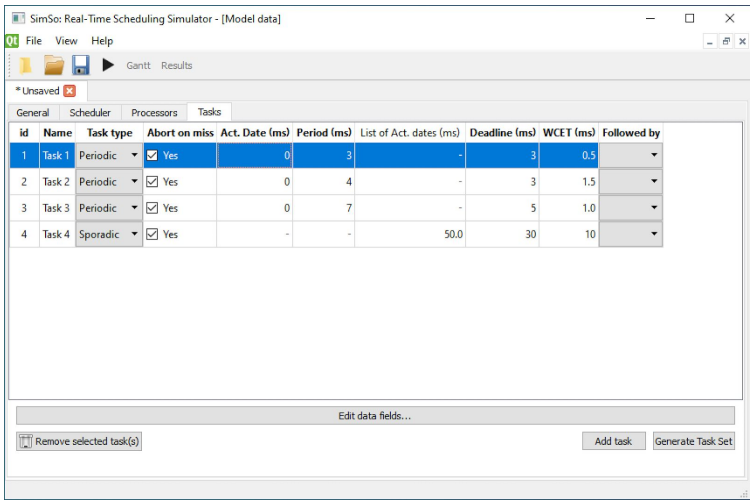
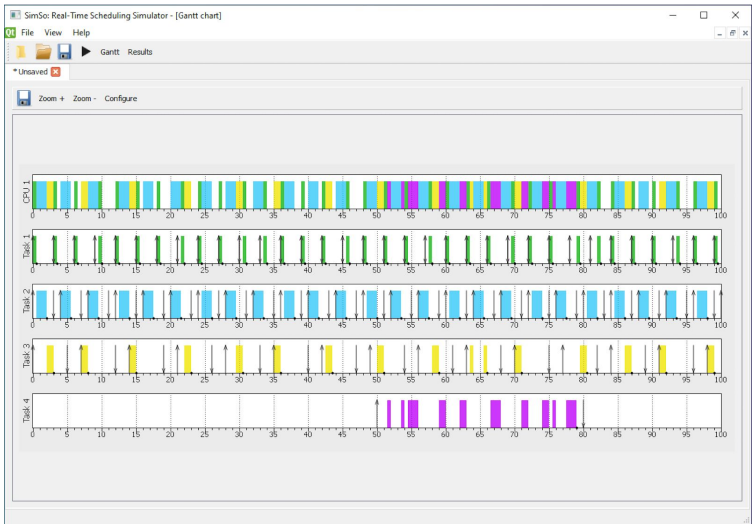
Simulation assignment

T1(3, 0.5), T2(4, 1.5, 3), T3(7, 1.0, 5) and the EDF scheduler.
A sporadic job arrives at t=50 having the execution time of 10 and a relative deadline of 30.





> What is the minimum/maximum/average response time of all tasks?

Response time:

Task	min	avg	max	std dev
TASK T1	0.500	0.676	1.500	0.294
TASK T2	1.500	1.700	2.000	0.245
TASK T3	1.000	1.967	3.500	0.921
TASK T4	29.000	29.000	29.000	0.000

> Is any task missing the deadline? Which task? Where?
No

> Is the sporadic job meeting its deadline?
No

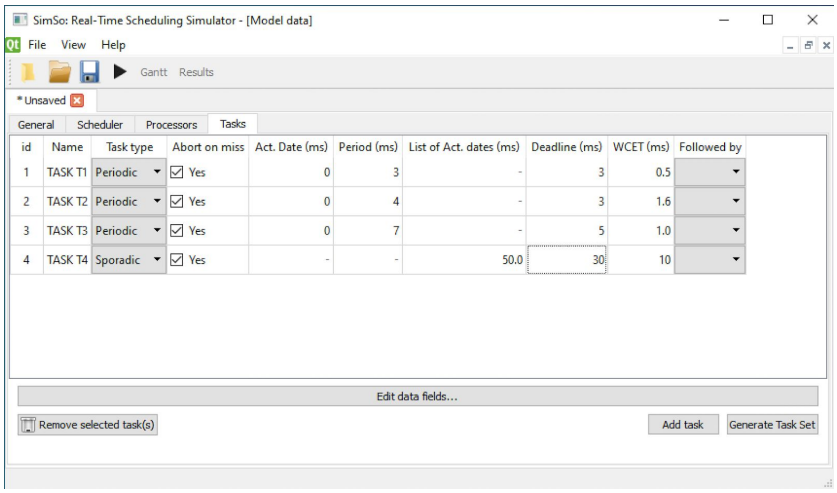
General | Logs | Tasks | Scheduler | Processors

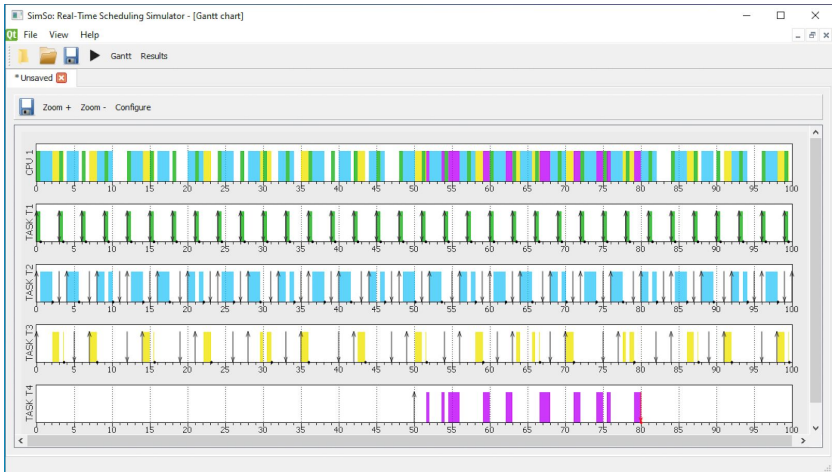
General | Task 1 | Task 2 | Task 3 | Task 4

Activation	Start	End	Deadline	Comp. time	Resp. time	CPI	Preemptions	Migrations
50.0000	50.0000	79.0000	80.0000	10.0000	29.0000		10	0

> What is the response time for the sporadic job?
29.0

T1(3, 0.5), T2(4, 1.5, 3), T3(7, 1.0, 5) and the RM scheduler.
A sporadic job arrives at t=50 having the execution time of 10 and a relative deadline of 30.





> What is the minimum/maximum/average response time of all tasks?

Response time:

Task	min	avg	max	std dev
TASK T1	0.500	0.500	0.500	0.000
TASK T2	1.600	1.940	2.100	0.233
TASK T3	1.000	2.173	3.600	0.980
TASK T4				

> Is any task missing the deadline? Which task? Where?
No

>Is the sporadic job meeting its deadline?
Yes. The deadline is missed.

General | Logs | Tasks | Scheduler | Processors

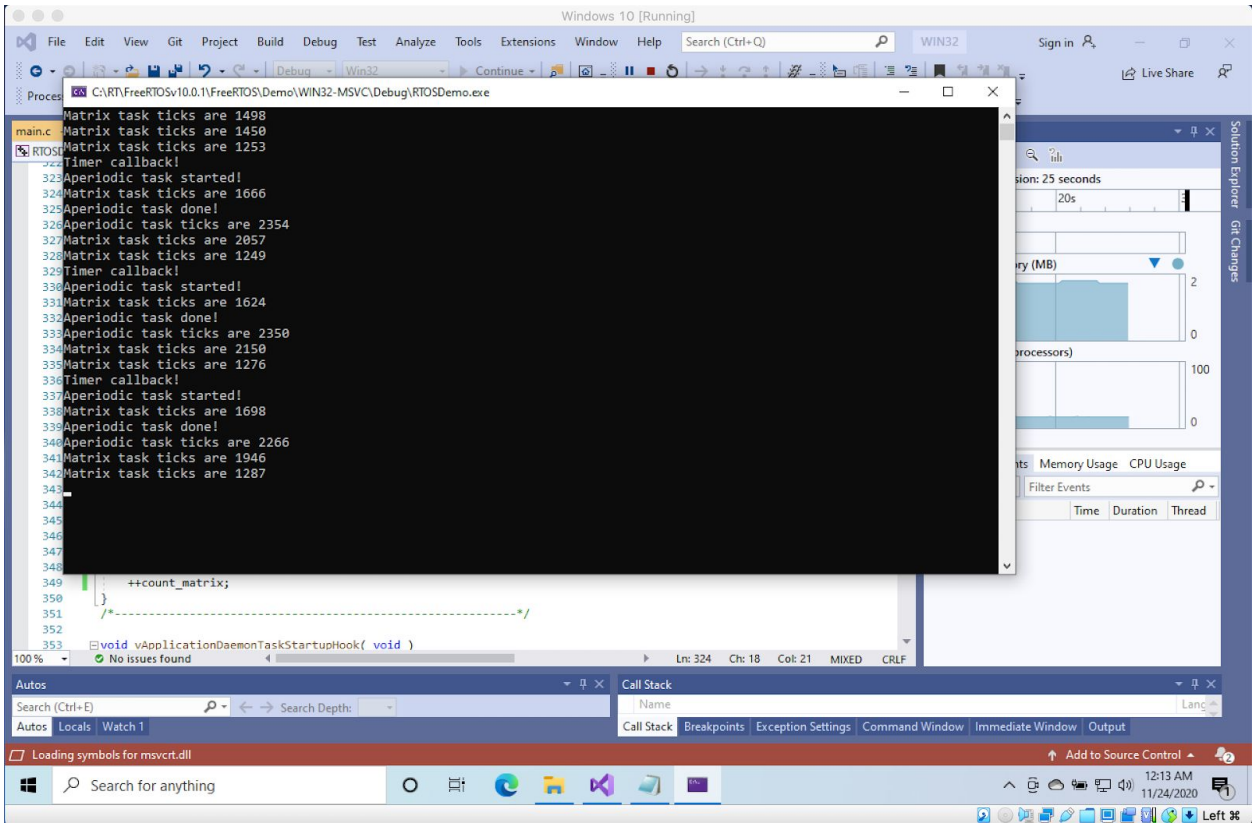
General | TASK T1 | TASK T2 | TASK T3 | TASK T4

Activation	Start	End	Deadline	Comp. time	Resp. time	CPI	Preemptions	Migrations
50.0000	50.0000	80.0000	80.0000	8.7000	30.0000		9	0

>What is the response time for the sporadic job?
30.0

>Which scheduler is better in this example; EDF or RM?
EDF

Programming assignment



> Is the system fast enough to handle all aperiodic tasks? Why?

The ”matrixtask” consumes most of the CPU time and the “aperiodic_task” priority is 2 that is lower than the “matrixtask” has that is 3.

> If not, solve this problem without alter the functionality of any task

To increase the “aperiodic_task” priority to 3 that is equal to the ”matrixtask” priority.

> What is the response time of the aperiodic task?

the response time of the aperiodic task is about 2.3 seconds.