

# Report

|                             | A_STAR     | HipMer     | marmgCAMI2 | Megahit    | metaSPAdes | Miniasm    | OPERA_MS_inhouse | SPAdes     |
|-----------------------------|------------|------------|------------|------------|------------|------------|------------------|------------|
| # contigs (>= 1000 bp)      | 2          | 2          | 1          | 3          | 3          | 1          | 1                | 2          |
| # contigs (>= 5000 bp)      | 2          | 2          | 1          | 3          | 3          | 1          | 1                | 1          |
| # contigs (>= 10000 bp)     | 2          | 2          | 1          | 3          | 3          | 1          | 1                | 0          |
| # contigs (>= 25000 bp)     | 1          | 2          | 1          | 2          | 2          | 1          | 1                | 0          |
| # contigs (>= 50000 bp)     | 0          | 1          | 1          | 1          | 2          | 1          | 1                | 0          |
| Total length (>= 1000 bp)   | 58217      | 96870      | 3914609    | 232110     | 213430     | 323167     | 72798            | 10039      |
| Total length (>= 5000 bp)   | 58217      | 96870      | 3914609    | 232110     | 213430     | 323167     | 72798            | 6444       |
| Total length (>= 10000 bp)  | 58217      | 96870      | 3914609    | 232110     | 213430     | 323167     | 72798            | 0          |
| Total length (>= 25000 bp)  | 42211      | 96870      | 3914609    | 221656     | 188442     | 323167     | 72798            | 0          |
| Total length (>= 50000 bp)  | 0          | 65860      | 3914609    | 191383     | 188442     | 323167     | 72798            | 0          |
| # contigs                   | 2          | 2          | 1          | 3          | 3          | 1          | 1                | 2          |
| Largest contig              | 42211      | 65860      | 3914609    | 191383     | 94221      | 323167     | 72798            | 6444       |
| Total length                | 58217      | 96870      | 3914609    | 232110     | 213430     | 323167     | 72798            | 10039      |
| Reference length            | 1160       | 1160       | 1160       | 1160       | 1160       | 1160       | 1160             | 1160       |
| GC (%)                      | 35.82      | 35.60      | 35.32      | 35.67      | 35.74      | 35.74      | 35.87            | 35.26      |
| Reference GC (%)            | 32.33      | 32.33      | 32.33      | 32.33      | 32.33      | 32.33      | 32.33            | 32.33      |
| N50                         | 42211      | 65860      | 3914609    | 191383     | 94221      | 323167     | 72798            | 6444       |
| NG50                        | 42211      | 65860      | 3914609    | 191383     | 94221      | 323167     | 72798            | 6444       |
| N75                         | 16006      | 31010      | 3914609    | 191383     | 94221      | 323167     | 72798            | 3595       |
| NG75                        | 42211      | 65860      | 3914609    | 191383     | 94221      | 323167     | 72798            | 6444       |
| L50                         | 1          | 1          | 1          | 1          | 2          | 1          | 1                | 1          |
| LG50                        | 1          | 1          | 1          | 1          | 1          | 1          | 1                | 1          |
| L75                         | 2          | 2          | 1          | 1          | 2          | 1          | 1                | 2          |
| LG75                        | 1          | 1          | 1          | 1          | 1          | 1          | 1                | 1          |
| # misassemblies             | 0          | 0          | 0          | 0          | 0          | 0          | 0                | 0          |
| # misassembled contigs      | 0          | 0          | 0          | 0          | 0          | 0          | 0                | 0          |
| Misassembled contigs length | 0          | 0          | 0          | 0          | 0          | 0          | 0                | 0          |
| # local misassemblies       | 0          | 0          | 0          | 0          | 0          | 0          | 0                | 0          |
| # scaffold gap ext. mis.    | 0          | 0          | 0          | 0          | 0          | 0          | 0                | 0          |
| # scaffold gap loc. mis.    | 0          | 0          | 0          | 0          | 0          | 0          | 0                | 0          |
| # unaligned mis. contigs    | 2          | 2          | 1          | 3          | 3          | 1          | 1                | 0          |
| # unaligned contigs         | 0 + 2 part | 0 + 2 part | 0 + 1 part | 0 + 3 part | 0 + 3 part | 0 + 1 part | 0 + 1 part       | 0 + 2 part |
| Unaligned length            | 55669      | 94550      | 3913449    | 228630     | 207630     | 322007     | 71638            | 8879       |
| Genome fraction (%)         | 100.000    | 100.000    | 100.000    | 100.000    | 100.000    | 100.000    | 100.000          | 100.000    |
| Duplication ratio           | 2.197      | 2.000      | 1.000      | 3.000      | 5.000      | 1.000      | 1.000            | 1.000      |
| # N's per 100 kbp           | 391.64     | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00             | 0.00       |
| # mismatches per 100 kbp    | 0.00       | 0.00       | 0.00       | 172.41     | 689.66     | 0.00       | 172.41           | 431.03     |
| # indels per 100 kbp        | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00             | 0.00       |
| Largest alignment           | 610        | 610        | 610        | 610        | 610        | 610        | 610              | 610        |
| Total aligned length        | 2320       | 2320       | 1160       | 3480       | 5800       | 1160       | 1160             | 1160       |
| NGA50                       | 610        | 610        | 610        | 610        | 610        | 610        | 610              | 610        |
| NGA75                       | 610        | 610        | 550        | 610        | 610        | 550        | 550              | 550        |
| LGA50                       | 1          | 1          | 1          | 1          | 1          | 1          | 1                | 1          |
| LGA75                       | 2          | 2          | 2          | 2          | 2          | 2          | 2                | 2          |

All statistics are based on contigs of size >= 500 bp, unless otherwise noted (e.g., "# contigs (>= 0 bp)" and "Total length (>= 0 bp)" include all contigs).

