PERFORMANCE ANALYSIS

In this section is presented an analysis of the performance for the virus spreading simulation. Every table presented refers to a computation done with different configurations in term of hosts, number of cores, individuals and number of regions.

The data is the time needed to end a day computation.

The computation is done with the following arguments:

* velocity: 0.5 m/s
* spreading distance: 2 m
* updating interval: 4 s

**SINGLE HOST - 4 REGIONS**

|  |  |  |
| --- | --- | --- |
|  | 1 core | 2 cores |
| 10 individuals | 0.029 s/day | 0.042 s/day |
| 50 individuals | 0.196 s/day | 0.178 s/day |
| 100 individuals | 0.316 s/day | 0.308 s/day |
| 500 individuals | 2.66 s/day | 2.056 s/day |
| 1000 individuals | 4.75 s/day | 3.545 s/day |

**SINGLE HOST – 100 INDIVIDUALS**

|  |  |  |
| --- | --- | --- |
|  | 1 core | 2 cores |
| 4 regions | 0.316 s/day | 0.308 s/day |
| 16 regions | 0.360 s/day | 0.401 s/day |
| 100 regions | 1.176 s/day | 0.790 s/day |
| 500 regions | 5.235 s/day | 2.333 s/day |