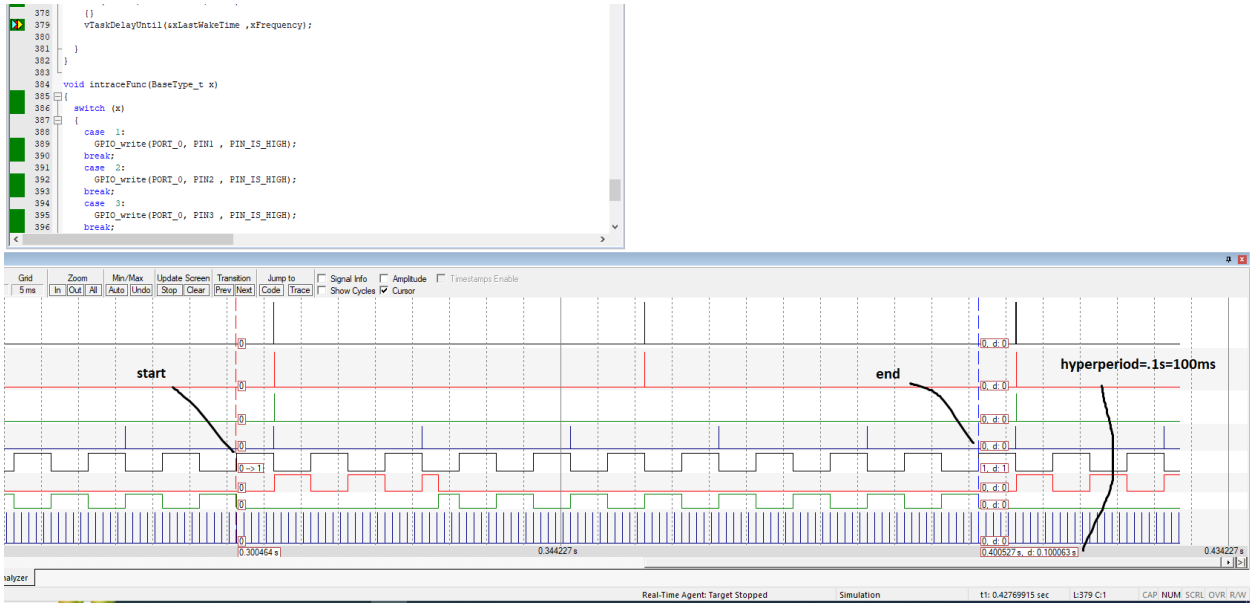
-calc. Hyper period : first divisible period on all tasks periods = 100

hyperperiod in sim is100 ms as expected

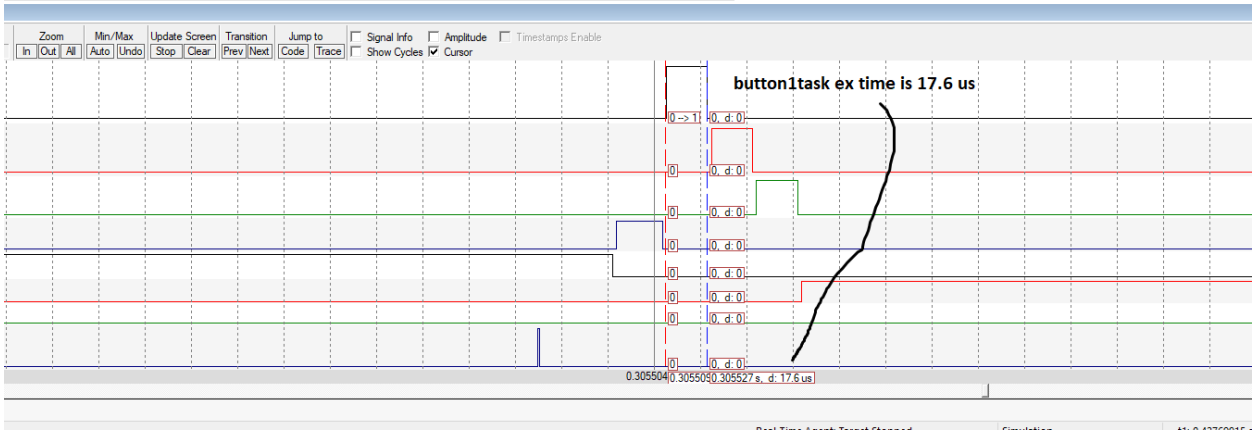


-calc CPU LOAD : we need to know the execution time of all tasks , if we cal. The cpu load only for the given excution time tasks (hyperperiod / periodicity) * execution time
Cpu load for simulation load 1 = (100 / 10) * 5 =50%
Cpu load for simulation load 2 = (100/100) * 12 = 12%
Cpu load only for this 2 tasks is 62%
Expected cpu load > 62%

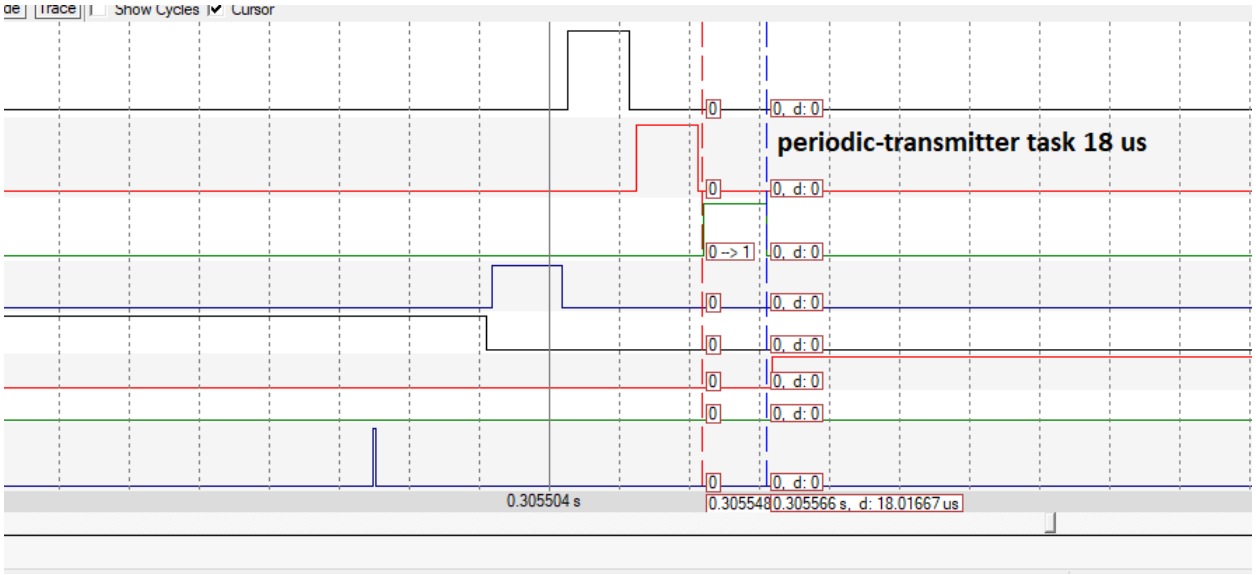
-calc schedulability
Ui = ei / pi
Assume all not given execution time excute in the WCST 1ms
UT = 5/10+12/100+1/50+1/50+1/20+1/100=.7 <1
System is schedulable