## Misassemblies report

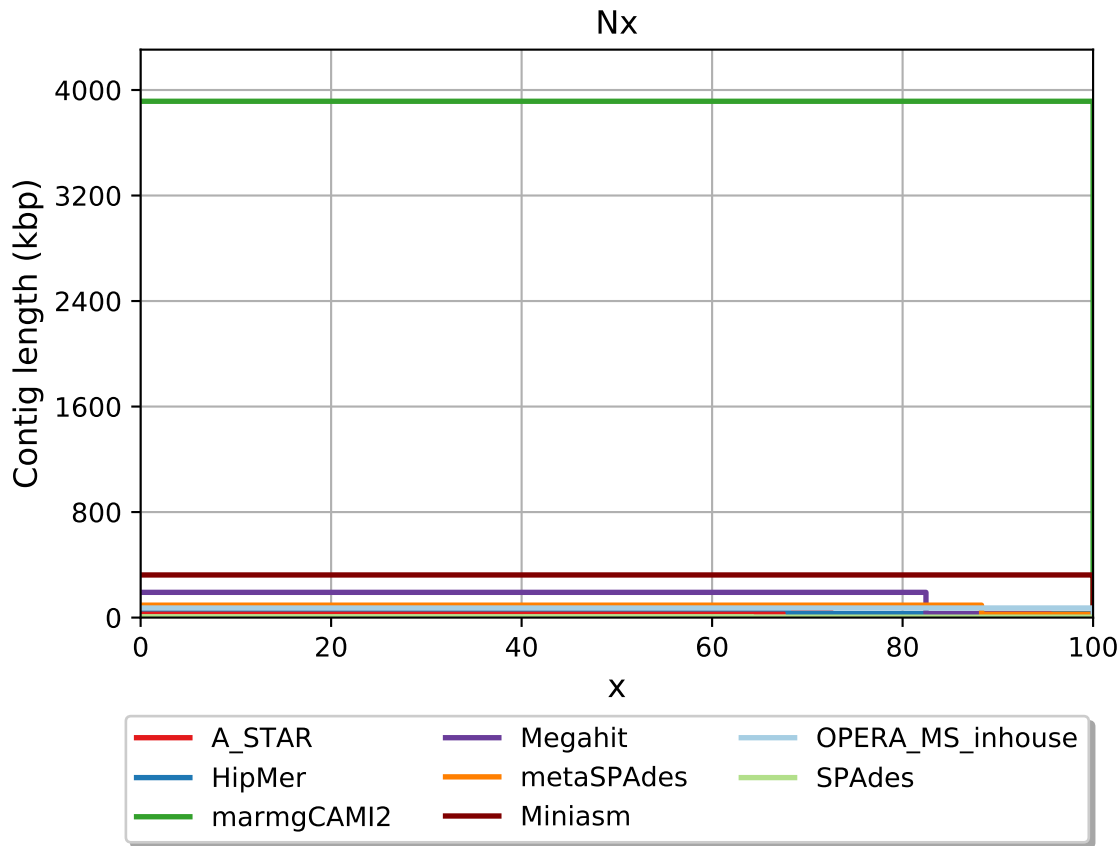
|                                 | A_STAR | HipMer | marmgCAMI2 | Megahit | metaSPAdes | Miniasm | OPERA_MS_inhouse | SPAdes |
|---------------------------------|--------|--------|------------|---------|------------|---------|------------------|--------|
| # misassemblies                 | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # contig misassemblies          | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # c. relocations                | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # c. translocations             | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # c. inversions                 | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # scaffold misassemblies        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # s. relocations                | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # s. translocations             | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # s. inversions                 | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # misassembled contigs          | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| Misassembled contigs length     | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # possibly misassembled contigs | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 2      |
| # possible misassemblies        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 3      |
| # local misassemblies           | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # scaffold gap ext. mis.        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # scaffold gap loc. mis.        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # unaligned mis. contigs        | 2      | 2      | 1          | 3       | 3          | 1       | 1                | 0      |
| # mismatches                    | 0      | 0      | 0          | 2       | 8          | 0       | 2                | 5      |
| # indels                        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # indels (<= 5 bp)              | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # indels (> 5 bp)               | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| Indels length                   | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |

All statistics are based on contigs of size  $\geq 500$  bp, unless otherwise noted (e.g., "# contigs ( $\geq 0$  bp)" and "Total length ( $\geq 0$  bp)" include all contigs).

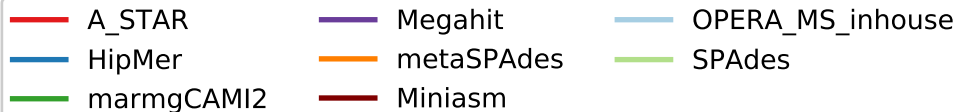
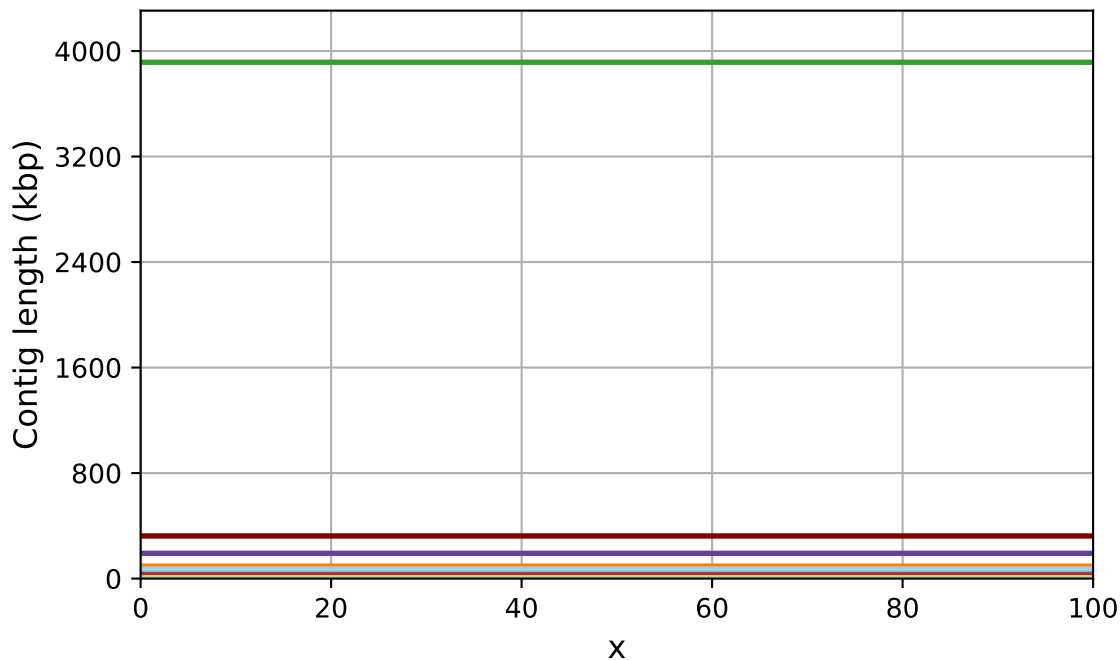
## Unaligned report

