TIMES FOR ANALYSIS

WITH ALL SAMPLES

Serial Execution

>> Serial execution - Trial 1

    Number of iterations: 111
    T_read: 3.254 s
    T_clus: 169.567 s
    T_org: 0.001 s
    T_compact: 37.185 s
    T_anal: 0.404 s
    T_write: 0.003 s
    =========================
    T_total: 210.414 s

>> Serial execution - Trial 2

    Number of iterations: 111
    T_read: 3.203 s
    T_clus: 169.474 s
    T_org: 0.001 s
    T_compact: 36.633 s
    T_anal: 0.403 s
    T_write: 0.003 s
    =========================
    T_total: 209.717 s

>> Serial execution - Trial 3

    Number of iterations: 111
    T_read: 4.633 s
    T_clus: 172.011 s
    T_org: 0.001 s
    T_compact: 35.823 s
    T_anal: 0.403 s
    T_write: 0.003 s
    =========================
    T_total: 212.875 s

>> Serial execution - Trial 4

    Number of iterations: 111
    T_read: 3.280 s
    T_clus: 171.651 s
    T_org: 0.001 s
    T_compact: 36.808 s
    T_anal: 0.405 s
    T_write: 0.003 s
    =========================
    T_total: 212.149 s

>> Serial execution - Trial 5

    Number of iterations: 111
    T_read: 3.213 s
    T_clus: 169.922 s
    T_org: 0.001 s
    T_compact: 36.821 s
    T_anal: 0.404 s
    T_write: 0.003 s
    =========================
    T_total: 210.364

Parallel Execution - 2 Threads

>> Parallel execution, 2 - Trial 1

Number of iterations: 111
    T_read: 3.327 s
    T_clus: 86.802 s
    T_org: 0.025 s
    T_compact: 18.846 s
    T_anal: 0.203 s
    T_write: 0.003 s
    ========================
    T_total: 109.205 s

>> Parallel execution, 2 - Trial 2

Number of iterations: 111
    T_read: 3.417 s
    T_clus: 90.488 s
    T_org: 0.036 s
    T_compact: 20.083 s
    T_anal: 0.205 s
    T_write: 0.003 s
    ========================
    T_total: 114.232 s

>> Parallel execution, 2 - Trial 3

Number of iterations: 111
    T_read: 3.425 s
    T_clus: 87.013 s
    T_org: 0.025 s
    T_compact: 19.226 s
    T_anal: 0.564 s
    T_write: 0.003 s
    ========================
    T_total: 110.256 s

>> Parallel execution, 2 - Trial 4

Number of iterations: 111
    T_read: 3.312 s
    T_clus: 89.180 s
    T_org: 0.016 s
    T_compact: 18.749 s
    T_anal: 0.201 s
    T_write: 0.003 s
    ========================
    T_total: 111.462 s

>> Parallel execution, 2 - Trial 5

Number of iterations: 111
    T_read: 3.438 s
    T_clus: 87.378 s
    T_org: 0.016 s
    T_compact: 18.981 s
    T_anal: 0.528 s
    T_write: 0.003 s
    ========================
    T_total: 110.345 s

Parallel execution - 4 threads

>> Parallel execution, 4 - Trial 1

Number of iterations: 111
    T_read: 3.481 s
    T_clus: 43.875 s
    T_org: 0.066 s
    T_compact: 9.575 s
    T_anal: 0.229 s
    T_write: 0.003 s
    ========================
    T_total: 57.229 s

>> Parallel execution, 4 - Trial 2

Number of iterations: 111
    T_read: 3.314 s
    T_clus: 42.456 s
    T_org: 0.033 s
    T_compact: 9.452 s
    T_anal: 0.147 s
    T_write: 0.003 s
    ========================
    T_total: 55.405 s

>> Parallel execution, 4 - Trial 3

Number of iterations: 111
    T_read: 4.107 s
    T_clus: 43.608 s
    T_org: 0.033 s
    T_compact: 9.643 s
    T_anal: 0.103 s
    T_write: 0.003 s
    ========================
    T_total: 57.497 s

>> Parallel execution, 4 - Trial 4

Number of iterations: 111
    T_read: 3.354 s
    T_clus: 42.521 s
    T_org: 0.034 s
    T_compact: 9.520 s
    T_anal: 0.102 s
    T_write: 0.003 s
    ========================
    T_total: 55.532 s

>> Parallel execution, 4 - Trial 5

Number of iterations: 111
    T_read: 3.314 s
    T_clus: 45.823 s
    T_org: 0.053 s
    T_compact: 9.423 s
    T_anal: 0.111 s
    T_write: 0.003 s
    ========================
    T_total: 58.727 s

Parallel Execution - 8 Threads

>> Parallel execution, 8 - Trial 1

Number of iterations: 111
    T_read: 3.312 s
    T_clus: 21.565 s
    T_org: 0.069 s
    T_compact: 4.795 s
    T_anal: 0.669 s
    T_write: 0.003 s
    =======================
    T_total: 30.413 s

>> Parallel execution, 8 - Trial 2

Number of iterations: 111
    T_read: 3.315 s
    T_clus: 21.526 s
    T_org: 0.071 s
    T_compact: 4.849 s
    T_anal: 0.420 s
    T_write: 0.003 s
    =======================
    T_total: 30.184 s

>> Parallel execution, 8 - Trial 3

Number of iterations: 111
    T_read: 5.109 s
    T_clus: 21.480 s
    T_org: 0.075 s
    T_compact: 5.495 s
    T_anal: 1.172 s
    T_write: 0.005 s
    =======================
    T_total: 33.336 s