button1task execution time is 17.6 us and button2task is also the same 17.6 us

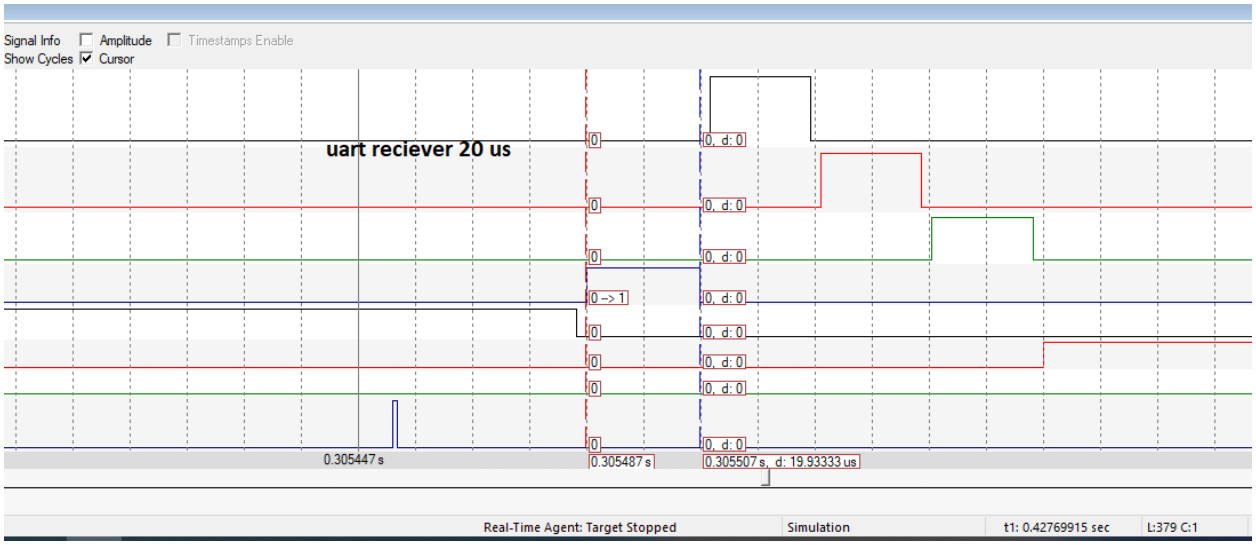
```
93      break;
94      case  3:
95        GPIO_write(PORT_0, PIN3 , PIN_IS_HIGH);
96      break;
```



