 10.6 | 9.5 | 10.0 | 35.7 | 8.7 | 8.2 | 3.5 |
| 7afbce | 45.1 | 4.3 | 3.9 | 3.7 | 4.2 | 3.9 | 3.9 | 3.9 | 4.1 | 3.9 | 3.8 | 3.9 | 4.3 | 3.4 |
| 3474fc | 48.2 | 48.7 | 47.0 | 46.8 | 49.0 | 47.7 | 47.5 | 47.5 | 47.7 | 46.4 | 46.9 | 46.9 | 48.5 | 3.3 |
| 0ad3b2 | 48.2 | 49.2 | 47.7 | 46.9 | 48.4 | 48.8 | 47.8 | 47.5 | 47.6 | 47.6 | 47.7 | 47.2 | 48.8 | 3.7 |
| 12d9ed | 47.9 | 39.8 | 37.9 | 38.3 | 38.1 | 37.4 | 11.6 | 12.0 | 10.1 | 11.3 | 35.4 | 9.7 | 9.0 | 3.6 |
| 8580ef | 48.0 | 40.1 | 37.9 | 38.0 | 38.0 | 38.0 | 11.8 | 12.2 | 10.3 | 11.7 | 35.6 | 9.4 | 9.0 | 3.6 |
| dc18de | 49.6 | 48.9 | 48.0 | 48.8 | 49.3 | 49.5 | 48.3 | 48.6 | 49.1 | 48.1 | 48.7 | 48.4 | 49.7 | 3.6 |
| ee17a6 | 48.0 | 44.4 | 40.8 | 42.7 | 39.6 | 40.2 | 12.2 | 12.0 | 9.8 | 12.0 | 36.9 | 9.1 | 8.4 | 3.6 |
| a54258 | 47.7 | 42.7 | 40.9 | 41.8 | 25.9 | 40.8 | 11.7 | 11.7 | 9.2 | 10.1 | 23.2 | 9.1 | 7.8 | 3.5 |
| 89df2c | 48.4 | 40.5 | 38.1 | 38.5 | 34.8 | 38.2 | 11.9 | 11.7 | 39.5 | 11.0 | 31.9 | 39.3 | 8.2 | 3.8 |
| b81845 | 48.7 | 44.2 | 41.0 | 43.4 | 40.1 | 40.8 | 12.6 | 12.3 | 39.5 | 12.0 | 36.8 | 39.3 | 8.5 | 3.4 |
| 53a984 | 48.8 | 40.4 | 38.5 | 38.8 | 36.2 | 38.7 | 11.9 | 12.0 | 39.7 | 11.6 | 32.6 | 39.4 | 8.6 | 3.7 |
| 11c7de | 47.6 | 41.8 | 37.7 | 39.0 | 35.0 | 37.7 | 11.6 | 11.7 | 39.6 | 11.4 | 32.6 | 39.7 | 8.3 | 3.6 |
| 1ed452 | 47.7 | 46.6 | 45.3 | 41.0 | 41.0 | 41.6 | 12.1 | 12.0 | 12.8 | 12.2 | 40.4 | 12.0 | 12.1 | 3.5 |
| 48412f | 48.2 | 45.7 | 45.0 | 41.4 | 41.9 | 42.0 | 12.2 | 12.1 | 12.6 | 11.9 | 41.1 | 11.7 | 12.6 | 3.6 |
| bfd614 | 49.0 | 45.8 | 44.5 | 43.0 | 41.7 | 43.0 | 12.5 | 12.3 | 12.3 | 12.0 | 40.2 | 11.5 | 10.9 | 3.7 |
| bfb812 | 48.4 | 48.9 | 48.9 | 47.0 | 47.9 | 48.3 | 47.3 | 48.0 | 48.0 | 47.0 | 47.8 | 48.0 | 49.2 | 3.6 |
| 93c572 | 48.4 | 43.6 | 40.1 | 42.4 | 39.2 | 40.3 | 12.0 | 12.3 | 10.1 | 12.0 | 36.0 | 9.6 | 8.8 | 3.7 |
| fb570a | 48.5 | 4.4 | 4.4 | 4.0 | 4.3 | 4.3 | 4.1 | 4.3 | 4.2 | 4.0 | 4.1 | 4.0 | 4.3 | 3.7 |
| f11867 | 50.3 | 48.2 | 46.7 | 45.9 | 44.6 | 46.8 | 14.8 | 14.9 | 14.8 | 14.6 | 43.3 | 14.5 | 14.1 | 10.2 |
| fc4ca5 | 50.2 | 45.8 | 42.9 | 43.8 | 29.1 | 42.7 | 13.9 | 14.3 | 11.5 | 12.2 | 26.1 | 10.9 | 10.1 | 10.2 |
| 4f1ce2 | 64.6 | 63.5 | 62.6 | 62.3 | 63.5 | 63.5 | 34.7 | 34.2 | 34.3 | 38.9 | 63.0 | 38.4 | 39.2 | 25.2 |
| sum | 2174.5 | 1801.4 | 1735.3 | 1707.1 | 1612.5 | 1714.9 | 735.1 | 738.4 | 983.4 | 723.4 | 1540.7 | 966.4 | 690.7 | 201.1 |
| mean | 44.4 | 36.8 | 35.4 | 34.8 | 32.9 | 35.0 | 15.0 | 15.1 | 20.1 | 14.8 | 31.4 | 19.7 | 14.1 | 4.1 |

TABLE XXXVI: Outcomes of RPS (rps-vms) jgroups-aws time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| e7896f | 1.8 | -2.4 | -2.5 | -2.5 | -2.4 | -2.6 | -2.7 | -2.5 | -2.4 | -2.4 | -2.5 | -2.9 | -2.5 | 1.8 |
| 4b32fa | 2.0 | 3.8 | 4.0 | 3.8 | 3.8 | 4.0 | 3.9 | 3.9 | 3.9 | 3.8 | 4.0 | 4.0 | 4.0 | 1.9 |
| bef770 | 1.9 | -2.6 | -2.6 | -2.5 | -2.4 | -2.7 | -2.5 | -2.5 | -2.9 | -2.7 | -2.6 | -2.6 | -2.7 | 1.9 |
| 0c4990 | 2.0 | 7.5 | 7.7 | 6.8 | 6.5 | 7.7 | 7.0 | 7.0 | 7.4 | 7.5 | 7.3 | 7.5 | 7.6 | 1.8 |
| c5e9f0 | 1.9 | 5.0 | 5.3 | 5.1 | 5.2 | 5.5 | 5.2 | 5.3 | 5.4 | 5.4 | 5.3 | 5.5 | 5.2 | 1.9 |
| 83fa1c | 25.9 | 25.5 | 25.6 | 25.6 | 25.8 | 26.3 | 25.7 | 26.0 | 25.9 | 26.3 | 27.0 | 25.2 | 26.0 | 3.4 |
| 83da98 | 25.2 | 3.4 | 3.5 | 3.5 | 3.8 | 3.5 | 3.9 | 3.5 | 3.6 | 3.7 | 3.5 | 3.7 | 3.6 | 2.9 |
| f70cbf | 29.0 | 29.2 | 29.6 | 29.3 | 29.5 | 29.8 | 29.5 | 29.2 | 29.7 | 30.7 | 30.1 | 29.1 | 30.0 | 3.2 |
| 1091a4 | 29.7 | 23.6 | 25.0 | 24.0 | 23.7 | 24.7 | 8.5 | 8.2 | 8.4 | 9.0 | 25.1 | 8.7 | 8.6 | 3.0 |
| b3f243 | 26.3 | 25.1 | 25.2 | 25.8 | 24.9 | 25.1 | 26.1 | 25.3 | 26.1 | 25.4 | 25.6 | 25.9 | 26.4 | 3.0 |
| 741c3d | 53.8 | 50.4 | 51.0 | 51.8 | 50.8 | 50.7 | 51.5 | 51.5 | 50.2 | 50.9 | 51.0 | 51.2 | 52.1 | 3.6 |
| 2ac9b9 | 52.5 | 3.9 | 4.1 | 3.8 | 3.7 | 4.1 | 3.8 | 3.8 | 3.9 | 3.9 | 4.0 | 4.1 | 3.9 | 3.5 |
| 480443 | 53.6 | 3.7 | 4.0 | 3.7 | 3.7 | 3.8 | 3.9 | 3.9 | 4.0 | 3.8 | 4.2 | 4.0 | 3.8 | 3.4 |
| 771d8f | 52.4 | 11.8 | 12.5 | 12.7 | 12.5 | 13.0 | 7.9 | 7.5 | 8.0 | 7.9 | 12.4 | 8.0 | 7.8 | 3.5 |
| 1388b8 | 52.6 | 12.1 | 12.6 | 11.6 | 11.7 | 12.5 | 7.3 | 7.2 | 7.1 | 7.2 | 12.4 | 7.2 | 7.2 | 3.6 |
| a90a3e | 53.8 | 11.7 | 12.8 | 12.3 | 11.3 | 12.6 | 7.3 | 6.9 | 7.1 | 7.6 | 11.6 | 7.5 | 7.6 | 3.5 |
| sum | 464.5 | 221.7 | 228.0 | 224.8 | 221.8 | 228.4 | 196.8 | 194.3 | 196.0 | 198.1 | 228.5 | 197.1 | 199.0 | 45.9 |
| mean | 29.0 | 13.9 | 14.3 | 14.0 | 13.9 | 14.3 | 12.3 | 12.1 | 12.3 | 12.4 | 14.3 | 12.3 | 12.4 | 2.9 |

TABLE XXXVII: Outcomes of RPS (rps-vms) datasketches-java time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| e2fb43 | -89.4 | -80.7 | -54.6 | -85.6 | -80.9 | -56.0 | -80.7 | -80.2 | -52.2 | -81.9 | -56.7 | -54.1 | -53.9 | -41.9 |
| 1ba334 | -88.1 | -78.8 | -53.6 | -88.6 | -79.4 | -55.1 | -80.9 | -79.3 | -52.4 | -80.1 | -55.6 | -53.4 | -53.3 | -43.2 |
| 1436f3 | -86.6 | -82.1 | -63.3 | -86.9 | -79.2 | -65.9 | -82.0 | -80.1 | -60.7 | -79.4 | -64.8 | -63.9 | -62.3 | -42.4 |
| ad19fb | 85.2 | 56.3 | 51.7 | 56.8 | 51.9 | 55.6 | 55.4 | 54.1 | 52.2 | 54.7 | 55.6 | 51.8 | 50.9 | 42.1 |
| 843c40 | 87.4 | 22.6 | 21.1 | 23.7 | 21.6 | 22.8 | 22.3 | 22.5 | 21.0 | 21.9 | 22.5 | 21.5 | 21.2 | 43.5 |
| 4a8281 | -88.2 | -80.3 | -61.4 | -88.1 | -79.2 | -66.6 | -79.6 | -83.9 | -62.1 | -83.2 | -66.3 | -65.4 | -64.0 | -41.5 |
| 856926 | -87.8 | -87.7 | -55.7 | -94.5 | -85.1 | -57.6 | -88.1 | -86.5 | -54.5 | -87.2 | -58.2 | -54.1 | -53.8 | -42.9 |
| 1cc496 | -88.7 | -85.3 | -54.8 | -92.9 | -79.2 | -58.4 | -91.8 | -83.8 | -54.7 | -80.6 | -54.2 | -53.7 | -52.1 | -43.1 |
| 4ede21 | -89.9 | -86.9 | -55.0 | -91.3 | -87.4 | -58.3 | -85.5 | -86.3 | -54.4 | -86.8 | -57.7 | -54.1 | -53.5 | -41.9 |
| 851ec9 | -89.8 | -80.2 | -63.0 | -89.5 | -80.2 | -65.3 | -80.7 | -81.3 | -62.0 | -81.3 | -65.8 | -62.2 | -62.8 | -42.8 |
| fcc7e1 | -87.7 | -84.3 | -62.6 | -93.7 | -90.0 | -66.6 | -86.9 | -85.9 | -63.6 | -87.3 | -65.8 | -64.5 | -63.9 | -41.2 |
| 75f72c | -85.2 | -85.3 | -62.2 | -91.4 | -80.1 | -66.8 | -83.5 | -84.2 | -63.2 | -78.1 | -63.4 | -63.3 | -58.9 | -42.4 |
| b27fff | 83.9 | 85.1 | 64.8 | 93.9 | 83.8 | 66.8 | 84.3 | 84.0 | 62.1 | 82.3 | 66.6 | 63.1 | 62.3 | 39.6 |
| 23ae68 | 84.8 | 84.3 | 63.4 | 92.7 | 82.2 | 66.6 | 82.8 | 80.8 | 61.9 | 79.8 | 68.0 | 62.3 | 62.0 | 39.8 |
| 20a6b0 | 85.2 | 84.9 | 63.7 | 90.0 | 91.1 | 65.9 | 83.4 | 81.5 | 62.2 | 88.0 | 66.4 | 63.3 | 63.4 | 40.7 |
| 08e0e2 | 86.5 | 78.3 | 50.4 | 83.0 | 76.8 | 54.3 | 77.7 | 77.7 | 50.2 | 76.8 | 52.3 | 50.0 | 50.7 | 39.6 |
| f3a611 | 89.7 | 82.0 | 51.8 | 94.9 | 76.3 | 55.2 | 83.2 | 81.7 | 51.8 | 77.3 | 51.8 | 51.5 | 49.4 | 40.8 |
| 1c524d | 86.1 | 84.5 | 62.1 | 91.4 | 88.7 | 68.2 | 82.1 | 82.0 | 62.8 | 84.7 | 65.9 | 61.7 | 62.5 | 40.3 |
| 562887 | 85.3 | 22.3 | 21.0 | 23.5 | 21.2 | 21.7 | 22.6 | 21.5 | 20.5 | 22.5 | 22.6 | 20.6 | 21.1 | 40.9 |
| f0d5e1 | -75.6 | -44.4 | -41.5 | -46.0 | -43.6 | -44.2 | -45.5 | -44.1 | -42.0 | -44.3 | -43.3 | -42.1 | -42.7 | -31.8 |
| cf919f | -75.5 | 22.3 | 19.9 | 23.5 | 21.1 | 21.7 | 21.9 | 22.4 | 20.6 | 21.7 | 21.7 | 20.7 | 20.6 | -31.8 |
| 70f181 | 74.2 | 42.4 | 40.7 | 45.0 | 66.4 | 42.5 | 43.2 | 42.8 | 39.9 | 68.2 | 43.6 | 41.6 | 42.0 | 31.5 |
| e2d8f0 | 75.8 | 43.5 | 40.8 | 45.6 | 42.1 | 44.0 | 43.8 | 43.6 | 41.1 | 43.8 | 43.7 | 41.1 | 40.6 | 31.5 |
| 91b26c | 75.9 | 44.0 | 42.9 | -45.9 | 42.8 | 44.9 | 43.4 | 43.7 | 42.1 | 45.1 | 44.7 | 42.0 | 42.2 | 30.6 |
| 92cc12 | -76.0 | -43.5 | -41.0 | -45.7 | -42.4 | -43.4 | -44.0 | -44.2 | -42.5 | -44.3 | -43.5 | -41.6 | -41.8 | -31.3 |
| 3ca1be | 77.2 | 43.3 | 41.7 | 45.5 | 42.4 | 44.0 | 43.4 | 42.2 | 41.2 | 43.1 | 43.4 | 40.6 | 42.0 | 30.7 |
| 55e820 | 76.0 | 43.9 | 41.3 | 46.2 | 42.6 | 44.2 | 43.7 | 44.1 | 41.7 | 44.3 | 43.9 | 41.6 | 41.5 | 31.0 |
| 11672b | 76.2 | 43.4 | 42.0 | 46.2 | 42.2 | 43.7 | 44.7 | 43.6 | 41.7 | 44.5 | 43.5 | 42.4 | 41.4 | 31.8 |
| 83c11b | 75.3 | 45.5 | 44.6 | 46.9 | 45.6 | 45.7 | 46.5 | 45.6 | 43.6 | 45.4 | 44.5 | 43.7 | 42.3 | 31.6 |
| d93a6b | 76.2 | 43.6 | 41.5 | 47.1 | 42.7 | 44.6 | 44.3 | 44.0 | 42.7 | 45.6 | 45.0 | 42.7 | 42.4 | 30.9 |
| 5aba00 | -74.4 | -43.7 | -41.5 | -46.1 | -43.0 | -43.3 | -43.8 | -43.1 | -40.3 | -43.3 | -43.0 | -42.1 | -42.4 | -31.3 |
| 9622f1 | -73.8 | 22.3 | 20.8 | 23.5 | 21.5 | 22.4 | 22.0 | 21.8 | 21.1 | 22.1 | 21.6 | 20.9 | 20.8 | -31.9 |
| ac0aa6 | 78.7 | 43.8 | 40.8 | 46.3 | 43.1 | 44.1 | 43.9 | 43.8 | 41.5 | 43.8 | 43.3 | 42.0 | 42.5 | 31.6 |
| 0eda5e | 74.7 | 44.5 | 41.9 | 46.9 | 43.7 | 44.5 | 45.3 | 44.3 | 42.1 | 43.7 | 44.2 | 42.4 | 42.8 | 31.5 |
| 6d9e9e | 78.4 | 44.1 | 41.8 | 45.6 | 73.0 | 43.2 | 44.1 | 44.3 | 42.7 | 74.6 | 51.0 | 41.9 | 47.5 | 31.6 |
| 42eb24 | 76.0 | 44.8 | 43.0 | 47.5 | 42.6 | 45.2 | 45.7 | 45.6 | 43.3 | 45.1 | 44.5 | 43.5 | 43.0 | 32.1 |
| 063d1a | 74.3 | 45.6 | 41.7 | 46.6 | 42.9 | 44.3 | 44.6 | 44.2 | 41.9 | 44.2 | 44.0 | 41.3 | 42.9 | 32.1 |
| 3a6f18 | 76.3 | 49.5 | 44.6 | 50.1 | 45.5 | 47.7 | 47.6 | 46.8 | 43.6 | 47.3 | 46.9 | 45.3 | 44.7 | 33.5 |
| ce9bed | 76.5 | 46.0 | 43.8 | 48.0 | 44.4 | 45.3 | 45.5 | 45.0 | 43.1 | 46.1 | 44.7 | 42.9 | 44.2 | 32.0 |
| 045e38 | 75.6 | 49.6 | 44.9 | 51.3 | 47.9 | 50.3 | 49.8 | 49.5 | 47.0 | 50.3 | 49.7 | 47.0 | 48.1 | 32.1 |
| 85a09d | 78.1 | 42.9 | 40.6 | 45.4 | 43.3 | 42.3 | 43.1 | 42.9 | 41.0 | 43.2 | 43.6 | 41.2 | 41.1 | 32.2 |
| 4a82e4 | 75.3 | 22.4 | 20.9 | 23.6 | 22.0 | 23.1 | 22.3 | 22.7 | 21.2 | 22.0 | 22.2 | 21.0 | 21.4 | 32.2 |
| e5081d | 78.7 | 22.2 | 20.8 | 24.0 | 21.3 | 21.9 | 22.2 | 22.2 | 20.6 | 22.1 | 22.3 | 21.4 | 20.6 | 32.6 |
| 499a44 | 76.2 | 44.8 | 42.8 | 46.9 | 44.7 | 45.6 | 45.4 | 44.6 | 42.7 | 46.5 | 45.1 | 43.9 | 41.9 | 31.9 |
| 320a3d | 74.3 | 22.2 | 20.9 | 24.1 | 21.6 | 22.2 | 22.2 | 22.7 | 21.1 | 22.3 | 22.0 | 21.5 | 20.7 | 31.6 |
| d6ce71 | 76.4 | 45.7 | 43.1 | 48.5 | 42.1 | 46.0 | 46.7 | 45.9 | 43.0 | 46.2 | 46.0 | 42.9 | 43.3 | 34.5 |
| 28ec92 | 78.3 | 72.8 | 45.3 | 82.3 | 73.6 | 48.2 | 76.5 | 74.2 | 44.5 | 73.5 | 46.2 | 43.9 | 43.7 | 33.0 |
| sum | 3785.2 | 2598.5 | 2113.4 | 2782.8 | 2604.8 | 2236.3 | 2608.8 | 2581.0 | 2104.1 | 2640.6 | 2221.6 | 2119.7 | 2113.3 | 1683.3 |
| mean | 80.5 | 55.3 | 45.0 | 59.2 | 55.4 | 47.6 | 55.5 | 54.9 | 44.8 | 56.2 | 47.3 | 45.1 | 45.0 | 35.8 |

TABLE XXXVIII: Outcomes of RPS (rps-vms) jbehave-junit-runner time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 989cea | 69.6 | 39.9 | 37.9 | 40.7 | 39.6 | 39.7 | 10.9 | 11.2 | 10.3 | 10.9 | 38.1 | 9.9 | 9.5 | 4.8 |
| 9f8fe5 | 71.7 | 40.9 | 40.0 | 41.2 | 41.0 | 40.4 | 10.2 | 10.3 | 9.9 | 10.4 | 39.8 | 9.7 | 9.9 | 4.7 |
| 3c2e58 | 69.9 | 42.2 | 40.8 | 40.9 | 38.9 | 40.4 | 10.0 | 10.4 | 9.6 | 10.0 | 37.5 | 9.6 | 8.7 | 4.8 |
| 6756fd | 71.4 | 41.6 | 39.6 | 41.4 | 39.5 | 41.1 | 10.2 | 10.2 | 9.5 | 10.0 | 38.3 | 9.5 | 9.0 | 4.8 |
| eafa46 | 69.0 | 45.8 | 44.5 | 36.8 | 36.9 | 36.8 | 10.4 | 10.0 | 9.7 | 9.5 | 36.1 | 8.4 | 8.1 | 4.8 |
| 15cc3d | 71.8 | 3.8 | 3.7 | 3.9 | 3.7 | 3.6 | 3.8 | 3.9 | 3.7 | 4.0 | 3.5 | 3.7 | 3.6 | 4.8 |
| 0be34d | 68.5 | 31.2 | 29.7 | 30.7 | 30.6 | 29.6 | 9.8 | 9.4 | 8.2 | 9.6 | 30.5 | 8.2 | 8.4 | 4.7 |
| c76b75 | 69.6 | 46.0 | 44.4 | 41.2 | 41.5 | 40.8 | 10.4 | 10.1 | 9.7 | 10.7 | 39.9 | 9.3 | 9.3 | 4.8 |
| 1c33a7 | 69.6 | 47.4 | 45.9 | 46.1 | 46.9 | 46.3 | 11.2 | 11.3 | 10.9 | 11.2 | 45.9 | 10.5 | 11.0 | 4.8 |
| 63b64b | 68.5 | 68.7 | 68.5 | 68.9 | 69.1 | 69.6 | 69.3 | 68.6 | 67.2 | 69.8 | 68.0 | 66.6 | 67.4 | 5.0 |
| 8dc4ee | 68.4 | 44.4 | 43.8 | 46.0 | 40.2 | 43.2 | 10.2 | 10.3 | 9.6 | 10.1 | 39.9 | 9.7 | 8.8 | 4.8 |
| c78e51 | 68.2 | 44.1 | 42.9 | 44.5 | 40.5 | 43.8 | 10.4 | 10.1 | 9.7 | 10.6 | 40.4 | 9.4 | 9.2 | 4.7 |
| 9c0b8a | 70.5 | 69.7 | 66.9 | 70.0 | 68.0 | 69.1 | 69.6 | 69.2 | 66.7 | 68.9 | 69.0 | 67.0 | 69.1 | 4.8 |
| b68a9c | 69.2 | 7.7 | 8.1 | 7.9 | 7.7 | 8.0 | 7.5 | 7.7 | 7.5 | 7.5 | 7.8 | 7.4 | 7.6 | 4.9 |
| a0d064 | 69.9 | 3.6 | 3.4 | 3.6 | 3.8 | 3.6 | 3.6 | 3.7 | 3.7 | 3.5 | 3.4 | 3.3 | 3.3 | 4.7 |
| 338958 | 70.5 | 45.1 | 42.9 | 36.6 | 35.7 | 35.8 | 10.2 | 9.7 | 9.2 | 9.7 | 34.8 | 8.3 | 8.2 | 4.9 |
| 0faec4 | 70.3 | 8.0 | 7.9 | 7.6 | 7.8 | 7.4 | 8.0 | 7.8 | 7.3 | 7.9 | 7.9 | 7.6 | 7.5 | 4.7 |
| d43f4f | 68.7 | 69.3 | 68.7 | 68.9 | 68.7 | 68.2 | 69.6 | 68.7 | 70.0 | 69.6 | 68.5 | 66.9 | 68.0 | 4.7 |
| 747125 | 68.9 | 69.7 | 68.6 | 68.8 | 68.7 | 67.6 | 69.2 | 68.9 | 66.4 | 68.8 | 67.9 | 67.4 | 67.4 | 4.7 |
| d46a70 | 69.4 | 68.2 | 68.8 | 69.0 | 68.2 | 69.2 | 71.2 | 69.1 | 68.0 | 67.9 | 68.3 | 69.5 | 67.6 | 4.8 |
| f37f4d | 68.8 | 3.5 | 3.5 | 3.5 | 3.4 | 3.6 | 3.4 | 3.5 | 3.3 | 3.5 | 3.4 | 3.3 | 3.3 | 4.7 |
| 72f54c | 68.8 | 45.1 | 44.3 | 45.6 | 40.6 | 44.5 | 10.2 | 10.5 | 9.5 | 10.1 | 39.5 | 9.7 | 9.5 | 4.6 |
| 1a9ed5 | 69.3 | 69.9 | 69.3 | 70.0 | 68.4 | 69.7 | 70.6 | 68.9 | 69.2 | 69.7 | 70.5 | 68.0 | 68.0 | 4.7 |
| 545f67 | 70.8 | 46.2 | 45.7 | 46.8 | 45.3 | 46.3 | 11.1 | 11.1 | 10.5 | 10.9 | 45.8 | 10.5 | 10.2 | 4.8 |
| c7bc45 | 70.3 | 45.3 | 45.2 | 46.4 | 44.9 | 46.0 | 10.4 | 10.6 | 9.8 | 10.5 | 44.7 | 9.8 | 10.0 | 4.8 |
| f61eec | 73.1 | 74.0 | 70.9 | 73.3 | 72.6 | 73.0 | 75.7 | 73.2 | 72.3 | 73.2 | 71.3 | 70.0 | 71.9 | 4.7 |
| 45bb8c | 70.5 | 72.8 | 72.6 | 73.0 | 71.4 | 71.7 | 73.0 | 71.7 | 70.5 | 71.7 | 71.0 | 70.7 | 70.5 | 4.6 |
| 25e4c7 | 71.9 | 70.8 | 69.5 | 72.0 | 74.2 | 71.6 | 72.4 | 74.3 | 69.9 | 70.6 | 70.9 | 71.6 | 71.0 | 4.9 |
| df7e89 | 72.2 | 72.1 | 70.9 | 71.7 | 72.2 | 70.3 | 72.1 | 71.7 | 70.0 | 71.4 | 69.5 | 69.7 | 71.3 | 4.7 |
| 678357 | 70.5 | 47.9 | 47.2 | 48.0 | 47.3 | 47.3 | 10.7 | 10.7 | 10.1 | 10.4 | 47.6 | 10.5 | 9.8 | 4.6 |
| 25d1fe | 70.1 | 49.0 | 47.5 | 48.2 | 41.8 | 46.5 | 10.0 | 10.5 | 9.7 | 10.1 | 39.9 | 9.5 | 8.6 | 4.6 |
| 1c1f87 | 69.6 | 71.4 | 69.6 | 71.9 | 70.1 | 72.8 | 73.2 | 70.7 | 69.5 | 72.6 | 71.2 | 71.7 | 69.5 | 4.6 |
| ac017b | 69.6 | 48.2 | 46.0 | 49.7 | 47.7 | 47.1 | 10.4 | 10.1 | 9.9 | 10.0 | 46.9 | 9.8 | 9.8 | 4.6 |
| e893ae | 69.5 | 48.2 | 46.1 | 47.7 | 42.4 | 47.0 | 10.2 | 10.2 | 9.6 | 10.4 | 42.1 | 9.7 | 9.4 | 4.5 |
| a2df3c | 72.0 | 71.3 | 69.3 | 72.4 | 70.3 | 72.5 | 72.6 | 73.5 | 70.9 | 70.5 | 72.3 | 72.5 | 69.7 | 4.6 |
| 530cf4 | 75.7 | 78.5 | 74.4 | 76.9 | 75.6 | 76.4 | 77.1 | 76.3 | 74.4 | 76.7 | 75.5 | 75.8 | 74.9 | 4.7 |
| d037a8 | 75.0 | 3.4 | 3.5 | 3.6 | 3.5 | 3.8 | 3.6 | 3.6 | 3.3 | 3.6 | 3.5 | 3.7 | 3.5 | 4.6 |
| 7bc0fd | 74.9 | 50.1 | 48.0 | 51.2 | 49.0 | 48.7 | 10.2 | 10.4 | 9.7 | 10.5 | 48.8 | 9.6 | 10.4 | 4.6 |
| 69879e | 74.8 | 50.0 | 47.6 | 49.5 | 45.0 | 48.1 | 10.5 | 10.4 | 9.8 | 10.0 | 42.8 | 10.0 | 9.1 | 4.8 |
| f8d201 | 75.0 | 49.5 | 47.6 | 51.2 | 32.3 | 49.2 | 10.2 | 10.2 | 9.4 | 9.5 | 31.7 | 9.7 | 8.2 | 4.5 |
| 9dbc92 | 76.6 | 79.6 | 75.0 | 77.7 | 76.1 | 77.1 | 79.7 | 77.7 | 77.4 | 77.7 | 75.5 | 76.9 | 78.0 | 4.8 |
| 4b015a | 76.1 | 50.6 | 48.1 | 50.3 | 50.0 | 50.7 | 11.0 | 11.1 | 10.4 | 11.0 | 49.2 | 10.5 | 10.6 | 5.1 |
| 2a2882 | 76.9 | 52.0 | 50.5 | 50.1 | 45.9 | 50.1 | 11.1 | 11.3 | 10.0 | 11.0 | 43.8 | 10.4 | 9.5 | 4.9 |
| b18c7d | 76.4 | 4.2 | 3.7 | 4.0 | 3.9 | 3.9 | 3.9 | 3.7 | 3.9 | 4.1 | 4.0 | 3.8 | 3.9 | 4.7 |
| 253c76 | 79.0 | 52.3 | 50.9 | 51.4 | 52.1 | 51.3 | 11.6 | 10.9 | 10.7 | 11.5 | 50.8 | 10.6 | 10.0 | 4.8 |
| 6859e0 | 76.6 | 4.0 | 3.8 | 3.9 | 4.0 | 4.0 | 4.0 | 4.0 | 3.8 | 4.1 | 3.9 | 3.7 | 3.9 | 4.9 |
| 4b48b2 | 78.3 | 4.0 | 3.8 | 3.8 | 3.8 | 4.2 | 4.0 | 4.2 | 3.8 | 4.1 | 4.0 | 4.0 | 4.0 | 4.7 |
| d1321c | 79.1 | 80.3 | 75.2 | 78.4 | 77.3 | 77.4 | 79.4 | 81.3 | 76.7 | 78.4 | 77.5 | 77.0 | 77.4 | 4.8 |
| 2c2d55 | 79.6 | 81.9 | 78.2 | 82.1 | 80.2 | 84.2 | 85.0 | 83.2 | 79.4 | 80.9 | 80.6 | 80.8 | 81.4 | 4.8 |
| sum | 3524.8 | 2313.5 | 2245.0 | 2288.7 | 2207.8 | 2263.1 | 1473.0 | 1459.9 | 1414.6 | 1449.6 | 2183.6 | 1415.4 | 1408.4 | 232.3 |
| mean | 71.9 | 47.2 | 45.8 | 46.7 | 45.1 | 46.2 | 30.1 | 29.8 | 28.9 | 29.6 | 44.6 | 28.9 | 28.7 | 4.7 |

TABLE XXXIX: Outcomes of RPS (rps-vms) commons-lang time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20de43 | 66.2 | 11.6 | 11.3 | 10.5 | 11.2 | 10.8 | 11.5 | 12.0 | 11.8 | 10.8 | 11.1 | 11.1 | 11.4 | 21.1 |
| 8dae1f | 65.3 | 51.6 | 51.4 | 50.7 | 53.4 | 43.2 | 51.6 | 50.8 | 52.3 | 48.9 | 43.5 | 42.1 | 43.1 | 22.1 |
| 4f9285 | 66.0 | 51.2 | 51.1 | 49.1 | 52.2 | 42.5 | 50.7 | 49.8 | 51.3 | 48.8 | 42.7 | 41.9 | 43.9 | 21.6 |
| 22c304 | 65.8 | 51.8 | 35.0 | 49.8 | 35.8 | 34.1 | 50.5 | 49.6 | 33.5 | 32.0 | 29.5 | 33.4 | 29.3 | 22.0 |
| 101227 | 65.4 | 51.6 | 35.4 | 49.8 | 34.6 | 33.0 | 51.3 | 51.1 | 33.1 | 32.2 | 30.2 | 34.3 | 29.2 | 21.2 |
| e863dc | 65.2 | 52.3 | 51.3 | 50.2 | 52.3 | 42.9 | 52.2 | 50.1 | 52.1 | 48.6 | 44.4 | 42.1 | 43.5 | 21.4 |
| f7cbda | 65.9 | 52.2 | 52.0 | 50.5 | 52.9 | 43.3 | 51.7 | 51.1 | 52.2 | 49.5 | 44.6 | 42.8 | 42.4 | 21.6 |
| 6049e7 | 65.9 | 11.4 | 11.7 | 10.5 | 11.1 | 10.9 | 11.1 | 11.5 | 11.3 | 10.4 | 11.5 | 11.0 | 11.2 | 21.9 |
| 7d061e | 65.8 | 46.9 | 34.3 | 45.0 | 47.5 | 32.1 | 46.0 | 45.4 | 32.3 | 44.5 | 33.3 | 31.8 | 31.9 | 21.9 |
| bfb43d | 66.2 | 11.1 | 11.3 | 11.1 | 11.1 | 10.7 | 11.0 | 11.0 | 11.3 | 10.7 | 11.0 | 11.5 | 10.7 | 21.5 |
| d8ec01 | 66.3 | 56.8 | 38.3 | 55.0 | 56.2 | 36.7 | 55.7 | 55.6 | 36.8 | 52.8 | 35.9 | 36.9 | 34.8 | 21.8 |
| 6dfc3e | 68.8 | 53.0 | 35.1 | 49.5 | 30.7 | 33.9 | 50.9 | 50.7 | 32.9 | 28.6 | 28.5 | 32.7 | 29.5 | -21.5 |
| 5fb74a | 65.9 | 11.5 | 10.5 | 10.4 | 11.2 | 10.7 | 11.4 | 11.3 | 11.4 | 10.4 | 11.4 | 11.7 | 11.0 | 21.6 |
| c614fb | 65.8 | 57.9 | 55.4 | 57.4 | 57.1 | 48.0 | 55.3 | 56.9 | 55.5 | 53.3 | 49.1 | 47.0 | 47.8 | -21.4 |
| 0b70b0 | 67.5 | 70.8 | 69.9 | 67.1 | 72.4 | 68.8 | 69.5 | 70.8 | 72.1 | 68.3 | 69.4 | 68.8 | 69.2 | 21.5 |
| 63f11e | 64.6 | 10.4 | 10.0 | 9.5 | 9.9 | 9.4 | 10.1 | 10.2 | 9.8 | 9.0 | 9.8 | 10.1 | 9.3 | 21.4 |
| f5ebb9 | 66.3 | 55.2 | 55.9 | 54.1 | 55.7 | 45.9 | 54.9 | 54.1 | 54.6 | 52.2 | 47.2 | 46.1 | 45.8 | 21.5 |
| e72654 | 65.7 | 10.6 | 10.0 | 9.3 | 9.5 | 9.5 | 9.8 | 9.7 | 10.3 | 9.5 | 9.8 | 9.8 | 10.0 | 21.2 |
| d57505 | 66.0 | 56.5 | 54.5 | 53.9 | 57.0 | 46.4 | 55.6 | 53.6 | 55.5 | 52.8 | 47.4 | 46.4 | 46.5 | 21.0 |
| sum | 1254.7 | 774.2 | 684.5 | 743.3 | 721.7 | 612.8 | 760.8 | 755.2 | 680.0 | 673.3 | 610.2 | 611.5 | 600.5 | 409.1 |
| mean | 66.0 | 40.7 | 36.0 | 39.1 | 38.0 | 32.3 | 40.0 | 39.7 | 35.8 | 35.4 | 32.1 | 32.2 | 31.6 | 21.5 |

TABLE XL: Outcomes of RPS (rps-vms) smartsheet-java-sdk time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1d2e47 | -47.3 | -32.1 | -32.8 | -32.4 | -31.3 | -33.8 | -22.5 | -22.8 | -22.2 | -23.1 | -31.4 | -22.2 | -22.2 | -17.3 |
| 509364 | -47.2 | -33.3 | -32.2 | -32.2 | -32.3 | -33.2 | -22.4 | -22.1 | -20.5 | -22.6 | -30.8 | -20.7 | -20.8 | -17.5 |
| 5c83a1 | -47.5 | -36.0 | -37.9 | -36.6 | -36.0 | -38.3 | -23.7 | -23.4 | -22.6 | -23.8 | -36.0 | -22.6 | -23.2 | -17.6 |
| 43a4f7 | -47.9 | -36.8 | -36.3 | -37.0 | -35.0 | -38.0 | -23.1 | -23.8 | -22.0 | -23.7 | -34.1 | -22.3 | -21.6 | -17.8 |
| 240ee7 | -47.9 | -37.0 | -37.2 | -37.1 | -35.7 | -39.1 | -23.8 | -24.1 | -22.6 | -24.2 | -34.3 | -22.5 | -22.1 | -18.0 |
| 4ea223 | -47.9 | -41.6 | -42.6 | -42.0 | -40.3 | -43.3 | -25.0 | -25.1 | -25.3 | -26.1 | -40.5 | -24.3 | -24.5 | -18.3 |
| 177fc4 | -48.0 | -40.9 | -41.4 | -41.4 | -39.9 | -42.1 | -24.5 | -25.0 | -23.5 | -24.8 | -39.7 | -23.7 | -23.6 | -18.0 |
| 2844b0 | -49.4 | -40.5 | -41.7 | -41.4 | -40.7 | -42.8 | -24.2 | -24.8 | -23.8 | -25.5 | -40.4 | -23.7 | -23.7 | -18.1 |
| 97ecb7 | -48.6 | -42.0 | -43.5 | -42.9 | -41.2 | -44.1 | -25.2 | -25.9 | -24.8 | -26.4 | -40.7 | -24.9 | -25.6 | -18.4 |
| 94d558 | -49.7 | -41.6 | -42.8 | -41.7 | -40.6 | -43.2 | -25.0 | -25.5 | -24.6 | -25.9 | -40.7 | -24.5 | -24.7 | -18.4 |
| de3432 | 50.3 | 41.9 | 42.0 | 42.2 | 30.5 | 42.7 | 25.4 | 25.7 | 23.6 | 24.1 | 29.9 | 23.5 | 22.7 | 18.5 |
| 4bedcb | 48.9 | 5.2 | 5.4 | 5.2 | 4.8 | 5.4 | 4.8 | 5.0 | 4.7 | 5.3 | 5.0 | 5.0 | 4.9 | 18.3 |
| ae8ebd | 46.3 | 47.2 | 50.4 | 48.1 | 46.0 | 51.1 | 48.5 | 48.3 | 46.7 | 46.7 | 46.6 | 47.0 | 46.8 | 6.4 |
| 60de51 | 45.4 | 37.1 | 37.7 | 37.3 | 35.7 | 39.3 | 15.3 | 15.7 | 14.7 | 15.2 | 35.3 | 14.1 | 14.4 | 6.4 |
| 78c50e | 46.4 | 36.7 | 38.1 | 36.6 | 35.9 | 38.9 | 14.9 | 15.3 | 14.4 | 14.5 | 34.7 | 14.4 | 14.1 | 6.5 |
| 9aa37d | 49.1 | 50.0 | 53.0 | 49.6 | 49.3 | 54.1 | 50.5 | 51.4 | 49.7 | 48.8 | 49.2 | 48.7 | 49.4 | 6.8 |
| 73be08 | 49.2 | 39.5 | 41.1 | 39.9 | 38.3 | 41.9 | 16.5 | 16.9 | 16.4 | 16.7 | 37.5 | 15.7 | 16.0 | 6.8 |
| aa7861 | 49.4 | 6.0 | 6.1 | 5.7 | 5.3 | 5.9 | 5.9 | 5.6 | 5.6 | 5.2 | 5.5 | 5.7 | 5.6 | 6.7 |
| 5a20f2 | 48.4 | 38.4 | 38.9 | 38.3 | 37.0 | 39.6 | 15.9 | 15.7 | 15.0 | 15.1 | 36.0 | 13.5 | 13.7 | 6.6 |
| cbe2f7 | 50.2 | 43.1 | 44.4 | 42.7 | 41.8 | 46.0 | 19.2 | 20.4 | 19.3 | 18.7 | 41.5 | 18.7 | 19.4 | 7.3 |
| sum | 964.9 | 727.0 | 745.4 | 730.3 | 697.4 | 762.6 | 456.1 | 462.5 | 441.9 | 456.7 | 689.8 | 437.8 | 439.0 | 269.7 |
| mean | 48.2 | 36.3 | 37.3 | 36.5 | 34.9 | 38.1 | 22.8 | 23.1 | 22.1 | 22.8 | 34.5 | 21.9 | 21.9 | 13.5 |

TABLE XLI: Outcomes of RPS (rps-vms) commons-dbcip time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|-------|-------|-------|--------|
| dba639 | -94.7 | 6.6 | 6.5 | 6.4 | 6.9 | 5.9 | 6.6 | 6.6 | 6.6 | 6.3 | 6.4 | 6.9 | 6.3 | -52.9 |
| 141671 | -94.2 | 6.5 | 6.4 | 6.1 | 6.6 | 6.1 | 6.5 | 6.5 | 6.8 | 5.9 | 6.1 | 6.8 | 6.0 | -52.7 |
| b19355 | -94.1 | -95.4 | -64.2 | -93.0 | -95.2 | -63.1 | -88.5 | -88.6 | -60.7 | -87.5 | -61.8 | -62.3 | -58.0 | -52.6 |
| 43a618 | -94.6 | -93.8 | -93.6 | -92.6 | -94.5 | -62.3 | -87.0 | -87.7 | -89.1 | -87.5 | -61.7 | -60.0 | -58.4 | -52.7 |
| 4475a0 | -93.5 | -96.0 | -94.3 | -92.9 | -95.3 | -63.0 | -88.9 | -89.1 | -89.6 | -87.4 | -61.5 | -60.0 | -58.3 | -52.6 |
| 43e1ab | -95.1 | 6.8 | 6.5 | 6.4 | 6.4 | 6.3 | 6.3 | 6.4 | 7.1 | 6.3 | 6.2 | 6.6 | 6.4 | -53.1 |
| 8c0391 | -94.6 | 6.4 | 6.6 | 6.3 | 6.5 | 6.1 | 6.0 | 6.6 | 6.7 | 6.1 | 6.3 | 7.0 | 6.6 | -52.8 |
| 12f80f | -94.8 | 6.6 | 6.5 | 6.0 | 6.7 | 6.1 | 5.9 | 6.3 | 6.4 | 6.2 | 6.1 | 6.6 | 5.9 | -53.1 |
| 3ba469 | -94.6 | 7.5 | 7.2 | 6.9 | 7.0 | 7.1 | 7.2 | 7.6 | 7.0 | 7.0 | 7.2 | 7.5 | 7.2 | -53.5 |
| 0f656a | -95.1 | -58.6 | -57.7 | -58.0 | -57.5 | -57.5 | -57.0 | -58.7 | -58.0 | -57.4 | -56.9 | -58.1 | -57.6 | -53.2 |
| 6bcbad | -94.4 | -95.1 | -95.6 | -92.4 | -95.9 | -63.3 | -88.2 | -88.1 | -90.9 | -88.6 | -63.5 | -62.4 | -59.8 | -53.0 |
| 0b5b1b | -95.1 | -95.4 | -95.2 | -93.2 | -95.9 | -63.6 | -88.0 | -88.6 | -90.4 | -88.9 | -61.6 | -60.9 | -58.5 | -53.2 |
| f74029 | -94.5 | -95.5 | -63.6 | -87.5 | -58.7 | -60.9 | -87.7 | -85.5 | -60.3 | -58.1 | -57.5 | -59.7 | -57.2 | -53.3 |
| 8a1c11 | -94.0 | -96.4 | -95.2 | -93.0 | -96.1 | -63.8 | -88.0 | -89.8 | -89.7 | -88.0 | -62.6 | -61.9 | -58.8 | -53.2 |
| e65434 | -94.3 | -95.8 | -96.2 | -94.2 | -96.4 | -63.7 | -88.8 | -90.0 | -91.2 | -88.5 | -62.4 | -61.4 | -59.5 | -53.3 |
| 861879 | -94.8 | -96.3 | -95.4 | -93.5 | -95.4 | -63.4 | -88.4 | -89.8 | -89.4 | -89.0 | -62.0 | -61.0 | -58.8 | -53.0 |
| 6641cc | -94.7 | -96.7 | -95.8 | -94.3 | -95.4 | -63.7 | -88.2 | -89.4 | -90.3 | -88.5 | -61.9 | -60.4 | -59.1 | -52.9 |
| 840871 | -94.7 | -97.2 | -95.0 | -93.1 | -96.4 | -64.0 | -88.6 | -89.0 | -90.4 | -88.3 | -62.9 | -61.3 | -59.1 | -53.1 |
| 6a6504 | -94.6 | -95.9 | -95.3 | -93.7 | -95.0 | -63.5 | -88.1 | -88.9 | -90.7 | -88.2 | -62.2 | -61.1 | -59.1 | -52.8 |
| sum | 1796.3 | 1248.5 | 1176.8 | 1209.6 | 1208.1 | 853.4 | 1153.9 | 1163.1 | 1121.5 | 1123.7 | 836.7 | 831.8 | 800.5 | 1007.1 |
| mean | 94.5 | 65.7 | 61.9 | 63.7 | 63.6 | 44.9 | 60.7 | 61.2 | 59.0 | 59.1 | 44.0 | 43.8 | 42.1 | 53.0 |

TABLE XLII: Outcomes of RPS (rps-vms) jnr-posix time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 496890 | 143.2 | 31.9 | 30.6 | 30.3 | 29.8 | 29.4 | 21.0 | 21.5 | 21.7 | 21.4 | 30.3 | 21.0 | 20.6 | 12.3 |
| ba4016 | 146.1 | 74.1 | 71.9 | 71.3 | 69.1 | 68.5 | 30.0 | 30.7 | 30.8 | 30.6 | 71.0 | 29.3 | 27.4 | 12.2 |
| 220614 | 145.6 | 82.0 | 79.1 | -79.9 | 42.4 | 76.2 | 31.6 | 31.5 | 32.1 | 24.6 | 41.1 | 31.0 | 20.6 | 12.2 |
| 28a09c | 143.8 | 82.6 | 79.7 | 79.2 | 79.1 | 74.7 | 31.7 | 32.5 | 32.8 | 32.8 | 77.7 | 31.3 | 29.5 | 12.2 |
| a03b2e | 145.9 | 82.0 | 79.0 | 80.9 | 60.7 | 76.6 | 31.2 | 32.2 | 31.9 | 29.3 | 57.6 | 30.9 | 24.3 | 12.2 |
| 6c8812 | -2.5 | -2.6 | -2.5 | -2.5 | -2.3 | -2.2 | -2.3 | -2.3 | -2.5 | -2.4 | -2.5 | -2.4 | -2.4 | -2.3 |
| 6d3956 | 144.6 | 82.1 | 79.5 | 79.2 | 59.9 | 75.2 | 31.2 | 31.6 | 32.3 | 29.7 | 57.9 | 30.7 | 24.3 | 12.5 |
| 40396a | -2.3 | -2.5 | -2.4 | -2.3 | -2.6 | -2.2 | -2.3 | -2.3 | -2.6 | -2.4 | -2.4 | -2.4 | -2.2 | -2.5 |
| e935f8 | 143.3 | 87.6 | 82.5 | 82.7 | 65.0 | 79.4 | 31.9 | 32.7 | 33.6 | 31.4 | 63.1 | 31.5 | 25.3 | 12.4 |
| 40fa74 | 160.6 | 93.2 | 91.0 | 89.1 | 88.1 | 86.2 | 34.5 | 35.6 | 35.6 | 36.0 | 87.8 | 33.9 | 33.1 | 12.8 |
| 1548fb | 155.6 | 92.5 | 89.2 | 87.5 | 81.5 | 83.5 | 33.5 | 34.4 | 34.4 | 32.8 | 81.0 | 31.6 | 26.7 | 12.7 |
| 5eed6f | 157.1 | -94.0 | 91.3 | 88.2 | 82.1 | 84.0 | 33.0 | 34.5 | 34.9 | 33.5 | 81.4 | 31.8 | 27.3 | 12.7 |
| dcd57f | 155.8 | 94.0 | 91.0 | 87.9 | 84.1 | 84.9 | 33.5 | 34.0 | 34.2 | 33.5 | 81.6 | 31.9 | 27.3 | 12.6 |
| 35f3bf | 171.5 | 172.1 | 166.1 | 162.6 | 160.7 | 158.7 | 162.1 | 165.0 | 162.5 | 164.2 | 163.0 | 163.0 | 161.4 | 12.8 |
| 4da2ab | 170.3 | 86.9 | 85.3 | 85.2 | 34.8 | 81.8 | 32.7 | 33.9 | 33.6 | 22.2 | 34.6 | 33.1 | 20.0 | 12.8 |
| edcead | 170.6 | 168.4 | 162.8 | 165.6 | 161.7 | 160.5 | 164.5 | 165.0 | 165.2 | 169.4 | 159.0 | 165.9 | 163.0 | 12.9 |
| 8962f9 | 170.1 | 96.5 | 94.3 | 94.3 | 93.0 | 92.9 | 35.0 | 35.6 | 34.9 | 35.5 | 93.2 | 34.1 | 33.5 | 12.9 |
| cd4525 | 170.3 | 85.9 | 85.1 | 85.7 | 34.9 | 83.7 | 33.1 | 33.8 | 33.2 | 22.7 | 34.6 | 31.8 | 19.6 | 13.0 |
| e8502f | 168.3 | 89.2 | 85.5 | 86.1 | 34.6 | 82.8 | 32.0 | 33.5 | 32.9 | 22.1 | 33.9 | 31.6 | 19.2 | 12.9 |
| 62c6a3 | -1.1 | -1.2 | -1.2 | -1.2 | -1.2 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.2 | -1.1 | -1.2 |
| f65dff | 170.0 | 169.9 | 164.5 | 166.2 | 164.5 | 160.6 | 162.8 | 165.3 | 164.6 | 164.7 | 162.0 | 161.6 | 162.2 | 12.8 |
| 0bde3f | 172.1 | 169.8 | 166.8 | 163.8 | 161.9 | 163.1 | 163.0 | 168.4 | 163.7 | 167.8 | 162.2 | 161.9 | 160.5 | 12.9 |
| 9b0780 | 171.9 | 105.7 | 104.1 | 104.0 | 103.6 | 100.0 | 35.6 | 36.1 | 36.4 | 36.6 | 100.7 | 34.3 | 33.7 | 12.8 |
| cf12ff | 167.8 | 170.8 | 164.8 | 166.3 | 162.8 | 160.7 | 163.4 | 164.7 | 162.7 | 163.6 | 160.5 | 160.6 | 160.4 | 13.0 |
| a17daf | 173.5 | 175.4 | 171.2 | 170.2 | 168.6 | 167.9 | 168.1 | 170.5 | 171.6 | 170.5 | 169.6 | 168.8 | 164.1 | 12.9 |
| 71d8d3 | 179.5 | 110.4 | 107.9 | 111.2 | 89.7 | 105.1 | 35.3 | 37.1 | 37.2 | 34.5 | 85.8 | 33.7 | 28.9 | 12.9 |
| 28d0c8 | 175.0 | 174.8 | 171.4 | 169.2 | 170.6 | 164.1 | 169.5 | 170.3 | 169.2 | 170.2 | 171.0 | 168.2 | 167.0 | 12.8 |
| 7be191 | -1.1 | -1.2 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.2 | -1.1 | -1.2 | -1.1 | -1.1 |
| cecb9b | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 |
| 850f7b | 180.4 | 178.4 | 173.9 | 173.5 | 172.8 | 170.0 | 168.8 | 172.5 | 175.0 | 174.5 | 166.8 | 169.2 | 169.5 | 13.2 |
| c5a412 | 174.1 | 112.1 | 108.9 | 109.7 | 106.5 | 106.1 | 36.6 | 38.0 | 38.1 | 38.1 | 106.5 | 36.2 | 35.2 | 13.2 |
| 752f60 | 183.4 | 118.2 | 117.4 | 114.3 | 111.8 | 111.9 | 39.6 | 40.8 | 40.3 | 41.3 | 112.3 | 38.4 | 37.6 | 13.6 |
| bc5484 | 184.5 | 117.2 | 115.1 | 114.4 | 89.6 | 109.9 | 38.1 | 39.2 | 39.3 | 37.0 | 87.0 | 37.4 | 30.3 | 13.4 |
| 44b67f | 186.3 | 113.0 | 111.5 | 112.0 | 18.1 | 107.9 | 36.4 | 38.2 | 38.1 | 18.5 | 17.8 | 35.7 | 17.7 | 13.9 |
| de7b93 | 184.6 | 5.7 | 6.2 | 6.4 | 5.8 | 5.7 | 5.9 | 6.2 | 6.1 | 5.8 | 5.7 | 5.8 | 5.7 | 13.6 |
| 2537ee | 182.8 | 186.2 | 181.0 | 180.8 | 180.1 | 180.9 | 177.6 | 181.4 | 181.9 | 181.3 | 180.0 | 175.0 | 178.5 | 13.7 |
| 7d4317 | 185.7 | 6.0 | 6.3 | 5.8 | 5.8 | 5.3 | 5.6 | 5.8 | 6.1 | 5.8 | 5.6 | 5.5 | 5.6 | 13.4 |
| ce0a9a | 184.8 | 117.6 | 116.6 | 114.6 | 112.1 | 110.3 | 38.5 | 40.0 | 40.1 | 39.5 | 113.3 | 38.0 | 37.1 | 13.9 |
| 16bedc | 185.7 | 191.7 | 182.6 | 180.9 | 181.3 | -177.7 | 177.4 | 183.9 | 180.4 | 186.2 | 181.9 | 178.2 | 180.1 | 13.7 |
| 46f849 | 185.4 | 189.1 | 180.5 | 181.3 | 179.1 | 179.7 | 179.1 | 185.3 | 183.5 | 186.0 | 184.9 | 176.8 | 176.3 | 13.7 |
| 21e451 | 186.3 | 190.2 | 184.3 | 182.7 | 180.2 | 179.2 | 180.1 | 180.7 | 182.9 | 185.3 | 182.1 | 177.6 | 177.8 | 13.4 |
| 1e1024 | 186.8 | 188.9 | 184.8 | 184.3 | 181.0 | 179.8 | 180.4 | 182.6 | 182.6 | 183.4 | 183.1 | 179.3 | 179.8 | 13.6 |
| abbc4e | 188.5 | 117.4 | 117.9 | 115.6 | 112.0 | 111.7 | 38.6 | 40.1 | 39.3 | 39.7 | 115.7 | 37.4 | 36.8 | 13.7 |
| c2e2f6 | 195.7 | 195.9 | 195.6 | 193.4 | 188.9 | 184.8 | 186.9 | 192.0 | 192.6 | 192.3 | 194.8 | 186.6 | 187.4 | 13.8 |
| 7935cb | 194.9 | 127.1 | 125.3 | 127.0 | 99.7 | 121.7 | 38.5 | 39.6 | 40.1 | 37.0 | 96.7 | 36.1 | 29.6 | 13.6 |
| 03a4a3 | 198.9 | 207.2 | 193.6 | 192.2 | 192.4 | 186.9 | 193.8 | 194.6 | 193.7 | 196.3 | 195.3 | 187.1 | 187.4 | 14.0 |
| 73813c | -196.1 | -126.4 | -125.5 | -123.2 | -51.6 | -122.6 | -38.5 | -38.6 | -38.7 | -28.5 | -49.5 | -36.6 | -23.4 | -13.8 |
| 99c3b5 | -195.3 | -126.5 | -124.4 | -125.8 | -121.5 | -123.0 | -38.6 | -39.4 | -39.8 | -39.0 | -123.2 | -37.4 | -36.2 | -13.7 |
| ce6e2b | -195.3 | -127.4 | -122.9 | -122.4 | -50.9 | -119.8 | -37.5 | -39.4 | -38.8 | -27.9 | -49.5 | -37.0 | -23.8 | -13.7 |
| sum | 7636.2 | 5422.7 | 5277.5 | 5255.3 | 4632.3 | 5103.2 | 3544.5 | 3616.7 | 3607.9 | 3531.3 | 4620.4 | 3503.3 | 3343.3 | 584.8 |
| mean | 155.8 | 110.7 | 107.7 | 107.3 | 94.5 | 104.1 | 72.3 | 73.8 | 73.6 | 72.1 | 94.3 | 71.5 | 68.2 | 11.9 |

TABLE XLIII: Outcomes of RPS (rps-vms) commons-imaging time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|-------|-------|-------|-------|
| cfeff1 | 90.3 | 71.1 | 67.2 | 67.2 | 70.8 | 70.6 | 76.5 | 70.0 | 70.9 | 73.8 | 32.9 | 68.5 | 56.2 | 20.8 |
| 212727 | 90.6 | 76.4 | 74.1 | 72.7 | 76.0 | 35.3 | 81.4 | 75.1 | 75.8 | 81.0 | 32.1 | 31.9 | 55.0 | 17.8 |
| a9cca2 | 89.8 | 10.9 | 10.0 | 9.9 | 10.5 | 11.0 | 12.6 | 10.6 | 10.9 | 10.4 | 10.0 | 10.3 | 10.7 | 19.8 |
| 8a583a | 89.7 | 76.8 | 71.9 | 72.1 | 77.3 | 32.3 | 80.8 | 75.5 | 75.1 | 81.0 | 31.2 | 31.9 | 52.3 | 17.6 |
| f46d64 | 89.2 | 10.6 | 10.3 | 9.8 | 10.0 | 10.0 | 11.7 | 10.5 | 10.7 | 10.4 | 9.9 | 10.1 | 10.0 | 17.7 |
| a32cb5 | 91.1 | 78.4 | 72.5 | 72.6 | 61.1 | 76.3 | 80.8 | 76.9 | 75.6 | 64.4 | 25.5 | 72.0 | 36.6 | 18.2 |
| 6962d8 | 90.3 | 78.1 | 72.8 | 72.8 | 60.3 | 75.4 | 81.0 | 76.5 | 76.0 | 63.4 | 25.2 | 73.5 | 36.1 | 22.5 |
| 62c8e6 | 90.7 | 94.2 | 90.2 | 91.5 | 95.4 | 93.0 | 101.3 | 96.2 | 93.9 | 95.2 | 89.2 | 91.2 | 97.1 | 18.1 |
| ae548a | 91.5 | 89.3 | 83.9 | 86.0 | 85.6 | 87.6 | 93.9 | 88.5 | 87.9 | 86.0 | 28.8 | 82.3 | 37.8 | 19.4 |
| 41d5cf | 90.0 | 10.8 | 10.6 | 10.1 | 10.4 | 10.4 | 11.0 | 10.3 | 10.9 | 10.2 | 9.7 | 10.3 | 10.0 | 18.3 |
| b43743 | 91.9 | 11.4 | 10.3 | 10.0 | 11.1 | 10.1 | 11.9 | 10.3 | 10.5 | 10.0 | 10.0 | 10.3 | 10.4 | 17.9 |
| fb0be4 | 91.4 | 90.7 | 85.3 | 86.5 | 91.2 | 89.5 | 93.4 | 92.5 | 89.1 | 93.2 | 41.3 | 86.7 | 50.7 | 17.9 |
| 611c3b | 91.0 | 26.6 | 23.7 | 23.5 | 25.0 | 24.8 | 33.0 | 25.3 | 24.7 | 35.1 | 23.3 | 23.5 | 34.4 | 17.9 |
| 40ab2c | 91.0 | 10.4 | 10.2 | 10.1 | 10.4 | 10.5 | 11.8 | 10.3 | 10.7 | 10.1 | 9.8 | 10.2 | 10.2 | 17.5 |
| c5ca63 | 90.7 | 90.7 | 86.6 | 86.0 | 90.8 | 43.8 | 95.2 | 88.3 | 89.0 | 90.7 | 41.3 | 41.6 | 52.1 | 17.6 |
| 4701b9 | 91.3 | 89.7 | 85.1 | 85.9 | 90.5 | 41.7 | 90.0 | 87.8 | 88.6 | 91.7 | 41.0 | 41.9 | 47.4 | 17.7 |
| 7862d6 | 91.1 | 91.6 | 88.4 | 88.4 | 93.6 | 92.0 | 93.9 | 91.5 | 91.1 | 97.3 | 47.5 | 87.0 | 53.7 | 18.2 |
| 51880b | 91.4 | 90.7 | 88.2 | 87.8 | 93.3 | 90.7 | 90.2 | 89.5 | 89.1 | 93.5 | 40.9 | 88.1 | 47.8 | 17.7 |
| 0a6149 | 90.4 | 92.8 | 87.5 | 89.3 | 93.2 | 90.5 | 91.4 | 88.9 | 89.7 | 92.9 | 41.8 | 86.7 | 44.1 | 17.7 |
| sum | 1723.5 | 1191.2 | 1128.9 | 1132.3 | 1156.4 | 995.6 | 1241.7 | 1174.4 | 1170.3 | 1190.3 | 591.6 | 957.8 | 752.5 | 350.3 |
| mean | 90.7 | 62.7 | 59.4 | 59.6 | 60.9 | 52.4 | 65.4 | 61.8 | 61.6 | 62.6 | 31.1 | 50.4 | 39.6 | 18.4 |

