

Graduation Project of RTOS Master Class

Implement and Test EDF Scheduler

The System Consists of 3 Tasks every Task have virtual heavy of instructions (Empty for loop)

Tasks Properties :

Task 1:

Period = 80 ms

Deadline = 80 ms

Priority = Dynamic

Execution Time = 1.35 ms

Task 2:

Period = 50 ms

Deadline = 50 ms

Priority = Dynamic

Execution Time = 9.98 ms

Task 3:

Period = 30 ms

Deadline = 30 ms

Priority = Dynamic

Execution Time = 5.38 ms

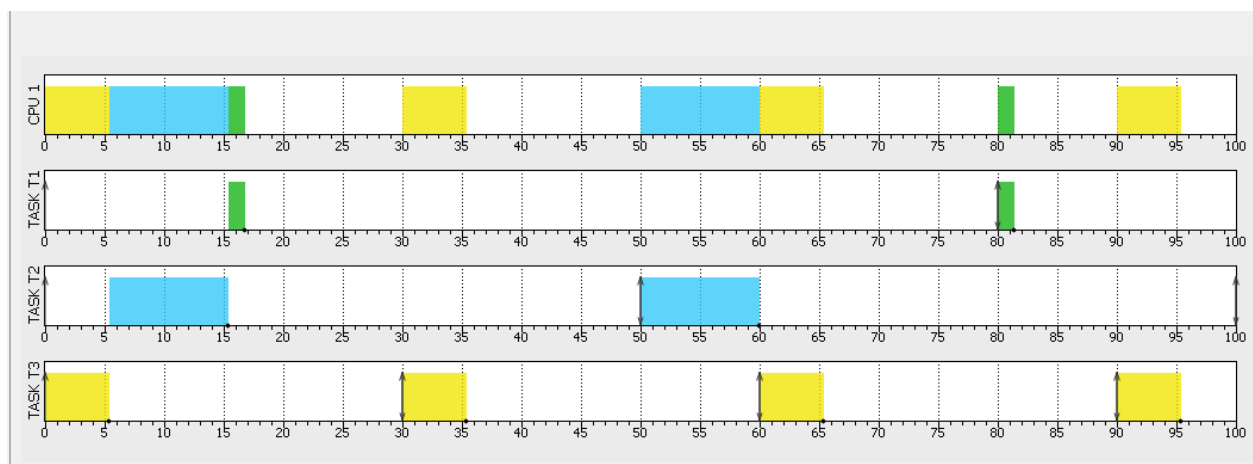
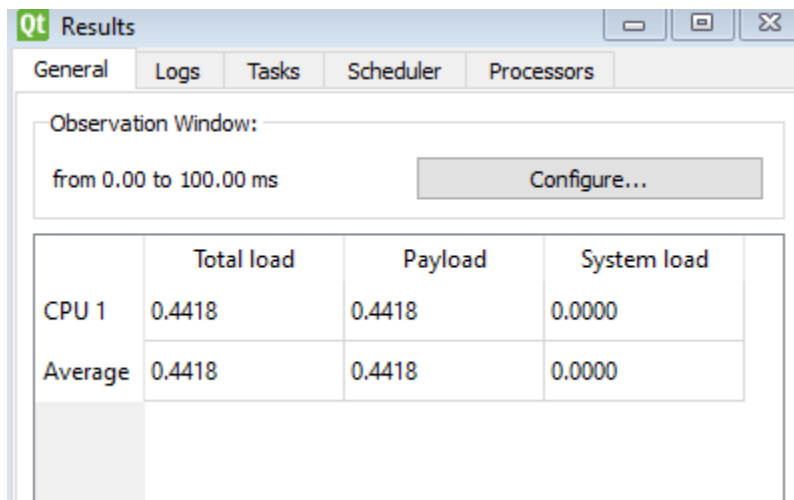
System schedulability :

Analytical Method

$$U = \sum_{i=1}^N \frac{C_i}{T_i} \leq 1$$

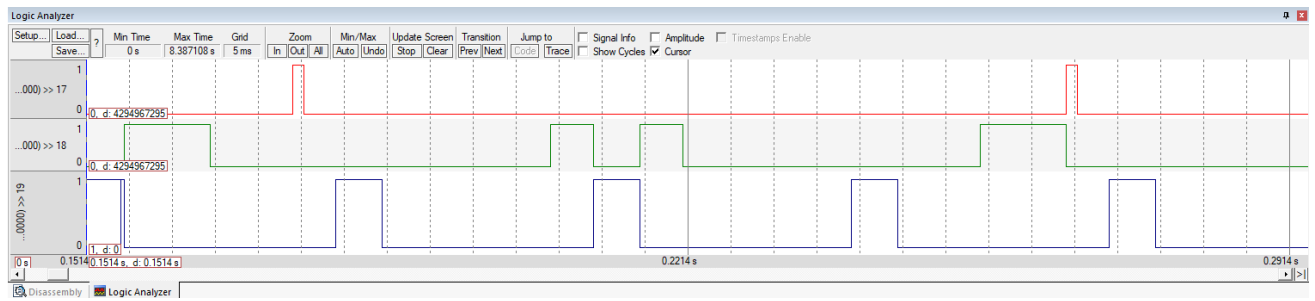
$$(U) = \frac{1.348}{80} + \frac{9.98}{50} + \frac{5.38}{30} = 0.395 = 39.5$$

Off Line Simulator



Run Time Analysis

Watch 1		
Name	Value	Type
cpu_load	39	int
<Enter expression>		



The System Works Well and is quit efficient