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Author	Eric_Shiu	Version	1.0.0	Date	2018/04/23	Page	1/3

How to use specific timer to realize real-time operation?

Applies to:

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	Platform	OS Version	PAC Utility Version		
	WinPAC	All Versions	All Versions		
	ViewPAC	All Versions	All Versions		

Which timer is used to realize for Real-Time?

Multimedia Timer is used for Real-Time.

Multimedia Timer functions:

- (1).timeBeginPeriod
- (2).timeEndPeriod
- (3).timeKillEvent
- (4).timeSetEvent,
- (5).TimeProc

Why choose Multimedia Timer for Real-Time?

Other timer can not adjust the priority so that they can not meet the requirement for Real-Time.

What is the input range of the priority of Multimedia Timer?

The range is 8 to 256.

How to use Multimedia Timer?

We provide three kinds of programming language(C sharp, VB.net, C++) demo programs for users to use the Multimedia Timer.

1. C++ demo

In the demo, an 8K DO module is used to output square wave to test the timing performance of the real time system. Change the timer priority to enhance the real-time capability and use an oscillograph to see the square wave.

RealTimeTest	×
Slot 📃 💌	
Total Channels Edit	
DO Value(Hex) Edit	
DO interval Edit	
Timer priority Edit	Set priority
timeSetEvent function	timeKillEvent function

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2. C sharp demo

There is no Multimedia Timer in compact framework; therefore we provide an external "mmtimer.dll" to support Multimedia Timer. In this demo an 8K DO modules is needed to output square wave to test the timing performance.

Change the timer priority to enhance the real-time capability and use oscillograph to see the square wave.

Note: the mmtimer.dll and the executable file need be put in the same folder.

RealTime Test	
Slot 🔽	
Total Channels 16	
DO Value(Hex) 1	
DO Interval 10 (
Priority 200 Set priority	
timeSetEvent function timeKillEvent function	

3. VB.net demo

There is no Multimedia Timer in compact framework. We provide an external "mmtimer.dll" to support Multimedia Timer.

Use any 8K DO modules to output square wave to test real time. Change the timer priority to enhance the real-time capability. Use oscillograph to see the square wave.

Note. the minumer.on an	id the executable life he	eed be put in the same loider	
ReadTime Test			
Slot			
Total Channels 16			
DO Value(Hex) 1			
DO Interval	Ļ		
Priority 200 Set p	riority		
timeSetEvent function	timeKillEvent function		
C	Ł	L	
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Note: the motimer dll and the evenutable file need be put in the same folder

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Download location

C sharp

http://ftp.icpdas.com/pub/cd/winpac_am335x/vp-x231/demo/pac/c%23/standard/

C++

http://ftp.icpdas.com/pub/cd/winpac_am335x/vp-x231/demo/pac/vc2008/standard/

VB.net

http://ftp.icpdas.com/pub/cd/winpac_am335x/vp-x231/demo/pac/vb.net/standard/

What is Real-Time?

Please refer to the links below for more details.

http://en.wikipedia.org/wiki/Windows CE

http://blogs.msdn.com/b/mikehall/archive/2005/07/27/443924.aspx

http://msdn.microsoft.com/en-us/library/ms836535.aspx