TABLE XLIV: Outcomes of RPS (rps-vms) javapoet time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 16cd72 | 59.2 | 40.4 | 40.5 | 42.3 | 40.3 | 40.1 | 19.6 | 19.0 | 18.7 | 19.4 | 40.1 | 19.3 | 18.3 | 8.0 |
| 868524 | 58.4 | 39.4 | 39.0 | 40.5 | 38.7 | 39.4 | 18.4 | 17.2 | 18.0 | 17.8 | 39.8 | 18.7 | 17.6 | 8.5 |
| 61b0fa | 60.1 | 39.4 | 39.5 | 41.4 | 39.6 | 39.6 | 19.7 | 18.6 | 18.0 | 18.6 | 40.2 | 19.2 | 17.9 | 8.2 |
| bc65a0 | 58.6 | 39.8 | 39.6 | 41.5 | 39.5 | 40.3 | 18.5 | 17.9 | 18.7 | 18.7 | 39.6 | 19.2 | 17.6 | 8.4 |
| 19b9d7 | 59.2 | 11.9 | 12.0 | 12.7 | 11.7 | 12.4 | 12.2 | 12.0 | 12.2 | 12.0 | 12.4 | 12.3 | 12.2 | 8.1 |
| 01f707 | 58.0 | 11.8 | 12.2 | 12.3 | 11.8 | 12.2 | 12.5 | 12.0 | 11.9 | 12.1 | 11.9 | 12.4 | 11.6 | 8.4 |
| fa5c19 | 57.9 | 12.3 | 11.9 | 12.9 | 12.6 | 12.3 | 12.4 | 12.5 | 12.1 | 12.0 | 12.5 | 12.5 | 11.9 | 8.3 |
| ff50d7 | 58.7 | 12.1 | 11.9 | 12.7 | 11.9 | 11.9 | 12.6 | 11.9 | 11.8 | 12.3 | 12.4 | 13.3 | 11.9 | 8.2 |
| b66d3d | 57.7 | 12.1 | 12.2 | 12.7 | 11.9 | 12.2 | 12.5 | 12.0 | 12.4 | 12.1 | 12.2 | 12.3 | 11.6 | 8.2 |
| 414da3 | 57.1 | 11.8 | 11.7 | 12.1 | 15.2 | 12.1 | 11.9 | 11.6 | 11.7 | 12.8 | 15.5 | 12.3 | 11.6 | 8.3 |
| 647b93 | 59.7 | 13.3 | 14.2 | 13.8 | 13.4 | 13.8 | 13.7 | 13.0 | 13.8 | 13.4 | 13.8 | 13.9 | 12.6 | 10.0 |
| e11279 | 60.9 | 14.0 | 13.8 | 14.2 | 13.5 | 14.2 | 14.1 | 13.3 | 13.6 | 14.3 | 14.5 | 14.0 | 13.1 | 10.0 |
| 40dfa0 | 61.4 | 13.4 | 14.1 | 14.1 | 13.9 | 13.7 | 13.8 | 13.4 | 13.7 | 13.8 | 13.6 | 14.2 | 13.0 | 10.0 |
| 4cd975 | 59.7 | 14.2 | 14.2 | 14.5 | 14.2 | 14.0 | 14.2 | 13.7 | 13.7 | 14.0 | 14.2 | 14.6 | 13.5 | 10.1 |
| ca12c7 | 61.0 | 13.3 | 13.2 | 13.9 | 13.6 | 13.1 | 13.8 | 13.0 | 13.0 | 13.5 | 13.6 | 13.6 | 12.8 | 10.3 |
| 08c714 | 62.0 | 13.0 | 13.6 | 13.6 | 13.2 | 13.0 | 13.5 | 13.0 | 12.6 | 13.6 | 13.6 | 13.4 | 12.8 | 10.1 |
| a5694a | 62.1 | 14.0 | 14.1 | 14.3 | 13.8 | 14.2 | 14.1 | 13.3 | 13.9 | 13.9 | 14.1 | 14.8 | 13.1 | 10.1 |
| 384395 | 61.0 | 13.8 | 14.2 | 14.7 | 14.2 | 13.8 | 14.0 | 13.8 | 13.9 | 14.2 | 14.2 | 15.0 | 13.4 | 10.1 |
| f5b1b6 | 60.6 | 13.6 | 14.1 | 13.8 | 13.6 | 13.7 | 13.5 | 13.2 | 13.8 | 13.8 | 13.4 | 14.4 | 13.4 | 10.0 |
| sum | 1133.4 | 353.7 | 356.2 | 368.2 | 356.6 | 356.0 | 274.9 | 264.3 | 267.3 | 272.3 | 361.7 | 279.3 | 259.7 | 173.2 |
| mean | 59.7 | 18.6 | 18.7 | 19.4 | 18.8 | 18.7 | 14.5 | 13.9 | 14.1 | 14.3 | 19.0 | 14.7 | 13.7 | 9.1 |

TABLE XLV: Outcomes of RPS (rps-vms) beanstalker time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 11a1a8 | 23.3 | 34.0 | 33.9 | 34.7 | 35.9 | 33.7 | 34.3 | 33.8 | 33.7 | 33.5 | 33.3 | 34.3 | 34.6 | 12.9 |
| d3d9cc | 24.1 | 35.5 | 35.0 | 37.1 | 36.5 | 34.5 | 33.4 | 33.8 | 34.3 | 34.4 | 33.8 | 33.7 | 34.0 | 12.9 |
| fc343a | 24.0 | 34.3 | 34.2 | 35.8 | 36.2 | 33.6 | 33.8 | 33.2 | 34.1 | 34.6 | 33.1 | 33.8 | 34.3 | 12.9 |
| 8dc528 | 29.9 | 44.1 | 43.3 | 46.3 | 46.0 | 44.1 | 43.8 | 43.5 | 44.8 | 45.2 | 43.6 | 43.9 | 44.7 | 16.8 |
| 966ec5 | -21.7 | -27.0 | -26.8 | -27.5 | -28.0 | -27.0 | -26.1 | -26.7 | -27.1 | -27.7 | -26.9 | -26.8 | -27.2 | -12.2 |
| 7c2a4a | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 |
| 68cf11 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 |
| 01a6eb | 30.6 | 46.5 | 45.9 | 47.8 | 48.1 | 45.4 | 43.5 | 43.1 | 43.7 | 43.1 | 44.6 | 43.8 | 43.6 | 17.6 |
| 871176 | 30.2 | 46.3 | 46.5 | 47.8 | 47.8 | 45.2 | 44.2 | 44.3 | 44.5 | 45.2 | 45.2 | 44.1 | 44.7 | 17.2 |
| e99f0a | 35.8 | 54.1 | 53.1 | 56.7 | 56.7 | 53.8 | 53.6 | 53.6 | 53.2 | 54.6 | 53.2 | 53.1 | 53.9 | 21.3 |
| 70237c | 37.1 | 56.4 | 56.1 | 58.5 | 58.6 | 56.2 | 54.4 | 54.4 | 54.8 | 55.0 | 54.7 | 54.9 | 55.3 | 21.3 |
| cb517b | 36.0 | 54.1 | 53.6 | 57.1 | 57.1 | 53.5 | 52.2 | 52.1 | 52.6 | 53.9 | 53.8 | 52.7 | 53.3 | 21.4 |
| 195fbc | 35.8 | 55.2 | 54.8 | 57.2 | 58.2 | 54.3 | 53.1 | 53.8 | 53.9 | 54.2 | 53.5 | 54.4 | 53.2 | 21.3 |
| ddf253 | 35.6 | 55.7 | 54.7 | 58.0 | 57.8 | 55.1 | 52.5 | 54.0 | 53.9 | 52.6 | 54.1 | 52.8 | 53.7 | 20.9 |
| 89c2ea | 36.3 | 55.4 | 54.7 | 58.2 | 57.3 | 55.1 | 52.4 | 54.2 | 53.2 | 52.7 | 54.6 | 53.1 | 53.6 | 21.2 |
| effb25 | 35.9 | 54.7 | 54.0 | 57.1 | 56.3 | 54.1 | 52.3 | 52.7 | 53.2 | 53.3 | 53.5 | 52.9 | 52.9 | 21.0 |
| fe9fc8 | 35.6 | 58.8 | 58.4 | 61.3 | 61.1 | 57.7 | 55.9 | 56.7 | 55.2 | 56.6 | 56.7 | 55.7 | 56.4 | 21.4 |
| 0e57c6 | 36.2 | 54.3 | 53.1 | 56.8 | 56.3 | 52.8 | 51.6 | 50.7 | 51.0 | 51.3 | 52.6 | 50.9 | 51.3 | 21.6 |
| 246867 | 36.3 | 54.6 | 54.2 | 56.6 | 57.7 | 53.4 | 52.7 | 52.4 | 52.5 | 52.5 | 54.0 | 52.3 | 53.2 | 20.9 |
| ed882c | 42.1 | 64.7 | 64.0 | 68.6 | 67.9 | 63.8 | 61.4 | 61.8 | 62.0 | 61.4 | 63.6 | 61.4 | 62.4 | 25.0 |
| fa900c | 41.9 | 63.5 | 63.9 | 66.6 | 65.8 | 61.7 | 60.3 | 60.8 | 61.2 | 61.1 | 62.7 | 61.0 | 61.9 | 25.2 |
| d5387d | 41.3 | 61.2 | 60.8 | 63.3 | 63.9 | 60.3 | 57.9 | 57.2 | 57.7 | 58.3 | 60.1 | 57.9 | 58.8 | 25.1 |
| 276985 | 42.2 | 63.5 | 63.4 | 66.7 | 66.1 | 62.3 | 60.0 | 61.6 | 61.8 | 60.9 | 62.0 | 60.5 | 61.7 | 25.3 |
| 53790c | 42.4 | 63.8 | 63.5 | 66.9 | 66.4 | 62.4 | 60.0 | 61.2 | 61.3 | 61.6 | 61.8 | 61.5 | 62.1 | 25.2 |
| d92ac2 | 42.2 | 62.9 | 63.6 | 67.1 | 67.2 | 62.5 | 61.7 | 60.5 | 61.5 | 61.7 | 61.9 | 61.0 | 61.9 | 25.0 |
| 57b569 | 41.7 | 67.2 | 67.0 | 70.7 | 70.3 | 66.1 | 64.5 | 65.3 | 64.5 | 64.6 | 66.4 | 64.5 | 65.0 | 25.3 |
| dc0bfb | 41.0 | 64.3 | 63.6 | 67.9 | 68.4 | 63.7 | 63.8 | 64.0 | 65.0 | 64.2 | 63.4 | 64.6 | 65.1 | 24.7 |
| 5599aa | 42.3 | 63.7 | 64.4 | 66.8 | 66.7 | 62.5 | 61.4 | 61.0 | 61.4 | 61.5 | 62.2 | 61.5 | 62.0 | 24.8 |
| 97f130 | 41.3 | 64.5 | 63.4 | 67.3 | 68.1 | 63.0 | 60.8 | 63.5 | 62.4 | 63.6 | 63.3 | 61.9 | 62.6 | 24.8 |
| 35549e | 33.8 | 50.7 | 50.4 | 53.1 | 53.1 | 50.3 | 50.5 | 50.8 | 50.6 | 50.6 | 49.8 | 50.4 | 50.5 | 25.7 |
| 3566e8 | 33.6 | 53.6 | 53.0 | 55.9 | 56.0 | 53.2 | 53.6 | 53.8 | 54.3 | 54.0 | 53.6 | 54.1 | 53.5 | 25.6 |
| 69dbfa | 33.6 | 56.1 | 54.9 | 58.0 | 57.9 | 55.2 | 55.1 | 55.5 | 55.5 | 56.2 | 54.4 | 55.4 | 56.1 | 25.3 |
| edaba6 | -31.7 | -55.8 | -55.0 | -58.6 | -57.7 | -54.6 | -54.9 | -54.5 | -55.5 | -55.6 | -53.3 | -54.4 | -55.1 | -23.2 |
| caed60 | 34.5 | 53.7 | 53.4 | 56.3 | 55.6 | 52.4 | 53.2 | 53.8 | 53.2 | 53.5 | 52.5 | 53.1 | 54.7 | 25.6 |
| c45847 | 34.8 | 63.6 | 62.9 | 66.3 | 65.9 | 62.6 | 63.3 | 63.7 | 62.8 | 63.7 | 61.7 | 62.9 | 63.3 | 25.5 |
| 28d121 | 33.9 | 62.9 | 63.1 | 66.0 | 66.6 | 61.6 | 62.4 | 63.7 | 64.1 | 63.0 | 62.4 | 62.9 | 63.2 | 25.6 |
| 702ded | 33.8 | 63.9 | 62.4 | 66.8 | 66.6 | 61.9 | 63.3 | 63.3 | 62.7 | 63.5 | 63.0 | 64.1 | 63.9 | 25.6 |
| 736c69 | 34.1 | 52.8 | 53.4 | 56.1 | 56.3 | 53.1 | 53.2 | 53.8 | 53.4 | 54.4 | 52.5 | 52.8 | 53.7 | 25.9 |
| e57574 | 33.4 | 53.1 | 53.3 | 56.2 | 56.2 | 53.0 | 53.0 | 53.2 | 53.4 | 53.0 | 52.1 | 53.0 | 53.8 | 26.2 |
| d87076 | 34.3 | 54.1 | 53.6 | 55.8 | 55.8 | 52.0 | 53.1 | 52.9 | 53.3 | 53.4 | 52.8 | 53.1 | 53.8 | 25.8 |
| e859da | 75.9 | 130.5 | 130.6 | 137.0 | 137.6 | 129.3 | 130.9 | 131.3 | 130.6 | 130.9 | 129.2 | 131.4 | 131.2 | 64.9 |
| 40357a | 75.7 | 134.7 | 134.5 | 142.0 | 142.2 | 133.8 | 135.0 | 134.9 | 134.9 | 135.4 | 133.9 | 134.0 | 135.1 | 65.1 |
| 332f14 | -22.2 | -24.5 | -24.5 | -25.5 | -25.5 | -23.7 | -24.1 | -24.3 | -24.3 | -24.0 | -24.3 | -24.6 | -24.7 | -21.1 |
| c7e905 | 66.6 | 114.2 | 114.3 | 119.3 | 120.3 | 112.4 | 113.5 | 113.6 | 114.3 | 113.6 | 112.7 | 114.2 | 114.7 | 56.6 |
| ec5fc3 | 68.0 | 114.2 | 114.2 | 119.8 | 121.4 | 115.0 | 114.9 | 114.5 | 115.4 | 115.7 | 113.6 | 114.9 | 115.2 | 57.8 |
| a1d8eb | 67.4 | 121.9 | 120.8 | 128.1 | 128.1 | 121.3 | 121.0 | 120.9 | 121.6 | 122.2 | 120.8 | 121.7 | 122.7 | 56.7 |
| a53ecd | 67.1 | 123.2 | 121.5 | 127.1 | 129.0 | 120.3 | 120.5 | 122.4 | 122.3 | 123.1 | 120.9 | 121.3 | 123.1 | 57.1 |
| 620e45 | 66.8 | 120.9 | 121.2 | 126.7 | 127.5 | 120.8 | 121.3 | 121.3 | 121.3 | 121.4 | 120.9 | 121.0 | 121.8 | 57.2 |
| cd171f | -50.2 | -94.4 | -93.5 | -98.2 | -99.2 | -94.9 | -93.3 | -93.3 | -93.6 | -95.1 | -93.5 | -93.6 | -93.7 | -48.0 |
| sum | 1896.3 | 3061.2 | 3042.5 | 3201.3 | 3207.2 | 3021.0 | 2993.6 | 3007.4 | 3013.5 | 3023.2 | 3008.1 | 3004.1 | 3029.2 | 1331.6 |
| mean | 38.7 | 62.5 | 62.1 | 65.3 | 65.5 | 61.7 | 61.1 | 61.4 | 61.5 | 61.7 | 61.4 | 61.3 | 61.8 | 27.2 |

TABLE XLVI: Outcomes of RPS (rps-vms) commons-io time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2196ff | 411.4 | 21.4 | 20.6 | 21.3 | 20.6 | 20.6 | 21.0 | 21.5 | 20.2 | 21.6 | 20.2 | 20.5 | 21.6 | 101.5 |
| 65657b | 414.5 | 20.9 | 20.0 | 21.9 | 21.6 | 20.5 | 22.1 | 20.1 | 20.2 | 20.7 | 20.6 | 20.5 | 21.8 | 101.2 |
| 6e2ac1 | 415.7 | 246.1 | 231.0 | 247.8 | 240.1 | 227.4 | 197.3 | 193.8 | 181.4 | 196.7 | 216.1 | 176.5 | 164.2 | 101.7 |
| b014a0 | 415.1 | 21.0 | 20.1 | 21.8 | 20.0 | 20.6 | 20.5 | 20.8 | 20.6 | 21.2 | 20.1 | 20.8 | 20.2 | 101.5 |
| dcf6e8 | 412.2 | 173.4 | 155.9 | 174.0 | 157.7 | 155.1 | 154.3 | 149.9 | 129.2 | 141.6 | 154.4 | 128.6 | 128.3 | 102.7 |
| 84a0d9 | 408.8 | 172.4 | 155.1 | 174.3 | 168.5 | 155.7 | 153.4 | 149.7 | 128.4 | 153.5 | -155.4 | 129.2 | 131.7 | 102.1 |
| 10c8db | 412.3 | 173.1 | 154.5 | 174.0 | 167.7 | 154.6 | 153.3 | 150.4 | 129.0 | 151.3 | 155.1 | 128.5 | -130.7 | 102.3 |
| 2bacf6 | 414.1 | 21.6 | 20.3 | 21.4 | 20.9 | 21.2 | 21.8 | 20.5 | 20.2 | 20.1 | 19.9 | 20.2 | 21.1 | 101.8 |
| 4f50c3 | 418.1 | 177.4 | 159.8 | 178.9 | 175.5 | 164.0 | 156.0 | 151.6 | 130.1 | 152.7 | 160.4 | 128.9 | 131.5 | 102.8 |
| 30280a | 413.1 | 177.0 | 161.2 | 181.6 | 173.9 | 160.2 | 155.8 | 151.5 | 130.7 | 153.3 | 158.2 | 128.7 | 132.8 | 101.7 |
| 9cd312 | 407.3 | 178.2 | 160.5 | 180.0 | 174.0 | 160.9 | 155.5 | 151.8 | 130.7 | 152.8 | 160.4 | 128.7 | 131.3 | 101.7 |
| c1b64e | 410.9 | 20.7 | 20.5 | 22.4 | 20.8 | 20.1 | 20.5 | 20.5 | 21.3 | 20.4 | 20.3 | 20.7 | 22.0 | 101.9 |
| 65c4a9 | 409.2 | 21.4 | 20.3 | 21.8 | 20.5 | 22.5 | 21.1 | 20.1 | 21.2 | 20.2 | 20.5 | 20.1 | 21.9 | 101.6 |
| 86cc77 | 423.0 | 21.8 | 20.4 | 22.2 | 20.3 | 21.3 | 22.1 | 20.8 | 21.0 | 21.1 | 20.5 | 20.8 | 21.8 | 103.5 |
| d3fc1a | 422.9 | 21.6 | 20.3 | 22.5 | 20.5 | 20.2 | 21.6 | 19.7 | 21.1 | 20.8 | 20.6 | 20.7 | 21.3 | 101.7 |
| d19259 | 420.8 | 309.3 | 251.5 | 314.3 | 297.4 | 249.5 | 215.9 | 210.0 | 157.4 | 213.8 | 238.3 | 157.0 | 145.5 | 103.0 |
| ed15b0 | 420.5 | 309.8 | 251.4 | 315.2 | 247.3 | 249.1 | 215.7 | 209.2 | 156.1 | 193.5 | 199.1 | 155.5 | 134.9 | 102.1 |
| 459ceb | 419.1 | 274.1 | 223.4 | 278.0 | 173.3 | 220.3 | 205.5 | 201.1 | 150.9 | 151.5 | 160.9 | 148.0 | 130.2 | 101.6 |
| 947c01 | 416.5 | 274.9 | 410.8 | 278.4 | 263.1 | 251.2 | 196.9 | 190.9 | 181.1 | 193.0 | 238.8 | 174.4 | 162.9 | 103.0 |
| sum | 7885.4 | 2635.9 | 2477.7 | 2671.9 | 2403.8 | 2315.1 | 2130.2 | 2073.7 | 1770.7 | 2019.8 | 2159.8 | 1748.4 | 1695.4 | 1939.2 |
| mean | 415.0 | 138.7 | 130.4 | 140.6 | 126.5 | 121.8 | 112.1 | 109.1 | 93.2 | 106.3 | 113.7 | 92.0 | 89.2 | 102.1 |

TABLE XLVII: Outcomes of RPS (rps-vms) imglib2 time

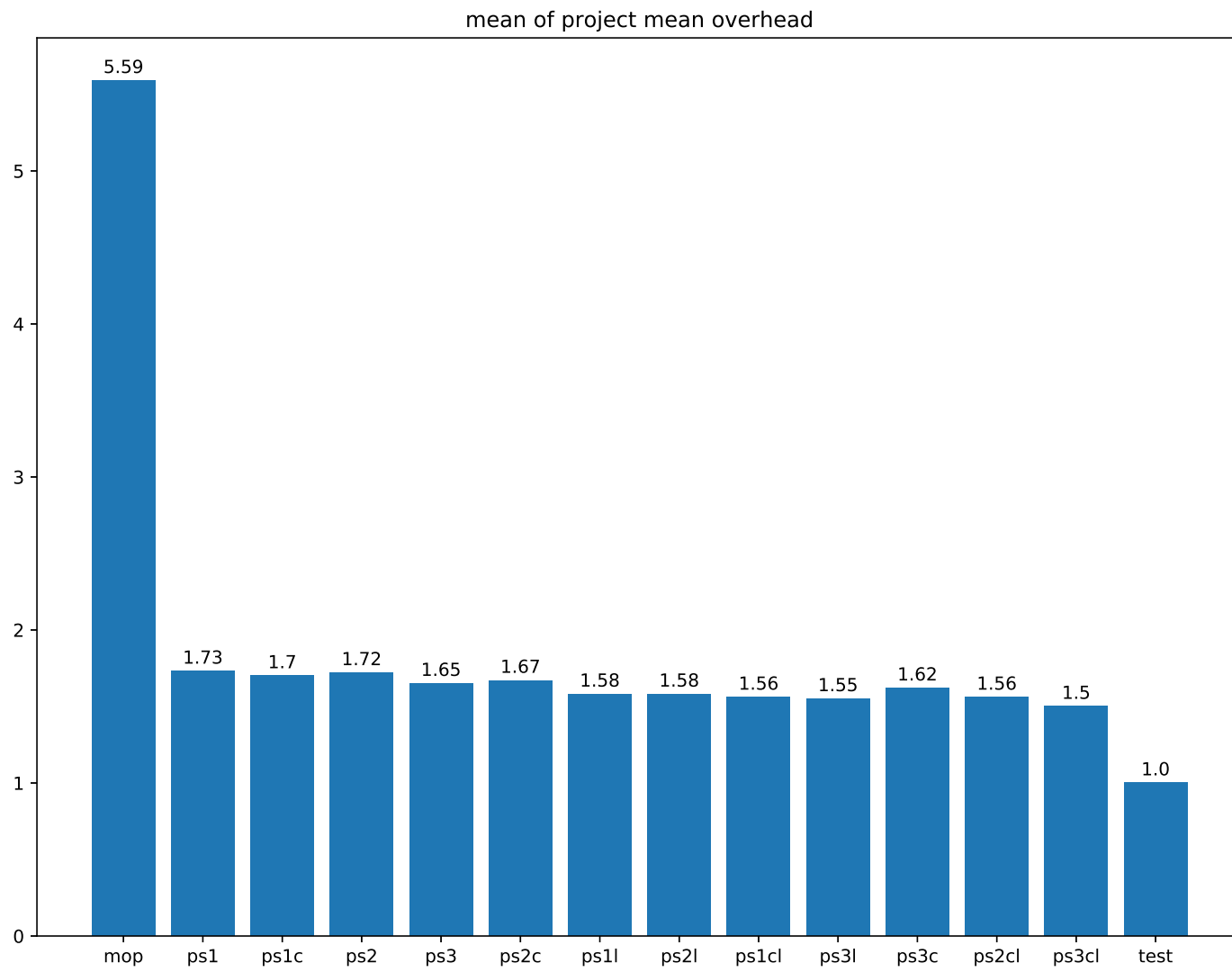
| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 311bb3 | 31.6 | 20.0 | 17.8 | 18.9 | 19.2 | 19.1 | 18.2 | 18.1 | 18.2 | 18.8 | 19.2 | 18.6 | 17.7 | 12.6 |
| e45314 | 31.2 | 17.6 | 16.8 | 15.7 | 16.9 | 16.6 | 16.1 | 15.8 | 16.6 | 16.0 | 16.2 | 16.1 | 15.4 | 12.5 |
| 2d6644 | 31.2 | 30.0 | 26.1 | 26.9 | 28.0 | 26.8 | 26.7 | 26.5 | 27.9 | 26.8 | 26.0 | 26.1 | 24.6 | 12.6 |
| ca346b | 31.5 | 27.2 | 17.4 | 23.8 | 24.7 | 18.0 | 23.9 | 23.8 | 17.3 | 23.9 | 17.3 | 16.5 | 16.1 | 12.9 |
| 28c941 | 31.4 | 33.2 | 22.7 | 29.2 | 30.8 | 22.5 | 29.1 | 29.4 | 23.1 | 29.3 | 21.5 | 21.3 | 19.4 | 12.9 |
| f835a8 | 31.0 | 8.0 | 7.1 | 7.0 | 7.0 | 7.4 | 7.4 | 6.8 | 7.3 | 6.9 | 7.4 | 7.3 | 7.2 | 12.3 |
| a735f9 | 31.1 | 32.3 | 27.8 | 28.7 | 30.5 | 28.6 | 28.8 | 28.9 | 29.4 | 29.1 | 28.3 | 27.0 | 26.5 | 13.1 |
| bba835 | 31.3 | 17.9 | 15.9 | 16.4 | 15.7 | 17.0 | 17.0 | 15.9 | 17.0 | 15.8 | 16.1 | 16.9 | 15.3 | 12.9 |
| e2f354 | 31.2 | 32.2 | 28.3 | 29.5 | 30.5 | 28.7 | 29.7 | 29.0 | 30.1 | 29.5 | 29.0 | 27.6 | 26.6 | 12.4 |
| 897b86 | 31.5 | 7.6 | 6.8 | 6.7 | 6.9 | 7.0 | 6.9 | 6.8 | 7.3 | 6.6 | 7.1 | 7.0 | 6.4 | 12.9 |
| 59cf72 | 31.4 | 32.6 | 28.0 | 29.1 | 30.9 | 29.1 | 30.0 | 29.4 | 30.0 | 29.1 | 28.7 | 27.8 | 27.2 | 12.6 |
| 1941a7 | 31.6 | 32.2 | 28.4 | 29.3 | 30.7 | 28.9 | 29.5 | 29.3 | 29.9 | 29.7 | 28.4 | 27.7 | 26.7 | 12.7 |
| ca903a | 33.8 | 38.9 | 35.4 | 35.3 | 37.0 | 37.2 | 36.0 | 35.4 | 36.8 | 35.3 | 36.7 | 35.9 | 34.9 | 13.4 |
| 1fe7da | 33.8 | 33.7 | 22.1 | 30.1 | 31.7 | 22.5 | 31.3 | 30.1 | 23.2 | 29.9 | 21.2 | 21.0 | 19.3 | 13.5 |
| d5e69f | 33.8 | 8.7 | 7.4 | 7.4 | 7.4 | 7.0 | 7.9 | 7.0 | 7.6 | 7.4 | 7.8 | 7.7 | 6.8 | 13.3 |
| b34e8b | 33.7 | 33.8 | 20.5 | 30.5 | 17.4 | 21.4 | 30.5 | 30.1 | 21.9 | 17.0 | 17.1 | 20.9 | 16.1 | 13.6 |
| 43e04d | 34.0 | 33.1 | 20.6 | 29.0 | 16.8 | 20.4 | 30.9 | 28.4 | 21.7 | 16.2 | 16.9 | 18.9 | 15.9 | 13.6 |
| 156d36 | 34.4 | 35.0 | 29.3 | 30.9 | 32.5 | 30.8 | 30.2 | 30.8 | 31.1 | 31.0 | 31.2 | 28.9 | 27.9 | 13.7 |
| 599cd1 | 34.1 | 34.7 | 22.3 | 30.8 | 17.6 | 23.2 | 30.7 | 30.5 | 21.9 | 17.0 | 17.2 | 21.4 | 16.7 | 13.7 |
| sum | 613.9 | 508.6 | 400.5 | 455.1 | 432.2 | 412.0 | 460.7 | 451.8 | 418.4 | 415.1 | 393.2 | 394.7 | 366.8 | 247.3 |
| mean | 32.3 | 26.8 | 21.1 | 24.0 | 22.7 | 21.7 | 24.2 | 23.8 | 22.0 | 21.8 | 20.7 | 20.8 | 19.3 | 13.0 |

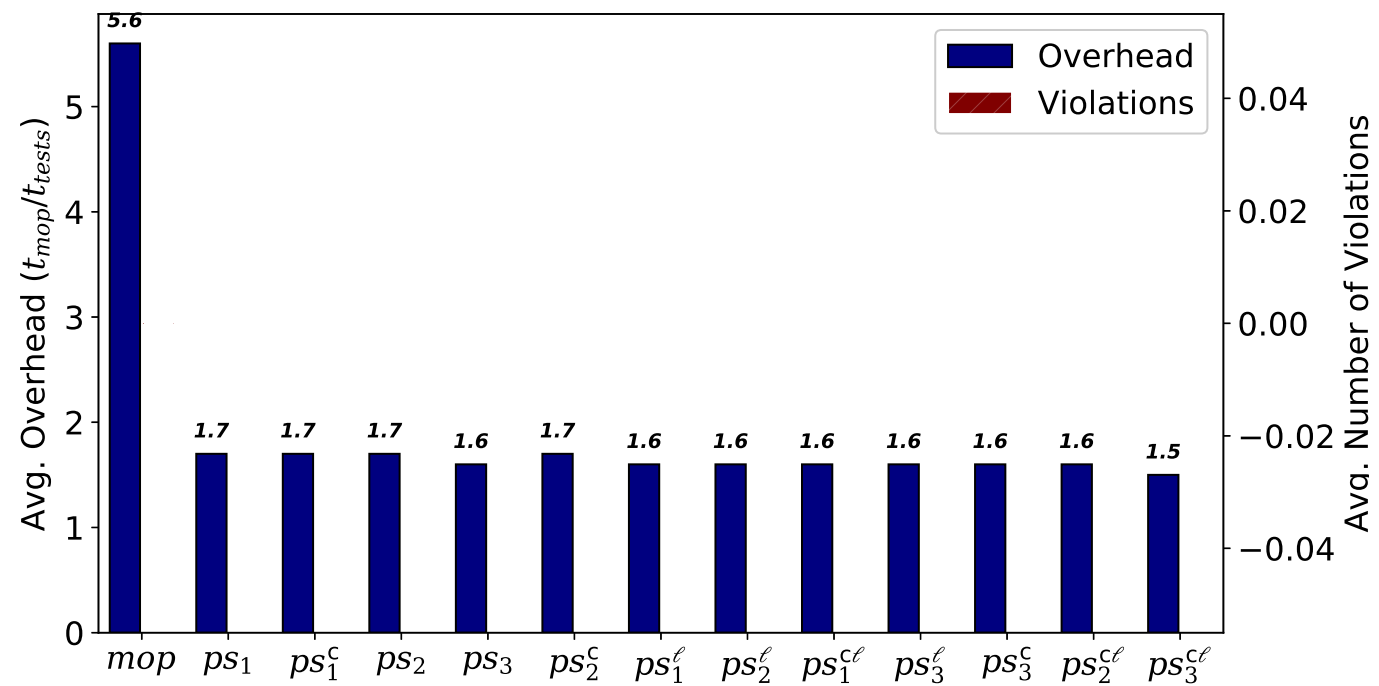
TABLE XLVIII: Outcomes of RPS (rps-vms) jscep time

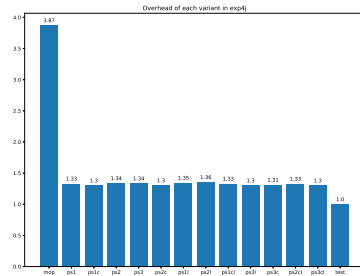
| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| e553d4 | 46.9 | 38.7 | 38.1 | 39.3 | 39.2 | 37.7 | 28.7 | 28.7 | 27.8 | 29.1 | 39.7 | 27.2 | 27.7 | 21.9 |
| ce7b9a | 47.9 | 49.0 | 48.4 | 47.7 | 48.6 | 49.4 | 48.6 | 48.8 | 49.8 | 50.6 | 51.8 | 49.8 | 50.3 | 21.8 |
| 8cd073 | 47.6 | 43.0 | 42.1 | 38.6 | 39.7 | 38.3 | 28.5 | 27.3 | 26.8 | 28.2 | 40.4 | 26.9 | 26.8 | 21.8 |
| 6e794a | 47.7 | 43.6 | 42.6 | 42.9 | 39.4 | 42.8 | 28.5 | 28.6 | 28.1 | 28.8 | 40.2 | 28.2 | 27.9 | 22.3 |
| c77163 | 33.7 | 29.9 | 28.0 | 29.1 | 19.2 | 28.5 | 14.6 | 14.1 | 12.9 | 13.7 | 19.8 | 13.8 | 13.0 | 7.6 |
| da5108 | 33.8 | 30.0 | 28.6 | 28.6 | 28.9 | 27.8 | 14.3 | 14.0 | 13.9 | 15.5 | 29.5 | 13.8 | 13.4 | 8.1 |
| 7cc074 | 33.8 | 3.8 | 3.8 | 3.9 | 4.0 | 3.8 | 4.0 | 3.9 | 4.2 | 4.1 | 4.2 | 4.0 | 4.2 | 8.0 |
| 886eac | 33.4 | 30.2 | 30.0 | 30.1 | 30.5 | 29.4 | 14.7 | 14.6 | 13.9 | 15.2 | 31.0 | 14.3 | 14.0 | 7.7 |
| 6404ef | 34.2 | 3.8 | 3.7 | 3.9 | 3.8 | 3.8 | 3.8 | 3.9 | 3.7 | 4.2 | 4.1 | 3.9 | 4.0 | 7.9 |
| a039b8 | 34.2 | 12.0 | 12.6 | 13.0 | 12.3 | 12.4 | 11.7 | 11.4 | 11.3 | 12.0 | 12.6 | 11.7 | 11.9 | 8.1 |
| c45090 | 33.2 | 3.5 | 3.7 | 3.9 | 4.0 | 3.7 | 3.7 | 3.6 | 4.1 | 3.9 | 3.9 | 3.8 | 4.2 | 8.0 |
| 2af66c | 33.9 | 29.8 | 29.0 | 29.9 | 18.5 | 29.0 | 14.4 | 14.4 | 12.6 | 13.5 | 18.6 | 13.6 | 11.9 | 7.8 |
| ab5a7f | 33.3 | 30.9 | 29.6 | 30.3 | 25.1 | 29.7 | 14.6 | 14.3 | 14.1 | 14.3 | 26.6 | 14.5 | 13.4 | 8.1 |
| afd8e1 | 33.2 | 30.8 | 30.0 | 30.7 | 31.1 | 30.1 | 14.8 | 15.2 | 13.9 | 15.8 | 31.4 | 14.8 | 14.7 | 8.1 |
| 1cf7dd | 33.7 | 30.4 | 30.1 | 30.8 | 29.2 | 30.2 | 14.6 | 14.4 | 14.6 | 15.7 | 29.9 | 14.7 | 14.4 | 7.8 |
| c27515 | 33.2 | 29.8 | 29.3 | 28.2 | 28.4 | 26.6 | 13.6 | 13.6 | 13.3 | 14.6 | 30.6 | 13.1 | 12.6 | 7.6 |
| e4683d | 32.9 | 30.3 | 29.6 | 29.0 | 28.2 | 27.7 | 14.4 | 14.3 | 13.6 | 14.8 | 30.4 | 13.8 | 13.4 | 7.9 |
| 9a58e1 | 33.8 | 29.7 | 29.6 | 29.3 | 28.5 | 27.6 | 14.3 | 14.0 | 13.3 | 14.9 | 29.6 | 12.9 | 12.6 | 7.5 |
| 661ba5 | 33.9 | 30.6 | 28.3 | 21.5 | 21.6 | 20.1 | 14.0 | 12.5 | 13.1 | 13.5 | 22.9 | 11.5 | 12.0 | 8.1 |
| 298ec2 | 33.2 | 30.5 | 29.4 | 29.8 | 18.8 | 28.8 | 14.4 | 14.6 | 13.2 | 13.1 | 20.5 | 13.4 | 12.1 | 7.8 |
| 71cc1e | 33.5 | 30.7 | 28.9 | 29.5 | 18.6 | 29.5 | 14.2 | 14.0 | 13.9 | 14.0 | 19.9 | 13.7 | 11.9 | 7.5 |
| d30047 | 33.0 | 30.2 | 29.9 | 30.1 | 27.6 | 29.0 | 13.8 | 14.9 | 13.5 | 14.8 | 29.0 | 14.2 | 12.8 | 7.6 |
| 2c828e | 32.6 | 27.3 | 25.7 | 27.6 | 23.5 | 26.4 | 13.8 | 13.8 | 12.0 | 14.1 | 24.9 | 12.5 | 12.6 | 7.8 |
| fa7653 | 32.9 | 31.3 | 31.4 | 31.8 | 31.9 | 31.0 | 15.2 | 15.2 | 15.7 | 16.6 | 34.3 | 16.1 | 16.5 | 7.3 |
| 9284fb | 33.0 | 30.2 | 29.5 | 28.2 | 28.5 | 27.3 | 13.8 | 13.7 | 13.5 | 14.5 | 30.0 | 12.9 | 12.3 | 8.0 |
| 795bcb | 33.4 | 31.1 | 29.8 | 30.7 | 29.4 | 29.8 | 14.7 | 14.5 | 14.3 | 15.5 | 31.1 | 14.1 | 13.1 | 7.7 |
| 8f11a9 | 34.0 | 31.0 | 29.9 | 31.4 | 29.1 | 30.6 | 14.4 | 15.0 | 14.0 | 15.6 | 30.9 | 14.3 | 13.4 | 8.0 |
| b64cb3 | 33.2 | 3.9 | 3.9 | 3.8 | 4.0 | 3.6 | 4.0 | 3.7 | 3.8 | 4.1 | 4.2 | 3.8 | 4.0 | 7.8 |
| 338fad | 34.2 | 4.0 | 3.8 | 3.7 | 3.9 | 3.7 | 3.7 | 3.8 | 4.0 | 4.0 | 4.2 | 4.0 | 4.3 | 7.8 |
| 2e6948 | 33.7 | 36.4 | 34.7 | 35.1 | 34.8 | 34.8 | 35.0 | 35.3 | 34.9 | 37.3 | 39.8 | 36.0 | 36.9 | 7.8 |
| e5cf30 | 34.0 | 29.8 | 29.5 | 28.7 | 29.4 | 28.0 | 14.8 | 14.6 | 14.0 | 15.2 | 30.6 | 14.7 | 14.2 | 8.3 |
| 42bb03 | 33.2 | 29.9 | 29.0 | 28.7 | 28.6 | 27.6 | 14.7 | 14.1 | 14.3 | 15.6 | 30.3 | 14.4 | 13.6 | 7.5 |
| a40f7b | 34.1 | 29.7 | 28.8 | 23.7 | 19.1 | 22.0 | 14.6 | 14.3 | 13.0 | 13.6 | 20.0 | 12.3 | 12.3 | 7.5 |
| 35b503 | 34.9 | 30.1 | 29.4 | 30.0 | 27.8 | 28.8 | 15.0 | 14.8 | 14.3 | 15.2 | 29.2 | 14.2 | 13.1 | 7.6 |
| daabb3 | 34.6 | 30.3 | 29.2 | 21.7 | 21.5 | 21.0 | 14.7 | 13.2 | 13.8 | 14.1 | 23.3 | 13.0 | 12.2 | 7.8 |
| abe114 | 33.1 | 30.0 | 29.1 | 30.4 | 22.6 | 29.1 | 15.0 | 14.7 | 13.4 | 13.8 | 23.8 | 14.3 | 12.8 | 7.4 |
| 647e36 | 34.1 | 3.8 | 3.8 | 4.0 | 3.7 | 3.7 | 3.7 | 3.9 | 4.1 | 4.0 | 4.7 | 3.9 | 4.0 | 8.2 |
| 727d01 | 33.4 | 35.3 | 34.6 | 35.2 | 35.8 | 34.0 | 35.0 | 34.9 | 35.2 | 36.4 | 39.0 | 36.0 | 36.8 | 8.3 |
| 848385 | 33.3 | 30.6 | 29.3 | 21.9 | 21.7 | 21.2 | 14.7 | 13.4 | 13.1 | 13.4 | 23.0 | 12.9 | 12.7 | 7.7 |
| f0b104 | 33.7 | 34.9 | 34.3 | 33.9 | 34.2 | 33.7 | 34.6 | 34.3 | 34.5 | 35.8 | 37.8 | 35.2 | 35.8 | 7.8 |
| 97bf71 | 33.7 | 30.6 | 29.0 | 21.4 | 21.6 | 20.4 | 14.6 | 13.3 | 13.3 | 13.3 | 23.4 | 12.0 | 12.5 | 8.1 |
| 615b24 | 35.3 | 37.6 | 36.4 | 36.4 | 38.1 | 36.4 | 36.6 | 37.3 | 36.9 | 37.8 | 40.7 | 37.6 | 39.0 | 7.7 |
| a712db | -107.2 | -113.9 | -90.3 | -94.6 | -80.3 | -111.8 | -79.6 | -100.9 | -97.8 | -100.4 | -104.2 | -106.5 | -126.4 | -70.0 |
| d5c64b | -87.5 | 3.9 | 3.9 | 3.8 | 3.9 | 3.7 | 4.0 | 3.9 | 3.8 | 4.1 | 4.4 | 4.2 | 3.9 | -63.7 |
| 19f366 | -101.3 | -108.2 | -105.5 | -121.4 | -101.1 | -103.9 | -64.8 | -74.5 | -86.5 | -88.6 | -111.4 | -85.6 | -85.6 | -92.5 |
| 94a361 | -84.6 | -91.3 | -91.8 | -79.6 | -92.2 | -95.8 | -87.0 | -96.9 | -69.3 | -93.0 | -123.3 | -92.9 | -85.9 | -84.8 |
| 40295a | -93.5 | 3.9 | 3.8 | 3.8 | 3.9 | 3.8 | 4.2 | 3.7 | 3.8 | 4.1 | 4.4 | 3.9 | 4.0 | -68.7 |
| fee2a5 | -93.3 | -84.2 | -108.2 | -74.5 | -92.2 | -94.1 | -83.0 | -77.8 | -70.7 | -84.6 | -115.2 | -87.4 | -79.0 | -89.1 |
| 3c9dd9 | -106.6 | -92.1 | -93.5 | -90.7 | -76.1 | -100.4 | -86.1 | -78.7 | -88.8 | -108.5 | -102.6 | -84.5 | -86.1 | -74.0 |
| sum | 2142.5 | 1666.9 | 1633.5 | 1576.7 | 1484.7 | 1592.1 | 1109.2 | 1129.7 | 1098.5 | 1197.2 | 1657.4 | 1146.9 | 1142.4 | 927.9 |
| mean | 43.7 | 34.0 | 33.3 | 32.2 | 30.3 | 32.5 | 22.6 | 23.1 | 22.4 | 24.4 | 33.8 | 23.4 | 23.3 | 18.9 |

TABLE XLIX: Outcomes of RPS (rps-vms) stream-lib time

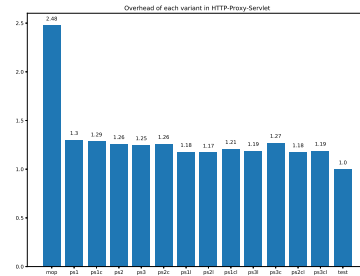
| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6a6645 | 582.8 | 827.9 | 112.5 | 622.5 | 461.5 | 117.4 | 560.3 | 600.0 | 107.4 | 453.9 | 112.4 | 105.6 | 112.2 | 88.5 |
| 91d215 | 581.8 | 106.8 | 90.0 | 100.8 | 94.2 | 91.7 | -93.2 | -98.6 | 88.1 | 90.7 | 88.5 | 84.3 | 92.8 | 90.1 |
| c0e238 | 594.8 | 101.7 | 88.8 | 95.5 | 91.0 | 93.1 | 90.4 | 95.9 | 87.3 | 88.2 | 90.0 | 84.7 | 92.9 | 88.6 |
| 63255d | 858.6 | 807.5 | 97.2 | 369.7 | 261.8 | 99.9 | 553.4 | 546.1 | 92.0 | 471.8 | 96.1 | 88.5 | 96.4 | 87.8 |
| 0f2183 | 601.2 | 359.8 | 93.8 | 624.4 | 384.6 | 99.4 | 418.4 | 519.2 | 90.8 | 384.4 | 94.4 | 88.4 | 94.4 | 89.8 |
| 98b913 | 647.7 | 685.2 | 94.5 | -616.5 | 382.5 | 98.0 | 493.8 | 494.1 | 91.0 | 231.7 | 94.7 | 87.7 | 94.4 | 89.3 |
| 43aecb | 664.5 | 682.3 | 95.1 | 620.5 | 455.8 | 101.1 | 446.0 | 465.3 | 92.6 | 256.4 | 97.3 | 89.9 | 97.6 | 88.9 |
| 0c33f1 | 477.9 | 819.1 | 93.7 | 501.7 | 389.4 | 99.4 | 440.3 | 547.5 | 90.1 | 369.9 | 93.3 | 87.6 | 94.0 | 89.5 |
| 0eca17 | 599.7 | 822.1 | 93.3 | 622.7 | 404.6 | 97.8 | 569.9 | 541.6 | 88.9 | 383.7 | -93.5 | 85.7 | 93.4 | 88.6 |
| 7433ea | 471.2 | 812.7 | 98.3 | 631.1 | 456.7 | 100.5 | 574.2 | 521.0 | 92.3 | 454.4 | 97.4 | 90.6 | 97.8 | 88.3 |
| 8da108 | 712.9 | 746.3 | 154.2 | 685.2 | 458.6 | 166.3 | 595.0 | 545.8 | 147.1 | 547.7 | 158.1 | 142.9 | 158.2 | 90.5 |
| 7d085a | 509.9 | 5.2 | 4.3 | 4.7 | 4.8 | 4.7 | 4.6 | 5.1 | 4.6 | 5.0 | 4.4 | 4.5 | 4.8 | 90.2 |
| 22654f | 757.3 | 96.3 | 91.0 | 90.5 | 87.1 | 92.2 | 91.3 | 92.5 | 89.3 | 89.3 | 89.0 | 84.5 | -93.5 | 90.3 |
| 35a0d3 | 456.3 | 928.8 | -451.1 | 608.9 | 421.0 | 841.2 | 505.5 | 836.0 | 365.0 | 391.2 | 485.6 | 403.2 | 570.9 | 87.1 |
| b5fc30 | 600.6 | 584.5 | 440.6 | 495.1 | 463.3 | 991.8 | 558.6 | 799.7 | 483.5 | 537.0 | 447.2 | 389.6 | 396.1 | 87.1 |
| 3ac200 | 747.9 | 180.1 | 99.5 | 168.0 | 157.1 | 105.1 | 165.9 | 168.7 | 100.6 | 164.7 | 103.5 | 96.4 | 105.0 | 98.7 |
| f0518e | 715.4 | 183.0 | 103.4 | 176.2 | 161.5 | 110.9 | 172.7 | 179.4 | 106.5 | 168.2 | 107.2 | 104.1 | 113.4 | 105.0 |
| 8f31aa | 536.4 | 908.3 | 127.7 | 590.3 | 316.6 | 122.5 | 565.7 | 677.8 | 124.7 | 310.0 | 118.5 | 110.5 | 120.1 | 105.6 |
| 573fa7 | 775.4 | 175.4 | 87.9 | 156.9 | 146.1 | 95.8 | 142.7 | 161.3 | 88.7 | 156.2 | 88.9 | 86.5 | 94.4 | 85.5 |
| sum | 11892.6 | 9833.0 | 2516.9 | 7781.2 | 5598.2 | 3528.6 | 7041.8 | 7895.4 | 2430.7 | 5554.5 | 2560.0 | 2315.1 | 2622.3 | 1729.5 |
| mean | 625.9 | 517.5 | 132.5 | 409.5 | 294.6 | 185.7 | 370.6 | 415.5 | 127.9 | 292.3 | 134.7 | 121.8 | 138.0 | 91.0 |



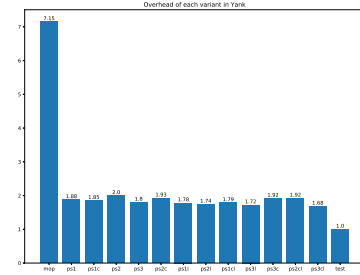




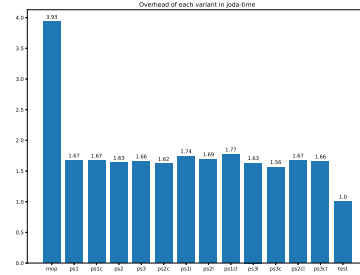
(a) rps-rpptime for exp4j



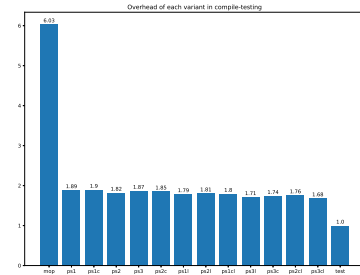
(b) rps-rpptime for HTTP-Proxy-Servlet

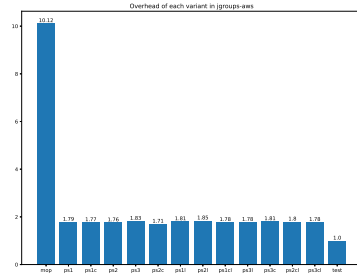


(c) rps-rpptime for Yank

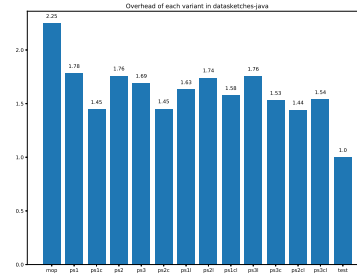


(d) rps-rpptime for joda-time

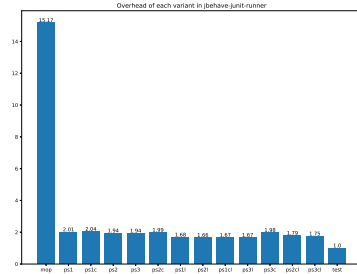




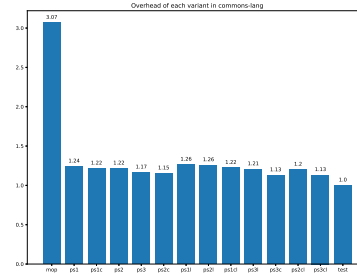
(a) rps-rpptime for jgroups-aws



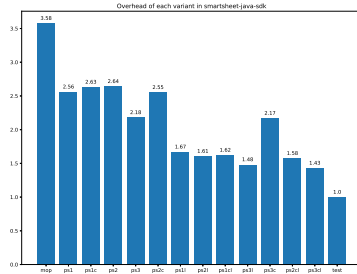
(b) rps-rpptime for datasketches-java



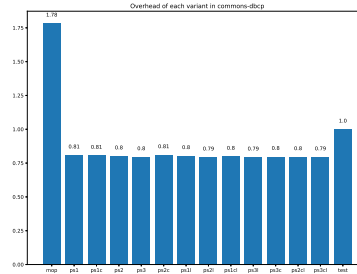
(c) rps-rpptime for jbehave-junit-runner



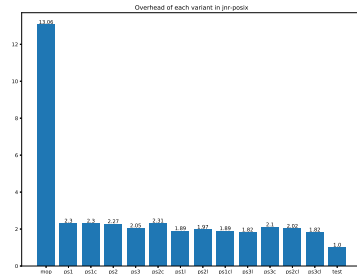
(d) rps-rpptime for commons-lang



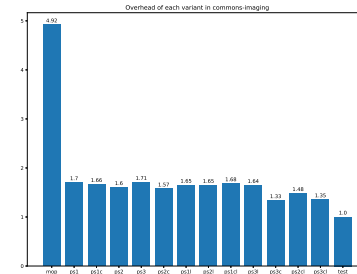
(e) rps-rpptime for smartsheet-java-sdk



(f) rps-rpptime for commons-dbcp



(g) rps-rpptime for jnr-posix



(h) rps-rpptime for commons-imaging

Fig. 19: Plots for rps-rpp Part 2

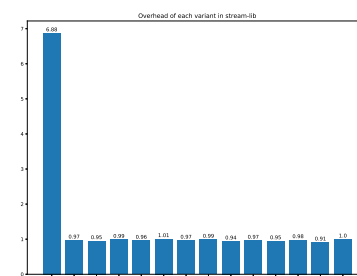
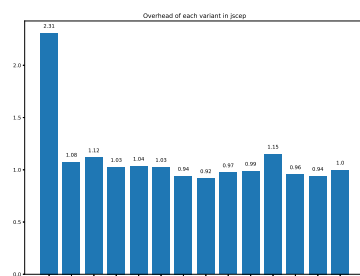
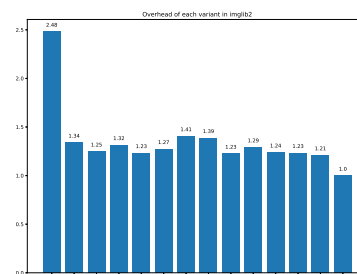
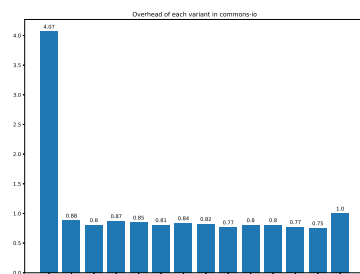
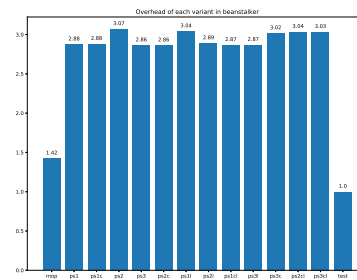
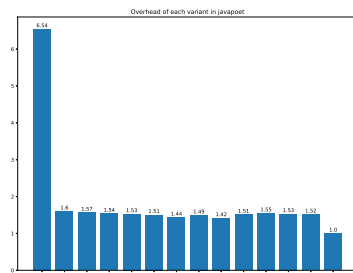


Fig. 20: Plots for rps-rpp Part END

TABLE L: Outcomes of RPS (rps-rpp) sum time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| exp4j | 1757.1 | 604.5 | 590.2 | 607.2 | 605.8 | 591.6 | 610.3 | 614.9 | 603.5 | 591.0 | 595.3 | 603.1 | 590.2 | 453.7 |
| HTTP-Proxy-Servlet | 1617.1 | 849.8 | 840.0 | 822.1 | 814.8 | 823.4 | 769.6 | 764.6 | 789.3 | 776.2 | 830.3 | 767.5 | 777.2 | 652.7 |
| Yank | 356.0 | 93.4 | 92.1 | 99.4 | 89.6 | 95.9 | 88.7 | 86.7 | 88.9 | 85.7 | 95.4 | 95.6 | 83.7 | 49.8 |
| joda-time | 2081.0 | 884.8 | 883.0 | 865.0 | 877.1 | 855.4 | 921.5 | 895.3 | 936.7 | 862.7 | 827.8 | 884.2 | 876.1 | 529.2 |
| compile-testing | 1844.4 | 576.7 | 579.6 | 557.3 | 571.7 | 566.8 | 546.2 | 552.2 | 548.8 | 523.7 | 532.3 | 537.4 | 514.4 | 305.7 |
| zt-exec | 386.0 | 235.7 | 242.5 | 227.5 | 235.5 | 237.9 | 229.0 | 234.8 | 231.2 | 229.4 | 235.6 | 226.6 | 232.8 | 204.9 |
| java-configuration-impl | 629.2 | 151.1 | 149.2 | 151.0 | 151.7 | 140.7 | 140.3 | 143.9 | 141.3 | 150.0 | 145.9 | 142.1 | 137.2 | 88.9 |
| embedded-jmxtrans | 2174.5 | 534.2 | 519.6 | 537.0 | 510.4 | 526.2 | 444.1 | 416.2 | 413.4 | 433.7 | 476.3 | 423.6 | 403.6 | 201.1 |
| jgroups-aws | 464.5 | 82.1 | 81.3 | 81.0 | 83.9 | 78.4 | 83.1 | 84.7 | 81.6 | 81.8 | 83.2 | 82.6 | 81.7 | 45.9 |
| datasketches-java | 3785.2 | 3000.2 | 2435.7 | 2961.8 | 2846.5 | 2446.8 | 2746.4 | 2932.4 | 2654.8 | 2956.6 | 2578.1 | 2428.3 | 2590.9 | 1683.3 |
| jbehave-junit-runner | 3524.8 | 467.0 | 474.3 | 451.2 | 449.6 | 461.3 | 390.8 | 386.2 | 387.1 | 387.5 | 458.9 | 416.0 | 406.4 | 232.3 |
| commons-lang | 1254.7 | 507.9 | 497.2 | 497.5 | 476.8 | 471.8 | 517.1 | 514.6 | 500.5 | 493.4 | 462.2 | 491.3 | 463.2 | 409.1 |
| smartsheet-java-sdk | 964.9 | 690.8 | 710.0 | 712.5 | 588.2 | 688.6 | 450.7 | 433.5 | 437.8 | 399.9 | 585.3 | 424.9 | 386.0 | 269.7 |
| commons-dbcp | 1796.3 | 814.6 | 811.8 | 807.5 | 801.0 | 816.1 | 809.6 | 799.3 | 804.6 | 799.3 | 803.6 | 801.5 | 800.4 | 1007.1 |
| jnr-posix | 7636.2 | 1347.7 | 1345.7 | 1328.1 | 1196.2 | 1351.3 | 1107.2 | 1152.1 | 1106.6 | 1065.0 | 1227.4 | 1182.4 | 1065.0 | 584.8 |
| commons-imaging | 1723.5 | 595.9 | 583.1 | 561.2 | 598.0 | 551.2 | 577.7 | 576.6 | 588.5 | 576.1 | 467.6 | 518.3 | 473.8 | 350.3 |
| javapoet | 1133.4 | 277.5 | 271.4 | 266.5 | 264.5 | 261.0 | 248.7 | 258.7 | 245.7 | 261.7 | 268.4 | 264.9 | 262.9 | 173.2 |
| beanstalker | 1896.3 | 3829.3 | 3838.3 | 4088.0 | 3813.7 | 3813.0 | 4050.9 | 3848.9 | 3818.3 | 3820.7 | 4018.1 | 4042.5 | 4039.7 | 1331.6 |
| commons-io | 7885.4 | 1709.9 | 1560.3 | 1692.8 | 1644.5 | 1561.1 | 1622.9 | 1599.2 | 1487.1 | 1558.9 | 1560.0 | 1501.0 | 1457.3 | 1939.2 |
| imglib2 | 613.9 | 331.6 | 309.0 | 325.4 | 305.0 | 315.3 | 348.0 | 343.3 | 303.4 | 319.7 | 306.6 | 305.3 | 299.4 | 247.3 |
| jscep | 2142.5 | 997.9 | 1037.5 | 952.2 | 962.2 | 952.3 | 873.2 | 852.2 | 904.3 | 917.8 | 1069.5 | 887.4 | 872.3 | 927.9 |
| stream-lib | 11892.6 | 1680.2 | 1648.7 | 1715.0 | 1667.6 | 1747.6 | 1672.3 | 1718.3 | 1632.4 | 1669.9 | 1642.9 | 1696.5 | 1580.4 | 1729.5 |
| sum | 57559.5 | 20262.9 | 19500.6 | 20307.1 | 19554.0 | 19353.9 | 19248.2 | 19208.6 | 18705.7 | 18960.7 | 19270.8 | 18723.1 | 18394.7 | 13417.2 |
| mean | 2616.3 | 921.0 | 886.4 | 923.1 | 888.8 | 879.7 | 874.9 | 873.1 | 850.3 | 861.8 | 875.9 | 851.0 | 836.1 | 609.9 |

TABLE LI: Outcomes of RPS (rps-rpp) mean time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|-------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| exp4j | 35.9 | 12.3 | 12.0 | 12.4 | 12.4 | 12.1 | 12.5 | 12.5 | 12.3 | 12.1 | 12.1 | 12.3 | 12.0 | 9.3 |
| HTTP-Proxy-Servlet | 33.0 | 17.3 | 17.1 | 16.8 | 16.6 | 16.8 | 15.7 | 15.6 | 16.1 | 15.8 | 16.9 | 15.7 | 15.9 | 13.3 |
| Yank | 22.2 | 5.8 | 5.8 | 6.2 | 5.6 | 6.0 | 5.5 | 5.4 | 5.6 | 5.4 | 6.0 | 6.0 | 5.2 | 3.1 |
| joda-time | 42.5 | 18.1 | 18.0 | 17.7 | 17.9 | 17.5 | 18.8 | 18.3 | 19.1 | 17.6 | 16.9 | 18.0 | 17.9 | 10.8 |
| compile-testing | 37.6 | 11.8 | 11.8 | 11.4 | 11.7 | 11.6 | 11.1 | 11.3 | 11.2 | 10.7 | 10.9 | 11.0 | 10.5 | 6.2 |
| zt-exec | 27.6 | 16.8 | 17.3 | 16.2 | 16.8 | 17.0 | 16.4 | 16.8 | 16.5 | 16.4 | 16.8 | 16.2 | 16.6 | 14.6 |
| java-configuration-impl | 27.4 | 6.6 | 6.5 | 6.6 | 6.6 | 6.1 | 6.1 | 6.3 | 6.1 | 6.5 | 6.3 | 6.2 | 6.0 | 3.9 |
| embedded-jmxtrans | 44.4 | 10.9 | 10.6 | 11.0 | 10.4 | 10.7 | 9.1 | 8.5 | 8.4 | 8.9 | 9.7 | 8.6 | 8.2 | 4.1 |
| jgroups-aws | 29.0 | 5.1 | 5.1 | 5.1 | 5.2 | 4.9 | 5.2 | 5.3 | 5.1 | 5.1 | 5.2 | 5.2 | 5.1 | 2.9 |
| datasketches-java | 80.5 | 63.8 | 51.8 | 63.0 | 60.6 | 52.1 | 58.4 | 62.4 | 56.5 | 62.9 | 54.9 | 51.7 | 55.1 | 35.8 |
| jbehave-junit-runner | 71.9 | 9.5 | 9.7 | 9.2 | 9.2 | 9.4 | 8.0 | 7.9 | 7.9 | 7.9 | 9.4 | 8.5 | 8.3 | 4.7 |
| commons-lang | 66.0 | 26.7 | 26.2 | 26.2 | 25.1 | 24.8 | 27.2 | 27.1 | 26.3 | 26.0 | 24.3 | 25.9 | 24.4 | 21.5 |
| smartsheet-java-sdk | 48.2 | 34.5 | 35.5 | 35.6 | 29.4 | 34.4 | 22.5 | 21.7 | 21.9 | 20.0 | 29.3 | 21.2 | 19.3 | 13.5 |
| commons-dbcp | 94.5 | 42.9 | 42.7 | 42.5 | 42.2 | 43.0 | 42.6 | 42.1 | 42.3 | 42.1 | 42.3 | 42.2 | 42.1 | 53.0 |
| jnr-posix | 155.8 | 27.5 | 27.5 | 27.1 | 24.4 | 27.6 | 22.6 | 23.5 | 22.6 | 21.7 | 25.0 | 24.1 | 21.7 | 11.9 |
| commons-imaging | 90.7 | 31.4 | 30.7 | 29.5 | 31.5 | 29.0 | 30.4 | 30.3 | 31.0 | 30.3 | 24.6 | 27.3 | 24.9 | 18.4 |
| javapoet | 59.7 | 14.6 | 14.3 | 14.0 | 13.9 | 13.7 | 13.1 | 13.6 | 12.9 | 13.8 | 14.1 | 13.9 | 13.8 | 9.1 |
| beanstalker | 38.7 | 78.1 | 78.3 | 83.4 | 77.8 | 77.8 | 82.7 | 78.5 | 77.9 | 78.0 | 82.0 | 82.5 | 82.4 | 27.2 |
| commons-io | 415.0 | 90.0 | 82.1 | 89.1 | 86.6 | 82.2 | 85.4 | 84.2 | 78.3 | 82.0 | 82.1 | 79.0 | 76.7 | 102.1 |
| imglib2 | 32.3 | 17.5 | 16.3 | 17.1 | 16.1 | 16.6 | 18.3 | 18.1 | 16.0 | 16.8 | 16.1 | 16.1 | 15.8 | 13.0 |
| jscep | 43.7 | 20.4 | 21.2 | 19.4 | 19.6 | 19.4 | 17.8 | 17.4 | 18.5 | 18.7 | 21.8 | 18.1 | 17.8 | 18.9 |
| stream-lib | 625.9 | 88.4 | 86.8 | 90.3 | 87.8 | 92.0 | 88.0 | 90.4 | 85.9 | 87.9 | 86.5 | 89.3 | 83.2 | 91.0 |
| sum | 2122.7 | 650.2 | 627.3 | 649.8 | 627.3 | 624.7 | 617.5 | 617.1 | 598.5 | 606.6 | 613.3 | 598.9 | 583.1 | 488.5 |
| mean | 96.5 | 29.6 | 28.5 | 29.5 | 28.5 | 28.4 | 28.1 | 28.1 | 27.2 | 27.6 | 27.9 | 27.2 | 26.5 | 22.2 |

TABLE LII: Outcomes of RPS (rps-rpp) exp4j time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9b5270 | 103.1 | 14.0 | 14.2 | 15.1 | 15.2 | 14.2 | 14.3 | 15.0 | 15.2 | 14.0 | 14.3 | 14.2 | 14.2 | 9.5 |
| abf84e | 106.6 | 13.2 | 13.5 | 13.7 | 14.0 | 12.9 | 13.0 | 13.7 | 13.0 | 14.0 | 13.2 | 13.6 | 13.2 | 9.4 |
| bfaeb2 | 107.3 | 13.5 | 13.2 | 13.4 | 14.5 | 13.7 | 13.5 | 13.3 | 13.7 | 13.8 | 13.0 | 13.6 | 12.7 | 9.5 |
| 4346b2 | 107.3 | 14.1 | 13.5 | 14.1 | 13.0 | 12.9 | 13.8 | 13.5 | 13.2 | 12.8 | 13.3 | 13.7 | 13.8 | 9.3 |
| 16f249 | 112.3 | 13.7 | 13.7 | 14.1 | 14.0 | 13.4 | 14.2 | 13.9 | 13.8 | 12.9 | 13.1 | 13.7 | 13.6 | 9.6 |
| c339cc | 106.9 | 13.9 | 12.4 | 13.9 | 13.7 | 13.6 | 13.4 | 13.9 | 14.5 | 13.3 | 14.4 | 13.9 | 13.0 | 9.6 |
| 224191 | 105.2 | 14.5 | 14.2 | 14.5 | 13.6 | 13.4 | 14.3 | 14.6 | 14.3 | 13.9 | 13.8 | 14.3 | 13.4 | 9.6 |
| 5b63e1 | 104.2 | 13.4 | 13.3 | 13.2 | 12.9 | 13.3 | 13.9 | 13.1 | 13.0 | 13.5 | 13.5 | 13.3 | 13.2 | 9.6 |
| 76ffe6 | 108.3 | 3.2 | 3.2 | 3.2 | 3.3 | 3.2 | 3.5 | 3.5 | 3.3 | 3.2 | 3.2 | 3.2 | 3.3 | 9.4 |
| f80e8b | 104.9 | 13.0 | 13.1 | 13.3 | 13.2 | 13.5 | 14.2 | 14.4 | 13.6 | 13.3 | 13.4 | 12.6 | 13.0 | 9.6 |
| 8ff4f1 | 103.3 | 13.4 | 13.8 | 12.4 | 13.4 | 13.1 | 13.4 | 13.1 | 12.6 | 12.6 | 13.1 | 13.8 | 13.0 | 9.7 |
| 96c52c | 19.6 | 10.2 | 10.6 | 10.8 | 11.2 | 10.7 | 10.2 | 10.6 | 10.8 | 9.9 | 10.8 | 10.9 | 11.0 | 8.9 |
| 9d7620 | 14.0 | 13.5 | 13.0 | 12.6 | 13.6 | 12.9 | 12.7 | 13.1 | 12.9 | 12.8 | 13.4 | 12.5 | 12.7 | 8.9 |
| 1640d4 | 13.7 | 11.9 | 12.7 | 13.0 | 12.0 | 12.4 | 12.3 | 13.9 | 12.3 | 12.2 | 11.8 | 12.4 | 13.0 | 9.1 |
| 377eb0 | 13.7 | 12.9 | 13.5 | 12.8 | 12.7 | 12.6 | 12.4 | 13.0 | 13.8 | 12.9 | 13.2 | 12.8 | 14.1 | 9.0 |
| b5b575 | 14.2 | 12.5 | 11.9 | 12.4 | 12.4 | 12.9 | 12.6 | 13.6 | 12.5 | 12.4 | 11.9 | 12.3 | 13.2 | 9.1 |
| 1f4ac3 | 14.1 | 13.3 | 12.4 | 12.5 | 13.1 | 12.6 | 13.5 | 12.8 | 12.8 | 12.6 | 12.9 | 13.1 | 12.6 | 8.9 |
| f27e78 | 14.0 | 12.8 | 12.6 | 13.3 | 13.6 | 12.7 | 13.4 | 12.9 | 12.9 | 12.7 | 12.1 | 12.1 | 12.3 | 9.0 |
| 59849d | 14.7 | 13.5 | 12.4 | 14.0 | 13.6 | 11.5 | 12.6 | 12.5 | 12.8 | 12.5 | 13.2 | 13.3 | 12.1 | 9.0 |
| a97382 | 15.5 | 13.6 | 12.9 | 12.7 | 13.2 | 12.9 | 13.0 | 13.4 | 13.2 | 13.0 | 13.3 | 14.2 | 12.4 | 9.1 |
| 83de2b | 15.2 | 13.9 | 13.0 | 13.3 | 13.3 | 13.6 | 14.4 | 14.6 | 14.1 | 12.7 | 13.3 | 13.0 | 12.6 | 9.1 |
| 70d59f | 15.2 | 13.4 | 13.0 | 12.3 | 12.4 | 11.9 | 12.9 | 12.7 | 12.1 | 13.1 | 12.2 | 12.4 | 12.0 | 9.1 |
| 49d187 | 15.2 | 12.9 | 12.2 | 12.7 | 12.7 | 11.7 | 13.4 | 12.4 | 13.3 | 12.0 | 13.6 | 12.0 | 12.9 | 9.1 |
| 219dfc | 15.8 | 13.3 | 12.7 | 13.0 | 12.9 | 12.9 | 12.7 | 13.8 | 13.4 | 13.3 | 13.0 | 12.6 | 12.5 | 9.2 |
| eb7ec0 | 15.4 | 12.6 | 12.2 | 12.6 | 11.6 | 12.4 | 13.1 | 12.5 | 12.3 | 12.7 | 12.5 | 11.8 | 13.1 | 9.2 |
| fe0b59 | 15.1 | 12.6 | 12.8 | 13.1 | 12.1 | 11.8 | 13.2 | 12.8 | 12.9 | 13.0 | 13.3 | 12.3 | 12.1 | 9.1 |
| 3d3255 | 15.3 | 12.9 | 12.4 | 12.6 | 13.2 | 13.2 | 13.6 | 13.5 | 11.9 | 12.7 | 12.1 | 13.3 | 13.3 | 9.0 |
| fb1bd8 | 15.0 | 3.6 | 3.2 | 3.3 | 3.7 | 3.1 | 3.3 | 3.4 | 3.2 | 3.2 | 3.3 | 3.1 | 3.2 | 9.2 |
| 377f45 | 15.2 | 12.8 | 13.0 | 13.7 | 12.5 | 13.2 | 13.1 | 13.2 | 13.0 | 12.5 | 12.8 | 12.8 | 12.9 | 9.2 |
| 58938f | 15.8 | 13.1 | 12.9 | 12.7 | 12.8 | 13.9 | 13.1 | 14.1 | 13.9 | 12.8 | 13.4 | 13.9 | 13.0 | 9.2 |
| e329dd | 15.4 | 13.0 | 12.2 | 13.3 | 13.2 | 12.6 | 13.0 | 12.8 | 12.8 | 12.5 | 11.9 | 13.3 | 11.7 | 9.4 |
| 9d257d | 15.8 | 12.0 | 13.2 | 13.0 | 12.8 | 12.6 | 12.9 | 13.6 | 12.8 | 13.5 | 12.5 | 13.1 | 13.2 | 9.3 |
| ee8d81 | 15.4 | 3.4 | 3.2 | 3.5 | 3.1 | 3.2 | 3.3 | 3.6 | 3.5 | 3.2 | 3.3 | 3.5 | 3.2 | 9.4 |
| 403989 | 15.8 | 12.9 | 12.4 | 13.0 | 12.9 | 12.3 | 13.4 | 13.5 | 12.7 | 13.0 | 12.6 | 12.6 | 13.3 | 9.1 |
| 9da6d6 | 15.2 | 13.1 | 12.0 | 13.3 | 13.1 | 12.7 | 12.7 | 13.3 | 12.8 | 12.2 | 12.4 | 13.1 | 11.9 | 9.3 |
| 8df7ad | 15.6 | 13.1 | 12.0 | 13.3 | 12.7 | 12.5 | 13.2 | 12.6 | 13.4 | 13.2 | 13.7 | 12.9 | 12.6 | 9.2 |
| 115238 | 15.6 | 13.4 | 13.3 | 13.2 | 12.5 | 12.8 | 13.4 | 13.9 | 13.4 | 12.7 | 12.1 | 13.0 | 12.5 | 9.1 |
| e977f1 | 15.6 | 12.9 | 12.3 | 13.2 | 14.0 | 12.8 | 13.2 | 12.8 | 13.3 | 12.3 | 13.1 | 13.1 | 12.8 | 9.3 |
| eb606b | 16.2 | 13.6 | 12.8 | 13.3 | 13.1 | 13.6 | 14.0 | 13.3 | 12.7 | 12.9 | 12.9 | 13.4 | 12.7 | 9.4 |
| bc9a8a | 16.1 | 13.3 | 12.8 | 13.1 | 14.0 | 13.3 | 13.2 | 13.0 | 12.9 | 12.8 | 13.0 | 13.1 | 13.1 | 9.1 |
| 0f86d5 | 15.5 | 13.3 | 12.6 | 13.5 | 13.0 | 12.6 | 13.8 | 13.2 | 13.3 | 13.1 | 13.4 | 13.1 | 13.0 | 9.3 |
| fb1103 | 15.8 | 3.5 | 3.4 | 3.7 | 3.7 | 3.2 | 3.5 | 3.7 | 3.4 | 3.3 | 3.3 | 3.5 | 3.3 | 9.3 |
| 2b82f0 | 15.9 | 12.9 | 12.2 | 12.2 | 13.3 | 12.4 | 13.1 | 12.5 | 12.4 | 12.3 | 11.7 | 13.0 | 12.3 | 9.2 |
| e3fbf3 | 16.0 | 13.4 | 14.4 | 13.8 | 14.1 | 12.9 | 13.2 | 13.8 | 13.2 | 13.7 | 14.3 | 13.5 | 13.9 | 9.2 |
| c2f7b9 | 16.3 | 12.5 | 12.2 | 13.8 | 12.5 | 12.4 | 13.4 | 13.5 | 12.6 | 12.0 | 12.0 | 13.7 | 11.9 | 9.4 |
| 1af15f | 16.4 | 13.3 | 12.5 | 13.1 | 13.1 | 13.5 | 13.6 | 14.2 | 13.5 | 12.4 | 12.7 | 13.6 | 12.9 | 9.2 |
| 726228 | 15.7 | 12.5 | 12.4 | 13.3 | 13.1 | 13.4 | 12.9 | 12.7 | 12.9 | 13.0 | 13.0 | 12.9 | 12.3 | 9.3 |
| 12eb15 | 16.1 | 13.7 | 13.7 | 14.4 | 13.8 | 13.1 | 14.1 | 14.3 | 13.9 | 13.5 | 13.8 | 13.9 | 12.9 | 9.2 |
| bae815 | 16.2 | 13.5 | 13.6 | 13.1 | 14.1 | 13.7 | 13.8 | 13.5 | 14.0 | 13.4 | 13.2 | 14.0 | 13.5 | 9.5 |
| sum | 1757.1 | 604.5 | 590.2 | 607.2 | 605.8 | 591.6 | 610.3 | 614.9 | 603.5 | 591.0 | 595.3 | 603.1 | 590.2 | 453.7 |
| mean | 35.9 | 12.3 | 12.0 | 12.4 | 12.4 | 12.1 | 12.5 | 12.5 | 12.3 | 12.1 | 12.1 | 12.3 | 12.0 | 9.3 |

TABLE LIII: Outcomes of RPS (rps-rpp) HTTP-Proxy-Servlet time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|---------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 33e505 | 15.3 | 8.9 | 8.8 | 8.5 | 9.1 | 9.0 | 7.6 | 8.1 | 8.2 | 7.3 | 8.2 | 7.9 | 8.0 | 3.0 |
| 4b1e27 | 15.5 | 7.8 | 8.2 | 7.8 | 8.1 | 7.7 | 7.1 | 5.9 | 7.5 | 7.2 | 7.7 | 6.9 | 6.6 | 3.0 |
| 98985b | 15.0 | 8.1 | 8.9 | 9.0 | 8.3 | 7.2 | 6.9 | 6.0 | 7.5 | 6.3 | 7.7 | 6.7 | 7.5 | 2.9 |
| 1d5413 | 15.6 | 8.3 | 7.9 | 7.4 | 8.1 | 8.2 | 5.8 | 7.0 | 6.3 | 6.1 | 7.4 | 6.9 | 6.5 | 2.9 |
| cb3a0b | 15.0 | 7.9 | 7.2 | 8.4 | 7.4 | 7.9 | 7.1 | 6.9 | 7.5 | 6.6 | 7.9 | 7.1 | 7.4 | 3.0 |
| fa9d71 | 15.1 | 3.5 | 3.5 | 3.5 | 3.2 | 3.6 | 3.4 | 3.2 | 3.3 | 3.6 | 3.5 | 3.2 | 3.7 | 3.0 |
| 58e91f | 14.8 | 8.2 | 8.7 | 7.8 | 7.9 | 8.0 | 6.9 | 7.6 | 7.0 | 7.0 | 8.0 | 6.7 | 7.0 | 3.0 |
| 8a41cf | 15.3 | 7.8 | 8.8 | 8.1 | 7.6 | 8.0 | 6.4 | 6.4 | 8.1 | 6.6 | 8.3 | 6.9 | 6.7 | 3.0 |
| 6925e1 | 15.7 | 9.0 | 8.5 | 8.2 | 7.7 | 7.4 | 6.6 | 6.4 | 7.1 | 7.1 | 7.3 | 6.5 | 6.9 | 3.0 |
| 5500d9 | 15.8 | 7.1 | 5.8 | 6.2 | 4.8 | 5.8 | 6.5 | 6.1 | 6.7 | 6.3 | 5.4 | 5.5 | 5.5 | 3.1 |
| 32401f | 16.8 | 8.8 | 8.7 | 8.7 | 7.9 | 8.1 | 7.0 | 7.0 | 7.2 | 7.2 | 8.0 | 6.7 | 7.0 | 2.9 |
| b8405e | 16.0 | 9.0 | 8.7 | 8.1 | 7.6 | 7.8 | 6.8 | 6.7 | 7.4 | 7.5 | 8.3 | 6.8 | 7.6 | 3.0 |
| c93ca1 | 16.2 | 8.5 | 8.8 | 8.4 | 8.1 | 7.8 | 7.2 | 8.0 | 7.3 | 7.3 | 9.1 | 6.6 | 7.3 | 2.9 |
| e9cc22 | 16.7 | 9.5 | 8.6 | 8.4 | 8.2 | 8.0 | 8.2 | 7.3 | 8.2 | 7.6 | 8.7 | 7.1 | 7.7 | 3.1 |
| 1e3a0c | 16.7 | 9.7 | 9.1 | 8.3 | 8.6 | 7.2 | 7.2 | 7.2 | 8.4 | 8.0 | 8.6 | 7.7 | 6.9 | 3.2 |
| 60fe09 | 16.4 | 8.8 | 8.1 | 8.9 | 8.3 | 7.9 | 7.4 | 8.1 | 7.6 | 7.3 | 8.9 | 7.0 | 7.5 | 3.4 |
| 0afcc5 | 19.0 | 8.9 | 8.8 | 7.8 | 8.2 | 7.6 | 7.5 | 8.1 | 9.2 | 8.7 | 8.9 | 8.2 | 7.8 | 5.3 |
| 72583c | 27.0 | 19.1 | 18.8 | 19.1 | 17.9 | 19.1 | 17.7 | 18.2 | 18.3 | 17.7 | 19.5 | 17.2 | 18.1 | 13.3 |
| 417b86 | 27.2 | 19.1 | 19.2 | 19.0 | 18.1 | 17.6 | 17.4 | 17.4 | 17.7 | 17.5 | 18.3 | 17.2 | 17.8 | 13.4 |
| c67d99 | 27.4 | 19.1 | 18.6 | 17.6 | 17.5 | 18.6 | 17.4 | 17.0 | 17.7 | 17.5 | 18.2 | 17.2 | 17.8 | 13.4 |
| cf2f89 | 31.9 | 23.4 | 24.2 | 22.9 | 23.4 | 24.4 | 21.9 | 23.2 | 23.1 | 22.4 | 25.2 | 22.6 | 23.2 | 18.4 |
| 5eb89e | 33.1 | 24.1 | 24.4 | 23.8 | 23.1 | 22.9 | 22.7 | 22.7 | 22.9 | 22.0 | 23.5 | 21.7 | 23.3 | 18.4 |
| a69a17 | 32.8 | 24.4 | 24.0 | 23.1 | 23.2 | 24.1 | 22.7 | 22.4 | 23.1 | 22.9 | 23.4 | 22.4 | 22.6 | 18.4 |
| bfcdd7d | 32.4 | 23.2 | 23.0 | 23.1 | 24.2 | 23.2 | 22.7 | 21.7 | 23.5 | 22.2 | 24.2 | 22.4 | 22.0 | 18.6 |
| db06a4 | 32.4 | 4.1 | 3.9 | 3.7 | 3.8 | 4.3 | 3.9 | 3.9 | 4.0 | 4.1 | 4.1 | 3.8 | 3.9 | 18.6 |
| 9df9bb | 32.1 | 23.6 | 24.4 | 22.9 | 23.9 | 24.1 | 22.6 | 22.5 | 23.2 | 23.1 | 23.7 | 22.3 | 22.1 | 18.5 |
| 2b2d95 | 32.2 | 22.2 | 21.2 | 21.1 | 21.4 | 22.4 | 21.6 | 20.4 | 21.4 | 21.5 | 21.2 | 20.7 | 21.1 | 18.7 |
| 89f716 | 32.1 | 24.5 | 24.2 | 24.1 | 23.7 | 25.1 | 23.3 | 22.2 | 23.2 | 23.4 | 23.8 | 22.7 | 23.2 | 18.5 |
| a58a72 | 31.7 | 24.2 | 24.1 | 23.6 | 23.5 | 23.7 | 22.8 | 22.3 | 22.8 | 23.2 | 24.1 | 22.3 | 22.9 | 18.4 |
| 6cabde | 31.7 | 24.2 | 23.9 | 23.3 | 22.9 | 23.7 | 22.6 | 21.7 | 23.2 | 22.8 | 24.2 | 22.7 | 22.9 | 18.3 |
| a5b6ec | 31.7 | 3.9 | 3.8 | 3.4 | 3.4 | 3.8 | 3.4 | 3.6 | 3.8 | 3.8 | 3.7 | 3.7 | 3.8 | 18.4 |
| d9b90d | 31.9 | 22.2 | 22.9 | 21.4 | 21.4 | 20.9 | 21.8 | 21.0 | 21.2 | 21.9 | 21.3 | 21.8 | 22.4 | 18.4 |
| 5caba4 | 32.8 | 24.8 | 24.4 | 23.8 | 24.2 | 24.1 | 22.4 | 23.0 | 23.4 | 23.1 | 23.4 | 22.9 | 23.0 | 18.4 |
| 3bcd87 | 32.2 | 22.2 | 21.3 | 21.4 | 21.3 | 21.8 | 21.8 | 21.4 | 21.5 | 21.9 | 21.6 | 20.8 | 21.3 | 18.4 |
| 5ee88f | 32.0 | 24.2 | 24.0 | 23.9 | 23.7 | 23.6 | 22.5 | 22.3 | 23.0 | 22.0 | 23.2 | 22.6 | 23.1 | 18.4 |
| 3050d5 | 32.1 | 24.1 | 24.0 | 23.1 | 23.0 | 23.8 | 22.6 | 21.8 | 22.8 | 22.9 | 25.0 | 22.5 | 23.1 | 18.4 |
| babd76 | 32.3 | 24.4 | 24.5 | 23.6 | 23.6 | 23.2 | 22.4 | 22.4 | 23.0 | 22.1 | 24.2 | 22.6 | 21.8 | 18.4 |
| 4defd0 | 32.8 | 24.9 | 23.5 | 22.7 | 23.4 | 23.0 | 22.3 | 22.5 | 22.2 | 22.8 | 23.7 | 22.5 | 22.8 | 18.4 |
| 22d442 | 46.6 | 23.5 | 23.5 | 23.4 | 22.6 | 22.5 | 22.7 | 22.2 | 23.2 | 22.3 | 23.1 | 22.8 | 22.5 | 19.2 |
| 238dd2 | 61.8 | 26.9 | 26.5 | 26.6 | 26.6 | 26.2 | 26.1 | 26.3 | 27.6 | 26.2 | 26.2 | 26.6 | 26.7 | 19.9 |
| 34edf5 | 63.2 | 29.2 | 29.9 | 29.0 | 29.0 | 28.7 | 25.1 | 25.4 | 25.2 | 26.0 | 29.1 | 24.9 | 24.8 | 20.7 |
| cec23d | 64.1 | 27.5 | 26.4 | 26.8 | 25.9 | 26.6 | 26.6 | 27.1 | 26.7 | 26.3 | 27.3 | 26.6 | 27.2 | 21.1 |
| fb734f | 64.6 | 29.1 | 28.7 | 29.8 | 29.0 | 29.1 | 24.2 | 24.4 | 24.8 | 24.9 | 30.5 | 25.3 | 25.2 | 21.0 |
| d75353 | 63.6 | 30.0 | 30.3 | 28.5 | 29.3 | 29.5 | 25.4 | 24.2 | 25.0 | 25.1 | 29.4 | 25.6 | 25.8 | 21.0 |
| 36c6a0 | 64.8 | 4.9 | 4.4 | 4.4 | 4.4 | 4.6 | 4.2 | 4.3 | 4.8 | 4.7 | 4.5 | 4.1 | 4.5 | 20.8 |
| a5d4b6 | 64.0 | 4.2 | 4.3 | 3.9 | 3.7 | 4.2 | 3.9 | 3.9 | 4.2 | 4.0 | 4.0 | 4.1 | 4.2 | 20.8 |
| c17fb9 | 63.1 | 30.2 | 29.9 | 29.5 | 28.7 | 29.9 | 24.4 | 25.8 | 25.9 | 25.0 | 28.2 | 25.8 | 26.0 | 20.9 |
| 7ad6d4 | 64.3 | 28.2 | 27.0 | 27.1 | 26.9 | 27.8 | 27.4 | 27.3 | 27.5 | 26.8 | 26.7 | 27.1 | 26.0 | 20.8 |
| 531709 | 64.3 | 30.6 | 29.6 | 29.4 | 28.6 | 29.7 | 25.3 | 24.7 | 25.1 | 26.4 | 29.7 | 25.7 | 24.7 | 20.8 |
| sum | 1617.1 | 849.8 | 840.0 | 822.1 | 814.8 | 823.4 | 769.6 | 764.6 | 789.3 | 776.2 | 830.3 | 767.5 | 777.2 | 652.7 |
| mean | 33.0 | 17.3 | 17.1 | 16.8 | 16.6 | 16.8 | 15.7 | 15.6 | 16.1 | 15.8 | 16.9 | 15.7 | 15.9 | 13.3 |

TABLE LIV: Outcomes of RPS (rps-rpp) Yank time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|------|------|------|------|------|------|------|-------|------|------|-------|-------|------|
| 5709ce | 21.7 | 5.3 | 5.8 | 6.7 | 5.7 | 5.5 | 5.4 | 5.3 | 4.8 | 5.4 | 6.5 | 6.1 | 4.8 | 3.0 |
| 76e782 | 21.4 | 8.8 | 8.6 | 8.8 | 8.9 | 9.5 | 8.3 | 7.9 | 7.5 | 7.1 | 9.1 | 7.9 | 7.0 | 3.0 |
| b26e90 | 22.6 | 3.0 | 2.9 | 3.3 | 2.8 | 2.9 | 2.9 | 2.8 | 2.9 | 3.0 | 2.9 | 3.1 | 2.9 | 3.0 |
| afbca2 | 21.7 | 6.1 | 5.6 | 6.8 | 5.9 | 6.4 | 5.8 | 5.9 | 6.2 | 6.7 | 6.0 | 6.6 | 5.7 | 2.9 |
| 9245c9 | 21.8 | 2.8 | 2.8 | 3.2 | 2.9 | 3.0 | 3.0 | 2.8 | 3.0 | 2.8 | 3.0 | 3.0 | 2.7 | 2.9 |
| 88a0df | 21.3 | 7.8 | 8.8 | 9.6 | 7.2 | 7.8 | 7.3 | 6.5 | 6.7 | 6.2 | 8.9 | 8.1 | 6.9 | 3.0 |
| cc7c44 | 21.9 | 5.7 | 5.8 | 5.1 | 6.2 | 5.9 | 5.3 | 5.2 | 5.9 | 5.2 | 5.6 | 6.4 | 5.1 | 2.9 |
| 6fd980 | 21.7 | 3.1 | 2.9 | 3.0 | 2.9 | 3.0 | 2.8 | 3.0 | 3.0 | 2.8 | 3.0 | 3.1 | 2.9 | 2.9 |
| 24ff95 | 21.7 | 7.1 | 6.3 | 6.7 | 6.3 | 6.5 | 6.3 | 6.1 | 6.0 | 6.0 | 7.0 | 7.2 | 7.0 | 2.9 |
| cfb9b8 | 22.0 | 6.2 | 5.6 | 5.6 | 5.5 | 6.8 | 6.0 | 6.0 | 6.6 | 5.6 | 5.9 | 7.2 | 5.4 | 3.0 |
| 580435 | 22.0 | 5.9 | 6.2 | 6.7 | 5.7 | 5.9 | 5.8 | 6.1 | 6.7 | 5.9 | 6.6 | 6.5 | 5.6 | 3.1 |
| 6752dc | 22.5 | 3.5 | 3.3 | 3.6 | 3.2 | 3.3 | 3.4 | 3.5 | 3.5 | 3.2 | 3.2 | 3.6 | 3.3 | 2.9 |
| a13462 | 22.5 | 5.8 | 5.9 | 6.7 | 5.9 | 7.2 | 6.1 | 5.8 | 6.1 | 6.1 | 6.1 | 6.0 | 5.4 | 2.9 |
| ed0e73 | 22.7 | 9.8 | 9.3 | 9.9 | 8.9 | 9.8 | 8.7 | 7.9 | 7.9 | 7.6 | 9.7 | 8.2 | 7.5 | 3.7 |
| 1f3139 | 23.2 | 4.3 | 4.1 | 4.6 | 4.0 | 4.3 | 3.9 | 4.1 | 4.2 | 3.9 | 4.1 | 4.1 | 4.0 | 3.7 |
| 1031dc | 25.4 | 8.3 | 8.2 | 9.2 | 7.9 | 8.0 | 7.8 | 7.8 | 8.1 | 8.2 | 7.6 | 8.3 | 7.4 | 3.8 |
| sum | 356.0 | 93.4 | 92.1 | 99.4 | 89.6 | 95.9 | 88.7 | 86.7 | 88.9 | 85.7 | 95.4 | 95.6 | 83.7 | 49.8 |
| mean | 22.2 | 5.8 | 5.8 | 6.2 | 5.6 | 6.0 | 5.5 | 5.4 | 5.6 | 5.4 | 6.0 | 6.0 | 5.2 | 3.1 |

TABLE LV: Outcomes of RPS (rps-rpp) joda-time time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 381cca | 42.4 | 18.3 | 19.2 | 18.0 | 19.3 | 18.9 | 19.6 | 19.3 | 20.9 | 19.7 | 19.1 | 18.9 | 19.0 | 10.4 |
| eaaff1 | 43.0 | 17.9 | 17.8 | 17.5 | 18.3 | 18.4 | 19.0 | 19.0 | 19.0 | 19.2 | 17.4 | 19.6 | 18.9 | 11.2 |
| ca7bec | 42.7 | 10.6 | 10.9 | 10.3 | 10.4 | 10.4 | 11.0 | 11.1 | 11.6 | 9.9 | 10.4 | 10.7 | 10.8 | 10.7 |
| 4d84d8 | 42.6 | 17.9 | 18.8 | 17.9 | 17.7 | 17.7 | 19.2 | 17.9 | 18.5 | 18.4 | 16.7 | 17.6 | 18.1 | 10.9 |
| f81758 | 41.8 | 19.0 | 18.0 | 18.2 | 19.4 | 17.0 | 19.4 | 19.1 | 19.3 | 17.3 | 16.9 | 16.1 | 16.6 | 10.8 |
| dc4376 | 42.8 | 18.2 | 16.6 | 17.5 | 16.2 | 16.2 | 18.7 | 17.8 | 18.6 | 16.6 | 15.3 | 16.7 | 16.0 | 10.7 |
| fb2063 | 42.3 | 19.6 | 18.7 | 18.4 | 17.1 | 16.6 | 20.3 | 20.5 | 21.0 | 17.7 | 15.8 | 17.4 | 18.2 | 10.5 |
| 262448 | 41.2 | 18.2 | 17.7 | 17.9 | 17.3 | 16.1 | 18.6 | 18.5 | 20.2 | 15.4 | 15.6 | 17.0 | 17.3 | 10.5 |
| 53922f | 42.9 | 18.9 | 18.8 | 17.6 | 17.5 | 18.7 | 19.1 | 19.6 | 19.8 | 17.0 | 15.7 | 19.5 | 17.1 | 11.0 |
| 114403 | 42.2 | 17.9 | 18.0 | 16.4 | 17.8 | 17.9 | 18.5 | 19.3 | 19.1 | 18.1 | 17.0 | 18.7 | 17.8 | 10.6 |
| 52757e | 42.1 | 18.8 | 18.6 | 17.7 | 17.8 | 17.3 | 19.1 | 19.2 | 19.4 | 17.6 | 17.8 | 19.7 | 18.0 | 10.8 |
| acff94 | 41.9 | 11.1 | 10.3 | 10.8 | 10.4 | 10.7 | 11.7 | 11.2 | 12.0 | 10.4 | 10.4 | 10.7 | 11.1 | 10.5 |
| 67e9e5 | 41.8 | 18.6 | 18.9 | 17.5 | 18.5 | 18.5 | 19.0 | 19.0 | 18.8 | 18.1 | 17.8 | 19.5 | 18.6 | 10.5 |
| 1e7b4b | 42.5 | 17.9 | 17.6 | 18.8 | 18.3 | 18.4 | 20.2 | 19.0 | 18.8 | 18.5 | 18.8 | 19.4 | 19.4 | 10.7 |
| b3fdbc | 42.4 | 10.6 | 10.7 | 10.4 | 10.7 | 10.7 | 11.2 | 11.4 | 11.4 | 10.4 | 10.3 | 11.0 | 10.9 | 10.4 |
| 66825d | 42.8 | 17.0 | 18.6 | 18.9 | 18.0 | 18.7 | 18.5 | 18.4 | 19.0 | 18.0 | 16.6 | 17.6 | 18.7 | 10.7 |
| 3ba701 | 41.7 | 18.2 | 18.8 | 18.5 | 18.6 | 17.4 | 19.7 | 18.2 | 21.7 | 18.5 | 16.1 | 19.2 | 17.5 | 11.0 |
| b90efa | 42.2 | 10.9 | 10.7 | 10.4 | 10.6 | 10.9 | 11.2 | 10.8 | 11.9 | 10.7 | 10.2 | 11.6 | 11.3 | 10.5 |
| e917d7 | 42.4 | 18.2 | 19.0 | 19.5 | 19.2 | 17.3 | 18.5 | 19.0 | 18.8 | 17.3 | 18.4 | 19.1 | 18.9 | 10.6 |
| c5c681 | 42.7 | 19.2 | 18.9 | 19.9 | 20.2 | 18.1 | 19.5 | 20.0 | 19.7 | 18.9 | 17.1 | 17.8 | 17.6 | 10.3 |
| dfc0d8 | 43.0 | 18.4 | 18.5 | 17.4 | 19.0 | 18.8 | 19.0 | 18.1 | 20.0 | 18.8 | 18.9 | 18.5 | 18.5 | 10.3 |
| f871b0 | 41.7 | 17.5 | 18.2 | 17.8 | 18.2 | 17.4 | 19.1 | 19.0 | 19.7 | 18.9 | 17.8 | 18.6 | 18.8 | 10.8 |
| a7e167 | 42.4 | 11.4 | 11.5 | 11.5 | 11.8 | 11.3 | 12.4 | 11.7 | 12.4 | 11.1 | 10.8 | 11.7 | 12.0 | 11.5 |
| 5f98d6 | 42.2 | 11.4 | 11.1 | 10.4 | 10.8 | 10.3 | 11.6 | 11.3 | 11.7 | 10.9 | 10.2 | 11.3 | 11.2 | 10.8 |
| a0aead | 41.8 | 19.4 | 18.8 | 19.0 | 19.7 | 17.3 | 20.6 | 20.3 | 19.7 | 19.1 | 18.1 | 18.2 | 19.3 | 11.0 |
| e9b136 | 42.8 | 11.6 | 11.3 | 11.0 | 11.2 | 11.3 | 11.7 | 11.4 | 12.2 | 11.5 | 10.9 | 11.4 | 11.6 | 10.9 |
| b72a1f | 42.4 | 19.1 | 18.6 | 19.2 | 18.9 | 18.8 | 19.4 | 20.5 | 22.1 | 18.8 | 18.9 | 18.3 | 19.2 | 11.0 |
| 6a4ee6 | 42.6 | 20.1 | 18.8 | 18.4 | 19.7 | 19.3 | 19.4 | 19.2 | 18.9 | 19.3 | 19.2 | 19.8 | 19.7 | 10.5 |
| f4a109 | 42.4 | 18.3 | 18.9 | 18.2 | 19.2 | 18.8 | 20.2 | 19.9 | 19.8 | 18.4 | 17.4 | 19.5 | 19.5 | 10.8 |
| 8429e5 | 42.9 | 19.5 | 19.2 | 19.3 | 18.2 | 17.6 | 20.3 | 20.4 | 21.2 | 19.1 | 17.1 | 18.1 | 18.8 | 11.2 |
| 124fd3 | 42.0 | 11.3 | 11.1 | 11.3 | 11.4 | 10.8 | 12.1 | 10.9 | 12.6 | 10.7 | 10.3 | 11.4 | 11.3 | 11.1 |
| ac9b98 | 42.0 | 19.2 | 18.5 | 18.8 | 17.8 | 17.4 | 18.9 | 19.3 | 19.4 | 20.3 | 17.6 | 17.6 | 18.2 | 10.5 |
| adacfb | 42.3 | 11.0 | 11.1 | 11.2 | 11.5 | 10.8 | 11.8 | 11.3 | 12.3 | 10.8 | 10.6 | 11.5 | 11.3 | 10.7 |
| d4a2c3 | 43.0 | 16.9 | 16.3 | 16.1 | 16.7 | 16.9 | 16.7 | 17.2 | 18.3 | 16.9 | 15.8 | 16.7 | 16.0 | 11.1 |
| 638153 | 42.5 | 18.5 | 18.5 | 18.3 | 19.1 | 19.0 | 19.3 | 18.7 | 20.4 | 19.6 | 18.9 | 20.0 | 19.3 | 11.2 |
| 5a3cb2 | 42.1 | 19.1 | 19.6 | 19.2 | 18.5 | 17.3 | 20.8 | 19.1 | 20.0 | 18.8 | 17.6 | 18.9 | 18.7 | 11.0 |
| e98903 | 42.9 | 11.1 | 11.2 | 10.5 | 11.2 | 10.4 | 11.5 | 10.9 | 11.4 | 11.0 | 10.8 | 11.9 | 11.2 | 11.0 |
| b65434 | 43.4 | 11.2 | 10.9 | 10.9 | 11.4 | 11.1 | 11.6 | 10.9 | 12.1 | 11.5 | 10.7 | 11.5 | 11.2 | 11.2 |
| 8213a1 | 43.4 | 19.1 | 18.7 | 17.7 | 18.6 | 18.5 | 19.6 | 18.1 | 19.3 | 19.7 | 18.5 | 19.2 | 18.9 | 11.1 |
| 75ab8c | 43.1 | 10.9 | 11.2 | 11.1 | 11.2 | 10.9 | 11.9 | 10.8 | 11.8 | 11.0 | 10.7 | 11.4 | 11.2 | 10.6 |
| ed9d0a | 42.8 | 19.1 | 19.6 | 19.7 | 20.3 | 19.8 | 19.1 | 18.7 | 19.4 | 18.8 | 17.7 | 19.2 | 19.7 | 10.9 |
| e2f678 | 43.2 | 19.9 | 19.9 | 19.2 | 19.7 | 20.3 | 20.8 | 19.5 | 21.0 | 19.0 | 18.8 | 19.7 | 20.2 | 11.0 |
| 12559d | 42.3 | 30.1 | 29.7 | 27.6 | 30.5 | 30.0 | 31.8 | 28.5 | 31.5 | 28.9 | 29.1 | 30.1 | 30.3 | 10.8 |
| 804e5d | 43.3 | 30.1 | 29.5 | 29.0 | 29.6 | 27.6 | 30.2 | 29.3 | 30.9 | 28.9 | 26.0 | 29.6 | 28.5 | 10.8 |
| bdc70 | 42.9 | 28.4 | 28.2 | 27.5 | 26.6 | 27.1 | 29.1 | 27.8 | 30.0 | 24.6 | 25.2 | 28.0 | 27.0 | 10.6 |
| 87dcb3 | 42.0 | 20.9 | 20.6 | 20.2 | 20.8 | 20.3 | 21.6 | 20.5 | 21.2 | 20.4 | 20.2 | 20.4 | 21.6 | 11.1 |
| 52a03c | 42.6 | 28.2 | 29.1 | 28.0 | 27.7 | 27.0 | 29.1 | 28.8 | 29.4 | 24.6 | 25.5 | 27.9 | 26.8 | 10.9 |
| c13ba8 | 42.3 | 27.8 | 28.1 | 27.3 | 28.2 | 26.4 | 29.7 | 28.0 | 28.6 | 26.4 | 24.8 | 28.0 | 27.7 | 10.8 |
| 872d99 | 42.3 | 27.8 | 29.6 | 27.0 | 26.3 | 27.3 | 30.5 | 26.5 | 30.0 | 27.2 | 26.2 | 27.9 | 26.8 | 10.5 |
| sum | 2081.0 | 884.8 | 883.0 | 865.0 | 877.1 | 855.4 | 921.5 | 895.3 | 936.7 | 862.7 | 827.8 | 884.2 | 876.1 | 529.2 |
| mean | 42.5 | 18.1 | 18.0 | 17.7 | 17.9 | 17.5 | 18.8 | 18.3 | 19.1 | 17.6 | 16.9 | 18.0 | 17.9 | 10.8 |

TABLE LVI: Outcomes of RPS (rps-rpp) compile-testing time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 6b89cd | 31.8 | 12.7 | 13.7 | 13.5 | 13.2 | 13.1 | 12.3 | 11.5 | 12.8 | 11.9 | 11.5 | 12.3 | 12.4 | 5.7 |
| fe6edd | 30.4 | 12.8 | 13.1 | 10.9 | 11.9 | 11.8 | 10.5 | 10.8 | 11.6 | 11.1 | 11.7 | 10.8 | 10.0 | 5.7 |
| 8e9ce9 | 30.9 | 9.7 | 10.0 | 9.1 | 9.9 | 9.5 | 9.7 | 9.2 | 10.3 | 8.7 | 9.6 | 9.6 | 8.5 | 5.6 |
| 4006c1 | 31.3 | 11.0 | 10.2 | 9.4 | 10.6 | 10.1 | 10.8 | 10.2 | 10.1 | 9.7 | 8.7 | 10.7 | 8.6 | 5.8 |
| e5e4ee | 31.4 | 13.0 | 13.5 | 12.3 | 12.6 | 13.5 | 11.8 | 11.7 | 10.7 | 11.9 | 12.1 | 12.3 | 11.0 | 5.8 |
| 4dd5fd | 31.3 | 10.4 | 9.7 | 9.1 | 9.7 | 10.1 | 9.5 | 9.9 | 10.2 | 9.0 | 9.1 | 9.6 | 10.2 | 5.7 |
| 0ef7e5 | 32.1 | 9.3 | 9.8 | 9.2 | 10.7 | 9.3 | 9.7 | 10.5 | 9.8 | 10.4 | 9.0 | 10.3 | 10.0 | 5.6 |
| cc5a56 | 31.3 | 7.1 | 7.3 | 7.9 | 7.3 | 7.4 | 8.4 | 6.8 | 8.1 | 7.7 | 7.3 | 7.8 | 7.3 | 5.8 |
| 49c254 | 33.6 | 9.7 | 9.7 | 9.9 | 11.0 | 11.0 | 10.3 | 11.1 | 10.2 | 10.8 | 10.6 | 10.2 | 10.1 | 5.7 |
| ebbc46 | 31.8 | 10.6 | 11.3 | 10.4 | 11.8 | 10.2 | 10.8 | 11.8 | 12.1 | 10.6 | 11.1 | 11.2 | 10.5 | 6.1 |
| 762247 | 36.9 | 13.8 | 13.4 | 13.3 | 13.2 | 13.7 | 13.4 | 11.7 | 11.9 | 11.7 | 12.7 | 12.0 | 11.6 | 6.2 |
| 99aed6 | 38.3 | 12.4 | 12.4 | 12.8 | 13.5 | 13.2 | 11.6 | 12.3 | 11.3 | 11.0 | 11.9 | 10.6 | 10.5 | 5.9 |
| 2678c3 | 38.8 | 11.4 | 10.7 | 10.6 | 11.2 | 10.6 | 11.1 | 11.0 | 11.4 | 11.1 | 10.6 | 11.0 | 10.5 | 6.3 |
| acf6ae | 37.9 | 11.1 | 11.2 | 10.3 | 10.5 | 11.7 | 12.5 | 10.9 | 12.2 | 11.1 | 10.8 | 11.6 | 10.7 | 6.1 |
| 7d31b5 | 38.8 | 13.8 | 14.0 | 12.8 | 14.0 | 13.1 | 12.8 | 12.5 | 12.1 | 11.5 | 12.7 | 12.8 | 11.6 | 6.3 |
| 3f1f22 | 37.9 | 11.8 | 11.8 | 10.9 | 11.6 | 10.9 | 11.5 | 11.8 | 10.7 | 11.0 | 10.6 | 11.0 | 10.9 | 6.5 |
| 0f4e55 | 37.4 | 5.2 | 5.0 | 4.7 | 4.9 | 4.9 | 5.2 | 5.1 | 5.0 | 4.7 | 4.6 | 5.1 | 4.7 | 6.1 |
| 20f6d4 | 39.8 | 13.4 | 13.5 | 12.5 | 13.7 | 12.9 | 11.5 | 12.4 | 11.7 | 10.6 | 13.4 | 10.7 | 10.8 | 6.2 |
| 6b3290 | 37.7 | 14.2 | 15.2 | 14.9 | 14.3 | 13.6 | 12.6 | 12.9 | 11.9 | 12.9 | 13.0 | 11.9 | 11.6 | 6.2 |
| 9ec074 | 38.9 | 13.9 | 13.6 | 13.3 | 14.2 | 13.5 | 12.7 | 13.1 | 11.9 | 11.8 | 12.9 | 12.9 | 11.8 | 6.2 |
| 38f6d0 | 38.0 | 13.6 | 13.4 | 13.8 | 13.3 | 13.6 | 11.6 | 13.0 | 11.7 | 12.3 | 12.0 | 11.3 | 11.8 | 6.2 |
| ac382a | 38.7 | 5.0 | 5.1 | 4.9 | 5.1 | 5.1 | 5.1 | 5.2 | 4.8 | 4.6 | 4.6 | 5.0 | 5.1 | 6.0 |
| dd93c0 | 39.4 | 5.0 | 5.0 | 5.1 | 4.8 | 4.9 | 5.1 | 5.1 | 5.3 | 4.9 | 4.8 | 5.0 | 4.8 | 6.3 |
| d34c5c | 37.9 | 13.6 | 13.8 | 12.8 | 14.5 | 12.8 | 12.2 | 12.5 | 12.0 | 10.4 | 12.6 | 11.4 | 11.3 | 6.3 |
| f04802 | 38.0 | 14.4 | 14.6 | 12.6 | 10.8 | 12.9 | 11.5 | 12.6 | 11.2 | 10.2 | 9.9 | 10.7 | 10.0 | 6.3 |
| b3d432 | 38.5 | 14.0 | 14.0 | 14.4 | 11.7 | 14.4 | 13.0 | 14.4 | 12.7 | 11.7 | 11.2 | 12.8 | 11.4 | 6.1 |
| e95757 | 38.4 | 7.2 | 7.4 | 7.1 | 7.4 | 7.3 | 7.2 | 7.8 | 7.5 | 7.4 | 7.1 | 7.3 | 7.4 | 6.1 |
| b4eaa9 | 39.3 | 15.6 | 15.3 | 15.4 | 12.5 | 15.7 | 13.4 | 13.0 | 13.9 | 12.1 | 12.0 | 13.4 | 11.8 | 6.5 |
| ffc732 | 38.7 | 7.4 | 7.3 | 7.2 | 7.5 | 7.2 | 7.3 | 7.5 | 7.9 | 7.3 | 7.0 | 7.4 | 7.2 | 6.4 |
| b867b4 | 39.5 | 7.2 | 7.1 | 7.0 | 7.5 | 7.4 | 7.5 | 7.3 | 7.4 | 7.4 | 6.6 | 7.5 | 6.8 | 6.3 |
| 90f7d6 | 38.1 | 7.9 | 7.9 | 7.7 | 7.9 | 7.8 | 7.8 | 8.0 | 8.1 | 7.8 | 7.8 | 7.6 | 7.5 | 6.6 |
| 2a47a5 | 38.8 | 8.0 | 8.2 | 7.7 | 8.1 | 7.9 | 7.9 | 8.2 | 8.4 | 7.3 | 7.8 | 7.8 | 8.1 | 6.3 |
| cd2c0a | 39.0 | 15.5 | 15.6 | 15.2 | 15.9 | 14.8 | 12.8 | 13.2 | 14.0 | 12.6 | 14.5 | 13.7 | 12.0 | 6.6 |
| 80a9ee | 40.3 | 15.2 | 15.5 | 14.9 | 15.5 | 15.8 | 14.2 | 13.8 | 13.5 | 12.6 | 14.3 | 13.3 | 13.3 | 6.4 |
| 95e749 | 39.8 | 13.5 | 13.9 | 13.0 | 13.6 | 13.2 | 12.9 | 13.4 | 13.6 | 12.1 | 12.5 | 12.6 | 12.3 | 6.4 |
| a959de | 40.8 | 15.8 | 16.1 | 16.1 | 16.1 | 16.5 | 13.4 | 13.6 | 14.5 | 13.1 | 15.1 | 13.7 | 13.9 | 7.1 |
| 1f8424 | 39.7 | 15.7 | 14.6 | 15.3 | 15.5 | 14.9 | 13.8 | 13.3 | 12.8 | 12.9 | 14.2 | 13.1 | 12.6 | 6.6 |
| cb6486 | 41.0 | 13.2 | 13.4 | 13.5 | 13.3 | 13.0 | 13.7 | 14.0 | 13.7 | 13.2 | 12.3 | 13.1 | 12.5 | 6.4 |
| c46b1b | 39.7 | 13.4 | 13.7 | 12.8 | 13.8 | 13.7 | 13.9 | 14.0 | 15.0 | 13.6 | 12.9 | 13.2 | 13.1 | 6.5 |
| bcad50 | 40.1 | 13.6 | 14.4 | 12.1 | 13.4 | 13.1 | 13.0 | 13.3 | 13.2 | 13.1 | 12.1 | 12.9 | 12.5 | 6.1 |
| 620d23 | 39.6 | 13.0 | 13.2 | 12.3 | 13.4 | 13.1 | 14.1 | 13.8 | 13.4 | 12.5 | 13.0 | 13.8 | 13.0 | 6.3 |
| 626025 | 41.5 | 13.4 | 12.7 | 14.1 | 13.2 | 12.7 | 13.2 | 12.7 | 14.7 | 12.7 | 12.7 | 12.4 | 13.0 | 6.7 |
| 3b9095 | 39.6 | 13.3 | 13.7 | 12.7 | 13.1 | 13.3 | 13.2 | 13.3 | 13.4 | 13.4 | 12.3 | 13.3 | 12.4 | 6.1 |
| fd1e44 | 40.5 | 15.6 | 15.5 | 15.3 | 15.9 | 14.6 | 14.1 | 14.6 | 13.1 | 14.9 | 14.4 | 13.9 | 12.2 | 6.6 |
| 1fee4c | 40.4 | 7.6 | 8.1 | 7.4 | 7.3 | 7.2 | 7.8 | 7.6 | 7.6 | 7.4 | 7.0 | 7.6 | 7.4 | 6.6 |
| b748f6 | 40.1 | 14.1 | 13.2 | 13.2 | 13.0 | 12.9 | 13.5 | 13.1 | 13.3 | 12.3 | 12.8 | 13.8 | 13.2 | 6.5 |
| 115014 | 40.5 | 14.0 | 14.2 | 13.2 | 13.5 | 13.7 | 14.0 | 14.3 | 14.8 | 13.1 | 12.7 | 13.6 | 13.5 | 6.5 |
| 5dc482 | 39.7 | 15.1 | 15.0 | 14.5 | 15.7 | 15.0 | 12.1 | 13.5 | 12.6 | 13.2 | 14.2 | 13.4 | 13.0 | 6.7 |
| 1148d3 | 40.6 | 8.5 | 8.3 | 8.1 | 8.2 | 8.2 | 8.3 | 8.8 | 8.8 | 8.3 | 8.2 | 8.6 | 8.0 | 6.8 |
| sum | 1844.4 | 576.7 | 579.6 | 557.3 | 571.7 | 566.8 | 546.2 | 552.2 | 548.8 | 523.7 | 532.3 | 537.4 | 514.4 | 305.7 |
| mean | 37.6 | 11.8 | 11.8 | 11.4 | 11.7 | 11.6 | 11.1 | 11.3 | 11.2 | 10.7 | 10.9 | 11.0 | 10.5 | 6.2 |

TABLE LVII: Outcomes of RPS (rps-rpp) zt-exec time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| c58216 | 26.0 | 16.7 | 17.9 | 16.4 | 17.1 | 17.6 | 17.8 | 18.2 | 18.0 | 17.8 | 17.6 | 17.3 | 17.4 | 13.1 |
| c5b972 | 25.5 | 16.9 | 18.2 | 17.6 | 17.1 | 17.0 | 16.5 | 17.5 | 17.0 | 16.7 | 17.6 | 17.3 | 17.3 | 13.2 |
| e8609f | 25.4 | 2.3 | 3.4 | 3.0 | 3.2 | 3.4 | 3.2 | 3.1 | 3.3 | 3.2 | 3.2 | 3.2 | 3.3 | 13.1 |
| d964c0 | 25.9 | 17.5 | 18.5 | 17.2 | 17.7 | 17.7 | 17.1 | 16.9 | 17.0 | 17.7 | 17.6 | 17.0 | 17.5 | 13.3 |
| d6766d | 28.0 | 20.1 | 19.8 | 18.9 | 19.0 | 19.4 | 18.8 | 19.6 | 19.2 | 18.8 | 19.9 | 19.2 | 19.0 | 15.3 |
| 46c33c | 28.0 | 19.3 | 20.4 | 18.7 | 19.7 | 20.4 | 18.9 | 19.9 | 18.9 | 19.1 | 19.4 | 19.7 | 20.5 | 14.9 |
| fa782b | 28.5 | 20.1 | 20.0 | 18.5 | 20.0 | 19.2 | 19.3 | 19.3 | 19.5 | 18.5 | 20.0 | 18.2 | 20.5 | 15.8 |
| 28ceb1 | 28.5 | 19.8 | 20.6 | 18.8 | 20.0 | 19.9 | 18.8 | 19.7 | 19.3 | 20.1 | 19.4 | 18.8 | 19.0 | 15.3 |
| eebd89 | 28.6 | 20.0 | 19.8 | 18.4 | 20.3 | 20.3 | 18.5 | 19.3 | 18.3 | 18.8 | 19.2 | 18.1 | 18.8 | 15.2 |
| 7a7a4b | 28.5 | 19.9 | 19.3 | 18.6 | 20.9 | 20.6 | 18.4 | 18.9 | 19.1 | 19.0 | 19.1 | 17.9 | 18.8 | 15.2 |
| 8ff8fa | 28.3 | 20.3 | 19.8 | 18.9 | 20.0 | 20.3 | 20.3 | 19.3 | 19.3 | 19.6 | 19.9 | 18.8 | 19.1 | 15.3 |
| a47b4c | 28.6 | 19.7 | 20.8 | 19.6 | 19.3 | 18.9 | 19.0 | 19.9 | 19.4 | 18.4 | 19.7 | 18.3 | 18.5 | 15.2 |
| 0a5f14 | 28.0 | 3.3 | 3.5 | 3.2 | 2.2 | 3.4 | 3.2 | 3.3 | 3.5 | 3.3 | 3.3 | 3.3 | 3.4 | 15.0 |
| 6bdce0 | 28.2 | 19.6 | 20.5 | 19.7 | 19.1 | 19.9 | 19.2 | 19.8 | 19.5 | 18.4 | 19.5 | 19.6 | 19.7 | 15.1 |
| sum | 386.0 | 235.7 | 242.5 | 227.5 | 235.5 | 237.9 | 229.0 | 234.8 | 231.2 | 229.4 | 235.6 | 226.6 | 232.8 | 204.9 |
| mean | 27.6 | 16.8 | 17.3 | 16.2 | 16.8 | 17.0 | 16.4 | 16.8 | 16.5 | 16.4 | 16.8 | 16.2 | 16.6 | 14.6 |