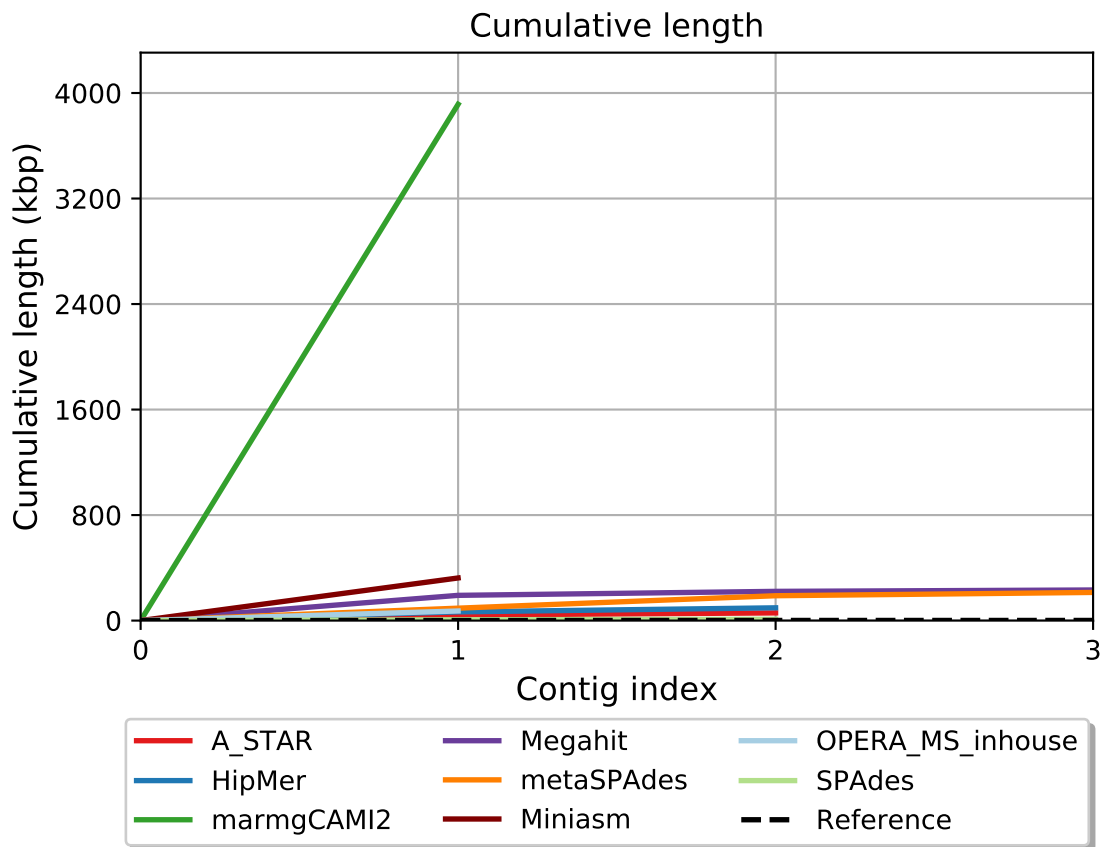
|                               | A_STAR | HipMer | marmgCAMI2 | Megahit | metaSPAdes | Miniasm | OPERA_MS_inhouse | SPAdes |
|-------------------------------|--------|--------|------------|---------|------------|---------|------------------|--------|
| # fully unaligned contigs     | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| Fully unaligned length        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # partially unaligned contigs | 2      | 2      | 1          | 3       | 3          | 1       | 1                | 2      |
| Partially unaligned length    | 55669  | 94550  | 3913449    | 228630  | 207630     | 322007  | 71638            | 8879   |
| # N's                         | 228    | 0      | 0          | 0       | 0          | 0       | 0                | 0      |

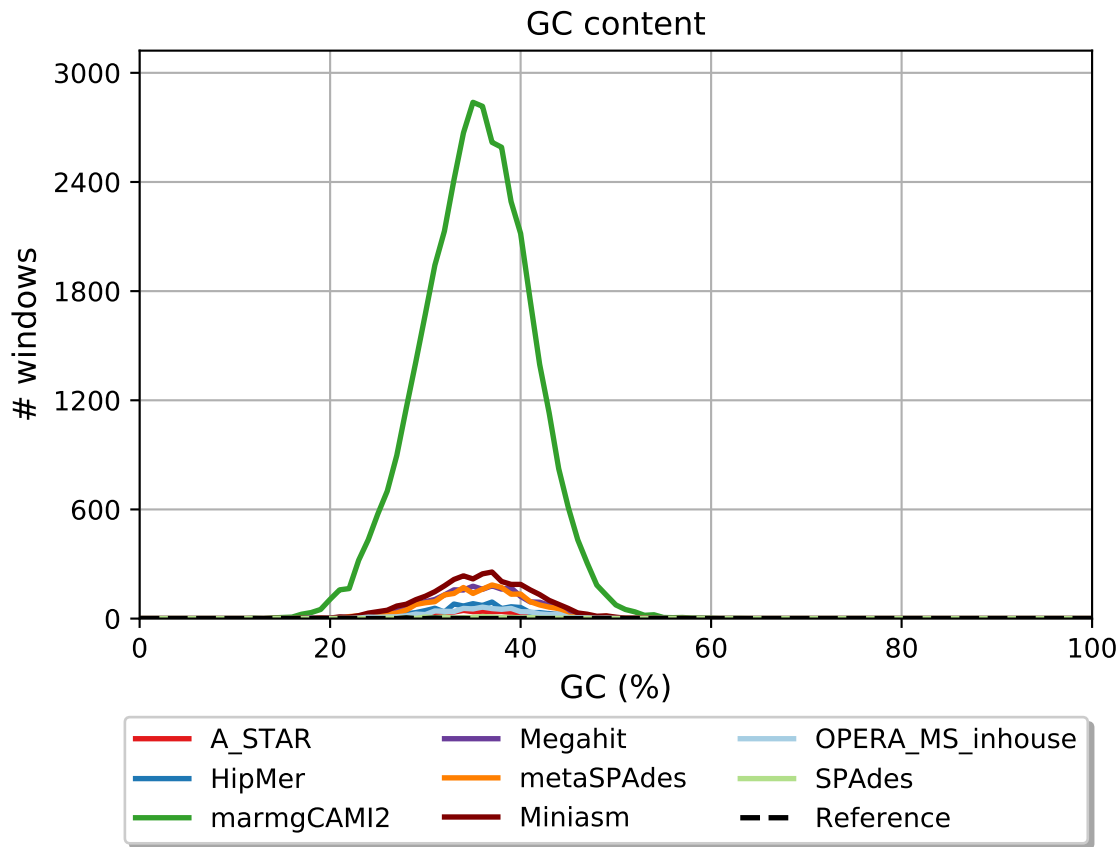
All statistics are based on contigs of size  $\geq 500$  bp, unless otherwise noted (e.g., "# contigs ( $\geq 0$  bp)" and "Total length ( $\geq 0$  bp)" include all contigs).



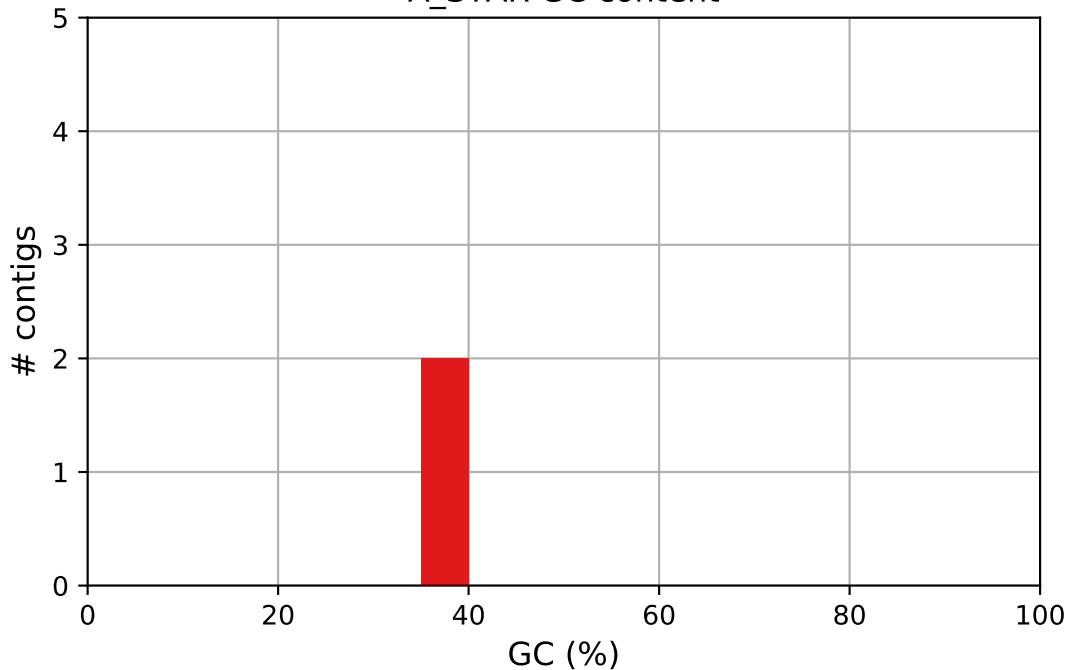
## NGx







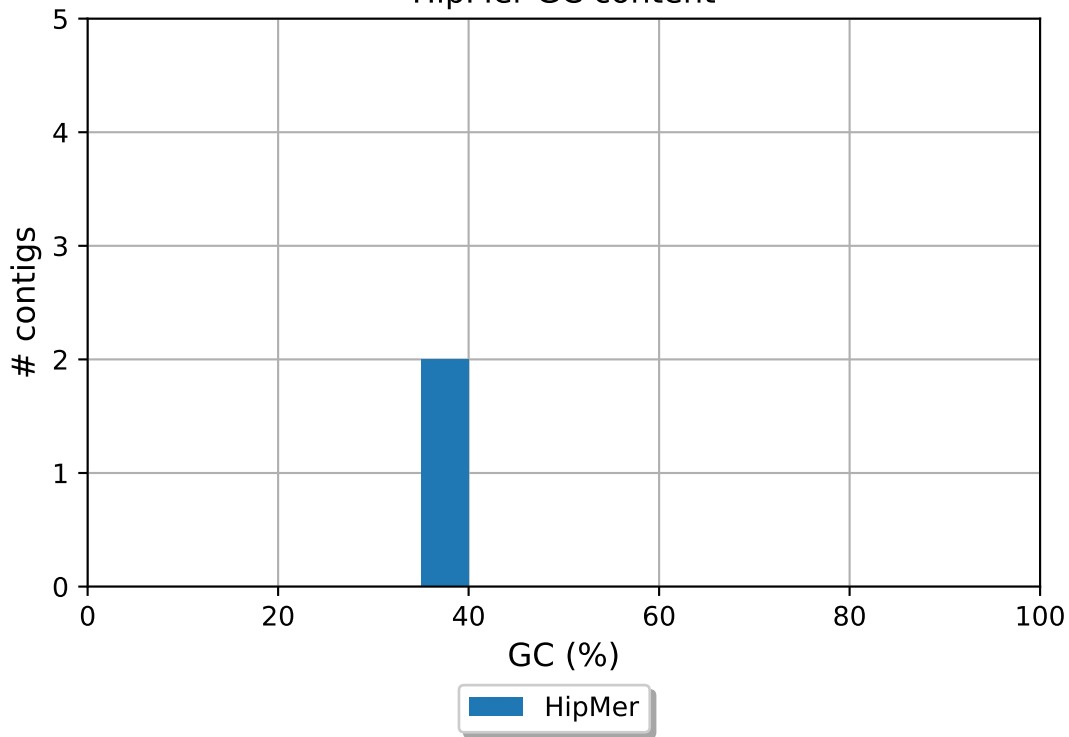
A\_STAR GC content



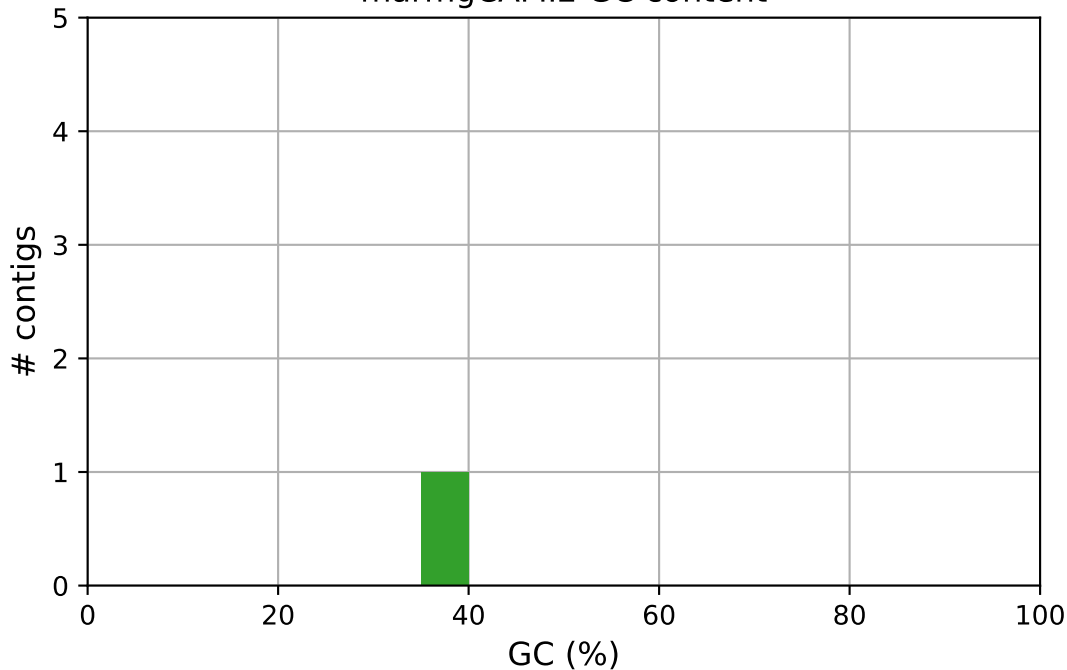
A\_STAR



HipMer GC content

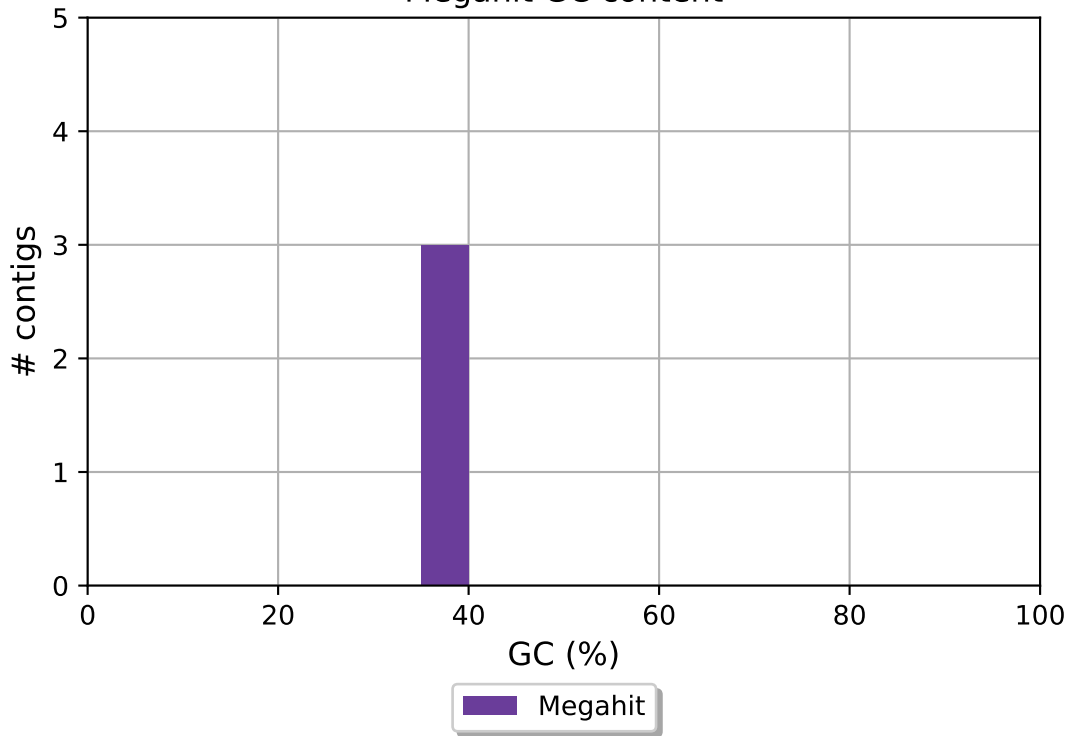


