

Theme Project

Requirement

Find a n-coloring of a graph.

Hardware platform:

Intel(R) Core(TM) i5-10210U CPU @ 1.60GHz 2.11 GHz

8 GB DDR4

512 GB SSD

Algorithms:

- **Regular threads**
 - Complexity: $O(V^2 + E)$ in worst case
 - A proper coloring of a graph is an assignment of colors to the vertices of the graph so that no two adjacent vertices have the same color.
 - Uses Java thread Pool
- **MPI**

Time Statistics:

Number of vertices: 5

Number of threads: 8

Regular threads: 30 milliseconds

MPI:

Number of vertices: 10

Number of threads: 8

Regular threads: 38 milliseconds

MPI:

