1. **Summary report on scalability testing:**

According to the presented results, it can be seen that with an increase in the number of CPUs and RAM, the throughput increases, while the response time and the number of errors decrease.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Samples | Average | Median | 90% Line | 95% Line | 99% Line | Min | Max | Error % | Throughput | Received KB/sec | Sent KB/sec |
| **1CPU; 8GB RAM** | **84** | **310** | **130** | **415** | **570** | **3679** | **0** | **4318** | **0.00%** | **44.1/min** | **33.62** | **7.49** |
| 2CPU; 8GB RAM | 84 | 269 | 100 | 402 | 875 | 2513 | 0 | 5125 | 0.00% | 42.0/min | 32.54 | 7.33 |
| difference | - | -13.33% | -23.08% | -3.13% | +53.51% | -31.69% | - | +18.69% | - | -4.76% | -3.21% | -2.14% |
| 4CPU; 8GB RAM | 87 | 257 | 75 | 117 | 698 | 4689 | 0 | 8160 | 0.00% | 43.5/min | 29.88 | 7.34 |
| difference | +3.57% | -17.1% | -42.31% | -71.81% | +22.46% | +27.45% | - | +88.98% | - | -1.36% | -11.12% | -2.0% |
| 1CPU; 4GB RAM | 91 | -3668810… | 68 | 171 | 188 | 404 | 0 | 4372 | 4.40% | 45.6/min | 29.61 | 7.63 |
| difference | +8.33% | - | -47.69% | -58.8% | -67.02% | -89.02% | - | +1.25% | +4.40% | +3.4% | -11.93% | +1.87% |
| 1CPU; 6GB RAM | 85 | 332 | 116 | 323 | 840 | 3747 | 0 | 9888 | 4.71% | 42.5/min | 33.47 | 7.07 |
| difference | +1.19% | +7.1% | -10.77% | -22.17% | +47.37% | +1.85% | - | +128.99% | +4.71% | -3.63% | -0.45% | -5.61% |

1. Recommendations:   
     
   In conclusion, we can say that 4CPU; 8GB RAM is the most optimal option
2. Test Objectives