>> Parallel execution, 8 - Trial 4

Number of iterations: 111
    T_read: 3.341 s
    T_clus: 21.634 s
    T_org: 0.074 s
    T_compact: 4.727 s
    T_anal: 0.605 s
    T_write: 0.003 s
    =======================
    T_total: 30.385 s

>> Parallel execution, 8 - Trial 5

Number of iterations: 111
    T_read: 3.561 s
    T_clus: 21.344 s
    T_org: 0.075 s
    T_compact: 4.905 s
    T_anal: 0.498 s
    T_write: 0.003 s
    =======================
    T_total: 30.386 s

Parallel Execution - 16 Threads

>> Parallel execution, 16 - Trial 1

Number of iterations: 111
T_read: 3.359 s
T_clus: 10.991 s
T_org: 0.086 s
T_compact: 3.491 s
T_anal: 1.623 s
T_write: 0.003 s
========================
T_total: 19.553 s

>> Parallel execution, 16 - Trial 2

Number of iterations: 111
T_read: 3.311 s
T_clus: 10.762 s
T_org: 0.077 s
T_compact: 5.245 s
T_anal: 0.030 s
T_write: 0.003 s
========================
T_total: 19.428 s

>> Parallel execution, 16 - Trial 3

Number of iterations: 111
T_read: 3.323 s
T_clus: 11.180 s
T_org: 0.088 s
T_compact: 2.169 s
T_anal: 3.241 s
T_write: 0.003 s
========================
T_total: 20.004 s

>> Parallel execution, 16 - Trial 4

Number of iterations: 111
T_read: 3.328 s
T_clus: 11.221 s
T_org: 0.092 s
T_compact: 2.268 s
T_anal: 3.266 s
T_write: 0.003 s
========================
T_total: 20.178 s

>> Parallel execution, 16 - Trial 5

Number of iterations: 111
T_read: 3.348 s
T_clus: 10.827 s
T_org: 0.088 s
T_compact: 2.253 s
T_anal: 2.870 s
T_write: 0.003 s
========================
T_total: 19.389 s

Parallel Execution - 32 Threads

>> Parallel execution, 32 - Trial 1

Number of iterations: 111
   T_read: 3.392 s
   T_clus: 7.698 s
   T_org: 0.108 s
   T_compact: 1.567 s
   T_anal: 3.756 s
   T_write: 0.003 s
   =======================
   T_total: 16.525 s

>> Parallel execution, 32 - Trial 2

Number of iterations: 111
   T_read: 3.358 s
   T_clus: 6.765 s
   T_org: 0.129 s
   T_compact: 1.624 s
   T_anal: 3.802 s
   T_write: 0.003 s
   =======================
   T_total: 15.681 s

>> Parallel execution, 32 - Trial 3

   Number of iterations: 111
   T_read: 3.310 s
   T_clus: 6.377 s
   T_org: 0.114 s
   T_compact: 0.701 s
   T_anal: 4.624 s
   T_write: 0.003 s
   =======================
   T_total: 15.129 s

>> Parallel execution, 32 - Trial 4

   Number of iterations: 111
   T_read: 3.360 s
   T_clus: 7.314 s
   T_org: 0.114 s
   T_compact: 1.563 s
   T_anal: 3.758 s
   T_write: 0.003 s
   =======================
   T_total: 16.112 s

>> Parallel execution, 32 - Trial 5

Number of iterations: 111
   T_read: 3.358 s
   T_clus: 6.765 s
   T_org: 0.129 s
   T_compact: 1.624 s
   T_anal: 3.802 s
   T_write: 0.003 s
   =======================
   T_total: 15.681 s

>> Parallel execution, 32 - Trial 6

   Number of iterations: 111
   T_read: 3.310 s
   T_clus: 6.377 s
   T_org: 0.114 s
   T_compact: 0.701 s
   T_anal: 4.624 s
   T_write: 0.003 s
   =======================
   T_total: 15.129 s

Parallel Execution - 48 Threads

>> Parallel execution, 48 - Trial 1

Number of iterations: 111
   T_read: 3.371 s
   T_clus: 5.463 s
   T_org: 0.120 s
   T_compact: 0.432 s
   T_anal: 5.001 s
   T_write: 0.003 s
   ========================
   T_total: 14.391 s

>> Parallel execution, 48 - Trial 2

Number of iterations: 111
   T_read: 3.312 s
   T_clus: 5.460 s
   T_org: 0.115 s
   T_compact: 0.437 s
   T_anal: 5.051 s
   T_write: 0.003 s
   ========================
   T_total: 14.378 s

>> Parallel execution, 48 - Trial 3

Number of iterations: 111
   T_read: 3.314 s
   T_clus: 5.446 s
   T_org: 0.111 s
   T_compact: 0.444 s
   T_anal: 4.954 s
   T_write: 0.003 s
   ========================
   T_total: 14.272 s

>> Parallel execution, 48 - Trial 4

Number of iterations: 111
   T_read: 3.311 s
   T_clus: 5.460 s
   T_org: 0.120 s
   T_compact: 2.960 s
   T_anal: 2.414 s
   T_write: 0.003 s
   ========================
   T_total: 14.267 s

>> Parallel execution, 48 - Trial 5

Number of iterations: 111
   T_read: 3.358 s
   T_clus: 5.489 s
   T_org: 0.119 s
   T_compact: 1.706 s
   T_anal: 3.659 s
   T_write: 0.003 s
   ========================
   T_total: 14.334 s

Parallel Execution - 64 Threads

>> Parallel execution, 64 - Trial 1

Number of iterations: 111
    T_read: 3.315 s
    T_clus: 5.938 s
    T_org: 0.248 s
    T_compact: 1.293 s
    T_anal: 4.443 s
    T_write: 0.003 s
    =========================
    T_total: 15.240 s

>> Parallel execution, 64 - Trial 2

Number of iterations: 111
    T_read: 3.461 s
    T_clus: 5.538 s
    T_org: 0.224 s
    T_compact: 0.441 s
    T_anal: 5.189 s
    T_write: 0.003 s
    =========================
    T_total: 14.856 s

>> Parallel execution, 64 - Trial 3

Number of iterations: 111
    T_read: 3.313 s
    T_clus: 4.643 s
    T_org: 0.264 s
    T_compact: 1.367 s
    T_anal: 4.123 s
    T_write: 0.003 s
    =========================
    T_total: 13.713 s

>> Parallel execution, 64 - Trial 4

Number of iterations: 111
    T_read: 3.312 s
    T_clus: 4.272 s
    T_org: 0.255 s
    T_compact: 3.106 s
    T_anal: 2.456 s
    T_write: 0.003 s
    =========================
    T_total: 13.405 s

>> Parallel execution, 64 - Trial 5

Number of iterations: 111
    T_read: 3.309 s
    T_clus: 4.285 s
    T_org: 0.252 s
    T_compact: 3.063 s
    T_anal: 2.427 s
    T_write: 0.003 s
    =========================
    T_total: 13.340 s

WITH 1 000 SAMPLES

Serial execution

>> Serial execution - Trial 1

Number of iterations: 5
   T_read: 0.015 s
   T_clus: 0.036 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =========================
   T_total: 0.056 s

>> Serial execution - Trial 2

Number of iterations: 5
   T_read: 0.015 s
   T_clus: 0.036 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =========================
   T_total: 0.056 s

>> Serial execution - Trial 3

Number of iterations: 5
   T_read: 0.015 s
   T_clus: 0.036 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =========================
   T_total: 0.056 s

>> Serial execution - Trial 4

Number of iterations: 5
   T_read: 0.015 s
   T_clus: 0.035 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =========================
   T_total: 0.055 s

>> Serial execution - Trial 5

Number of iterations: 5
   T_read: 0.015 s
   T_clus: 0.035 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =========================
   T_total: 0.055 s

Parallel Execution - 2 Threads

>> Parallel execution, 2 - Trial 1

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.023 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =======================
   T_total: 0.042 s

>> Parallel execution, 2 - Trial 2

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.020 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =======================
   T_total: 0.041 s

>> Parallel execution, 2 - Trial 3

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.020 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =======================
   T_total: 0.040 s

>> Parallel execution, 2 - Trial 4

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.022 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =======================
   T_total: 0.041 s

>> Parallel execution, 2 - Trial 5

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.018 s
   T_org: 0.000 s
   T_compact: 0.001 s
   T_anal: 0.001 s
   T_write: 0.003 s
   =======================
   T_total: 0.038 s

Parallel Execution - 4 Threads

>> Parallel execution, 4 - Trial 1

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.011 s
   T_org:      0.000 s
   T_compact:  0.000 s
   T_anal:     0.000 s
   T_write:    0.003 s
   ========================
   T_total:    0.030 s
```

>> Parallel execution, 4 - Trial 2

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.010 s
   T_org:      0.000 s
   T_compact:  0.000 s
   T_anal:     0.000 s
   T_write:    0.003 s
   ========================
   T_total:    0.029 s
```

>> Parallel execution, 4 - Trial 3

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.010 s
   T_org:      0.000 s
   T_compact:  0.000 s
   T_anal:     0.000 s
   T_write:    0.003 s
   ========================
   T_total:    0.029 s
```

>> Parallel execution, 4 - Trial 4

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.010 s
   T_org:      0.000 s
   T_compact:  0.000 s
   T_anal:     0.000 s
   T_write:    0.003 s
   ========================
   T_total:    0.030 s
```

>> Parallel execution, 4 - Trial 5

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.011 s
   T_org:      0.000 s
   T_compact:  0.000 s
   T_anal:     0.000 s
   T_write:    0.003 s
   ========================
   T_total:    0.030
```

Parallel Execution - 8 Threads

>> Parallel execution, 8 - Trial 1

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.006 s
    T_org: 0.000 s
    T_compact: 0.000 s
    T_anal: 0.001 s
    T_write: 0.003 s
    ========================
    T_total: 0.026 s

>> Parallel execution, 8 - Trial 2

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.007 s
    T_org: 0.000 s
    T_compact: 0.000 s
    T_anal: 0.001 s
    T_write: 0.003 s
    ========================
    T_total: 0.026 s

>> Parallel execution, 8 - Trial 3

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.006 s
    T_org: 0.000 s
    T_compact: 0.000 s
    T_anal: 0.001 s
    T_write: 0.003 s
    ========================
    T_total: 0.025 s

>> Parallel execution, 8 - Trial 4

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.006 s
    T_org: 0.000 s
    T_compact: 0.000 s
    T_anal: 0.001 s
    T_write: 0.003 s
    ========================
    T_total: 0.026 s

>> Parallel execution, 8 - Trial 5

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.007 s
    T_org: 0.000 s
    T_compact: 0.000 s
    T_anal: 0.001 s
    T_write: 0.003 s
    ========================
    T_total: 0.027 s

Parallel Execution - 16 Threads

>> Parallel execution, 16 - Trial 1

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.006 s
   T_org: 0.001 s
   T_compact: 0.000 s
   T_anal: 0.001 s
   T_write: 0.003 s
   ========================
   T_total: 0.026 s

>> Parallel execution, 16 - Trial 2

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.005 s
   T_org: 0.001 s
   T_compact: 0.000 s
   T_anal: 0.001 s
   T_write: 0.003 s
   ========================
   T_total: 0.025 s

>> Parallel execution, 16 - Trial 3

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.005 s
   T_org: 0.001 s
   T_compact: 0.000 s
   T_anal: 0.001 s
   T_write: 0.003 s
   ========================
   T_total: 0.025 s

>> Parallel execution, 16 - Trial 4

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.005 s
   T_org: 0.001 s
   T_compact: 0.000 s
   T_anal: 0.001 s
   T_write: 0.003 s
   ========================
   T_total: 0.025 s

>> Parallel execution, 16 - Trial 5

Number of iterations: 5
   T_read: 0.016 s
   T_clus: 0.006 s
   T_org: 0.001 s
   T_compact: 0.000 s
   T_anal: 0.001 s
   T_write: 0.003 s
   ========================
   T_total: 0.027 s

Parallel Execution - 32 Threads

>> Parallel execution, 32 - Trial 1

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.005 s
   T_org:      0.001 s
   T_compact:  0.000 s
   T_anal:     0.001 s
   T_write:    0.003 s
   ========================
   T_total:   0.026 s
```

