**179KB(182,644 Characters)**

**PS E:\Compression Project> julia -t 1 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 1

4075- 332.553 ms (962302 allocations: 39.16 MiB)

65000- 2.689 s (726382 allocations: 29.82 MiB)

no of divisions- 2 No of threads- 1

4075- 362.151 ms (1548317 allocations: 67.18 MiB)

65000- 2.768 s (1144467 allocations: 50.14 MiB)

no of divisions- 4 No of threads- 1

4075- 420.882 ms (2718733 allocations: 123.71 MiB)

65000- 2.801 s (1979008 allocations: 91.13 MiB)

no of divisions- 6 No of threads- 1

4075- 466.982 ms (3890104 allocations: 180.25 MiB)

65000- 2.838 s (2812603 allocations: 132.11 MiB)

no of divisions- 8 No of threads- 1

4075- 515.418 ms (4993363 allocations: 235.76 MiB)

65000- 2.848 s (3645381 allocations: 173.08 MiB)

no of divisions- 12 No of threads- 1

4075- 610.858 ms (7335358 allocations: 348.83 MiB)

65000- 2.932 s (5310253 allocations: 255.00 MiB)

**PS E:\Compression Project> julia -t 2 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 2

4075- 517.338 ms (1031373 allocations: 41.27 MiB)

65000- 2.726 s (751754 allocations: 30.60 MiB)

no of divisions- 2 No of threads- 2

4075- 314.395 ms (1618581 allocations: 69.32 MiB)

65000- 2.300 s (1208156 allocations: 52.08 MiB)

no of divisions- 4 No of threads- 2

4075- 408.517 ms (2873423 allocations: 128.43 MiB)

65000- 2.308 s (2089001 allocations: 94.49 MiB)

no of divisions- 6 No of threads- 2

4075- 388.673 ms (4100093 allocations: 186.66 MiB)

65000- 2.295 s (2969799 allocations: 136.91 MiB)

no of divisions- 8 No of threads- 2

4075- 455.208 ms (5276060 allocations: 244.38 MiB)

65000- 2.327 s (3852365 allocations: 179.39 MiB)

no of divisions- 12 No of threads- 2

4075- 544.051 ms (7763673 allocations: 361.91 MiB)

65000- 2.442 s (5622840 allocations: 264.54 MiB)

**PS E:\Compression Project> julia -t 4 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 4

4075- 530.634 ms (1031537 allocations: 41.28 MiB)

65000- 2.734 s (751843 allocations: 30.60 MiB)

no of divisions- 2 No of threads- 4

4075- 454.195 ms (1653096 allocations: 70.37 MiB)

65000- 2.300 s (1210479 allocations: 52.15 MiB)

no of divisions- 4 No of threads- 4

4075- 362.436 ms (2887006 allocations: 128.84 MiB)

65000- 1.930 s (2088674 allocations: 94.48 MiB)

no of divisions- 6 No of threads- 4

4075- 398.311 ms (4132425 allocations: 187.65 MiB)

65000- 2.143 s (2987616 allocations: 137.45 MiB)

no of divisions- 8 No of threads- 4

4075- 431.013 ms (5304670 allocations: 245.26 MiB)

65000- 2.034 s (3852577 allocations: 179.40 MiB)

no of divisions- 12 No of threads- 4

4075- 514.601 ms (7786007 allocations: 362.59 MiB)

65000- 2.165 s (5633193 allocations: 264.85 MiB)

**PS E:\Compression Project> julia -t 6 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 6

4075- 526.924 ms (1031372 allocations: 41.27 MiB)

65000- 3.009 s (777084 allocations: 31.37 MiB)

no of divisions- 2 No of threads- 6

4075- 464.972 ms (1651775 allocations: 70.33 MiB)

65000- 2.382 s (1220754 allocations: 52.47 MiB)

no of divisions- 4 No of threads- 6

4075- 374.709 ms (2895062 allocations: 129.09 MiB)

65000- 2.108 s (2106522 allocations: 95.02 MiB)

no of divisions- 6 No of threads- 6

4075- 408.349 ms (4132787 allocations: 187.66 MiB)