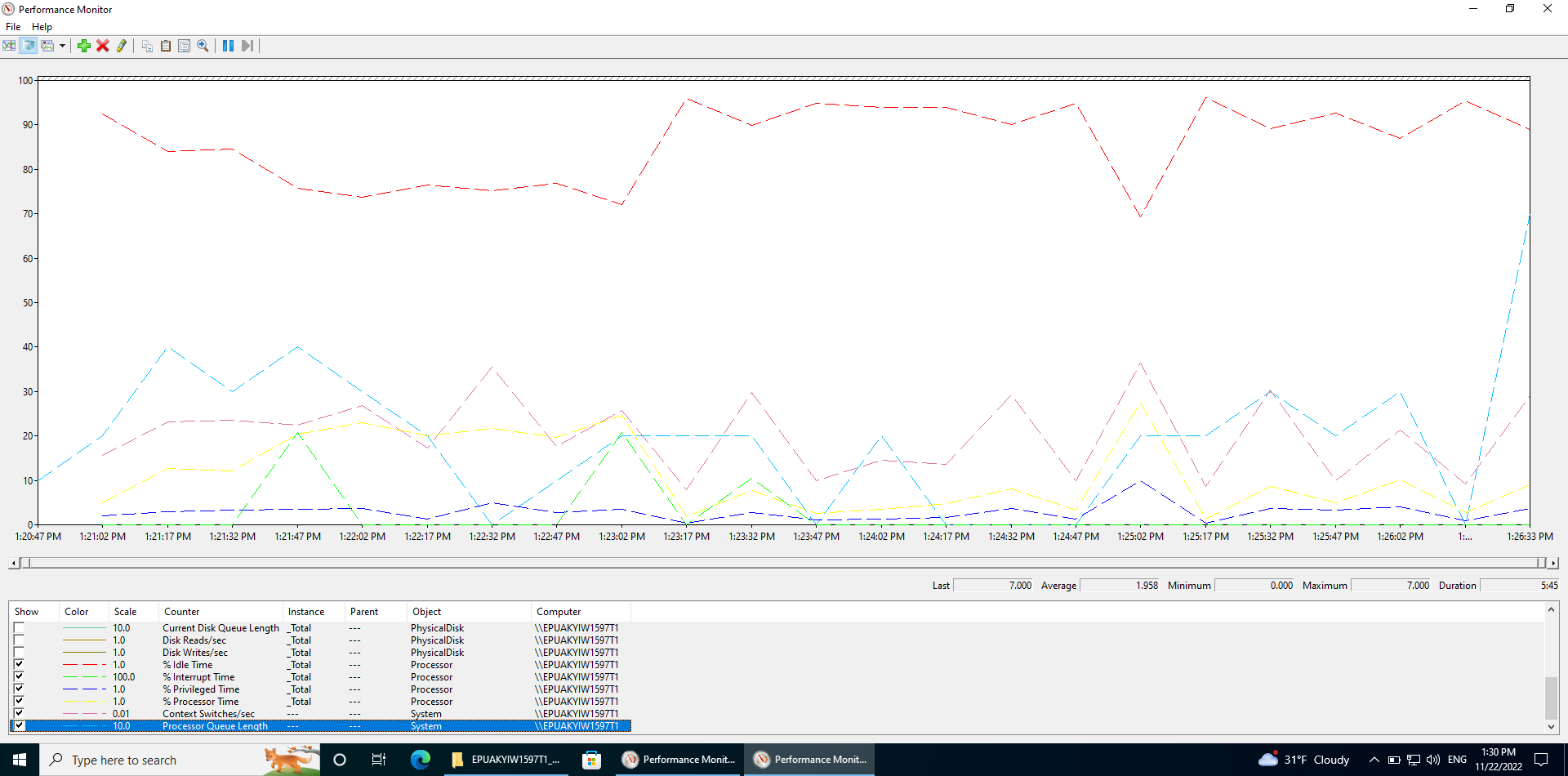
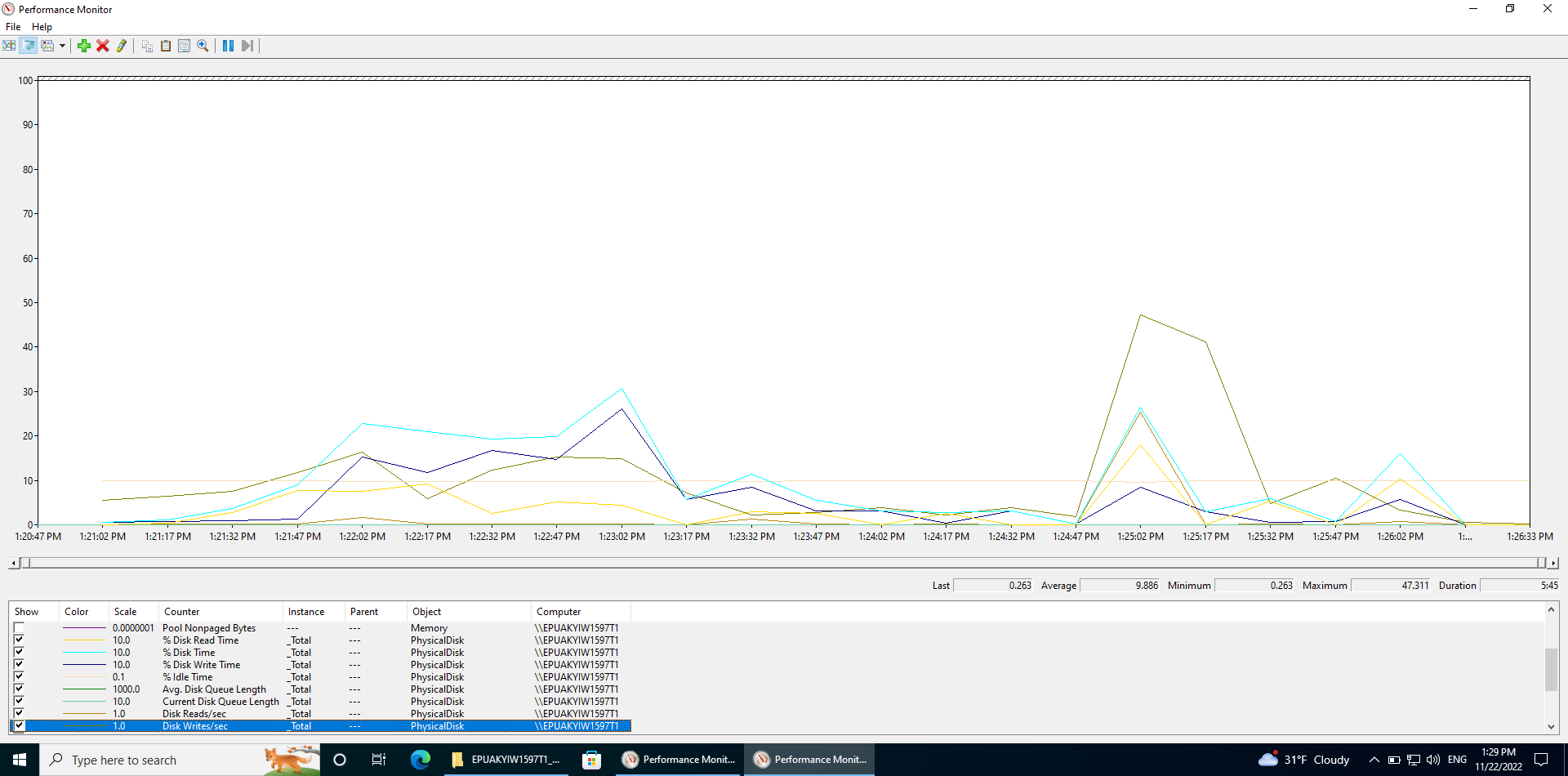
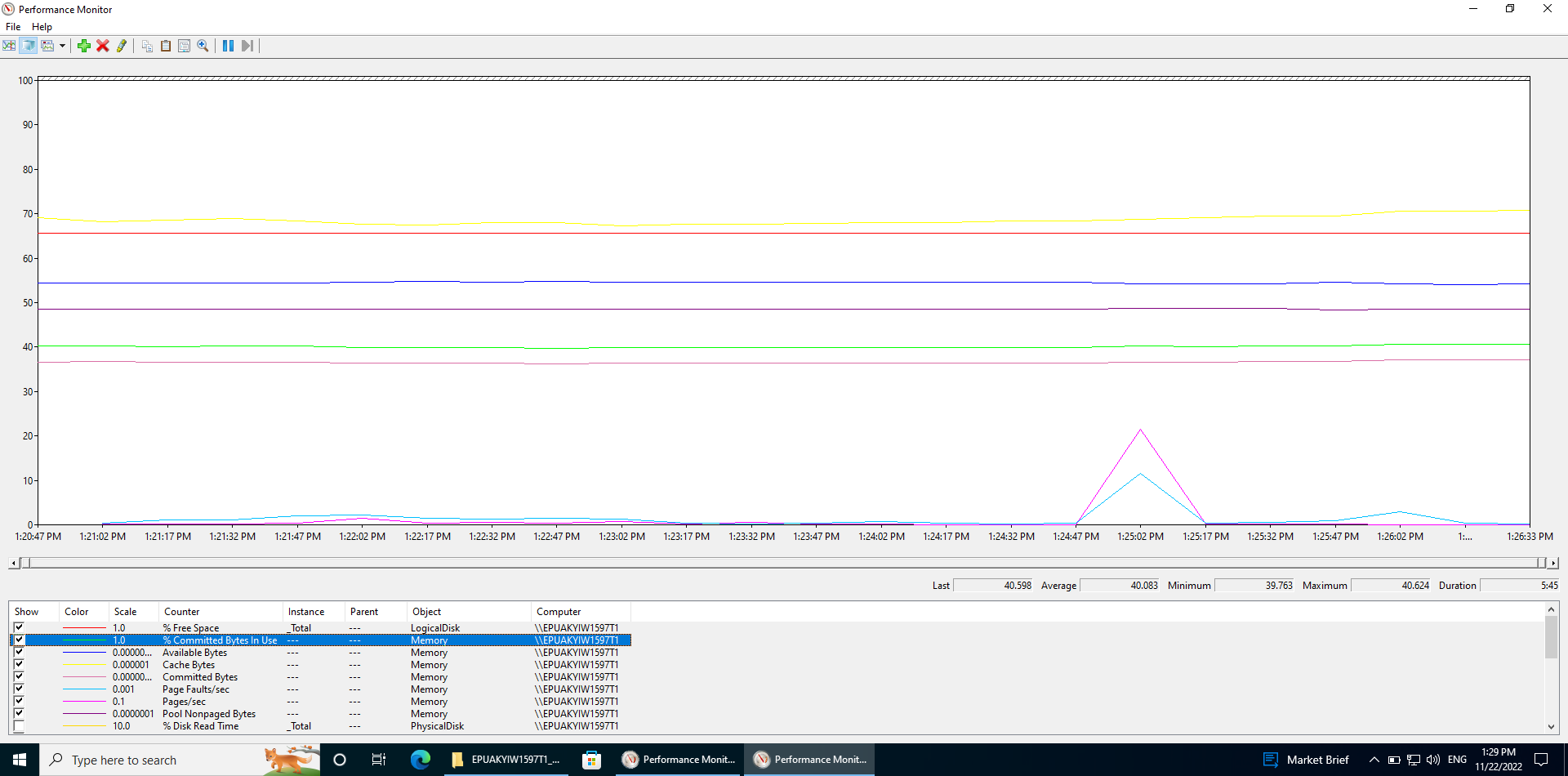
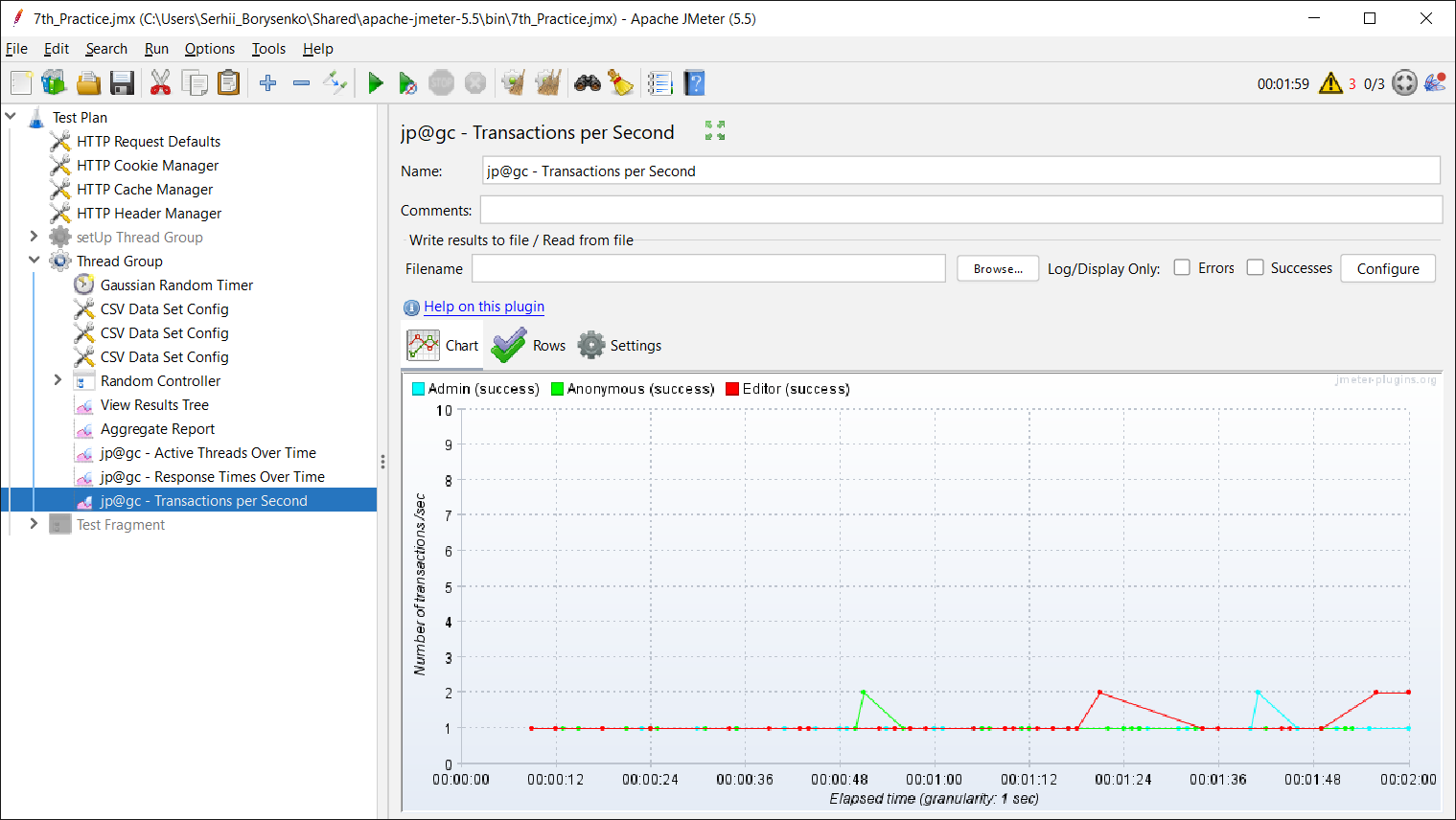
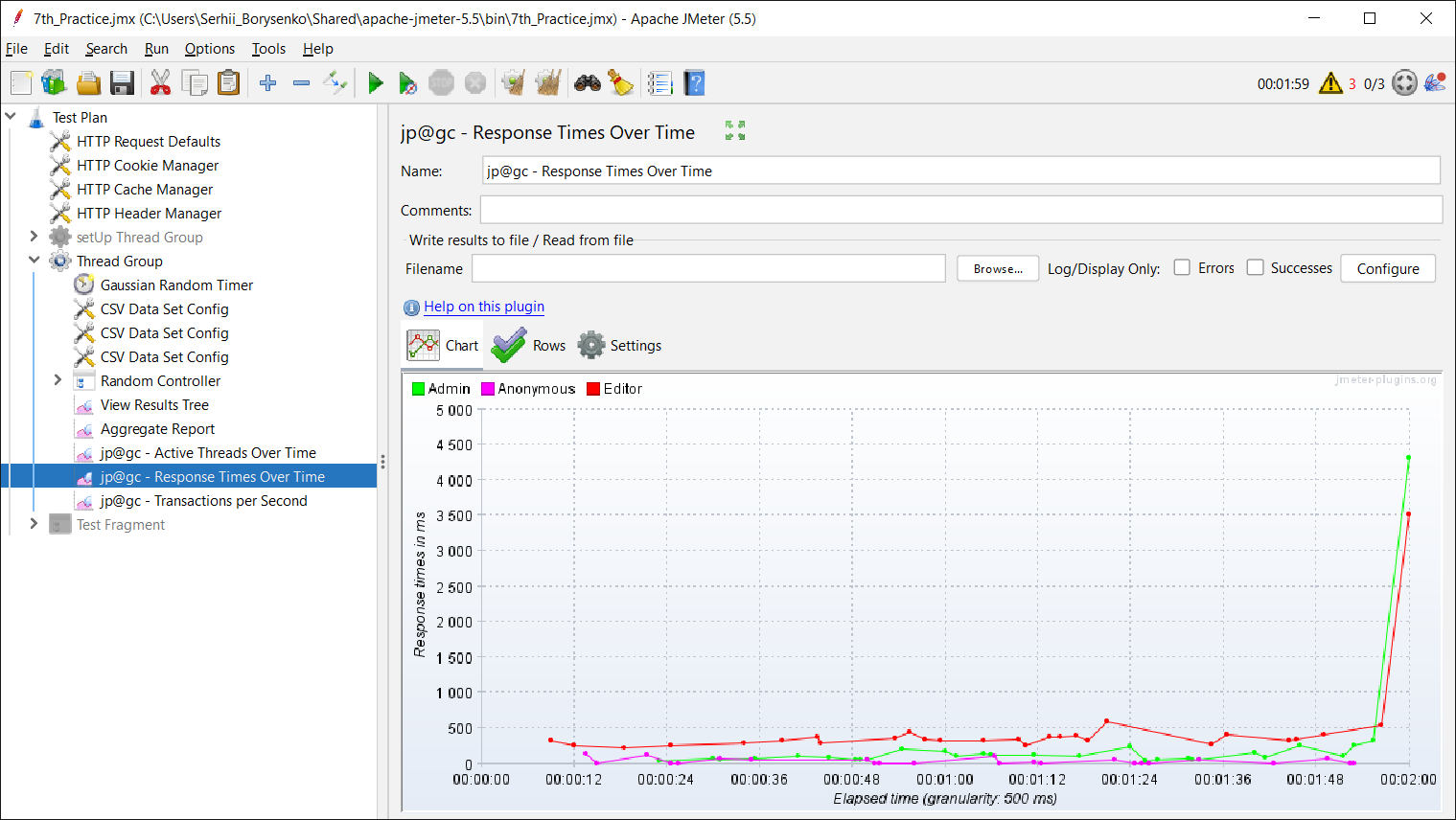
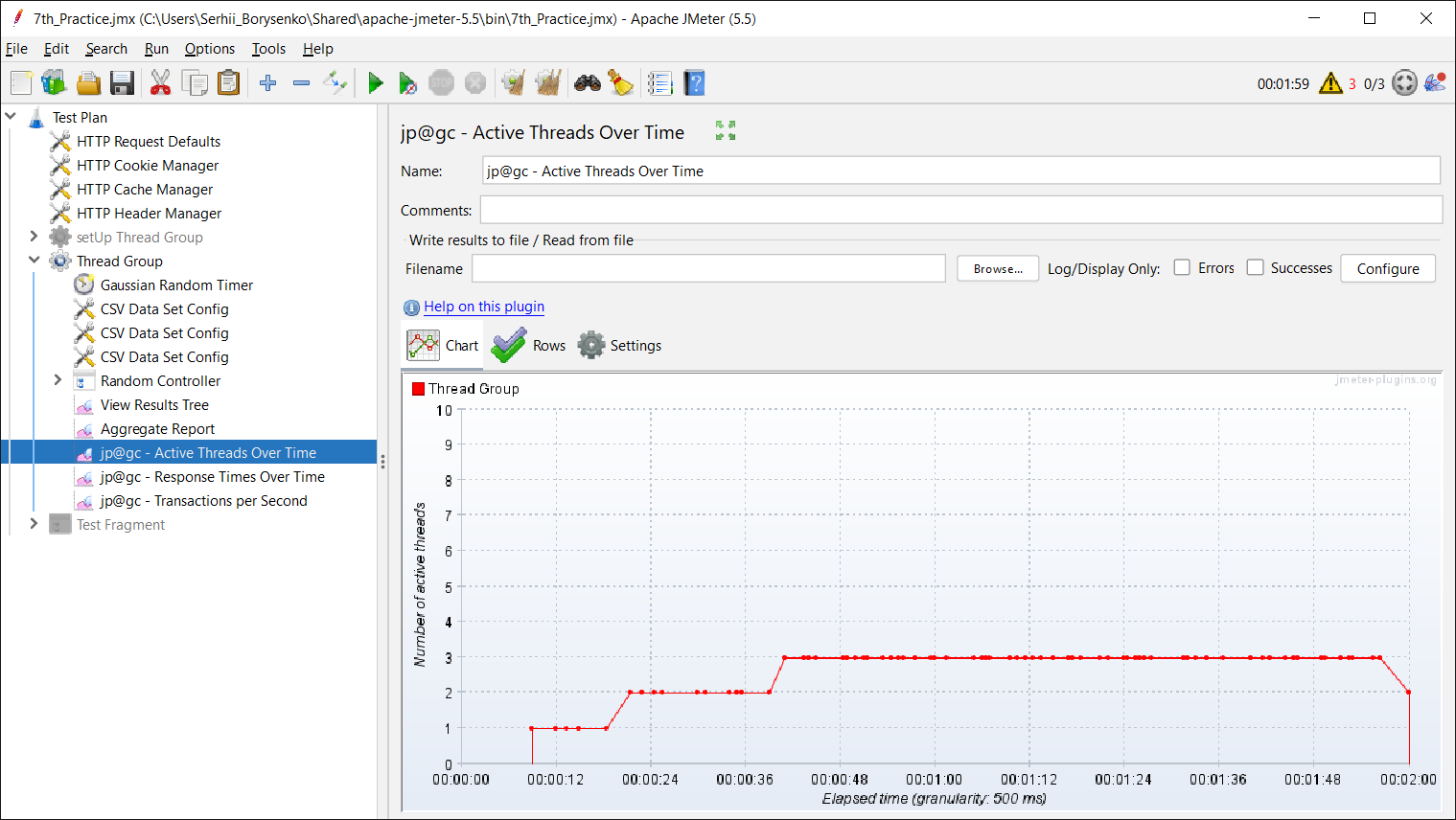
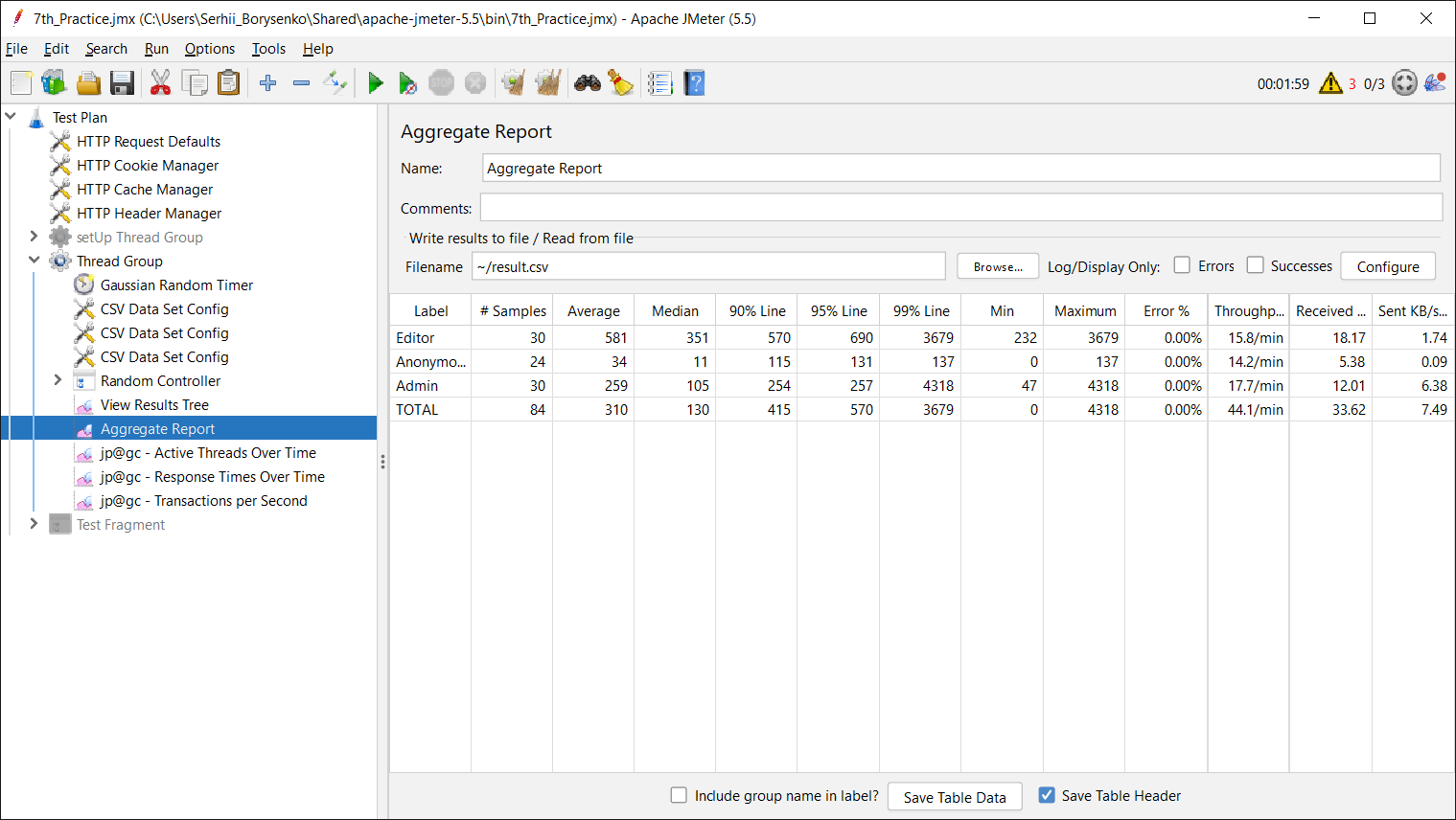
* Get an experience on regular load definition.
* Get an experience on KPI definition and calculation.
* Get an experience of scalability testing.
* Carry out scalability testing of the Blog Engine application and prepare a testing report