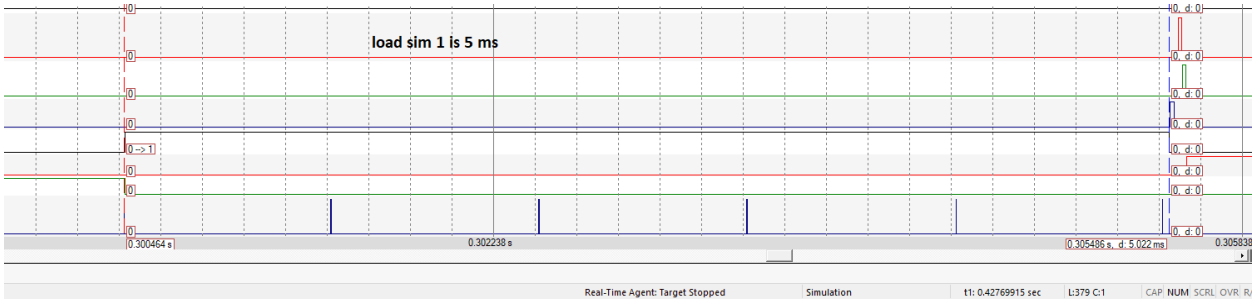
periodic transmitter task is 18 us



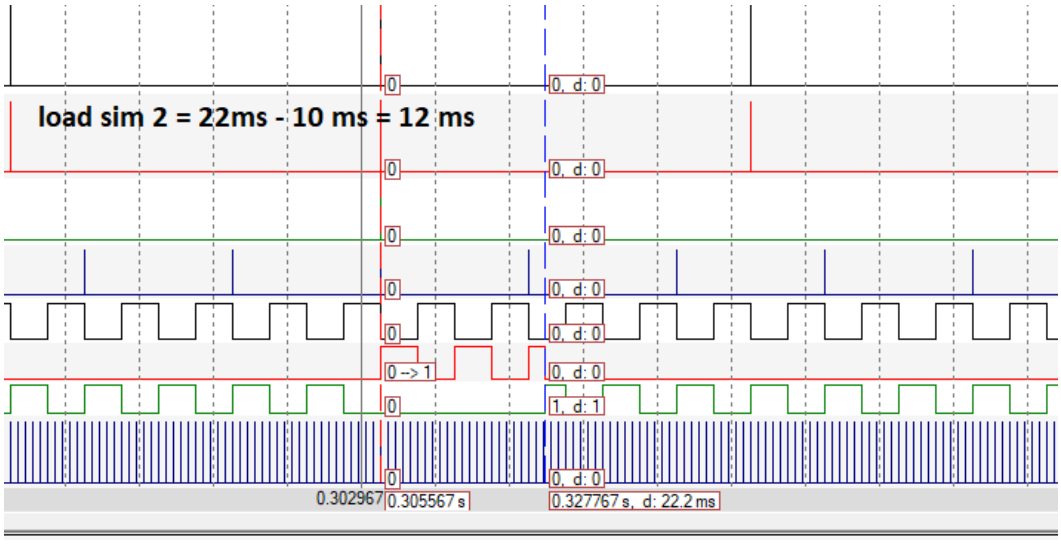
uart reciever task is 20 us



load sim 1 is 5 ms



load sim 2 is 12 ms



Task name	periodicity	EXC. TIME	Load on cpu	ui
sim_load1	10ms	5ms	50%	.5
sim_load2	100ms	12ms	12%	.12
button1task	50ms	17.6 us	0.0352%	.000352
button2task	50ms	17.6 us	0.0352%	000352
Periodic transmitter	100ms	18 us	.018%	.00018
Uart receiver	20ms	20us	.1%	.001