marmgCAMI2 GC content

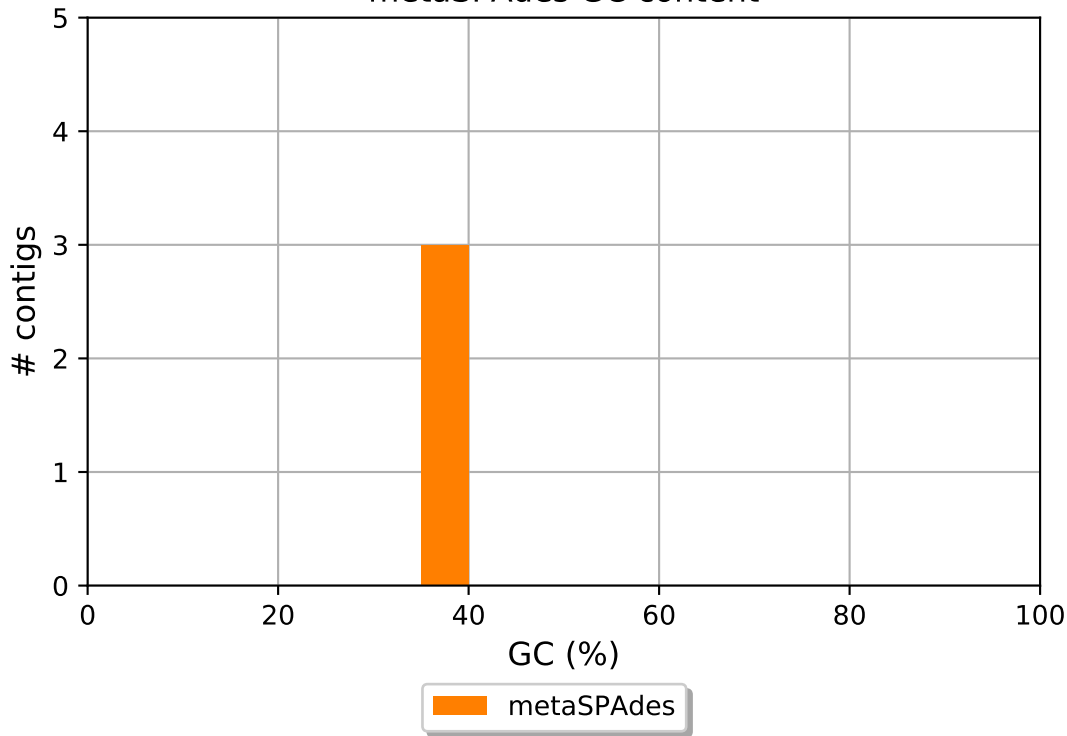


marmgCAMI2

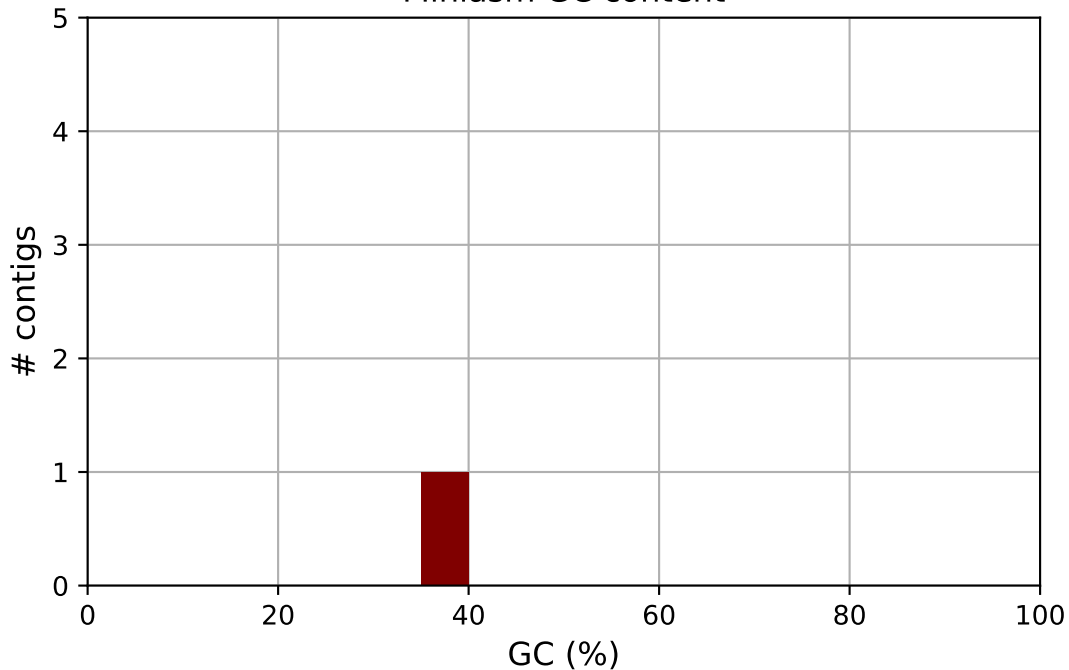
Megahit GC content



metaSPAdes GC content

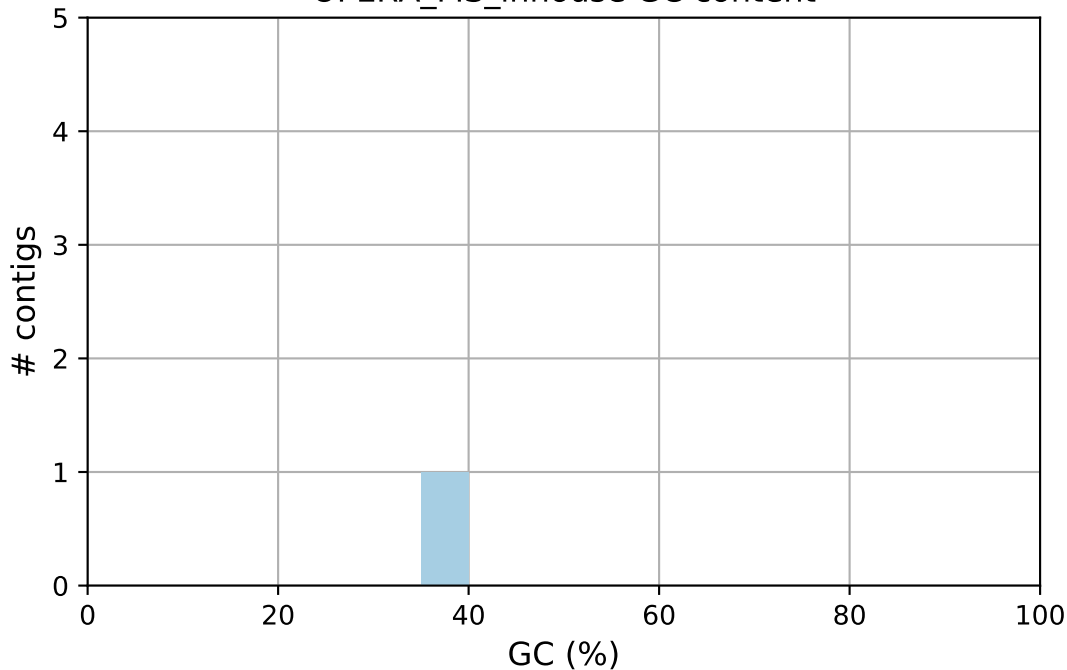


# Miniasm GC content



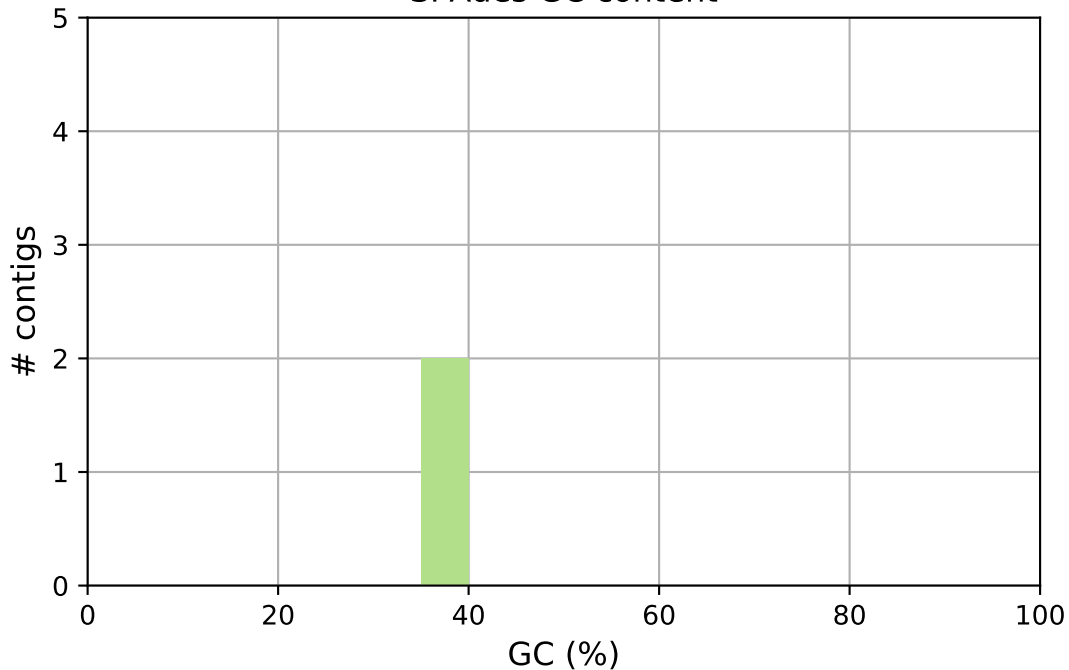
Miniasm

OPERA\_MS\_inhouse GC content



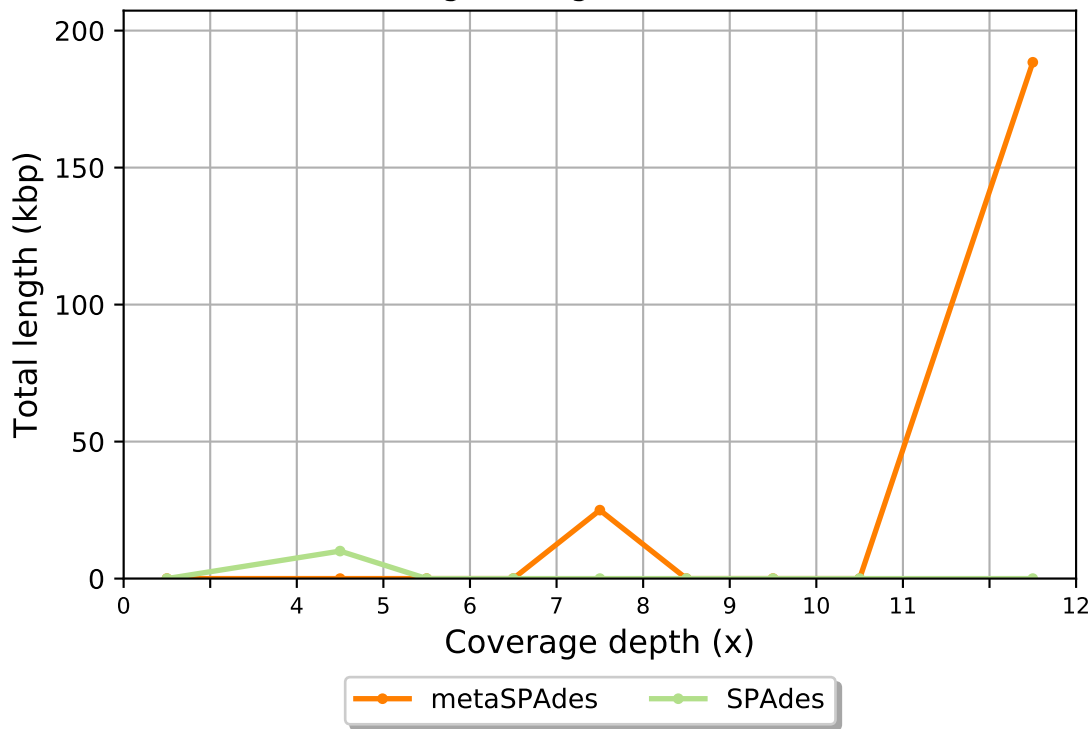
OPERA\_MS\_inhouse

# SPAdes GC content



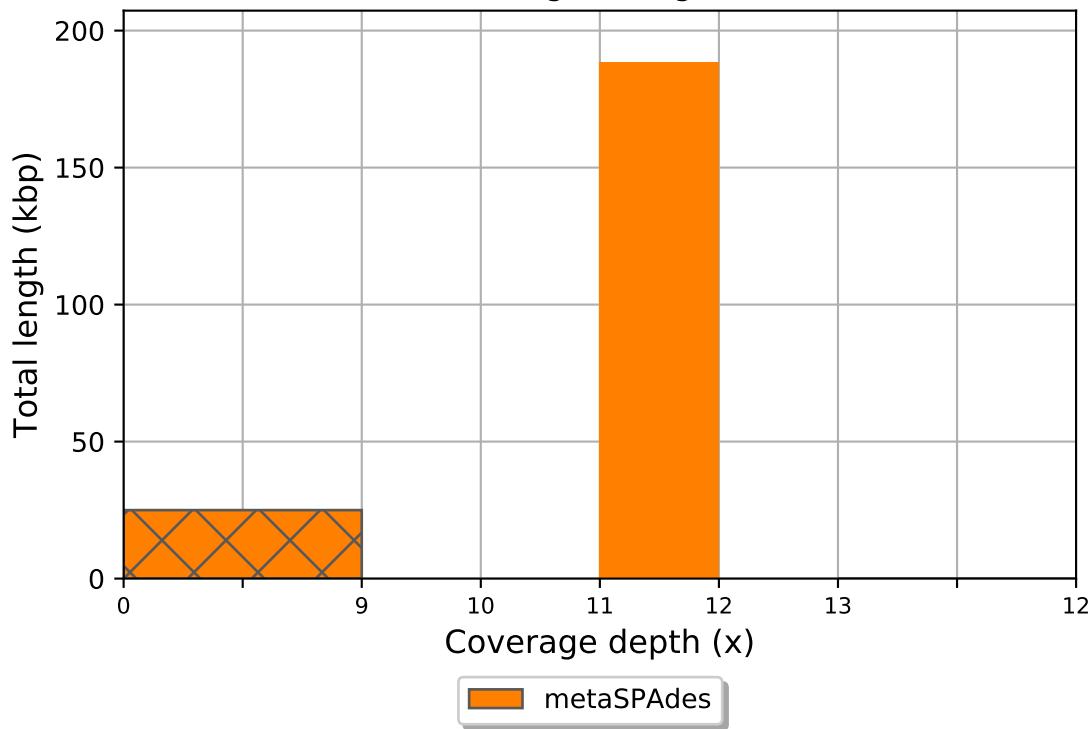
SPAdes

Coverage histogram (bin size: 1x)

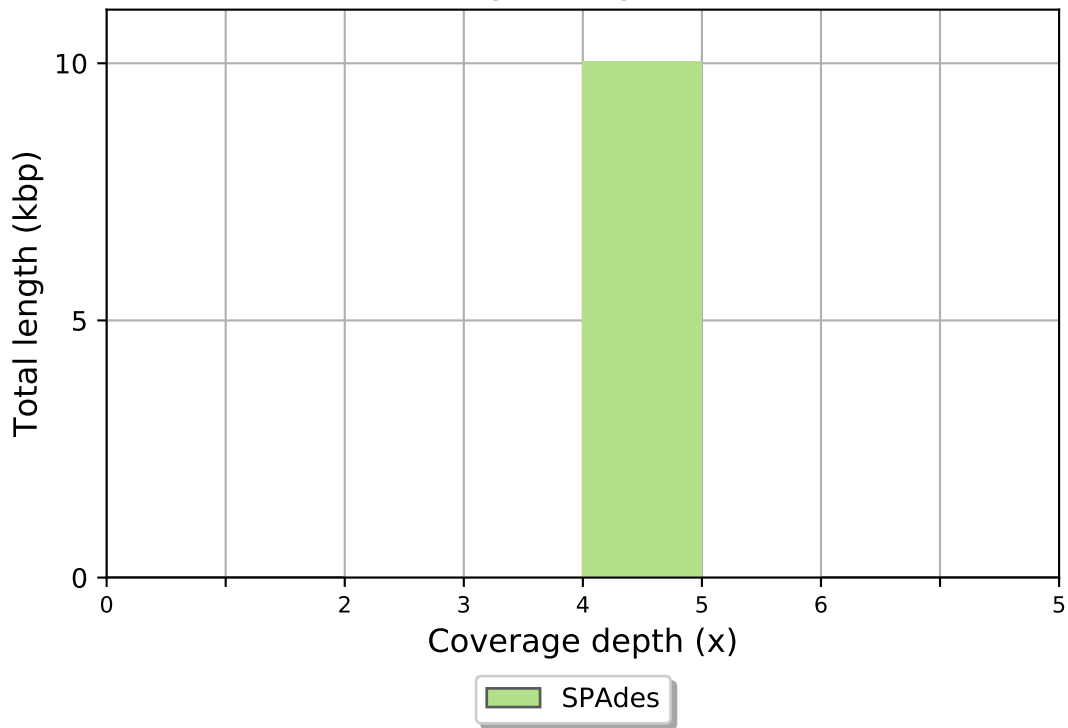




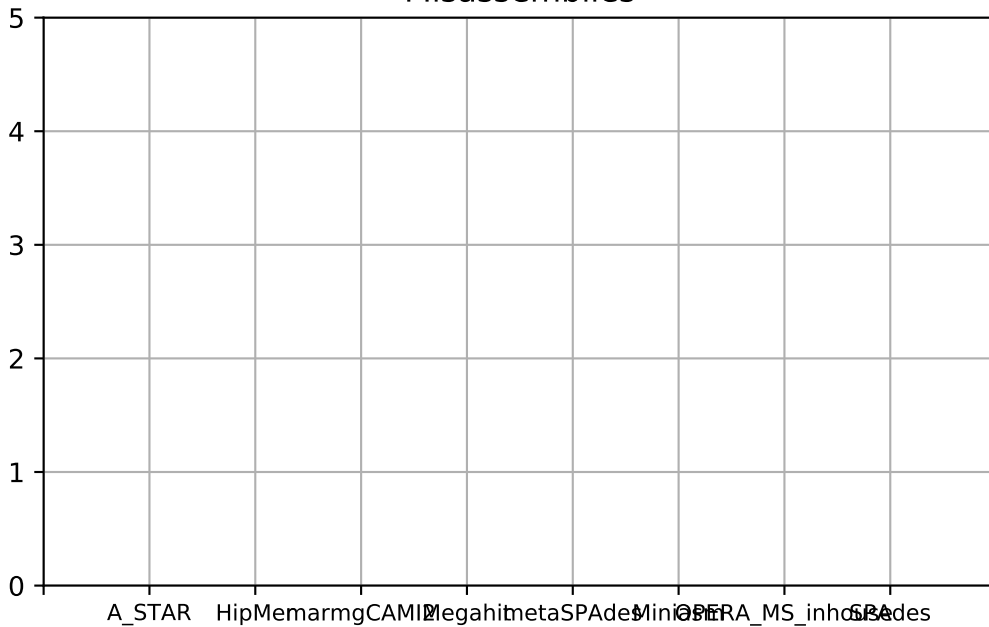
metaSPAdes coverage histogram (bin size: 1x)