1. Test Configuration

|  |  |
| --- | --- |
| Number of Treads(users) | 5 |
| Rump-up period(seconds) | 60 |
| Loop Count | infinite |
| Duration(seconds) | 120 |

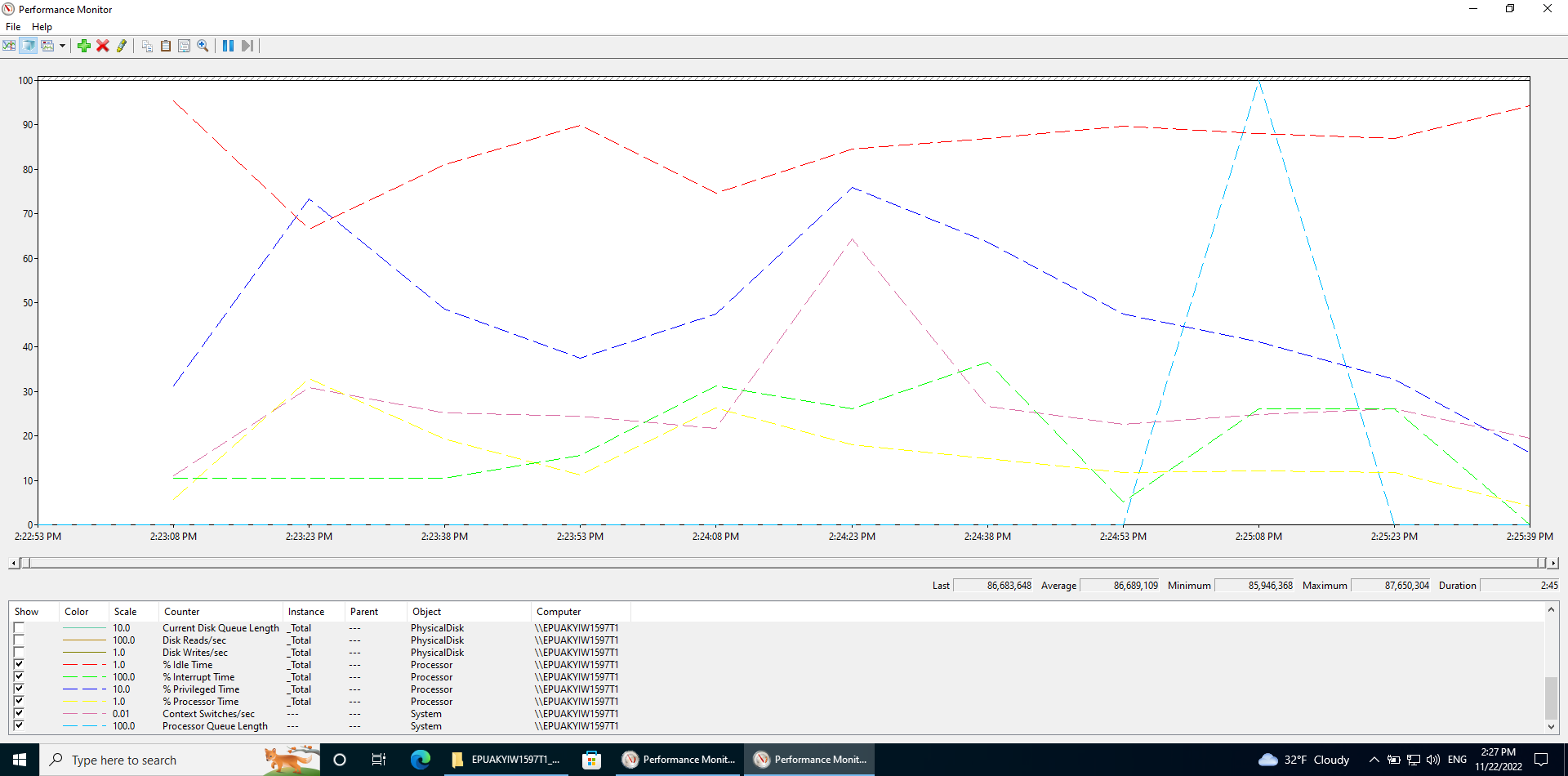
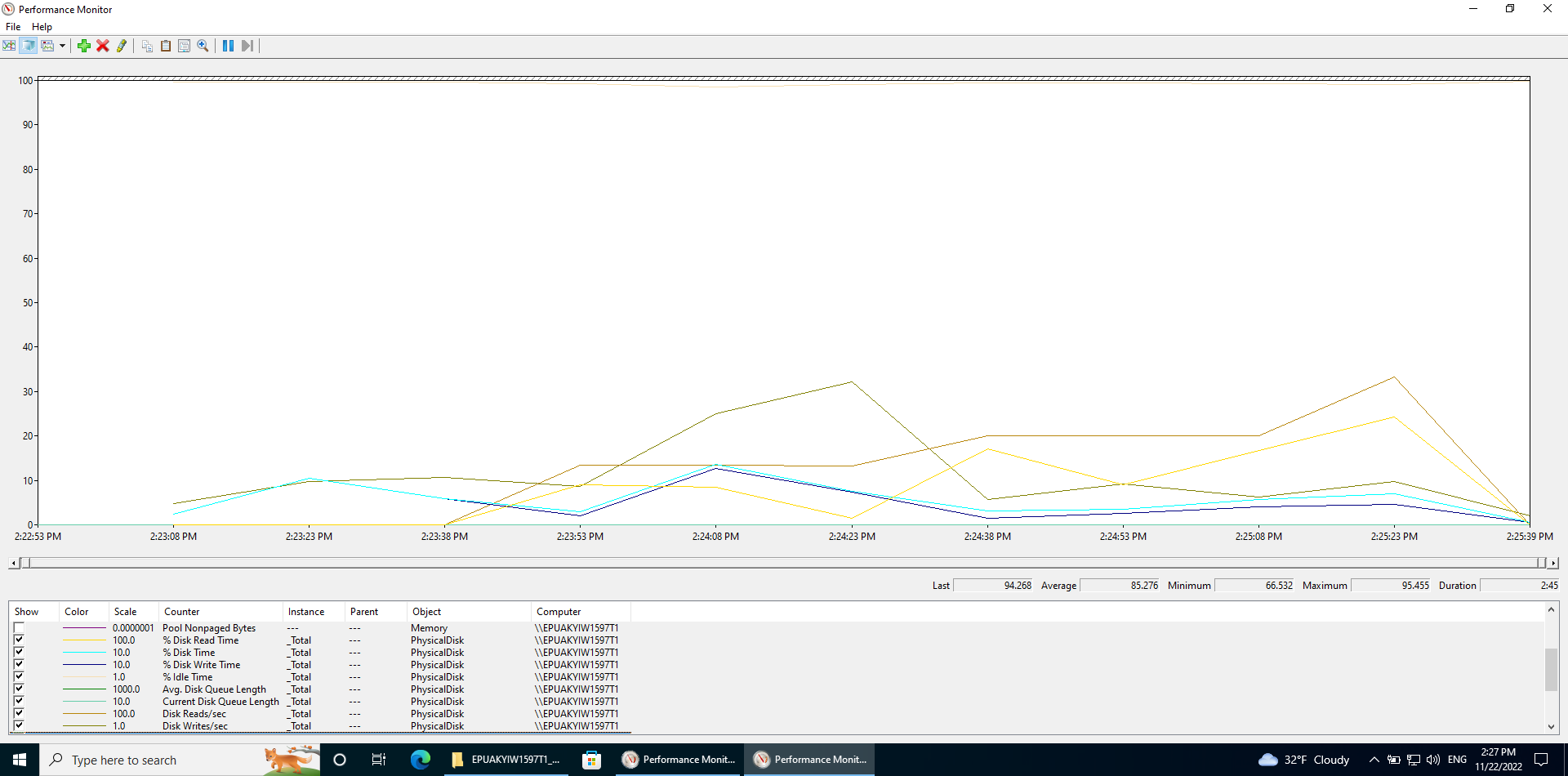
