

single_LED

20131021

This change brightness of LED by PWM.

Reference;

Chapter7.Counter Modules and Circuit Application Lab in Propeller Education kit Labs

AN001-P8X32ACounters-v2.0_2.pdf

single_LED_0.1.f

We can use NCO/PWM counter-mode on PWM.

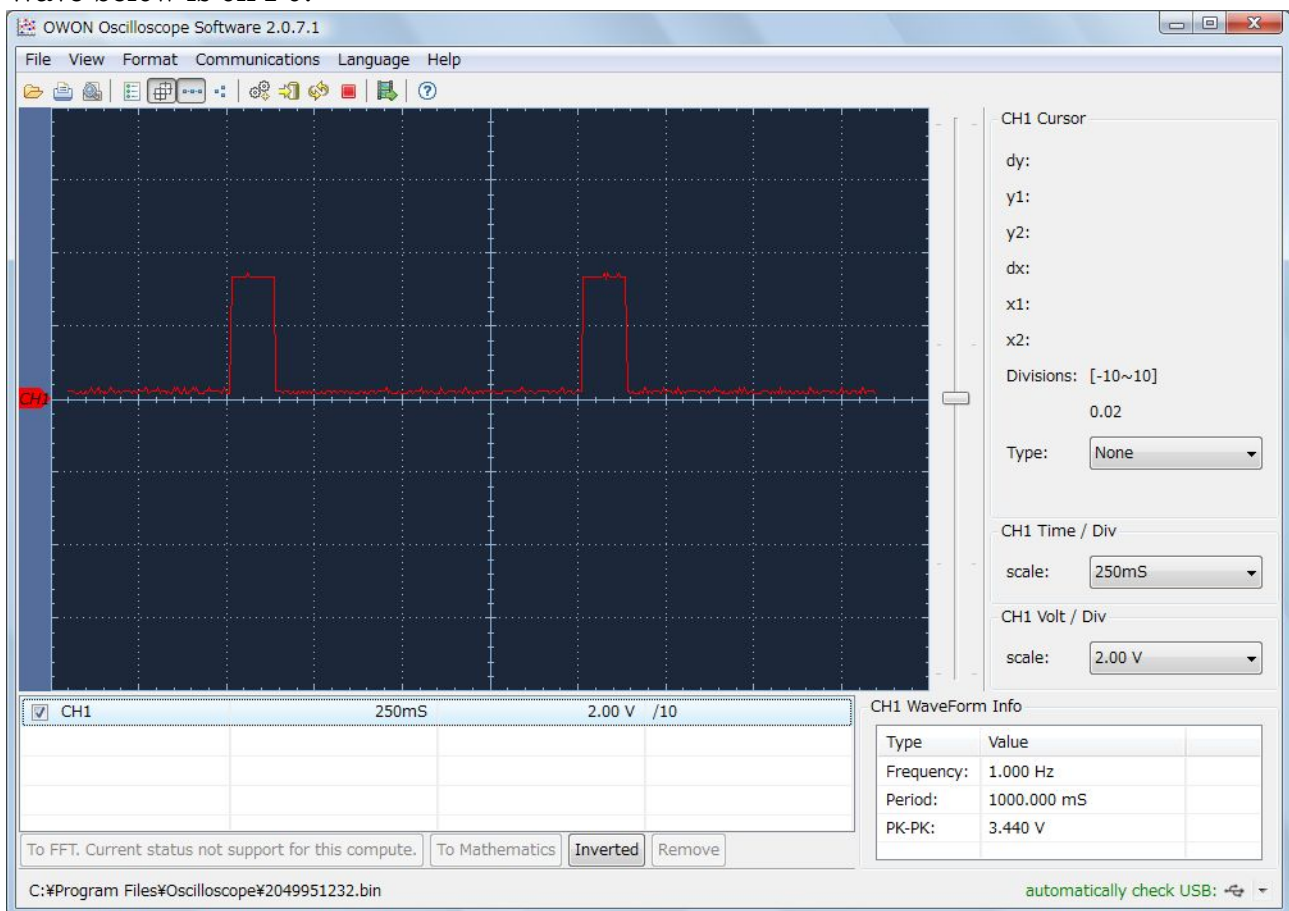
1. Configure the ctra/ctrb register
2. Set the frqa/frqb register
3. Set the I/O pin to output

demo1

Cycle time is 1second.

Value to phsa is given as negating dT(10000000ticks:125msec)

Wave below is on P0.



When phsa become to zero by adding frqa, signal(P0) become to Low(LED is on).