TABLE LVIII: Outcomes of RPS (rps-rpp) java-configuration-impl time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| cd27a2 | 19.6 | 3.5 | 3.6 | 3.8 | 3.6 | 3.4 | 3.4 | 3.6 | 3.4 | 3.6 | 3.5 | 3.3 | 3.3 | 3.2 |
| cd1a4d | 20.1 | 7.0 | 7.8 | 7.3 | 7.7 | 7.4 | 7.3 | 7.3 | 6.8 | 7.1 | 7.1 | 6.9 | 6.9 | 3.3 |
| 26bb9f | 20.6 | 6.5 | 6.5 | 6.5 | 6.0 | 7.0 | 6.4 | 6.7 | 6.2 | 6.9 | 7.2 | 6.0 | 6.1 | 3.3 |
| becbb1 | 20.3 | 7.3 | 6.2 | 7.1 | 7.3 | 6.6 | 6.2 | 6.5 | 7.1 | 6.8 | 6.5 | 6.4 | 6.0 | 3.3 |
| e61648 | 21.2 | 4.7 | 4.4 | 3.8 | 4.6 | 4.3 | 4.2 | 4.0 | 4.9 | 4.8 | 5.0 | 3.8 | 4.5 | 3.3 |
| 97a683 | 21.0 | 6.5 | 6.5 | 7.3 | 7.4 | 6.4 | 6.5 | 6.8 | 6.8 | 7.5 | 6.6 | 6.4 | 6.2 | 3.5 |
| 08363d | 21.0 | 7.2 | 7.4 | 6.7 | 6.7 | 6.2 | 5.5 | 6.7 | 6.4 | 6.9 | 6.2 | 6.4 | 5.7 | 3.6 |
| cee296 | 20.9 | 3.6 | 3.7 | 3.8 | 3.8 | 3.7 | 3.4 | 3.5 | 3.4 | 3.8 | 3.8 | 3.5 | 3.6 | 3.4 |
| 5ba64c | 21.0 | 6.5 | 6.6 | 7.0 | 6.5 | 6.5 | 6.0 | 6.4 | 6.2 | 6.5 | 6.6 | 5.9 | 6.1 | 3.3 |
| 67efdf | 21.3 | 6.4 | 6.7 | 6.6 | 6.6 | 6.6 | 6.4 | 6.7 | 6.8 | 6.6 | 6.3 | 7.3 | 6.3 | 3.4 |
| 866f72 | 21.2 | 6.6 | 7.9 | 7.0 | 7.8 | 6.7 | 6.4 | 6.7 | 6.5 | 6.7 | 6.5 | 6.2 | 6.2 | 3.5 |
| 00a783 | 21.2 | 7.7 | 6.8 | 7.2 | 6.8 | 6.4 | 6.7 | 6.7 | 6.7 | 7.1 | 6.6 | 7.4 | 5.6 | 3.5 |
| b99f46 | 22.7 | 7.7 | 7.5 | 7.6 | 8.0 | 6.4 | 6.7 | 6.7 | 7.5 | 7.1 | 6.7 | 7.6 | 7.2 | 3.9 |
| 470fdf | 34.6 | 5.5 | 5.5 | 5.7 | 6.0 | 4.7 | 6.3 | 4.8 | 5.4 | 5.7 | 5.9 | 5.8 | 5.2 | 4.4 |
| 26cd1e | 35.0 | 7.8 | 7.9 | 7.6 | 7.9 | 6.7 | 8.0 | 7.6 | 7.0 | 8.4 | 8.0 | 6.8 | 7.5 | 4.3 |
| 459f7b | 35.0 | 8.1 | 7.1 | 7.3 | 8.1 | 8.0 | 7.7 | 7.9 | 7.2 | 6.9 | 8.0 | 7.5 | 7.5 | 4.6 |
| ef6525 | 33.2 | 7.9 | 8.3 | 7.8 | 8.0 | 7.6 | 7.5 | 7.9 | 7.3 | 8.4 | 6.9 | 7.4 | 7.7 | 4.3 |
| b68766 | 34.5 | 4.6 | 4.5 | 4.5 | 4.4 | 3.9 | 4.3 | 4.2 | 4.1 | 4.3 | 4.2 | 3.9 | 4.0 | 4.4 |
| 88ada8 | 33.6 | 8.4 | 7.6 | 7.5 | 8.3 | 7.2 | 7.6 | 7.7 | 7.4 | 8.3 | 8.2 | 7.6 | 7.1 | 4.3 |
| bd8bf4 | 36.6 | 6.5 | 5.6 | 6.9 | 6.2 | 5.9 | 5.2 | 5.4 | 4.9 | 5.5 | 5.1 | 5.7 | 4.5 | 4.4 |
| 39fe0a | 36.3 | 8.2 | 8.0 | 8.3 | 8.4 | 7.9 | 6.6 | 7.9 | 7.8 | 8.5 | 8.4 | 7.8 | 7.8 | 4.6 |
| 7d7c4e | 37.8 | 8.3 | 8.6 | 9.1 | 7.5 | 7.3 | 7.8 | 8.1 | 7.6 | 8.3 | 8.5 | 8.0 | 8.3 | 4.3 |
| ed86d0 | 40.3 | 4.3 | 4.3 | 4.6 | 4.3 | 4.0 | 4.1 | 4.2 | 3.9 | 4.4 | 4.2 | 4.3 | 4.0 | 4.7 |
| sum | 629.2 | 151.1 | 149.2 | 151.0 | 151.7 | 140.7 | 140.3 | 143.9 | 141.3 | 150.0 | 145.9 | 142.1 | 137.2 | 88.9 |
| mean | 27.4 | 6.6 | 6.5 | 6.6 | 6.6 | 6.1 | 6.1 | 6.3 | 6.1 | 6.5 | 6.3 | 6.2 | 6.0 | 3.9 |

TABLE LIX: Outcomes of RPS (rps-rpp) embedded-jmxtrans time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|---------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1b2955 | 27.0 | 10.2 | 9.7 | 11.1 | 10.5 | 10.1 | 9.1 | 8.3 | 8.8 | 8.7 | 9.1 | 9.5 | 7.9 | 2.9 |
| ef88f3 | 27.2 | 8.7 | 8.4 | 9.4 | 8.4 | 8.8 | 8.1 | 7.6 | 8.2 | 8.0 | 7.8 | 8.3 | 7.7 | 3.0 |
| 64e65a | 26.6 | 11.2 | 11.5 | 10.5 | 8.8 | 9.9 | 9.6 | 8.5 | 9.0 | 8.4 | 8.0 | 8.6 | 8.9 | 3.2 |
| 51e075 | 26.9 | 3.7 | 3.7 | 3.8 | 3.7 | 3.8 | 4.1 | 3.6 | 3.8 | 4.0 | 3.7 | 3.6 | 3.4 | 3.0 |
| 5bfffe4 | 27.4 | 9.7 | 8.0 | 9.6 | 7.0 | 9.2 | 7.8 | 7.1 | 7.7 | 7.5 | 6.9 | 8.1 | 7.0 | 3.3 |
| 59e1a4 | 27.0 | 9.0 | 8.5 | 8.5 | 8.2 | 8.8 | 7.8 | 7.5 | 7.5 | 8.3 | 7.8 | 7.1 | 7.3 | 2.9 |
| bf18d2 | 27.3 | 8.8 | 8.1 | 8.5 | 9.0 | 9.1 | 7.9 | 7.3 | 7.2 | 7.5 | 8.2 | 7.8 | 7.5 | 3.0 |
| 62c71b | 46.3 | 8.0 | 8.1 | 8.2 | 7.7 | 9.0 | 7.9 | 7.6 | 8.3 | 7.9 | 7.3 | 7.1 | 8.3 | 3.8 |
| e4a4c2 | 45.0 | 10.2 | 9.9 | 10.9 | 10.6 | 10.3 | 8.2 | 7.4 | 8.4 | 8.9 | 9.6 | 7.9 | 8.1 | 3.3 |
| 345190 | 45.9 | 10.7 | 11.8 | 10.9 | 11.1 | 11.5 | 8.5 | 8.6 | 8.2 | 8.2 | 10.1 | 7.7 | 8.6 | 3.3 |
| a672b6 | 45.0 | 11.6 | 9.3 | 10.6 | 10.7 | 10.3 | 8.8 | 7.4 | 8.3 | 8.4 | 9.7 | 7.9 | 7.0 | 3.4 |
| 4f713f | 45.8 | 10.9 | 10.0 | 10.3 | 11.1 | 11.8 | 8.4 | 7.5 | 8.8 | 8.0 | 10.7 | 8.7 | 8.1 | 3.2 |
| 78bb73 | 45.4 | 11.1 | 11.0 | 10.7 | 10.7 | 10.3 | 8.5 | 7.6 | 8.5 | 8.1 | 9.5 | 7.8 | 7.0 | 3.2 |
| 4bea3b | 45.0 | 11.3 | 11.4 | 10.1 | 10.9 | 10.1 | 8.7 | 7.3 | 9.1 | 8.3 | 10.8 | 7.5 | 6.9 | 3.3 |
| 1f8b32 | 45.4 | 11.5 | 9.8 | 11.3 | 10.7 | 10.5 | 8.8 | 7.5 | 7.8 | 8.6 | 9.4 | 7.6 | 6.8 | 3.4 |
| 616624 | 45.2 | 11.4 | 10.3 | 11.2 | 10.6 | 10.6 | 8.1 | 7.5 | 9.1 | 8.0 | 9.9 | 8.5 | 6.8 | 3.3 |
| 656e0c | 45.2 | 11.3 | 10.1 | 11.8 | 9.6 | 11.4 | 9.2 | 7.5 | 7.9 | 8.5 | 9.4 | 8.6 | 7.1 | 3.3 |
| d5a3ad | 45.1 | 10.5 | 10.7 | 10.8 | 10.2 | 10.7 | 8.4 | 7.7 | 7.2 | 7.8 | 9.0 | 7.4 | 7.0 | 3.2 |
| dc83d7 | 45.8 | 3.7 | 3.7 | 4.1 | 3.8 | 4.2 | 4.0 | 3.7 | 3.5 | 3.9 | 3.7 | 3.8 | 3.4 | 3.4 |
| 865ea1 | 44.3 | 10.4 | 10.9 | 11.8 | 10.6 | 10.5 | 8.5 | 8.6 | 7.2 | 7.9 | 10.5 | 7.3 | 6.8 | 3.2 |
| 6e849a | 47.0 | 10.8 | 10.9 | 11.0 | 11.4 | 10.8 | 8.3 | 8.6 | 7.5 | 7.7 | 10.1 | 8.4 | 7.1 | 3.2 |
| 8f848b | 45.9 | 11.6 | 10.8 | 12.0 | 11.3 | 11.0 | 8.8 | 8.0 | 7.3 | 7.6 | 9.2 | 7.6 | 8.1 | 3.1 |
| e373b6 | 45.4 | 8.2 | 9.1 | 9.6 | 9.3 | 9.0 | 9.7 | 8.9 | 8.2 | 8.7 | 8.3 | 8.2 | 7.8 | 3.3 |
| 531f04 | 46.1 | 11.5 | 10.1 | 12.7 | 10.8 | 11.7 | 8.7 | 8.1 | 8.0 | 9.0 | 10.5 | 9.2 | 7.8 | 3.2 |
| 4d8cc3 | 44.8 | 11.0 | 10.7 | 11.1 | 11.9 | 11.6 | 8.6 | 9.0 | 8.0 | 9.0 | 9.4 | 8.0 | 8.3 | 3.4 |
| 6d7f22 | 45.7 | 10.9 | 11.3 | 10.7 | 11.4 | 11.0 | 8.8 | 7.3 | 7.9 | 8.6 | 10.3 | 8.1 | 7.6 | 3.4 |
| a1a71d | 45.1 | 4.0 | 3.9 | 3.8 | 3.8 | 4.1 | 4.0 | 3.7 | 3.9 | 3.9 | 3.6 | 3.8 | 3.7 | 3.4 |
| d7f390 | 44.4 | 12.2 | 10.9 | 10.5 | 10.6 | 11.4 | 9.3 | 8.2 | 7.8 | 8.9 | 9.3 | 8.1 | 7.5 | 3.5 |
| 7afbce | 45.1 | 3.8 | 4.0 | 4.0 | 3.9 | 3.8 | 4.1 | 3.9 | 3.8 | 4.0 | 3.8 | 3.9 | 3.7 | 3.4 |
| 3474fc | 48.2 | 7.9 | 8.4 | 8.5 | 7.7 | 8.2 | 8.2 | 8.2 | 8.2 | 8.4 | 8.1 | 8.0 | 8.3 | 3.3 |
| 0ad3b2 | 48.2 | 9.1 | 10.0 | 9.8 | 9.2 | 9.0 | 8.6 | 8.4 | 9.4 | 9.2 | 8.4 | 9.4 | 8.9 | 3.7 |
| 12d9ed | 47.9 | 10.6 | 11.4 | 11.3 | 10.6 | 11.1 | 9.2 | 7.8 | 7.9 | 9.3 | 10.5 | 8.0 | 7.4 | 3.6 |
| 8580ef | 48.0 | 11.0 | 10.8 | 11.8 | 11.5 | 10.6 | 8.2 | 9.0 | 7.9 | 8.9 | 10.5 | 8.9 | 7.5 | 3.6 |
| dc18de | 49.6 | 9.8 | 9.9 | 9.8 | 9.7 | 8.9 | 10.0 | 9.3 | 9.5 | 9.5 | 9.7 | 9.2 | 9.3 | 3.6 |
| ee17a6 | 48.0 | 11.2 | 11.6 | 11.4 | 10.9 | 11.6 | 9.3 | 9.3 | 8.7 | 9.7 | 10.2 | 8.8 | 8.2 | 3.6 |
| a54258 | 47.7 | 11.2 | 10.9 | 11.5 | 11.0 | 11.3 | 8.9 | 8.1 | 8.3 | 8.9 | 10.4 | 8.4 | 7.3 | 3.5 |
| 89df2c | 48.4 | 11.5 | 10.7 | 11.4 | 10.3 | 11.2 | 9.7 | 8.9 | 8.0 | 8.6 | 9.7 | 7.8 | 7.9 | 3.8 |
| b81845 | 48.7 | 12.8 | 11.2 | 11.5 | 10.5 | 10.8 | 9.5 | 9.6 | 8.3 | 9.1 | 9.0 | 8.9 | 7.9 | 3.4 |
| 53a984 | 48.8 | 12.1 | 11.4 | 11.4 | 11.9 | 10.8 | 8.6 | 7.7 | 8.6 | 9.4 | 9.9 | 8.1 | 7.9 | 3.7 |
| 11c7de | 47.6 | 12.4 | 11.8 | 12.0 | 11.5 | 11.9 | 8.5 | 8.7 | 7.3 | 8.2 | 9.8 | 7.7 | 8.0 | 3.6 |
| 1ed452 | 47.7 | 10.5 | 12.1 | 10.5 | 10.9 | 12.3 | 9.4 | 8.3 | 8.8 | 8.5 | 10.3 | 8.0 | 8.4 | 3.5 |
| 48412f | 48.2 | 11.1 | 11.1 | 11.4 | 9.7 | 10.6 | 9.3 | 9.1 | 7.9 | 8.9 | 10.9 | 9.3 | 8.1 | 3.6 |
| bfd614 | 49.0 | 12.2 | 10.8 | 11.7 | 11.4 | 10.9 | 8.4 | 8.8 | 7.9 | 9.3 | 10.3 | 7.5 | 8.4 | 3.7 |
| bfb812 | 48.4 | 11.0 | 10.8 | 10.1 | 9.2 | 11.4 | 9.6 | 9.7 | 8.9 | 9.8 | 9.4 | 9.4 | 9.4 | 3.6 |
| 93e572 | 48.4 | 12.9 | 13.1 | 12.9 | 11.5 | 11.9 | 8.9 | 8.3 | 7.2 | 9.1 | 11.1 | 7.8 | 7.3 | 3.7 |
| fb570a | 48.5 | 4.1 | 3.1 | 4.3 | 4.2 | 4.4 | 4.5 | 4.1 | 4.0 | 4.5 | 4.1 | 4.3 | 4.1 | 3.7 |
| f11867 | 50.3 | 20.1 | 20.2 | 20.9 | 18.0 | 20.3 | 17.1 | 15.6 | 15.6 | 15.6 | 17.8 | 16.1 | 15.4 | 10.2 |
| fc4ca5 | 50.2 | 20.2 | 18.9 | 20.3 | 18.8 | 18.5 | 16.2 | 15.3 | 14.5 | 15.8 | 17.7 | 15.9 | 15.3 | 10.2 |
| 4f1ce2 | 64.6 | 34.7 | 34.7 | 35.0 | 33.6 | 35.1 | 31.4 | 30.3 | 29.7 | 30.9 | 33.0 | 36.0 | 35.3 | 25.2 |
| sum | 2174.5 | 534.2 | 519.6 | 537.0 | 510.4 | 526.2 | 444.1 | 416.2 | 413.4 | 433.7 | 476.3 | 423.6 | 403.6 | 201.1 |
| mean | 44.4 | 10.9 | 10.6 | 11.0 | 10.4 | 10.7 | 9.1 | 8.5 | 8.4 | 8.9 | 9.7 | 8.6 | 8.2 | 4.1 |

TABLE LX: Outcomes of RPS (rps-rpp) jgroups-aws time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|------|------|------|------|------|------|------|-------|------|------|-------|-------|------|
| e7896f | 1.8 | 2.8 | 2.6 | 2.7 | 2.8 | 2.6 | 2.8 | 2.9 | 3.0 | 2.7 | 2.8 | 3.0 | 2.7 | 1.8 |
| 4b32fa | 2.0 | 3.4 | 3.1 | 3.2 | 3.2 | 3.2 | 3.2 | 3.4 | 3.2 | 3.2 | 3.3 | 3.4 | 3.3 | 1.9 |
| bcf770 | 1.9 | 2.8 | 2.7 | 2.7 | 2.9 | 2.9 | 3.0 | 2.8 | 3.1 | 2.8 | 2.8 | 3.1 | 2.9 | 1.9 |
| 0c4990 | 2.0 | 8.4 | 7.4 | 8.8 | 7.6 | 7.4 | 7.7 | 7.4 | 7.9 | 7.9 | 7.9 | 7.5 | 7.5 | 1.8 |
| c5e9f0 | 1.9 | 5.6 | 5.5 | 5.4 | 5.6 | 5.3 | 5.7 | 5.6 | 5.8 | 5.8 | 5.4 | 6.0 | 5.2 | 1.9 |
| 83fa1c | 25.9 | 5.0 | 5.6 | 4.8 | 5.2 | 5.2 | 4.9 | 5.0 | 4.4 | 4.0 | 4.7 | 4.7 | 5.6 | 3.4 |
| 83da98 | 25.2 | 3.4 | 3.5 | 3.1 | 3.4 | 3.0 | 3.4 | 3.3 | 3.4 | 3.2 | 3.3 | 3.5 | 3.1 | 2.9 |
| f70cbf | 29.0 | 4.0 | 5.0 | 5.2 | 5.9 | 4.5 | 5.0 | 4.6 | 5.7 | 5.5 | 5.2 | 5.0 | 5.2 | 3.2 |
| 1091a4 | 29.7 | 8.4 | 7.8 | 8.3 | 6.7 | 7.1 | 7.5 | 7.5 | 7.1 | 7.3 | 7.4 | 7.6 | 7.4 | 3.0 |
| b3f243 | 26.3 | 4.6 | 4.3 | 3.7 | 5.2 | 4.0 | 4.5 | 4.7 | 3.9 | 4.8 | 4.8 | 4.1 | 4.3 | 3.0 |
| 741c3d | 53.8 | 4.3 | 4.6 | 4.5 | 4.9 | 4.6 | 5.0 | 5.6 | 5.1 | 5.0 | 4.7 | 5.1 | 4.6 | 3.6 |
| 2ac9b9 | 52.5 | 3.6 | 3.7 | 3.5 | 3.6 | 3.5 | 3.7 | 3.6 | 3.6 | 3.5 | 3.7 | 3.8 | 3.7 | 3.5 |
| 480443 | 53.6 | 3.9 | 3.5 | 3.4 | 3.8 | 3.5 | 3.7 | 4.0 | 3.6 | 3.6 | 3.6 | 3.6 | 3.4 | 3.4 |
| 771d8f | 52.4 | 7.3 | 7.3 | 7.7 | 8.0 | 6.8 | 8.4 | 8.9 | 7.5 | 7.7 | 8.2 | 7.3 | 7.9 | 3.5 |
| 1388b8 | 52.6 | 7.3 | 7.2 | 7.3 | 6.9 | 6.9 | 6.8 | 7.0 | 7.7 | 6.9 | 7.7 | 7.7 | 7.6 | 3.6 |
| a90a3e | 53.8 | 7.2 | 7.4 | 6.6 | 8.1 | 7.8 | 7.7 | 8.4 | 6.6 | 7.8 | 7.8 | 7.2 | 7.3 | 3.5 |
| sum | 464.5 | 82.1 | 81.3 | 81.0 | 83.9 | 78.4 | 83.1 | 84.7 | 81.6 | 81.8 | 83.2 | 82.6 | 81.7 | 45.9 |
| mean | 29.0 | 5.1 | 5.1 | 5.1 | 5.2 | 4.9 | 5.2 | 5.3 | 5.1 | 5.1 | 5.2 | 5.2 | 5.1 | 2.9 |

TABLE LXI: Outcomes of RPS (rps-rpp) datasketches-java time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| e2fb43 | -89.4 | -91.5 | -59.4 | -90.3 | -86.7 | -61.4 | -84.2 | -88.6 | -63.5 | -87.5 | -63.6 | -61.8 | -61.5 | -41.9 |
| 1ba334 | -88.1 | -88.0 | -59.2 | -89.9 | -84.5 | -58.1 | -81.9 | -87.8 | -63.0 | -86.3 | -64.6 | -58.8 | -61.3 | -43.2 |
| 1436f3 | -86.6 | -89.4 | -71.0 | -91.0 | -84.8 | -68.9 | -86.3 | -89.8 | -71.6 | -87.3 | -73.2 | -68.6 | -73.2 | -42.4 |
| ad19fb | 85.2 | 61.9 | 59.2 | 62.1 | 58.2 | 59.5 | 58.6 | 61.9 | 62.9 | 62.2 | 61.5 | 58.4 | 61.7 | 42.1 |
| 843c40 | 87.4 | 33.5 | 31.1 | 33.1 | 32.3 | 31.3 | 31.9 | 34.4 | 33.7 | 33.8 | 33.1 | 30.6 | 33.9 | 43.5 |
| 4a8281 | -88.2 | -89.2 | -69.0 | -92.0 | -84.7 | -70.3 | -83.7 | -89.9 | -72.6 | -88.4 | -72.7 | -68.0 | -74.8 | -41.5 |
| 856926 | -87.8 | -89.7 | -59.9 | -89.2 | -84.8 | -61.8 | -83.7 | -88.5 | -64.2 | -87.8 | -62.6 | -59.3 | -61.8 | -42.9 |
| 1cc496 | -88.7 | -92.2 | -61.1 | -90.5 | -84.8 | -60.7 | -83.8 | -91.3 | -64.1 | -86.2 | -61.7 | -59.8 | -62.4 | -43.1 |
| 4ede21 | -89.9 | -91.9 | -59.9 | -88.5 | -87.5 | -60.9 | -83.2 | -90.2 | -62.2 | -86.2 | -64.0 | -60.8 | -63.2 | -41.9 |
| 851ec9 | -89.8 | -91.4 | -67.7 | -89.1 | -83.9 | -69.7 | -83.9 | -88.6 | -75.6 | -87.5 | -72.6 | -69.9 | -74.3 | -42.8 |
| fcc7e1 | -87.7 | -88.9 | -69.3 | -89.4 | -85.6 | -69.1 | -83.4 | -87.6 | -74.1 | -89.5 | -71.3 | -67.9 | -72.2 | -41.2 |
| 75f72c | -85.2 | -86.1 | -70.2 | -89.2 | -85.7 | -67.9 | -80.6 | -88.8 | -74.9 | -87.7 | -72.0 | -67.5 | -71.0 | -42.4 |
| b27fff | 83.9 | 84.6 | 68.5 | 88.6 | 83.1 | 68.1 | 84.0 | 86.8 | 72.2 | 86.0 | 71.4 | 67.1 | 71.8 | 39.6 |
| 23ae68 | 84.8 | 84.8 | 65.6 | 88.2 | 84.3 | 67.1 | 80.1 | 86.6 | 71.4 | 84.0 | 70.0 | 67.4 | 69.7 | 39.8 |
| 20a6b0 | 85.2 | 87.6 | 65.1 | 88.6 | 84.7 | 68.7 | 80.7 | 87.8 | 71.3 | 84.5 | 70.9 | 66.1 | 71.5 | 40.7 |
| 08e0e2 | 86.5 | 86.6 | 57.1 | 85.7 | 81.2 | 57.8 | 80.4 | 86.6 | 61.3 | 84.3 | 59.0 | 57.1 | 60.8 | 39.6 |
| f3a611 | 89.7 | 84.9 | 57.0 | 88.5 | 82.3 | 56.1 | 79.4 | 85.1 | 61.0 | 84.1 | 58.2 | 56.9 | 59.7 | 40.8 |
| 1c524d | 86.1 | 84.0 | 66.4 | 86.4 | 83.0 | 65.7 | 78.7 | 87.3 | 70.3 | 86.1 | 68.1 | 65.7 | 70.3 | 40.3 |
| 562887 | 85.3 | 33.0 | 32.5 | 33.8 | 32.1 | 32.4 | 31.9 | 34.7 | 35.1 | 33.1 | 33.6 | 31.4 | 34.2 | 40.9 |
| f0d5e1 | -75.6 | -51.5 | -49.3 | -52.2 | -49.6 | -49.7 | -48.7 | -52.0 | -51.7 | -51.3 | -51.0 | -49.1 | -53.0 | -31.8 |
| cf919f | -75.5 | 34.3 | 31.1 | 34.2 | 32.1 | 32.3 | 31.0 | 33.5 | 34.5 | 32.9 | 34.5 | 31.0 | 33.7 | -31.8 |
| 70f181 | 74.2 | 50.7 | 47.2 | 50.1 | 73.4 | 47.3 | 47.6 | 49.7 | 50.8 | 75.9 | 51.5 | 46.4 | 51.4 | 31.5 |
| e2d8f0 | 75.8 | 50.0 | 47.9 | 51.0 | 48.7 | 48.3 | 47.6 | 49.4 | 51.3 | 50.0 | 50.2 | 47.9 | 50.5 | 31.5 |
| 91b26c | 75.9 | 54.4 | 49.4 | 51.3 | 49.3 | 48.8 | 49.1 | 52.7 | 51.1 | 50.9 | 51.5 | 49.8 | 52.1 | 30.6 |
| 92cc12 | -76.0 | -54.2 | -48.7 | -52.6 | -49.3 | -48.9 | -48.9 | -51.4 | -51.4 | -51.5 | -51.5 | -49.5 | -52.9 | -31.3 |
| 3ca1be | 77.2 | 52.5 | 48.5 | 51.7 | 47.3 | 47.6 | 48.0 | 50.0 | 51.6 | 49.4 | 50.8 | 47.2 | 51.7 | 30.7 |
| 55e820 | 76.0 | 54.4 | 48.8 | 50.8 | 48.4 | 48.1 | 47.3 | 51.6 | 53.1 | 50.0 | 50.9 | 48.3 | 51.3 | 31.0 |
| 11672b | 76.2 | 54.0 | 48.0 | 51.3 | 48.1 | 48.4 | 48.0 | 52.0 | 52.9 | 50.9 | 50.2 | 49.0 | 52.2 | 31.8 |
| 83c11b | 75.3 | 57.5 | 50.2 | 52.5 | 50.4 | 49.4 | 50.2 | 53.0 | 55.8 | 52.0 | 51.9 | 50.8 | 53.3 | 31.6 |
| d93a6b | 76.2 | 54.2 | 48.3 | 52.2 | 48.5 | 47.4 | 49.1 | 51.9 | 52.9 | 51.9 | 51.0 | 48.0 | 51.1 | 30.9 |
| 5aba00 | -74.4 | -53.7 | -48.0 | -52.3 | -49.4 | -48.2 | -48.0 | -50.6 | -54.3 | -51.9 | -50.5 | -49.1 | -52.2 | -31.3 |
| 9622f1 | -73.8 | 36.8 | 30.4 | 35.5 | 31.4 | 31.2 | 31.5 | 34.2 | 36.9 | 33.9 | 34.6 | 32.1 | 35.0 | -31.9 |
| ac0aa6 | 78.7 | 54.1 | 48.3 | 52.2 | 48.0 | 47.7 | 48.4 | 51.0 | 56.1 | 51.1 | 51.1 | 48.2 | 52.0 | 31.6 |
| 0eda5e | 74.7 | 56.0 | 49.4 | 51.5 | 48.8 | 48.7 | 48.5 | 51.8 | 54.9 | 53.0 | 51.2 | 49.2 | 53.0 | 31.5 |
| 6d9e9e | 78.4 | 54.0 | 48.5 | 51.1 | 73.1 | 47.4 | 48.8 | 51.7 | 54.6 | 78.7 | 56.5 | 48.2 | 56.2 | 31.6 |
| 42eb24 | 76.0 | 56.7 | 50.6 | 53.9 | 50.5 | 50.0 | 48.1 | 52.5 | 57.0 | 52.5 | 53.0 | 48.9 | 52.3 | 32.1 |
| 063d1a | 74.3 | 53.8 | 48.4 | 52.8 | 48.7 | 48.6 | 48.4 | 51.3 | 55.0 | 50.6 | 53.7 | 48.8 | 51.8 | 32.1 |
| 3a6f18 | 76.3 | 58.4 | 51.8 | 56.7 | 52.7 | 52.6 | 51.8 | 54.9 | 56.8 | 53.5 | 54.8 | 51.6 | 52.5 | 33.5 |
| ce9bed | 76.5 | 54.0 | 49.7 | 53.8 | 50.7 | 49.7 | 49.0 | 52.5 | 55.2 | 53.3 | 53.1 | 49.7 | 52.3 | 32.0 |
| 045e38 | 75.6 | 59.6 | 53.0 | 56.7 | 54.8 | 54.7 | 52.6 | 57.6 | 59.2 | 57.7 | 58.0 | 53.1 | 56.7 | 32.1 |
| 85a09d | 78.1 | 53.6 | 47.9 | 51.6 | 48.7 | 48.1 | 47.8 | 50.8 | 52.9 | 50.7 | 50.6 | 47.4 | 50.7 | 32.2 |
| 4a82e4 | 75.3 | 36.3 | 31.4 | 35.7 | 32.6 | 32.4 | 32.0 | 33.2 | 35.7 | 34.6 | 34.8 | 31.2 | 34.6 | 32.2 |
| e5081d | 78.7 | 36.0 | 31.9 | 35.5 | 32.5 | 32.5 | 32.7 | 35.1 | 36.6 | 35.4 | 34.0 | 30.6 | 35.4 | 32.6 |
| 499a44 | 76.2 | 55.9 | 49.2 | 52.4 | 49.7 | 50.2 | 47.8 | 52.9 | 55.5 | 51.5 | 52.6 | 50.3 | 51.7 | 31.9 |
| 320a3d | 74.3 | 35.0 | 32.5 | 34.7 | 30.7 | 31.9 | 33.3 | 34.8 | 37.5 | 32.4 | 34.5 | 30.5 | 34.8 | 31.6 |
| d6ce71 | 76.4 | 56.6 | 48.5 | 52.3 | 49.9 | 50.1 | 49.8 | 51.6 | 57.2 | 53.6 | 53.6 | 49.7 | 53.3 | 34.5 |
| 28ec92 | 78.3 | 82.9 | 49.9 | 79.4 | 75.1 | 51.2 | 72.1 | 76.6 | 57.6 | 83.1 | 52.3 | 49.5 | 53.9 | 33.0 |
| sum | 3785.2 | 3000.2 | 2435.7 | 2961.8 | 2846.5 | 2446.8 | 2746.4 | 2932.4 | 2654.8 | 2956.6 | 2578.1 | 2428.3 | 2590.9 | 1683.3 |
| mean | 80.5 | 63.8 | 51.8 | 63.0 | 60.6 | 52.1 | 58.4 | 62.4 | 56.5 | 62.9 | 54.9 | 51.7 | 55.1 | 35.8 |

TABLE LXII: Outcomes of RPS (rps-rpp) jbehave-junit-runner time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 989cea | 69.6 | 12.5 | 13.1 | 12.1 | 12.5 | 12.2 | 9.1 | 9.6 | 9.1 | 8.5 | 13.1 | 8.8 | 9.7 | 4.8 |
| 9f8fe5 | 71.7 | 11.0 | 12.4 | 11.2 | 11.6 | 10.9 | 8.2 | 8.2 | 7.4 | 7.8 | 11.6 | 9.2 | 9.5 | 4.7 |
| 3c2e58 | 69.9 | 11.3 | 11.6 | 12.2 | 11.6 | 11.7 | 8.5 | 9.6 | 8.5 | 9.0 | 11.0 | 9.4 | 9.2 | 4.8 |
| 6756fd | 71.4 | 11.7 | 12.1 | 11.4 | 12.0 | 12.1 | 8.4 | 8.1 | 8.6 | 8.1 | 10.1 | 9.0 | 9.1 | 4.8 |
| eafa46 | 69.0 | 11.4 | 11.4 | 10.9 | 11.4 | 10.9 | 8.6 | 7.6 | 8.5 | 7.5 | 11.2 | 7.8 | 8.9 | 4.8 |
| 15cc3d | 71.8 | 3.5 | 3.7 | 3.3 | 3.4 | 3.4 | 3.3 | 3.3 | 3.3 | 3.3 | 3.6 | 3.5 | 3.2 | 4.8 |
| 0be34d | 68.5 | 8.2 | 8.6 | 7.7 | 8.0 | 7.7 | 7.5 | 7.2 | 8.0 | 8.2 | 7.8 | 8.6 | 8.5 | 4.7 |
| c76b75 | 69.6 | 8.6 | 8.6 | 8.3 | 9.0 | 9.0 | 8.0 | 7.8 | 7.5 | 7.9 | 7.9 | 8.9 | 7.9 | 4.8 |
| 1c33a7 | 69.6 | 12.6 | 13.6 | 12.4 | 12.6 | 12.0 | 9.0 | 8.6 | 8.8 | 9.2 | 11.7 | 9.3 | 9.0 | 4.8 |
| 63b64b | 68.5 | 9.4 | 9.8 | 8.0 | 8.9 | 9.0 | 5.5 | 5.9 | 5.1 | 6.7 | 9.1 | 6.2 | 6.4 | 5.0 |
| 8dc4ee | 68.4 | 11.1 | 12.4 | 11.5 | 11.1 | 11.0 | 9.4 | 9.2 | 8.6 | 8.9 | 11.6 | 8.4 | 8.2 | 4.8 |
| c78e51 | 68.2 | 11.6 | 13.1 | 10.9 | 10.9 | 10.5 | 8.3 | 8.3 | 8.8 | 9.0 | 11.8 | 8.3 | 8.3 | 4.7 |
| 9c0b8a | 70.5 | 9.7 | 10.0 | 9.3 | 8.4 | 8.7 | 8.9 | 8.4 | 8.8 | 10.3 | 8.6 | 9.3 | 9.8 | 4.8 |
| b68a9c | 69.2 | 7.7 | 9.6 | 8.7 | 7.7 | 8.7 | 7.5 | 8.4 | 8.2 | 8.3 | 9.1 | 8.8 | 8.5 | 4.9 |
| a0d064 | 69.9 | 3.4 | 3.6 | 3.5 | 3.1 | 3.3 | 3.3 | 3.3 | 3.2 | 3.3 | 3.3 | 3.4 | 3.2 | 4.7 |
| 338958 | 70.5 | 7.9 | 9.2 | 8.2 | 8.1 | 8.9 | 7.8 | 8.4 | 8.4 | 8.7 | 8.1 | 8.6 | 8.2 | 4.9 |
| 0faec4 | 70.3 | 7.9 | 8.2 | 7.6 | 7.3 | 8.5 | 7.3 | 8.5 | 8.1 | 8.2 | 7.4 | 7.6 | 7.6 | 4.7 |
| d43f4f | 68.7 | 6.3 | 6.4 | 6.3 | 5.4 | 7.0 | 5.9 | 5.3 | 5.7 | 5.5 | 6.0 | 6.3 | 5.7 | 4.7 |
| 747125 | 68.9 | 9.6 | 10.0 | 9.7 | 9.9 | 10.1 | 8.9 | 10.1 | 8.8 | 10.2 | 9.6 | 9.7 | 9.4 | 4.7 |
| d46a70 | 69.4 | 9.8 | 10.7 | 9.7 | 9.7 | 9.2 | 9.5 | 8.9 | 9.8 | 10.3 | 9.3 | 9.9 | 9.6 | 4.8 |
| f37f4d | 68.8 | 3.2 | 3.3 | 3.0 | 3.1 | 3.4 | 3.2 | 3.2 | 3.0 | 3.0 | 3.3 | 3.2 | 3.3 | 4.7 |
| 72f54c | 68.8 | 12.0 | 10.3 | 10.8 | 11.0 | 11.3 | 8.8 | 8.5 | 8.7 | 8.4 | 10.7 | 8.4 | 9.0 | 4.6 |
| 1a9ed5 | 69.3 | 8.9 | 9.4 | 9.0 | 9.6 | 9.7 | 9.6 | 9.7 | 9.0 | 8.8 | 9.1 | 9.1 | 9.1 | 4.7 |
| 545f67 | 70.8 | 12.5 | 11.8 | 11.4 | 12.6 | 11.9 | 8.9 | 9.1 | 9.5 | 8.7 | 11.7 | 9.3 | 8.9 | 4.8 |
| c7bc45 | 70.3 | 11.5 | 10.7 | 10.4 | 11.1 | 11.1 | 8.2 | 8.2 | 8.8 | 7.8 | 10.7 | 8.8 | 9.4 | 4.8 |
| f61eec | 73.1 | 9.0 | 8.8 | 8.6 | 8.3 | 9.8 | 8.3 | 8.5 | 9.4 | 8.6 | 9.5 | 10.1 | 10.2 | 4.7 |
| 45bb8c | 70.5 | 9.9 | 10.4 | 9.0 | 9.4 | 10.4 | 9.5 | 9.6 | 9.7 | 9.5 | 10.4 | 9.5 | 9.5 | 4.6 |
| 25e4c7 | 71.9 | 10.3 | 9.8 | 9.9 | 9.5 | 9.5 | 10.0 | 8.6 | 9.3 | 9.7 | 9.6 | 10.1 | 10.8 | 4.9 |
| df7e89 | 72.2 | 9.6 | 9.6 | 9.3 | 9.8 | 9.6 | 9.1 | 8.9 | 9.3 | 10.0 | 9.3 | 10.8 | 10.0 | 4.7 |
| 678357 | 70.5 | 12.2 | 11.0 | 11.1 | 10.7 | 11.6 | 9.3 | 8.9 | 9.0 | 8.7 | 12.6 | 10.4 | 9.5 | 4.6 |
| 25d1fe | 70.1 | 11.6 | 11.0 | 11.7 | 10.7 | 11.7 | 8.3 | 9.0 | 8.6 | 7.9 | 11.4 | 9.8 | 9.0 | 4.6 |
| 1c1f87 | 69.6 | 9.1 | 8.5 | 7.8 | 8.3 | 8.8 | 8.6 | 9.0 | 7.9 | 9.2 | 9.2 | 8.8 | 8.1 | 4.6 |
| ac017b | 69.6 | 11.8 | 11.0 | 11.0 | 11.0 | 10.5 | 8.3 | 9.2 | 7.8 | 8.9 | 10.3 | 9.1 | 8.7 | 4.6 |
| e893ae | 69.5 | 11.6 | 11.5 | 11.5 | 11.2 | 12.0 | 9.4 | 7.9 | 7.8 | 8.8 | 11.9 | 9.9 | 9.3 | 4.5 |
| a2df3c | 72.0 | 8.8 | 8.3 | 8.6 | 7.8 | 8.3 | 8.7 | 8.2 | 8.8 | 7.3 | 8.1 | 10.5 | 8.9 | 4.6 |
| 530cf4 | 75.7 | 10.4 | 10.5 | 10.2 | 10.1 | 10.7 | 9.8 | 9.3 | 10.3 | 9.2 | 10.7 | 10.2 | 9.6 | 4.7 |
| d037a8 | 75.0 | 3.3 | 3.7 | 3.4 | 3.3 | 3.2 | 3.4 | 3.2 | 3.0 | 3.1 | 3.4 | 3.2 | 3.3 | 4.6 |
| 7bc0fd | 74.9 | 11.5 | 11.9 | 10.9 | 11.0 | 10.2 | 8.2 | 8.9 | 7.6 | 7.9 | 11.9 | 9.5 | 9.1 | 4.6 |
| 69879e | 74.8 | 11.7 | 12.5 | 12.2 | 10.2 | 11.6 | 8.3 | 8.1 | 8.5 | 7.6 | 12.4 | 10.1 | 8.2 | 4.8 |
| f8d201 | 75.0 | 11.1 | 12.0 | 11.1 | 11.0 | 12.2 | 8.0 | 8.0 | 8.4 | 8.4 | 11.7 | 10.1 | 8.6 | 4.5 |
| 9dbc92 | 76.6 | 9.4 | 10.1 | 9.9 | 8.9 | 10.3 | 9.3 | 9.1 | 9.7 | 8.4 | 9.9 | 10.2 | 9.0 | 4.8 |
| 4b015a | 76.1 | 12.4 | 12.5 | 12.0 | 11.7 | 12.3 | 9.4 | 9.0 | 9.8 | 9.0 | 11.7 | 9.9 | 10.9 | 5.1 |
| 2a2882 | 76.9 | 12.5 | 12.2 | 12.5 | 11.2 | 11.1 | 10.2 | 9.7 | 9.5 | 8.5 | 11.5 | 9.4 | 9.0 | 4.9 |
| b18c7d | 76.4 | 4.2 | 4.1 | 4.0 | 3.9 | 4.1 | 4.0 | 4.0 | 4.0 | 4.0 | 4.2 | 4.3 | 4.3 | 4.7 |
| 253c76 | 79.0 | 12.6 | 12.7 | 12.1 | 11.4 | 11.7 | 9.3 | 8.6 | 8.9 | 9.1 | 12.5 | 9.2 | 9.6 | 4.8 |
| 6859e0 | 76.6 | 4.0 | 4.1 | 4.0 | 4.2 | 4.2 | 4.0 | 4.1 | 4.0 | 3.9 | 4.3 | 4.5 | 4.3 | 4.9 |
| 4b48b2 | 78.3 | 4.4 | 4.2 | 4.1 | 4.1 | 4.1 | 4.4 | 4.2 | 4.0 | 3.9 | 4.2 | 4.8 | 4.1 | 4.7 |
| d1321c | 79.1 | 10.8 | 9.6 | 8.9 | 10.1 | 10.1 | 10.4 | 9.0 | 9.3 | 9.4 | 9.6 | 10.2 | 11.1 | 4.8 |
| 2c2d55 | 79.6 | 11.4 | 10.7 | 10.1 | 11.4 | 11.0 | 11.0 | 10.8 | 10.4 | 11.0 | 11.3 | 11.4 | 11.5 | 4.8 |
| sum | 3524.8 | 467.0 | 474.3 | 451.2 | 449.6 | 461.3 | 390.8 | 386.2 | 387.1 | 387.5 | 458.9 | 416.0 | 406.4 | 232.3 |
| mean | 71.9 | 9.5 | 9.7 | 9.2 | 9.2 | 9.4 | 8.0 | 7.9 | 7.9 | 7.9 | 9.4 | 8.5 | 8.3 | 4.7 |

TABLE LXIII: Outcomes of RPS (rps-rpp) commons-lang time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20de43 | 66.2 | 13.6 | 13.8 | 13.7 | 13.2 | 12.7 | 14.1 | 14.0 | 14.1 | 14.0 | 13.2 | 13.9 | 13.2 | 21.1 |
| 8dae1f | 65.3 | 34.5 | 34.3 | 34.8 | 34.8 | 32.7 | 35.3 | 36.2 | 34.2 | 34.6 | 32.3 | 33.4 | 31.9 | 22.1 |
| 4f9285 | 66.0 | 33.7 | 34.6 | 32.7 | 32.7 | 31.2 | 33.5 | 34.5 | 35.8 | 35.2 | 31.3 | 31.8 | 32.8 | 21.6 |
| 22c304 | 65.8 | 34.9 | 30.9 | 33.4 | 31.2 | 31.4 | 35.6 | 34.1 | 31.8 | 31.7 | 29.1 | 32.1 | 29.7 | 22.0 |
| 101227 | 65.4 | 34.9 | 31.5 | 33.2 | 30.6 | 29.9 | 35.6 | 35.0 | 31.6 | 32.2 | 29.8 | 31.7 | 29.3 | 21.2 |
| e863dc | 65.2 | 33.6 | 33.3 | 33.5 | 29.3 | 31.6 | 34.4 | 34.5 | 33.4 | 31.7 | 30.5 | 33.4 | 29.6 | 21.4 |
| f7cbda | 65.9 | 33.8 | 34.7 | 34.0 | 33.8 | 31.8 | 34.2 | 35.6 | 34.7 | 34.2 | 31.8 | 32.5 | 30.1 | 21.6 |
| 6049e7 | 65.9 | 13.9 | 13.2 | 13.3 | 13.0 | 13.1 | 14.0 | 13.6 | 14.2 | 14.0 | 12.7 | 13.6 | 13.5 | 21.9 |
| 7d061e | 65.8 | 30.3 | 30.7 | 28.7 | 28.8 | 28.8 | 31.8 | 30.2 | 30.2 | 29.6 | 28.4 | 30.4 | 28.9 | 21.9 |
| bfb43d | 66.2 | 14.0 | 14.3 | 13.4 | 13.2 | 13.5 | 13.7 | 14.0 | 13.5 | 13.5 | 13.2 | 14.0 | 13.1 | 21.5 |
| d8ec01 | 66.3 | 29.2 | 29.8 | 29.7 | 29.6 | 29.8 | 30.8 | 29.9 | 29.5 | 29.9 | 29.1 | 30.2 | 28.3 | 21.8 |
| 6dfc3e | 68.8 | 34.6 | 31.0 | 33.5 | 28.6 | 29.2 | 34.1 | 35.6 | 30.5 | 29.4 | 28.7 | 30.7 | 28.1 | -21.5 |
| 5fb74a | 65.9 | 13.8 | 13.1 | 13.3 | 13.4 | 13.9 | 13.9 | 14.0 | 14.3 | 13.6 | 13.5 | 14.4 | 13.2 | 21.6 |
| c614fb | 65.8 | 34.8 | 32.9 | 34.7 | 29.2 | 30.3 | 34.0 | 35.2 | 32.9 | 29.5 | 28.8 | 32.1 | 28.8 | -21.4 |
| 0b70b0 | 67.5 | 30.1 | 30.7 | 29.7 | 29.6 | 29.9 | 32.2 | 30.3 | 31.0 | 30.6 | 29.1 | 31.4 | 30.2 | 21.5 |
| 63f11e | 64.6 | 11.9 | 11.7 | 11.4 | 10.8 | 11.1 | 12.4 | 11.9 | 11.6 | 11.5 | 11.1 | 12.2 | 11.5 | 21.4 |
| f5ebb9 | 66.3 | 32.1 | 32.1 | 32.3 | 31.8 | 30.1 | 33.0 | 32.2 | 33.0 | 33.0 | 29.4 | 30.8 | 29.2 | 21.5 |
| e72654 | 65.7 | 11.8 | 11.5 | 10.9 | 11.1 | 11.1 | 11.7 | 11.7 | 12.2 | 12.1 | 11.2 | 12.0 | 11.3 | 21.2 |
| d57505 | 66.0 | 32.5 | 33.2 | 31.3 | 32.0 | 29.6 | 32.7 | 32.1 | 32.1 | 33.0 | 29.1 | 30.8 | 30.7 | 21.0 |
| sum | 1254.7 | 507.9 | 497.2 | 497.5 | 476.8 | 471.8 | 517.1 | 514.6 | 500.5 | 493.4 | 462.2 | 491.3 | 463.2 | 409.1 |
| mean | 66.0 | 26.7 | 26.2 | 26.2 | 25.1 | 24.8 | 27.2 | 27.1 | 26.3 | 26.0 | 24.3 | 25.9 | 24.4 | 21.5 |

TABLE LXIV: Outcomes of RPS (rps-rpp) smartsheet-java-sdk time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1d2e47 | -47.3 | -32.5 | -32.8 | -32.6 | -32.8 | -32.4 | -23.5 | -23.4 | -23.2 | -22.8 | -32.3 | -23.4 | -23.5 | -17.3 |
| 509364 | -47.2 | -32.6 | -32.4 | -33.2 | -32.7 | -31.7 | -23.5 | -22.4 | -21.9 | -22.6 | -32.2 | -21.6 | -22.0 | -17.5 |
| 5c83a1 | -47.5 | -36.7 | -37.5 | -37.8 | -36.8 | -36.4 | -25.0 | -23.9 | -24.2 | -24.0 | -36.9 | -24.5 | -23.7 | -17.6 |
| 43a4f7 | -47.9 | -36.7 | -36.2 | -37.5 | -35.4 | -36.2 | -24.7 | -23.5 | -23.6 | -23.7 | -35.2 | -22.8 | -22.3 | -17.8 |
| 240ee7 | -47.9 | -37.2 | -37.2 | -37.7 | -36.0 | -36.0 | -25.0 | -23.9 | -23.9 | -25.4 | -35.7 | -23.7 | -23.0 | -18.0 |
| 4ea223 | -47.9 | -41.3 | -43.4 | -42.8 | -41.3 | -41.7 | -26.1 | -25.7 | -26.1 | -25.9 | -41.9 | -25.3 | -25.5 | -18.3 |
| 177fc4 | -48.0 | -41.0 | -41.5 | -42.6 | -41.1 | -40.9 | -25.2 | -25.4 | -24.7 | -25.5 | -40.6 | -24.4 | -24.7 | -18.0 |
| 2844b0 | -49.4 | -41.1 | -42.2 | -42.1 | -40.4 | -41.0 | -25.7 | -25.0 | -24.9 | -26.2 | -41.2 | -24.4 | -24.9 | -18.1 |
| 97ecb7 | -48.6 | -41.7 | -43.1 | -43.0 | -42.1 | -42.2 | -26.5 | -26.4 | -27.4 | -26.9 | -41.8 | -26.0 | -26.0 | -18.4 |
| 94d558 | -49.7 | -41.8 | -43.4 | -42.1 | -41.7 | -41.4 | -26.8 | -25.8 | -25.8 | -26.7 | -41.7 | -24.8 | -25.7 | -18.4 |
| de3432 | 50.3 | 42.3 | 41.2 | 43.9 | 31.2 | 40.8 | 25.7 | 25.8 | 25.0 | 24.2 | 30.9 | 24.4 | 22.4 | 18.5 |
| 4bedcb | 48.9 | 4.6 | 5.1 | 4.8 | 4.4 | 4.4 | 4.7 | 4.4 | 4.8 | 4.5 | 4.3 | 4.5 | 4.8 | 18.3 |
| ae8ebd | 46.3 | 34.4 | 36.7 | 35.4 | 20.0 | 34.9 | 36.1 | 34.8 | 35.4 | 20.3 | 20.0 | 34.6 | 20.6 | 6.4 |
| 60de51 | 45.4 | 35.6 | 37.3 | 37.3 | 23.9 | 35.6 | 16.8 | 15.9 | 15.8 | 12.9 | 23.3 | 15.3 | 12.8 | 6.4 |
| 78c50e | 46.4 | 36.3 | 37.7 | 37.4 | 24.1 | 36.3 | 16.7 | 15.2 | 15.5 | 14.4 | 22.5 | 14.4 | 12.5 | 6.5 |
| 9aa37d | 49.1 | 34.2 | 35.9 | 36.6 | 22.6 | 35.6 | 37.4 | 35.4 | 36.2 | 23.7 | 22.6 | 35.6 | 22.6 | 6.8 |
| 73be08 | 49.2 | 38.7 | 39.3 | 39.7 | 24.9 | 38.3 | 18.5 | 16.9 | 17.8 | 14.4 | 25.5 | 16.7 | 13.9 | 6.8 |
| aa7861 | 49.4 | 5.5 | 5.9 | 5.7 | 5.3 | 5.3 | 6.0 | 5.7 | 5.7 | 5.6 | 5.2 | 5.4 | 5.5 | 6.7 |
| 5a20f2 | 48.4 | 36.6 | 38.1 | 38.8 | 24.3 | 36.9 | 16.5 | 15.6 | 15.1 | 13.8 | 24.0 | 14.3 | 12.8 | 6.6 |
| cbe2f7 | 50.2 | 39.9 | 43.1 | 41.5 | 27.3 | 40.5 | 20.1 | 18.6 | 20.6 | 16.3 | 27.7 | 18.8 | 16.7 | 7.3 |
| sum | 964.9 | 690.8 | 710.0 | 712.5 | 588.2 | 688.6 | 450.7 | 433.5 | 437.8 | 399.9 | 585.3 | 424.9 | 386.0 | 269.7 |
| mean | 48.2 | 34.5 | 35.5 | 35.6 | 29.4 | 34.4 | 22.5 | 21.7 | 21.9 | 20.0 | 29.3 | 21.2 | 19.3 | 13.5 |

TABLE LXV: Outcomes of RPS (rps-rpp) commons-dbcv time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| dba639 | -94.7 | 8.2 | 7.6 | 7.0 | 7.2 | 8.0 | 7.7 | 7.2 | 7.4 | 7.2 | 7.2 | 7.3 | 7.0 | -52.9 |
| 141671 | -94.2 | 7.6 | 7.8 | 7.1 | 7.2 | 7.7 | 7.8 | 7.5 | 7.3 | 7.4 | 6.2 | 7.1 | 7.3 | -52.7 |
| b19355 | -94.1 | -59.1 | -59.4 | -58.5 | -58.1 | -58.9 | -58.5 | -58.4 | -58.5 | -58.1 | -58.3 | -58.2 | -58.1 | -52.6 |
| 43a618 | -94.6 | -57.9 | -58.0 | -56.8 | -57.1 | -57.6 | -57.7 | -57.5 | -58.0 | -57.3 | -57.8 | -57.6 | -56.9 | -52.7 |
| 4475a0 | -93.5 | -58.4 | -58.4 | -57.7 | -58.3 | -58.5 | -58.4 | -57.4 | -58.0 | -58.0 | -57.4 | -57.1 | -57.5 | -52.6 |
| 43e1ab | -95.1 | 8.1 | 7.9 | 7.3 | 7.1 | 8.0 | 7.4 | 6.9 | 7.4 | 7.5 | 7.2 | 7.4 | 7.1 | -53.1 |
| 8c0391 | -94.6 | 8.1 | 7.9 | 7.4 | 7.6 | 7.8 | 7.2 | 7.3 | 7.4 | 7.2 | 7.1 | 7.3 | 7.3 | -52.8 |
| 12f80f | -94.8 | 7.9 | 7.7 | 7.2 | 7.1 | 7.6 | 7.3 | 6.9 | 7.4 | 7.6 | 7.6 | 7.2 | 7.3 | -53.1 |
| 3ba469 | -94.6 | 9.1 | 8.8 | 8.6 | 8.2 | 8.7 | 8.5 | 8.1 | 8.2 | 8.3 | 8.8 | 8.2 | 8.1 | -53.5 |
| 0f656a | -95.1 | -59.1 | -58.3 | -58.0 | -58.4 | -59.1 | -58.4 | -58.6 | -57.9 | -58.2 | -58.6 | -58.1 | -57.7 | -53.2 |
| 6bcbad | -94.4 | -59.3 | -58.8 | -59.2 | -57.4 | -58.6 | -59.0 | -57.7 | -57.7 | -58.2 | -58.4 | -58.1 | -58.4 | -53.0 |
| 0b5b1b | -95.1 | -58.1 | -58.5 | -58.8 | -58.2 | -59.3 | -58.4 | -57.9 | -58.3 | -57.7 | -58.0 | -58.1 | -58.3 | -53.2 |
| f74029 | -94.5 | -58.6 | -59.2 | -58.4 | -58.1 | -59.2 | -58.9 | -57.7 | -58.6 | -58.5 | -57.7 | -58.1 | -59.1 | -53.3 |
| 8alc11 | -94.0 | -59.8 | -59.0 | -58.9 | -58.8 | -59.9 | -59.6 | -58.9 | -59.1 | -58.2 | -58.9 | -59.0 | -58.4 | -53.2 |
| e65434 | -94.3 | -58.7 | -58.6 | -59.4 | -58.2 | -59.2 | -59.1 | -58.4 | -58.2 | -57.9 | -58.0 | -57.9 | -58.7 | -53.3 |
| 861879 | -94.8 | -59.0 | -58.7 | -58.5 | -58.2 | -59.0 | -58.3 | -57.9 | -58.5 | -57.6 | -59.2 | -58.1 | -57.7 | -53.0 |
| 6641cc | -94.7 | -59.1 | -58.9 | -59.4 | -58.7 | -59.6 | -59.0 | -57.8 | -58.9 | -58.7 | -58.9 | -58.8 | -58.4 | -52.9 |
| 840871 | -94.7 | -59.2 | -59.2 | -59.6 | -58.7 | -59.9 | -59.8 | -58.6 | -59.3 | -58.0 | -59.2 | -58.8 | -58.5 | -53.1 |
| 6a6504 | -94.6 | -59.3 | -59.1 | -59.7 | -58.2 | -59.5 | -58.7 | -58.5 | -58.3 | -57.8 | -58.9 | -59.0 | -58.5 | -52.8 |
| sum | 1796.3 | 814.6 | 811.8 | 807.5 | 801.0 | 816.1 | 809.6 | 799.3 | 804.6 | 799.3 | 803.6 | 801.5 | 800.4 | 1007.1 |
| mean | 94.5 | 42.9 | 42.7 | 42.5 | 42.2 | 43.0 | 42.6 | 42.1 | 42.3 | 42.1 | 42.3 | 42.2 | 42.1 | 53.0 |

TABLE LXVI: Outcomes of RPS (rps-rpp) jnr-posix time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 496890 | 143.2 | 17.4 | 16.7 | 17.4 | 17.7 | 17.8 | 17.4 | 17.7 | 17.4 | 18.0 | 17.4 | 18.0 | 18.8 | 12.3 |
| ba4016 | 146.1 | 16.5 | 16.8 | 17.3 | 16.2 | 17.4 | 16.7 | 17.4 | 17.4 | 17.9 | 17.8 | 17.3 | 17.8 | 12.2 |
| 220614 | 145.6 | 16.3 | 16.8 | 16.1 | 15.8 | 18.3 | 15.7 | 17.1 | 17.0 | 17.4 | 16.6 | 17.2 | 17.1 | 12.2 |
| 28a09c | 143.8 | 26.6 | 27.1 | 25.4 | 26.6 | 27.4 | 20.2 | 21.0 | 20.7 | 20.3 | 16.9 | 21.2 | 17.3 | 12.2 |
| a03b2e | 145.9 | 26.3 | 25.8 | 26.1 | 26.7 | 27.0 | 19.8 | 20.5 | 19.1 | 20.3 | 26.5 | 21.7 | 20.5 | 12.2 |
| 6c8812 | -2.5 | -2.2 | -2.2 | -2.3 | -2.3 | -2.5 | -2.4 | -2.5 | -2.3 | -2.5 | -2.3 | -2.4 | -2.4 | -2.3 |
| 6d3956 | 144.6 | 26.6 | 26.7 | 26.1 | 26.3 | 26.6 | -19.8 | 21.7 | 20.1 | 21.0 | 27.1 | 20.9 | 20.4 | 12.5 |
| 40396a | -2.3 | -2.3 | -2.4 | -2.1 | -2.5 | -2.4 | -2.2 | -2.3 | -2.4 | -2.3 | -2.4 | -2.5 | -2.4 | -2.5 |
| e935f8 | 143.3 | 27.3 | 26.5 | 26.3 | 25.9 | 28.4 | 19.7 | 21.2 | 20.3 | 21.3 | 27.4 | 22.1 | 20.7 | 12.4 |
| 40fa74 | 160.6 | 28.5 | 28.2 | 28.1 | 29.2 | 28.9 | 22.1 | 22.7 | 22.4 | 23.8 | 29.4 | 23.6 | -22.5 | 12.8 |
| 1548fb | 155.6 | 30.3 | 29.6 | 29.2 | 29.9 | 30.6 | 21.3 | 22.4 | 21.7 | 21.8 | -30.7 | -22.5 | 21.4 | 12.7 |
| 5eed6f | 157.1 | 29.8 | 29.8 | 29.4 | 30.1 | 30.6 | 21.8 | 22.7 | 21.3 | 23.1 | 29.7 | -22.4 | 21.7 | 12.7 |
| dcd57f | 155.8 | 31.2 | 30.7 | 29.3 | 29.8 | 30.2 | 21.7 | 22.3 | 21.9 | 22.3 | 31.4 | -22.5 | 20.6 | 12.6 |
| 35f3bf | 171.5 | 29.3 | 28.4 | 28.0 | 28.5 | 29.1 | 27.8 | 29.6 | 28.3 | 29.3 | 29.6 | 29.7 | 29.5 | 12.8 |
| d4a2ab | 170.3 | 30.4 | 29.9 | 29.4 | 16.9 | 30.4 | 22.0 | 22.0 | 22.1 | 17.2 | 17.7 | 22.1 | 18.8 | 12.8 |
| edcead | 170.6 | 28.0 | 29.1 | 28.5 | 15.2 | 28.2 | 29.0 | 29.9 | 27.7 | 15.2 | 15.7 | 30.9 | 15.5 | 12.9 |
| 8962f9 | 170.1 | 31.6 | 31.7 | 30.9 | 31.8 | 30.9 | 21.7 | 23.3 | 21.9 | 23.0 | 33.2 | 22.7 | 22.4 | 12.9 |
| cd4525 | 170.3 | 30.1 | 30.1 | 29.3 | 16.2 | 30.0 | 22.3 | 22.7 | 21.1 | 17.0 | 18.0 | 22.6 | 18.6 | 13.0 |
| e8502f | 168.3 | 30.8 | 30.3 | 30.0 | 17.1 | 30.5 | 21.4 | 23.1 | 21.8 | 17.1 | 18.1 | 21.8 | 17.4 | 12.9 |
| 62c6a3 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.2 | -1.2 | -1.2 | -1.3 | -1.2 | -1.2 | -1.2 |
| f65dff | 170.0 | 28.9 | 28.5 | 27.0 | 15.3 | 28.3 | 28.6 | 29.9 | 27.6 | 15.4 | 15.4 | 31.2 | 15.8 | 12.8 |
| 0bde3f | 172.1 | 30.7 | 31.1 | 30.4 | 32.1 | 31.3 | 30.4 | 32.1 | 30.2 | 32.6 | 32.6 | 33.7 | 32.9 | 12.9 |
| 9b0780 | 171.9 | 32.3 | 33.6 | 32.7 | 33.7 | 32.6 | 23.4 | 23.5 | 23.0 | 23.2 | 34.3 | 24.3 | 23.0 | 12.8 |
| cf12ff | 167.8 | 30.7 | 32.0 | 31.1 | 30.8 | 31.0 | 30.8 | 31.5 | 30.2 | 32.7 | 32.9 | 33.5 | 32.8 | 13.0 |
| a17daf | 173.5 | 31.9 | 31.5 | 30.5 | 32.9 | 32.2 | 32.4 | 33.0 | 31.8 | 33.2 | 33.3 | 34.3 | 34.1 | 12.9 |
| 71d8d3 | 179.5 | 34.3 | 34.1 | 32.3 | 31.6 | 34.9 | 22.5 | 24.2 | 23.2 | 22.2 | 32.6 | 23.7 | 23.4 | 12.9 |
| 28d0c8 | 175.0 | 31.1 | 31.4 | 31.2 | 28.7 | 31.6 | 31.6 | 33.8 | 31.3 | 31.7 | 31.3 | 33.7 | 30.4 | 12.8 |
| 7be191 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.2 | -1.1 | -1.2 | -1.1 | -1.1 |
| cecb9b | -1.1 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.2 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.1 |
| 850f7b | 180.4 | 32.9 | 33.3 | 33.0 | 33.2 | 32.7 | 32.8 | 34.7 | 32.6 | 34.7 | 35.0 | 36.3 | 35.6 | 13.2 |
| c5a412 | 174.1 | 35.6 | 35.1 | 35.1 | 35.6 | 36.0 | 24.1 | 25.3 | 24.1 | 24.4 | 36.6 | 25.6 | 27.4 | 13.2 |
| 752f60 | 183.4 | 37.0 | 37.6 | 37.3 | 37.8 | 37.8 | 25.5 | 26.9 | 26.2 | 25.9 | 39.3 | 27.9 | 26.9 | 13.6 |
| bc5484 | 184.5 | 37.4 | 36.5 | 36.4 | 33.6 | 36.4 | 24.0 | 26.0 | 24.8 | 25.5 | 35.2 | 26.5 | 23.3 | 13.4 |
| 44b67f | 186.3 | 36.4 | 36.4 | 36.5 | 18.8 | 36.4 | 25.2 | 26.1 | 24.3 | 19.7 | 18.4 | 25.4 | 21.6 | 13.9 |
| de7b93 | 184.6 | 6.8 | 6.3 | 6.4 | 7.0 | 6.3 | 6.4 | 7.0 | 6.5 | 6.9 | 7.0 | 7.3 | 7.2 | 13.6 |
| 2537ee | 182.8 | 35.6 | 34.8 | 34.7 | 16.3 | 35.3 | 35.0 | 36.4 | 34.0 | 17.1 | 16.8 | 37.7 | 17.5 | 13.7 |
| 7d4317 | 185.7 | 6.6 | 6.6 | 6.4 | 6.8 | 6.3 | 6.7 | 6.7 | 6.8 | 6.8 | 6.8 | 7.4 | 6.8 | 13.4 |
| ce0a9a | 184.8 | 37.1 | 37.5 | 37.5 | 36.7 | 37.1 | 25.3 | 26.3 | 24.8 | 26.2 | 38.8 | 26.4 | 26.4 | 13.9 |
| 16bedc | 185.7 | 35.0 | 35.8 | 34.6 | 35.6 | 34.6 | 34.3 | 36.5 | 35.8 | 36.7 | 36.8 | 38.7 | 35.9 | 13.7 |
| 46f849 | 185.4 | 33.9 | 34.6 | 34.1 | 35.0 | 35.4 | 34.7 | 36.5 | 35.0 | 36.1 | 36.5 | 38.0 | 35.7 | 13.7 |
| 21e451 | 186.3 | 34.4 | 35.1 | 34.8 | 35.6 | 34.5 | 34.7 | 35.3 | 34.2 | 36.1 | 36.8 | 37.1 | 36.3 | 13.4 |
| 1e1024 | 186.8 | 34.8 | 35.2 | 34.6 | 35.4 | 34.8 | 35.4 | 35.9 | 33.6 | 37.0 | 36.1 | 37.6 | 36.2 | 13.6 |
| abbc4e | 188.5 | 37.1 | 36.4 | 37.2 | 36.8 | 36.6 | 24.8 | 25.9 | 24.7 | 25.2 | 38.5 | 26.4 | 26.3 | 13.7 |
| c2e2f6 | 195.7 | 35.1 | 35.7 | 36.0 | 35.1 | 36.1 | 35.0 | 36.8 | 36.3 | 36.7 | 37.6 | 36.7 | 37.4 | 13.8 |
| 7935cb | 194.9 | 37.2 | 37.1 | 36.7 | 34.3 | 37.2 | 25.1 | 25.1 | 24.8 | 25.6 | 35.0 | 26.8 | 24.4 | 13.6 |
| 03a4a3 | 198.9 | 35.3 | 35.2 | 35.4 | 33.1 | 35.0 | 35.1 | 35.8 | 36.3 | 33.2 | 33.2 | 38.9 | 32.8 | 14.0 |
| 73813c | -196.1 | -38.6 | -37.4 | -37.7 | -19.2 | -36.6 | -24.9 | -25.0 | -24.5 | -20.0 | -20.0 | -26.9 | -19.8 | -13.8 |
| 99c3b5 | -195.3 | -37.8 | -37.6 | -36.7 | -37.7 | -37.0 | -25.2 | -25.1 | -25.2 | -25.8 | -39.3 | -26.2 | -25.5 | -13.7 |
| ce6e2b | -195.3 | -38.5 | -37.1 | -36.8 | -19.1 | -36.5 | -24.9 | -25.0 | -24.9 | -19.8 | -20.0 | -26.6 | -20.4 | -13.7 |
| sum | 7636.2 | 1347.7 | 1345.7 | 1328.1 | 1196.2 | 1351.3 | 1107.2 | 1152.1 | 1106.6 | 1065.0 | 1227.4 | 1182.4 | 1065.0 | 584.8 |
| mean | 155.8 | 27.5 | 27.5 | 27.1 | 24.4 | 27.6 | 22.6 | 23.5 | 22.6 | 21.7 | 25.0 | 24.1 | 21.7 | 11.9 |

TABLE LXVII: Outcomes of RPS (rps-rpp) commons-imaging time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| cfeffl | 90.3 | 44.4 | 43.2 | 43.9 | 42.8 | 43.0 | 43.3 | 43.9 | 44.5 | 42.6 | 28.4 | 41.9 | 33.0 | 20.8 |
| 212727 | 90.6 | 43.8 | 42.7 | 40.4 | 48.5 | 29.8 | 42.1 | 41.6 | 43.2 | 45.3 | 28.5 | 28.9 | 29.1 | 17.8 |
| a9cca2 | 89.8 | 13.4 | 12.7 | 11.8 | 12.5 | 12.5 | 12.5 | 12.6 | 13.6 | 12.9 | 12.8 | 12.2 | 12.5 | 19.8 |
| 8a583a | 89.7 | 43.7 | 42.9 | 43.4 | 46.6 | 29.0 | 42.7 | 42.9 | 42.3 | 42.0 | 28.1 | 27.6 | 28.5 | 17.6 |
| f46d64 | 89.2 | 13.4 | 13.2 | 11.7 | 12.5 | 12.6 | 12.6 | 12.8 | 13.0 | 12.5 | 12.6 | 12.0 | 12.7 | 17.7 |
| a32cb5 | 91.1 | 44.5 | 44.0 | 42.0 | 43.2 | 43.6 | 42.8 | 43.0 | 43.1 | 43.0 | 27.3 | 39.7 | 27.1 | 18.2 |
| 6962d8 | 90.3 | 44.2 | 43.9 | 41.5 | 44.9 | 43.2 | 42.6 | 43.3 | 46.1 | 44.0 | 27.6 | 40.1 | 27.8 | 22.5 |
| 62c8e6 | 90.7 | 42.9 | 43.3 | 38.7 | 41.3 | 41.2 | 42.6 | 40.6 | 43.4 | 42.3 | 40.4 | 38.8 | 41.7 | 18.1 |
| ae548a | 91.5 | 45.0 | 43.4 | 44.6 | 43.6 | 44.2 | 44.1 | 43.9 | 44.9 | 42.6 | 26.6 | 40.5 | 27.4 | 19.4 |
| 41d5cf | 90.0 | 13.6 | 12.8 | 11.8 | 12.5 | 12.5 | 12.8 | 13.2 | 12.7 | 12.7 | 12.6 | 12.4 | 13.0 | 18.3 |
| b43743 | 91.9 | 13.4 | 13.3 | 12.6 | 12.7 | 13.1 | 12.8 | 13.2 | 12.5 | 12.4 | 12.1 | 11.6 | 12.3 | 17.9 |
| fb0be4 | 91.4 | 44.9 | 44.5 | 40.9 | 42.7 | 43.8 | 43.3 | 43.0 | 42.8 | 40.9 | 28.2 | 41.7 | 29.5 | 17.9 |
| 611c3b | 91.0 | 27.8 | 26.4 | 25.0 | 27.2 | 26.5 | 26.9 | 26.7 | 25.9 | 26.4 | 26.3 | 25.4 | 25.5 | 17.9 |
| 40ab2c | 91.0 | 13.4 | 12.9 | 11.9 | 12.6 | 13.0 | 13.0 | 13.2 | 13.2 | 12.4 | 12.7 | 11.9 | 12.9 | 17.5 |
| c5ca63 | 90.7 | 27.9 | 26.0 | 24.3 | 33.1 | 27.2 | 26.8 | 27.1 | 27.9 | 26.3 | 26.3 | 25.2 | 26.2 | 17.6 |
| 4701b9 | 91.3 | 30.0 | 29.0 | 27.3 | 29.4 | 26.7 | 27.6 | 28.0 | 28.9 | 27.8 | 28.9 | 25.8 | 27.3 | 17.7 |
| 7862d6 | 91.1 | 30.4 | 30.3 | 29.3 | 33.4 | 29.8 | 29.6 | 30.4 | 30.0 | 31.9 | 30.3 | 27.5 | 30.3 | 18.2 |
| 51880b | 91.4 | 29.4 | 29.8 | 29.6 | 28.5 | 29.4 | 30.0 | 29.0 | 30.5 | 29.1 | 28.8 | 27.5 | 28.4 | 17.7 |
| 0a6149 | 90.4 | 29.9 | 28.9 | 30.4 | 29.9 | 30.1 | 29.6 | 28.4 | 29.9 | 29.0 | 29.3 | 27.3 | 28.4 | 17.7 |
| sum | 1723.5 | 595.9 | 583.1 | 561.2 | 598.0 | 551.2 | 577.7 | 576.6 | 588.5 | 576.1 | 467.6 | 518.3 | 473.8 | 350.3 |
| mean | 90.7 | 31.4 | 30.7 | 29.5 | 31.5 | 29.0 | 30.4 | 30.3 | 31.0 | 30.3 | 24.6 | 27.3 | 24.9 | 18.4 |

TABLE LXVIII: Outcomes of RPS (rps-rpp) javapoet time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 16cd72 | 59.2 | 18.7 | 17.3 | 18.2 | 17.2 | 17.0 | 13.9 | 14.7 | 15.0 | 14.1 | 16.8 | 14.2 | 15.0 | 8.0 |
| 868524 | 58.4 | 17.1 | 16.3 | 16.4 | 16.8 | 16.8 | 13.1 | 14.1 | 13.1 | 13.3 | 17.0 | 14.3 | 13.4 | 8.5 |
| 61b0fa | 60.1 | 16.7 | 17.2 | 16.3 | 17.1 | 16.3 | 13.5 | 13.8 | 13.3 | 13.9 | 16.6 | 15.2 | 14.6 | 8.2 |
| bc65a0 | 58.6 | 16.9 | 17.2 | 15.9 | 15.8 | 15.6 | 14.0 | 13.4 | 13.6 | 14.5 | 16.6 | 14.0 | 14.3 | 8.4 |
| 19b9d7 | 59.2 | 13.5 | 12.6 | 12.8 | 12.4 | 12.6 | 12.9 | 13.3 | 12.8 | 13.4 | 12.6 | 13.2 | 13.4 | 8.1 |
| 01f707 | 58.0 | 13.0 | 12.4 | 12.7 | 12.5 | 11.1 | 12.6 | 13.1 | 12.3 | 12.9 | 12.2 | 12.3 | 12.9 | 8.4 |
| fa5c19 | 57.9 | 12.9 | 12.5 | 12.5 | 12.5 | 12.2 | 12.2 | 12.2 | 11.8 | 13.6 | 12.5 | 12.2 | 12.1 | 8.3 |
| ff50d7 | 58.7 | 13.8 | 12.8 | 13.3 | 13.1 | 12.8 | 12.4 | 13.8 | 12.1 | 12.6 | 13.0 | 12.6 | 13.3 | 8.2 |
| b66d3d | 57.7 | 13.7 | 13.7 | 12.6 | 12.5 | 13.0 | 12.3 | 12.1 | 11.5 | 13.1 | 12.3 | 13.9 | 12.5 | 8.2 |
| 414da3 | 57.1 | 12.4 | 12.5 | 12.5 | 11.9 | 11.8 | 11.3 | 12.1 | 11.5 | 12.4 | 13.1 | 12.6 | 12.5 | 8.3 |
| 647b93 | 59.7 | 14.6 | 13.7 | 13.9 | 13.8 | 13.8 | 13.8 | 14.5 | 13.4 | 14.4 | 13.4 | 14.9 | 14.4 | 10.0 |
| e11279 | 60.9 | 14.3 | 14.3 | 13.2 | 13.7 | 13.7 | 12.8 | 14.8 | 13.7 | 15.0 | 13.6 | 14.6 | 15.1 | 10.0 |
| 40dfa0 | 61.4 | 14.3 | 13.4 | 14.1 | 13.7 | 14.6 | 13.5 | 13.5 | 12.8 | 14.2 | 13.6 | 14.7 | 14.3 | 10.0 |
| 4cd975 | 59.7 | 14.5 | 14.4 | 13.8 | 13.4 | 13.6 | 14.0 | 15.1 | 13.9 | 14.6 | 14.6 | 15.5 | 14.7 | 10.1 |
| ca12c7 | 61.0 | 13.8 | 14.2 | 14.2 | 13.8 | 13.1 | 13.2 | 12.9 | 13.2 | 13.4 | 14.2 | 13.7 | 13.2 | 10.3 |
| 08c714 | 62.0 | 13.8 | 14.3 | 12.9 | 13.4 | 14.1 | 12.3 | 14.2 | 12.5 | 13.6 | 13.4 | 14.1 | 13.6 | 10.1 |
| a5694a | 62.1 | 15.2 | 13.7 | 14.7 | 14.1 | 13.1 | 13.1 | 13.6 | 13.6 | 14.2 | 14.0 | 15.3 | 14.9 | 10.1 |
| 384395 | 61.0 | 14.5 | 14.3 | 13.8 | 13.3 | 13.0 | 13.9 | 13.8 | 13.5 | 14.8 | 15.1 | 14.2 | 14.2 | 10.1 |
| f5b1b6 | 60.6 | 13.9 | 14.6 | 12.5 | 13.6 | 12.8 | 13.8 | 13.6 | 12.1 | 13.7 | 13.9 | 13.2 | 14.5 | 10.0 |
| sum | 1133.4 | 277.5 | 271.4 | 266.5 | 264.5 | 261.0 | 248.7 | 258.7 | 245.7 | 261.7 | 268.4 | 264.9 | 262.9 | 173.2 |
| mean | 59.7 | 14.6 | 14.3 | 14.0 | 13.9 | 13.7 | 13.1 | 13.6 | 12.9 | 13.8 | 14.1 | 13.9 | 13.8 | 9.1 |

TABLE LXIX: Outcomes of RPS (rps-rpp) beanstalker time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 11a1a8 | 23.3 | 31.0 | 32.2 | 34.6 | 33.4 | 32.9 | 34.4 | 32.4 | 30.9 | 30.9 | 33.0 | 34.6 | 34.5 | 12.9 |
| d3d9cc | 24.1 | 35.6 | 37.1 | 37.2 | 34.7 | 35.6 | 36.0 | 35.3 | 36.7 | 34.4 | 37.8 | 36.8 | 36.3 | 12.9 |
| fc343a | 24.0 | 33.3 | 31.1 | 35.4 | 34.0 | 32.5 | 34.5 | 32.2 | 32.7 | 31.5 | 33.5 | 35.1 | 33.5 | 12.9 |
| 8dc528 | 29.9 | 47.0 | 45.1 | 48.7 | 45.7 | 46.1 | 49.6 | 47.0 | 47.3 | 47.3 | 48.6 | 48.2 | 49.1 | 16.8 |
| 966ec5 | -21.7 | -50.5 | -49.9 | -53.5 | -48.8 | -48.0 | -54.5 | -52.2 | -52.2 | -50.0 | -51.1 | -51.2 | -54.6 | -12.2 |
| 7c2a4a | 0.9 | 0.9 | 1.0 | 1.0 | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 0.9 |
| 68cf11 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.0 |
| 01a6eb | 30.6 | 53.0 | 53.1 | 59.9 | 51.8 | 50.2 | 54.6 | 53.0 | 54.3 | 51.6 | 54.1 | 55.2 | 55.2 | 17.6 |
| 871176 | 30.2 | 51.1 | 52.1 | 57.6 | 50.8 | 50.3 | 55.0 | 52.9 | 52.5 | 51.2 | 54.1 | 55.3 | 57.3 | 17.2 |
| e99f0a | 35.8 | 60.2 | 57.7 | 63.1 | 58.4 | 57.0 | 60.2 | 56.8 | 58.3 | 58.3 | 62.7 | 61.9 | 60.9 | 21.3 |
| 70237c | 37.1 | 60.3 | 61.6 | 63.4 | 59.9 | 59.9 | 66.3 | 61.5 | 60.6 | 60.9 | 63.3 | 64.8 | 65.0 | 21.3 |
| cb517b | 36.0 | 59.6 | 61.7 | 67.2 | 62.0 | 60.4 | 63.9 | 62.5 | 63.0 | 62.8 | 62.5 | 65.8 | 64.9 | 21.4 |
| 195fbc | 35.8 | 59.3 | 60.2 | 63.3 | 59.8 | 59.6 | 63.0 | 61.8 | 60.6 | 61.2 | 62.7 | 63.2 | 63.7 | 21.3 |
| ddf253 | 35.6 | 60.9 | 62.2 | 64.2 | 62.4 | 61.7 | 65.2 | 61.6 | 61.6 | 63.6 | 65.1 | 66.1 | 64.1 | 20.9 |
| 89c2ea | 36.3 | 63.2 | 61.3 | 67.4 | 60.5 | 62.4 | 66.4 | 61.8 | 61.7 | 62.3 | 65.1 | 65.7 | 65.7 | 21.2 |
| effb25 | 35.9 | 60.5 | 59.8 | 65.1 | 61.4 | 59.8 | 63.8 | 60.8 | 59.4 | 58.7 | 63.5 | 64.4 | 62.5 | 21.0 |
| fe9fc8 | 35.6 | 69.6 | 68.3 | 72.3 | 69.1 | 69.0 | 73.1 | 68.9 | 69.9 | 69.9 | 72.1 | 72.5 | 70.8 | 21.4 |
| 0e57c6 | 36.2 | 60.1 | 59.1 | 64.4 | 58.7 | 61.0 | 63.4 | 61.3 | 59.9 | 59.4 | 63.8 | 62.2 | 63.9 | 21.6 |
| 246867 | 36.3 | 59.9 | 60.5 | 64.3 | 60.7 | 60.1 | 66.2 | 60.7 | 58.4 | 61.3 | 65.0 | 65.0 | 64.7 | 20.9 |
| ed882c | 42.1 | 78.0 | 77.7 | 82.5 | 77.6 | 77.9 | 80.0 | 78.8 | 78.1 | 74.8 | 82.7 | 82.4 | 80.9 | 25.0 |
| fa900c | 41.9 | 72.4 | 71.0 | 75.2 | 70.5 | 73.7 | 75.6 | 71.8 | 71.5 | 71.1 | 75.0 | 76.5 | 76.2 | 25.2 |
| d5387d | 41.3 | 72.9 | 73.6 | 77.5 | 70.9 | 71.3 | 77.6 | 74.8 | 72.5 | 73.7 | 75.3 | 76.7 | 75.6 | 25.1 |
| 276985 | 42.2 | 72.5 | 72.5 | 77.8 | 72.0 | 70.0 | 75.5 | 73.8 | 71.7 | 72.4 | 74.0 | 76.7 | 76.1 | 25.3 |
| 53790c | 42.4 | 70.6 | 73.1 | 77.5 | 70.3 | 72.7 | 77.4 | 73.1 | 72.7 | 71.5 | 73.5 | 76.7 | 73.8 | 25.2 |
| d92ac2 | 42.2 | 71.7 | 72.1 | 75.9 | 68.9 | 71.4 | 76.9 | 72.5 | 69.0 | 71.4 | 76.1 | 76.9 | 76.3 | 25.0 |
| 57b569 | 41.7 | 79.8 | 79.9 | 87.5 | 79.2 | 79.2 | 87.6 | 81.0 | 80.4 | 81.2 | 84.4 | 83.6 | 82.3 | 25.3 |
| dc0bfb | 41.0 | 69.5 | 71.5 | 73.8 | 68.2 | 68.7 | 72.3 | 69.5 | 69.5 | 68.9 | 71.9 | 70.8 | 73.5 | 24.7 |
| 5599aa | 42.3 | 72.4 | 73.5 | 78.0 | 70.8 | 72.9 | 74.9 | 72.3 | 70.8 | 70.5 | 76.1 | 75.4 | 75.3 | 24.8 |
| 97f130 | 41.3 | 70.7 | 73.1 | 76.0 | 71.3 | 72.9 | 74.0 | 70.4 | 70.3 | 71.1 | 75.4 | 77.6 | 72.9 | 24.8 |
| 35549e | 33.8 | 68.9 | 69.0 | 72.6 | 68.0 | 67.9 | 71.9 | 68.5 | 68.2 | 68.7 | 72.0 | 72.6 | 72.9 | 25.7 |
| 3566e8 | 33.6 | 70.6 | 71.8 | 75.8 | 70.7 | 71.0 | 76.1 | 71.2 | 70.8 | 71.1 | 74.4 | 75.3 | 74.5 | 25.6 |
| 69dbfa | 33.6 | 72.9 | 74.0 | 78.3 | 72.7 | 72.5 | 77.7 | 73.7 | 73.2 | 73.3 | 77.1 | 77.0 | 77.8 | 25.3 |
| edaba6 | -31.7 | -70.1 | -68.8 | -74.2 | -69.2 | -69.1 | -73.5 | -69.0 | -68.8 | -68.2 | -74.4 | -72.5 | -72.4 | -23.2 |
| caed60 | 34.5 | 71.6 | 71.4 | 75.6 | 71.0 | 70.4 | 75.3 | 70.5 | 70.4 | 70.7 | 74.2 | 74.5 | 74.8 | 25.6 |
| c45847 | 34.8 | 80.8 | 81.6 | 87.3 | 79.5 | 80.3 | 85.3 | 82.1 | 80.2 | 80.4 | 83.0 | 84.7 | 86.3 | 25.5 |
| 28d121 | 33.9 | 80.7 | 82.2 | 85.6 | 80.2 | 80.6 | 84.7 | 81.5 | 79.7 | 79.7 | 84.3 | 84.7 | 85.1 | 25.6 |
| 702ded | 33.8 | 82.1 | 81.3 | 86.8 | 79.7 | 80.3 | 85.9 | 81.6 | 80.6 | 80.8 | 85.0 | 85.4 | 85.4 | 25.6 |
| 736c69 | 34.1 | 71.7 | 71.7 | 76.2 | 69.9 | 70.8 | 75.7 | 70.5 | 70.2 | 71.1 | 74.6 | 74.8 | 75.1 | 25.9 |
| e57574 | 33.4 | 71.0 | 71.1 | 76.3 | 71.1 | 70.6 | 76.1 | 70.6 | 70.4 | 71.3 | 74.6 | 74.9 | 74.8 | 26.2 |
| d87076 | 34.3 | 71.0 | 71.2 | 76.6 | 70.5 | 70.7 | 75.3 | 72.1 | 71.0 | 71.3 | 74.4 | 74.7 | 74.4 | 25.8 |
| e859da | 75.9 | 188.1 | 188.0 | 199.6 | 186.4 | 186.1 | 198.3 | 188.6 | 187.2 | 188.0 | 197.6 | 197.8 | 198.7 | 64.9 |
| 40357a | 75.7 | 190.7 | 191.3 | 203.5 | 191.1 | 190.9 | 202.2 | 192.0 | 191.4 | 192.1 | 202.1 | 205.3 | 202.8 | 65.1 |
| 332f14 | -22.2 | -23.5 | -23.3 | -25.1 | -23.1 | -23.4 | -25.3 | -23.6 | -23.5 | -23.3 | -24.7 | -24.2 | -24.8 | -21.1 |
| c7e905 | 66.6 | 161.9 | 162.7 | 172.4 | 163.5 | 160.6 | 171.5 | 162.8 | 161.2 | 161.8 | 170.3 | 171.2 | 170.8 | 56.6 |
| ec5fc3 | 68.0 | 162.2 | 163.8 | 174.1 | 163.9 | 162.2 | 172.4 | 163.9 | 163.1 | 163.0 | 173.0 | 174.0 | 173.8 | 57.8 |
| a1d8eb | 67.4 | 170.9 | 169.6 | 180.7 | 170.7 | 170.6 | 179.6 | 171.6 | 170.3 | 169.3 | 179.8 | 179.2 | 180.6 | 56.7 |
| a53ecd | 67.1 | 170.0 | 169.7 | 180.6 | 171.5 | 170.6 | 180.3 | 170.5 | 169.4 | 171.1 | 179.1 | 178.8 | 183.0 | 57.1 |
| 620e45 | 66.8 | 170.5 | 170.1 | 181.8 | 172.4 | 172.2 | 180.8 | 169.6 | 168.9 | 169.4 | 179.8 | 178.9 | 181.6 | 57.2 |
| cd171f | -50.2 | -132.5 | -132.6 | -139.8 | -134.7 | -133.1 | -139.3 | -132.4 | -131.7 | -132.7 | -139.4 | -138.8 | -139.5 | -48.0 |
| sum | 1896.3 | 3829.3 | 3838.3 | 4088.0 | 3813.7 | 3813.0 | 4050.9 | 3848.9 | 3818.3 | 3820.7 | 4018.1 | 4042.5 | 4039.7 | 1331.6 |
| mean | 38.7 | 78.1 | 78.3 | 83.4 | 77.8 | 77.8 | 82.7 | 78.5 | 77.9 | 78.0 | 82.0 | 82.5 | 82.4 | 27.2 |

TABLE LXX: Outcomes of RPS (rps-rpp) commons-io time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2196ff | 411.4 | 12.6 | 12.6 | 12.9 | 12.3 | 12.5 | 13.1 | 12.9 | 12.5 | 12.8 | 12.9 | 13.0 | 13.1 | 101.5 |
| 65657b | 414.5 | 13.0 | 12.7 | 11.8 | 12.9 | 11.9 | 13.2 | 12.6 | 13.1 | 13.1 | 13.1 | 13.6 | 12.9 | 101.2 |
| 6e2ac1 | 415.7 | 166.1 | 157.5 | 163.4 | 162.2 | 158.2 | 148.8 | 148.0 | -142.1 | 147.2 | 157.0 | 143.1 | 137.4 | 101.7 |
| b014a0 | 415.1 | 12.0 | 12.6 | 11.7 | 11.6 | 11.9 | 13.2 | 12.1 | 13.1 | 11.5 | 12.1 | 12.8 | 13.5 | 101.5 |
| dcf6e8 | 412.2 | 114.7 | 114.5 | 114.6 | 113.0 | 114.7 | 115.6 | 115.0 | 114.0 | 114.7 | 115.5 | 115.2 | 115.5 | 102.7 |
| 84a0d9 | 408.8 | 114.4 | 115.2 | 112.7 | 114.1 | 115.2 | 115.6 | 116.0 | 114.9 | 114.4 | 116.1 | 116.9 | 115.5 | 102.1 |
| 10c8db | 412.3 | 113.0 | 115.4 | 115.5 | 114.6 | 114.1 | 115.1 | 114.7 | 116.1 | 115.9 | 115.9 | 117.1 | 114.6 | 102.3 |
| 2bacf6 | 414.1 | 10.2 | 10.0 | 11.0 | 10.0 | 10.0 | 10.5 | 9.9 | 10.6 | 9.8 | 10.3 | 10.7 | 10.7 | 101.8 |
| 4f50c3 | 418.1 | 115.7 | 114.3 | 114.5 | 114.0 | 113.8 | 116.0 | 115.3 | 116.1 | 114.7 | 114.9 | 116.3 | 115.2 | 102.8 |
| 30280a | 413.1 | 144.6 | 138.8 | 145.1 | 143.4 | 139.1 | 138.9 | 135.6 | 128.6 | 133.4 | 142.0 | 128.8 | 126.6 | 101.7 |
| 9cd312 | 407.3 | 146.4 | 138.6 | 144.2 | 143.2 | 139.4 | 137.7 | 135.4 | 128.3 | 134.3 | 141.6 | 129.8 | 127.2 | 101.7 |
| c1b64e | 410.9 | 10.9 | 11.2 | 11.8 | 11.5 | 12.0 | 12.2 | 11.6 | 11.9 | 11.4 | 11.5 | 12.1 | 12.0 | 101.9 |
| 65c4a9 | 409.2 | 11.9 | 11.1 | 11.0 | 11.6 | 11.0 | 12.3 | 11.4 | 12.9 | 12.0 | 12.8 | 12.1 | 11.3 | 101.6 |
| 86cc77 | 423.0 | 11.4 | 12.1 | 11.5 | 11.4 | 11.3 | 12.3 | 12.3 | 11.9 | 12.1 | 12.5 | 12.7 | 12.0 | 103.5 |
| d3fc1a | 422.9 | 12.3 | 11.7 | 11.0 | 10.9 | 11.6 | 12.7 | 10.5 | 12.3 | 10.8 | 12.0 | 11.3 | 10.7 | 101.7 |
| d19259 | 420.8 | 149.0 | 140.3 | 150.0 | 147.9 | 139.6 | 140.9 | 138.1 | 130.9 | 139.6 | 138.3 | 132.9 | 127.1 | 103.0 |
| ed15b0 | 420.5 | 196.3 | 143.7 | 190.8 | 185.7 | 144.9 | 175.7 | 172.1 | 130.0 | 169.2 | 142.5 | 133.8 | 126.2 | 102.1 |
| 459ceb | 419.1 | 196.5 | 144.0 | 191.0 | 156.4 | 145.7 | 174.7 | 173.7 | 133.0 | 139.9 | 136.1 | 132.3 | 125.1 | 101.6 |
| 947c01 | 416.5 | 158.9 | 144.0 | 158.2 | 157.7 | 144.2 | 144.5 | 142.1 | 135.0 | 142.1 | 142.8 | 136.4 | 130.9 | 103.0 |
| sum | 7885.4 | 1709.9 | 1560.3 | 1692.8 | 1644.5 | 1561.1 | 1622.9 | 1599.2 | 1487.1 | 1558.9 | 1560.0 | 1501.0 | 1457.3 | 1939.2 |
| mean | 415.0 | 90.0 | 82.1 | 89.1 | 86.6 | 82.2 | 85.4 | 84.2 | 78.3 | 82.0 | 82.1 | 79.0 | 76.7 | 102.1 |

TABLE LXXI: Outcomes of RPS (rps-rpp) imglib2 time

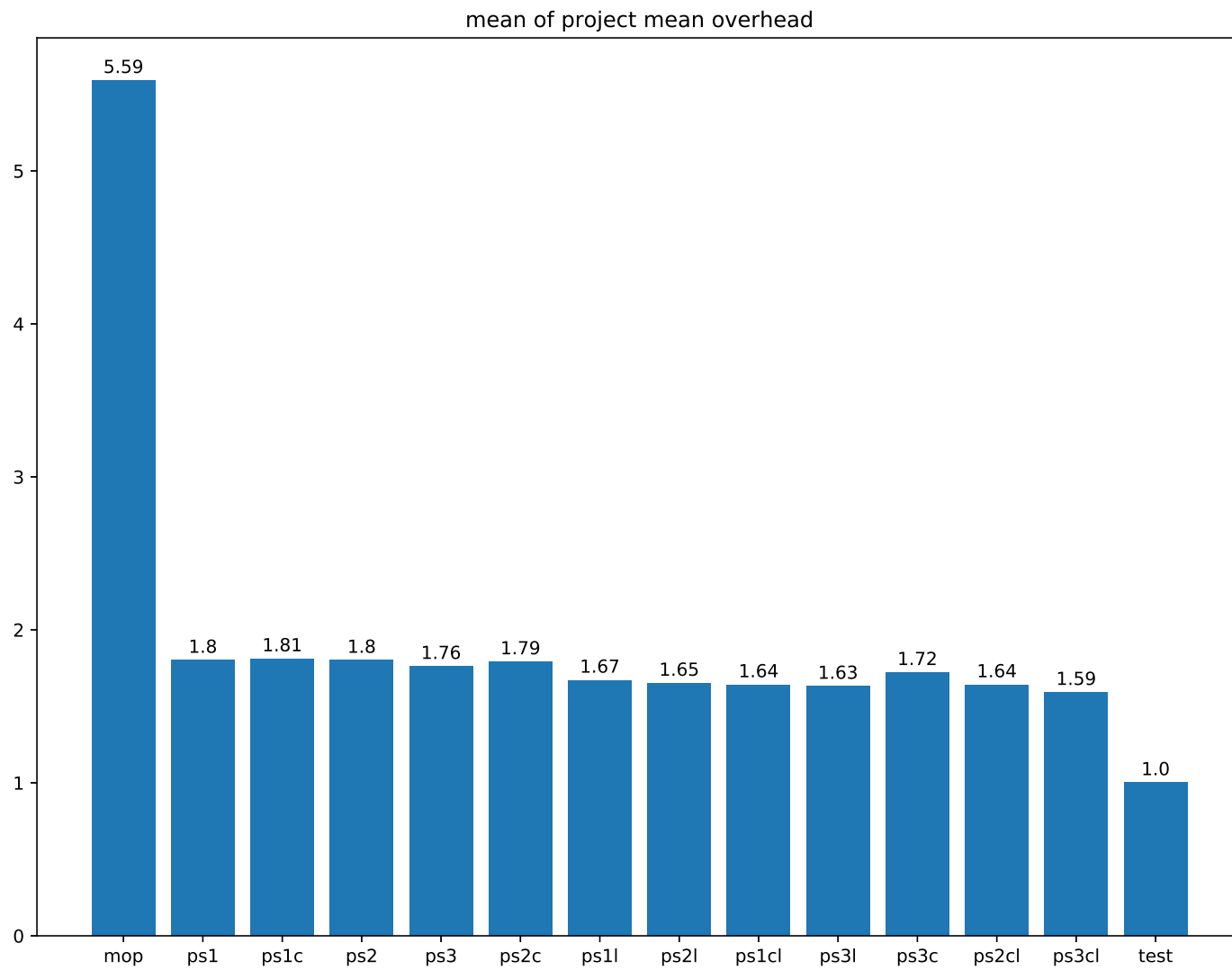
| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 311bb3 | 31.6 | 17.3 | 16.4 | 16.3 | 16.8 | 17.5 | 18.0 | 17.5 | 17.4 | 17.3 | 16.7 | 17.1 | 17.3 | 12.6 |
| e45314 | 31.2 | 15.8 | 16.1 | 15.4 | 15.0 | 16.0 | 16.6 | 15.5 | 14.8 | 15.9 | 16.7 | 17.1 | 15.8 | 12.5 |
| 2d6644 | 31.2 | 15.7 | 15.6 | 16.3 | 15.3 | 17.5 | 16.7 | 16.3 | 14.6 | 15.7 | 15.5 | 16.0 | 16.2 | 12.6 |
| ca346b | 31.5 | 18.7 | 16.4 | 20.7 | 20.0 | 16.7 | 21.7 | 20.9 | 17.4 | 21.7 | 17.1 | 16.8 | 15.8 | 12.9 |
| 28c941 | 31.4 | 20.8 | 17.1 | 21.3 | 21.3 | 18.8 | 22.5 | 22.1 | 16.9 | 22.0 | 17.6 | 17.1 | 16.3 | 12.9 |
| f835a8 | 31.0 | 6.8 | 6.4 | 6.5 | 6.5 | 6.9 | 6.8 | 7.5 | 6.1 | 6.4 | 6.6 | 6.5 | 6.4 | 12.3 |
| a735f9 | 31.1 | 20.7 | 19.7 | 19.2 | 19.1 | 20.6 | 21.8 | 20.5 | 21.1 | 20.7 | 21.3 | 18.8 | 20.1 | 13.1 |
| bba835 | 31.3 | 16.1 | 17.1 | 16.1 | 16.1 | 17.1 | 17.1 | 17.3 | 15.6 | 15.8 | 16.0 | 16.4 | 15.8 | 12.9 |
| e2f354 | 31.2 | 15.9 | 16.2 | 16.0 | 16.4 | 17.2 | 15.9 | 16.8 | 15.9 | 16.4 | 16.6 | 16.1 | 15.6 | 12.4 |
| 897b86 | 31.5 | 6.4 | 6.5 | 6.5 | 6.7 | 6.5 | 7.1 | 6.9 | 6.7 | 6.6 | 6.7 | 5.1 | 6.0 | 12.9 |
| 59cf72 | 31.4 | 20.1 | 20.8 | 20.3 | 19.6 | 20.7 | 21.7 | 22.0 | 19.6 | 20.8 | 20.6 | 21.1 | 20.6 | 12.6 |
| 1941a7 | 31.6 | 21.6 | 20.6 | 21.0 | 19.6 | 20.9 | 21.5 | 21.9 | 20.3 | 21.5 | 21.0 | 19.9 | 21.5 | 12.7 |
| ca903a | 33.8 | 18.9 | 19.9 | 19.1 | 19.5 | 18.5 | 20.1 | 19.8 | 18.6 | 19.6 | 20.3 | 19.0 | 19.1 | 13.4 |
| 1fe7da | 33.8 | 22.4 | 18.4 | 20.6 | 20.5 | 17.2 | 22.5 | 22.1 | 17.9 | 21.6 | 18.1 | 17.6 | 17.1 | 13.5 |
| d5e69f | 33.8 | 7.5 | 7.2 | 6.9 | 6.8 | 7.3 | 7.7 | 7.8 | 7.2 | 7.8 | 7.5 | 7.4 | 7.2 | 13.3 |
| b34e8b | 33.7 | 21.6 | 17.9 | 20.1 | 16.9 | 18.2 | 23.4 | 21.6 | 17.1 | 18.5 | 17.0 | 17.5 | 17.6 | 13.6 |
| 43e04d | 34.0 | 21.7 | 18.2 | 20.3 | 16.8 | 17.4 | 21.4 | 22.1 | 17.6 | 16.4 | 17.4 | 17.8 | 16.3 | 13.6 |
| 156d36 | 34.4 | 21.3 | 20.5 | 20.9 | 15.4 | 21.4 | 22.2 | 21.6 | 20.8 | 17.1 | 17.1 | 20.4 | 17.4 | 13.7 |
| 599cd1 | 34.1 | 22.1 | 18.0 | 21.8 | 16.7 | 18.8 | 23.4 | 22.8 | 17.7 | 17.9 | 16.9 | 17.7 | 17.2 | 13.7 |
| sum | 613.9 | 331.6 | 309.0 | 325.4 | 305.0 | 315.3 | 348.0 | 343.3 | 303.4 | 319.7 | 306.6 | 305.3 | 299.4 | 247.3 |
| mean | 32.3 | 17.5 | 16.3 | 17.1 | 16.1 | 16.6 | 18.3 | 18.1 | 16.0 | 16.8 | 16.1 | 16.1 | 15.8 | 13.0 |

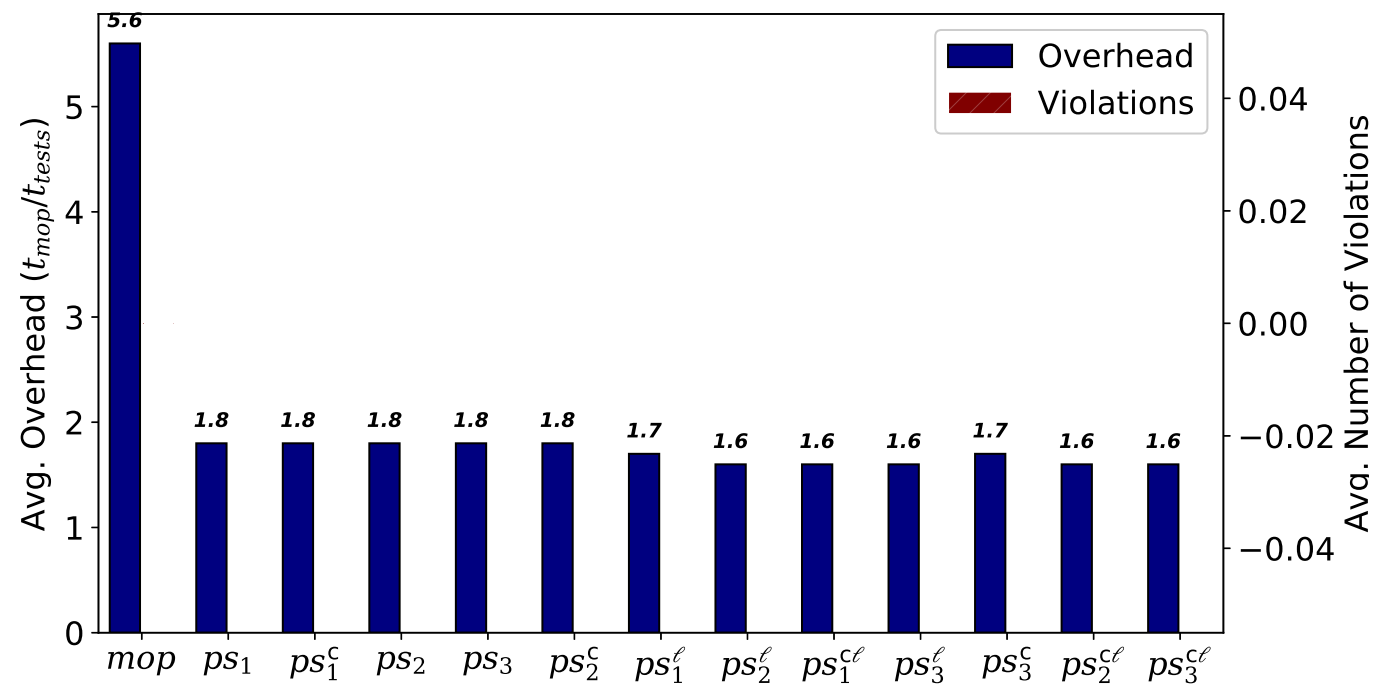
TABLE LXXII: Outcomes of RPS (rps-rpp) jscep time

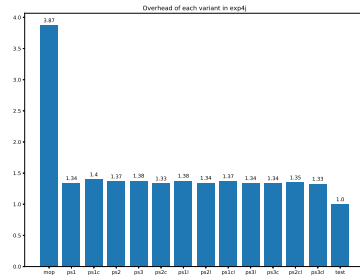
| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|
| e553d4 | 46.9 | 28.6 | 28.0 | 28.0 | 28.5 | 27.5 | 26.6 | 26.5 | 26.7 | 27.3 | 28.8 | 26.4 | 25.7 | 21.9 |
| ce7b9a | 47.9 | 25.2 | 25.5 | 25.7 | 25.6 | 24.8 | 25.3 | 25.8 | 25.3 | 24.6 | 26.1 | 25.8 | 25.2 | 21.8 |
| 8cd073 | 47.6 | 29.3 | 29.8 | 28.6 | 29.5 | 28.3 | 26.1 | 25.3 | 26.3 | 25.6 | 29.9 | 26.6 | 26.0 | 21.8 |
| 6e794a | 47.7 | 28.8 | 29.4 | 29.2 | 30.2 | 29.0 | 26.5 | 27.2 | 26.5 | 27.3 | 29.3 | 26.2 | 26.6 | 22.3 |
| c77163 | 33.7 | 15.4 | 14.6 | 14.7 | 13.9 | 14.2 | 12.8 | 12.4 | 12.7 | 13.0 | 14.8 | 12.7 | 11.9 | 7.6 |
| da5108 | 33.8 | 15.2 | 14.7 | 15.6 | 13.7 | 14.5 | 13.2 | 11.2 | 13.2 | 12.9 | 14.6 | 11.7 | 13.3 | 8.1 |
| 7cc074 | 33.8 | 3.3 | 3.5 | 3.6 | 3.6 | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.7 | 3.5 | 3.6 | 8.0 |
| 886eac | 33.4 | 15.5 | 15.2 | 15.5 | 14.2 | 14.8 | 12.6 | 12.2 | 12.4 | 12.9 | 15.7 | 12.8 | 11.8 | 7.7 |
| 6404ef | 34.2 | 3.7 | 3.6 | 3.6 | 3.8 | 3.5 | 3.4 | 3.6 | 3.7 | 3.8 | 3.7 | 3.7 | 3.6 | 7.9 |
| a039b8 | 34.2 | 10.7 | 11.4 | 11.8 | 11.7 | 11.2 | 10.3 | 11.4 | 12.3 | 12.0 | 11.9 | 12.4 | 11.7 | 8.1 |
| c45090 | 33.2 | 3.5 | 3.6 | 3.5 | 3.5 | 3.4 | 3.6 | 3.4 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 8.0 |
| 2af66c | 33.9 | 11.8 | 11.9 | 11.0 | 11.7 | 10.7 | 10.3 | 11.1 | 11.1 | 10.9 | 12.7 | 11.2 | 11.5 | 7.8 |
| ab5a7f | 33.3 | 16.2 | 16.0 | 15.4 | 14.7 | 15.3 | 12.2 | 11.5 | 12.5 | 12.7 | 15.2 | 12.6 | 11.9 | 8.1 |
| afd8e1 | 33.2 | 15.1 | 15.7 | 14.8 | 15.1 | 14.7 | 12.3 | 12.3 | 12.4 | 12.2 | 16.3 | 13.5 | 12.8 | 8.1 |
| 1cf7dd | 33.7 | 14.1 | 14.4 | 15.9 | 15.4 | 14.8 | 12.5 | 12.0 | 12.1 | 13.0 | 16.1 | 12.6 | 12.2 | 7.8 |
| c27515 | 33.2 | 15.0 | 14.9 | 14.0 | 15.1 | 14.3 | 11.2 | 11.7 | 11.7 | 12.8 | 16.2 | 11.9 | 11.3 | 7.6 |
| e4683d | 32.9 | 14.3 | 14.4 | 15.2 | 15.3 | 15.4 | 11.4 | 12.6 | 12.4 | 12.6 | 16.1 | 12.2 | 11.2 | 7.9 |
| 9a58e1 | 33.8 | 14.1 | 15.2 | 14.4 | 14.5 | 13.5 | 11.7 | 12.6 | 10.9 | 11.5 | 16.1 | 12.1 | 12.2 | 7.5 |
| 661ba5 | 33.9 | 13.9 | 14.8 | 13.3 | 12.4 | 12.0 | 10.4 | 12.1 | 11.3 | 11.7 | 13.2 | 11.7 | 11.7 | 8.1 |
| 298ec2 | 33.2 | 14.8 | 14.2 | 13.3 | 12.6 | 13.2 | 10.8 | 11.7 | 11.6 | 12.3 | 13.9 | 11.4 | 11.4 | 7.8 |
| 71cc1e | 33.5 | 15.3 | 15.1 | 16.3 | 13.5 | 14.4 | 11.2 | 12.3 | 12.8 | 12.8 | 13.8 | 11.1 | 11.2 | 7.5 |
| d30047 | 33.0 | 16.1 | 14.5 | 14.5 | 14.1 | 14.9 | 11.5 | 11.8 | 11.1 | 12.3 | 13.7 | 12.5 | 11.3 | 7.6 |
| 2c828e | 32.6 | 14.7 | 14.5 | 14.3 | 14.1 | 13.9 | 11.5 | 12.1 | 12.1 | 11.9 | 15.1 | 10.8 | 11.8 | 7.8 |
| fa7653 | 32.9 | 15.9 | 16.4 | 15.6 | 16.1 | 15.8 | 12.0 | 12.9 | 13.1 | 13.4 | 17.1 | 13.4 | 12.8 | 7.3 |
| 9284fb | 33.0 | 15.2 | 14.8 | 14.8 | 14.3 | 14.9 | 10.8 | 11.2 | 11.4 | 12.0 | 16.0 | 11.0 | 11.2 | 8.0 |
| 795bec | 33.4 | 15.1 | 15.2 | 15.3 | 15.1 | 14.8 | 10.6 | 13.0 | 12.0 | 12.0 | 15.7 | 12.1 | 12.2 | 7.7 |
| 8f11a9 | 34.0 | 15.1 | 14.9 | 16.5 | 16.4 | 16.4 | 12.2 | 12.8 | 11.0 | 13.0 | 16.2 | 12.2 | 12.1 | 8.0 |
| b64cb3 | 33.2 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.8 | 3.7 | 3.7 | 3.8 | 3.6 | 3.6 | 7.8 |
| 338fad | 34.2 | 3.6 | 3.6 | 3.6 | 3.7 | 3.5 | 3.8 | 3.9 | 3.8 | 3.8 | 3.8 | 3.8 | 3.6 | 7.8 |
| 2e6948 | 33.7 | 12.6 | 13.5 | 13.2 | 13.0 | 13.0 | 11.7 | 11.8 | 11.1 | 12.0 | 13.1 | 11.5 | 11.6 | 7.8 |
| e5cf30 | 34.0 | 15.9 | 15.8 | 15.5 | 16.3 | 15.1 | 12.3 | 12.7 | 12.2 | 12.4 | 15.9 | 11.6 | 12.2 | 8.3 |
| 42bb03 | 33.2 | 15.3 | 14.6 | 15.3 | 15.7 | 14.2 | 11.7 | 11.1 | 12.7 | 12.8 | 15.3 | 11.6 | 11.4 | 7.5 |
| a40f7b | 34.1 | 14.7 | 14.7 | 12.8 | 13.3 | 11.7 | 11.9 | 11.9 | 12.3 | 12.4 | 13.5 | 11.7 | 11.5 | 7.5 |
| 35b503 | 34.9 | 15.1 | 15.4 | 14.2 | 13.1 | 13.3 | 12.9 | 12.4 | 12.5 | 13.0 | 13.9 | 12.8 | 13.2 | 7.6 |
| daabb3 | 34.6 | 14.7 | 14.9 | 13.1 | 12.6 | 12.4 | 12.0 | 11.7 | 11.5 | 12.0 | 15.0 | 11.7 | 11.8 | 7.8 |
| abe114 | 33.1 | 14.4 | 15.0 | 13.2 | 14.0 | 13.1 | 12.7 | 11.5 | 12.3 | 12.0 | 14.2 | 12.2 | 12.7 | 7.4 |
| 647e36 | 34.1 | 3.5 | 3.6 | 3.6 | 3.7 | 3.4 | 3.5 | 3.7 | 3.7 | 3.7 | 3.9 | 3.6 | 3.8 | 8.2 |
| 727d01 | 33.4 | 12.3 | 13.8 | 12.8 | 12.6 | 12.4 | 12.4 | 11.6 | 12.9 | 12.5 | 14.4 | 11.1 | 10.3 | 8.3 |
| 848385 | 33.3 | 14.9 | 14.9 | 15.0 | 14.8 | 14.3 | 11.9 | 11.9 | 11.2 | 11.5 | 15.6 | 11.7 | 12.1 | 7.7 |
| f0b104 | 33.7 | 12.3 | 13.6 | 12.7 | 13.5 | 12.4 | 12.9 | 12.3 | 12.5 | 13.2 | 13.1 | 12.7 | 13.2 | 7.8 |
| 97bf71 | 33.7 | 15.1 | 15.4 | 12.6 | 13.1 | 13.5 | 11.0 | 12.0 | 11.5 | 12.2 | 13.5 | 12.1 | 11.3 | 8.1 |
| 615b24 | 35.3 | 13.6 | 13.9 | 11.2 | 11.5 | 10.6 | 13.9 | 11.4 | 13.8 | 11.8 | 12.0 | 12.0 | 11.0 | 7.7 |
| a712db | -107.2 | -94.8 | -77.8 | -65.1 | -72.2 | -62.4 | -51.8 | -78.6 | -75.0 | -75.4 | -74.5 | -72.2 | -75.1 | -70.0 |
| d5c64b | -87.5 | 3.8 | 3.5 | 3.8 | 3.9 | 3.6 | 3.5 | 3.8 | 3.8 | 3.8 | 4.3 | 3.8 | 3.7 | -63.7 |
| 19f366 | -101.3 | -70.8 | -76.9 | -67.6 | -81.0 | -86.3 | -70.0 | -59.2 | -74.5 | -67.2 | -103.7 | -65.4 | -82.0 | -92.5 |
| 94a361 | -84.6 | -66.1 | -84.9 | -70.5 | -71.1 | -63.1 | -81.1 | -66.7 | -72.1 | -94.8 | -88.0 | -66.8 | -71.7 | -84.8 |
| 40295a | -93.5 | 3.6 | 3.5 | 3.7 | 3.5 | 3.7 | 3.5 | 4.0 | 3.9 | 3.8 | 3.8 | 3.6 | 3.7 | -68.7 |
| fee2a5 | -93.3 | -63.8 | -94.1 | -83.9 | -75.4 | -88.6 | -84.7 | -70.1 | -78.9 | -58.6 | -107.9 | -100.2 | -65.4 | -89.1 |
| 3e9dd9 | -106.6 | -97.5 | -94.6 | -71.1 | -72.2 | -74.5 | -73.6 | -59.7 | -82.9 | -91.8 | -80.8 | -63.7 | -65.4 | -74.0 |
| sum | 2142.5 | 997.9 | 1037.5 | 952.2 | 962.2 | 952.3 | 873.2 | 852.2 | 904.3 | 917.8 | 1069.5 | 887.4 | 872.3 | 927.9 |
| mean | 43.7 | 20.4 | 21.2 | 19.4 | 19.6 | 19.4 | 17.8 | 17.4 | 18.5 | 18.7 | 21.8 | 18.1 | 17.8 | 18.9 |

TABLE LXXIII: Outcomes of RPS (rps-rpp) stream-lib time

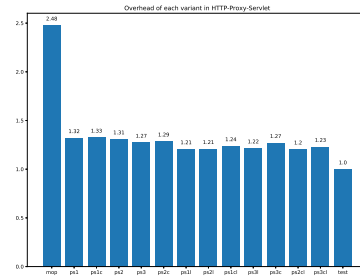
| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6a6645 | 582.8 | 93.1 | 93.2 | 93.1 | 94.8 | 97.1 | 93.2 | 94.8 | 92.5 | 94.6 | 91.0 | 93.8 | 91.8 | 88.5 |
| 91d215 | 581.8 | 87.6 | 85.6 | 89.4 | 85.0 | 93.0 | 86.8 | 90.2 | 85.9 | 88.5 | 87.6 | 90.5 | 83.4 | 90.1 |
| c0e238 | 594.8 | 87.6 | 87.5 | 88.8 | 88.7 | 93.6 | 85.2 | 90.7 | 88.5 | 90.0 | 89.5 | 89.0 | 84.7 | 88.6 |
| 63255d | 858.6 | 93.0 | 90.2 | 92.8 | 94.1 | 94.5 | 85.1 | 92.2 | 88.9 | 92.0 | 89.2 | 89.5 | 83.0 | 87.8 |
| 0f2183 | 601.2 | 92.4 | 91.0 | 92.6 | 89.9 | 93.7 | 90.8 | 92.9 | 86.3 | 88.2 | 87.0 | 91.3 | 85.3 | 89.8 |
| 98b913 | 647.7 | 90.3 | 86.7 | 93.9 | 88.4 | 94.1 | 92.1 | 94.3 | 87.3 | 88.5 | -89.1 | 90.6 | 82.8 | 89.3 |
| 43aecb | 664.5 | 91.0 | 83.4 | 94.1 | 89.6 | 93.2 | 87.7 | 92.9 | 85.6 | 88.4 | 87.9 | 90.8 | 83.1 | 88.9 |
| 0c33f1 | 477.9 | 92.3 | 85.2 | 92.7 | 91.5 | 94.5 | 90.6 | 92.6 | 86.1 | 89.8 | 88.2 | 92.8 | 83.4 | 89.5 |
| 0eca17 | 599.7 | 92.2 | 84.7 | 94.6 | 92.0 | 93.9 | -91.6 | 93.6 | 88.2 | 90.2 | 87.5 | 89.0 | 84.3 | 88.6 |
| 7433ea | 471.2 | 91.4 | 85.0 | 97.6 | 92.0 | 92.8 | 93.5 | 94.3 | 86.7 | 89.9 | 87.6 | 91.9 | 84.1 | 88.3 |
| 8da108 | 712.9 | 92.8 | 90.0 | 95.1 | 95.9 | 94.2 | 93.1 | 95.8 | 89.6 | 92.6 | 90.1 | 92.9 | 86.5 | 90.5 |
| 7d085a | 509.9 | 4.0 | 3.9 | 4.2 | 3.9 | 4.2 | 4.0 | 4.1 | 4.2 | 3.9 | 4.1 | 3.9 | 4.0 | 90.2 |
| 22654f | 757.3 | 88.2 | 87.1 | 90.1 | 88.5 | 95.3 | 91.9 | 90.8 | 89.5 | 90.6 | 88.2 | 92.5 | 85.3 | 90.3 |
| 35a0d3 | 456.3 | 85.9 | 84.3 | 87.6 | 85.9 | 91.4 | 85.8 | 88.6 | 85.6 | 86.8 | 85.9 | 88.3 | 81.2 | 87.1 |
| b5fc30 | 600.6 | 91.6 | 91.2 | 95.1 | 91.3 | 96.5 | 92.7 | 92.7 | 89.2 | 91.3 | 90.6 | 93.8 | 87.6 | 87.1 |
| 3ac200 | 747.9 | 101.5 | 103.1 | 103.7 | 100.9 | 105.4 | 102.8 | 104.9 | 100.5 | 102.1 | 99.9 | 103.3 | 96.7 | 98.7 |
| f0518e | 715.4 | 106.5 | 110.1 | 108.3 | 103.0 | 112.9 | 107.1 | 110.0 | 103.9 | 107.3 | 104.7 | 110.8 | 104.0 | 105.0 |
| 8f31aa | 536.4 | 107.5 | 112.9 | 109.0 | 104.8 | 113.8 | 107.1 | 110.1 | 105.1 | 106.4 | 107.1 | 109.2 | 103.7 | 105.6 |
| 573fa7 | 775.4 | 91.3 | 93.6 | 92.3 | 87.2 | 93.7 | 91.1 | 92.9 | 88.7 | 89.0 | 87.8 | 92.4 | 85.5 | 85.5 |
| sum | 11892.6 | 1680.2 | 1648.7 | 1715.0 | 1667.6 | 1747.6 | 1672.3 | 1718.3 | 1632.4 | 1669.9 | 1642.9 | 1696.5 | 1580.4 | 1729.5 |
| mean | 625.9 | 88.4 | 86.8 | 90.3 | 87.8 | 92.0 | 88.0 | 90.4 | 85.9 | 87.9 | 86.5 | 89.3 | 83.2 | 91.0 |



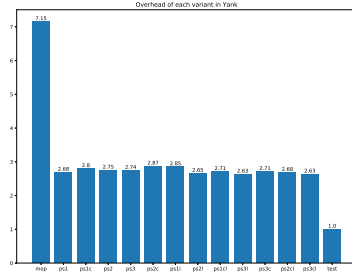




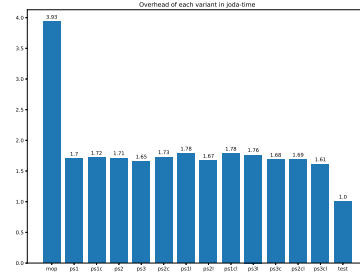
(a) rps-rpp-vmtime for exp4j



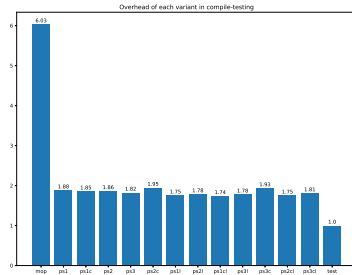
(b) rps-rpp-vmtime for HTTP-Proxy-Servlet



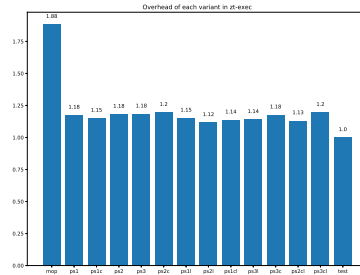
(c) rps-rpp-vmtime for Yank



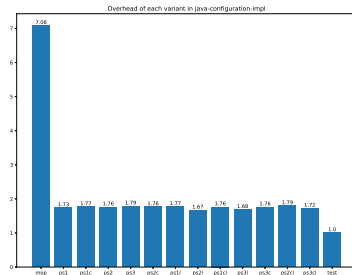
(d) rps-rpp-vmtime for joda-time



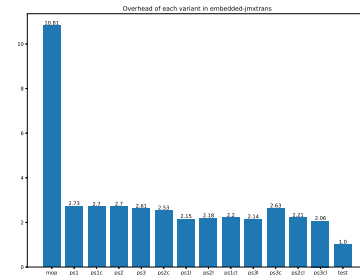
(e) rps-rpp-vmtime for compile-testing



(f) rps-rpp-vmtime for jt-exec

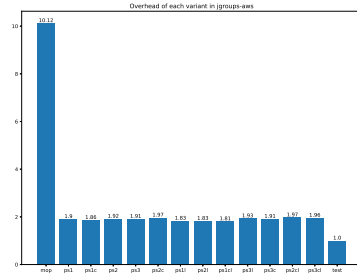


(g) rps-rpp-vmtime for java-configuration-impl

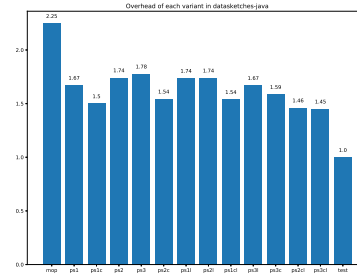


(h) rps-rpp-vmtime for embedded-jmxtrans

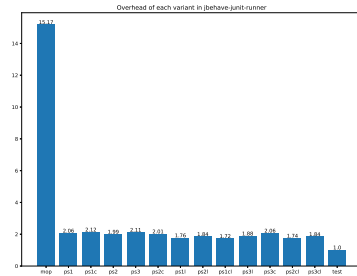
Fig. 21: Plots for rps-rpp-vm Part 1



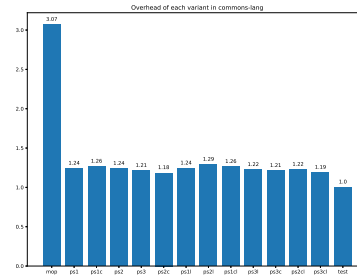
(a) rps-rpp-vmstime for jgroups-aws



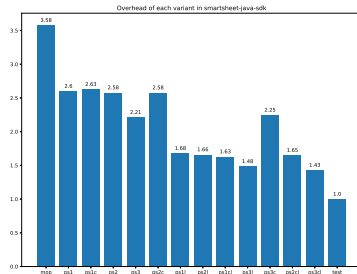
(b) rps-rpp-vmstime for dataskeches-java



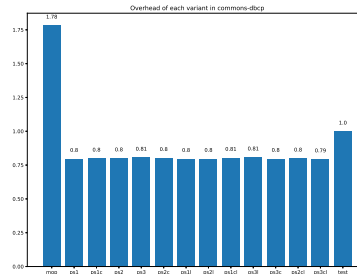
(c) rps-rpp-vmstime for jbehave-junit-runner



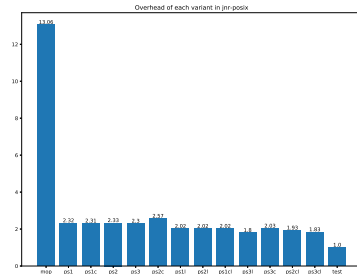
(d) rps-rpp-vmstime for commons-lang



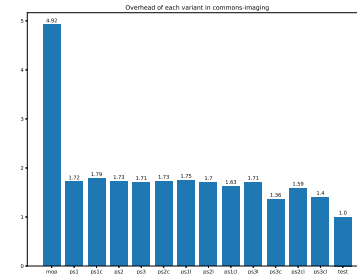
(e) rps-rpp-vmstime for smartsheet-java-sdk



(f) rps-rpp-vmstime for commons-dbcp



(g) rps-rpp-vmstime for jnr-posix



(h) rps-rpp-vmstime for commons-imaging

Fig. 22: Plots for rps-rpp-vms Part 2

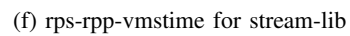
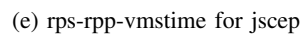
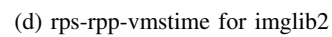
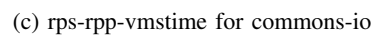
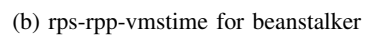
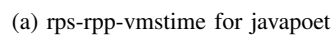


Fig. 23: Plots for rps-rpp-vms Part END

TABLE LXXIV: Sum of RPS+RPP+VMS times (in seconds) across all versions of several projects in this paper. “l”: 3rd-party libraries not instrumented. “c”: non-impacted classes not instrumented. §?? explains ps_1 , ps_2 , and ps_3 .

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P1 | 1757 | 607 | 634 | 620 | 625 | 605 | 625 | 610 | 621 | 607 | 606 | 612 | 603 | 453 |
| P2 | 1617 | 862 | 865 | 854 | 831 | 839 | 787 | 788 | 808 | 793 | 829 | 786 | 803 | 652 |
| P3 | 356 | 133 | 139 | 137 | 136 | 142 | 141 | 132 | 134 | 131 | 134 | 133 | 131 | 49 |
| P4 | 2081 | 899 | 907 | 904 | 875 | 913 | 944 | 881 | 943 | 931 | 890 | 891 | 851 | 529 |
| P5 | 1844 | 575 | 566 | 569 | 557 | 595 | 535 | 545 | 531 | 543 | 591 | 535 | 552 | 305 |
| P6 | 386 | 240 | 235 | 242 | 242 | 245 | 236 | 228 | 233 | 233 | 241 | 231 | 245 | 204 |
| P7 | 629 | 154 | 157 | 156 | 158 | 156 | 157 | 148 | 156 | 149 | 156 | 159 | 153 | 88 |
| P8 | 2174 | 548 | 542 | 543 | 524 | 509 | 432 | 438 | 443 | 429 | 527 | 444 | 415 | 201 |
| P9 | 464 | 87 | 85 | 88 | 87 | 90 | 84 | 83 | 83 | 88 | 87 | 90 | 89 | 45 |
| P10 | 3785 | 2815 | 2526 | 2933 | 2993 | 2600 | 2925 | 2930 | 2592 | 2812 | 2671 | 2461 | 2443 | 1683 |
| P11 | 3524 | 477 | 493 | 462 | 490 | 466 | 408 | 427 | 399 | 435 | 478 | 404 | 426 | 232 |
| P12 | 1254 | 506 | 517 | 505 | 495 | 483 | 507 | 527 | 515 | 499 | 494 | 500 | 485 | 409 |
| P13 | 964 | 701 | 709 | 695 | 596 | 695 | 452 | 447 | 439 | 400 | 606 | 444 | 385 | 269 |
| P14 | 1796 | 803 | 806 | 807 | 812 | 810 | 803 | 804 | 811 | 814 | 804 | 806 | 800 | 1007 |
| P15 | 7636 | 1356 | 1350 | 1361 | 1345 | 1500 | 1182 | 1180 | 1183 | 1051 | 1189 | 1127 | 1072 | 584 |
| P16 | 1723 | 601 | 625 | 604 | 598 | 606 | 612 | 596 | 569 | 598 | 476 | 557 | 491 | 350 |
| P17 | 1133 | 276 | 285 | 283 | 275 | 280 | 273 | 255 | 262 | 266 | 279 | 272 | 262 | 173 |
| P18 | 1896 | 4253 | 4265 | 4064 | 4083 | 4042 | 4044 | 4056 | 4039 | 4040 | 4032 | 4228 | 4020 | 1331 |
| P19 | 7885 | 1707 | 1633 | 1709 | 1647 | 1594 | 1645 | 1612 | 1482 | 1561 | 1559 | 1470 | 1494 | 1939 |
| P20 | 613 | 357 | 331 | 339 | 336 | 312 | 336 | 335 | 330 | 317 | 326 | 330 | 313 | 247 |
| P21 | 2142 | 1046 | 1048 | 1055 | 1012 | 1093 | 940 | 921 | 898 | 934 | 1005 | 902 | 909 | 927 |
| P22 | 11892 | 1693 | 1594 | 1671 | 1632 | 1658 | 1665 | 1641 | 1707 | 1654 | 1721 | 1633 | 1684 | 1729 |
| sum | 57559 | 20707 | 20321 | 20610 | 20359 | 20244 | 19743 | 19593 | 19186 | 19297 | 19710 | 19026 | 18635 | 13417 |
| mean | 2616 | 941 | 923 | 936 | 925 | 920 | 897 | 890 | 872 | 877 | 895 | 864 | 847 | 609 |

TABLE LXXV: Outcomes of RPS (rps-rpp-vms) mean time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|-------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| exp4j | 35.9 | 12.4 | 13.0 | 12.7 | 12.8 | 12.3 | 12.8 | 12.4 | 12.7 | 12.4 | 12.4 | 12.5 | 12.3 | 9.3 |
| HTTP-Proxy-Servlet | 33.0 | 17.6 | 17.7 | 17.4 | 17.0 | 17.1 | 16.1 | 16.1 | 16.5 | 16.2 | 16.9 | 16.0 | 16.4 | 13.3 |
| Yank | 22.2 | 8.4 | 8.7 | 8.6 | 8.5 | 8.9 | 8.9 | 8.3 | 8.4 | 8.2 | 8.4 | 8.3 | 8.2 | 3.1 |
| joda-time | 42.5 | 18.4 | 18.5 | 18.5 | 17.9 | 18.6 | 19.3 | 18.0 | 19.2 | 19.0 | 18.2 | 18.2 | 17.4 | 10.8 |
| compile-testing | 37.6 | 11.7 | 11.6 | 11.6 | 11.4 | 12.1 | 10.9 | 11.1 | 10.8 | 11.1 | 12.1 | 10.9 | 11.3 | 6.2 |
| zt-exec | 27.6 | 17.2 | 16.8 | 17.3 | 17.3 | 17.5 | 16.9 | 16.3 | 16.7 | 16.7 | 17.2 | 16.6 | 17.5 | 14.6 |
| java-configuration-impl | 27.4 | 6.7 | 6.8 | 6.8 | 6.9 | 6.8 | 6.8 | 6.4 | 6.8 | 6.5 | 6.8 | 6.9 | 6.7 | 3.9 |
| embedded-jmxtrans | 44.4 | 11.2 | 11.1 | 11.1 | 10.7 | 10.4 | 8.8 | 9.0 | 9.0 | 8.8 | 10.8 | 9.1 | 8.5 | 4.1 |
| jgroups-aws | 29.0 | 5.5 | 5.3 | 5.5 | 5.5 | 5.6 | 5.3 | 5.2 | 5.2 | 5.5 | 5.5 | 5.7 | 5.6 | 2.9 |
| datasketches-java | 80.5 | 59.9 | 53.8 | 62.4 | 63.7 | 55.3 | 62.2 | 62.3 | 55.2 | 59.8 | 56.8 | 52.4 | 52.0 | 35.8 |
| jbehave-junit-runner | 71.9 | 9.8 | 10.1 | 9.4 | 10.0 | 9.5 | 8.3 | 8.7 | 8.1 | 8.9 | 9.8 | 8.2 | 8.7 | 4.7 |
| commons-lang | 66.0 | 26.7 | 27.2 | 26.6 | 26.1 | 25.5 | 26.7 | 27.7 | 27.1 | 26.3 | 26.0 | 26.4 | 25.5 | 21.5 |
| smartsheet-java-sdk | 48.2 | 35.1 | 35.4 | 34.8 | 29.8 | 34.8 | 22.6 | 22.4 | 22.0 | 20.0 | 30.3 | 22.2 | 19.3 | 13.5 |
| commons-dbcp | 94.5 | 42.3 | 42.4 | 42.5 | 42.8 | 42.6 | 42.3 | 42.3 | 42.7 | 42.9 | 42.3 | 42.4 | 42.1 | 53.0 |
| jnr-posix | 155.8 | 27.7 | 27.6 | 27.8 | 27.5 | 30.6 | 24.1 | 24.1 | 24.1 | 21.5 | 24.3 | 23.0 | 21.9 | 11.9 |
| commons-imaging | 90.7 | 31.7 | 32.9 | 31.8 | 31.5 | 31.9 | 32.2 | 31.4 | 30.0 | 31.5 | 25.1 | 29.3 | 25.9 | 18.4 |
| javapoet | 59.7 | 14.6 | 15.0 | 14.9 | 14.5 | 14.8 | 14.4 | 13.4 | 13.8 | 14.0 | 14.7 | 14.3 | 13.8 | 9.1 |
| beanstalk | 38.7 | 86.8 | 87.1 | 82.9 | 83.3 | 82.5 | 82.5 | 82.8 | 82.4 | 82.5 | 82.3 | 86.3 | 82.0 | 27.2 |
| commons-io | 415.0 | 89.9 | 86.0 | 90.0 | 86.7 | 83.9 | 86.6 | 84.9 | 78.0 | 82.2 | 82.1 | 77.4 | 78.6 | 102.1 |
| imglib2 | 32.3 | 18.8 | 17.4 | 17.9 | 17.7 | 16.5 | 17.7 | 17.6 | 17.4 | 16.7 | 17.2 | 17.4 | 16.5 | 13.0 |
| jscep | 43.7 | 21.4 | 21.4 | 21.5 | 20.7 | 22.3 | 19.2 | 18.8 | 18.3 | 19.1 | 20.5 | 18.4 | 18.6 | 18.9 |
| stream-lib | 625.9 | 89.1 | 83.9 | 88.0 | 85.9 | 87.3 | 87.6 | 86.4 | 89.9 | 87.1 | 90.6 | 86.0 | 88.6 | 91.0 |
| sum | 2122.7 | 662.6 | 649.7 | 660.0 | 648.1 | 647.1 | 632.4 | 625.9 | 614.5 | 616.8 | 630.2 | 608.1 | 597.4 | 488.5 |
| mean | 96.5 | 30.1 | 29.5 | 30.0 | 29.5 | 29.4 | 28.7 | 28.4 | 27.9 | 28.0 | 28.6 | 27.6 | 27.2 | 22.2 |

TABLE LXXVI: Outcomes of RPS (rps-rpp-vms) exp4j time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9b5270 | 103.1 | 14.8 | 15.5 | 14.9 | 15.2 | 14.3 | 15.5 | 15.6 | 15.4 | 14.4 | 14.9 | 15.5 | 14.7 | 9.5 |
| abf84e | 106.6 | 14.2 | 14.4 | 13.7 | 14.0 | 14.8 | 13.8 | 13.4 | 13.9 | 14.5 | 13.2 | 13.6 | 13.2 | 9.4 |
| bfaeb2 | 107.3 | 13.5 | 13.9 | 14.2 | 13.9 | 13.3 | 13.8 | 12.9 | 13.5 | 13.5 | 13.3 | 14.3 | 12.9 | 9.5 |
| 4346b2 | 107.3 | 14.1 | 14.8 | 13.1 | 13.9 | 13.1 | 14.6 | 13.6 | 14.4 | 14.5 | 14.1 | 14.1 | 14.7 | 9.3 |
| 16f249 | 112.3 | 13.3 | 14.9 | 14.6 | 13.2 | 13.4 | 14.3 | 12.9 | 14.7 | 13.9 | 14.4 | 13.3 | 12.8 | 9.6 |
| c339cc | 106.9 | 13.8 | 15.5 | 14.4 | 14.3 | 14.4 | 14.1 | 13.8 | 14.3 | 14.1 | 13.6 | 14.3 | 13.0 | 9.6 |
| 224191 | 105.2 | 14.5 | 15.8 | 13.6 | 14.2 | 14.2 | 14.6 | 13.7 | 13.5 | 14.0 | 13.9 | 14.1 | 14.3 | 9.6 |
| 5b63e1 | 104.2 | 13.8 | 13.9 | 14.1 | 13.9 | 13.2 | 14.3 | 13.9 | 14.3 | 14.2 | 13.8 | 13.8 | 13.4 | 9.6 |
| 76ffe6 | 108.3 | 3.5 | 3.9 | 3.6 | 3.7 | 3.5 | 3.8 | 3.4 | 3.5 | 3.4 | 3.5 | 3.6 | 3.6 | 9.4 |
| f80e8b | 104.9 | 13.0 | 14.2 | 14.2 | 14.1 | 13.6 | 13.8 | 13.7 | 14.3 | 13.3 | 13.7 | 13.3 | 13.2 | 9.6 |
| 8ff4f1 | 103.3 | 12.9 | 14.1 | 13.9 | 13.6 | 13.1 | 13.4 | 13.2 | 14.0 | 13.1 | 13.7 | 13.4 | 13.2 | 9.7 |
| 96c52c | 19.6 | 10.3 | 11.6 | 10.4 | 11.3 | 11.0 | 10.3 | 11.5 | 10.4 | 10.7 | 10.8 | 10.7 | 9.9 | 8.9 |
| 9d7620 | 14.0 | 13.6 | 12.9 | 13.1 | 13.6 | 13.8 | 13.7 | 12.9 | 13.1 | 12.6 | 13.2 | 12.9 | 13.0 | 8.9 |
| 1640d4 | 13.7 | 11.9 | 13.4 | 13.3 | 13.1 | 12.1 | 12.9 | 12.4 | 12.6 | 12.9 | 12.8 | 13.6 | 12.8 | 9.1 |
| 377eb0 | 13.7 | 12.7 | 13.2 | 13.4 | 12.7 | 12.6 | 13.9 | 12.9 | 13.1 | 12.5 | 12.9 | 12.8 | 12.7 | 9.0 |
| b5b575 | 14.2 | 13.1 | 13.9 | 13.7 | 12.7 | 12.4 | 13.0 | 13.3 | 13.8 | 12.6 | 12.7 | 13.5 | 12.0 | 9.1 |
| 1f4ac3 | 14.1 | 13.6 | 13.2 | 13.0 | 13.6 | 13.0 | 13.2 | 13.1 | 13.0 | 12.8 | 12.8 | 13.6 | 13.3 | 8.9 |
| f27e78 | 14.0 | 12.5 | 13.4 | 13.4 | 13.0 | 12.6 | 13.3 | 13.4 | 13.2 | 12.6 | 13.3 | 12.4 | 13.6 | 9.0 |
| 59849d | 14.7 | 12.5 | 13.2 | 13.7 | 12.9 | 12.9 | 13.0 | 12.9 | 12.8 | 12.7 | 13.0 | 12.4 | 13.6 | 9.0 |
| a97382 | 15.5 | 13.6 | 13.8 | 12.7 | 13.9 | 13.4 | 13.3 | 12.9 | 14.4 | 12.7 | 12.9 | 14.2 | 13.0 | 9.1 |
| 83de2b | 15.2 | 13.3 | 13.8 | 14.1 | 13.8 | 14.3 | 13.7 | 14.2 | 14.4 | 12.8 | 13.2 | 13.9 | 12.8 | 9.1 |
| 70d59f | 15.2 | 12.6 | 13.0 | 12.2 | 13.4 | 12.1 | 13.9 | 12.4 | 12.1 | 13.1 | 13.2 | 12.3 | 12.4 | 9.1 |
| 49d187 | 15.2 | 12.4 | 13.1 | 12.8 | 12.9 | 12.7 | 13.6 | 13.3 | 13.3 | 13.1 | 12.3 | 12.9 | 11.9 | 9.1 |
| 219dfc | 15.8 | 13.3 | 13.6 | 13.0 | 13.3 | 13.2 | 13.0 | 13.8 | 12.8 | 13.4 | 13.3 | 13.4 | 13.4 | 9.2 |
| eb7ec0 | 15.4 | 12.6 | 13.0 | 13.2 | 12.7 | 12.6 | 12.5 | 12.1 | 12.3 | 13.0 | 12.6 | 13.0 | 12.0 | 9.2 |
| fe0b59 | 15.1 | 12.9 | 12.9 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 12.4 | 12.7 | 12.2 | 12.9 | 13.3 | 9.1 |
| 3d3255 | 15.3 | 12.8 | 13.0 | 13.3 | 13.3 | 12.5 | 14.0 | 12.6 | 13.4 | 12.7 | 13.7 | 12.5 | 12.3 | 9.0 |
| fb1bd8 | 15.0 | 3.6 | 3.6 | 3.8 | 3.8 | 3.5 | 3.7 | 3.6 | 3.8 | 3.7 | 3.5 | 3.8 | 3.4 | 9.2 |
| 377f45 | 15.2 | 12.4 | 14.2 | 12.8 | 14.0 | 13.2 | 13.2 | 13.3 | 14.2 | 12.9 | 12.7 | 12.9 | 13.0 | 9.2 |
| 58938f | 15.8 | 12.8 | 13.3 | 13.2 | 13.9 | 13.7 | 13.5 | 13.1 | 13.3 | 13.3 | 13.6 | 13.3 | 12.8 | 9.2 |
| e329dd | 15.4 | 13.2 | 13.6 | 12.3 | 13.7 | 12.9 | 13.1 | 13.1 | 13.0 | 13.1 | 12.8 | 13.3 | 12.3 | 9.4 |
| 9d257d | 15.8 | 12.9 | 13.9 | 12.6 | 13.0 | 13.4 | 13.4 | 13.6 | 13.1 | 12.6 | 12.6 | 13.5 | 13.4 | 9.3 |
| ee8d81 | 15.4 | 3.5 | 3.7 | 3.6 | 3.7 | 3.6 | 3.7 | 3.8 | 3.8 | 3.6 | 3.6 | 3.7 | 3.8 | 9.4 |
| 403989 | 15.8 | 13.1 | 13.2 | 13.4 | 13.6 | 12.6 | 13.6 | 13.1 | 13.3 | 13.1 | 12.8 | 12.9 | 12.2 | 9.1 |
| 9da6d6 | 15.2 | 13.0 | 13.3 | 12.6 | 13.1 | 12.3 | 13.3 | 12.8 | 13.3 | 12.8 | 12.9 | 12.5 | 12.0 | 9.3 |
| 8df7ad | 15.6 | 13.0 | 13.6 | 14.2 | 12.9 | 12.7 | 13.7 | 13.4 | 13.7 | 13.3 | 12.8 | 13.5 | 13.7 | 9.2 |
| 115238 | 15.6 | 14.0 | 13.2 | 13.4 | 13.5 | 13.1 | 13.7 | 13.1 | 13.6 | 13.3 | 13.3 | 13.4 | 12.8 | 9.1 |
| e977f1 | 15.6 | 13.6 | 13.8 | 13.2 | 13.9 | 12.3 | 13.6 | 12.2 | 14.0 | 12.9 | 13.7 | 13.1 | 13.5 | 9.3 |
| eb606b | 16.2 | 13.2 | 13.4 | 13.5 | 14.1 | 12.7 | 13.2 | 13.6 | 13.8 | 13.3 | 12.9 | 13.4 | 14.2 | 9.4 |
| bc9a8a | 16.1 | 13.2 | 14.9 | 14.8 | 13.9 | 12.8 | 13.4 | 13.0 | 12.9 | 11.8 | 13.3 | 12.5 | 13.9 | 9.1 |
| 0f86d5 | 15.5 | 13.2 | 14.9 | 14.6 | 14.2 | 12.7 | 13.6 | 13.6 | 13.8 | 13.4 | 13.2 | 13.3 | 13.5 | 9.3 |
| fb1103 | 15.8 | 3.9 | 4.0 | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 4.0 | 3.6 | 3.6 | 3.5 | 3.8 | 9.3 |
| 2b82f0 | 15.9 | 12.8 | 13.7 | 13.2 | 13.2 | 12.9 | 12.8 | 13.3 | 13.0 | 13.1 | 12.6 | 12.9 | 12.9 | 9.2 |
| e3fbf3 | 16.0 | 14.2 | 14.4 | 14.2 | 14.6 | 13.7 | 14.9 | 13.7 | 13.7 | 14.2 | 13.3 | 14.0 | 13.7 | 9.2 |
| c2f7b9 | 16.3 | 12.8 | 13.2 | 13.7 | 13.7 | 12.7 | 13.0 | 12.7 | 13.0 | 13.4 | 13.1 | 12.5 | 13.3 | 9.4 |
| 1af15f | 16.4 | 13.0 | 13.5 | 13.5 | 14.0 | 13.1 | 14.1 | 13.1 | 13.5 | 13.5 | 13.1 | 13.2 | 13.3 | 9.2 |
| 726228 | 15.7 | 13.1 | 12.6 | 13.4 | 13.8 | 13.8 | 13.5 | 13.2 | 13.2 | 12.9 | 13.0 | 12.9 | 13.5 | 9.3 |
| 12eb15 | 16.1 | 13.8 | 14.6 | 13.7 | 13.9 | 14.1 | 13.7 | 13.6 | 14.5 | 14.2 | 14.0 | 13.8 | 13.4 | 9.2 |
| bae815 | 16.2 | 14.0 | 14.4 | 14.5 | 14.2 | 14.7 | 14.3 | 13.7 | 14.0 | 14.3 | 13.8 | 14.2 | 13.8 | 9.5 |
| sum | 1757.1 | 607.5 | 634.8 | 620.2 | 625.6 | 605.1 | 625.2 | 610.0 | 621.4 | 607.7 | 606.8 | 612.4 | 603.1 | 453.7 |
| mean | 35.9 | 12.4 | 13.0 | 12.7 | 12.8 | 12.3 | 12.8 | 12.4 | 12.7 | 12.4 | 12.4 | 12.5 | 12.3 | 9.3 |

TABLE LXXVII: Outcomes of RPS (rps-rpp-vms) HTTP-Proxy-Servlet time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|---------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 33e505 | 15.3 | 9.2 | 8.1 | 9.0 | 9.3 | 8.9 | 6.9 | 7.2 | 8.8 | 8.1 | 8.4 | 8.4 | 8.3 | 3.0 |
| 4b1e27 | 15.5 | 8.8 | 7.7 | 8.5 | 7.4 | 8.4 | 7.8 | 7.5 | 8.0 | 6.3 | 7.8 | 7.3 | 7.8 | 3.0 |
| 98985b | 15.0 | 8.2 | 8.3 | 9.5 | 8.7 | 9.1 | 7.4 | 7.1 | 7.6 | 7.3 | 8.0 | 7.6 | 7.7 | 2.9 |
| 1d5413 | 15.6 | 8.5 | 9.1 | 8.1 | 8.0 | 8.3 | 7.1 | 7.3 | 8.0 | 7.3 | 8.6 | 7.4 | 6.6 | 2.9 |
| cb3a0b | 15.0 | 8.0 | 8.3 | 8.5 | 7.9 | 8.0 | 6.3 | 7.1 | 7.8 | 7.3 | 8.2 | 6.2 | 6.7 | 3.0 |
| fa9d71 | 15.1 | 4.0 | 3.8 | 4.2 | 3.8 | 3.8 | 3.8 | 3.8 | 4.1 | 3.7 | 3.8 | 3.8 | 3.9 | 3.0 |
| 58e91f | 14.8 | 9.1 | 9.6 | 9.2 | 8.5 | 8.0 | 7.0 | 6.8 | 8.4 | 7.3 | 8.5 | 8.2 | 8.8 | 3.0 |
| 8a41cf | 15.3 | 7.9 | 9.0 | 7.6 | 8.2 | 8.7 | 6.8 | 6.8 | 7.3 | 7.8 | 7.9 | 7.1 | 7.8 | 3.0 |
| 6925e1 | 15.7 | 8.6 | 8.5 | 9.9 | 7.6 | 8.3 | 6.9 | 7.8 | 7.4 | 7.8 | 7.9 | 7.0 | 8.1 | 3.0 |
| 5500d9 | 15.8 | 7.1 | 6.9 | 6.7 | 6.4 | 6.8 | 6.5 | 6.5 | 7.1 | 6.1 | 5.7 | 6.1 | 6.4 | 3.1 |
| 32401f | 16.8 | 8.2 | 9.6 | 8.6 | 7.2 | 8.7 | 8.2 | 8.3 | 8.0 | 7.3 | 9.2 | 7.9 | 7.5 | 2.9 |
| b8405e | 16.0 | 8.8 | 9.0 | 8.4 | 9.0 | 8.9 | 7.4 | 8.2 | 7.7 | 7.4 | 8.1 | 8.3 | 8.5 | 3.0 |
| c93ca1 | 16.2 | 8.9 | 8.9 | 8.4 | 9.2 | 8.9 | 7.2 | 7.1 | 8.0 | 7.2 | 7.9 | 7.5 | 7.5 | 2.9 |
| e9cc22 | 16.7 | 9.9 | 9.5 | 9.6 | 8.6 | 9.5 | 8.8 | 7.5 | 9.3 | 9.0 | 9.3 | 8.9 | 8.0 | 3.1 |
| 1e3a0c | 16.7 | 8.4 | 9.0 | 8.7 | 8.3 | 8.5 | 8.4 | 7.3 | 7.8 | 8.3 | 8.4 | 7.6 | 8.4 | 3.2 |
| 60fe09 | 16.4 | 9.4 | 8.4 | 9.1 | 8.9 | 9.3 | 8.4 | 7.8 | 8.4 | 7.8 | 8.4 | 8.7 | 8.3 | 3.4 |
| 0afcc5 | 19.0 | 8.2 | 9.3 | 8.7 | 8.6 | 9.2 | 8.9 | 8.6 | 8.3 | 7.9 | 8.7 | 8.1 | 9.5 | 5.3 |
| 72583c | 27.0 | 19.3 | 18.6 | 18.9 | 18.3 | 19.0 | 17.6 | 17.7 | 18.4 | 18.3 | 18.8 | 17.9 | 18.2 | 13.3 |
| 417b86 | 27.2 | 18.8 | 19.6 | 19.3 | 18.5 | 19.0 | 17.5 | 18.6 | 17.3 | 17.8 | 19.1 | 17.8 | 17.9 | 13.4 |
| c67d99 | 27.4 | 18.6 | 18.7 | 18.9 | 18.2 | 17.9 | 17.7 | 17.6 | 18.0 | 17.7 | 18.5 | 17.8 | 18.3 | 13.4 |
| cf2f89 | 31.9 | 25.3 | 25.0 | 24.1 | 23.6 | 23.2 | 21.8 | 23.0 | 23.8 | 23.1 | 23.7 | 21.9 | 23.3 | 18.4 |
| 5eb89e | 33.1 | 24.3 | 24.4 | 24.1 | 23.3 | 24.1 | 22.7 | 22.9 | 22.4 | 23.4 | 23.6 | 23.1 | 23.3 | 18.4 |
| a69a17 | 32.8 | 24.4 | 24.6 | 24.4 | 23.4 | 23.5 | 22.8 | 23.1 | 22.8 | 22.1 | 24.0 | 22.5 | 23.2 | 18.4 |
| bfcfd7d | 32.4 | 24.5 | 24.6 | 24.0 | 23.2 | 23.1 | 22.9 | 22.7 | 23.5 | 23.3 | 24.0 | 23.0 | 23.5 | 18.6 |
| db06a4 | 32.4 | 4.3 | 4.3 | 4.2 | 3.9 | 4.1 | 4.3 | 4.0 | 4.3 | 4.2 | 4.0 | 4.2 | 4.3 | 18.6 |
| 9df9bb | 32.1 | 24.2 | 24.7 | 23.7 | 24.2 | 22.9 | 23.1 | 23.0 | 22.6 | 23.3 | 24.6 | 22.3 | 23.3 | 18.5 |
| 2b2d95 | 32.2 | 22.8 | 22.7 | 22.4 | 21.3 | 22.2 | 21.7 | 21.8 | 22.5 | 22.0 | 21.8 | 22.4 | 21.5 | 18.7 |
| 89f716 | 32.1 | 25.1 | 24.8 | 24.0 | 23.6 | 24.2 | 23.0 | 24.1 | 24.0 | 23.4 | 24.2 | 23.3 | 23.4 | 18.5 |
| a58a72 | 31.7 | 24.1 | 25.5 | 23.7 | 23.5 | 24.1 | 22.8 | 22.9 | 22.4 | 23.1 | 23.8 | 22.5 | 23.1 | 18.4 |
| 6cabde | 31.7 | 24.1 | 24.8 | 23.3 | 23.8 | 23.6 | 22.8 | 22.9 | 23.4 | 23.3 | 23.9 | 22.8 | 23.0 | 18.3 |
| a5b6ec | 31.7 | 4.1 | 4.2 | 4.2 | 3.9 | 4.1 | 4.0 | 4.0 | 4.2 | 3.9 | 4.0 | 3.8 | 4.0 | 18.4 |
| d9b90d | 31.9 | 22.2 | 21.7 | 21.4 | 21.5 | 20.9 | 22.0 | 21.4 | 21.6 | 22.2 | 22.1 | 21.8 | 21.4 | 18.4 |
| 5caba4 | 32.8 | 24.4 | 25.1 | 24.1 | 24.3 | 23.8 | 23.0 | 22.0 | 23.6 | 22.2 | 22.9 | 23.3 | 23.3 | 18.4 |
| 3bcd87 | 32.2 | 21.8 | 22.8 | 23.2 | 21.6 | 22.1 | 21.8 | 21.7 | 22.0 | 21.7 | 21.5 | 21.7 | 22.0 | 18.4 |
| 5ee88f | 32.0 | 24.5 | 25.0 | 25.0 | 24.4 | 24.2 | 22.7 | 22.6 | 22.6 | 23.5 | 23.0 | 23.0 | 23.1 | 18.4 |
| 3050d5 | 32.1 | 24.6 | 23.5 | 24.7 | 23.9 | 24.2 | 22.9 | 23.1 | 22.7 | 23.3 | 23.6 | 21.7 | 23.6 | 18.4 |
| babd76 | 32.3 | 24.8 | 24.7 | 23.7 | 24.2 | 24.4 | 23.4 | 22.6 | 23.7 | 23.0 | 23.8 | 22.2 | 23.2 | 18.4 |
| 4defd0 | 32.8 | 24.4 | 24.4 | 24.4 | 24.9 | 24.2 | 22.9 | 22.8 | 22.3 | 23.0 | 22.9 | 22.6 | 22.4 | 18.4 |
| 22d442 | 46.6 | 23.2 | 24.0 | 22.8 | 23.6 | 22.9 | 23.2 | 23.2 | 23.8 | 23.5 | 23.0 | 24.1 | 24.3 | 19.2 |
| 238dd2 | 61.8 | 27.2 | 27.9 | 26.7 | 26.9 | 26.0 | 27.1 | 26.8 | 27.8 | 26.8 | 26.1 | 26.1 | 27.2 | 19.9 |
| 34edf5 | 63.2 | 30.7 | 30.1 | 30.8 | 29.1 | 29.4 | 25.9 | 25.7 | 26.5 | 26.1 | 28.5 | 24.8 | 25.1 | 20.7 |
| cec23d | 64.1 | 27.6 | 27.4 | 28.1 | 26.6 | 27.5 | 26.7 | 26.3 | 27.4 | 27.4 | 26.7 | 27.3 | 27.6 | 21.1 |
| fb734f | 64.6 | 31.2 | 30.1 | 30.0 | 29.7 | 29.8 | 25.8 | 24.9 | 26.4 | 25.9 | 28.5 | 24.6 | 26.7 | 21.0 |
| d75353 | 63.6 | 30.4 | 30.6 | 30.0 | 28.4 | 29.9 | 25.8 | 26.0 | 26.6 | 25.8 | 28.5 | 24.9 | 25.6 | 21.0 |
| 36c6a0 | 64.8 | 5.2 | 4.9 | 4.8 | 4.7 | 4.5 | 4.5 | 4.7 | 5.0 | 4.7 | 4.8 | 4.5 | 4.8 | 20.8 |
| a5d4b6 | 64.0 | 5.0 | 4.6 | 4.8 | 4.4 | 4.4 | 4.5 | 4.6 | 4.7 | 4.3 | 4.5 | 4.6 | 4.7 | 20.8 |
| c17fb9 | 63.1 | 30.6 | 30.8 | 30.2 | 28.1 | 28.5 | 25.6 | 25.8 | 26.7 | 25.1 | 27.9 | 24.8 | 25.4 | 20.9 |
| 7ad6d4 | 64.3 | 28.4 | 28.2 | 27.2 | 26.7 | 26.6 | 26.9 | 27.8 | 27.6 | 27.2 | 28.6 | 26.8 | 28.2 | 20.8 |
| 531709 | 64.3 | 31.0 | 30.3 | 30.3 | 30.0 | 30.0 | 24.6 | 25.6 | 25.8 | 24.8 | 29.8 | 26.0 | 25.2 | 20.8 |
| sum | 1617.1 | 862.2 | 865.7 | 854.1 | 831.5 | 839.8 | 787.6 | 788.9 | 808.1 | 793.4 | 829.7 | 786.2 | 803.6 | 652.7 |
| mean | 33.0 | 17.6 | 17.7 | 17.4 | 17.0 | 17.1 | 16.1 | 16.1 | 16.5 | 16.2 | 16.9 | 16.0 | 16.4 | 13.3 |

TABLE LXXVIII: Outcomes of RPS (rps-rpp-vms) Yank time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 5709ce | 21.7 | -44.1 | -43.9 | -44.7 | -45.3 | -46.4 | -46.7 | -44.1 | -45.5 | -44.3 | -43.9 | -44.0 | -44.5 | 3.0 |
| 76e782 | 21.4 | 9.3 | 9.1 | 8.9 | 9.6 | 9.4 | 8.2 | 7.6 | 9.0 | 7.8 | 9.3 | 8.2 | 9.0 | 3.0 |
| b26e90 | 22.6 | 3.3 | 3.3 | 3.3 | 3.4 | 3.5 | 3.9 | 3.4 | 3.2 | 3.2 | 3.2 | 3.4 | 3.4 | 3.0 |
| afbca2 | 21.7 | 6.2 | 6.8 | 5.7 | 6.5 | 6.6 | 6.6 | 6.2 | 6.1 | 6.7 | 7.1 | 6.6 | 5.9 | 2.9 |
| 9245c9 | 21.8 | 3.2 | 3.2 | 3.4 | 3.2 | 3.5 | 3.7 | 3.1 | 3.3 | 3.4 | 3.3 | 3.4 | 3.3 | 2.9 |
| 88a0df | 21.3 | 8.6 | 9.0 | 8.4 | 7.8 | 9.4 | 8.1 | 7.7 | 6.6 | 6.6 | 8.2 | 6.9 | 7.4 | 3.0 |
| cc7c44 | 21.9 | 6.9 | 6.3 | 6.4 | 5.5 | 6.2 | 7.2 | 6.7 | 6.6 | 5.8 | 6.7 | 6.3 | 5.6 | 2.9 |
| 6fd980 | 21.7 | 3.1 | 3.3 | 3.3 | 3.4 | 3.5 | 3.5 | 3.2 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 | 2.9 |
| 24ff95 | 21.7 | 6.6 | 7.3 | 6.5 | 7.1 | 7.2 | 7.4 | 6.8 | 6.4 | 7.2 | 7.0 | 6.9 | 6.5 | 2.9 |
| cfb9b8 | 22.0 | 5.6 | 6.9 | 6.3 | 6.4 | 6.9 | 7.0 | 6.4 | 5.8 | 5.7 | 5.9 | 6.3 | 5.8 | 3.0 |
| 580435 | 22.0 | 5.5 | 6.5 | 6.2 | 6.0 | 6.1 | 6.7 | 6.2 | 7.3 | 6.1 | 5.7 | 5.9 | 6.7 | 3.1 |
| 6752dc | 22.5 | 3.8 | 3.8 | 3.8 | 3.7 | 4.1 | 4.0 | 3.6 | 3.8 | 3.7 | 3.9 | 3.8 | 3.6 | 2.9 |
| a13462 | 22.5 | 5.8 | 6.7 | 6.7 | 6.6 | 6.4 | 6.6 | 6.8 | 5.9 | 5.5 | 6.1 | 6.2 | 5.9 | 2.9 |
| ed0e73 | 22.7 | 9.2 | 9.6 | 9.9 | 9.4 | 10.6 | 8.8 | 7.9 | 9.2 | 7.9 | 9.5 | 8.2 | 7.6 | 3.7 |
| 1f3139 | 23.2 | 4.3 | 4.4 | 4.6 | 4.5 | 4.9 | 4.9 | 4.3 | 4.4 | 4.4 | 4.3 | 4.8 | 4.4 | 3.7 |
| 1031dc | 25.4 | 8.4 | 9.0 | 9.0 | 8.3 | 8.1 | 8.9 | 8.1 | 8.5 | 9.5 | 7.6 | 9.4 | 8.2 | 3.8 |
| sum | 356.0 | 133.7 | 139.2 | 137.0 | 136.5 | 142.8 | 141.9 | 132.1 | 134.8 | 131.0 | 134.9 | 133.5 | 131.2 | 49.8 |
| mean | 22.2 | 8.4 | 8.7 | 8.6 | 8.5 | 8.9 | 8.9 | 8.3 | 8.4 | 8.2 | 8.4 | 8.3 | 8.2 | 3.1 |

TABLE LXXIX: Outcomes of RPS (rps-rpp-vms) joda-time time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 381cca | 42.4 | 18.8 | 19.9 | 19.4 | 19.0 | 19.8 | 19.8 | 18.8 | 20.2 | 20.6 | 20.5 | 18.6 | 18.7 | 10.4 |
| eaaff1 | 43.0 | 18.7 | 18.3 | 18.8 | 18.2 | 19.5 | 19.4 | 18.1 | 19.8 | 19.6 | 20.0 | 18.2 | 18.2 | 11.2 |
| ca7bec | 42.7 | 11.3 | 12.5 | 11.2 | 11.2 | 12.0 | 11.8 | 10.6 | 12.1 | 11.5 | 10.8 | 11.2 | 11.0 | 10.7 |
| 4d84d8 | 42.6 | 18.0 | 19.1 | 19.6 | 18.6 | 19.1 | 19.3 | 17.7 | 20.3 | 19.4 | 17.3 | 18.2 | 16.7 | 10.9 |
| f81758 | 41.8 | 18.6 | 19.4 | 19.1 | 18.9 | 16.7 | 19.7 | 19.9 | 20.0 | 19.4 | 17.3 | 17.8 | 16.9 | 10.8 |
| dc4376 | 42.8 | 17.1 | 17.8 | 18.2 | 15.8 | 18.0 | 18.7 | 17.5 | 18.1 | 17.0 | 16.2 | 16.5 | 15.2 | 10.7 |
| fb2063 | 42.3 | 19.1 | 19.0 | 18.0 | 17.7 | 18.9 | 19.8 | 19.4 | 19.6 | 18.8 | 17.3 | 18.2 | 16.9 | 10.5 |
| 262448 | 41.2 | 18.3 | 18.9 | 17.8 | 16.0 | 18.0 | 20.1 | 17.3 | 19.5 | 16.6 | 17.1 | 17.8 | 15.9 | 10.5 |
| 53922f | 42.9 | 19.1 | 20.1 | 18.8 | 17.0 | 20.0 | 19.9 | 18.1 | 20.0 | 17.6 | 16.6 | 19.1 | 16.4 | 11.0 |
| 114403 | 42.2 | 18.1 | 18.2 | 18.9 | 17.6 | 18.8 | 20.4 | 18.2 | 18.7 | 19.5 | 19.2 | 19.2 | 17.6 | 10.6 |
| 52757e | 42.1 | 18.4 | 18.7 | 17.9 | 18.0 | 18.8 | 17.6 | 17.9 | 20.5 | 19.3 | 18.9 | 18.4 | 18.6 | 10.8 |
| acff94 | 41.9 | 11.1 | 11.4 | 10.7 | 10.1 | 11.5 | 11.6 | 10.8 | 11.6 | 11.9 | 11.0 | 11.3 | 10.4 | 10.5 |
| 67e9e5 | 41.8 | 18.7 | 18.4 | 19.3 | 19.1 | 18.7 | 20.1 | 18.6 | 19.5 | 19.7 | 18.6 | 18.8 | 18.6 | 10.5 |
| 1e7b4b | 42.5 | 19.1 | 18.6 | 18.7 | 18.5 | 20.2 | 19.4 | 19.0 | 19.6 | 19.9 | 19.2 | 18.6 | 18.6 | 10.7 |
| b3fdbc | 42.4 | 11.3 | 11.5 | 11.1 | 10.9 | 11.7 | 11.5 | 10.9 | 12.0 | 12.3 | 11.1 | 11.4 | 11.0 | 10.4 |
| 66825d | 42.8 | 18.1 | 18.4 | 19.0 | 17.8 | 19.6 | 19.0 | 18.0 | 19.3 | 19.4 | 19.6 | 18.8 | 18.5 | 10.7 |
| 3ba701 | 41.7 | 19.5 | 20.0 | 20.0 | 19.0 | 18.9 | 21.0 | 18.4 | 20.9 | 20.7 | 18.2 | 17.8 | 17.0 | 11.0 |
| b90efa | 42.2 | 11.0 | 11.2 | 10.9 | 10.9 | 11.3 | 13.3 | 11.5 | 11.6 | 12.0 | 11.4 | 11.3 | 11.3 | 10.5 |
| e917d7 | 42.4 | 19.5 | 19.0 | 20.2 | 18.5 | 19.6 | 19.4 | 17.9 | 18.9 | 20.1 | 18.8 | 18.5 | 18.4 | 10.6 |
| c5c681 | 42.7 | 19.3 | 19.6 | 20.0 | 18.6 | 19.4 | 21.4 | 18.5 | 20.3 | 20.0 | 18.5 | 19.3 | 17.6 | 10.3 |
| dfc0d8 | 43.0 | 17.6 | 19.2 | 19.2 | 19.4 | 20.0 | 19.0 | 18.4 | 19.0 | 20.4 | 18.9 | 19.7 | 18.5 | 10.3 |
| f871b0 | 41.7 | 18.2 | 18.2 | 18.4 | 18.8 | 18.6 | 19.2 | 18.5 | 20.2 | 18.8 | 18.5 | 18.8 | 18.2 | 10.8 |
| a7e167 | 42.4 | 11.9 | 12.2 | 11.5 | 11.9 | 12.5 | 12.9 | 10.9 | 12.6 | 12.5 | 12.1 | 12.2 | 11.7 | 11.5 |
| 5f98d6 | 42.2 | 11.2 | 11.2 | 11.4 | 11.4 | 11.5 | 12.2 | 10.4 | 11.8 | 12.3 | 11.5 | 12.2 | 11.4 | 10.8 |
| a0aead | 41.8 | 20.0 | 19.4 | 20.3 | 19.2 | 18.3 | 21.2 | 19.2 | 20.1 | 20.4 | 18.8 | 19.0 | 17.6 | 11.0 |
| e9b136 | 42.8 | 11.8 | 11.9 | 12.0 | 11.5 | 12.1 | 11.8 | 11.3 | 12.4 | 12.2 | 12.3 | 11.7 | 11.3 | 10.9 |
| b72a1f | 42.4 | 18.6 | 19.2 | 18.2 | 19.0 | 19.4 | 20.3 | 18.2 | 19.9 | 19.3 | 19.9 | 19.2 | 19.0 | 11.0 |
| 6a4ee6 | 42.6 | 19.8 | 20.1 | 19.6 | 19.6 | 20.4 | 20.6 | 18.3 | 20.1 | 20.7 | 20.2 | 19.2 | 19.8 | 10.5 |
| f4a109 | 42.4 | 19.5 | 19.3 | 18.8 | 18.4 | 19.1 | 20.3 | 19.9 | 20.5 | 20.2 | 18.6 | 19.9 | 18.2 | 10.8 |
| 8429e5 | 42.9 | 19.0 | 18.8 | 18.8 | 18.8 | 19.9 | 20.6 | 18.6 | 20.2 | 20.8 | 19.1 | 17.5 | 17.3 | 11.2 |
| 124fd3 | 42.0 | 11.1 | 11.7 | 11.7 | 11.5 | 11.5 | 11.8 | 10.6 | 11.8 | 11.8 | 11.7 | 11.2 | 11.1 | 11.1 |
| ac9b98 | 42.0 | 19.4 | 20.4 | 19.1 | 19.2 | 18.3 | 20.3 | 19.1 | 20.8 | 20.0 | 18.2 | 18.4 | 17.0 | 10.5 |
| adacfb | 42.3 | 11.7 | 11.6 | 12.1 | 11.7 | 12.1 | 12.2 | 11.5 | 11.9 | 11.9 | 11.4 | 12.0 | 11.1 | 10.7 |
| d4a2c3 | 43.0 | 17.4 | 17.2 | 17.6 | 16.9 | 17.6 | 18.3 | 16.2 | 17.4 | 17.3 | 17.1 | 16.5 | 16.5 | 11.1 |
| 638153 | 42.5 | 18.9 | 18.7 | 21.0 | 18.9 | 19.7 | 19.0 | 19.3 | 20.3 | 20.5 | 19.6 | 19.8 | 18.2 | 11.2 |
| 5a3cb2 | 42.1 | 20.2 | 19.1 | 18.9 | 20.2 | 19.0 | 20.5 | 18.6 | 21.0 | 20.3 | 18.0 | 19.7 | 17.7 | 11.0 |
| e98903 | 42.9 | 11.6 | 12.0 | 12.3 | 11.5 | 11.9 | 12.4 | 11.2 | 12.5 | 12.2 | 11.5 | 12.1 | 11.4 | 11.0 |
| b65434 | 43.4 | 11.4 | 11.7 | 14.4 | 11.5 | 11.7 | 12.6 | 11.4 | 12.4 | 11.7 | 11.3 | 11.8 | 11.0 | 11.2 |
| 8213a1 | 43.4 | 18.9 | 18.8 | 19.0 | 18.6 | 20.1 | 19.4 | 18.7 | 19.6 | 20.0 | 18.9 | 18.9 | 17.9 | 11.1 |
| 75ab8c | 43.1 | 12.4 | 12.6 | 11.6 | 11.7 | 12.4 | 13.0 | 11.8 | 12.7 | 12.2 | 11.7 | 12.1 | 11.4 | 10.6 |
| ed9d0a | 42.8 | 19.6 | 19.1 | 20.6 | 19.6 | 19.9 | 20.4 | 19.4 | 20.1 | 20.3 | 20.6 | 19.5 | 18.9 | 10.9 |
| e2f678 | 43.2 | 20.2 | 19.6 | 19.2 | 20.1 | 20.7 | 20.5 | 19.6 | 20.9 | 20.6 | 20.4 | 21.3 | 19.7 | 11.0 |
| 12559d | 42.3 | 30.0 | 29.6 | 30.2 | 30.8 | 30.8 | 31.6 | 29.5 | 31.9 | 31.5 | 31.1 | 30.1 | 30.5 | 10.8 |
| 804e5d | 43.3 | 29.8 | 30.1 | 29.7 | 28.2 | 29.0 | 30.6 | 29.2 | 31.0 | 31.0 | 29.5 | 28.3 | 28.1 | 10.8 |
| bdc70 | 42.9 | 28.4 | 28.7 | 27.6 | 25.8 | 27.4 | 30.0 | 27.7 | 29.2 | 29.1 | 27.4 | 28.2 | 25.8 | 10.6 |
| 87dcb3 | 42.0 | 21.5 | 21.5 | 20.8 | 20.7 | 22.2 | 22.3 | 21.3 | 22.1 | 22.8 | 21.5 | 20.9 | 20.9 | 11.1 |
| 52a03c | 42.6 | 28.9 | 28.2 | 28.0 | 26.0 | 30.1 | 29.8 | 28.1 | 29.3 | 28.0 | 28.3 | 27.4 | 26.6 | 10.9 |
| c13ba8 | 42.3 | 28.7 | 28.6 | 27.6 | 27.7 | 27.9 | 29.5 | 28.0 | 29.8 | 28.8 | 27.4 | 28.0 | 26.1 | 10.8 |
| 872d99 | 42.3 | 28.6 | 29.2 | 27.7 | 25.8 | 28.7 | 28.7 | 29.0 | 29.4 | 28.9 | 27.2 | 27.1 | 25.8 | 10.5 |
| sum | 2081.0 | 899.4 | 907.6 | 904.8 | 875.6 | 913.4 | 944.3 | 881.3 | 943.2 | 931.8 | 890.3 | 891.8 | 851.7 | 529.2 |
| mean | 42.5 | 18.4 | 18.5 | 18.5 | 17.9 | 18.6 | 19.3 | 18.0 | 19.2 | 19.0 | 18.2 | 18.2 | 17.4 | 10.8 |

TABLE LXXX: Outcomes of RPS (rps-rpp-vms) compile-testing time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 6b89cd | 31.8 | 13.4 | 13.2 | 13.1 | 12.4 | 13.5 | 11.9 | 12.5 | 12.3 | 12.3 | 13.1 | 12.4 | 12.4 | 5.7 |
| fe6edd | 30.4 | 11.8 | 12.0 | 10.9 | 12.1 | 12.9 | 10.5 | 10.8 | 10.6 | 11.4 | 13.0 | 9.6 | 10.0 | 5.7 |
| 8e9ce9 | 30.9 | 10.1 | 9.9 | 10.4 | 9.9 | 10.0 | 10.0 | 10.6 | 9.5 | 10.3 | 9.8 | 10.1 | 9.5 | 5.6 |
| 4006c1 | 31.3 | 10.6 | 11.0 | 10.5 | 9.6 | 10.7 | 10.8 | 10.1 | 10.8 | 10.7 | 10.5 | 9.3 | 10.2 | 5.8 |
| e5e4ee | 31.4 | 12.8 | 12.9 | 13.2 | 11.8 | 13.8 | 11.7 | 12.1 | 11.6 | 12.1 | 13.5 | 11.7 | 11.7 | 5.8 |
| 4dd5fd | 31.3 | 10.4 | 9.1 | 9.8 | 10.2 | 10.9 | 10.1 | 9.6 | 10.1 | 9.7 | 10.4 | 9.3 | 10.4 | 5.7 |
| 0ef7e5 | 32.1 | 9.6 | 9.1 | 9.5 | 9.3 | 10.0 | 9.3 | 9.9 | 9.5 | 10.6 | 9.8 | 9.7 | 10.2 | 5.6 |
| cc5a56 | 31.3 | 8.9 | 9.0 | 7.9 | 8.2 | 7.8 | 7.7 | 8.0 | 7.4 | 8.1 | 8.2 | 7.9 | 8.0 | 5.8 |
| 49c254 | 33.6 | 11.0 | 10.3 | 9.8 | 10.1 | 10.8 | 10.2 | 10.2 | 10.4 | 10.2 | 10.8 | 10.3 | 11.0 | 5.7 |
| ebbc46 | 31.8 | 11.0 | 11.6 | 11.6 | 11.1 | 11.9 | 11.7 | 12.3 | 10.8 | 11.6 | 12.0 | 11.4 | 12.0 | 6.1 |
| 762247 | 36.9 | 13.9 | 13.5 | 13.8 | 13.5 | 14.5 | 12.0 | 11.0 | 11.1 | 12.6 | 14.5 | 12.3 | 12.5 | 6.2 |
| 99aed6 | 38.3 | 12.9 | 12.1 | 13.3 | 13.2 | 12.4 | 11.4 | 11.0 | 10.7 | 11.2 | 13.6 | 10.3 | 11.3 | 5.9 |
| 2678c3 | 38.8 | 10.7 | 10.7 | 11.4 | 10.8 | 11.9 | 10.7 | 11.4 | 10.9 | 10.5 | 11.7 | 10.9 | 11.6 | 6.3 |
| acf6ae | 37.9 | 12.1 | 10.8 | 11.3 | 11.2 | 11.7 | 10.9 | 12.2 | 11.2 | 11.1 | 12.2 | 11.1 | 11.3 | 6.1 |
| 7d31b5 | 38.8 | 13.5 | 13.2 | 14.0 | 13.1 | 13.0 | 11.4 | 12.1 | 12.2 | 11.6 | 13.6 | 12.9 | 12.3 | 6.3 |
| 3f1f22 | 37.9 | 12.1 | 11.0 | 10.6 | 11.0 | 11.7 | 11.2 | 11.5 | 10.9 | 11.4 | 11.5 | 11.4 | 11.1 | 6.5 |
| 0f4e55 | 37.4 | 5.4 | 5.2 | 5.1 | 4.9 | 5.6 | 5.2 | 5.1 | 5.3 | 5.7 | 5.3 | 5.4 | 5.3 | 6.1 |
| 20f6d4 | 39.8 | 13.0 | 13.0 | 12.9 | 12.7 | 13.8 | 10.9 | 11.5 | 11.3 | 11.2 | 13.5 | 11.0 | 11.4 | 6.2 |
| 6b3290 | 37.7 | 14.7 | 13.8 | 13.0 | 13.8 | 13.4 | 11.7 | 12.9 | 11.8 | 13.0 | 14.9 | 12.5 | 12.5 | 6.2 |
| 9ec074 | 38.9 | 14.4 | 12.8 | 13.8 | 13.4 | 14.6 | 11.9 | 12.7 | 12.3 | 12.6 | 14.3 | 12.9 | 12.3 | 6.2 |
| 38f6d0 | 38.0 | 14.1 | 13.4 | 12.5 | 12.8 | 14.4 | 11.9 | 13.0 | 13.0 | 12.5 | 14.6 | 11.7 | 12.0 | 6.2 |
| ac382a | 38.7 | 5.3 | 5.5 | 5.3 | 5.5 | 5.4 | 5.0 | 5.3 | 5.4 | 5.3 | 5.4 | 5.0 | 5.4 | 6.0 |
| dd93c0 | 39.4 | 5.2 | 5.2 | 5.0 | 5.2 | 5.4 | 5.1 | 5.1 | 5.4 | 5.4 | 5.6 | 5.2 | 5.6 | 6.3 |
| d34c5c | 37.9 | 13.5 | 12.7 | 13.8 | 14.3 | 14.0 | 11.9 | 11.3 | 10.7 | 11.7 | 14.5 | 11.5 | 11.8 | 6.3 |
| f04802 | 38.0 | 12.9 | 13.3 | 12.9 | 10.1 | 13.3 | 12.2 | 11.7 | 11.0 | 10.5 | 11.1 | 11.5 | 11.0 | 6.3 |
| b3d432 | 38.5 | 15.1 | 13.8 | 14.8 | 11.9 | 15.1 | 12.4 | 12.4 | 12.6 | 11.9 | 11.7 | 12.4 | 11.6 | 6.1 |
| e95757 | 38.4 | 7.2 | 7.4 | 7.4 | 7.5 | 8.3 | 7.3 | 7.9 | 7.7 | 7.8 | 8.0 | 7.6 | 7.8 | 6.1 |
| b4eaa9 | 39.3 | 14.7 | 15.4 | 15.3 | 12.4 | 15.2 | 14.1 | 13.0 | 13.5 | 12.5 | 13.7 | 13.1 | 13.7 | 6.5 |
| ffc732 | 38.7 | 7.4 | 7.6 | 7.7 | 7.2 | 8.1 | 7.6 | 8.0 | 7.5 | 8.0 | 8.4 | 7.6 | 7.8 | 6.4 |
| b867b4 | 39.5 | 7.6 | 7.6 | 7.5 | 7.7 | 7.7 | 7.7 | 7.7 | 7.3 | 7.5 | 7.8 | 7.6 | 8.0 | 6.3 |
| 90f7d6 | 38.1 | 7.9 | 7.6 | 8.3 | 7.9 | 8.0 | 8.0 | 8.2 | 8.1 | 8.3 | 8.7 | 8.1 | 8.0 | 6.6 |
| 2a47a5 | 38.8 | 8.1 | 8.1 | 7.8 | 7.7 | 8.4 | 7.9 | 8.1 | 8.2 | 8.2 | 9.0 | 8.6 | 8.5 | 6.3 |
| cd2c0a | 39.0 | 14.2 | 14.4 | 15.4 | 14.2 | 16.1 | 12.9 | 12.9 | 12.7 | 13.0 | 16.1 | 12.3 | 13.8 | 6.6 |
| 80a9ee | 40.3 | 13.5 | 14.6 | 15.4 | 15.3 | 15.3 | 12.6 | 12.7 | 13.5 | 13.6 | 16.0 | 13.1 | 13.2 | 6.4 |
| 95e749 | 39.8 | 13.3 | 12.9 | 13.3 | 13.8 | 14.1 | 13.0 | 13.7 | 13.4 | 11.5 | 13.5 | 13.1 | 12.6 | 6.4 |
| a959de | 40.8 | 15.9 | 15.7 | 15.4 | 16.5 | 15.6 | 13.5 | 14.2 | 13.7 | 14.3 | 16.1 | 13.7 | 14.9 | 7.1 |
| 1f8424 | 39.7 | 15.0 | 15.0 | 15.4 | 15.2 | 15.6 | 12.7 | 13.7 | 13.2 | 13.5 | 16.6 | 12.7 | 13.8 | 6.6 |
| cb6486 | 41.0 | 12.4 | 13.0 | 12.2 | 13.6 | 13.7 | 12.6 | 13.2 | 12.5 | 13.6 | 13.4 | 12.8 | 13.3 | 6.4 |
| c46b1b | 39.7 | 13.3 | 13.6 | 12.8 | 13.0 | 14.0 | 13.2 | 14.2 | 13.9 | 14.1 | 13.9 | 13.3 | 14.8 | 6.5 |
| bcad50 | 40.1 | 13.6 | 12.1 | 12.3 | 13.3 | 13.8 | 13.5 | 13.5 | 12.0 | 12.8 | 13.9 | 13.0 | 13.5 | 6.1 |
| 620d23 | 39.6 | 12.7 | 13.5 | 12.9 | 12.9 | 13.7 | 13.0 | 13.4 | 12.1 | 12.8 | 13.9 | 12.3 | 14.4 | 6.3 |
| 626025 | 41.5 | 13.9 | 13.3 | 13.1 | 13.2 | 13.6 | 13.0 | 13.7 | 12.2 | 13.6 | 13.9 | 13.3 | 13.5 | 6.7 |
| 3b9095 | 39.6 | 12.7 | 12.9 | 12.2 | 12.6 | 13.5 | 14.0 | 13.5 | 12.7 | 13.6 | 13.8 | 13.8 | 13.3 | 6.1 |
| fd1e44 | 40.5 | 15.1 | 16.0 | 15.2 | 15.2 | 16.7 | 13.1 | 12.9 | 13.3 | 13.2 | 15.3 | 13.6 | 14.1 | 6.6 |
| 1fee4c | 40.4 | 7.8 | 7.9 | 7.6 | 7.9 | 8.1 | 7.5 | 7.9 | 7.4 | 8.2 | 8.1 | 7.7 | 8.3 | 6.6 |
| b748f6 | 40.1 | 13.1 | 12.9 | 13.2 | 12.9 | 14.1 | 13.3 | 12.6 | 12.5 | 12.3 | 14.0 | 12.9 | 14.3 | 6.5 |
| 115014 | 40.5 | 13.6 | 13.7 | 14.3 | 13.6 | 13.6 | 14.3 | 12.9 | 13.5 | 14.3 | 15.0 | 14.2 | 13.6 | 6.5 |
| 5dc482 | 39.7 | 15.4 | 15.2 | 15.9 | 14.2 | 16.4 | 13.0 | 13.3 | 13.5 | 13.8 | 15.2 | 13.2 | 14.5 | 6.7 |
| 1148d3 | 40.6 | 8.3 | 8.5 | 8.4 | 8.2 | 8.9 | 8.0 | 7.9 | 8.3 | 8.1 | 8.2 | 8.1 | 8.9 | 6.8 |
| sum | 1844.4 | 575.1 | 566.8 | 569.2 | 557.9 | 595.1 | 535.8 | 545.2 | 531.3 | 543.8 | 591.4 | 535.4 | 552.8 | 305.7 |
| mean | 37.6 | 11.7 | 11.6 | 11.6 | 11.4 | 12.1 | 10.9 | 11.1 | 10.8 | 11.1 | 12.1 | 10.9 | 11.3 | 6.2 |

TABLE LXXXI: Outcomes of RPS (rps-rpp-vms) zt-exec time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| c58216 | 26.0 | 17.2 | 17.7 | 17.4 | 17.9 | 18.1 | 18.1 | 17.7 | 17.7 | 17.6 | 17.6 | 17.8 | 19.6 | 13.1 |
| c5b972 | 25.5 | 17.4 | 16.7 | 17.4 | 18.3 | 18.0 | 17.6 | 18.0 | 16.7 | 17.3 | 17.1 | 16.7 | 19.1 | 13.2 |
| e8609f | 25.4 | 3.7 | 3.6 | 3.7 | 4.0 | 3.7 | 3.8 | 3.6 | 3.7 | 3.7 | 3.8 | 3.9 | 3.9 | 13.1 |
| d964c0 | 25.9 | 17.2 | 17.4 | 18.6 | 17.6 | 19.1 | 17.6 | 16.4 | 17.6 | 17.9 | 17.1 | 17.9 | 18.0 | 13.3 |
| d6766d | 28.0 | 20.5 | 19.8 | 20.1 | 20.3 | 19.9 | 19.9 | 18.7 | 18.6 | 18.8 | 20.1 | 18.7 | 20.3 | 15.3 |
| 46c33c | 28.0 | 19.8 | 20.1 | 20.1 | 20.8 | 20.5 | 19.7 | 18.8 | 18.6 | 18.8 | 20.6 | 19.3 | 20.6 | 14.9 |
| fa782b | 28.5 | 20.2 | 19.1 | 20.4 | 19.7 | 20.2 | 19.1 | 18.5 | 20.3 | 19.2 | 19.2 | 18.3 | 20.1 | 15.8 |
| 28ceb1 | 28.5 | 20.5 | 19.9 | 19.8 | 20.2 | 19.5 | 19.7 | 18.9 | 19.5 | 19.5 | 19.5 | 19.7 | 20.6 | 15.3 |
| eebd89 | 28.6 | 20.2 | 19.5 | 20.2 | 20.1 | 20.3 | 19.4 | 18.6 | 19.5 | 19.8 | 19.9 | 18.7 | 20.1 | 15.2 |
| 7a7a4b | 28.5 | 19.6 | 20.2 | 20.1 | 20.8 | 20.4 | 19.8 | 18.5 | 19.3 | 19.0 | 20.4 | 18.8 | 19.3 | 15.2 |
| 8ff8fa | 28.3 | 20.6 | 19.6 | 20.8 | 20.4 | 21.6 | 19.5 | 19.5 | 19.6 | 19.7 | 20.8 | 19.0 | 19.9 | 15.3 |
| a47b4c | 28.6 | 19.3 | 19.5 | 19.8 | 19.2 | 19.9 | 19.4 | 19.1 | 19.2 | 18.8 | 20.9 | 19.9 | 19.7 | 15.2 |
| 0a5f14 | 28.0 | 3.8 | 3.7 | 3.6 | 3.9 | 3.8 | 3.9 | 3.6 | 3.8 | 3.8 | 3.8 | 3.7 | 4.3 | 15.0 |
| 6bdce0 | 28.2 | 20.8 | 19.1 | 20.4 | 19.5 | 20.3 | 18.8 | 18.8 | 19.2 | 19.8 | 20.4 | 19.4 | 19.9 | 15.1 |
| sum | 386.0 | 240.8 | 235.8 | 242.3 | 242.7 | 245.2 | 236.1 | 228.9 | 233.2 | 233.8 | 241.2 | 231.9 | 245.2 | 204.9 |
| mean | 27.6 | 17.2 | 16.8 | 17.3 | 17.3 | 17.5 | 16.9 | 16.3 | 16.7 | 16.7 | 17.2 | 16.6 | 17.5 | 14.6 |

TABLE LXXXII: Outcomes of RPS (rps-rpp-vms) java-configuration-impl time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| cd27a2 | 19.6 | 3.6 | 4.3 | 4.2 | 4.0 | 4.0 | 3.8 | 3.7 | 3.8 | 3.7 | 4.0 | 4.0 | 3.5 | 3.2 |
| cd1a4d | 20.1 | 7.7 | 7.9 | 7.7 | 7.5 | 8.5 | 8.1 | 7.4 | 8.6 | 7.6 | 8.3 | 7.9 | 7.7 | 3.3 |
| 26bb9f | 20.6 | 7.2 | 6.8 | 6.4 | 6.9 | 6.7 | 6.1 | 6.7 | 6.9 | 6.4 | 7.4 | 8.1 | 6.6 | 3.3 |
| becbb1 | 20.3 | 7.0 | 6.6 | 6.7 | 7.7 | 6.5 | 7.3 | 6.5 | 6.7 | 6.6 | 6.7 | 7.0 | 6.5 | 3.3 |
| e61648 | 21.2 | 5.1 | 5.7 | 4.8 | 5.4 | 5.1 | 5.3 | 5.0 | 5.0 | 5.0 | 5.5 | 5.3 | 5.2 | 3.3 |
| 97a683 | 21.0 | 7.3 | 6.9 | 7.8 | 7.0 | 6.9 | 7.4 | 7.0 | 6.9 | 6.2 | 7.0 | 7.0 | 6.6 | 3.5 |
| 08363d | 21.0 | 7.6 | 7.0 | 6.9 | 7.6 | 7.3 | 7.2 | 6.7 | 7.3 | 7.0 | 7.9 | 7.2 | 6.8 | 3.6 |
| cee296 | 20.9 | 4.0 | 4.2 | 4.1 | 4.1 | 4.2 | 4.1 | 3.9 | 4.2 | 4.2 | 4.0 | 4.2 | 4.0 | 3.4 |
| 5ba64c | 21.0 | 6.4 | 7.8 | 7.0 | 7.1 | 7.0 | 6.6 | 6.4 | 6.6 | 6.8 | 6.7 | 6.8 | 7.4 | 3.3 |
| 67efdf | 21.3 | 6.5 | 6.8 | 7.3 | 6.9 | 7.1 | 6.8 | 6.5 | 7.0 | 6.5 | 6.7 | 6.8 | 7.7 | 3.4 |
| 866f72 | 21.2 | 7.9 | 7.0 | 7.4 | 7.2 | 7.3 | 7.4 | 7.0 | 7.1 | 6.7 | 7.3 | 7.1 | 7.9 | 3.5 |
| 00a783 | 21.2 | 6.5 | 7.1 | 7.2 | 7.6 | 7.1 | 7.3 | 6.8 | 7.0 | 7.2 | 7.2 | 7.1 | 7.5 | 3.5 |
| b99f46 | 22.7 | 7.8 | 6.9 | 7.6 | 7.6 | 7.5 | 7.6 | 6.9 | 7.0 | 7.1 | 7.6 | 7.3 | 7.0 | 3.9 |
| 470fdf | 34.6 | 5.3 | 6.4 | 6.1 | 6.2 | 5.5 | 6.0 | 5.3 | 6.2 | 6.0 | 5.8 | 5.7 | 5.8 | 4.4 |
| 26cd1e | 35.0 | 7.6 | 8.8 | 7.8 | 8.7 | 7.8 | 8.3 | 7.9 | 7.9 | 8.1 | 7.4 | 9.2 | 8.3 | 4.3 |
| 459f7b | 35.0 | 8.8 | 8.6 | 8.4 | 8.5 | 8.5 | 8.6 | 7.9 | 8.0 | 8.1 | 8.3 | 8.2 | 8.1 | 4.6 |
| ef6525 | 33.2 | 8.0 | 8.7 | 8.6 | 7.6 | 7.8 | 8.6 | 8.1 | 8.6 | 8.1 | 7.5 | 8.4 | 7.9 | 4.3 |
| b68766 | 34.5 | 4.6 | 4.8 | 4.7 | 5.0 | 5.0 | 4.8 | 4.4 | 4.6 | 4.6 | 4.7 | 4.9 | 4.5 | 4.4 |
| 88ada8 | 33.6 | 8.0 | 8.8 | 8.1 | 8.7 | 8.9 | 8.2 | 7.8 | 8.5 | 7.0 | 7.7 | 8.6 | 7.9 | 4.3 |
| bd8bf4 | 36.6 | 6.0 | 5.6 | 6.4 | 5.3 | 6.2 | 6.0 | 5.8 | 6.4 | 6.5 | 6.5 | 6.2 | 5.3 | 4.4 |
| 39fe0a | 36.3 | 7.9 | 7.5 | 8.2 | 8.3 | 8.9 | 8.4 | 7.8 | 8.5 | 7.4 | 8.6 | 9.0 | 8.1 | 4.6 |
| 7d7c4e | 37.8 | 9.0 | 8.0 | 8.6 | 8.8 | 8.3 | 8.6 | 8.0 | 9.0 | 7.9 | 8.6 | 8.2 | 7.9 | 4.3 |
| ed86d0 | 40.3 | 4.6 | 4.7 | 4.7 | 5.0 | 4.8 | 4.9 | 4.6 | 4.7 | 4.8 | 4.9 | 5.0 | 4.6 | 4.7 |
| sum | 629.2 | 154.2 | 157.0 | 156.4 | 158.7 | 156.8 | 157.5 | 148.1 | 156.6 | 149.5 | 156.3 | 159.4 | 153.0 | 88.9 |
| mean | 27.4 | 6.7 | 6.8 | 6.8 | 6.9 | 6.8 | 6.8 | 6.4 | 6.8 | 6.5 | 6.8 | 6.9 | 6.7 | 3.9 |

TABLE LXXXIII: Outcomes of RPS (rps-rpp-vms) embedded-jmxtrans time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|---------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1b2955 | 27.0 | 11.5 | 11.3 | 10.9 | 10.6 | 10.3 | 9.8 | 9.8 | 9.3 | 8.9 | 10.8 | 9.3 | 8.6 | 2.9 |
| ef88f3 | 27.2 | 10.0 | 9.2 | 8.7 | 9.1 | 9.1 | 7.3 | 7.7 | 7.6 | 7.4 | 9.1 | 7.6 | 6.6 | 3.0 |
| 64e65a | 26.6 | 9.6 | 10.5 | 10.6 | 8.9 | 9.0 | 9.5 | 9.6 | 10.3 | 8.6 | 8.9 | 9.1 | 8.5 | 3.2 |
| 51e075 | 26.9 | 4.0 | 4.0 | 4.1 | 3.9 | 3.8 | 3.8 | 3.9 | 4.0 | 4.0 | 3.9 | 3.9 | 3.9 | 3.0 |
| 5bfffe4 | 27.4 | 9.7 | 8.8 | 8.9 | 7.5 | 8.4 | 7.7 | 7.4 | 8.8 | 7.2 | 6.8 | 7.3 | 7.8 | 3.3 |
| 59e1a4 | 27.0 | 9.0 | 9.5 | 9.3 | 8.4 | 8.9 | 7.9 | 8.5 | 8.6 | 8.2 | 9.1 | 8.7 | 7.8 | 2.9 |
| bf18d2 | 27.3 | 8.9 | 9.5 | 9.8 | 9.5 | 9.3 | 7.2 | 8.8 | 7.2 | 7.3 | 8.7 | 7.4 | 7.5 | 3.0 |
| 62c71b | 46.3 | 8.3 | 8.0 | 8.3 | 8.6 | 8.0 | 7.9 | 7.6 | 9.0 | 8.1 | 8.3 | 7.8 | 7.3 | 3.8 |
| e4a4c2 | 45.0 | 11.1 | 11.0 | 11.5 | 10.6 | 10.4 | 7.3 | 7.8 | 8.2 | 8.6 | 11.2 | 7.6 | 8.4 | 3.3 |
| 345190 | 45.9 | 11.6 | 11.4 | 10.7 | 12.1 | 9.9 | 8.1 | 8.8 | 8.0 | 8.9 | 10.2 | 7.9 | 7.3 | 3.3 |
| a672b6 | 45.0 | 11.8 | 10.4 | 10.9 | 11.6 | 10.4 | 8.6 | 8.0 | 8.6 | 8.5 | 10.7 | 8.7 | 8.4 | 3.4 |
| 4f713f | 45.8 | 11.3 | 11.5 | 10.8 | 12.0 | 10.1 | 7.7 | 7.9 | 8.1 | 7.8 | 10.8 | 9.0 | 7.4 | 3.2 |
| 78bb73 | 45.4 | 11.8 | 11.5 | 11.6 | 11.9 | 10.6 | 8.4 | 8.8 | 8.6 | 7.4 | 10.8 | 8.3 | 8.6 | 3.2 |
| 4bea3b | 45.0 | 11.4 | 11.6 | 11.6 | 10.2 | 10.3 | 7.7 | 7.8 | 8.1 | 8.1 | 12.0 | 8.2 | 8.6 | 3.3 |
| 1f8b32 | 45.4 | 10.7 | 10.6 | 11.5 | 10.3 | 10.1 | 7.6 | 7.8 | 8.4 | 7.8 | 11.0 | 8.1 | 6.9 | 3.4 |
| 616624 | 45.2 | 12.1 | 11.2 | 10.6 | 10.2 | 10.6 | 9.0 | 7.6 | 8.8 | 7.9 | 10.2 | 8.2 | 7.0 | 3.3 |
| 656e0c | 45.2 | 10.3 | 11.7 | 10.1 | 9.9 | 9.3 | 7.6 | 8.6 | 8.0 | 7.8 | 11.1 | 8.1 | 8.4 | 3.3 |
| d5a3ad | 45.1 | 10.8 | 10.7 | 11.0 | 10.3 | 10.6 | 8.1 | 8.9 | 8.8 | 8.1 | 10.2 | 7.8 | 7.1 | 3.2 |
| dc83d7 | 45.8 | 4.0 | 4.1 | 4.1 | 4.0 | 3.9 | 3.8 | 4.1 | 3.9 | 4.0 | 4.0 | 4.2 | 3.8 | 3.4 |
| 865ea1 | 44.3 | 11.3 | 11.5 | 12.2 | 10.7 | 10.3 | 8.3 | 8.7 | 7.8 | 7.8 | 10.7 | 8.6 | 7.4 | 3.2 |
| 6e849a | 47.0 | 10.8 | 10.6 | 11.5 | 11.2 | 9.6 | 8.6 | 8.0 | 8.3 | 7.9 | 11.1 | 8.7 | 7.5 | 3.2 |
| 8f848b | 45.9 | 11.5 | 11.2 | 11.5 | 10.0 | 10.1 | 8.2 | 8.5 | 9.0 | 7.9 | 11.4 | 8.3 | 8.4 | 3.1 |
| e373b6 | 45.4 | 9.0 | 9.0 | 9.0 | 9.5 | 8.2 | 8.4 | 9.3 | 9.3 | 7.7 | 8.9 | 9.5 | 8.4 | 3.3 |
| 531f04 | 46.1 | 12.2 | 10.8 | 10.7 | 10.6 | 11.2 | 8.5 | 8.5 | 8.7 | 8.0 | 11.5 | 9.7 | 9.0 | 3.2 |
| 4d8cc3 | 44.8 | 10.7 | 11.9 | 10.9 | 11.2 | 9.7 | 8.0 | 7.9 | 7.9 | 8.5 | 11.7 | 9.4 | 8.7 | 3.4 |
| 6d7f22 | 45.7 | 11.0 | 11.9 | 10.9 | 11.2 | 11.2 | 7.8 | 8.7 | 9.0 | 8.2 | 11.6 | 8.4 | 8.0 | 3.4 |
| a1a71d | 45.1 | 3.9 | 4.2 | 4.0 | 4.2 | 3.9 | 4.4 | 4.1 | 4.1 | 3.8 | 4.3 | 4.2 | 3.9 | 3.4 |
| d7f390 | 44.4 | 11.4 | 10.9 | 11.5 | 11.0 | 10.2 | 8.5 | 8.6 | 8.5 | 8.6 | 10.7 | 8.2 | 8.0 | 3.5 |
| 7afbce | 45.1 | 4.6 | 4.2 | 4.3 | 4.3 | 4.0 | 3.7 | 4.2 | 4.2 | 4.0 | 4.0 | 4.0 | 4.2 | 3.4 |
| 3474fc | 48.2 | 8.0 | 9.2 | 7.9 | 8.5 | 8.8 | 9.0 | 8.4 | 9.5 | 8.3 | 8.7 | 9.1 | 8.2 | 3.3 |
| 0ad3b2 | 48.2 | 9.5 | 10.1 | 9.2 | 9.4 | 9.8 | 8.8 | 8.6 | 8.6 | 9.1 | 8.9 | 9.2 | 9.6 | 3.7 |
| 12d9ed | 47.9 | 12.0 | 12.0 | 11.7 | 10.8 | 11.4 | 8.6 | 9.4 | 9.5 | 8.4 | 12.8 | 8.4 | 8.5 | 3.6 |
| 8580ef | 48.0 | 10.9 | 11.3 | 11.6 | 10.9 | 10.3 | 9.6 | 8.7 | 8.1 | 8.4 | 12.0 | 8.7 | 7.7 | 3.6 |
| dc18de | 49.6 | 10.6 | 10.4 | 9.6 | 9.8 | 9.2 | 9.4 | 9.4 | 9.7 | 9.7 | 9.9 | 9.8 | 9.5 | 3.6 |
| ee17a6 | 48.0 | 11.8 | 11.7 | 11.7 | 11.5 | 10.4 | 8.3 | 8.6 | 7.9 | 8.9 | 10.9 | 8.4 | 8.2 | 3.6 |
| a54258 | 47.7 | 12.2 | 11.2 | 11.8 | 11.5 | 10.8 | 7.7 | 8.3 | 8.6 | 8.5 | 10.7 | 9.3 | 7.6 | 3.5 |
| 89df2c | 48.4 | 11.3 | 11.9 | 10.9 | 11.7 | 10.8 | 8.5 | 8.9 | 9.0 | 8.2 | 11.7 | 9.0 | 7.7 | 3.8 |
| b81845 | 48.7 | 11.6 | 11.6 | 12.3 | 10.8 | 10.5 | 8.6 | 9.3 | 8.1 | 8.8 | 11.1 | 8.4 | 8.2 | 3.4 |
| 53a984 | 48.8 | 11.7 | 11.2 | 11.2 | 11.9 | 10.7 | 8.9 | 8.7 | 9.0 | 8.5 | 10.8 | 8.2 | 8.2 | 3.7 |
| 11c7de | 47.6 | 11.9 | 11.2 | 11.0 | 11.6 | 10.4 | 8.6 | 7.8 | 8.0 | 8.4 | 11.6 | 8.4 | 7.9 | 3.6 |
| 1ed452 | 47.7 | 12.3 | 11.5 | 11.6 | 11.1 | 11.8 | 8.5 | 9.5 | 9.0 | 8.6 | 10.8 | 9.8 | 8.6 | 3.5 |
| 48412f | 48.2 | 11.8 | 12.8 | 12.0 | 11.8 | 11.4 | 8.4 | 8.4 | 8.7 | 8.7 | 11.9 | 9.5 | 9.0 | 3.6 |
| bfd614 | 49.0 | 11.7 | 11.0 | 12.4 | 10.7 | 11.0 | 9.7 | 8.7 | 8.6 | 9.3 | 10.8 | 8.6 | 8.8 | 3.7 |
| bfb812 | 48.4 | 11.1 | 10.6 | 11.8 | 10.8 | 11.1 | 9.8 | 9.4 | 10.0 | 9.8 | 10.2 | 10.7 | 9.4 | 3.6 |
| 93e572 | 48.4 | 13.5 | 12.0 | 13.7 | 11.8 | 11.1 | 9.4 | 8.7 | 9.7 | 8.5 | 12.1 | 9.2 | 8.4 | 3.7 |
| fb570a | 48.5 | 4.4 | 4.4 | 4.6 | 4.4 | 4.2 | 4.3 | 4.5 | 4.3 | 4.4 | 4.6 | 4.4 | 4.4 | 3.7 |
| f11867 | 50.3 | 20.7 | 20.4 | 20.9 | 18.5 | 19.3 | 15.8 | 16.4 | 16.1 | 16.7 | 20.1 | 16.7 | 16.1 | 10.2 |
| fc4ca5 | 50.2 | 21.4 | 19.7 | 21.0 | 19.6 | 19.3 | 15.7 | 16.5 | 15.9 | 15.4 | 19.4 | 16.5 | 14.7 | 10.2 |
| 4f1ce2 | 64.6 | 35.5 | 35.1 | 35.0 | 34.0 | 35.6 | 35.5 | 34.9 | 35.7 | 36.0 | 35.0 | 35.5 | 30.9 | 25.2 |
| sum | 2174.5 | 548.5 | 542.1 | 543.4 | 524.6 | 509.3 | 432.6 | 438.9 | 443.0 | 429.5 | 527.9 | 444.1 | 415.1 | 201.1 |
| mean | 44.4 | 11.2 | 11.1 | 11.1 | 10.7 | 10.4 | 8.8 | 9.0 | 9.0 | 8.8 | 10.8 | 9.1 | 8.5 | 4.1 |

TABLE LXXXIV: Outcomes of RPS (rps-rpp-vms) jgroups-aws time

| sha | mop | psl | pslc | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|------|------|------|------|------|------|------|-------|------|------|-------|-------|------|
| e7896f | 1.8 | -3.2 | -3.2 | -3.2 | -3.5 | -3.3 | -3.1 | -3.2 | -3.0 | -3.3 | -3.3 | -3.3 | -3.2 | 1.8 |
| 4b32fa | 2.0 | 3.7 | 3.7 | 3.8 | 3.8 | 3.9 | 3.7 | 3.8 | 3.6 | 4.4 | 3.6 | 3.7 | 3.7 | 1.9 |
| bcf770 | 1.9 | -3.1 | -3.2 | -3.2 | -3.2 | -3.1 | -3.1 | -3.1 | -3.0 | -3.2 | -3.1 | -3.3 | -3.2 | 1.9 |
| 0c4990 | 2.0 | 8.1 | 7.7 | 8.0 | 7.8 | 8.0 | 7.8 | 7.7 | 8.3 | 7.8 | 7.9 | 8.6 | 8.0 | 1.8 |
| c5e9f0 | 1.9 | 6.1 | 5.7 | 5.8 | 6.0 | 6.1 | 5.5 | 5.8 | 5.7 | 6.0 | 5.7 | 5.9 | 5.8 | 1.9 |
| 83fa1c | 25.9 | 5.6 | 5.6 | 5.0 | 5.1 | 4.7 | 5.1 | 4.2 | 4.5 | 5.9 | 5.4 | 5.7 | 5.7 | 3.4 |
| 83da98 | 25.2 | 3.8 | 3.6 | 3.7 | 3.8 | 3.7 | 3.7 | 3.7 | 3.6 | 3.7 | 3.8 | 3.7 | 3.7 | 2.9 |
| f70cbf | 29.0 | 4.5 | 5.4 | 5.2 | 5.0 | 5.6 | 5.2 | 4.5 | 4.8 | 5.5 | 4.9 | 4.8 | 5.2 | 3.2 |
| 1091a4 | 29.7 | 8.2 | 8.2 | 8.2 | 8.0 | 8.5 | 7.7 | 7.5 | 7.5 | 8.0 | 8.6 | 8.3 | 8.1 | 3.0 |
| b3f243 | 26.3 | 4.7 | 5.2 | 4.3 | 5.2 | 4.7 | 4.5 | 4.5 | 5.1 | 5.1 | 4.7 | 4.7 | 4.9 | 3.0 |
| 741c3d | 53.8 | 5.6 | 4.8 | 5.0 | 6.2 | 5.7 | 5.3 | 5.5 | 4.6 | 5.1 | 5.7 | 5.5 | 6.1 | 3.6 |
| 2ac9b9 | 52.5 | 3.8 | 3.9 | 4.4 | 4.1 | 4.2 | 3.7 | 4.1 | 3.9 | 3.9 | 3.9 | 4.0 | 4.0 | 3.5 |
| 480443 | 53.6 | 4.2 | 3.8 | 4.2 | 4.0 | 4.1 | 3.9 | 3.9 | 4.1 | 3.9 | 3.8 | 4.1 | 4.2 | 3.4 |
| 771d8f | 52.4 | 8.0 | 7.0 | 9.0 | 7.4 | 8.0 | 7.6 | 7.4 | 7.3 | 8.6 | 8.4 | 8.2 | 8.9 | 3.5 |
| 1388b8 | 52.6 | 7.0 | 6.6 | 7.5 | 7.2 | 8.0 | 7.1 | 8.0 | 7.1 | 7.1 | 7.7 | 8.2 | 8.0 | 3.6 |
| a90a3e | 53.8 | 7.7 | 7.9 | 7.4 | 7.4 | 8.6 | 7.1 | 6.9 | 6.8 | 7.2 | 7.4 | 8.3 | 7.1 | 3.5 |
| sum | 464.5 | 87.3 | 85.5 | 88.0 | 87.7 | 90.2 | 84.1 | 83.8 | 83.0 | 88.7 | 87.8 | 90.5 | 89.8 | 45.9 |
| mean | 29.0 | 5.5 | 5.3 | 5.5 | 5.5 | 5.6 | 5.3 | 5.2 | 5.2 | 5.5 | 5.5 | 5.7 | 5.6 | 2.9 |

TABLE LXXXV: Outcomes of RPS (rps-rpp-vms) datasketches-java time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| e2fb43 | -89.4 | -85.7 | -60.0 | -87.0 | -89.6 | -64.0 | -86.6 | -88.7 | -61.6 | -82.3 | -63.1 | -59.1 | -59.2 | -41.9 |
| 1ba334 | -88.1 | -84.2 | -59.5 | -90.0 | -88.3 | -64.0 | -86.2 | -88.7 | -63.0 | -82.0 | -63.5 | -60.3 | -58.1 | -43.2 |
| 1436f3 | -86.6 | -84.7 | -71.1 | -87.9 | -87.6 | -72.3 | -88.1 | -88.7 | -73.7 | -85.6 | -74.8 | -67.5 | -69.1 | -42.4 |
| ad19fb | 85.2 | 60.0 | 61.9 | 62.2 | 61.8 | 63.7 | 62.3 | 63.6 | 61.7 | 60.8 | 64.5 | 57.4 | 59.6 | 42.1 |
| 843c40 | 87.4 | 31.8 | 36.2 | 32.7 | 34.4 | 33.5 | 35.1 | 32.6 | 34.4 | 31.3 | 35.3 | 32.1 | 32.6 | 43.5 |
| 4a8281 | -88.2 | -86.1 | -72.4 | -87.4 | -88.7 | -74.3 | -87.5 | -87.6 | -73.3 | -83.5 | -74.7 | -69.2 | -67.3 | -41.5 |
| 856926 | -87.8 | -85.7 | -61.4 | -86.1 | -89.9 | -64.9 | -88.2 | -89.1 | -63.9 | -84.8 | -65.5 | -59.9 | -61.2 | -42.9 |
| 1cc496 | -88.7 | -84.1 | -60.7 | -85.4 | -88.4 | -62.4 | -88.5 | -86.6 | -62.8 | -83.2 | -63.8 | -60.3 | -57.7 | -43.1 |
| 4ede21 | -89.9 | -82.8 | -60.0 | -88.0 | -87.1 | -63.4 | -88.8 | -88.8 | -63.5 | -81.2 | -64.4 | -59.7 | -60.0 | -41.9 |
| 851ec9 | -89.8 | -84.8 | -72.8 | -87.9 | -89.0 | -73.6 | -88.9 | -90.2 | -75.3 | -86.3 | -75.9 | -68.5 | -70.8 | -42.8 |
| fcc7e1 | -87.7 | -84.0 | -73.6 | -88.2 | -87.9 | -72.2 | -87.5 | -88.3 | -71.7 | -82.7 | -75.8 | -70.3 | -68.8 | -41.2 |
| 75f72c | -85.2 | -85.3 | -70.8 | -87.1 | -87.0 | -72.3 | -87.1 | -87.6 | -70.2 | -82.6 | -72.5 | -69.0 | -66.4 | -42.4 |
| b27fff | 83.9 | 81.2 | 72.7 | 87.0 | 86.3 | 71.8 | 87.4 | 87.8 | 71.6 | 83.3 | 74.7 | 67.5 | 67.9 | 39.6 |
| 23ae68 | 84.8 | 83.0 | 67.6 | 86.0 | 88.5 | 71.4 | 84.7 | 88.0 | 69.8 | 82.9 | 72.4 | 66.9 | 67.0 | 39.8 |
| 20a6b0 | 85.2 | 83.3 | 71.2 | 87.3 | 86.4 | 71.5 | 87.4 | 88.3 | 71.9 | 80.9 | 74.0 | 68.6 | 67.2 | 40.7 |
| 08e0e2 | 86.5 | 82.2 | 58.3 | 87.3 | 84.9 | 60.3 | 84.3 | 83.4 | 62.3 | 83.8 | 62.5 | 57.1 | 57.1 | 39.6 |
| f3a611 | 89.7 | 81.3 | 60.1 | 84.6 | 85.6 | 61.0 | 83.7 | 84.5 | 62.7 | 83.4 | 62.9 | 58.0 | 56.7 | 40.8 |
| 1c524d | 86.1 | 80.6 | 68.2 | 87.9 | 84.9 | 70.9 | 85.1 | 83.7 | 70.6 | 82.2 | 73.6 | 69.7 | 67.3 | 40.3 |
| 562887 | 85.3 | 33.6 | 32.9 | 33.3 | 34.4 | 35.0 | 34.6 | 34.3 | 32.8 | 32.7 | 36.4 | 32.3 | 31.9 | 40.9 |
| f0d5e1 | -75.6 | -51.1 | -50.1 | -53.0 | -51.7 | -52.0 | -52.7 | -52.6 | -50.9 | -48.3 | -52.6 | -48.4 | -48.6 | -31.8 |
| cf919f | -75.5 | 35.2 | 33.1 | 35.1 | 34.8 | 34.5 | 33.7 | 34.4 | 34.2 | 32.1 | 34.2 | 32.7 | 32.5 | -31.8 |
| 70f181 | 74.2 | 50.2 | 48.8 | 50.8 | 79.3 | 49.7 | 50.6 | 51.0 | 50.3 | 70.8 | 53.3 | 47.2 | 47.9 | 31.5 |
| e2d8f0 | 75.8 | 51.3 | 50.0 | 52.6 | 50.7 | 52.0 | 51.3 | 51.9 | 49.7 | 47.5 | 52.6 | 48.7 | 47.1 | 31.5 |
| 91b26c | 75.9 | 51.6 | 51.1 | 53.8 | 51.1 | 52.4 | 52.8 | 52.2 | 52.0 | 49.5 | 54.1 | 50.6 | 48.3 | 30.6 |
| 92cc12 | -76.0 | -50.8 | -49.6 | -51.7 | -52.3 | -51.4 | -51.4 | -51.8 | -51.7 | -47.9 | -53.3 | -49.0 | -48.6 | -31.3 |
| 3ca1be | 77.2 | 49.6 | 49.9 | 51.0 | 51.2 | 50.6 | 51.0 | 51.0 | 51.3 | 49.3 | 50.9 | 48.4 | 46.5 | 30.7 |
| 55e820 | 76.0 | 50.7 | 50.2 | 52.4 | 51.9 | 51.6 | 50.6 | 52.5 | 50.8 | 47.9 | 53.1 | 49.1 | 48.2 | 31.0 |
| 11672b | 76.2 | 51.4 | 49.3 | 51.5 | 52.9 | 52.3 | 51.6 | 51.2 | 51.6 | 48.8 | 53.5 | 48.5 | 47.8 | 31.8 |
| 83c11b | 75.3 | 50.9 | 51.6 | 52.5 | 52.9 | 52.9 | 52.8 | 52.5 | 52.7 | 49.5 | 54.5 | 50.7 | 50.8 | 31.6 |
| d93a6b | 76.2 | 50.2 | 51.3 | 52.6 | 53.2 | 52.2 | 52.4 | 51.9 | 52.9 | 48.1 | 52.9 | 49.9 | 48.5 | 30.9 |
| 5aba00 | -74.4 | -48.3 | -49.3 | -50.6 | -51.1 | -51.6 | -51.9 | -51.0 | -50.8 | -47.7 | -52.4 | -48.2 | -48.3 | -31.3 |
| 9622f1 | -73.8 | 31.2 | 33.8 | 34.7 | 34.0 | 34.5 | 34.7 | 33.1 | 36.0 | 31.9 | 36.7 | 33.6 | 33.0 | -31.9 |
| ac0aa6 | 78.7 | 49.8 | 50.5 | 52.0 | 52.5 | 51.3 | 50.7 | 51.4 | 52.0 | 48.9 | 52.2 | 49.9 | 48.9 | 31.6 |
| 0eda5e | 74.7 | 49.6 | 50.5 | 51.9 | 50.8 | 52.7 | 54.2 | 52.1 | 51.8 | 48.9 | 52.9 | 49.5 | 49.0 | 31.5 |
| 6d9e9e | 78.4 | 47.9 | 50.0 | 52.0 | 79.6 | 52.5 | 51.7 | 52.0 | 51.9 | 73.8 | 58.3 | 48.6 | 54.0 | 31.6 |
| 42eb24 | 76.0 | 51.5 | 51.8 | 55.1 | 53.5 | 52.5 | 51.9 | 53.3 | 53.7 | 49.4 | 55.8 | 52.3 | 49.6 | 32.1 |
| 063d1a | 74.3 | 50.7 | 49.2 | 52.8 | 51.6 | 51.7 | 52.7 | 52.4 | 53.0 | 48.1 | -53.3 | 50.0 | 48.7 | 32.1 |
| 3a6f18 | 76.3 | 51.8 | 52.9 | 55.7 | 54.8 | 54.3 | 55.2 | 55.0 | 54.2 | 51.1 | 56.0 | 53.8 | 50.6 | 33.5 |
| ce9bed | 76.5 | 50.0 | 50.9 | 53.6 | 52.3 | 53.3 | 53.8 | 53.9 | 54.0 | 50.1 | 55.9 | 50.4 | 50.6 | 32.0 |
| 045e38 | 75.6 | 54.1 | 55.9 | 56.3 | 57.8 | 57.5 | 56.3 | 55.6 | 56.2 | 54.4 | 59.5 | 55.1 | 54.4 | 32.1 |
| 85a09d | 78.1 | 49.0 | 49.9 | 51.3 | 51.9 | 50.0 | 50.7 | 51.4 | 51.0 | 48.0 | 52.6 | 48.6 | 48.0 | 32.2 |
| 4a82e4 | 75.3 | 33.2 | 33.6 | 34.8 | 35.1 | 35.4 | 34.6 | 32.8 | 34.8 | 31.6 | 36.1 | 32.2 | 33.5 | 32.2 |
| e5081d | 78.7 | 34.1 | 33.9 | 34.6 | 35.4 | 34.7 | 34.6 | 34.3 | 35.0 | 29.8 | 33.8 | 32.3 | 32.4 | 32.6 |
| 499a44 | 76.2 | 50.8 | 50.0 | 53.4 | 53.7 | 52.5 | 51.4 | 52.9 | 52.8 | 50.3 | 54.8 | 49.9 | 49.7 | 31.9 |
| 320a3d | 74.3 | 32.8 | 32.5 | 35.2 | 34.4 | 35.0 | 34.4 | 34.2 | 33.7 | 30.8 | 36.1 | 31.8 | 31.3 | 31.6 |
| d6ce71 | 76.4 | 50.6 | 53.5 | 52.6 | 53.1 | 53.1 | 54.0 | 53.6 | 52.9 | 49.4 | 55.8 | 50.3 | 51.5 | 34.5 |
| 28ec92 | 78.3 | 72.7 | 51.6 | 76.5 | 78.7 | 53.7 | 79.2 | 77.5 | 53.5 | 73.0 | 53.4 | 48.2 | 49.0 | 33.0 |
| sum | 3785.2 | 2815.7 | 2526.3 | 2933.5 | 2993.2 | 2600.2 | 2925.1 | 2930.1 | 2592.3 | 2812.4 | 2671.2 | 2461.4 | 2443.4 | 1683.3 |
| mean | 80.5 | 59.9 | 53.8 | 62.4 | 63.7 | 55.3 | 62.2 | 62.3 | 55.2 | 59.8 | 56.8 | 52.4 | 52.0 | 35.8 |

TABLE LXXXVI: Outcomes of RPS (rps-rpp-vms) jbehave-junit-runner time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 989cea | 69.6 | 12.3 | 12.3 | 12.1 | 13.7 | 13.5 | 10.7 | 9.7 | 10.2 | 11.3 | 13.4 | 9.1 | 9.7 | 4.8 |
| 9f8fe5 | 71.7 | 11.6 | 11.5 | 11.2 | 11.4 | 11.4 | 8.5 | 9.1 | 8.3 | 8.2 | 10.6 | 7.9 | 9.3 | 4.7 |
| 3c2e58 | 69.9 | 11.0 | 11.7 | 11.0 | 11.5 | 11.2 | 9.4 | 9.0 | 8.9 | 9.4 | 12.0 | 9.1 | 8.5 | 4.8 |
| 6756fd | 71.4 | 11.8 | 12.1 | 12.2 | 12.5 | 11.1 | 8.6 | 9.3 | 8.7 | 10.2 | 11.7 | 9.0 | 9.7 | 4.8 |
| eafa46 | 69.0 | 12.1 | 12.6 | 11.4 | 12.5 | 11.9 | 8.4 | 8.7 | 8.6 | 10.0 | 11.8 | 8.7 | 8.3 | 4.8 |
| 15cc3d | 71.8 | 3.8 | 3.7 | 3.5 | 3.7 | 3.6 | 3.5 | 3.7 | 3.4 | 3.9 | 3.8 | 3.6 | 3.6 | 4.8 |
| 0be34d | 68.5 | 9.1 | 8.2 | 8.1 | 9.1 | 9.0 | 8.8 | 9.1 | 8.2 | 8.5 | 9.5 | 8.5 | 8.0 | 4.7 |
| c76b75 | 69.6 | 9.0 | 9.0 | 8.3 | 8.3 | 8.6 | 9.4 | 8.6 | 7.6 | 8.0 | 8.6 | 8.6 | 8.8 | 4.8 |
| 1c33a7 | 69.6 | 13.6 | 12.7 | 12.9 | 12.8 | 11.0 | 9.0 | 9.5 | 9.5 | 9.6 | 13.2 | 8.9 | 9.7 | 4.8 |
| 63b64b | 68.5 | 9.2 | 9.5 | 9.4 | 9.0 | 8.5 | 6.5 | 6.8 | 6.3 | 6.0 | 9.6 | 6.4 | 7.1 | 5.0 |
| 8dc4ee | 68.4 | 11.8 | 12.3 | 11.3 | 11.8 | 11.5 | 8.5 | 9.5 | 8.0 | 10.2 | 11.4 | 9.2 | 9.0 | 4.8 |
| c78e51 | 68.2 | 11.1 | 12.2 | 11.2 | 11.5 | 11.1 | 9.5 | 9.2 | 9.3 | 9.4 | 11.0 | 9.0 | 8.8 | 4.7 |
| 9c0b8a | 70.5 | 9.2 | 9.4 | 10.1 | 9.5 | 9.6 | 9.0 | 9.1 | 9.4 | 9.5 | 8.9 | 9.2 | 10.1 | 4.8 |
| b68a9c | 69.2 | 7.7 | 8.9 | 8.3 | 9.2 | 8.7 | 8.7 | 8.1 | 8.4 | 9.4 | 9.1 | 7.9 | 9.1 | 4.9 |
| a0d064 | 69.9 | 3.6 | 3.8 | 3.5 | 3.8 | 3.8 | 3.7 | 3.7 | 3.6 | 4.1 | 3.9 | 3.9 | 3.9 | 4.7 |
| 338958 | 70.5 | 9.2 | 9.1 | 7.4 | 9.0 | 8.4 | 8.2 | 9.2 | 8.4 | 9.1 | 8.9 | 8.4 | 8.7 | 4.9 |
| 0faec4 | 70.3 | 8.0 | 9.0 | 8.5 | 9.3 | 7.7 | 8.6 | 8.1 | 7.3 | 8.5 | 8.0 | 9.0 | 9.1 | 4.7 |
| d43f4f | 68.7 | 5.8 | 7.0 | 6.3 | 6.8 | 6.3 | 6.5 | 7.4 | 5.3 | 7.2 | 6.1 | 5.7 | 6.9 | 4.7 |
| 747125 | 68.9 | 10.4 | 10.3 | 9.8 | 10.1 | 10.9 | 10.2 | 10.7 | 10.0 | 9.9 | 10.5 | 9.7 | 10.7 | 4.7 |
| d46a70 | 69.4 | 9.8 | 11.6 | 8.9 | 10.4 | 10.6 | 9.8 | 10.4 | 10.3 | 10.5 | 10.8 | 9.6 | 10.5 | 4.8 |
| f37f4d | 68.8 | 3.6 | 3.6 | 3.6 | 3.7 | 3.5 | 3.5 | 3.9 | 3.4 | 3.8 | 3.6 | 3.4 | 3.6 | 4.7 |
| 72f54c | 68.8 | 11.7 | 12.2 | 11.3 | 11.9 | 11.5 | 8.4 | 9.8 | 7.9 | 9.4 | 11.3 | 8.4 | 9.7 | 4.6 |
| 1a9ed5 | 69.3 | 9.8 | 10.3 | 9.9 | 9.9 | 8.9 | 9.4 | 9.8 | 8.8 | 10.2 | 10.0 | 8.2 | 10.1 | 4.7 |
| 545f67 | 70.8 | 11.6 | 13.4 | 12.6 | 12.5 | 11.7 | 10.1 | 10.1 | 8.8 | 9.8 | 12.8 | 9.3 | 9.5 | 4.8 |
| c7bc45 | 70.3 | 12.1 | 12.1 | 11.6 | 12.0 | 10.8 | 8.6 | 9.4 | 9.6 | 9.6 | 11.8 | 8.4 | 9.4 | 4.8 |
| f61eec | 73.1 | 9.3 | 9.5 | 9.4 | 10.6 | 9.1 | 9.4 | 9.6 | 9.4 | 9.2 | 9.4 | 9.3 | 9.7 | 4.7 |
| 45bb8c | 70.5 | 10.9 | 9.5 | 10.1 | 10.7 | 10.0 | 10.0 | 9.9 | 10.1 | 10.8 | 9.8 | 9.1 | 11.0 | 4.6 |
| 25e4c7 | 71.9 | 9.6 | 10.3 | 10.6 | 10.0 | 10.5 | 10.0 | 9.8 | 9.1 | 10.6 | 10.7 | 9.8 | 10.2 | 4.9 |
| df7e89 | 72.2 | 10.1 | 10.3 | 10.3 | 10.2 | 10.1 | 9.1 | 11.9 | 10.5 | 10.9 | 10.4 | 9.9 | 10.7 | 4.7 |
| 678357 | 70.5 | 11.8 | 12.2 | 11.5 | 13.0 | 12.0 | 8.8 | 9.0 | 8.6 | 9.4 | 11.3 | 8.5 | 9.3 | 4.6 |
| 25d1fe | 70.1 | 11.4 | 12.1 | 10.9 | 12.1 | 11.8 | 8.8 | 9.3 | 7.5 | 9.1 | 11.3 | 9.1 | 8.5 | 4.6 |
| 1c1f87 | 69.6 | 9.5 | 9.3 | 8.5 | 10.3 | 8.9 | 9.1 | 8.7 | 8.9 | 9.2 | 8.7 | 8.7 | 8.7 | 4.6 |
| ac017b | 69.6 | 11.7 | 12.1 | 11.5 | 11.2 | 11.2 | 8.8 | 9.1 | 8.9 | 9.5 | 11.7 | 8.2 | 8.7 | 4.6 |
| e893ae | 69.5 | 11.9 | 12.1 | 11.8 | 11.0 | 11.1 | 8.6 | 9.3 | 8.2 | 10.3 | 11.9 | 9.0 | 9.3 | 4.5 |
| a2df3c | 72.0 | 9.4 | 9.6 | 8.7 | 9.0 | 8.5 | 9.2 | 9.4 | 9.4 | 9.6 | 8.8 | 8.4 | 9.5 | 4.6 |
| 530cf4 | 75.7 | 10.7 | 11.3 | 9.9 | 10.1 | 10.0 | 9.5 | 10.0 | 9.7 | 10.9 | 9.7 | 11.2 | 11.2 | 4.7 |
| d037a8 | 75.0 | 3.6 | 3.8 | 3.6 | 3.7 | 3.6 | 3.7 | 3.7 | 3.5 | 3.8 | 3.9 | 3.7 | 3.8 | 4.6 |
| 7bc0fd | 74.9 | 12.0 | 11.8 | 11.0 | 11.9 | 11.7 | 9.2 | 9.2 | 7.9 | 9.1 | 11.8 | 9.1 | 9.0 | 4.6 |
| 69879e | 74.8 | 11.4 | 12.5 | 11.2 | 12.6 | 11.7 | 9.6 | 9.2 | 7.8 | 9.4 | 11.2 | 8.3 | 9.2 | 4.8 |
| f8d201 | 75.0 | 12.1 | 12.2 | 10.9 | 12.5 | 10.5 | 8.1 | 8.8 | 7.8 | 9.5 | 12.0 | 9.0 | 9.2 | 4.5 |
| 9dbc92 | 76.6 | 10.0 | 9.9 | 9.2 | 9.7 | 10.1 | 9.9 | 11.0 | 9.5 | 9.7 | 10.6 | 9.4 | 10.8 | 4.8 |
| 4b015a | 76.1 | 12.3 | 13.0 | 12.5 | 12.5 | 11.7 | 9.3 | 10.9 | 10.0 | 10.6 | 12.0 | 9.4 | 10.5 | 5.1 |
| 2a2882 | 76.9 | 13.0 | 13.8 | 11.8 | 13.3 | 12.1 | 8.9 | 10.0 | 9.4 | 9.7 | 12.1 | 10.3 | 9.4 | 4.9 |
| b18c7d | 76.4 | 4.6 | 4.9 | 4.3 | 4.5 | 4.5 | 4.4 | 4.7 | 4.3 | 4.8 | 4.7 | 4.6 | 4.7 | 4.7 |
| 253c76 | 79.0 | 12.3 | 13.5 | 12.0 | 13.0 | 12.3 | 9.1 | 10.6 | 10.5 | 10.9 | 12.3 | 9.4 | 10.0 | 4.8 |
| 6859e0 | 76.6 | 4.6 | 4.7 | 4.3 | 4.7 | 4.5 | 4.4 | 4.6 | 4.6 | 4.9 | 4.7 | 4.7 | 4.6 | 4.9 |
| 4b48b2 | 78.3 | 4.5 | 4.7 | 4.4 | 4.9 | 4.4 | 4.5 | 4.6 | 4.3 | 4.8 | 4.6 | 4.4 | 4.6 | 4.7 |
| d1321c | 79.1 | 10.9 | 10.3 | 8.9 | 9.9 | 9.7 | 9.6 | 10.8 | 10.2 | 11.0 | 9.9 | 10.1 | 10.6 | 4.8 |
| 2c2d55 | 79.6 | 11.6 | 11.9 | 10.9 | 12.7 | 11.2 | 11.5 | 11.3 | 10.8 | 12.4 | 12.2 | 10.9 | 11.7 | 4.8 |
| sum | 3524.8 | 477.8 | 493.4 | 462.5 | 490.0 | 466.1 | 408.9 | 427.6 | 399.3 | 435.9 | 478.1 | 404.0 | 426.9 | 232.3 |
| mean | 71.9 | 9.8 | 10.1 | 9.4 | 10.0 | 9.5 | 8.3 | 8.7 | 8.1 | 8.9 | 9.8 | 8.2 | 8.7 | 4.7 |

TABLE LXXXVII: Outcomes of RPS (rps-rpp-vms) commons-lang time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20de43 | 66.2 | 14.0 | 14.9 | 14.3 | 13.6 | 13.5 | 14.2 | 14.8 | 14.5 | 13.9 | 14.5 | 14.7 | 14.2 | 21.1 |
| 8dae1f | 65.3 | 35.0 | 35.4 | 34.2 | 35.5 | 34.1 | 34.6 | 36.0 | 36.6 | 35.6 | 35.1 | 34.5 | 34.0 | 22.1 |
| 4f9285 | 66.0 | 33.3 | 35.7 | 33.4 | 34.3 | 31.7 | 34.4 | 34.7 | 35.1 | 35.5 | 33.7 | 33.4 | 32.6 | 21.6 |
| 22c304 | 65.8 | 32.7 | 31.2 | 33.7 | 31.3 | 31.6 | 34.6 | 35.8 | 32.9 | 32.2 | 31.3 | 32.2 | 30.7 | 22.0 |
| 101227 | 65.4 | 34.8 | 32.4 | 33.9 | 31.6 | 30.8 | 34.0 | 35.0 | 31.8 | 31.6 | 30.9 | 32.8 | 29.5 | 21.2 |
| e863dc | 65.2 | 34.2 | 35.9 | 33.9 | 32.0 | 32.6 | 34.2 | 34.8 | 36.1 | 32.5 | 31.7 | 33.2 | 31.7 | 21.4 |
| f7cbda | 65.9 | 34.4 | 35.6 | 32.9 | 34.9 | 32.7 | 33.1 | 35.0 | 35.8 | 34.9 | 34.5 | 31.9 | 32.1 | 21.6 |
| 6049e7 | 65.9 | 14.3 | 14.4 | 14.5 | 14.4 | 14.3 | 14.3 | 14.7 | 14.3 | 13.9 | 14.4 | 14.5 | 14.0 | 21.9 |
| 7d061e | 65.8 | 30.6 | 29.8 | 29.6 | 30.1 | 29.7 | 30.0 | 30.8 | 31.1 | 29.9 | 30.1 | 30.6 | 29.5 | 21.9 |
| bfb43d | 66.2 | 13.7 | 14.8 | 14.2 | 13.9 | 14.0 | 13.7 | 14.5 | 14.6 | 14.2 | 14.6 | 14.1 | 14.1 | 21.5 |
| d8ec01 | 66.3 | 29.7 | 32.3 | 30.1 | 29.8 | 29.5 | 30.9 | 32.3 | 30.4 | 30.3 | 30.1 | 30.9 | 30.6 | 21.8 |
| 6dfc3e | 68.8 | 34.0 | 31.4 | 33.9 | 30.0 | 29.8 | 33.9 | 36.3 | 30.8 | 29.9 | 30.9 | 31.3 | 29.5 | -21.5 |
| 5fb74a | 65.9 | 13.4 | 14.7 | 14.0 | 14.0 | 13.7 | 13.8 | 14.5 | 14.4 | 13.8 | 14.4 | 14.4 | 14.4 | 21.6 |
| c614fb | 65.8 | 34.1 | 32.7 | 34.5 | 30.9 | 32.9 | 33.3 | 36.0 | 34.2 | 30.0 | 30.3 | 34.2 | 30.8 | -21.4 |
| 0b70b0 | 67.5 | 29.8 | 31.9 | 31.1 | 30.4 | 30.3 | 30.2 | 29.9 | 31.2 | 30.7 | 31.5 | 31.4 | 30.8 | 21.5 |
| 63f11e | 64.6 | 11.9 | 12.8 | 11.7 | 11.4 | 11.4 | 11.8 | 12.3 | 12.0 | 12.6 | 11.8 | 12.5 | 12.0 | 21.4 |
| f5ebb9 | 66.3 | 32.3 | 33.8 | 31.7 | 32.1 | 30.1 | 32.4 | 33.8 | 33.0 | 33.9 | 30.7 | 31.2 | 31.3 | 21.5 |
| e72654 | 65.7 | 11.8 | 12.8 | 11.9 | 11.6 | 11.3 | 11.8 | 12.0 | 12.7 | 11.8 | 12.3 | 12.4 | 12.9 | 21.2 |
| d57505 | 66.0 | 32.9 | 34.7 | 32.5 | 33.4 | 30.0 | 32.7 | 34.0 | 33.9 | 32.5 | 31.8 | 30.8 | 30.9 | 21.0 |
| sum | 1254.7 | 506.8 | 517.2 | 505.9 | 495.2 | 483.9 | 507.8 | 527.2 | 515.5 | 499.8 | 494.7 | 500.9 | 485.4 | 409.1 |
| mean | 66.0 | 26.7 | 27.2 | 26.6 | 26.1 | 25.5 | 26.7 | 27.7 | 27.1 | 26.3 | 26.0 | 26.4 | 25.5 | 21.5 |

TABLE LXXXVIII: Outcomes of RPS (rps-rpp-vms) smartsheet-java-sdk time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1d2e47 | -47.3 | -32.5 | -32.9 | -32.0 | -32.1 | -32.0 | -24.7 | -23.5 | -23.1 | -23.6 | -33.1 | -23.5 | -22.8 | -17.3 |
| 509364 | -47.2 | -32.3 | -31.8 | -32.6 | -32.5 | -31.7 | -23.1 | -23.4 | -21.6 | -23.0 | -32.6 | -22.4 | -21.7 | -17.5 |
| 5c83a1 | -47.5 | -36.4 | -37.4 | -36.8 | -36.5 | -37.2 | -24.8 | -23.9 | -25.2 | -24.2 | -37.7 | -24.5 | -23.4 | -17.6 |
| 43a4f7 | -47.9 | -36.5 | -37.0 | -36.7 | -36.0 | -35.9 | -25.7 | -24.5 | -23.2 | -23.9 | -35.2 | -23.6 | -21.7 | -17.8 |
| 240ee7 | -47.9 | -37.4 | -36.7 | -36.4 | -36.2 | -36.5 | -24.2 | -24.3 | -24.1 | -24.0 | -35.8 | -24.0 | -22.3 | -18.0 |
| 4ea223 | -47.9 | -42.6 | -42.2 | -42.0 | -41.9 | -41.5 | -26.4 | -26.3 | -25.9 | -25.8 | -42.2 | -26.0 | -25.3 | -18.3 |
| 177fc4 | -48.0 | -41.4 | -41.3 | -40.6 | -40.5 | -40.9 | -25.2 | -25.1 | -24.9 | -24.7 | -41.7 | -25.1 | -24.1 | -18.0 |
| 2844b0 | -49.4 | -41.0 | -41.3 | -41.0 | -41.5 | -40.9 | -25.7 | -25.4 | -25.2 | -25.3 | -42.1 | -25.0 | -24.4 | -18.1 |
| 97ecb7 | -48.6 | -42.1 | -43.1 | -42.0 | -42.3 | -42.1 | -26.0 | -26.6 | -26.9 | -26.4 | -44.2 | -26.7 | -25.5 | -18.4 |
| 94d558 | -49.7 | -42.0 | -42.5 | -41.6 | -42.3 | -41.4 | -26.5 | -26.7 | -26.7 | -25.6 | -42.5 | -25.9 | -25.0 | -18.4 |
| de3432 | 50.3 | 42.3 | 41.8 | 42.2 | 31.8 | 41.4 | 26.2 | 26.7 | 25.6 | 23.9 | 32.4 | 25.0 | 23.7 | 18.5 |
| 4bedcb | 48.9 | 5.3 | 5.1 | 5.2 | 5.2 | 5.2 | 5.5 | 5.5 | 5.0 | 5.2 | 5.3 | 5.4 | 5.3 | 18.3 |
| ae8ebd | 46.3 | 34.9 | 35.8 | 35.4 | 21.3 | 36.9 | 36.1 | 35.3 | 34.2 | 21.1 | 22.4 | 37.2 | 20.9 | 6.4 |
| 60de51 | 45.4 | 37.5 | 37.4 | 36.9 | 23.5 | 36.0 | 16.4 | 16.5 | 15.5 | 13.3 | 24.3 | 16.9 | 12.8 | 6.4 |
| 78c50e | 46.4 | 36.4 | 38.4 | 36.5 | 24.9 | 36.2 | 16.9 | 16.0 | 16.0 | 14.0 | 24.4 | 16.0 | 12.7 | 6.5 |
| 9aa37d | 49.1 | 36.0 | 36.0 | 35.3 | 22.6 | 35.4 | 37.3 | 36.4 | 36.7 | 22.9 | 23.6 | 37.3 | 21.7 | 6.8 |
| 73be08 | 49.2 | 39.5 | 40.7 | 39.4 | 26.7 | 38.3 | 18.0 | 17.7 | 16.8 | 16.1 | 26.7 | 17.9 | 15.0 | 6.8 |
| aa7861 | 49.4 | 6.1 | 6.5 | 6.0 | 5.8 | 6.0 | 6.2 | 6.2 | 6.4 | 6.0 | 6.1 | 6.8 | 6.1 | 6.7 |
| 5a20f2 | 48.4 | 37.9 | 38.3 | 36.7 | 25.1 | 38.0 | 17.3 | 17.4 | 16.5 | 14.1 | 24.9 | 14.9 | 13.0 | 6.6 |
| cbe2f7 | 50.2 | 41.3 | 42.7 | 40.3 | 28.2 | 41.8 | 20.6 | 20.5 | 19.8 | 17.4 | 28.9 | 20.7 | 18.0 | 7.3 |
| sum | 964.9 | 701.4 | 709.0 | 695.6 | 596.9 | 695.3 | 452.9 | 447.8 | 439.5 | 400.5 | 606.1 | 444.8 | 385.5 | 269.7 |
| mean | 48.2 | 35.1 | 35.4 | 34.8 | 29.8 | 34.8 | 22.6 | 22.4 | 22.0 | 20.0 | 30.3 | 22.2 | 19.3 | 13.5 |