>> Parallel execution, 32 - Trial 2

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.005 s
   T_org:      0.001 s
   T_compact:  0.000 s
   T_anal:     0.001 s
   T_write:    0.003 s
   ========================
   T_total:   0.026 s
```

>> Parallel execution, 32 - Trial 3

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.005 s
   T_org:      0.001 s
   T_compact:  0.000 s
   T_anal:     0.001 s
   T_write:    0.003 s
   ========================
   T_total:   0.026 s
```

>> Parallel execution, 32 - Trial 4

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.005 s
   T_org:      0.001 s
   T_compact:  0.000 s
   T_anal:     0.001 s
   T_write:    0.003 s
   ========================
   T_total:   0.025 s
```

>> Parallel execution, 32 - Trial 5

Number of iterations: 5
```
   T_read:     0.016 s
   T_clus:     0.005 s
   T_org:      0.001 s
   T_compact:  0.000 s
   T_anal:     0.001 s
   T_write:    0.003 s
   ========================
   T_total:   0.027 s
```

Parallel Execution - 48 Threads

>> Parallel execution, 48 - Trial 1

Number of iterations: 5
    T_read: 0.020 s
    T_clus: 0.007 s
    T_org: 0.001 s
    T_compact: 0.000 s
    T_anal: 0.001 s
    T_write: 0.003 s
    ========================
    T_total: 0.032 s

>> Parallel execution, 48 - Trial 2

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.006 s
    T_org: 0.001 s
    T_compact: 0.000 s
    T_anal: 0.001 s
    T_write: 0.003 s
    ========================
    T_total: 0.027 s

>> Parallel execution, 48 - Trial 3

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.006 s
    T_org: 0.001 s
    T_compact: 0.000 s
    T_anal: 0.001 s
    T_write: 0.003 s
    ========================
    T_total: 0.028 s

>> Parallel execution, 48 - Trial 4

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.006 s
    T_org: 0.001 s
    T_compact: 0.000 s
    T_anal: 0.002 s
    T_write: 0.003 s
    ========================
    T_total: 0.029 s

>> Parallel execution, 48 - Trial 5

Number of iterations: 5
    T_read: 0.019 s
    T_clus: 0.006 s
    T_org: 0.001 s
    T_compact: 0.000 s
    T_anal: 0.002 s
    T_write: 0.003 s
    ========================
    T_total: 0.031 s

Parallel Execution - 64 Threads

>> Parallel execution, 64 - Trial 1

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.278 s
    T_org: 0.039 s
    T_compact: 0.000 s
    T_anal: 0.028 s
    T_write: 0.003 s
    ========================
    T_total: 0.364 s

>> Parallel execution, 64 - Trial 2

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.248 s
    T_org: 0.029 s
    T_compact: 0.000 s
    T_anal: 0.022 s
    T_write: 0.003 s
    ========================
    T_total: 0.319 s

>> Parallel execution, 64 - Trial 3

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.263 s
    T_org: 0.038 s
    T_compact: 0.000 s
    T_anal: 0.020 s
    T_write: 0.003 s
    ========================
    T_total: 0.340 s

>> Parallel execution, 64 - Trial 4

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.268 s
    T_org: 0.038 s
    T_compact: 0.000 s
    T_anal: 0.027 s
    T_write: 0.003 s
    ========================
    T_total: 0.352 s

>> Parallel execution, 64 - Trial 5

Number of iterations: 5
    T_read: 0.016 s
    T_clus: 0.270 s
    T_org: 0.045 s
    T_compact: 0.000 s
    T_anal: 0.027 s
    T_write: 0.003 s
    ========================
    T_total: 0.361 s

WITH 10 000 SAMPLES

Serial Execution

>> Serial Execution - Trial 1

Number of iterations: 13
    T_read: 0.151 s
    T_clus: 0.926 s
    T_org: 0.000 s
    T_compact: 0.109 s
    T_anal: 0.014 s
    T_write: 0.003 s
    ========================
    T_total: 1.203 s

>> Serial Execution - Trial 2

Number of iterations: 13
    T_read: 0.151 s
    T_clus: 0.938 s
    T_org: 0.000 s
    T_compact: 0.111 s
    T_anal: 0.014 s
    T_write: 0.003 s
    ========================
    T_total: 1.217 s

>> Serial Execution - Trial 3

Number of iterations: 13
    T_read: 0.151 s
    T_clus: 0.935 s
    T_org: 0.000 s
    T_compact: 0.111 s
    T_anal: 0.014 s
    T_write: 0.003 s
    ========================
    T_total: 1.214 s

>> Serial Execution - Trial 4

Number of iterations: 13
    T_read: 0.151 s
    T_clus: 0.935 s
    T_org: 0.000 s
    T_compact: 0.111 s
    T_anal: 0.014 s
    T_write: 0.003 s
    ========================
    T_total: 1.214 s

>> Serial Execution - Trial 5

Number of iterations: 13
    T_read: 0.151 s
    T_clus: 0.939 s
    T_org: 0.000 s
    T_compact: 0.111 s
    T_anal: 0.014 s