cpu load is (5ms *10) + (12*1) + (.0176*2)+(.0176*2)+ .02*5+.018*1 = 62.1884%

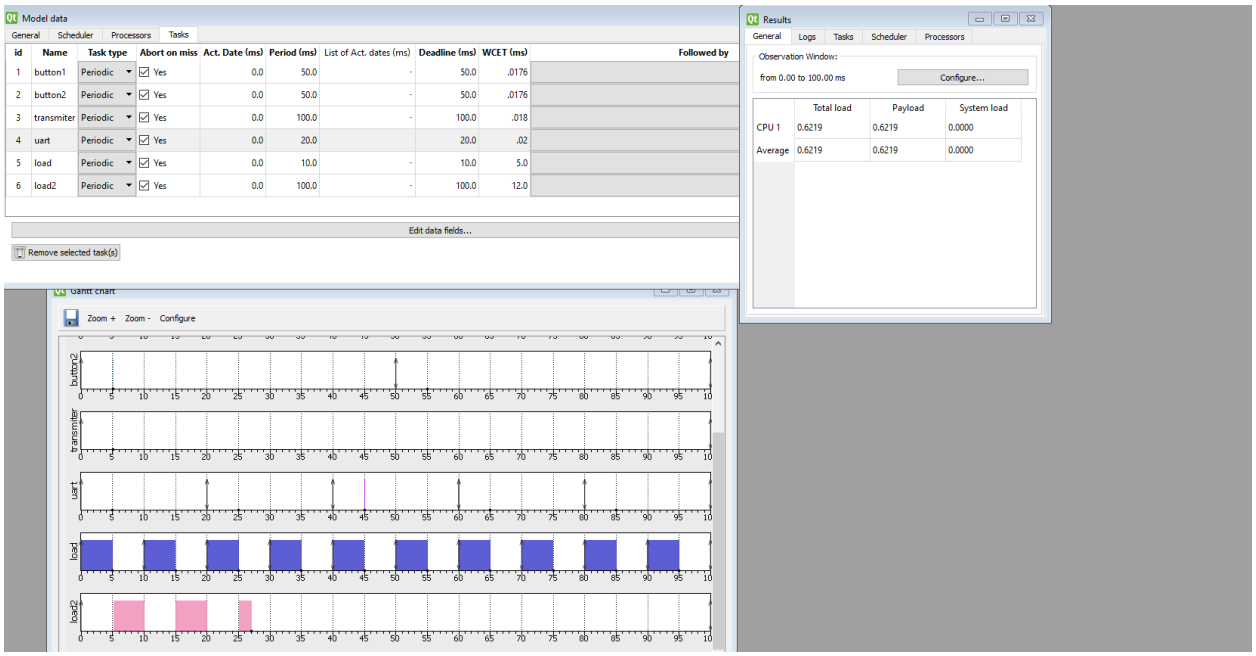
As expected #

Ui = sum (ui) = 12/100 + 5/10 +.02/20+.018/100+2*.0176/50= .62822 < 1

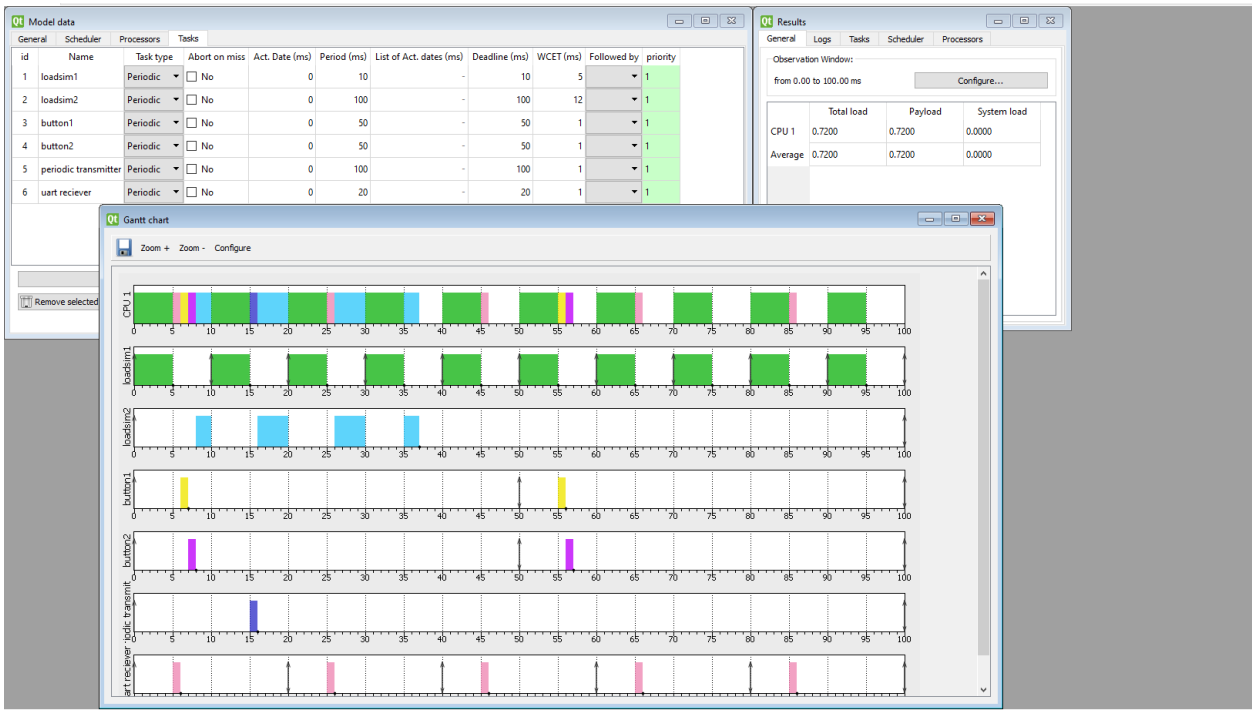
system is Schedulable
As expected #

For simso offline

Using actual simulation EXECUTION Time



Using RM with 1ms WCET for none given WCET



The implementation act like expected .#