TABLE LXXXIX: Outcomes of RPS (rps-rpp-vms) commons-dbcP time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| dba639 | -94.7 | 7.4 | 7.9 | 8.1 | 7.9 | 8.1 | 7.4 | 7.6 | 8.1 | 8.1 | 7.7 | 7.9 | 7.6 | -52.9 |
| 141671 | -94.2 | 7.3 | 7.7 | 8.1 | 7.9 | 8.2 | 7.4 | 7.3 | 8.0 | 8.6 | 7.8 | 7.8 | 7.1 | -52.7 |
| b19355 | -94.1 | -58.4 | -58.0 | -58.5 | -59.1 | -58.9 | -58.1 | -57.9 | -58.0 | -59.3 | -58.8 | -58.5 | -58.8 | -52.6 |
| 43a618 | -94.6 | -57.0 | -58.1 | -57.8 | -57.8 | -57.8 | -57.8 | -57.7 | -57.9 | -58.3 | -57.8 | -57.9 | -56.9 | -52.7 |
| 4475a0 | -93.5 | -57.7 | -57.2 | -57.6 | -58.4 | -57.8 | -58.3 | -58.0 | -57.9 | -58.0 | -58.0 | -58.4 | -57.2 | -52.6 |
| 43e1ab | -95.1 | 7.7 | 7.6 | 7.9 | 7.8 | 8.3 | 7.6 | 7.7 | 7.9 | 8.3 | 7.7 | 7.8 | 7.4 | -53.1 |
| 8c0391 | -94.6 | 7.7 | 7.9 | 8.0 | 7.8 | 7.8 | 8.0 | 7.7 | 7.8 | 8.1 | 7.7 | 7.8 | 7.7 | -52.8 |
| 12f80f | -94.8 | 8.0 | 8.0 | 7.8 | 8.1 | 8.0 | 7.6 | 7.7 | 8.3 | 8.1 | 7.7 | 8.0 | 7.8 | -53.1 |
| 3ba469 | -94.6 | 8.8 | 8.7 | 9.0 | 9.1 | 9.0 | 8.6 | 8.9 | 9.1 | 9.6 | 8.6 | 9.4 | 8.1 | -53.5 |
| 0f656a | -95.1 | -58.7 | -58.3 | -58.1 | -58.6 | -58.3 | -58.2 | -57.9 | -58.5 | -58.3 | -58.4 | -57.5 | -57.9 | -53.2 |
| 6bcbad | -94.4 | -57.9 | -58.3 | -58.3 | -59.4 | -58.6 | -58.2 | -58.5 | -58.6 | -58.7 | -57.7 | -58.3 | -58.3 | -53.0 |
| 0b5b1b | -95.1 | -57.8 | -58.6 | -58.3 | -58.2 | -58.9 | -57.9 | -58.2 | -59.2 | -58.0 | -57.2 | -58.1 | -57.6 | -53.2 |
| f74029 | -94.5 | -58.3 | -58.1 | -58.5 | -58.3 | -58.2 | -58.9 | -57.9 | -59.2 | -58.5 | -57.9 | -58.2 | -57.9 | -53.3 |
| 8alc11 | -94.0 | -59.3 | -59.3 | -59.2 | -58.5 | -58.9 | -58.2 | -57.7 | -59.3 | -59.2 | -58.4 | -58.6 | -58.5 | -53.2 |
| e65434 | -94.3 | -58.3 | -58.7 | -57.8 | -58.8 | -58.4 | -58.0 | -58.8 | -59.3 | -58.7 | -58.3 | -58.0 | -58.4 | -53.3 |
| 861879 | -94.8 | -57.9 | -58.2 | -58.0 | -58.7 | -58.6 | -58.1 | -58.4 | -58.3 | -59.1 | -58.0 | -58.6 | -57.7 | -53.0 |
| 6641cc | -94.7 | -58.3 | -58.2 | -58.5 | -59.1 | -58.7 | -58.5 | -59.3 | -58.9 | -59.4 | -58.4 | -58.5 | -59.1 | -52.9 |
| 840871 | -94.7 | -58.8 | -58.4 | -58.8 | -60.1 | -59.3 | -58.1 | -58.4 | -58.6 | -59.3 | -58.6 | -58.4 | -58.3 | -53.1 |
| 6a6504 | -94.6 | -58.4 | -58.9 | -59.1 | -59.3 | -58.5 | -58.4 | -58.3 | -58.6 | -58.7 | -59.3 | -58.7 | -58.0 | -52.8 |
| sum | 1796.3 | 803.6 | 806.1 | 807.6 | 812.7 | 810.2 | 803.5 | 804.0 | 811.5 | 814.4 | 804.1 | 806.3 | 800.4 | 1007.1 |
| mean | 94.5 | 42.3 | 42.4 | 42.5 | 42.8 | 42.6 | 42.3 | 42.3 | 42.7 | 42.9 | 42.3 | 42.4 | 42.1 | 53.0 |

TABLE XC: Outcomes of RPS (rps-rpp-vms) jnr-posix time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 496890 | 143.2 | 17.6 | 16.8 | 17.7 | 18.2 | 18.1 | 19.3 | 19.1 | 18.7 | 19.0 | 17.7 | 18.6 | 18.9 | 12.3 |
| ba4016 | 146.1 | 17.7 | 17.9 | 17.7 | 18.3 | 19.6 | 17.8 | 19.2 | 18.3 | 18.1 | 18.1 | 18.1 | 17.9 | 12.2 |
| 220614 | 145.6 | 17.4 | 16.3 | 17.0 | 17.0 | 18.5 | 17.4 | 17.7 | 17.8 | 17.4 | 16.9 | 17.6 | 17.2 | 12.2 |
| 28a09c | 143.8 | 27.1 | 27.1 | 28.0 | 27.4 | 30.2 | -21.7 | 22.3 | 22.0 | 22.0 | 17.3 | 20.3 | 17.6 | 12.2 |
| a03b2e | 145.9 | 27.0 | 25.8 | 26.4 | 27.9 | 29.5 | 21.8 | 20.8 | -21.2 | 20.7 | 26.3 | 19.9 | 20.7 | 12.2 |
| 6c8812 | -2.5 | -2.3 | -2.2 | -2.2 | -3.0 | -2.5 | -2.5 | -2.4 | -2.4 | -2.5 | -2.2 | -2.5 | -2.4 | -2.3 |
| 6d3956 | 144.6 | 25.8 | 26.9 | 26.1 | 29.3 | 28.6 | 22.0 | 22.3 | 20.5 | -20.8 | 26.5 | 20.8 | 20.4 | 12.5 |
| 40396a | -2.3 | -2.3 | -2.2 | -2.3 | -2.6 | -2.5 | -2.4 | -2.3 | -2.4 | -2.5 | -2.3 | -2.3 | -2.4 | -2.5 |
| e935f8 | 143.3 | 26.9 | 27.8 | 27.3 | 29.6 | 29.7 | 21.5 | 22.1 | 22.4 | 21.5 | 26.0 | 21.6 | 21.3 | 12.4 |
| 40fa74 | 160.6 | 28.5 | 29.5 | 29.0 | 32.6 | 31.9 | 24.0 | 22.9 | 23.3 | -22.4 | 29.9 | 23.4 | -22.7 | 12.8 |
| 1548fb | 155.6 | 30.1 | 30.0 | 30.6 | 34.9 | 33.5 | 22.5 | 22.2 | 22.0 | 22.0 | 29.6 | 21.8 | 21.3 | 12.7 |
| 5eed6f | 157.1 | 30.9 | 30.1 | 31.0 | 34.2 | 33.9 | 22.4 | 22.9 | 23.8 | 21.6 | -29.3 | -21.1 | 21.1 | 12.7 |
| dcd57f | 155.8 | 30.1 | 29.7 | 30.0 | 33.6 | 32.5 | 22.7 | 23.4 | 23.1 | 21.9 | 29.5 | -20.9 | 20.7 | 12.6 |
| 35f3bf | 171.5 | 29.2 | 29.8 | 28.2 | 31.7 | 32.1 | 29.7 | 30.5 | 31.0 | 28.9 | 28.2 | 29.0 | 30.6 | 12.8 |
| 4a2ab | 170.3 | 30.7 | 29.8 | 30.2 | 19.6 | 33.1 | 23.3 | 23.1 | 22.4 | 17.1 | 17.3 | 22.6 | 18.3 | 12.8 |
| edcead | 170.6 | 28.8 | 28.5 | 28.1 | 17.0 | 31.4 | 29.9 | 29.4 | 30.4 | 15.1 | 15.9 | 28.4 | 16.4 | 12.9 |
| 8962f9 | 170.1 | 32.0 | 30.9 | 32.5 | 35.6 | 35.2 | 25.1 | 23.3 | 23.4 | 22.2 | 31.2 | 22.5 | 23.0 | 12.9 |
| cd4525 | 170.3 | 29.9 | 30.9 | 29.6 | 19.1 | 33.6 | 22.9 | 22.4 | 22.8 | 17.7 | 17.5 | 21.1 | 18.5 | 13.0 |
| e8502f | 168.3 | 30.7 | 30.3 | 30.4 | 19.2 | 33.9 | 22.0 | 22.3 | 21.5 | 17.6 | 17.5 | 22.2 | 18.0 | 12.9 |
| 62c6a3 | -1.1 | -1.1 | -1.1 | -1.1 | -1.3 | -1.2 | -1.2 | -1.2 | -1.1 | -1.1 | -1.1 | -1.1 | -1.2 | -1.2 |
| f65dff | 170.0 | 29.2 | 29.0 | 29.0 | 16.9 | 31.1 | 30.3 | 30.0 | 30.6 | 15.8 | 14.5 | 28.9 | 16.5 | 12.8 |
| 0bde3f | 172.1 | 31.9 | 31.0 | 32.1 | 35.6 | 34.6 | 33.7 | 32.9 | 32.8 | 31.5 | 32.0 | 32.1 | 33.6 | 12.9 |
| 9b0780 | 171.9 | 33.3 | 33.3 | 32.9 | 37.7 | 37.0 | 23.6 | 24.7 | 24.1 | 23.5 | 32.5 | 22.6 | 23.6 | 12.8 |
| cf12ff | 167.8 | 31.2 | 30.7 | 31.0 | 35.3 | 33.9 | 33.1 | 32.9 | 33.3 | 31.4 | 31.8 | 31.7 | 32.9 | 13.0 |
| a17daf | 173.5 | 32.0 | 32.3 | 32.6 | 36.2 | 35.5 | 34.0 | 34.1 | 33.9 | 32.6 | 32.9 | 31.2 | 34.1 | 12.9 |
| 71d8d3 | 179.5 | 33.9 | 33.4 | 34.2 | 36.0 | 36.9 | 23.6 | 24.0 | 23.7 | 24.3 | 31.6 | 22.8 | 21.8 | 12.9 |
| 28d0c8 | 175.0 | 32.7 | 32.0 | 32.7 | 33.7 | 35.7 | 34.4 | 34.5 | 34.5 | 32.6 | 30.3 | 32.2 | 31.3 | 12.8 |
| 7be191 | -1.1 | -1.1 | -1.1 | -1.1 | -1.3 | -1.2 | -1.1 | -1.2 | -1.1 | -1.2 | -1.1 | -1.1 | -1.2 | -1.1 |
| cecb9b | -1.1 | -1.1 | -1.1 | -1.1 | -1.3 | -1.2 | -1.2 | -1.2 | -1.1 | -1.1 | -1.2 | -1.1 | -1.2 | -1.1 |
| 850f7b | 180.4 | 32.6 | 33.0 | 33.8 | 37.8 | 37.5 | 36.0 | 35.2 | 35.4 | 34.3 | 33.6 | 33.1 | 35.4 | 13.2 |
| c5a412 | 174.1 | 36.2 | 35.4 | 35.7 | 39.4 | 40.5 | 26.1 | 24.7 | 25.3 | 23.9 | 35.4 | 24.8 | 25.5 | 13.2 |
| 752f60 | 183.4 | 39.1 | 37.6 | 38.0 | 42.3 | 42.2 | 27.4 | 27.4 | 26.8 | 25.8 | 37.2 | 26.4 | 27.3 | 13.6 |
| bc5484 | 184.5 | 36.6 | 37.2 | 37.2 | 38.5 | 41.0 | 25.9 | 25.5 | 26.0 | 24.6 | 34.4 | 24.7 | 23.7 | 13.4 |
| 44b67f | 186.3 | 36.3 | 36.8 | 37.5 | 20.9 | 41.0 | 25.9 | 26.5 | 26.9 | 18.9 | 19.3 | 24.8 | 20.0 | 13.9 |
| de7b93 | 184.6 | 6.8 | 7.0 | 6.8 | 8.0 | 8.2 | 7.0 | 7.5 | 7.5 | 7.1 | 6.9 | 7.3 | 7.2 | 13.6 |
| 2537ee | 182.8 | 34.2 | 34.8 | 36.1 | 18.7 | 39.2 | 36.2 | 37.0 | 38.5 | 17.6 | 17.1 | 35.2 | 17.6 | 13.7 |
| 7d4317 | 185.7 | 6.9 | 7.0 | 6.8 | 8.1 | 8.1 | 7.4 | 7.8 | 7.3 | 7.1 | 7.1 | 7.2 | 7.5 | 13.4 |
| ce0a9a | 184.8 | 36.9 | 38.2 | 37.1 | 42.1 | 42.3 | 27.2 | 26.1 | 27.6 | 25.7 | 35.8 | 25.3 | 26.3 | 13.9 |
| 16bedc | 185.7 | 34.8 | 34.9 | 35.5 | 40.7 | 37.9 | 36.7 | 36.6 | 37.6 | 34.8 | 35.6 | 35.2 | 37.0 | 13.7 |
| 46f849 | 185.4 | 34.5 | 34.9 | 35.9 | 41.1 | 39.6 | 37.6 | 37.3 | 37.1 | 34.6 | 34.2 | 34.2 | 36.9 | 13.7 |
| 21e451 | 186.3 | 34.8 | 34.7 | 35.9 | 39.2 | 38.9 | 36.0 | 37.5 | 36.3 | 35.7 | 35.4 | 35.6 | 37.3 | 13.4 |
| 1e1024 | 186.8 | 35.5 | 34.9 | 35.3 | 39.4 | 39.8 | 37.7 | 36.3 | 36.8 | 34.3 | 34.3 | 36.0 | 36.1 | 13.6 |
| abbc4e | 188.5 | 37.1 | 36.6 | 36.7 | 42.4 | 42.3 | 26.4 | 26.2 | 26.3 | 25.0 | 37.0 | 25.1 | 26.1 | 13.7 |
| c2e2f6 | 195.7 | 35.5 | 36.3 | 35.3 | 39.8 | 39.6 | 37.9 | 37.9 | 38.6 | 35.7 | 35.8 | 35.4 | 37.9 | 13.8 |
| 7935cb | 194.9 | 37.7 | 37.4 | 38.1 | 39.1 | 41.2 | 27.4 | 26.8 | 26.8 | 25.1 | 34.7 | 24.8 | 24.6 | 13.6 |
| 03a4a3 | 198.9 | 35.4 | 35.4 | 36.2 | 37.9 | 39.3 | 38.3 | 37.9 | 38.6 | 31.5 | 32.2 | 36.5 | 33.5 | 14.0 |
| 73813c | -196.1 | -37.9 | -36.4 | -37.0 | -21.0 | -40.9 | -26.0 | -26.4 | -25.9 | -19.2 | -19.4 | -25.0 | -20.1 | -13.8 |
| 99c3b5 | -195.3 | -38.0 | -37.3 | -37.1 | -41.8 | -41.5 | -25.8 | -26.0 | -25.9 | -25.5 | -36.8 | -25.6 | -25.8 | -13.7 |
| ce6e2b | -195.3 | -37.0 | -36.9 | -37.6 | -20.8 | -41.2 | -25.8 | -26.3 | -26.3 | -19.3 | -19.0 | -26.0 | -20.1 | -13.7 |
| sum | 7636.2 | 1356.4 | 1350.3 | 1361.6 | 1345.2 | 1500.9 | 1182.0 | 1180.2 | 1183.3 | 1051.8 | 1189.3 | 1127.8 | 1072.8 | 584.8 |
| mean | 155.8 | 27.7 | 27.6 | 27.8 | 27.5 | 30.6 | 24.1 | 24.1 | 24.1 | 21.5 | 24.3 | 23.0 | 21.9 | 11.9 |

TABLE XCI: Outcomes of RPS (rps-rpp-vms) commons-imaging time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| cfeffl | 90.3 | 45.1 | 47.7 | 44.6 | 44.9 | 47.5 | 43.9 | 45.0 | 42.5 | 44.0 | 29.7 | 43.2 | 33.7 | 20.8 |
| 212727 | 90.6 | 43.7 | 45.2 | 46.2 | 44.0 | 34.2 | 45.5 | 43.2 | 41.7 | 45.8 | 28.4 | 29.5 | 31.0 | 17.8 |
| a9cca2 | 89.8 | 13.8 | 14.6 | 13.3 | 13.5 | 14.0 | 14.0 | 13.7 | 13.3 | 13.5 | 12.6 | 13.8 | 13.5 | 19.8 |
| 8a583a | 89.7 | 43.7 | 48.8 | 44.1 | 44.6 | 37.2 | 44.0 | 43.2 | 41.8 | 43.4 | 29.1 | 29.3 | 30.2 | 17.6 |
| f46d64 | 89.2 | 14.1 | 13.5 | 13.6 | 13.5 | 13.6 | 13.1 | 13.1 | 13.3 | 13.8 | 12.9 | 13.9 | 14.1 | 17.7 |
| a32cb5 | 91.1 | 45.5 | 46.6 | 45.0 | 44.1 | 46.2 | 44.3 | 44.0 | 41.6 | 44.6 | 28.0 | 43.5 | 28.7 | 18.2 |
| 6962d8 | 90.3 | 44.2 | 46.0 | 44.2 | 44.5 | 46.3 | 45.0 | 44.2 | 42.7 | 45.3 | 26.9 | 43.8 | 28.2 | 22.5 |
| 62c8e6 | 90.7 | 42.9 | 44.0 | 41.9 | 41.9 | 44.0 | 43.3 | 41.7 | 40.3 | 44.1 | 40.7 | 41.9 | 40.2 | 18.1 |
| ae548a | 91.5 | 45.2 | 46.0 | 44.4 | 46.0 | 46.5 | 42.8 | 44.5 | 43.0 | 43.9 | 27.0 | 42.6 | 27.0 | 19.4 |
| 41d5cf | 90.0 | 13.8 | 14.8 | 13.8 | 13.5 | 13.7 | 13.7 | 13.5 | 12.8 | 13.8 | 12.8 | 13.7 | 13.8 | 18.3 |
| b43743 | 91.9 | 14.2 | 14.4 | 13.7 | 13.5 | 13.5 | 15.9 | 13.7 | 13.6 | 13.7 | 13.1 | 13.4 | 13.7 | 17.9 |
| fb0be4 | 91.4 | 45.5 | 48.2 | 44.1 | 44.6 | 46.6 | 55.9 | 45.5 | 42.0 | 42.4 | 29.2 | 42.7 | 31.5 | 17.9 |
| 611c3b | 91.0 | 26.9 | 30.6 | 27.1 | 27.9 | 33.4 | 31.6 | 27.6 | 25.9 | 28.1 | 30.8 | 27.1 | 26.9 | 17.9 |
| 40ab2c | 91.0 | 13.9 | 13.6 | 14.0 | 13.8 | 13.4 | 13.8 | 13.9 | 13.2 | 13.7 | 12.4 | 13.7 | 13.5 | 17.5 |
| c5ca63 | 90.7 | 28.8 | 27.7 | 28.9 | 27.1 | 31.8 | 25.7 | 27.9 | 26.8 | 26.9 | 29.1 | 27.1 | 27.3 | 17.6 |
| 4701b9 | 91.3 | 29.4 | 30.3 | 29.9 | 29.0 | 29.8 | 28.5 | 30.3 | 27.7 | 28.5 | 28.3 | 29.3 | 28.0 | 17.7 |
| 7862d6 | 91.1 | 31.0 | 31.6 | 33.1 | 31.0 | 31.5 | 31.6 | 31.3 | 29.5 | 30.9 | 29.6 | 30.0 | 31.7 | 18.2 |
| 51880b | 91.4 | 30.1 | 30.7 | 31.9 | 31.1 | 30.8 | 31.0 | 31.4 | 28.9 | 31.8 | 28.1 | 29.5 | 29.0 | 17.7 |
| 0a6149 | 90.4 | 29.8 | 30.9 | 30.8 | 29.6 | 32.5 | 28.8 | 29.1 | 28.8 | 30.3 | 28.1 | 29.2 | 29.1 | 17.7 |
| sum | 1723.5 | 601.4 | 625.4 | 604.6 | 598.1 | 606.5 | 612.6 | 596.9 | 569.3 | 598.6 | 476.9 | 557.1 | 491.2 | 350.3 |
| mean | 90.7 | 31.7 | 32.9 | 31.8 | 31.5 | 31.9 | 32.2 | 31.4 | 30.0 | 31.5 | 25.1 | 29.3 | 25.9 | 18.4 |

TABLE XCII: Outcomes of RPS (rps-rpp-vms) javapoet time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 16cd72 | 59.2 | 18.3 | 18.5 | 18.1 | 18.6 | 18.3 | 15.5 | 14.3 | 14.3 | 15.3 | 18.2 | 16.2 | 15.6 | 8.0 |
| 868524 | 58.4 | 16.0 | 17.7 | 17.5 | 16.9 | 17.4 | 14.2 | 12.5 | 13.2 | 14.6 | 16.9 | 14.0 | 14.6 | 8.5 |
| 61b0fa | 60.1 | 17.1 | 17.9 | 17.9 | 16.5 | 17.0 | 14.8 | 14.5 | 14.8 | 13.9 | 16.5 | 15.0 | 14.2 | 8.2 |
| bc65a0 | 58.6 | 17.1 | 18.0 | 17.1 | 16.5 | 17.5 | 14.5 | 14.2 | 14.8 | 14.7 | 16.6 | 15.0 | 14.2 | 8.4 |
| 19b9d7 | 59.2 | 14.0 | 12.8 | 13.9 | 12.4 | 12.7 | 12.9 | 12.4 | 12.1 | 13.3 | 13.3 | 14.1 | 13.2 | 8.1 |
| 01f707 | 58.0 | 12.2 | 13.6 | 12.9 | 13.3 | 12.9 | 13.8 | 12.5 | 13.0 | 12.6 | 13.7 | 12.6 | 11.6 | 8.4 |
| fa5c19 | 57.9 | 12.6 | 13.8 | 13.5 | 12.8 | 13.0 | 14.2 | 12.7 | 13.5 | 13.9 | 13.4 | 14.2 | 12.4 | 8.3 |
| ff50d7 | 58.7 | 13.6 | 13.8 | 12.8 | 12.9 | 12.8 | 13.2 | 12.9 | 13.5 | 12.7 | 13.3 | 12.7 | 12.9 | 8.2 |
| b66d3d | 57.7 | 12.8 | 13.9 | 13.8 | 12.9 | 13.9 | 13.4 | 13.0 | 13.8 | 13.6 | 13.4 | 13.9 | 13.4 | 8.2 |
| 414da3 | 57.1 | 12.2 | 12.7 | 13.5 | 13.1 | 11.9 | 13.9 | 12.7 | 13.3 | 13.4 | 12.2 | 12.8 | 12.8 | 8.3 |
| 647b93 | 59.7 | 14.6 | 15.0 | 14.2 | 13.9 | 13.7 | 15.3 | 13.8 | 14.1 | 14.2 | 13.6 | 14.6 | 14.0 | 10.0 |
| e11279 | 60.9 | 15.0 | 14.9 | 14.6 | 14.2 | 14.3 | 14.6 | 13.1 | 13.9 | 14.0 | 13.6 | 14.2 | 14.1 | 10.0 |
| 40dfa0 | 61.4 | 14.4 | 15.6 | 15.7 | 13.8 | 15.3 | 14.8 | 14.4 | 14.6 | 15.1 | 15.2 | 14.7 | 14.4 | 10.0 |
| 4cd975 | 59.7 | 15.1 | 15.4 | 14.9 | 15.5 | 14.6 | 15.3 | 14.7 | 14.3 | 14.3 | 14.7 | 14.2 | 14.1 | 10.1 |
| ca12c7 | 61.0 | 13.6 | 13.7 | 14.4 | 14.5 | 14.4 | 14.8 | 13.9 | 14.4 | 13.2 | 14.3 | 14.9 | 13.6 | 10.3 |
| 08c714 | 62.0 | 13.6 | 13.7 | 14.4 | 14.1 | 14.3 | 14.1 | 13.5 | 13.0 | 15.0 | 15.4 | 14.7 | 14.3 | 10.1 |
| a5694a | 62.1 | 14.6 | 15.2 | 15.3 | 14.5 | 16.3 | 15.5 | 12.9 | 13.7 | 14.6 | 14.6 | 15.8 | 15.0 | 10.1 |
| 384395 | 61.0 | 15.7 | 14.8 | 14.7 | 14.6 | 15.4 | 14.6 | 13.6 | 15.0 | 14.4 | 15.6 | 14.4 | 14.1 | 10.1 |
| f5b1b6 | 60.6 | 14.2 | 14.2 | 14.6 | 14.3 | 15.0 | 14.5 | 13.7 | 13.6 | 13.5 | 14.4 | 14.3 | 14.1 | 10.0 |
| sum | 1133.4 | 276.7 | 285.2 | 283.8 | 275.0 | 280.6 | 273.8 | 255.2 | 262.9 | 266.3 | 279.0 | 272.1 | 262.6 | 173.2 |
| mean | 59.7 | 14.6 | 15.0 | 14.9 | 14.5 | 14.8 | 14.4 | 13.4 | 13.8 | 14.0 | 14.7 | 14.3 | 13.8 | 9.1 |

TABLE XCIII: Outcomes of RPS (rps-rpp-vms) beanstalker time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 11a1a8 | 23.3 | 35.3 | 36.2 | 33.3 | 33.3 | 35.0 | 34.1 | 37.8 | 32.6 | 34.6 | 35.0 | 34.2 | 34.8 | 12.9 |
| d3d9cc | 24.1 | 39.4 | 41.4 | 39.0 | 40.5 | 37.8 | 38.7 | 36.5 | 36.8 | 37.1 | 39.5 | 39.4 | 39.2 | 12.9 |
| fc343a | 24.0 | 36.4 | 38.5 | 35.5 | 34.7 | 35.8 | 35.8 | 34.8 | 33.5 | 36.0 | 36.7 | 35.7 | 34.4 | 12.9 |
| 8dc528 | 29.9 | 51.5 | 54.1 | 51.1 | 49.7 | 47.9 | 49.5 | 49.3 | 50.3 | 47.8 | 51.0 | 50.8 | 49.2 | 16.8 |
| 966ec5 | -21.7 | -57.1 | -58.2 | -53.3 | -52.2 | -53.2 | -52.5 | -52.5 | -51.6 | -52.3 | -51.3 | -56.8 | -50.1 | -12.2 |
| 7c2a4a | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 68cf11 | 1.1 | 1.0 | 1.1 | 1.0 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 01a6eb | 30.6 | 59.5 | 60.0 | 58.1 | 55.7 | 58.5 | 54.8 | 56.9 | 59.4 | 56.4 | 54.5 | 59.6 | 55.1 | 17.6 |
| 871176 | 30.2 | 56.1 | 58.4 | 55.1 | 58.4 | 56.1 | 58.0 | 58.7 | 57.3 | 58.0 | 55.8 | 58.1 | 57.4 | 17.2 |
| e99f0a | 35.8 | 66.2 | 67.6 | 62.6 | 62.6 | 61.9 | 62.4 | 61.7 | 63.8 | 61.8 | 61.9 | 64.9 | 60.1 | 21.3 |
| 70237c | 37.1 | 69.6 | 66.1 | 66.0 | 64.5 | 65.3 | 66.7 | 65.1 | 64.4 | 64.4 | 64.2 | 68.5 | 63.3 | 21.3 |
| cb517b | 36.0 | 68.8 | 68.9 | 64.8 | 68.2 | 67.5 | 65.5 | 67.5 | 65.3 | 65.6 | 65.0 | 67.8 | 64.9 | 21.4 |
| 195fbc | 35.8 | 67.2 | 66.3 | 63.9 | 63.9 | 63.4 | 64.4 | 63.5 | 64.2 | 64.6 | 64.8 | 67.6 | 63.0 | 21.3 |
| ddf253 | 35.6 | 70.8 | 70.7 | 65.2 | 67.0 | 64.9 | 67.2 | 65.7 | 66.2 | 65.3 | 67.0 | 68.8 | 65.4 | 20.9 |
| 89c2ea | 36.3 | 68.3 | 71.5 | 67.8 | 66.5 | 67.2 | 66.1 | 66.8 | 66.8 | 65.8 | 66.0 | 68.6 | 67.0 | 21.2 |
| effb25 | 35.9 | 67.5 | 68.5 | 64.6 | 63.4 | 61.7 | 65.6 | 62.9 | 65.7 | 63.6 | 66.0 | 66.8 | 65.8 | 21.0 |
| fe9fc8 | 35.6 | 76.7 | 77.0 | 72.4 | 74.5 | 71.6 | 73.1 | 73.0 | 72.6 | 73.8 | 71.9 | 78.1 | 73.6 | 21.4 |
| 0e57c6 | 36.2 | 67.5 | 67.6 | 65.5 | 65.7 | 64.3 | 64.8 | 64.2 | 64.8 | 64.5 | 63.9 | 66.7 | 66.0 | 21.6 |
| 246867 | 36.3 | 66.0 | 66.9 | 64.8 | 67.7 | 66.0 | 65.8 | 65.2 | 63.9 | 64.2 | 64.2 | 64.5 | 64.8 | 20.9 |
| ed882c | 42.1 | 88.7 | 87.7 | 82.4 | 83.0 | 83.0 | 83.2 | 80.7 | 84.3 | 83.0 | 81.1 | 87.6 | 78.7 | 25.0 |
| fa900c | 41.9 | 80.6 | 81.9 | 75.2 | 79.0 | 77.8 | 77.8 | 78.4 | 76.4 | 77.3 | 79.5 | 80.3 | 77.4 | 25.2 |
| d5387d | 41.3 | 82.8 | 83.2 | 78.0 | 78.4 | 77.7 | 78.5 | 77.2 | 76.6 | 78.1 | 76.6 | 80.8 | 76.2 | 25.1 |
| 276985 | 42.2 | 78.8 | 81.5 | 79.1 | 78.4 | 76.2 | 78.6 | 77.6 | 75.1 | 76.5 | 77.9 | 81.7 | 74.1 | 25.3 |
| 53790c | 42.4 | 81.1 | 80.1 | 76.3 | 77.9 | 75.9 | 74.5 | 76.7 | 76.9 | 77.1 | 76.3 | 81.3 | 79.6 | 25.2 |
| d92ac2 | 42.2 | 79.9 | 81.3 | 78.4 | 77.1 | 77.5 | 79.5 | 77.7 | 75.2 | 77.5 | 75.2 | 80.3 | 75.0 | 25.0 |
| 57b569 | 41.7 | 91.2 | 88.1 | 86.2 | 88.1 | 87.2 | 84.3 | 87.5 | 87.4 | 86.9 | 85.1 | 88.7 | 88.7 | 25.3 |
| dc0bfb | 41.0 | 78.1 | 77.0 | 75.0 | 73.4 | 73.8 | 75.1 | 75.0 | 75.7 | 73.0 | 71.9 | 78.3 | 74.3 | 24.7 |
| 5599aa | 42.3 | 80.0 | 78.0 | 76.4 | 77.7 | 77.1 | 78.1 | 75.6 | 74.9 | 77.7 | 76.0 | 78.2 | 77.1 | 24.8 |
| 97f130 | 41.3 | 81.1 | 80.1 | 76.7 | 78.0 | 74.1 | 75.3 | 76.6 | 76.3 | 77.2 | 75.8 | 80.1 | 76.1 | 24.8 |
| 35549e | 33.8 | 77.5 | 77.6 | 73.7 | 74.4 | 73.2 | 73.2 | 73.6 | 72.9 | 73.0 | 73.6 | 77.1 | 73.1 | 25.7 |
| 3566e8 | 33.6 | 80.2 | 80.6 | 76.9 | 77.1 | 75.9 | 76.4 | 76.6 | 76.2 | 76.1 | 75.7 | 80.5 | 76.3 | 25.6 |
| 69dbfa | 33.6 | 83.2 | 82.8 | 79.5 | 79.5 | 78.9 | 78.3 | 77.8 | 76.7 | 78.4 | 78.2 | 82.2 | 77.7 | 25.3 |
| edaba6 | -31.7 | -77.5 | -77.3 | -75.6 | -74.5 | -74.0 | -73.2 | -74.5 | -74.3 | -73.5 | -73.7 | -77.2 | -73.9 | -23.2 |
| caed60 | 34.5 | 80.9 | 80.1 | 77.5 | 77.4 | 75.6 | 76.3 | 76.9 | 75.6 | 76.4 | 76.1 | 80.0 | 76.4 | 25.6 |
| c45847 | 34.8 | 90.5 | 89.6 | 85.9 | 87.3 | 85.1 | 85.1 | 86.0 | 86.1 | 85.4 | 85.9 | 90.2 | 85.2 | 25.5 |
| 28d121 | 33.9 | 91.5 | 90.3 | 86.3 | 86.8 | 85.4 | 85.5 | 86.7 | 85.3 | 86.0 | 86.1 | 89.3 | 84.6 | 25.6 |
| 702ded | 33.8 | 91.5 | 90.1 | 86.6 | 86.5 | 85.5 | 85.1 | 86.0 | 85.2 | 86.1 | 86.1 | 89.6 | 85.8 | 25.6 |
| 736c69 | 34.1 | 80.6 | 81.5 | 76.4 | 77.1 | 75.5 | 76.2 | 76.8 | 75.9 | 76.4 | 76.9 | 80.3 | 75.8 | 25.9 |
| e57574 | 33.4 | 80.7 | 80.4 | 76.2 | 77.0 | 76.0 | 76.2 | 77.6 | 76.0 | 75.9 | 76.0 | 80.1 | 76.1 | 26.2 |
| d87076 | 34.3 | 79.9 | 80.9 | 76.2 | 77.1 | 75.9 | 76.2 | 77.1 | 76.3 | 76.2 | 76.3 | 79.8 | 75.5 | 25.8 |
| e859da | 75.9 | 203.7 | 206.5 | 193.7 | 193.9 | 193.0 | 191.7 | 194.1 | 193.3 | 192.2 | 191.1 | 201.9 | 192.2 | 64.9 |
| 40357a | 75.7 | 207.9 | 206.8 | 196.6 | 198.9 | 197.8 | 196.3 | 195.6 | 195.8 | 197.0 | 196.5 | 207.6 | 195.8 | 65.1 |
| 332f14 | -22.2 | -27.3 | -27.5 | -25.7 | -26.0 | -25.8 | -25.5 | -25.8 | -25.4 | -25.7 | -25.6 | -26.9 | -25.5 | -21.1 |
| c7e905 | 66.6 | 176.5 | 176.7 | 168.3 | 169.6 | 167.1 | 167.5 | 169.5 | 166.3 | 168.4 | 167.1 | 175.6 | 166.5 | 56.6 |
| ec5fc3 | 68.0 | 178.0 | 178.6 | 171.9 | 171.3 | 170.1 | 168.1 | 169.4 | 168.6 | 168.9 | 169.8 | 177.8 | 167.8 | 57.8 |
| a1d8eb | 67.4 | 185.1 | 184.7 | 175.7 | 178.1 | 176.9 | 175.5 | 176.3 | 176.4 | 175.6 | 175.5 | 184.6 | 174.1 | 56.7 |
| a53ecd | 67.1 | 184.8 | 185.0 | 178.3 | 176.2 | 177.0 | 176.3 | 176.7 | 177.6 | 174.7 | 175.0 | 184.4 | 174.1 | 57.1 |
| 620e45 | 66.8 | 184.9 | 186.0 | 176.7 | 177.1 | 176.6 | 174.3 | 175.9 | 177.9 | 176.2 | 174.8 | 184.3 | 175.6 | 57.2 |
| cd171f | -50.2 | -143.1 | -144.1 | -138.0 | -136.5 | -137.3 | -135.6 | -136.4 | -137.8 | -136.2 | -136.5 | -143.3 | -134.9 | -48.0 |
| sum | 1896.3 | 4253.3 | 4265.9 | 4064.3 | 4083.9 | 4042.9 | 4044.3 | 4056.6 | 4039.6 | 4040.7 | 4032.2 | 4228.5 | 4020.1 | 1331.6 |
| mean | 38.7 | 86.8 | 87.1 | 82.9 | 83.3 | 82.5 | 82.5 | 82.8 | 82.4 | 82.5 | 82.3 | 86.3 | 82.0 | 27.2 |

TABLE XCIV: Outcomes of RPS (rps-rpp-vms) commons-io time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2196ff | 411.4 | 13.2 | 14.6 | 12.7 | 13.2 | 12.6 | 14.1 | 13.8 | 13.2 | 13.3 | 13.7 | 12.5 | 13.9 | 101.5 |
| 65657b | 414.5 | 13.5 | 13.3 | 13.4 | 12.9 | 13.7 | 13.6 | 12.7 | 12.1 | 14.1 | 13.5 | 12.3 | 14.0 | 101.2 |
| 6e2ac1 | 415.7 | 166.5 | 166.9 | 164.3 | 162.8 | 159.8 | 150.0 | 147.3 | 141.6 | 146.1 | 155.1 | 140.4 | 141.3 | 101.7 |
| b014a0 | 415.1 | 12.5 | 13.3 | 13.2 | 12.4 | 13.3 | 13.0 | 12.7 | 12.7 | 12.7 | 13.6 | 12.4 | 14.0 | 101.5 |
| dcf6e8 | 412.2 | 113.1 | 118.3 | -115.0 | 114.5 | 116.4 | 117.0 | 116.4 | 114.4 | 113.1 | 116.3 | 115.5 | 116.9 | 102.7 |
| 84a0d9 | 408.8 | 115.2 | 118.2 | 114.2 | 114.4 | 115.9 | 116.5 | 115.6 | 114.9 | 114.6 | 116.2 | 114.6 | 116.4 | 102.1 |
| 10c8db | 412.3 | 113.8 | 118.2 | 114.5 | 112.4 | 117.5 | 117.0 | 116.0 | 115.9 | 113.7 | 116.4 | 114.0 | 116.4 | 102.3 |
| 2bacf6 | 414.1 | 11.0 | 11.4 | 10.3 | 10.2 | 10.8 | 12.2 | 10.4 | 10.7 | 10.6 | 10.0 | 10.7 | 10.8 | 101.8 |
| 4f50c3 | 418.1 | 113.4 | 119.5 | 114.8 | 112.9 | 116.2 | 117.0 | 115.6 | 114.8 | 114.5 | 116.0 | 114.6 | 116.6 | 102.8 |
| 30280a | 413.1 | 144.7 | 144.6 | 143.7 | 143.1 | 142.9 | 139.2 | 135.1 | 127.0 | 135.9 | 140.2 | 125.6 | 129.1 | 101.7 |
| 9cd312 | 407.3 | 143.5 | 144.8 | 144.7 | 143.2 | 142.8 | 139.5 | 135.9 | 126.1 | 134.9 | 140.9 | 127.0 | 130.5 | 101.7 |
| c1b64e | 410.9 | 11.7 | 12.6 | 12.4 | 12.0 | 11.9 | 12.4 | 12.2 | 11.5 | 12.4 | 12.6 | 11.4 | 13.0 | 101.9 |
| 65c4a9 | 409.2 | 12.8 | 13.2 | 12.7 | 12.3 | 12.5 | 12.5 | 13.6 | 12.9 | 12.7 | 13.1 | 11.7 | 13.3 | 101.6 |
| 86cc77 | 423.0 | 12.9 | 13.0 | 12.2 | 12.6 | 13.3 | 13.1 | 12.6 | 12.3 | 12.0 | 12.8 | 12.2 | 12.9 | 103.5 |
| d3fc1a | 422.9 | 11.6 | 11.9 | 12.0 | 11.8 | 12.1 | 11.9 | 11.7 | 12.6 | 11.6 | 12.5 | 12.1 | 12.2 | 101.7 |
| d19259 | 420.8 | 149.3 | 146.4 | 148.7 | 148.3 | 142.5 | 142.4 | 139.6 | 131.3 | 138.1 | 137.0 | 129.4 | 129.0 | 103.0 |
| ed15b0 | 420.5 | 195.6 | 150.0 | 196.6 | 186.3 | 147.6 | 177.3 | 172.5 | 130.9 | 168.7 | 140.6 | 130.2 | 129.2 | 102.1 |
| 459ceb | 419.1 | 195.0 | 151.1 | 196.1 | 155.4 | 146.3 | 180.3 | -174.0 | 130.6 | -140.2 | 135.6 | 130.7 | 128.2 | 101.6 |
| 947c01 | 416.5 | 158.3 | 151.7 | 158.1 | 156.5 | 146.7 | 145.9 | 144.8 | 137.2 | 141.9 | 143.5 | 133.1 | 136.4 | 103.0 |
| sum | 7885.4 | 1707.7 | 1633.2 | 1709.8 | 1647.3 | 1594.8 | 1645.0 | 1612.4 | 1482.4 | 1561.2 | 1559.4 | 1470.4 | 1494.1 | 1939.2 |
| mean | 415.0 | 89.9 | 86.0 | 90.0 | 86.7 | 83.9 | 86.6 | 84.9 | 78.0 | 82.2 | 82.1 | 77.4 | 78.6 | 102.1 |

TABLE XCV: Outcomes of RPS (rps-rpp-vms) imglib2 time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 311bb3 | 31.6 | 18.8 | 18.6 | 17.0 | 18.8 | 16.9 | 17.8 | 18.7 | 18.6 | 17.1 | 18.3 | 19.0 | 17.4 | 12.6 |
| e45314 | 31.2 | 17.6 | 17.4 | 16.7 | 17.1 | 16.3 | 15.7 | 16.5 | 17.3 | 15.9 | 17.0 | 16.8 | 16.7 | 12.5 |
| 2d6644 | 31.2 | 17.1 | 17.5 | 15.8 | 16.9 | 15.9 | 15.5 | 16.0 | 16.4 | 15.7 | 17.1 | 16.8 | 16.3 | 12.6 |
| ca346b | 31.5 | 21.6 | 17.7 | 20.6 | 21.2 | 17.9 | 20.5 | 20.6 | 18.1 | 20.6 | 18.7 | 18.6 | 15.9 | 12.9 |
| 28c941 | 31.4 | 23.3 | 18.2 | 21.1 | 22.6 | 17.9 | 21.5 | 20.9 | 18.0 | 21.5 | 19.2 | 18.9 | 18.2 | 12.9 |
| f835a8 | 31.0 | 7.4 | 7.0 | 6.9 | 7.1 | 7.2 | 7.4 | 6.7 | 7.4 | 7.0 | 7.6 | 7.7 | 7.1 | 12.3 |
| a735f9 | 31.1 | 21.7 | 21.5 | 21.3 | 22.8 | 20.0 | 20.9 | 20.6 | 21.5 | 20.2 | 22.4 | 21.3 | 21.0 | 13.1 |
| bba835 | 31.3 | 16.6 | 17.7 | 16.8 | 16.3 | 15.7 | 15.4 | 15.7 | 16.6 | 15.6 | 16.4 | 17.2 | 16.1 | 12.9 |
| e2f354 | 31.2 | 16.7 | 18.0 | 17.4 | 16.5 | 16.7 | 16.2 | 16.6 | 17.9 | 17.5 | 18.2 | 17.0 | 16.6 | 12.4 |
| 897b86 | 31.5 | 8.3 | 7.4 | 7.2 | 7.0 | 7.1 | 7.0 | 6.8 | 7.4 | 6.6 | 7.9 | 6.3 | 7.2 | 12.9 |
| 59cf72 | 31.4 | 22.2 | 21.2 | 21.1 | 21.0 | 21.0 | 20.8 | 20.8 | 22.0 | 21.0 | 21.7 | 21.2 | 21.3 | 12.6 |
| 1941a7 | 31.6 | 21.6 | 22.6 | 20.8 | 22.5 | 20.7 | 21.6 | 20.5 | 21.5 | 21.0 | 21.6 | 21.4 | 21.6 | 12.7 |
| ca903a | 33.8 | 21.0 | 21.3 | 20.5 | 21.6 | 20.7 | 19.4 | 19.5 | 21.1 | 19.2 | 20.5 | 21.0 | 20.6 | 13.4 |
| 1fe7da | 33.8 | 23.3 | 18.4 | 20.9 | 23.8 | 17.4 | 22.1 | 21.3 | 19.1 | 21.5 | 18.8 | 19.0 | 18.7 | 13.5 |
| d5e69f | 33.8 | 8.0 | 7.8 | 7.5 | 8.3 | 7.8 | 7.9 | 7.3 | 8.6 | 7.5 | 8.1 | 8.0 | 7.5 | 13.3 |
| b34e8b | 33.7 | 23.0 | 18.0 | 21.9 | 18.3 | 16.9 | 21.2 | 21.1 | 19.7 | 17.3 | 17.9 | 18.3 | 17.5 | 13.6 |
| 43e04d | 34.0 | 23.1 | 18.5 | 21.7 | 18.9 | 17.5 | 21.7 | 22.1 | 17.8 | 17.2 | 18.1 | 19.4 | 18.0 | 13.6 |
| 156d36 | 34.4 | 22.9 | 23.4 | 21.6 | 17.5 | 21.2 | 22.6 | 21.7 | 22.4 | 17.1 | 18.7 | 22.7 | 17.6 | 13.7 |
| 599cd1 | 34.1 | 23.8 | 19.0 | 22.4 | 18.4 | 18.3 | 21.5 | 21.5 | 19.1 | 17.8 | 18.5 | 20.4 | 18.2 | 13.7 |
| sum | 613.9 | 357.9 | 331.3 | 339.4 | 336.7 | 312.8 | 336.7 | 335.1 | 330.4 | 317.5 | 326.6 | 330.8 | 313.6 | 247.3 |
| mean | 32.3 | 18.8 | 17.4 | 17.9 | 17.7 | 16.5 | 17.7 | 17.6 | 17.4 | 16.7 | 17.2 | 17.4 | 16.5 | 13.0 |

TABLE XCVI: Outcomes of RPS (rps-rpp-vms) jscep time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|--------|--------|-------|-------|-------|
| e553d4 | 46.9 | 28.9 | 28.7 | 28.2 | 29.0 | 28.9 | 27.8 | 27.4 | 27.1 | 27.1 | 28.3 | 27.4 | 27.9 | 21.9 |
| ce7b9a | 47.9 | 26.0 | 26.0 | 25.3 | 26.9 | 26.5 | 26.1 | 25.4 | 25.8 | 26.6 | 26.0 | 25.0 | 26.3 | 21.8 |
| 8cd073 | 47.6 | 29.6 | 29.9 | 28.7 | 30.0 | 29.9 | 26.3 | 26.2 | 26.8 | 25.8 | 30.4 | 26.5 | 25.7 | 21.8 |
| 6e794a | 47.7 | 30.0 | 30.5 | 30.4 | 31.4 | 29.7 | 27.3 | 26.9 | 28.2 | 26.1 | 29.0 | 26.5 | 26.8 | 22.3 |
| c77163 | 33.7 | 15.7 | 17.5 | 14.9 | 15.1 | 16.0 | 11.6 | 12.3 | 11.9 | 12.8 | 14.1 | 12.0 | 13.2 | 7.6 |
| da5108 | 33.8 | 15.7 | 16.4 | 15.8 | 14.6 | 15.9 | 12.5 | 12.2 | 12.7 | 12.4 | 13.4 | 11.7 | 11.9 | 8.1 |
| 7cc074 | 33.8 | 3.9 | 4.2 | 4.1 | 4.2 | 3.9 | 3.9 | 3.9 | 4.1 | 4.1 | 4.0 | 3.9 | 3.9 | 8.0 |
| 886eac | 33.4 | 15.9 | 16.3 | 15.7 | 16.9 | 16.2 | 13.2 | 12.9 | 12.5 | 13.3 | 15.5 | 13.0 | 13.0 | 7.7 |
| 6404ef | 34.2 | 4.1 | 4.2 | 4.1 | 4.1 | 4.2 | 3.9 | 3.9 | 3.9 | 4.0 | 4.1 | 4.1 | 4.1 | 7.9 |
| a039b8 | 34.2 | 12.1 | 11.8 | 12.2 | 13.1 | 12.1 | 11.9 | 10.5 | 11.5 | 11.5 | 11.9 | 11.5 | 11.4 | 8.1 |
| c45090 | 33.2 | 3.8 | 4.3 | 3.8 | 4.3 | 4.1 | 3.7 | 3.9 | 4.1 | 3.8 | 3.9 | 3.9 | 4.1 | 8.0 |
| 2af66c | 33.9 | 12.1 | 13.1 | 11.9 | 13.2 | 12.1 | 11.4 | 12.5 | 12.3 | 11.7 | 11.3 | 11.6 | 12.0 | 7.8 |
| ab5a7f | 33.3 | 15.7 | 16.2 | 16.1 | 13.7 | 16.0 | 11.9 | 12.7 | 12.4 | 12.2 | 14.3 | 12.4 | 11.6 | 8.1 |
| afd8e1 | 33.2 | 16.9 | 16.6 | 16.2 | 16.9 | 16.3 | 12.7 | 12.7 | 12.9 | 11.6 | 15.5 | 13.0 | 13.5 | 8.1 |
| 1cf7dd | 33.7 | 16.1 | 16.5 | 16.2 | 16.5 | 15.4 | 12.6 | 12.4 | 13.0 | 11.5 | 16.3 | 11.2 | 12.7 | 7.8 |
| c27515 | 33.2 | 14.6 | 15.7 | 15.2 | 15.4 | 16.3 | 12.2 | 12.0 | 11.4 | 11.8 | 14.4 | 12.3 | 12.4 | 7.6 |
| e4683d | 32.9 | 15.6 | 17.0 | 16.1 | 16.7 | 15.6 | 12.5 | 12.1 | 12.1 | 12.2 | 15.2 | 11.8 | 11.8 | 7.9 |
| 9a58e1 | 33.8 | 15.4 | 15.8 | 15.8 | 15.9 | 14.9 | 12.7 | 11.6 | 12.4 | 12.7 | 15.4 | 11.5 | 12.9 | 7.5 |
| 661ba5 | 33.9 | 15.0 | 16.0 | 12.3 | 13.3 | 13.2 | 11.1 | 12.2 | 11.7 | 11.3 | 12.8 | 11.1 | 12.1 | 8.1 |
| 298ec2 | 33.2 | 15.8 | 16.0 | 13.1 | 13.5 | 13.0 | 10.9 | 11.7 | 12.1 | 12.1 | 13.3 | 11.3 | 11.9 | 7.8 |
| 71cc1e | 33.5 | 15.5 | 15.8 | 14.7 | 14.0 | 15.3 | 13.0 | 12.7 | 12.2 | 12.0 | 13.4 | 11.8 | 12.7 | 7.5 |
| d30047 | 33.0 | 15.8 | 15.9 | 15.2 | 14.2 | 16.3 | 12.8 | 12.6 | 11.9 | 12.1 | 13.2 | 12.5 | 12.3 | 7.6 |
| 2c828e | 32.6 | 15.3 | 15.8 | 15.4 | 15.2 | 15.7 | 12.2 | 12.9 | 11.3 | 13.1 | 14.8 | 11.0 | 11.3 | 7.8 |
| fa7653 | 32.9 | 16.0 | 15.9 | 15.8 | 16.6 | 16.7 | 12.6 | 13.7 | 13.0 | 13.4 | 17.1 | 13.3 | 14.2 | 7.3 |
| 9284fb | 33.0 | 15.8 | 15.4 | 15.3 | 16.9 | 15.7 | 11.0 | 13.0 | 12.6 | 12.7 | 15.1 | 11.8 | 12.0 | 8.0 |
| 795bcb | 33.4 | 15.9 | 16.2 | 15.5 | 16.1 | 15.1 | 12.6 | 12.6 | 11.8 | 12.3 | 14.9 | 12.4 | 12.5 | 7.7 |
| 8f11a9 | 34.0 | 16.7 | 16.2 | 15.8 | 16.0 | 15.8 | 12.0 | 13.0 | 12.8 | 13.5 | 16.7 | 11.9 | 12.6 | 8.0 |
| b64cb3 | 33.2 | 4.1 | 4.2 | 4.2 | 4.3 | 3.9 | 3.8 | 3.9 | 4.2 | 3.8 | 4.1 | 3.9 | 3.9 | 7.8 |
| 338fad | 34.2 | 4.2 | 4.2 | 3.8 | 4.3 | 4.2 | 3.9 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.4 | 7.8 |
| 2e6948 | 33.7 | 13.4 | 14.5 | 13.9 | 14.5 | 14.3 | 12.5 | 12.4 | 12.8 | 11.6 | 13.8 | 11.3 | 12.6 | 7.8 |
| e5cf30 | 34.0 | 16.7 | 16.7 | 15.0 | 16.5 | 16.0 | 12.6 | 12.6 | 12.7 | 12.3 | 15.5 | 12.3 | 12.3 | 8.3 |
| 42bb03 | 33.2 | 15.2 | 15.3 | 15.2 | 16.0 | 15.5 | 12.6 | 12.5 | 12.6 | 12.0 | 15.8 | 12.5 | 12.4 | 7.5 |
| a40f7b | 34.1 | 16.2 | 15.3 | 14.2 | 14.5 | 13.6 | 12.0 | 11.6 | 12.8 | 12.1 | 13.6 | 11.9 | 13.0 | 7.5 |
| 35b503 | 34.9 | 16.2 | 15.9 | 13.8 | 15.1 | 14.5 | 13.1 | 11.8 | 13.7 | 12.5 | 13.6 | 12.9 | 12.2 | 7.6 |
| daabb3 | 34.6 | 15.7 | 16.4 | 13.0 | 14.2 | 13.2 | 12.9 | 11.4 | 12.3 | 12.2 | 13.5 | 11.6 | 12.3 | 7.8 |
| abe114 | 33.1 | 15.9 | 16.1 | 14.6 | 14.1 | 14.6 | 12.7 | 13.1 | 11.7 | 13.1 | 14.2 | 12.4 | 12.9 | 7.4 |
| 647e36 | 34.1 | 4.0 | 4.2 | 3.9 | 4.2 | 4.2 | 3.8 | 2.9 | 4.1 | 3.9 | 4.2 | 4.1 | 4.2 | 8.2 |
| 727d01 | 33.4 | 13.9 | 13.2 | 12.7 | 14.7 | 14.0 | 13.6 | 13.3 | 13.5 | 11.5 | 13.2 | 12.1 | 12.2 | 8.3 |
| 848385 | 33.3 | 15.5 | 17.1 | 14.3 | 15.8 | 15.8 | 11.9 | 12.7 | 12.0 | 12.4 | 15.2 | 11.8 | 12.8 | 7.7 |
| f0b104 | 33.7 | 13.2 | 14.7 | 13.0 | 14.3 | 12.9 | 13.1 | 13.4 | 12.8 | 12.4 | 13.0 | 13.1 | 14.0 | 7.8 |
| 97bf71 | 33.7 | 16.0 | 14.9 | 13.7 | 14.2 | 14.0 | 12.1 | 12.7 | 11.8 | 12.0 | 13.5 | 11.7 | 12.6 | 8.1 |
| 615b24 | 35.3 | 13.4 | 14.1 | 10.9 | 12.4 | 13.1 | 13.4 | 12.3 | 13.4 | 11.9 | 11.6 | 11.8 | 12.4 | 7.7 |
| a712db | -107.2 | -81.4 | -66.3 | -90.3 | -70.7 | -81.9 | -64.5 | -86.8 | -60.6 | -80.7 | -62.5 | -62.6 | -82.9 | -70.0 |
| d5c64b | -87.5 | 4.2 | 4.3 | 4.3 | 4.2 | 4.0 | 3.9 | 4.1 | 4.0 | 4.2 | 3.9 | 4.0 | 4.3 | -63.7 |
| 19f366 | -101.3 | -64.2 | -73.6 | -87.9 | -81.4 | -99.6 | -79.9 | -72.0 | -79.3 | -108.4 | -80.8 | -67.0 | -77.4 | -92.5 |
| 94a361 | -84.6 | -73.9 | -85.8 | -96.4 | -62.1 | -103.4 | -92.9 | -56.2 | -76.6 | -68.4 | -83.2 | -86.0 | -73.6 | -84.8 |
| 40295a | -93.5 | 4.1 | 4.3 | 3.9 | 4.2 | 4.2 | 3.9 | 3.8 | 4.1 | 4.2 | 3.9 | 4.1 | 4.1 | -68.7 |
| fee2a5 | -93.3 | -94.0 | -93.2 | -91.3 | -85.6 | -97.0 | -90.0 | -95.8 | -61.6 | -76.5 | -74.4 | -92.3 | -62.3 | -89.1 |
| 3c9dd9 | -106.6 | -97.0 | -80.2 | -81.5 | -81.4 | -88.7 | -78.9 | -76.4 | -83.0 | -70.5 | -103.9 | -73.3 | -73.9 | -74.0 |
| sum | 2142.5 | 1046.5 | 1048.6 | 1055.4 | 1012.0 | 1093.4 | 940.6 | 921.8 | 898.0 | 934.4 | 1005.6 | 902.9 | 909.8 | 927.9 |
| mean | 43.7 | 21.4 | 21.4 | 21.5 | 20.7 | 22.3 | 19.2 | 18.8 | 18.3 | 19.1 | 20.5 | 18.4 | 18.6 | 18.9 |

TABLE XCVII: Outcomes of RPS (rps-rpp-vms) stream-lib time

| sha | mop | ps1 | ps1c | ps2 | ps3 | ps2c | ps1l | ps2l | ps1cl | ps3l | ps3c | ps2cl | ps3cl | test |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6a6645 | 582.8 | 94.7 | 89.7 | 90.9 | 92.7 | 93.7 | 92.1 | 92.0 | 95.1 | 92.7 | 96.2 | 89.9 | 95.6 | 88.5 |
| 91d215 | 581.8 | 90.1 | 85.4 | 86.6 | 84.0 | 88.2 | 87.8 | 87.6 | 90.6 | 88.4 | 92.9 | 86.1 | 88.9 | 90.1 |
| c0e238 | 594.8 | 88.6 | 84.2 | 90.8 | 87.1 | 87.5 | 88.3 | 87.5 | 91.0 | 87.8 | 91.0 | 86.1 | 91.2 | 88.6 |
| 63255d | 858.6 | 90.5 | 84.3 | 90.5 | 88.0 | 88.3 | 89.6 | 90.3 | 91.8 | 90.3 | 92.7 | 88.2 | 90.4 | 87.8 |
| 0f2183 | 601.2 | 90.5 | 85.7 | 89.8 | 87.5 | 87.6 | 91.6 | 91.9 | 92.7 | 88.7 | 92.2 | 86.7 | 90.9 | 89.8 |
| 98b913 | 647.7 | 90.2 | 83.1 | 90.1 | 88.5 | 89.9 | 91.3 | 90.8 | -90.0 | 89.3 | 92.9 | 87.0 | 89.5 | 89.3 |
| 43aecb | 664.5 | 89.3 | 86.8 | 90.2 | 87.2 | 90.3 | 90.6 | 90.5 | 91.0 | 86.2 | 91.9 | 89.1 | 89.9 | 88.9 |
| 0c33f1 | 477.9 | 89.4 | 84.6 | 90.2 | 87.4 | 87.8 | 91.6 | 91.0 | 92.0 | 89.2 | 92.4 | 88.3 | 89.5 | 89.5 |
| 0eca17 | 599.7 | 89.2 | 85.0 | 90.6 | 87.5 | 89.4 | 90.0 | 87.8 | 91.5 | 90.3 | 92.1 | 88.7 | 89.0 | 88.6 |
| 7433ea | 471.2 | 90.3 | 85.6 | 90.1 | 86.7 | 88.6 | 91.3 | 89.5 | 92.5 | 86.6 | 93.0 | 86.5 | 91.1 | 88.3 |
| 8da108 | 712.9 | 94.9 | 87.2 | 91.7 | 91.1 | 88.9 | 91.6 | 90.1 | 91.7 | 92.0 | 94.8 | 89.0 | 91.3 | 90.5 |
| 7d085a | 509.9 | 4.6 | 4.5 | 4.3 | 4.5 | 4.4 | 4.6 | 4.4 | 4.6 | 4.5 | 4.5 | 4.7 | 4.6 | 90.2 |
| 22654f | 757.3 | 92.6 | 86.4 | 90.2 | 86.8 | 88.0 | 88.0 | 88.3 | 92.9 | 88.4 | 93.0 | 89.3 | 91.7 | 90.3 |
| 35a0d3 | 456.3 | 89.1 | 82.8 | 86.1 | 84.5 | 83.6 | 83.1 | 84.8 | 89.3 | 85.5 | -90.2 | 86.1 | 86.9 | 87.1 |
| b5fc30 | 600.6 | 94.1 | 88.2 | 93.4 | 90.9 | 90.4 | 91.6 | 86.7 | 93.5 | 90.3 | 92.9 | 91.4 | 92.0 | 87.1 |
| 3ac200 | 747.9 | 104.0 | 98.8 | 97.8 | 99.2 | 101.3 | 99.2 | 96.6 | 103.7 | 99.3 | 106.1 | -99.2 | 102.0 | 98.7 |
| f0518e | 715.4 | 110.3 | 104.4 | 109.5 | 104.6 | 110.9 | 106.3 | 102.8 | 109.9 | 107.0 | 110.1 | 104.2 | 107.9 | 105.0 |
| 8f31aa | 536.4 | 108.6 | 102.8 | 107.2 | 106.4 | 109.6 | 107.1 | 102.9 | 111.5 | 107.5 | 110.0 | 105.0 | 110.6 | 105.6 |
| 573fa7 | 775.4 | 92.6 | 85.5 | 91.2 | 88.5 | 90.6 | 89.4 | 86.3 | 92.4 | 90.7 | 92.4 | 88.1 | -91.0 | 85.5 |
| sum | 11892.6 | 1693.4 | 1594.9 | 1671.3 | 1632.8 | 1658.8 | 1665.1 | 1641.9 | 1707.8 | 1654.9 | 1721.2 | 1633.7 | 1684.0 | 1729.5 |
| mean | 625.9 | 89.1 | 83.9 | 88.0 | 85.9 | 87.3 | 87.6 | 86.4 | 89.9 | 87.1 | 90.6 | 86.0 | 88.6 | 91.0 |