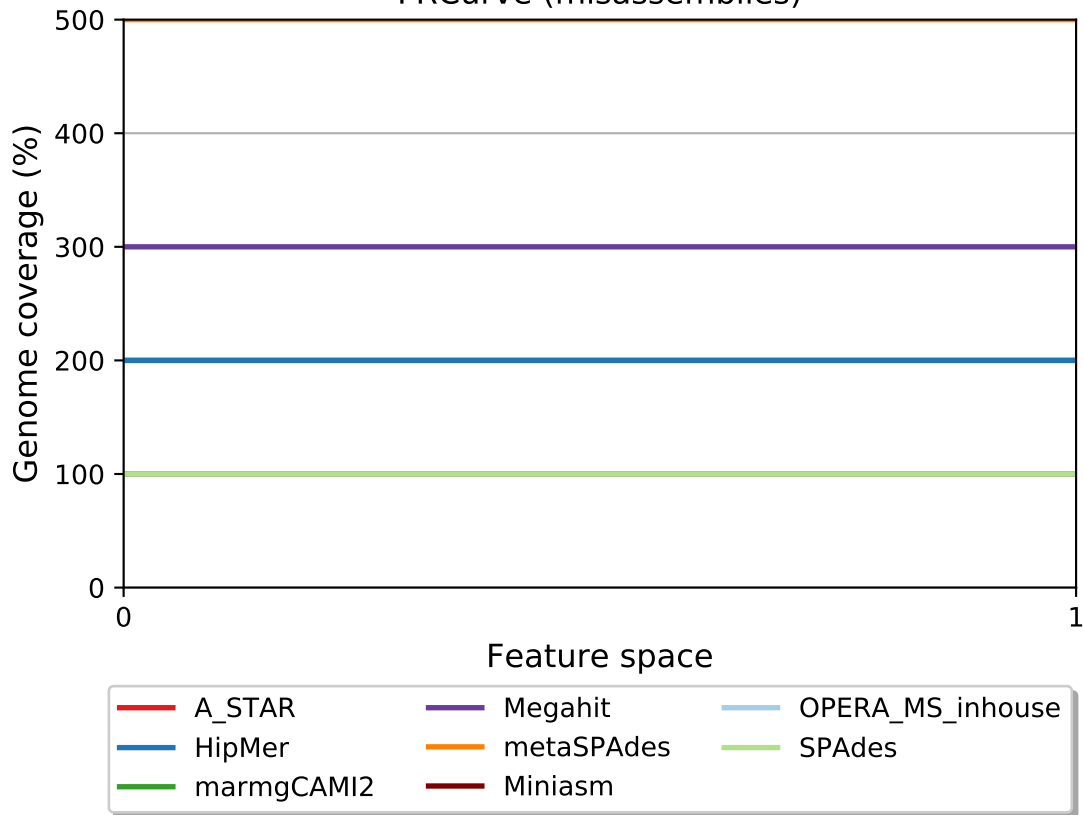
SPAdes coverage histogram (bin size: 1x)



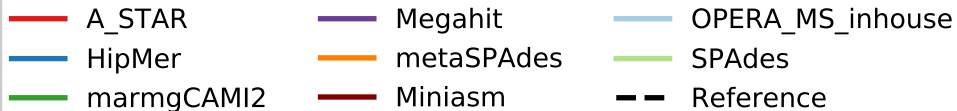
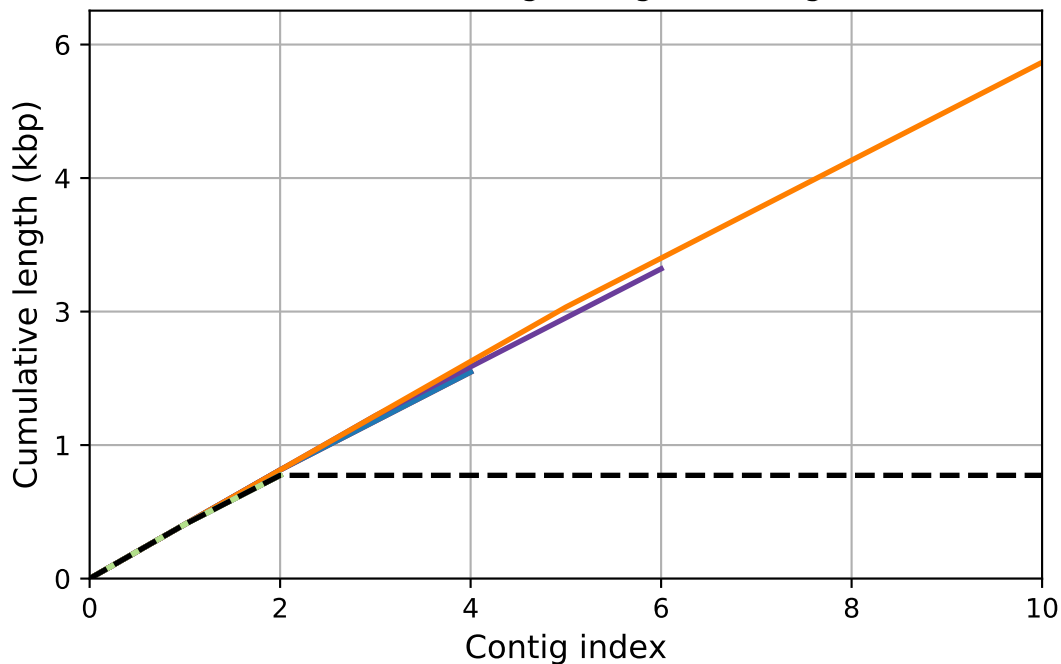
## Misassemblies



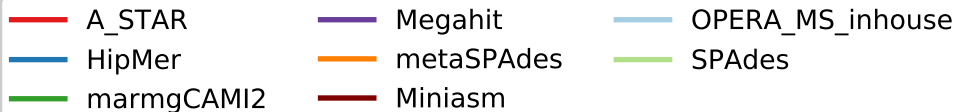
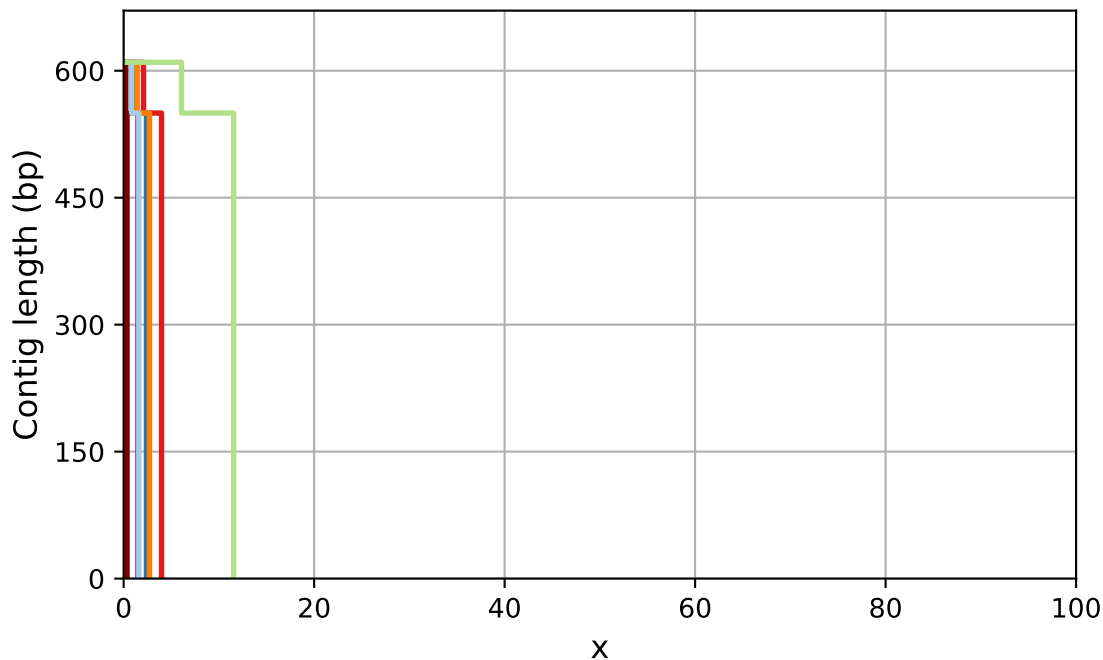
FRCurve (misassemblies)



Cumulative length (aligned contigs)



# NAx



# NGAx

