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PWM: Can I generate D/O square pulse up to 1KHz with I-8417/8817/8437/8837 , 7188EG & 7188XG? How?

Click the link for more [ISaGRAF FAQ](#).

Ans: If you have the user's manual, please refer to section 3.7 – "PWM output".

ISaGRAF user's manual can be download at

<http://www.icpdas.com/en/download/show.php?num=333&nation=US&kind1=&model=&kw=isagraf>

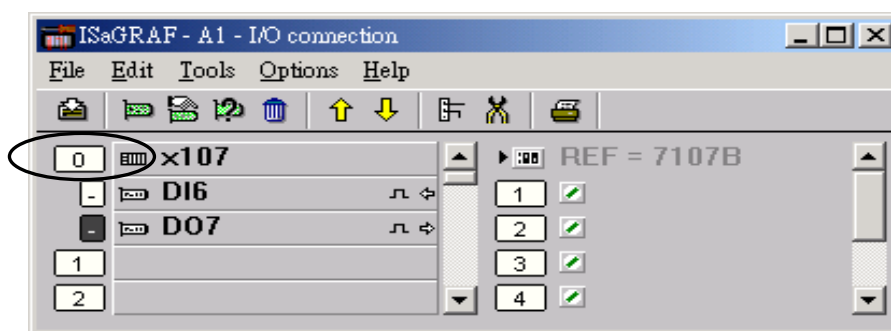
I-8417/8817/8437/8837 support PWM output (Pulse Width Modulation) since its driver version of 2.29. Only parallel Output boards are supported, not for serial boards. The following output boards are available with the PWM function.

I-8037, 8041, 8042, 8054, 8055, 8056, 8057, 8060, 8063, 8064, 8065, 8066, 8068, 8069

I-7188EG supports PWM function since its driver version of 1.21 while I-7188XG since 1.19. Only the X-board with digital output channels are available with PWM function.

Note:

1. Max 8 digital outputs can call PWM_en, PWM_en2, pwm_ON & pwm_OFF at the same time.
2. I-7188EG/XG must connect the X-board at slot 0, or the PWM function will not work.

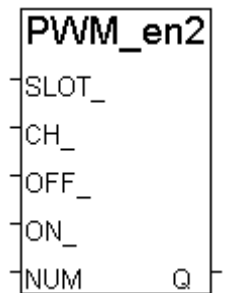


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PWM_en2 Enable PWM to output a given number of pulse

Parameters:

SLOT_	integer	Which slot ? 0 ~ 7 for I-8xx7, only 0 for 7188EG & 7188XG.
CH_	integer	Which channel ? 1 ~ 32.
OFF_	integer	Off time, 0 ~ 32,767, unit is ms. If set as 0, it means OFF_ time is 0.5 ms.
ON_	integer	On time, 0 ~ 32,767, unit is ms. If set as 0, it means ON_ time is 0.5 ms.
NUM_	integer	number of pulse to output, 1 - 2,147,483,647

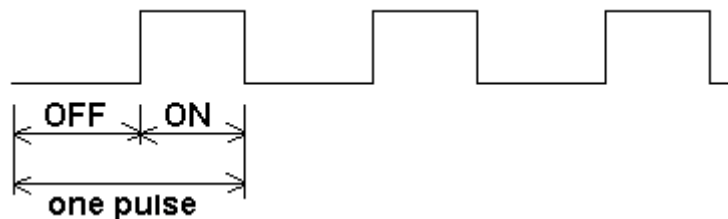


Return:

Q_	boolean	TRUE: Ok . FALSE: wrong input parameters, too many PWM outputs been enable, or the associate output channel is not found.
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Example: demo_55

PWM output curve:



Note:

1. Every time the PWM_en or PWM_en2 is called, it will reset its internal tick to 0, and re-start ticking to OFF, ON, OFF, ON, ...
2. If the given number of pulse of pwm_en2 is reached, it will stop & disable PWM automatically (Calling PWM_dis for pwm_en2 is not necessary).
3. PWM_sts can be used to test if pwm_en2 reaches its given number of pulse or not.
4. Max 8 output channels can call PWM_en, PWM_en2, pwm_ON, pwm_OFF at one PAC.
5. Do not enable the channel that is already enable. Please disable it first.

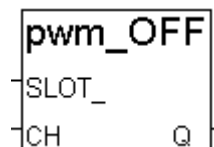
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pwm_OFF Set parallel D/O to FALSE immediately

Parameters:

SLOT_ integer Which slot ?
0 ~ 7 for I-8xx7, only 0 for I-7188EG/XG.

CH_ integer Which channel ? 1 ~ 32.



Return:

Q_ boolean TRUE: Ok.
FALSE: wrong input parameters, too many PWM outputs been enable,
or the associate output channel is not found.

Example: demo_55

Note:

1. Max 8 output channels can call PWM_en, PWM_en2, pwm_ON, pwm_OFF at one PAC.
2. pwm_ON will set the associate parallel D/O to TRUE immediately.
3. pwm_OFF will set the associate parallel D/O to FALSE immediately.
4. If users wish to enable one D/O as PWM output by PWM_en or PWM_en2 after pwm_ON & pwm_OFF has been called, please disable it first by PWM_dis, then call PWM_en or PWM_en2.

Click the link for more ISaGRAF FAQ:

<http://www.icpdas.com/en/faq/index.php?kind=280#751>