    T_write: 0.003 s
    ========================
    T_total: 1.218

Parallel Execution - 2 Threads

>> Parallel execution, 2 - Trial 1

Number of iterations: 13
```
   T_read:     0.156 s
   T_clus:     0.469 s
   T_org:      0.001 s
   T_compact:  0.053 s
   T_anal:     0.013 s
   T_write:    0.003 s
   =======================
   T_total:   0.696 s
```

>> Parallel execution, 2 - Trial 2

Number of iterations: 13
```
   T_read:     0.156 s
   T_clus:     0.469 s
   T_org:      0.001 s
   T_compact:  0.052 s
   T_anal:     0.013 s
   T_write:    0.003 s
   =======================
   T_total:   0.694 s
```

>> Parallel execution, 2 - Trial 3

Number of iterations: 13
```
   T_read:     0.156 s
   T_clus:     0.469 s
   T_org:      0.002 s
   T_compact:  0.053 s
   T_anal:     0.013 s
   T_write:    0.003 s
   =======================
   T_total:   0.696 s
```

>> Parallel execution, 2 - Trial 4

Number of iterations: 13
```
   T_read:     0.156 s
   T_clus:     0.468 s
   T_org:      0.002 s
   T_compact:  0.053 s
   T_anal:     0.013 s
   T_write:    0.003 s
   =======================
   T_total:   0.695 s
```

>> Parallel execution, 2 - Trial 5

Number of iterations: 13
```
   T_read:     0.156 s
   T_clus:     0.468 s
   T_org:      0.002 s
   T_compact:  0.053 s
   T_anal:     0.013 s
   T_write:    0.003 s
   =======================
   T_total:   0.696 s
```

Parallel Execution - 4 Threads

>> Parallel execution, 4 - Trial 1

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.242 s
   T_org: 0.003 s
   T_compact: 0.026 s
   T_anal: 0.012 s
   T_write: 0.003 s
   ========================
   T_total: 0.442 s

>> Parallel execution, 4 - Trial 2

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.241 s
   T_org: 0.003 s
   T_compact: 0.026 s
   T_anal: 0.012 s
   T_write: 0.003 s
   ========================
   T_total: 0.441 s

>> Parallel execution, 4 - Trial 3

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.244 s
   T_org: 0.003 s
   T_compact: 0.026 s
   T_anal: 0.012 s
   T_write: 0.003 s
   ========================
   T_total: 0.444 s

>> Parallel execution, 4 - Trial 4

Number of iterations: 13
   T_read: 0.157 s
   T_clus: 0.243 s
   T_org: 0.003 s
   T_compact: 0.034 s
   T_anal: 0.004 s
   T_write: 0.003 s
   ========================
   T_total: 0.444 s

>> Parallel execution, 4 - Trial 5

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.244 s
   T_org: 0.003 s
   T_compact: 0.026 s
   T_anal: 0.012 s
   T_write: 0.003 s
   ========================
   T_total: 0.444 s

Parallel Execution - 8 Threads

>> Parallel execution, 8 - Trial 1

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.158 s
   T_org: 0.003 s
   T_compact: 0.014 s
   T_anal: 0.009 s
   T_write: 0.003 s
   =========================
   T_total: 0.344 s

>> Parallel execution, 8 - Trial 2

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.156 s
   T_org: 0.004 s
   T_compact: 0.017 s
   T_anal: 0.006 s
   T_write: 0.003 s
   =========================
   T_total: 0.341 s

>> Parallel execution, 8 - Trial 3

Number of iterations: 13
   T_read: 0.157 s
   T_clus: 0.153 s
   T_org: 0.003 s
   T_compact: 0.012 s
   T_anal: 0.011 s
   T_write: 0.003 s
   =========================
   T_total: 0.339 s

>> Parallel execution, 8 - Trial 4

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.154 s
   T_org: 0.004 s
   T_compact: 0.011 s
   T_anal: 0.011 s
   T_write: 0.003 s
   =========================
   T_total: 0.339 s

>> Parallel execution, 8 - Trial 5

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.151 s
   T_org: 0.004 s
   T_compact: 0.011 s
   T_anal: 0.011 s
   T_write: 0.003 s
   =========================
   T_total: 0.337 s

Parallel Execution - 16 Threads

>> Parallel execution, 16 - Trial 1

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.116 s
   T_org: 0.004 s
   T_compact: 0.005 s
   T_anal: 0.009 s
   T_write: 0.003 s
   ========================
   T_total: 0.293 s

>> Parallel execution, 16 - Trial 2

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.114 s
   T_org: 0.004 s
   T_compact: 0.013 s
   T_anal: 0.002 s
   T_write: 0.003 s
   ========================
   T_total: 0.292 s

>> Parallel execution, 16 - Trial 3

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.100 s
   T_org: 0.004 s
   T_compact: 0.005 s
   T_anal: 0.009 s
   T_write: 0.003 s
   ========================
   T_total: 0.277 s

>> Parallel execution, 16 - Trial 4

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.120 s
