|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | **Sequences** | |  |  |  |  |  |  |  | **Performance** | |
| **Organism** | **Assembler** | **Scaffolder** | **Gap Filler** | **Expected** | **Final** | **Sum (bp)** | **N50 length** | **Gaps (bp)** | **Gap %** | **LCBs\*** | **Indels** | **Inversions** | **CLR reads / scaffold** | **Runtime** |
| *E. coli K12 MG1655* | SPAdes |  |  | 1 | 35 | 4,661,027 | 4,640,853 | 0 | 0.00% | 4 | 0 | 2 | - | 29 min |
|  |  | SSPACE-LR |  | 1 | 34 | 4,661,028 | 4,641,005 | 1 | 0.00% | 4 | 0 | 2 | - | 23 min |
|  |  |  | gapFinisher | 1 | 34 | 4,661,028 | 4,641,005 | 1 | 0.00% | 4 | 0 | 2 | 1 | 1 min |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | miniasm |  |  | 1 | 1 | 4,793,967 | 4,793,967 | 0 | 0.00% | 4 | 0 | 2 | - | 3 min |
|  |  | SSPACE-LR |  | - | - | - | - | - |  | - | - | - | - | - |
|  |  |  | gapFinisher | - | - | - | - | - |  | - | - | - | - | - |
| *E. coli O157:H7* | SPAdes |  |  | 10 | 87 | 5,547,646 | 3,323,349 | 3 | 0.00% | 27 | 5 | 5 | - | 40 min |
|  |  | SSPACE-LR |  | 10 | 50 | 5,568,199 | 3,323,349 | 18486 | 0.33% | 23 | 4 | 3 | - | 37 min |
|  |  |  | gapFinisher | 10 | 50 | 5,568,974 | 3,323,349 | 5750 | 0.10% | 23 | 4 | 3 | 548 | 12 h 28 min |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | miniasm |  |  | 10 | 25 | 5,898,494 | 537,223 | 0 | 0.00% | 27 | 7 | 7 | - | 4 min |
|  |  | SSPACE-LR |  | 10 | 16 | 5,908,008 | 61,209 | 9514 | 0.16% | 23 | 6 | 5 | - | 38 min |
|  |  |  | gapFinisher | 10 | 16 | 5,907,537 | 61,209 | 2495 | 0.04% | 23 | 6 | 5 | 23.66667 | 10 min |
| *B. trehalosi* | SPAdes |  |  | 1 | 51 | 2,376,258 | 274,711 | 2 | 0.00% | 30 | 7 | 8 | - | 12 min |
|  |  | SSPACE-LR |  | 1 | 12 | 2,401,287 | 438,635 | 2804 | 0.12% | 21 | 6 | 3 | - | 24 min |
|  |  |  | gapFinisher | 1 | 12 | 2,401,265 | 438,599 | 401 | 0.02% | 21 | 6 | 3 | 173.6 | 59 min |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | miniasm |  |  | 1 | 17 | 2,510,680 | 221,473 | 0 | 0.00% | 30 | 3 | 7 | - | 1 min |
|  |  | SSPACE-LR |  | 1 | 10 | 2,520,563 | 377,524 | 9883 | 0.39% | 21 | 4 | 5 | - | 24 min |
|  |  |  | gapFinisher | 1 | 10 | 2,521,341 | 37,752 | 4920 | 0.20% | 21 | 4 | 5 | 39 | 17 min |
| *M. haemolytica* | SPAdes |  |  | 1 | 112 | 2,664,209 | 101,958 | 35 | 0.00% | 40 | 5 | 7 | - | 11 min |
|  |  | SSPACE-LR |  | 1 | 17 | 2,718,326 | 1,073,880 | 13504 | 0.50% | 13 | 4 | 2 | - | 23 min |
|  |  |  | gapFinisher | 1 | 17 | 2,717,906 | 1,073,740 | 4498 | 0.17% | 13 | 4 | 2 | 252 | 3 h 46 min |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | miniasm |  |  | 1 | 10 | 2,926,783 | 378,549 | 0 | 0.00% | 40 | 4 | 1 | - | 2 min |
|  |  | SSPACE-LR |  | 1 | 8 | 2,928,560 | 378,549 | 1777 | 0.06% | 13 | 4 | 1 | - | 24 min |
|  |  |  | gapFinisher | 1 | 8 | 2,928,834 | 378,549 | 1155 | 0.04% | 13 | 4 | 1 | 1.5 | 6 sec |
| *F. tularensis* | SPAdes |  |  | 3 | 135 | 1,807,729 | 25,688 | 0 | 0.00% | 80 | 12 | 18 | - | 32 min |
|  |  | SSPACE-LR |  | 3 | 58 | 1,855,045 | 56,838 | 23176 | 1.25% | 42 | 9 | 9 | - | 15 min |
|  |  |  | gapFinisher | 3 | 58 | 1,851,864 | 56,791 | 11254 | 0.61% | 42 | 9 | 9 | 953.25 | 44h 37 min |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | miniasm |  |  | 3 | 20 | 2,000,228 | 15,305 | 0 | 0.00% | 80 | 5 | 4 | - | 1 min |
|  |  | SSPACE-LR |  | 3 | 9 | 2,021,978 | 426,098 | 21750 | 1.08% | 42 | 4 | 4 | - | 23 min |
|  |  |  | gapFinisher | 3 | 9 | 2,021,618 | 425,969 | 16843 | 0.83% | 42 | 4 | 4 | 23.25 | 7 min |
| *S. enterica* | SPAdes |  |  | 4 | 217 | 4,982,997 | 153,597 | 655 | 0.01% | 49 | 4 | 10 | - | 19 min |
|  |  | SSPACE-LR |  | 4 | 94 | 5,026,381 | 1,020,795 | 10050 | 0.20% | 27 | 3 | 6 | - | 13 min |
|  |  |  | gapFinisher | 4 | 94 | 5,028,882 | 1,020,937 | 2917 | 0.06% | 27 | 3 | 6 | 317 | 7 h 26 min |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | miniasm |  |  | 4 | 16 | 5,373,212 | 735,723 | 0 | 0.00% | 49 | 5 | 2 | - | 2 min |
|  |  | SSPACE-LR |  | 4 | 10 | 5,384,667 | 874,322 | 11455 | 0.21% | 27 | 5 | 2 | - | 33 min |
|  |  |  | gapFinisher | 4 | 10 | 5,384,057 | 874,322 | 4641 | 0.09% | 27 | 5 | 2 | 10.66667 | 2 min |
| *Mammal* | SPAdes |  |  | Unknown | 236592 | 2,253,617,865 | 19,739 | 0 | 0.00% | - | - | - | - | 1200 h |
|  |  | SSPACE-LR |  | Unknown | 10143 | 2,462,623,627 | 599,108 | 10136364 | 0.41% | - | - | - | - | 177 h |
|  |  |  | gapFinisher | Unknown | 10143 | 2,466,785,189 | 601,444 | 6945295 | 0.28% | - | - | - | 11 | 38 min |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | miniasm |  |  | Unknown | 1314 | 2,460,097,408 | 8,668,858 | 0 | 0.00% | - | - | - | - | 216 h |
|  |  | SSPACE-LR 1st run |  | Unknown | 1115 | 2,460,626,045 | 9,381,548 | 528637 | 0.02% | - | - | - | - | 171 h |
|  |  |  | gapFinisher 1st run | Unknown | 1115 | 2,460,674,964 | 9,381,548 | 351878 | 0.01% | - | - | - | 11 | 35 min |
|  |  | SSPACE-LR 2nd run |  | Unknown | 1008 | 2,460,965,525 | 9,562,827 | 642439 | 0.03% | - | - | - | - | 161 h |
|  |  |  | gapFinisher 2nd run | Unknown | 1008 | 2,460,993,827 | 9,562,827 | 616617 | 0.03% | - | - | - | 8 | 21 min |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \*LCB = Locally Collinear Block of progressiveMauve alignment | | |  |  |  |  |  |  |  |  |  |  |  |  |