P for LED is connected to 3.3V and N is connected to P0

Hi-pulse is 125msec. LED id off.

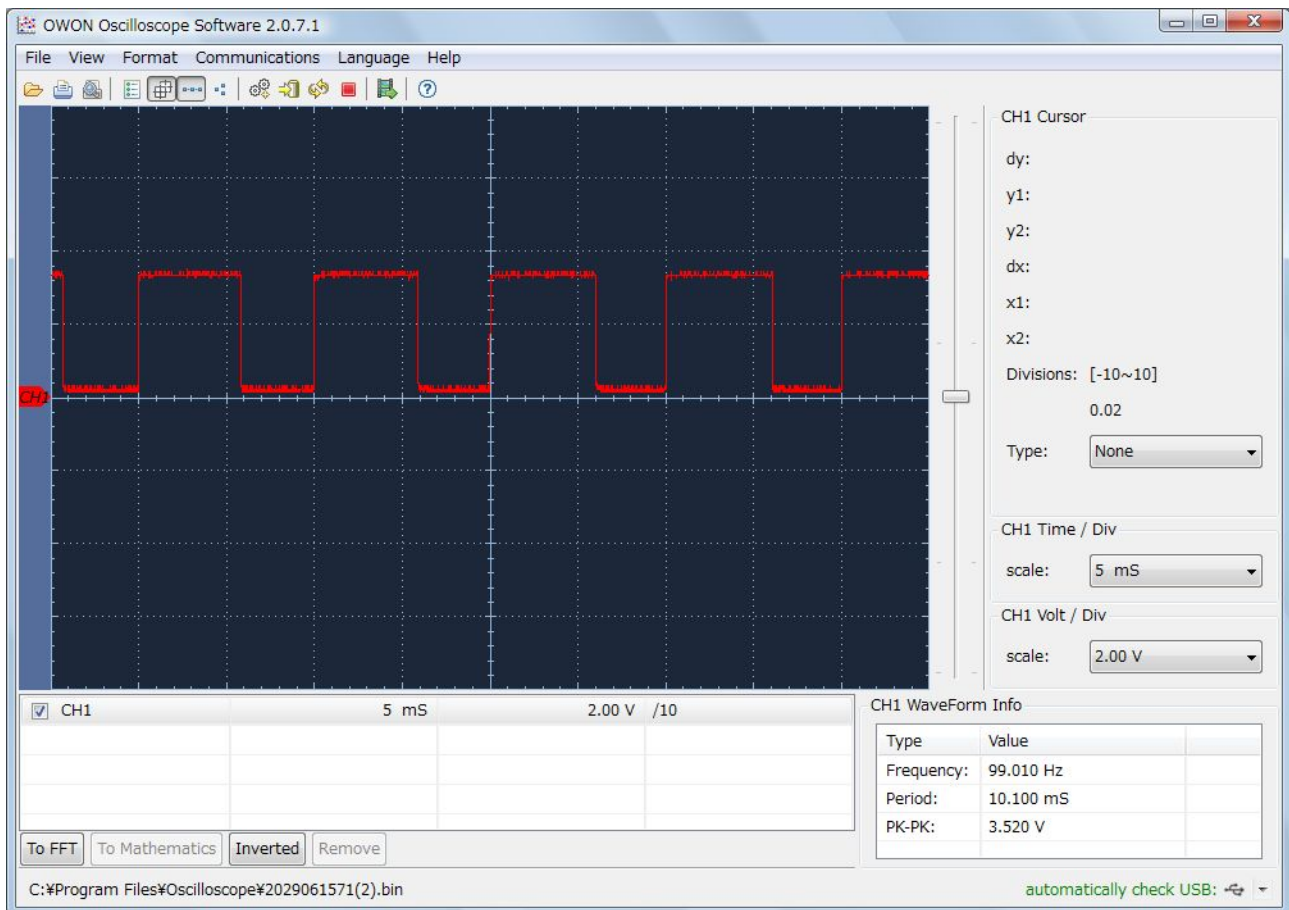
lo-pulse is 875msec. LED id on.

demo2

Cycle time is 10msec.

Loop(begin -- until) is repeated 100 times because base value for phsa is 100usec.

Off-time for LED change to increase 100usec by 100usec from 100usec to 10msec.



demo3

This modified a little bit demo2.

demo4

Counter mode(NCO/PWM single ended) is used on demo1/demo2/demo3.

Counter mode(NCO/PWM differential) is used on demo4.

Operation is almost same as demo3 .

But LEDs are 2.

LEDs are on alternately little by little.

P1(BPIN)-signal reverse P0(APIN)-signal .