65000- 1.900 s (2969700 allocations: 136.90 MiB)

no of divisions- 8 No of threads- 6

4075- 447.546 ms (5305455 allocations: 245.28 MiB)

65000- 2.081 s (3870059 allocations: 179.93 MiB)

no of divisions- 12 No of threads- 6

4075- 535.427 ms (7786240 allocations: 362.59 MiB)

65000- 2.043 s (5634070 allocations: 264.88 MiB)

**PS E:\Compression Project> julia -t 8 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 8

4075- 600.040 ms (1027901 allocations: 41.17 MiB)

65000- 3.204 s (776716 allocations: 31.36 MiB)

no of divisions- 2 No of threads- 8

4075- 593.859 ms (1654626 allocations: 70.42 MiB)

65000- 2.599 s (1220763 allocations: 52.47 MiB)

no of divisions- 4 No of threads- 8

4075- 518.258 ms (2896010 allocations: 129.12 MiB)

65000- 2.283 s (2107746 allocations: 95.06 MiB)

no of divisions- 6 No of threads- 8

4075- 491.845 ms (4134513 allocations: 187.71 MiB)

65000- 2.201 s (2999765 allocations: 137.82 MiB)

no of divisions- 8 No of threads- 8

4075- 515.411 ms (5305887 allocations: 245.29 MiB)

65000- 2.241 s (3867372 allocations: 179.85 MiB)

no of divisions- 12 No of threads- 8

4075- 616.308 ms (7786476 allocations: 362.60 MiB)

65000- 2.117 s (5632829 allocations: 264.84 MiB)

**PS E:\Compression Project> julia -t 12 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 12

4075- 662.737 ms (1012109 allocations: 40.68 MiB)

65000- 3.239 s (776102 allocations: 31.34 MiB)

no of divisions- 2 No of threads- 12

4075- 885.813 ms (1652788 allocations: 70.36 MiB)

65000- 2.696 s (1227770 allocations: 52.68 MiB)

no of divisions- 4 No of threads- 12

4075- 668.591 ms (2899241 allocations: 129.22 MiB)

65000- 2.496 s (2125245 allocations: 95.59 MiB)

no of divisions- 6 No of threads- 12

4075- 652.830 ms (4134898 allocations: 187.72 MiB)

65000- 2.447 s (3008959 allocations: 138.10 MiB)

no of divisions- 8 No of threads- 12

4075- 718.228 ms (5306177 allocations: 245.30 MiB)

65000- 2.417 s (3889215 allocations: 180.52 MiB)

no of divisions- 12 No of threads- 12

4075- 866.877 ms (7786644 allocations: 362.61 MiB)

65000- 2.532 s (5656405 allocations: 265.56 MiB)

**45.4KB(46,505 Characters)**

**PS E:\Compression Project> julia -t 1 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 1

4075- 86.955 ms (249114 allocations: 10.28 MiB)

65000- 576.885 ms (199650 allocations: 8.89 MiB)

no of divisions- 2 No of threads- 1

4075- 94.658 ms (401006 allocations: 17.64 MiB)

65000- 594.736 ms (317040 allocations: 14.81 MiB)

no of divisions- 4 No of threads- 1

4075- 107.914 ms (687023 allocations: 32.21 MiB)

65000- 604.396 ms (550378 allocations: 26.73 MiB)

no of divisions- 6 No of threads- 1

4075- 121.320 ms (990269 allocations: 47.05 MiB)

65000- 612.481 ms (782769 allocations: 38.64 MiB)

no of divisions- 8 No of threads- 1

4075- 133.070 ms (1276454 allocations: 61.63 MiB)

65000- 626.971 ms (1014652 allocations: 50.54 MiB)

no of divisions- 12 No of threads- 1

4075- 160.222 ms (1865809 allocations: 91.04 MiB)

65000- 639.067 ms (1477185 allocations: 74.33 MiB)

**PS E:\Compression Project> julia -t 2 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 2

4075- 134.419 ms (267309 allocations: 10.84 MiB)

65000- 569.703 ms (207158 allocations: 9.12 MiB)

no of divisions- 2 No of threads- 2

4075- 80.327 ms (419520 allocations: 18.20 MiB)

65000- 553.567 ms (335157 allocations: 15.36 MiB)

no of divisions- 4 No of threads- 2

4075- 106.389 ms (727151 allocations: 33.43 MiB)

65000- 556.123 ms (581720 allocations: 27.69 MiB)

no of divisions- 6 No of threads- 2

4075- 99.881 ms (1045589 allocations: 48.74 MiB)

65000- 559.599 ms (828680 allocations: 40.04 MiB)

no of divisions- 8 No of threads- 2

4075- 116.079 ms (1350926 allocations: 63.90 MiB)

65000- 583.204 ms (1077439 allocations: 52.46 MiB)

no of divisions- 12 No of threads- 2

4075- 142.958 ms (1978768 allocations: 94.49 MiB)

65000- 593.315 ms (1570078 allocations: 77.16 MiB)

**PS E:\Compression Project> julia -t 4 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 4

4075- 139.230 ms (267343 allocations: 10.84 MiB)

65000- 589.394 ms (207196 allocations: 9.12 MiB)

no of divisions- 2 No of threads- 4

4075- 117.952 ms (428557 allocations: 18.48 MiB)

65000- 554.670 ms (336661 allocations: 15.41 MiB)

no of divisions- 4 No of threads- 4

4075- 94.536 ms (731039 allocations: 33.55 MiB)

65000- 514.112 ms (581407 allocations: 27.68 MiB)

no of divisions- 6 No of threads- 4

4075- 103.872 ms (1054083 allocations: 49.00 MiB)

65000- 552.906 ms (832977 allocations: 40.17 MiB)

no of divisions- 8 No of threads- 4

4075- 113.141 ms (1358616 allocations: 64.13 MiB)

65000- 536.788 ms (1077881 allocations: 52.47 MiB)

no of divisions- 12 No of threads- 4

4075- 134.627 ms (1984747 allocations: 94.67 MiB)

65000- 554.794 ms (1572106 allocations: 77.22 MiB)

**PS E:\Compression Project> julia -t 6 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 6

4075- 138.425 ms (267235 allocations: 10.83 MiB)

65000- 667.084 ms (214511 allocations: 9.35 MiB)

no of divisions- 2 No of threads- 6

4075- 120.161 ms (428859 allocations: 18.49 MiB)

65000- 592.948 ms (339601 allocations: 15.50 MiB)

no of divisions- 4 No of threads- 6

4075- 100.525 ms (733530 allocations: 33.63 MiB)

65000- 564.515 ms (588245 allocations: 27.89 MiB)

no of divisions- 6 No of threads- 6

4075- 109.551 ms (1054521 allocations: 49.01 MiB)

65000- 534.466 ms (831537 allocations: 40.13 MiB)

no of divisions- 8 No of threads- 6

4075- 119.338 ms (1358860 allocations: 64.14 MiB)

65000- 547.912 ms (1080361 allocations: 52.55 MiB)

no of divisions- 12 No of threads- 6

4075- 144.634 ms (1984845 allocations: 94.67 MiB)

65000- 555.602 ms (1573316 allocations: 77.26 MiB)

**PS E:\Compression Project> julia -t 8 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 8

4075- 156.058 ms (266150 allocations: 10.80 MiB)

65000- 725.215 ms (214386 allocations: 9.34 MiB)

no of divisions- 2 No of threads- 8

4075- 149.328 ms (428754 allocations: 18.48 MiB)

65000- 633.647 ms (339619 allocations: 15.50 MiB)

no of divisions- 4 No of threads- 8

4075- 130.218 ms (733877 allocations: 33.64 MiB)

65000- 585.145 ms (588405 allocations: 27.89 MiB)

no of divisions- 6 No of threads- 8

4075- 128.847 ms (1054811 allocations: 49.02 MiB)

65000- 596.080 ms (837540 allocations: 40.31 MiB)

no of divisions- 8 No of threads- 8

4075- 135.155 ms (1358937 allocations: 64.14 MiB)

65000- 584.672 ms (1083086 allocations: 52.63 MiB)

no of divisions- 12 No of threads- 8

4075- 160.184 ms (1984917 allocations: 94.68 MiB)

65000- 586.886 ms (1573667 allocations: 77.27 MiB)

**PS E:\Compression Project> julia -t 12 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 12

4075- 180.818 ms (262753 allocations: 10.70 MiB)

65000- 735.393 ms (213676 allocations: 9.32 MiB)

no of divisions- 2 No of threads- 12

4075- 241.406 ms (427783 allocations: 18.45 MiB)

65000- 694.739 ms (342384 allocations: 15.58 MiB)

no of divisions- 4 No of threads- 12

4075- 178.392 ms (734131 allocations: 33.65 MiB)

65000- 673.084 ms (590820 allocations: 27.97 MiB)

no of divisions- 6 No of threads- 12

4075- 186.309 ms (1054673 allocations: 49.01 MiB)

65000- 687.499 ms (837087 allocations: 40.30 MiB)

no of divisions- 8 No of threads- 12

4075- 183.812 ms (1358978 allocations: 64.14 MiB)

65000- 687.972 ms (1084431 allocations: 52.67 MiB)

no of divisions- 12 No of threads- 12

4075- 229.118 ms (1984934 allocations: 94.68 MiB)

65000- 695.572 ms (1577329 allocations: 77.38 MiB)

**14.3MB(14,967,604 Characters)**

**PS E:\Compression Project> julia -t 1 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 1

4075- 23.751 s (67465057 allocations: 2.68 GiB)

65000- 195.783 s (48206897 allocations: 1.87 GiB)

no of divisions- 2 No of threads- 1

4075- 25.959 s (108707197 allocations: 4.60 GiB)

65000- 199.377 s (75572409 allocations: 3.14 GiB)

no of divisions- 4 No of threads- 1

4075- 29.389 s (186339807 allocations: 8.40 GiB)

65000- 200.804 s (130302340 allocations: 5.70 GiB)

no of divisions- 6 No of threads- 1

4075- 32.473 s (268823665 allocations: 12.26 GiB)

65000- 204.098 s (185031143 allocations: 8.27 GiB)

no of divisions- 8 No of threads- 1

4075- 35.886 s (346456416 allocations: 16.06 GiB)

65000- 207.298 s (239759667 allocations: 10.84 GiB)

no of divisions- 12 No of threads- 1

4075- 42.661 s (506572940 allocations: 23.72 GiB)

65000- 211.023 s (349215672 allocations: 15.97 GiB)

**PS E:\Compression Project> julia -t 2 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 2

4075- 37.065 s (72295093 allocations: 2.83 GiB)

65000- 194.277 s (49818434 allocations: 1.91 GiB)

no of divisions- 2 No of threads- 2

4075- 23.315 s (113699731 allocations: 4.75 GiB)

65000- 155.911 s (79729837 allocations: 3.26 GiB)

no of divisions- 4 No of threads- 2

4075- 30.453 s (197161378 allocations: 8.72 GiB)

65000- 154.741 s (137286949 allocations: 5.91 GiB)

no of divisions- 6 No of threads- 2

4075- 30.760 s (283842598 allocations: 12.71 GiB)

65000- 157.817 s (194967999 allocations: 8.57 GiB)

no of divisions- 8 No of threads- 2

4075- 34.463 s (366337522 allocations: 16.65 GiB)

65000- 162.301 s (252866496 allocations: 11.23 GiB)

no of divisions- 12 No of threads- 2

4075- 41.491 s (536366507 allocations: 24.61 GiB)

65000- 169.023 s (369141714 allocations: 16.57 GiB)

**PS E:\Compression Project> julia -t 4 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 4

4075- 37.657 s (72314413 allocations: 2.83 GiB)

65000- 198.966 s (49836061 allocations: 1.91 GiB)

no of divisions- 2 No of threads- 4

4075- 32.517 s (116033037 allocations: 4.82 GiB)

65000- 161.954 s (79851286 allocations: 3.27 GiB)

no of divisions- 4 No of threads- 4

4075- 27.686 s (198189213 allocations: 8.75 GiB)

65000- 137.470 s (137373438 allocations: 5.92 GiB)

no of divisions- 6 No of threads- 4

4075- 30.569 s (285775160 allocations: 12.77 GiB)

65000- 152.895 s (196328322 allocations: 8.61 GiB)

no of divisions- 8 No of threads- 4

4075- 33.620 s (368244687 allocations: 16.71 GiB)

65000- 140.521 s (252897592 allocations: 11.23 GiB)

no of divisions- 12 No of threads- 4

4075- 40.544 s (538076536 allocations: 24.66 GiB)

65000- 149.939 s (369843668 allocations: 16.59 GiB)

**PS E:\Compression Project> julia -t 6 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 6

4075- 38.561 s (72300496 allocations: 2.83 GiB)

65000- 217.974 s (51426563 allocations: 1.96 GiB)

no of divisions- 2 No of threads- 6

4075- 34.030 s (116109717 allocations: 4.82 GiB)

65000- 168.065 s (80458014 allocations: 3.28 GiB)

no of divisions- 4 No of threads- 6

4075- 29.232 s (198715551 allocations: 8.77 GiB)

65000- 144.395 s (138550246 allocations: 5.95 GiB)

no of divisions- 6 No of threads- 6

4075- 32.182 s (285855700 allocations: 12.77 GiB)

65000- 127.373 s (194862599 allocations: 8.57 GiB)

no of divisions- 8 No of threads- 6

4075- 35.342 s (368284360 allocations: 16.71 GiB)

65000- 139.745 s (254094623 allocations: 11.27 GiB)

no of divisions- 12 No of threads- 6

4075- 43.154 s (538089667 allocations: 24.66 GiB)

65000- 138.067 s (369837002 allocations: 16.59 GiB)

**PS E:\Compression Project> julia -t 8 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 8

4075- 43.161 s (72106066 allocations: 2.82 GiB)

65000- 221.581 s (51427355 allocations: 1.96 GiB)

no of divisions- 2 No of threads- 8

4075- 43.014 s (116130896 allocations: 4.82 GiB)

65000- 173.277 s (80428655 allocations: 3.28 GiB)

no of divisions- 4 No of threads- 8

4075- 39.854 s (198783560 allocations: 8.77 GiB)

65000- 151.860 s (138564886 allocations: 5.95 GiB)

no of divisions- 6 No of threads- 8

4075- 39.714 s (285929928 allocations: 12.77 GiB)

65000- 145.230 s (197134666 allocations: 8.63 GiB)

no of divisions- 8 No of threads- 8

4075- 42.375 s (368332293 allocations: 16.71 GiB)

65000- 147.998 s (253596496 allocations: 11.25 GiB)

no of divisions- 12 No of threads- 8

4075- 51.622 s (538106697 allocations: 24.66 GiB)

65000- 173.387 s (369815551 allocations: 16.59 GiB)

**PS E:\Compression Project> julia -t 12 Compress\_Parallel\_Search\_Spawning.jl**

no of divisions- 1 No of threads- 12

4075- 51.730 s (71230144 allocations: 2.80 GiB)

65000- 225.215 s (51426515 allocations: 1.96 GiB)

no of divisions- 2 No of threads- 12

4075- 73.337 s (115856514 allocations: 4.81 GiB)

65000- 224.936 s (81342401 allocations: 3.31 GiB)

no of divisions- 4 No of threads- 12

4075- 58.933 s (198955703 allocations: 8.77 GiB)

65000- 167.599 s (139875532 allocations: 5.99 GiB)

no of divisions- 6 No of threads- 12

4075- 59.778 s (285947833 allocations: 12.77 GiB)

65000- 166.509 s (197926316 allocations: 8.66 GiB)

no of divisions- 8 No of threads- 12

4075- 61.161 s (368317634 allocations: 16.71 GiB)

65000- 161.682 s (255652512 allocations: 11.31 GiB)

no of divisions- 12 No of threads- 12

4075- 71.776 s (538117614 allocations: 24.67 GiB)

65000- 163.559 s (371600754 allocations: 16.64 GiB)