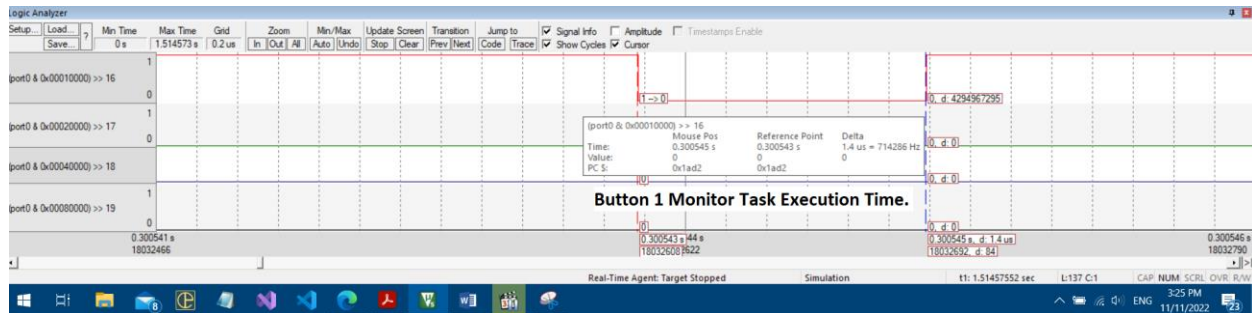


CPU Hyper-period = 100 ms.

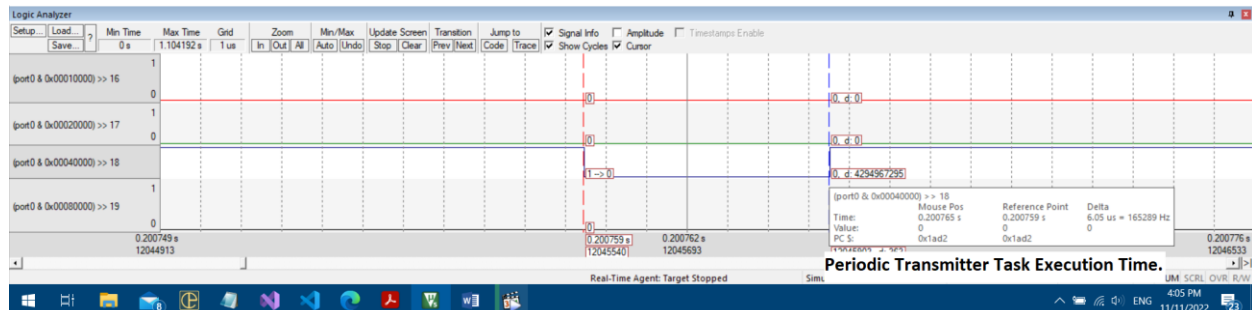
Cause 100 is the LCM (100, 20, 50, 50).

Execution Time of Button 1 Monitor Task is 1.45 Microseconds

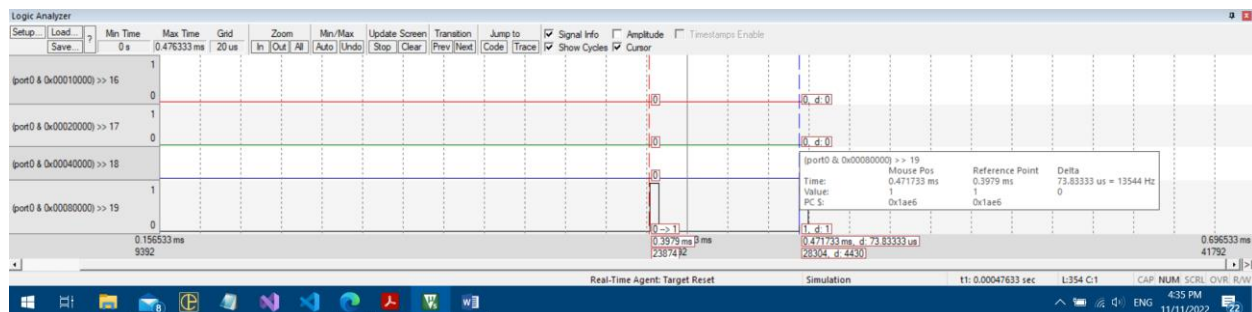


Execution Time of Button 2 Monitor Task is 1.45 Microseconds the same as Button 1 Monitor Task, cause they are identical.

Execution Time of Periodic Transmitter Task is 6 Microseconds:



Execution Time of UART Receiver Task is : 73.8 Microseconds if the message queue is 10 items long "here this is the forms case"



So The CPU Load can be calculated as:

$$\frac{1.45 * 10^{-6}}{50 * 10^{-3}} + \frac{1.45 * 10^{-6}}{50 * 10^{-3}} + \frac{6 * 10^{-6}}{100 * 10^{-3}} + \frac{73.83 * 10^{-6}}{20 * 10^{-3}} = 0.3809 \%$$