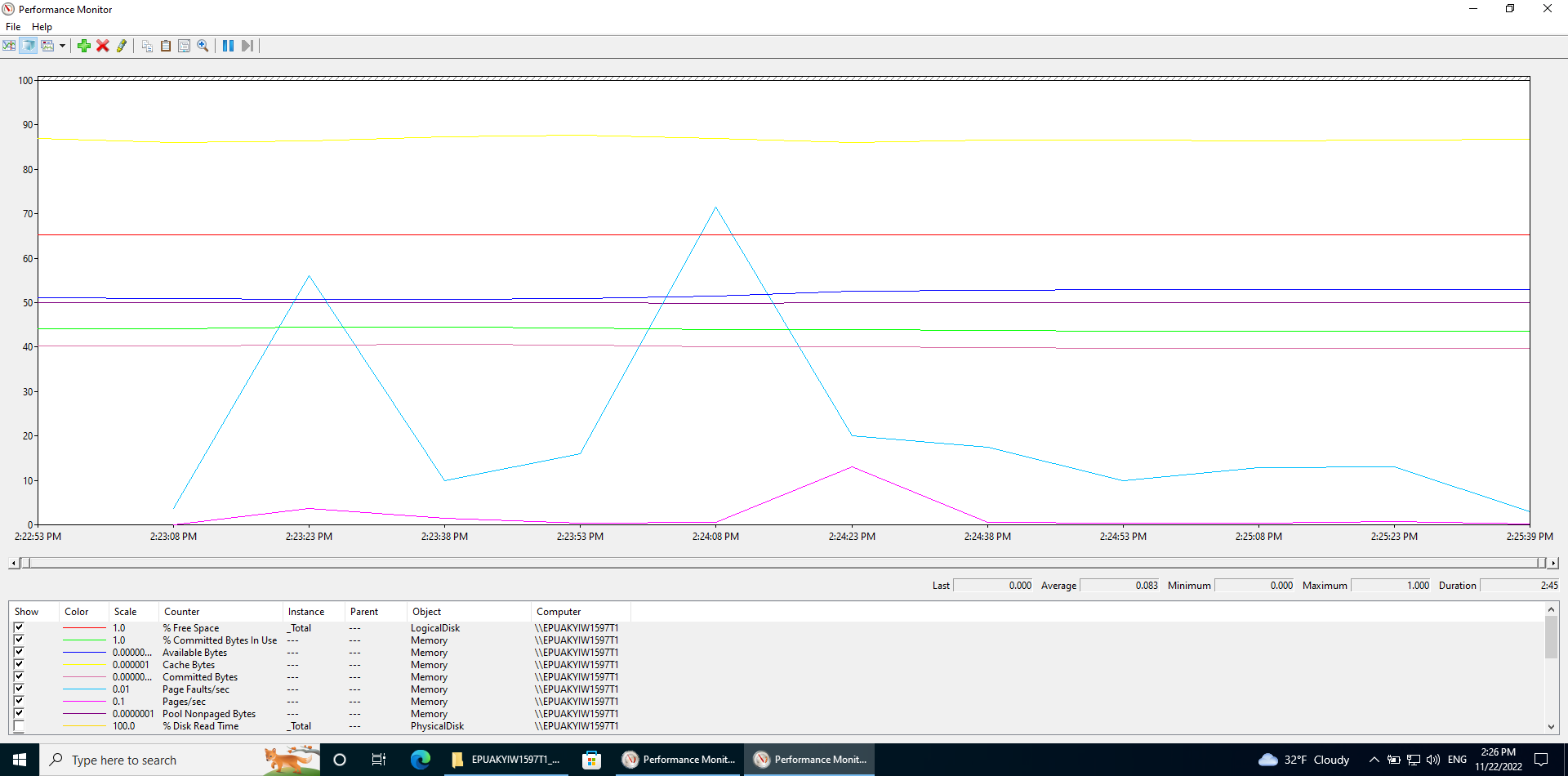
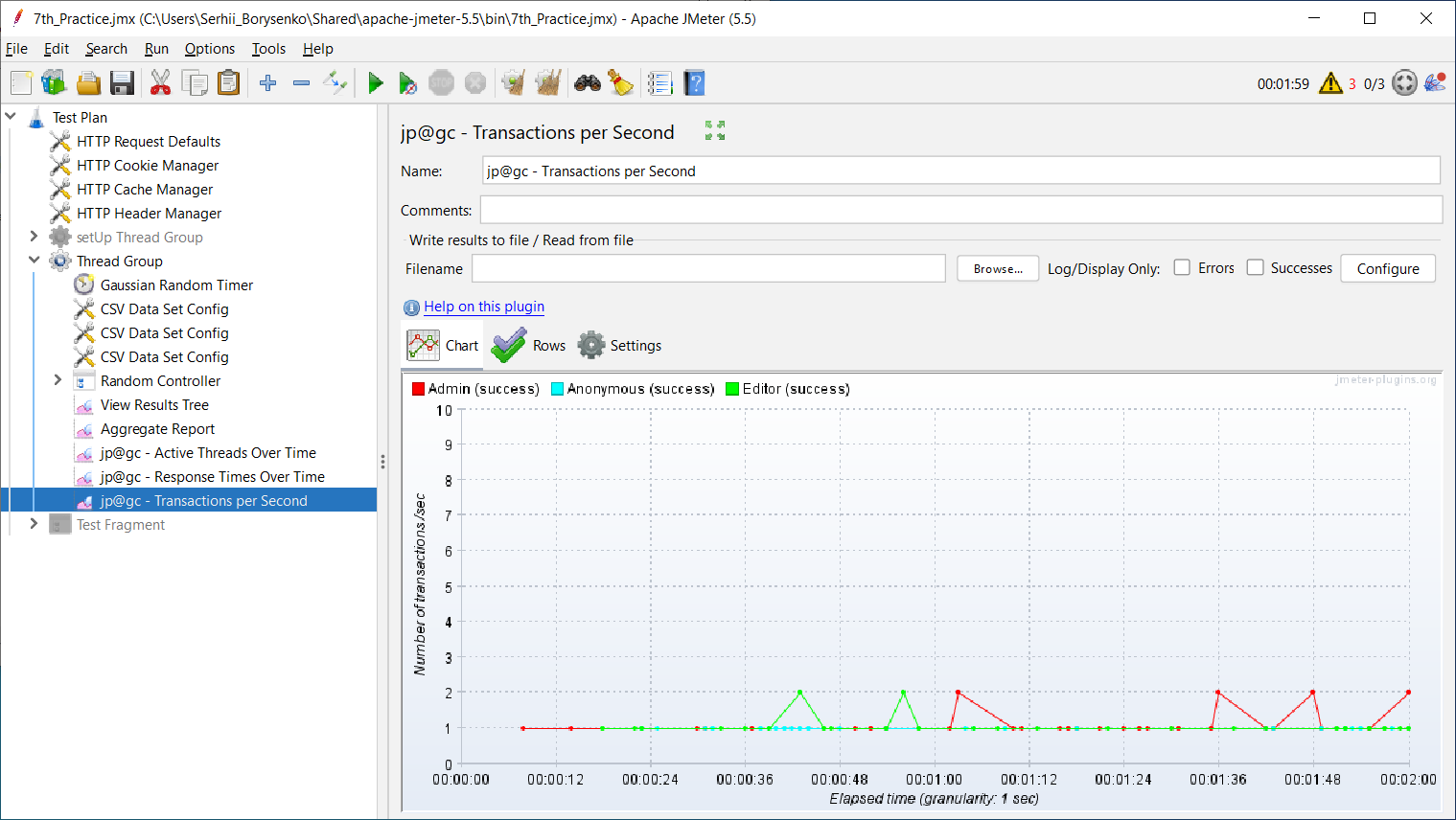
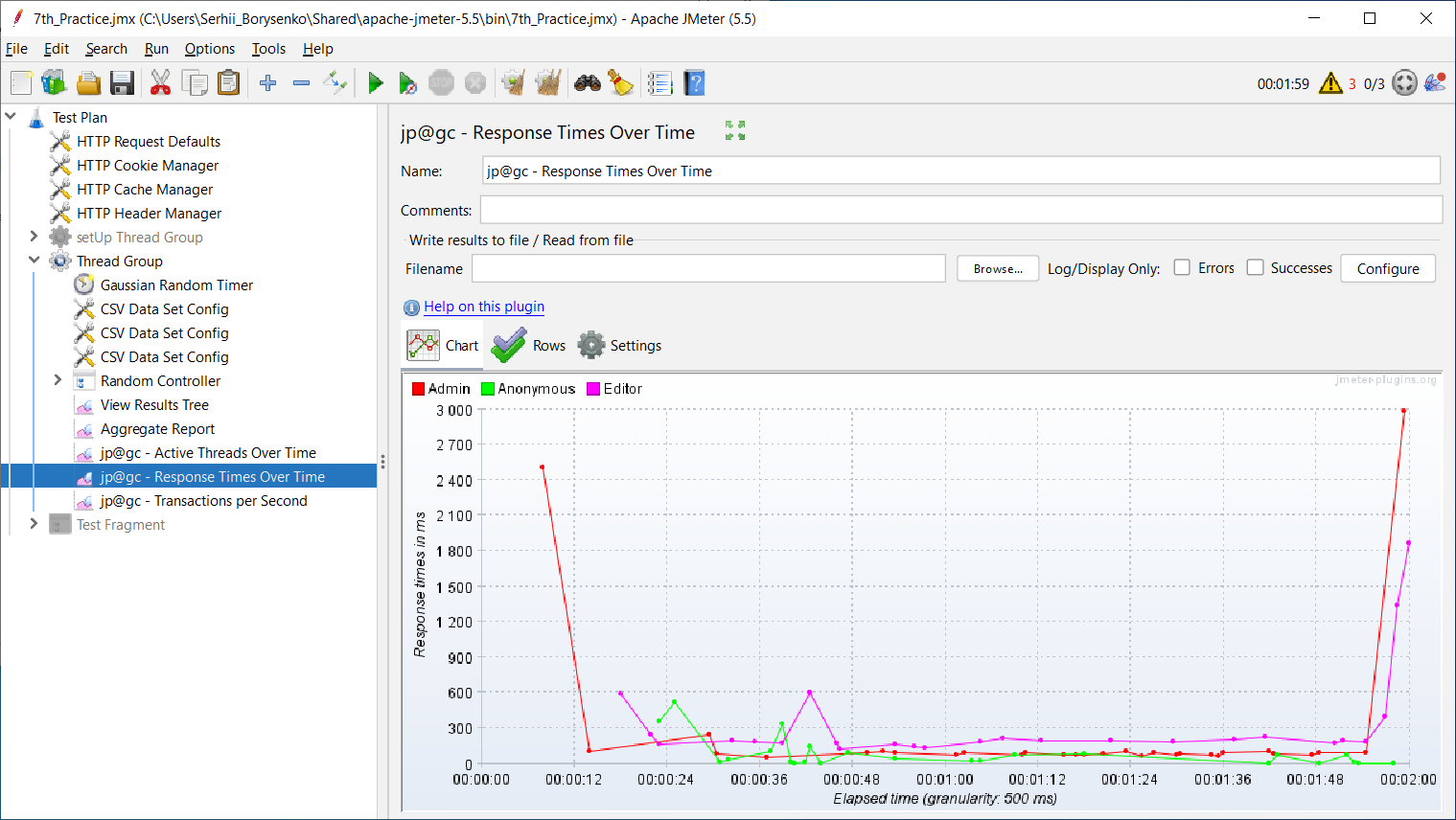
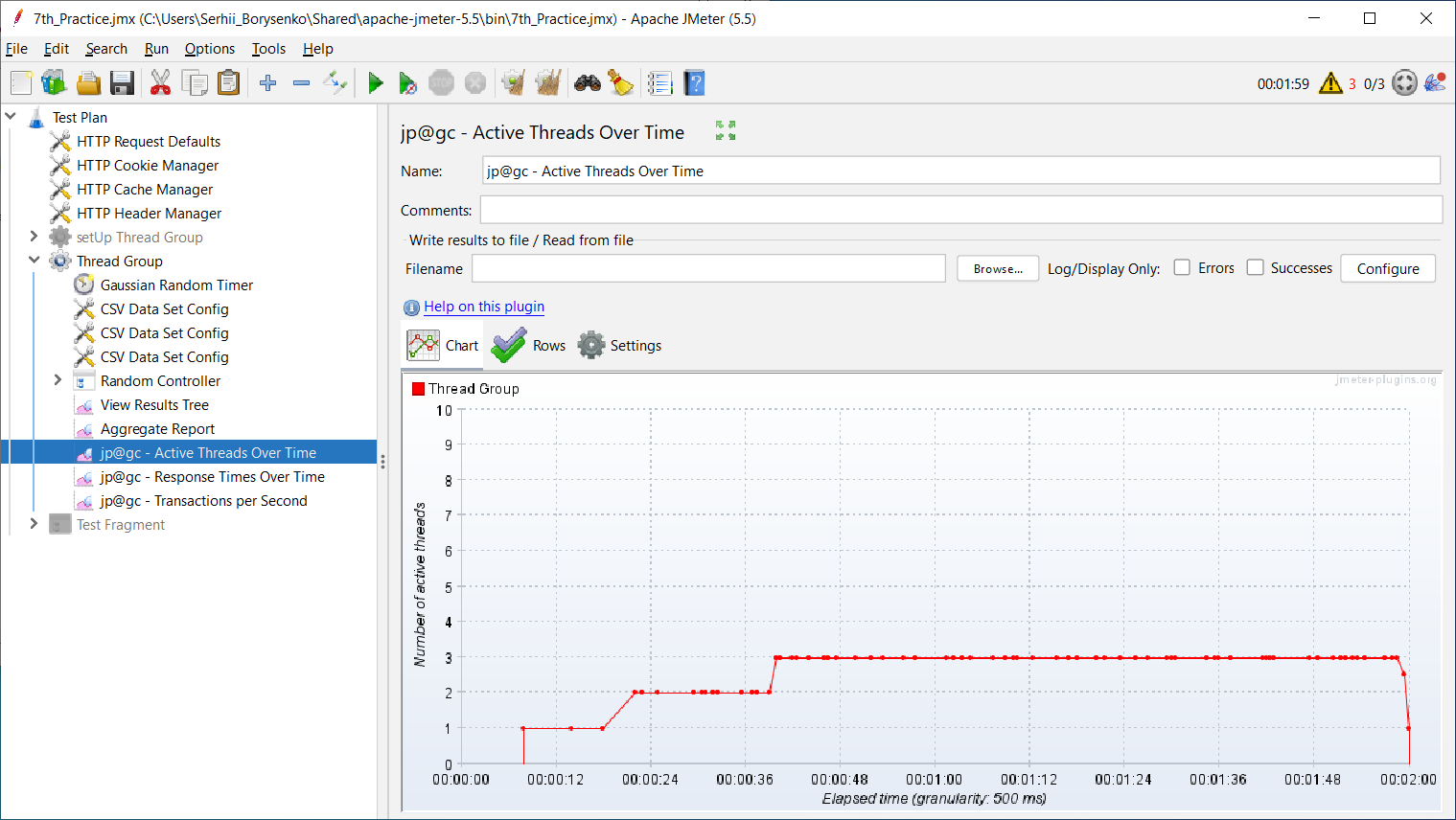
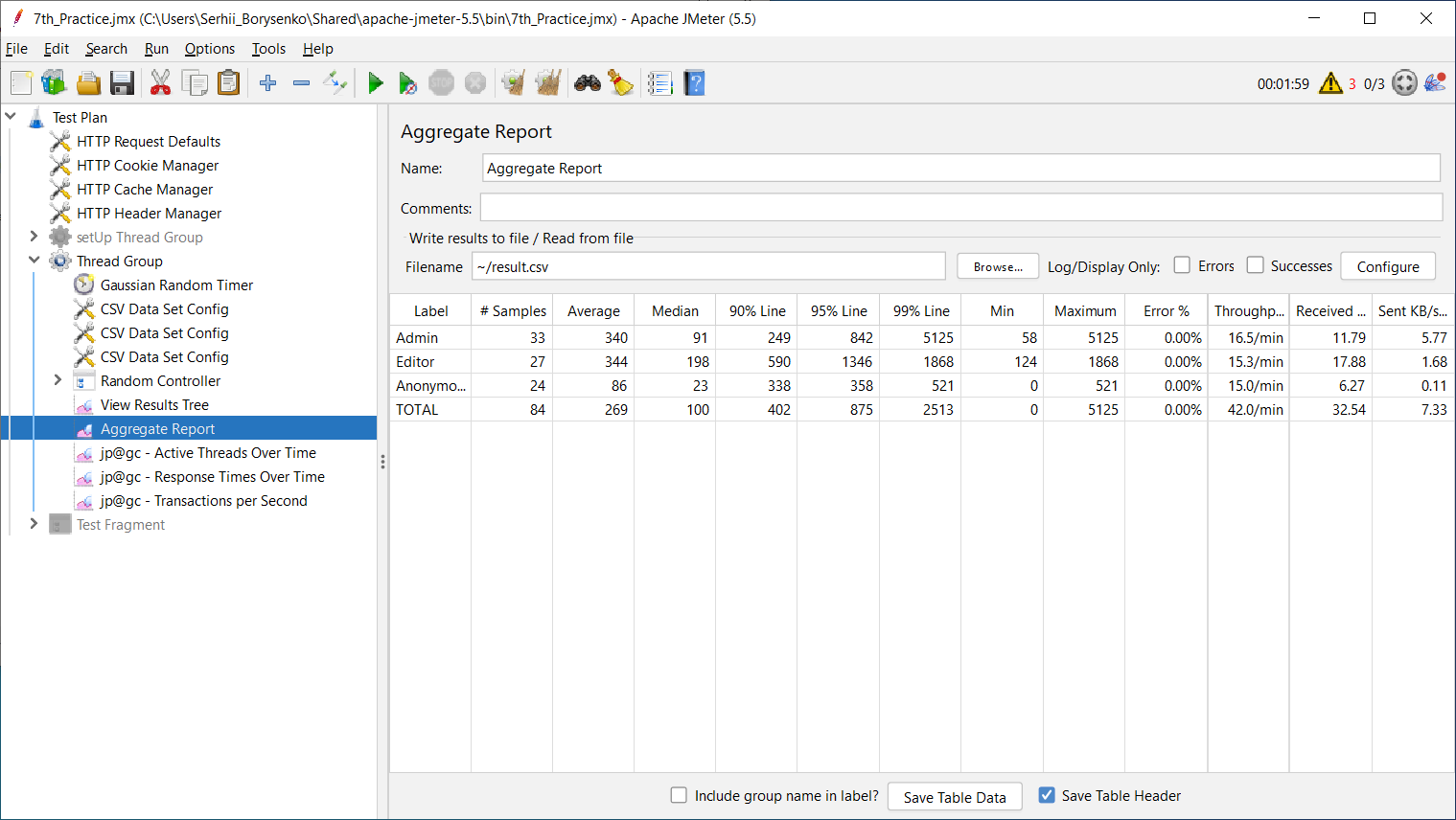
1. Quality Criteria  
     