   T_org: 0.005 s
   T_compact: 0.013 s
   T_anal: 0.002 s
   T_write: 0.003 s
   ========================
   T_total: 0.298 s

>> Parallel execution, 16 - Trial 5

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.106 s
   T_org: 0.004 s
   T_compact: 0.013 s
   T_anal: 0.002 s
   T_write: 0.003 s
   ========================
   T_total: 0.284 s

Parallel Execution - 32 Threads

>> Parallel execution, 32 - Trial 1

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.082 s
   T_org: 0.006 s
   T_compact: 0.003 s
   T_anal: 0.014 s
   T_write: 0.003 s
   ========================
   T_total: 0.263 s

>> Parallel execution, 32 - Trial 2

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.082 s
   T_org: 0.006 s
   T_compact: 0.003 s
   T_anal: 0.013 s
   T_write: 0.003 s
   ========================
   T_total: 0.262 s

>> Parallel execution, 32 - Trial 3

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.081 s
   T_org: 0.005 s
   T_compact: 0.003 s
   T_anal: 0.013 s
   T_write: 0.003 s
   ========================
   T_total: 0.260 s

>> Parallel execution, 32 - Trial 4

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.088 s
   T_org: 0.005 s
   T_compact: 0.003 s
   T_anal: 0.010 s
   T_write: 0.003 s
   ========================
   T_total: 0.265 s

>> Parallel execution, 32 - Trial 5

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.091 s
   T_org: 0.005 s
   T_compact: 0.013 s
   T_anal: 0.002 s
   T_write: 0.003 s
   ========================
   T_total: 0.271 s

Parallel Execution - 48 Threads

>> Parallel execution, 48 - Trial 1

Number of iterations: 13
 T_read: 0.164 s
 T_clus: 0.069 s
 T_org: 0.008 s
 T_compact: 0.000 s
 T_anal: 0.015 s
 T_write: 0.003 s
 =========================
 T_total: 0.260 s

>> Parallel execution, 48 - Trial 2

Number of iterations: 13
 T_read: 0.156 s
 T_clus: 0.069 s
 T_org: 0.008 s
 T_compact: 0.000 s
 T_anal: 0.016 s
 T_write: 0.003 s
 =========================
 T_total: 0.253 s

>> Parallel execution, 48 - Trial 3

Number of iterations: 13
 T_read: 0.156 s
 T_clus: 0.070 s
 T_org: 0.008 s
 T_compact: 0.000 s
 T_anal: 0.016 s
 T_write: 0.003 s
 =========================
 T_total: 0.253 s

>> Parallel execution, 48 - Trial 4

Number of iterations: 13
 T_read: 0.156 s
 T_clus: 0.071 s
 T_org: 0.007 s
 T_compact: 0.004 s
 T_anal: 0.011 s
 T_write: 0.003 s
 =========================
 T_total: 0.253 s

>> Parallel execution, 48 - Trial 5

Number of iterations: 13
 T_read: 0.164 s
 T_clus: 0.069 s
 T_org: 0.008 s
 T_compact: 0.004 s
 T_anal: 0.013 s
 T_write: 0.003 s
 =========================
 T_total: 0.261 s

Parallel Execution - 64 Threads

>> Parallel execution, 64 - Trial 1

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.473 s
   T_org: 0.012 s
   T_compact: 0.000 s
   T_anal: 0.016 s
   T_write: 0.003 s
   ========================
   T_total: 0.660 s

>> Parallel execution, 64 - Trial 2

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.305 s
   T_org: 0.011 s
   T_compact: 0.000 s
   T_anal: 0.030 s
   T_write: 0.003 s
   ========================
   T_total: 0.506 s

>> Parallel execution, 64 - Trial 3

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.170 s
   T_org: 0.012 s
   T_compact: 0.000 s
   T_anal: 0.015 s
   T_write: 0.003 s
   ========================
   T_total: 0.356 s

>> Parallel execution, 64 - Trial 4

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.225 s
   T_org: 0.012 s
   T_compact: 0.000 s
   T_anal: 0.030 s
   T_write: 0.003 s
   ========================
   T_total: 0.427 s

>> Parallel execution, 64 - Trial 5

Number of iterations: 13
   T_read: 0.156 s
   T_clus: 0.214 s
   T_org: 0.012 s
   T_compact: 0.000 s
   T_anal: 0.016 s
   T_write: 0.003 s
   ========================
   T_total: 0.402 s

WITH 100 000 SAMPLES

Serial execution

>> Serial execution - Trial 1

Number of iterations: 78
   T_read: 1.508 s
   T_clus: 56.265 s
   T_org: 0.001 s
   T_compact: 9.725 s
   T_anal: 0.182 s
   T_write: 0.003 s
   =========================
   T_total: 67.683 s

>> Serial execution - Trial 2

Number of iterations: 78
   T_read: 1.524 s
   T_clus: 56.473 s
   T_org: 0.001 s
   T_compact: 9.889 s
   T_anal: 0.182 s
   T_write: 0.003 s
   =========================
   T_total: 68.072 s

>> Serial execution - Trial 3

Number of iterations: 78
   T_read: 1.509 s
   T_clus: 56.362 s
   T_org: 0.001 s
   T_compact: 9.977 s
   T_anal: 0.182 s
   T_write: 0.003 s
   =========================
   T_total: 68.034 s

>> Serial execution - Trial 4

