|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Algorithm Execution Time (s) | | | | | | | | |
| Greedy | Jones-Plassmann | | | | Large-Degree-First | | | |
| Graph | Size | Threads: | 1 | 2 | 4 | 8 | 1 | 2 | 4 | 8 |
| v10.gra | 1 KB | 0 | 0 | 0 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| v100.gra | 13 KB | 0.019 | 0.1 | 0.089 | 0.089 | 0.078 | 0.208 | 0.128 | 0.114 | 0.96 |
| arXiv\_sub\_6000-1.gra | 0.3 MB | 0. 292 | 3.335 | 2.067 | 1.320 | 1.019 | 10.099 | 5.719 | 3.606 | 2.492 |
| agrocyc\_dag\_uniq.gra | 0.2 MB | 0.143 | 0.257 | 0.227 | 0.198 | 0.142 | 0.370 | 0.279 | 0.238 | 0.175 |
| human\_dag\_uniq.gra | 0.5MB | 0.510 | 0.982 | 0.716 | 0.640 | 0.513 | 1.123 | 0.977 | 0.779 | 0.816 |
| vchocyc\_dag\_uniq.gra | 0.1MB | 1.583 | 13.387 | 9.411 | 5.912 | 4.065 | 35.085 | 24.837 | 13.216 | 9.789 |
| uniprotenc\_150m.scc.gra | 2 MB | 2.212 | 5.336 | 4.363 | 3.256 | 2.826 | 4.535 | 2.581 | 1.900 | 3.522 |
| citeseer.scc.gra | 8 MB | 7.355 | 25.728 | 11.190 | 7.661 | 5.576 | 13.880 | 9.024 | 6.982 | 6.029 |
| uniprotenc\_22m.scc.gra | 19 MB | 21.631 | 55.511 | 45.575 | 37.352 | 33.644 | 45.070 | 43.398 | 37.412 | 34.957 |
| uniprotenc\_100m.scc.gra | 221 MB | 127.458 | 450.043 | 445.535 | 344.820 | 238.360 | 238.907 | 254.545 | 189.937 | 104.259 |
| rgg\_n\_2\_15\_s0 | 1MB | 1477 | 13732 | 9707 | 5915 | 4135 | 36110 | 21365 | 12399 | 7995 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Peak Memory Usage (MB) | | | | | | | | |
| Greedy | Jones-Plassmann | | | | Large-Degree-First | | | |
| Graph | Size | Threads: | 1 | 2 | 4 | 8 | 1 | 2 | 4 | 8 |
| v10.gra | 1 KB | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| v100.gra | 13 KB | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| arXiv\_sub\_6000-1.gra | 0.3 MB | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| agrocyc\_dag\_uniq.gra | 0.2 MB | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| human\_dag\_uniq.gra | 0.5MB | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| vchocyc\_dag\_uniq.gra | 0.1MB | 157 | 157 | 157 | 157 | 157 | 157 | 157 | 157 | 157 |
| uniprotenc\_150m.scc.gra | 2 MB | 155 | 154 | 154 | 154 | 154 | 154 | 154 | 154 | 154 |
| citeseer.scc.gra | 8 MB | 751 | 747 | 747 | 747 | 747 | 747 | 747 | 747 | 747 |
| uniprotenc\_22m.scc.gra | 19 MB | 2030 | 2022 | 2022 | 2022 | 2022 | 2022 | 2022 | 2022 | 2022 |
| uniprotenc\_100m.scc.gra | 221 MB | 13122 | 13121 | 13121 | 13121 | 13121 | 12879 | 12879 | 12879 | 12879 |
| uniprotenc\_22m.scc.gra | 19 MB | 2030 | 2022 | 2022 | 2022 | 2022 | 2022 | 2022 | 2022 | 2022 |

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| --- | --- | --- | --- | --- |
|  | | Peak Memory Usage (MB) | | |
| Graph | Number of Nodes | Greedy | Jones-Plassmann | Large-Degree-First |
| v10.gra | 10 | 5 | 5 | 5 |
| v100.gra | 100 | 6 | 6 | 6 |
| arXiv\_sub\_6000-1.gra | 6000 | 23 | 23 | 23 |
| agrocyc\_dag\_uniq.gra | 12 684 | 17 | 17 | 17 |
| human\_dag\_uniq.gra | 38811 | 60 | 60 | 60 |
| vchocyc\_dag\_uniq.gra | 32769 | 157 | 157 | 157 |
| uniprotenc\_150m.scc.gra | 184 672 | 155 | 154 | 154 |
| citeseer.scc.gra | 693 947 | 751 | 747 | 747 |
| uniprotenc\_22m.scc.gra | 1 595 444 | 2030 | 2022 | 2022 |
| uniprotenc\_100m.scc.gra | 16 087 295 | 13122 | 13121 | 12879 |
| rgg\_n\_2\_15\_s0 | 32769 | 2030 | 2022 | 2022 |

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|  | | Number of Colors Used | | |
| Graph | Number of Nodes | Greedy | Jones-Plassmann | Large-Degree-First |
| v10.gra | 10 | 6 | 6 | 6 |
| v100.gra | 100 | 78 | 78 | 78 |
| arXiv\_sub\_6000-1.gra | 6000 | 30 | 29 | 27 |
| agrocyc\_dag\_uniq.gra | 12 684 | 5 | 5 | 4 |
| human\_dag\_uniq.gra | 38811 | 5 | 5 | 5 |
| vchocyc\_dag\_uniq.gra | 32769 | 13 | 14 | 14 |
| uniprotenc\_150m.scc.gra | 184 672 | 2 | 4 | 3 |
| citeseer.scc.gra | 693 947 | 2 | 5 | 4 |
| uniprotenc\_22m.scc.gra | 1 595 444 | 2 | 4 | 2 |
| uniprotenc\_100m.scc.gra | 16 087 295 | 2 | 5 | 3 |
| rgg\_n\_2\_15\_s0 | 32769 | 13 | 14 | 14 |