   For the application Blog Engine, NFR (acceptance criteria) were not defined, but given the specifics of the task, since the baseline is task 7, the resulting values ​​should not be higher than the values ​​of task 7
2. Test Scenarios  
     
   https://github.com/Dingo69/PerformanceProgram2022
3. Test Results

Using the results of task 7, the following regular load was determined(1CPU; 8Gb RAM):

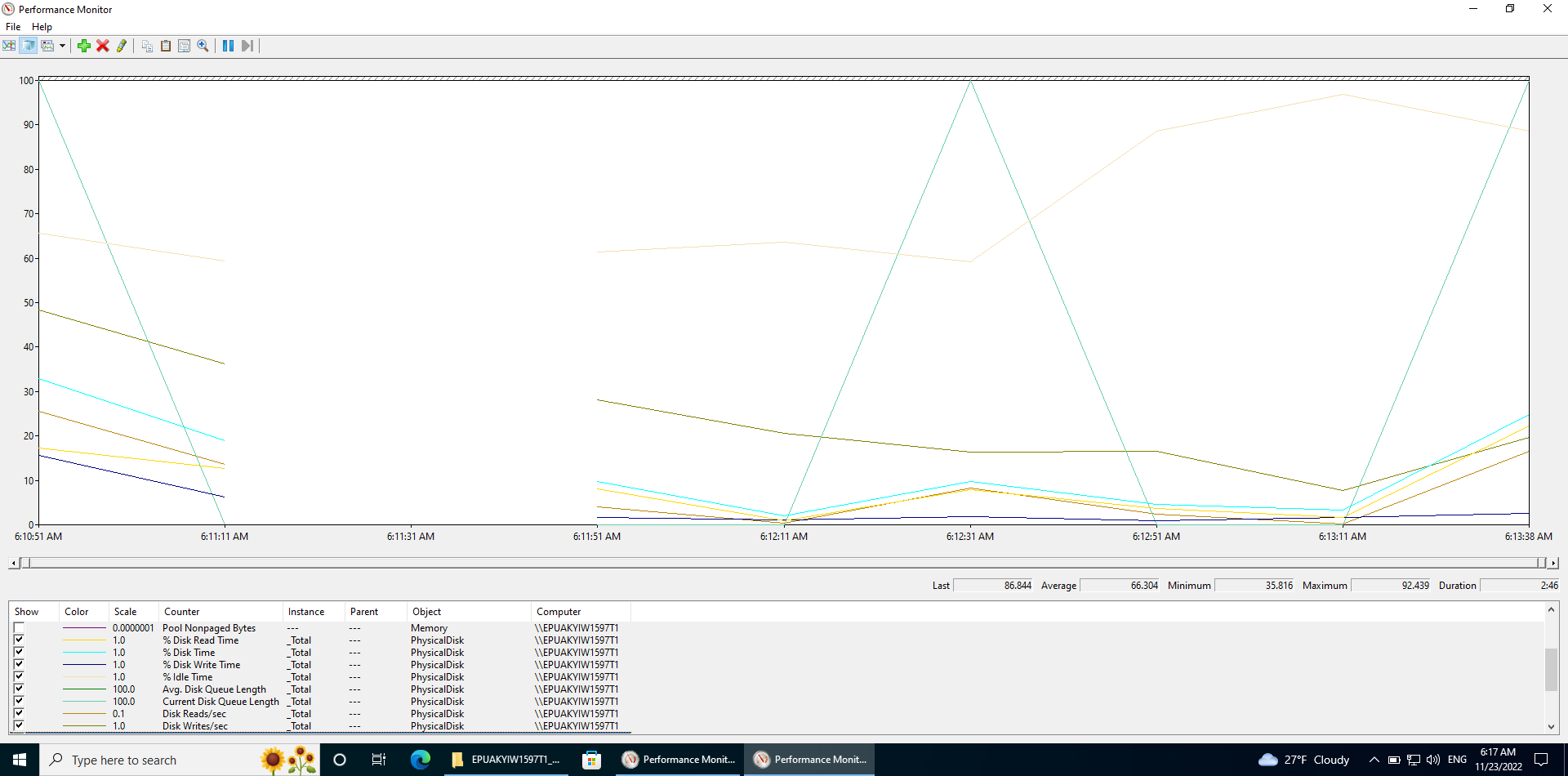
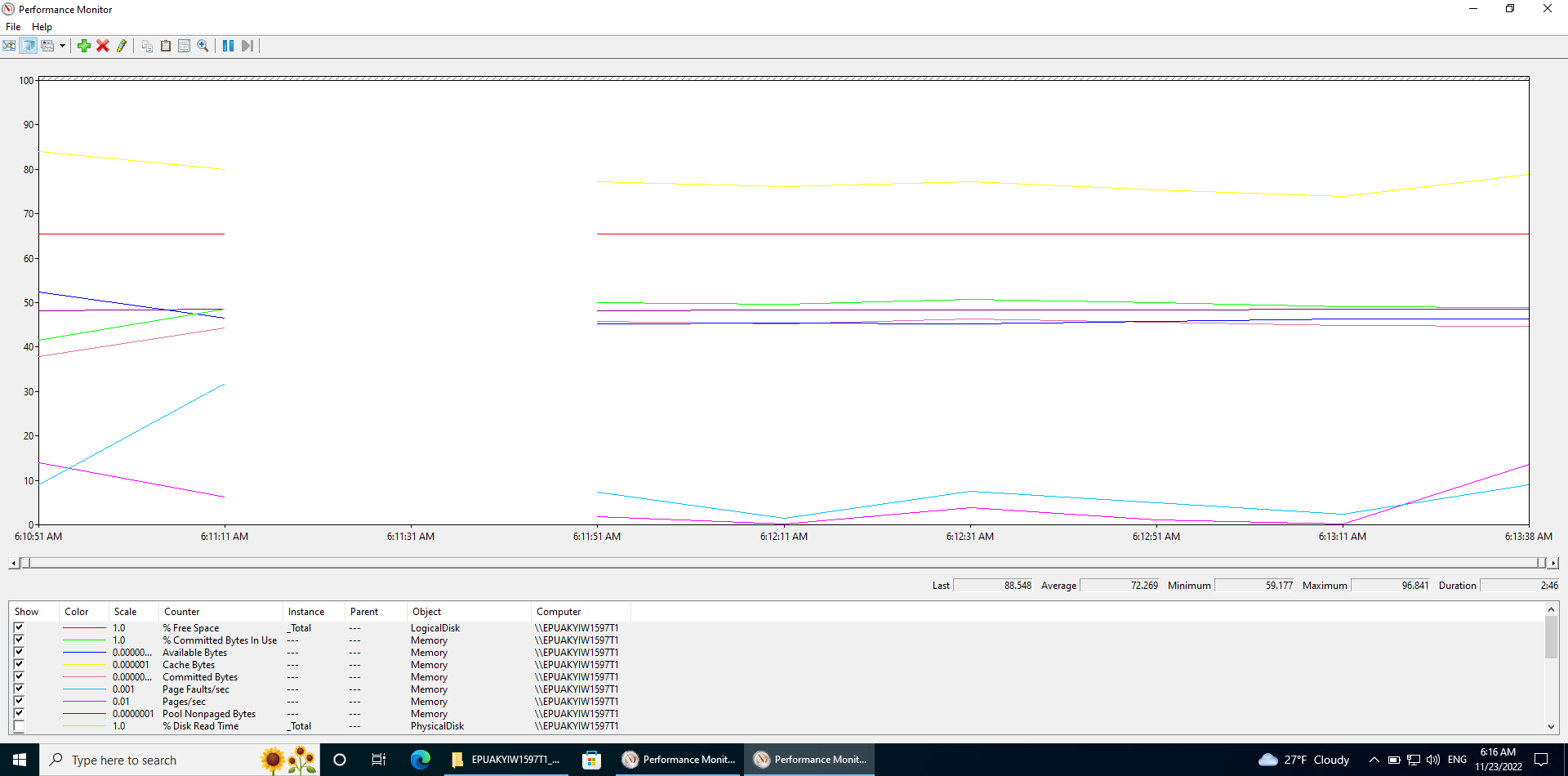
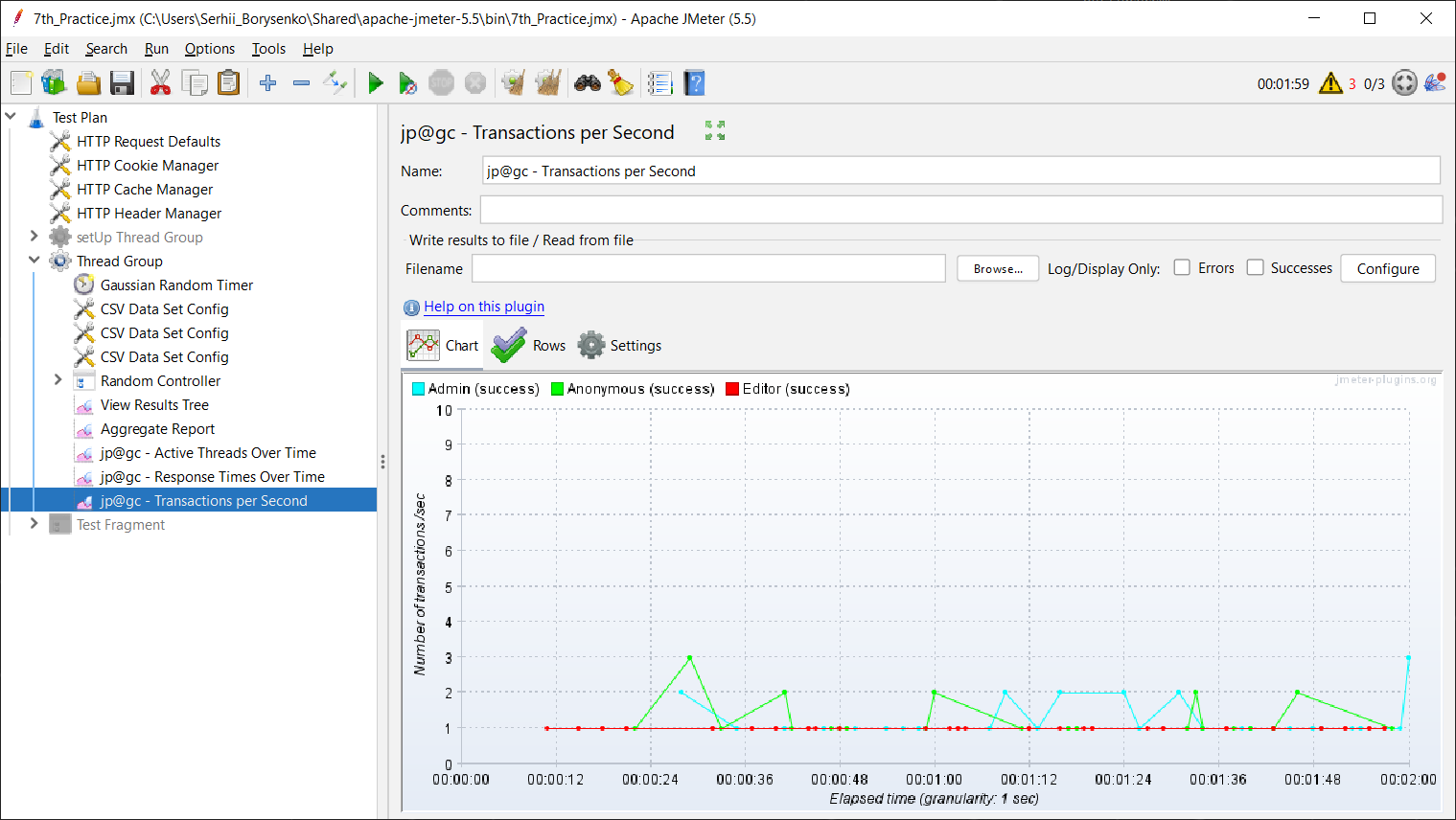
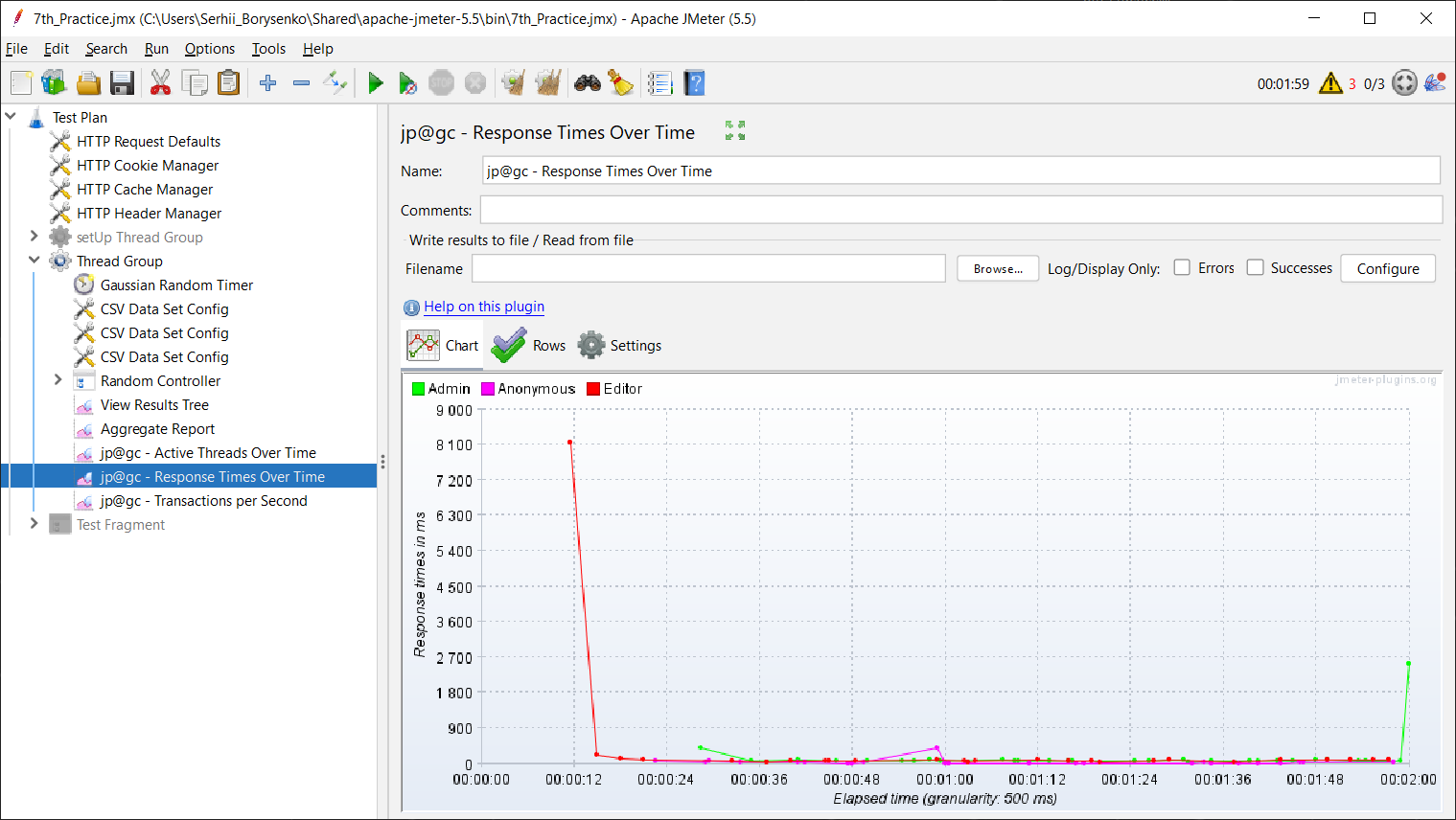
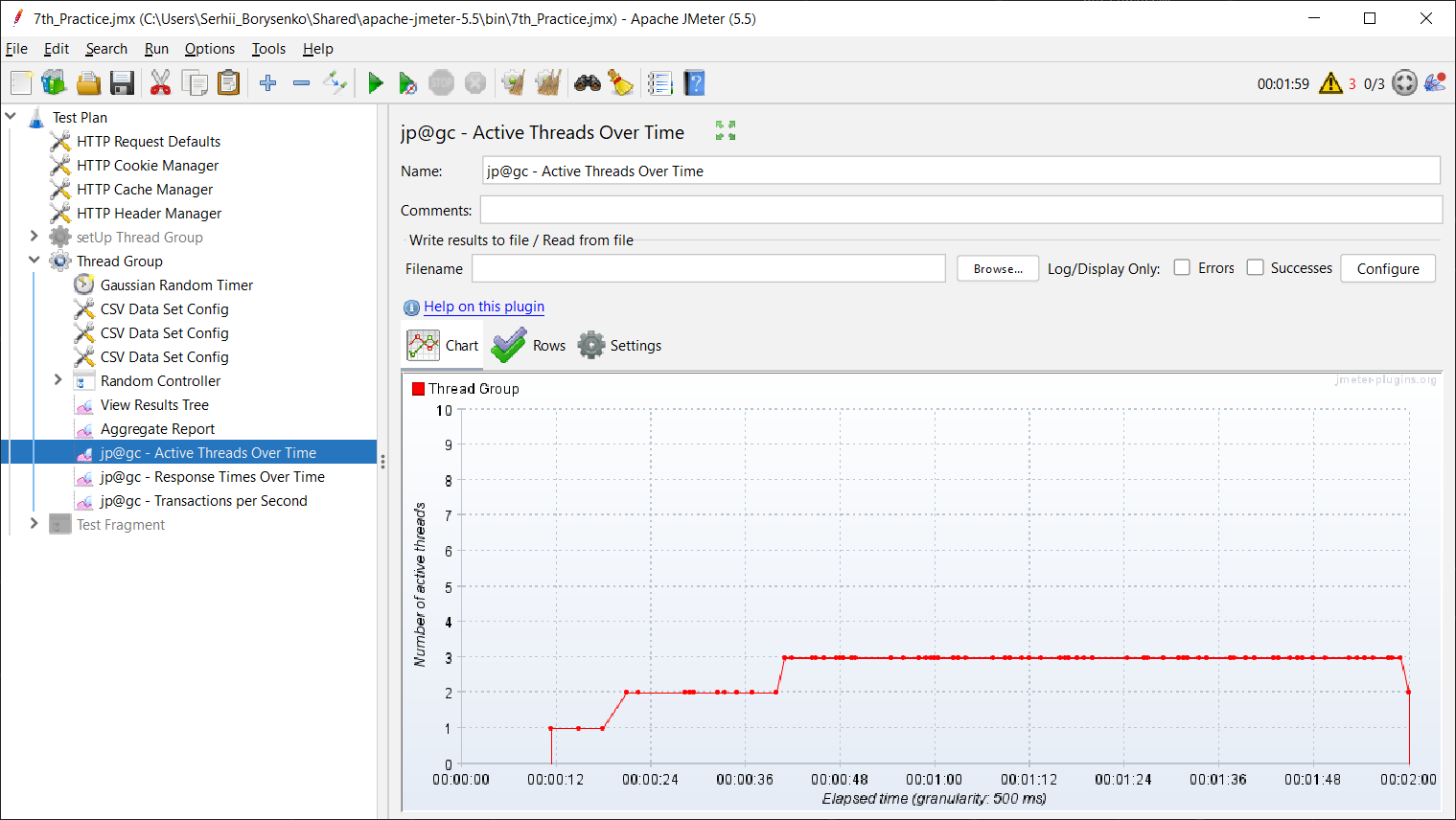
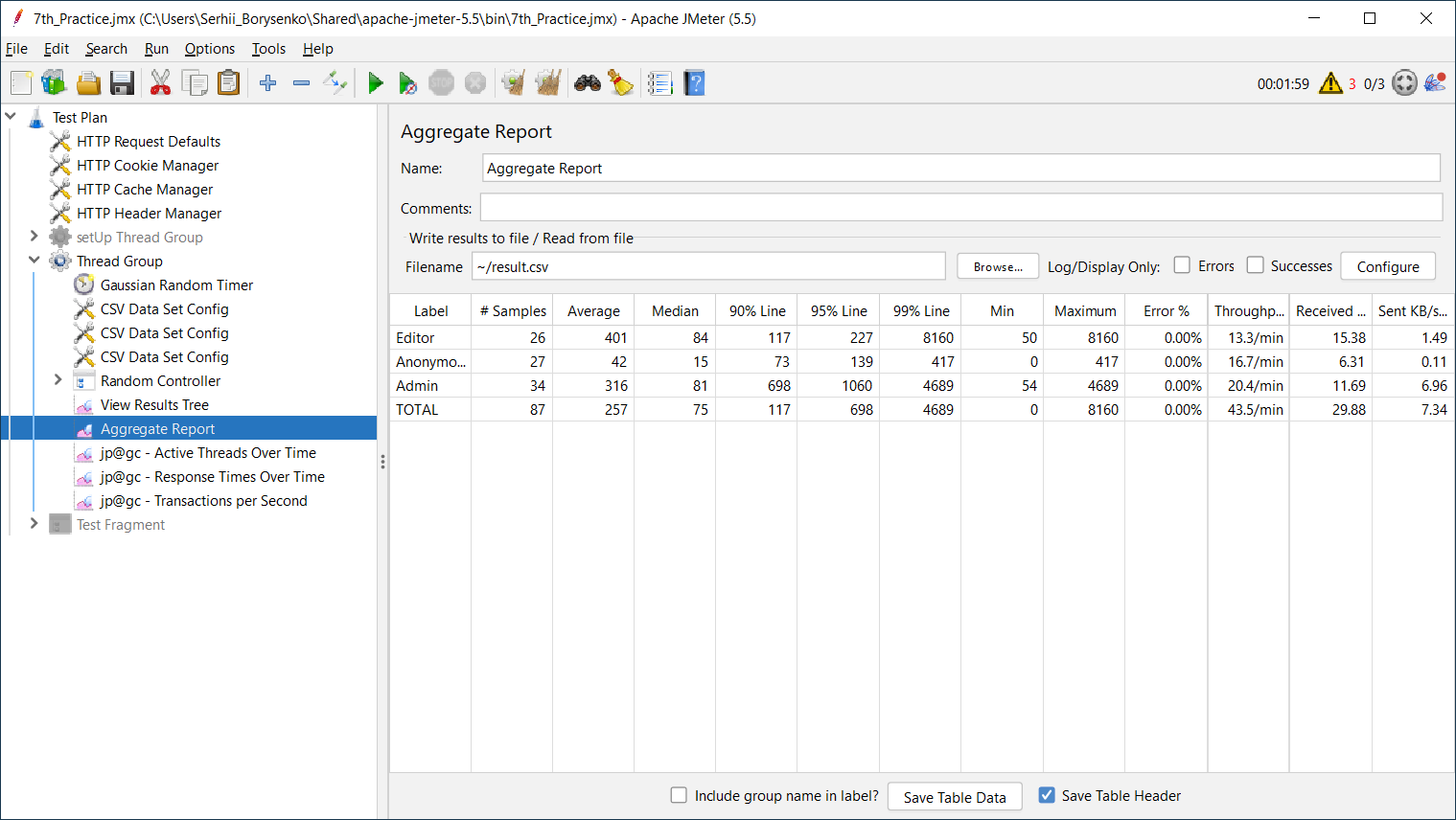


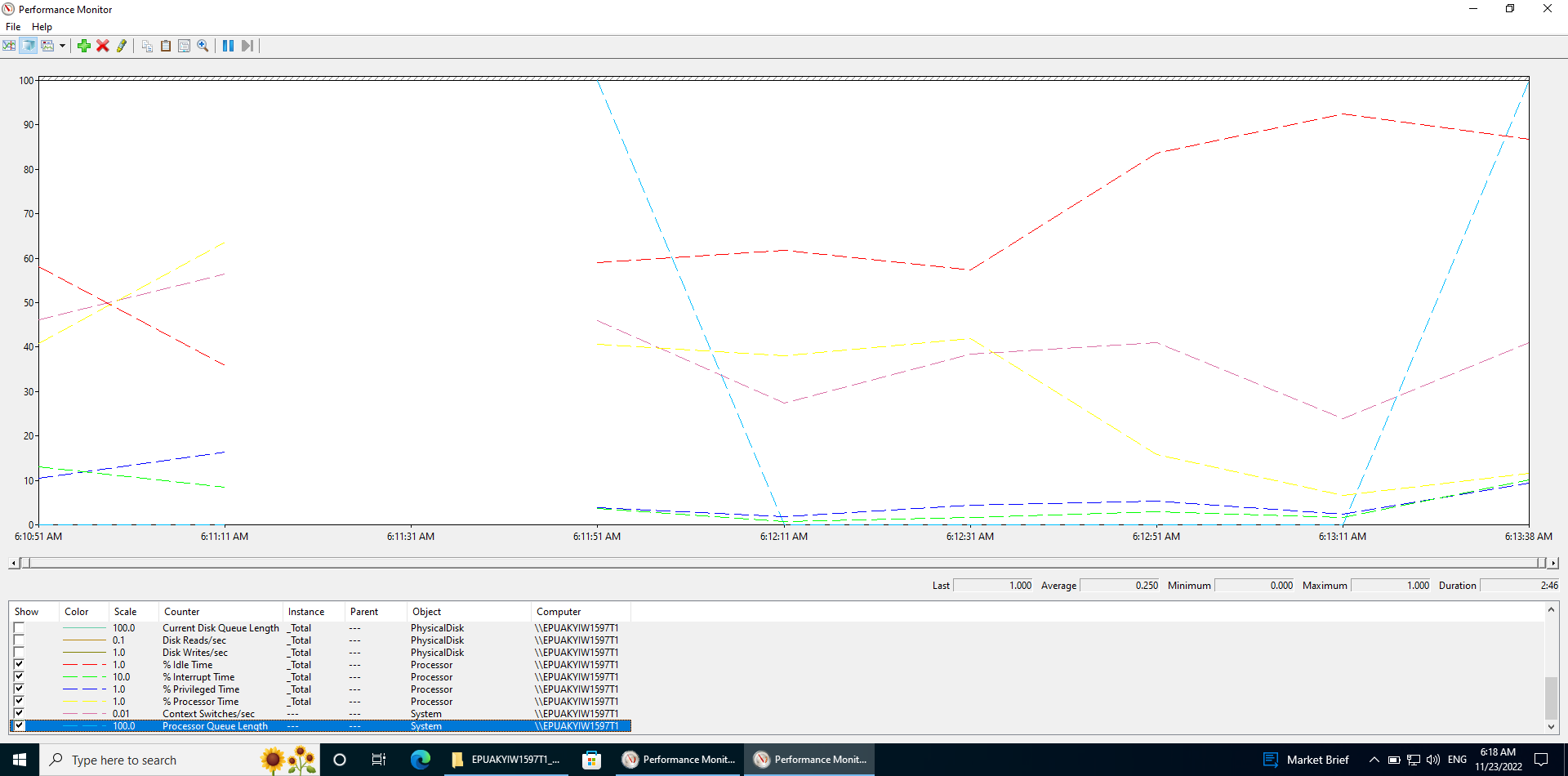
1. Scaling CPU:

* 2 CPU:



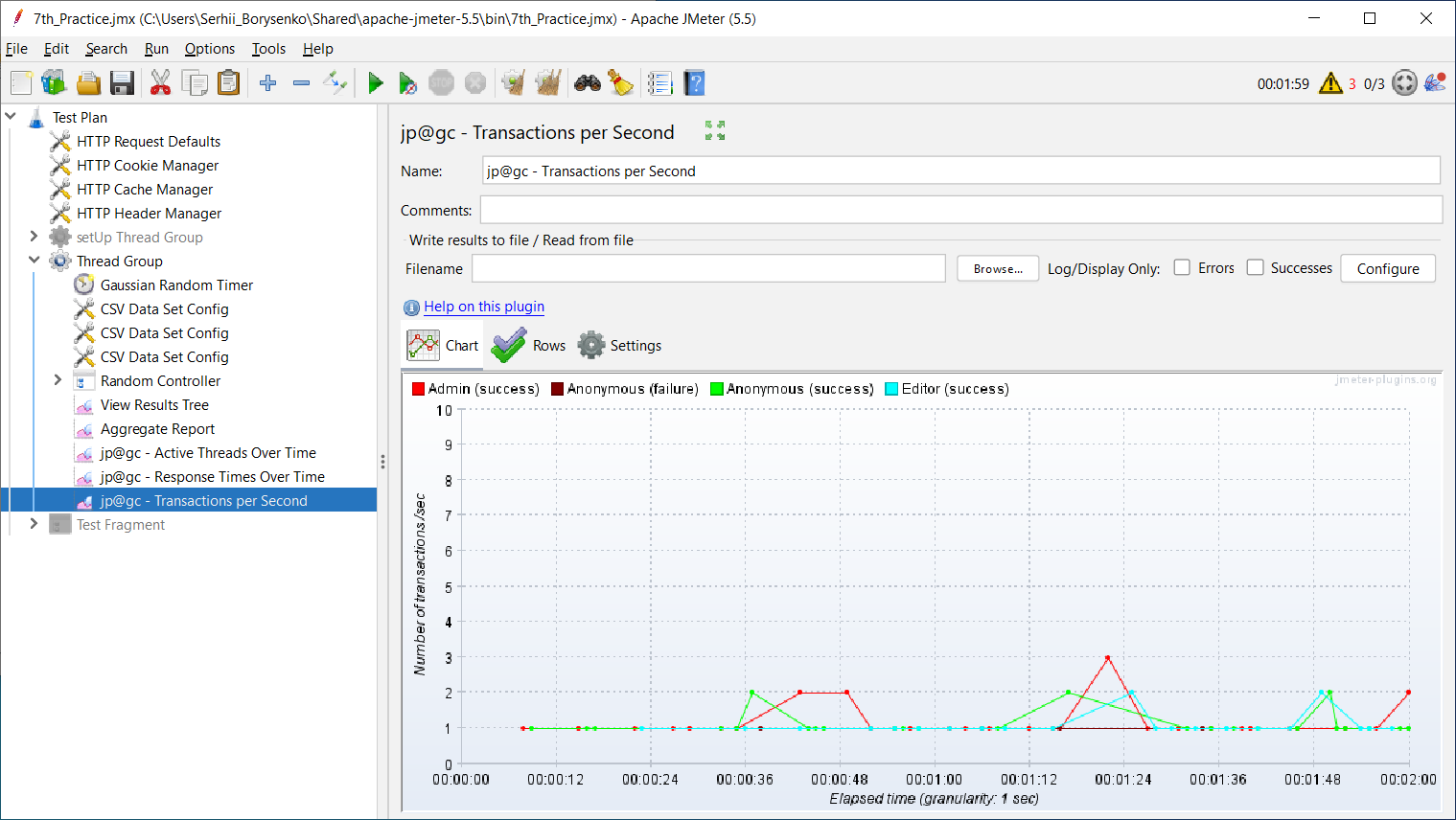
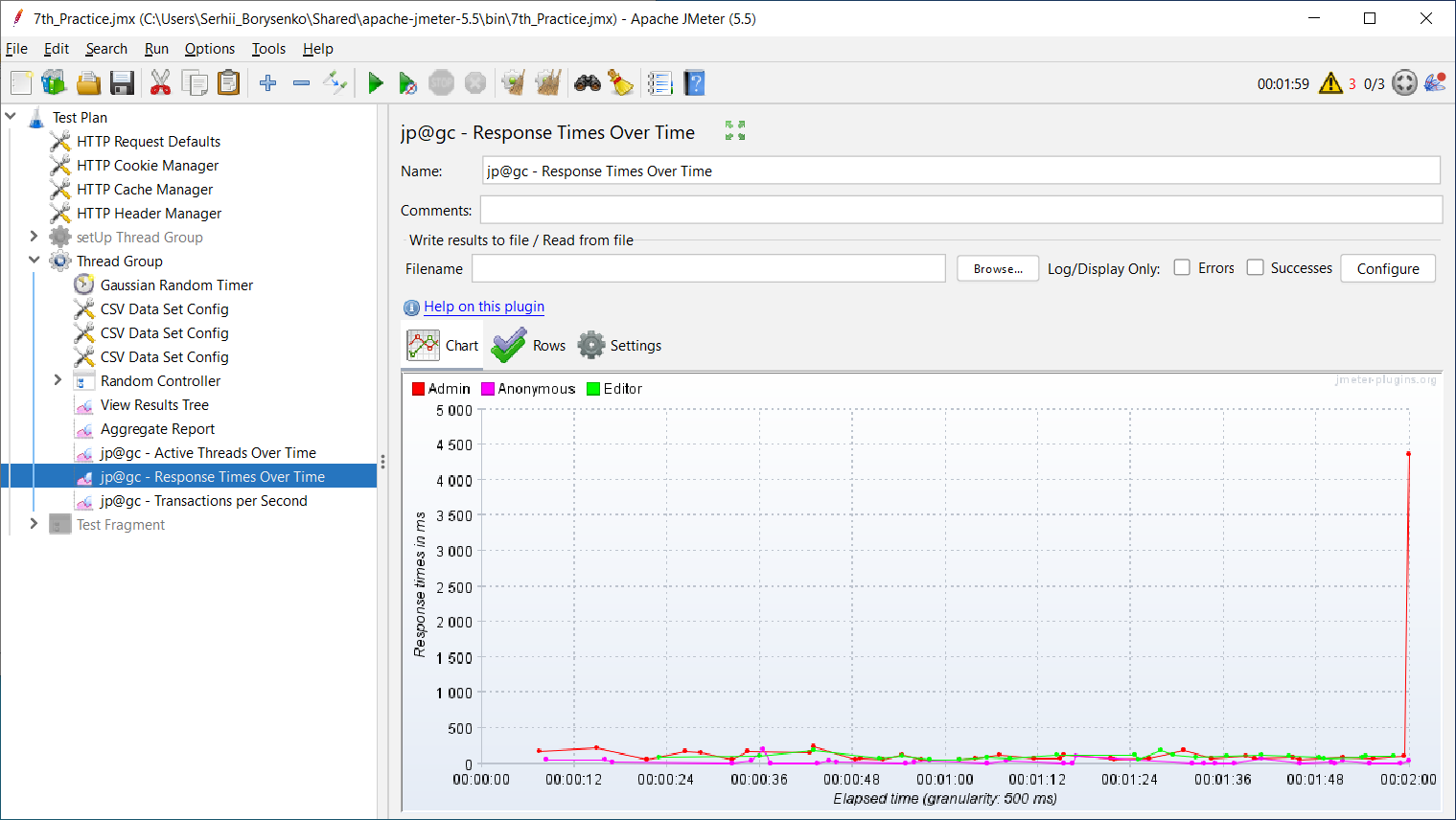
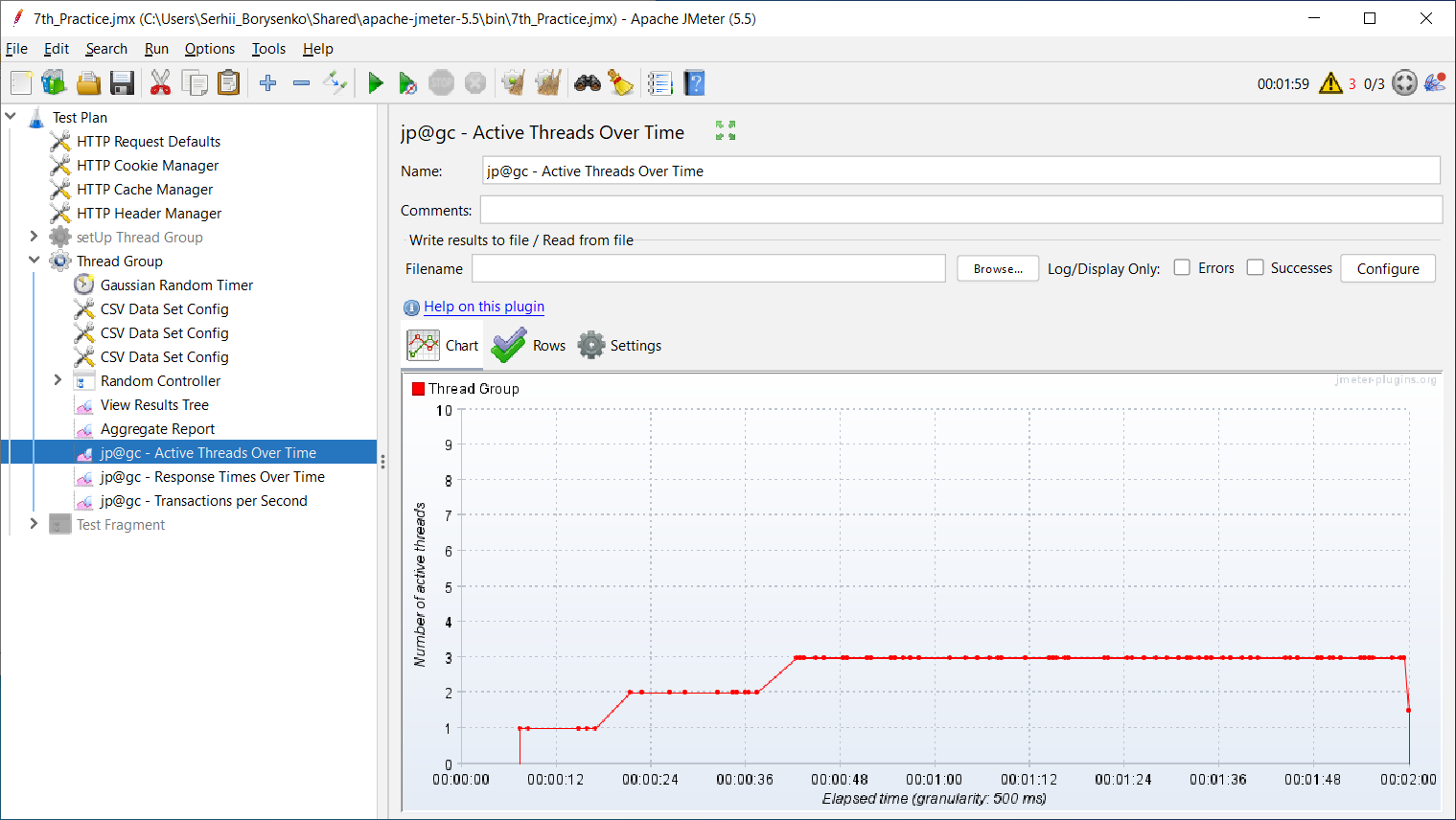
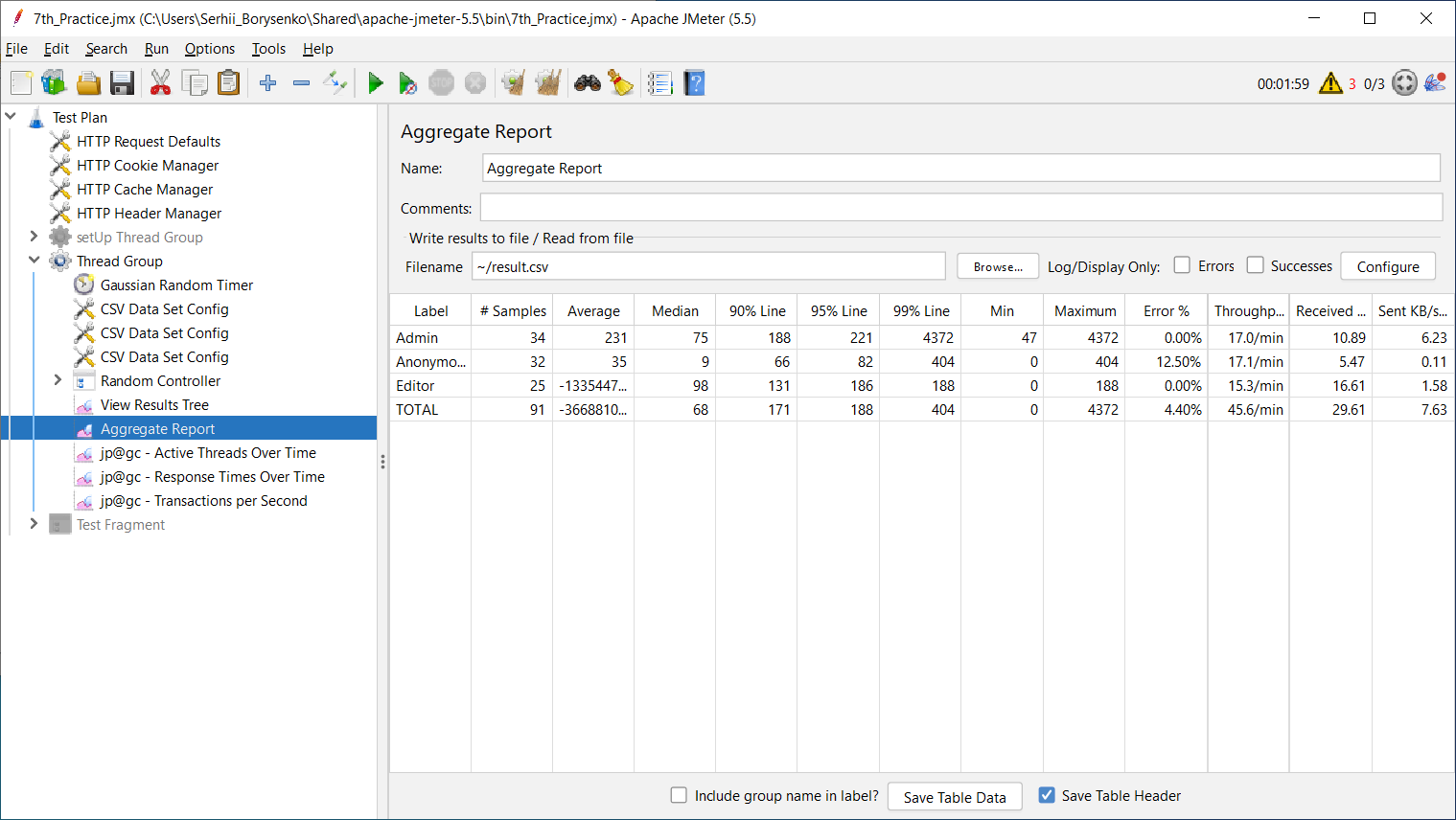
* 4 CPU:

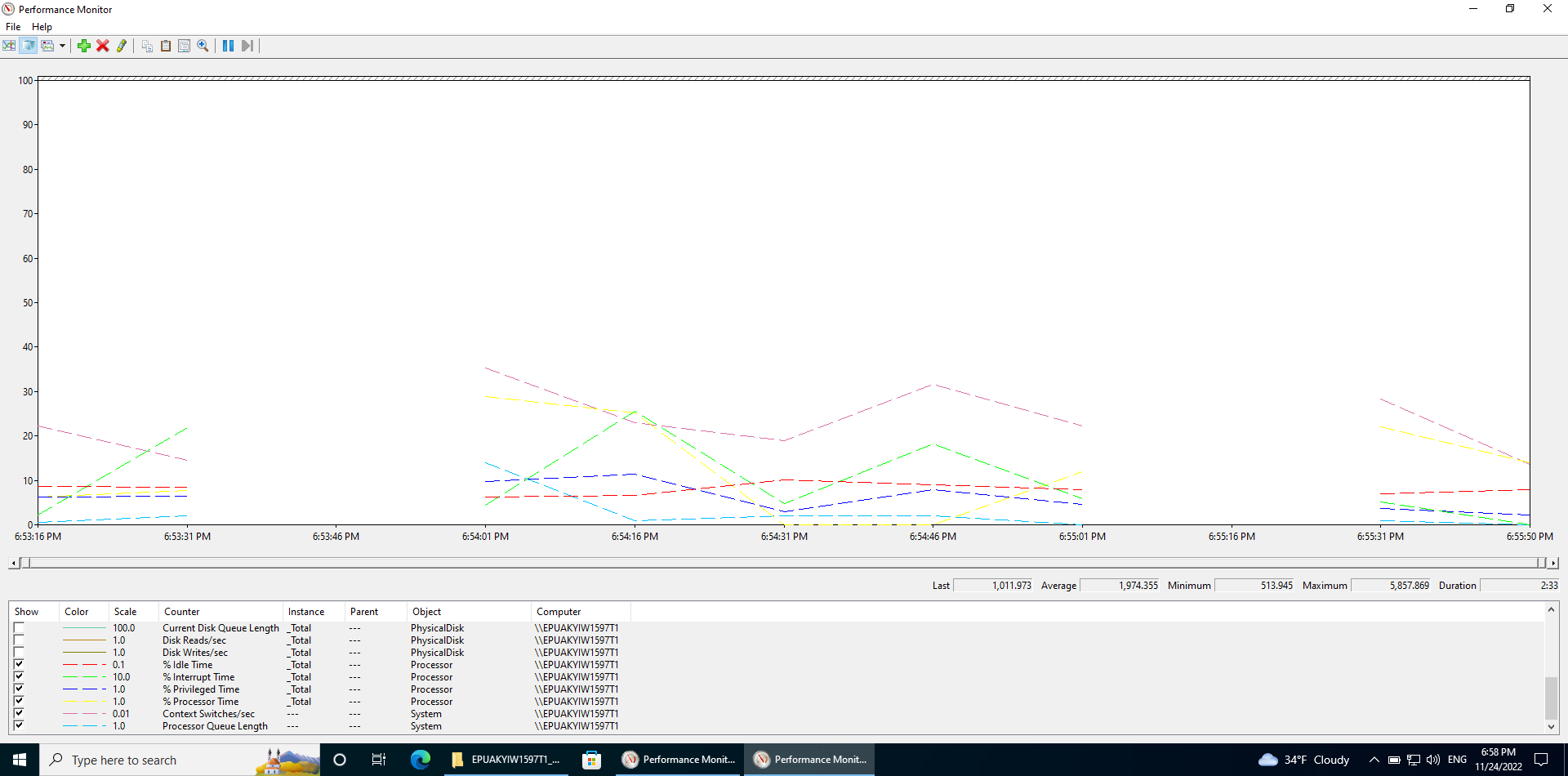
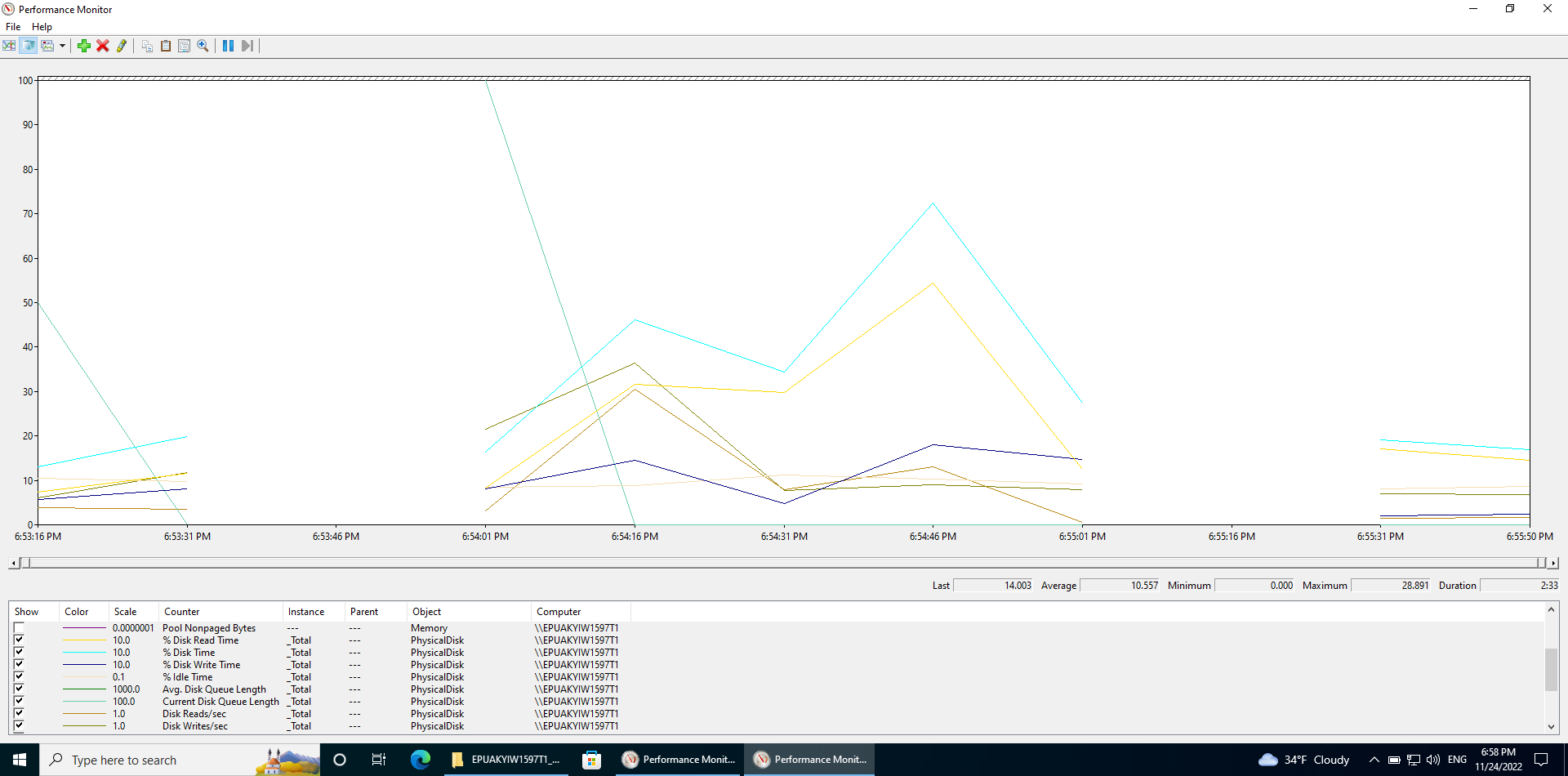
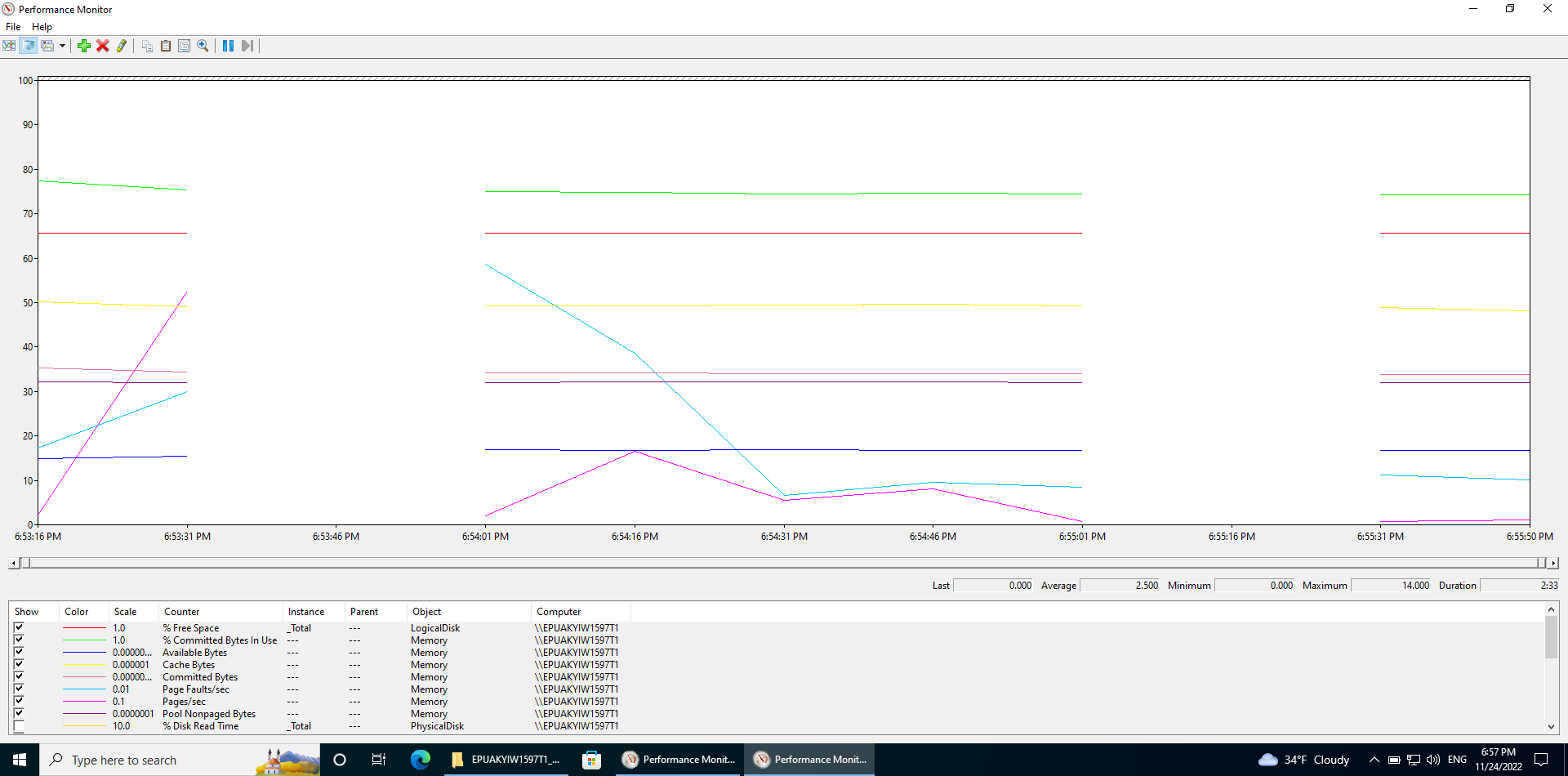




1. Scaling RAM:

* 4Gb RAM:





* 6Gb RAM:

