**Game Of Life:**

**Methodology:** Game of life is been implemented by dividing the 10k x 10k matrix into blocks and implementing the defined transformation from current generation to next generation. A very high parallelism can be observed for a very large board dimensions.

**Cilk View Report :**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | Block Size  10kx10k | Duration (sec) | Overall Parallelism | Parrallelism in Parallel region | Speed Up in Parallel Region | | 20 | 7.69 | 2.26  2.26(burdened) | 235012.55  32329.98  (burdened) | 2 processors: 1.90 - 2.00  4 processors: 3.80 - 4.00  8 processors: 7.60 - 8.00  16 processors: 15.20 - 16.00  32 processors: 30.40 - 32.00  64 processors: 60.80 - 64.00  128 processors: 121.60 - 128.00  256 processors: 243.20 - 256.00 | | 100 | 7.26 | 2.26  2.26  (burdened) | 9978.30  8234.67  (burdened) | 2 processors: 1.90 - 2.00  4 processors: 3.80 - 4.00  8 processors: 7.60 - 8.00  16 processors: 15.20 - 16.00  32 processors: 30.40 - 32.00  64 processors: 60.80 - 64.00  128 processors: 121.60 - 128.00  256 processors: 243.20 - 256.00 | |

**Cilk Screen Report :**

Cilk screen has been run on smaller instance of data, since the size of test data was too big

|  |
| --- |
| sudhar@ubuntu:~/assignments/ConcurrentProgramming/Assignment1$ cilkscreen ./gol  Cilkscreen Race Detector V2.0.0, Build 3566  155680 No errors found by Cilkscreen |