Number of iterations: 78
   T_read: 1.522 s
   T_clus: 56.296 s
   T_org: 0.001 s
   T_compact: 9.814 s
   T_anal: 0.181 s
   T_write: 0.003 s
   =========================
   T_total: 67.817 s

>> Serial execution - Trial 5

Number of iterations: 78
   T_read: 1.507 s
   T_clus: 56.219 s
   T_org: 0.001 s
   T_compact: 9.726 s
   T_anal: 0.181 s
   T_write: 0.003 s
   =========================
   T_total: 67.637 s

Parallel Execution - 2 Threads

>> Parallel execution, 2 - Trial 1

Number of iterations: 78
   T_read: 1.562 s
   T_clus: 28.108 s
   T_org: 0.018 s
   T_compact: 4.936 s
   T_anal: 0.126 s
   T_write: 0.003 s
   ========================
   T_total: 34.754 s

>> Parallel execution, 2 - Trial 2

Number of iterations: 78
   T_read: 1.575 s
   T_clus: 28.231 s
   T_org: 0.011 s
   T_compact: 4.880 s
   T_anal: 0.134 s
   T_write: 0.003 s
   ========================
   T_total: 34.834 s

>> Parallel execution, 2 - Trial 3

Number of iterations: 78
   T_read: 1.567 s
   T_clus: 28.170 s
   T_org: 0.010 s
   T_compact: 4.951 s
   T_anal: 0.091 s
   T_write: 0.003 s
   ========================
   T_total: 34.791 s

>> Parallel execution, 2 - Trial 4

Number of iterations: 78
   T_read: 1.559 s
   T_clus: 28.153 s
   T_org: 0.010 s
   T_compact: 4.844 s
   T_anal: 0.091 s
   T_write: 0.003 s
   ========================
   T_total: 34.660 s

>> Parallel execution, 2 - Trial 5

Number of iterations: 78
   T_read: 1.560 s
   T_clus: 28.094 s
   T_org: 0.009 s
   T_compact: 5.501 s
   T_anal: 0.241 s
   T_write: 0.004 s
   ========================
   T_total: 35.409 s

Parallel Execution - 4 Threads

>> Parallel execution, 4 - Trial 1

Number of iterations: 78
   T_read: 1.569 s
   T_clus: 14.065 s
   T_org: 0.021 s
   T_compact: 2.868 s
   T_anal: 0.047 s
   T_write: 0.003 s
   ========================
   T_total: 18.572 s

>> Parallel execution, 4 - Trial 2

Number of iterations: 78
   T_read: 1.561 s
   T_clus: 14.082 s
   T_org: 0.028 s
   T_compact: 2.333 s
   T_anal: 0.580 s
   T_write: 0.003 s
   ========================
   T_total: 18.587 s

>> Parallel execution, 4 - Trial 3

Number of iterations: 78
   T_read: 1.697 s
   T_clus: 14.179 s
   T_org: 0.027 s
   T_compact: 2.319 s
   T_anal: 0.613 s
   T_write: 0.003 s
   ========================
   T_total: 18.837 s

>> Parallel execution, 4 - Trial 4

Number of iterations: 78
   T_read: 1.562 s
   T_clus: 14.112 s
   T_org: 0.028 s
   T_compact: 2.294 s
   T_anal: 0.635 s
   T_write: 0.003 s
   ========================
   T_total: 18.634 s

>> Parallel execution, 4 - Trial 5

Number of iterations: 78
   T_read: 1.561 s
   T_clus: 14.086 s
   T_org: 0.029 s
   T_compact: 2.475 s
   T_anal: 0.506 s
   T_write: 0.003 s
   ========================
   T_total: 18.660 s

Parallel Execution - 8 Threads

>> Parallel execution, 8 - Trial 1

Number of iterations: 78
   T_read: 1.561 s
   T_clus: 7.116 s
   T_org: 0.035 s
   T_compact: 1.157 s
   T_anal: 0.954 s
   T_write: 0.003 s
   ========================
   T_total: 10.825 s

>> Parallel execution, 8 - Trial 2

Number of iterations: 78
   T_read: 1.558 s
   T_clus: 7.059 s
   T_org: 0.036 s
   T_compact: 1.288 s
   T_anal: 0.792 s
   T_write: 0.003 s
   ========================
   T_total: 10.737 s

>> Parallel execution, 8 - Trial 3

¡Number of iterations: 78
   T_read: 1.568 s
   T_clus: 7.166 s
   T_org: 0.037 s
   T_compact: 1.120 s
   T_anal: 0.936 s
   T_write: 0.003 s
   ========================
   T_total: 10.829 s

>> Parallel execution, 8 - Trial 4

Number of iterations: 78
   T_read: 1.569 s
   T_clus: 7.052 s
   T_org: 0.035 s
   T_compact: 2.038 s
   T_anal: 0.024 s
   T_write: 0.003 s
   ========================
   T_total: 10.722 s

>> Parallel execution, 8 - Trial 5

Number of iterations: 78
   T_read: 1.558 s
   T_clus: 7.157 s
   T_org: 0.033 s
   T_compact: 1.046 s
   T_anal: 1.030 s
   T_write: 0.003 s
   ========================
   T_total: 10.827 s

Parallel Execution - 16 Threads

>> Parallel execution, 16 - Trial 1

Number of iterations: 78
   T_read: 1.564 s
   T_clus: 3.726 s
   T_org: 0.043 s
   T_compact: 1.693 s
   T_anal: 0.017 s
   T_write: 0.003 s
   ========================
   T_total: 7.044 s

>> Parallel execution, 16 - Trial 2

Number of iterations: 78
   T_read: 1.560 s
   T_clus: 3.608 s
   T_org: 0.036 s
   T_compact: 0.841 s
   T_anal: 0.871 s
   T_write: 0.003 s
   ========================
   T_total: 6.919 s

>> Parallel execution, 16 - Trial 3

Number of iterations: 78
   T_read: 1.562 s
   T_clus: 4.619 s
   T_org: 0.042 s
   T_compact: 0.392 s
   T_anal: 1.373 s
   T_write: 0.003 s
   ========================
   T_total: 7.991 s

>> Parallel execution, 16 - Trial 4

Number of iterations: 78
   T_read: 1.568 s
   T_clus: 3.637 s
   T_org: 0.043 s
   T_compact: 0.408 s
   T_anal: 1.297 s
   T_write: 0.003 s
   ========================
   T_total: 6.956 s

>> Parallel execution, 16 - Trial 5

Number of iterations: 78
   T_read: 1.561 s
   T_clus: 4.672 s
   T_org: 0.036 s
   T_compact: 0.387 s
   T_anal: 1.334 s
   T_write: 0.003 s
   ========================
   T_total: 7.992 s

Parallel Execution - 32 Threads

>> Parallel execution, 32 - Trial 1

Number of iterations: 78
```
   T_read:     1.559 s
   T_clus:     2.368 s
   T_org:      0.054 s
   T_compact:  0.172 s
   T_anal:     1.398 s
   T_write:    0.003 s
   =========================
   T_total:   5.554 s
```

>> Parallel execution, 32 - Trial 2

Number of iterations: 78
```
   T_read:     1.590 s
   T_clus:     2.687 s
   T_org:      0.055 s
   T_compact:  0.142 s
   T_anal:     1.425 s
   T_write:    0.003 s
   =========================
   T_total:   5.901 s
```

>> Parallel execution, 32 - Trial 3

Number of iterations: 78
```
   T_read:     1.561 s
   T_clus:     2.719 s
   T_org:      0.052 s
   T_compact:  0.411 s
   T_anal:     1.228 s
   T_write:    0.003 s
   =========================
   T_total:   5.974 s
```

>> Parallel execution, 32 - Trial 4

Number of iterations: 78
```
   T_read:     1.559 s
   T_clus:     2.239 s
   T_org:      0.050 s
   T_compact:  0.367 s
   T_anal:     1.209 s
   T_write:    0.003 s
   =========================
   T_total:   5.427 s
```

>> Parallel execution, 32 - Trial 5

Number of iterations: 78
```
   T_read:     1.572 s
   T_clus:     2.731 s
   T_org:      0.050 s
   T_compact:  0.427 s
   T_anal:     1.149 s
   T_write:    0.003 s
   =========================
   T_total:   5.933 s
```

Parallel Execution - 48 Threads

>> Parallel execution, 48 - Trial 1

Number of iterations: 78
```
    T_read:     1.561 s
    T_clus:     1.958 s
    T_org:      0.065 s
    T_compact:  0.194 s
    T_anal:     1.469 s
    T_write:    0.005 s
    =========================
    T_total:    5.252 s
```

>> Parallel execution, 48 - Trial 2

Number of iterations: 78
```
    T_read:     1.562 s
    T_clus:     1.983 s
    T_org:      0.058 s
    T_compact:  0.081 s
    T_anal:     1.509 s
    T_write:    0.003 s
    =========================
    T_total:    5.197 s
```

>> Parallel execution, 48 - Trial 3

Number of iterations: 78
```
    T_read:     1.560 s
    T_clus:     2.000 s
    T_org:      0.064 s
    T_compact:  0.082 s
    T_anal:     1.486 s
    T_write:    0.003 s
    =========================
    T_total:    5.196 s
```

>> Parallel execution, 48 - Trial 4

Number of iterations: 78
```
    T_read:     1.559 s
    T_clus:     3.193 s
    T_org:      0.102 s
    T_compact:  0.248 s
    T_anal:     1.757 s
    T_write:    0.003 s
    =========================
    T_total:    6.862 s
```

>> Parallel execution, 48 - Trial 5

Number of iterations: 78
```
    T_read:     1.591 s
    T_clus:     2.014 s
    T_org:      0.061 s
    T_compact:  0.358 s
    T_anal:     1.210 s
    T_write:    0.003 s
    =========================
    T_total:    5.236 s
```

Parallel Execution - 64 Threads

>> Parallel execution, 64 - Trial 1

Number of iterations: 78
   T_read: 1.559 s
   T_clus: 1.736 s
   T_org: 0.113 s
   T_compact: 0.380 s
   T_anal: 1.235 s
   T_write: 0.003 s
   ========================
   T_total: 5.025 s

>> Parallel execution, 64 - Trial 2

Number of iterations: 78
   T_read: 1.619 s
   T_clus: 1.676 s
   T_org: 0.115 s
   T_compact: 0.083 s
   T_anal: 1.588 s
   T_write: 0.003 s
   ========================
   T_total: 5.083 s

>> Parallel execution, 64 - Trial 3

Number of iterations: 78
   T_read: 1.577 s
   T_clus: 1.935 s
   T_org: 0.118 s
   T_compact: 0.210 s
   T_anal: 1.440 s
   T_write: 0.003 s
   ========================
   T_total: 5.283 s

>> Parallel execution, 64 - Trial 4

Number of iterations: 78
   T_read: 1.561 s
   T_clus: 1.685 s
   T_org: 0.116 s
   T_compact: 0.083 s
   T_anal: 1.494 s
   T_write: 0.003 s
   ========================
   T_total: 4.942 s

>> Parallel execution, 64 - Trial 5

Number of iterations: 78
   T_read: 1.560 s
   T_clus: 1.762 s
   T_org: 0.121 s
   T_compact: 1.595 s
   T_anal: 0.025 s
   T_write: 0.003 s
   ========================
   T_total: 5.067