How to write an application program to control watchdogs of XPAC

Applies to:

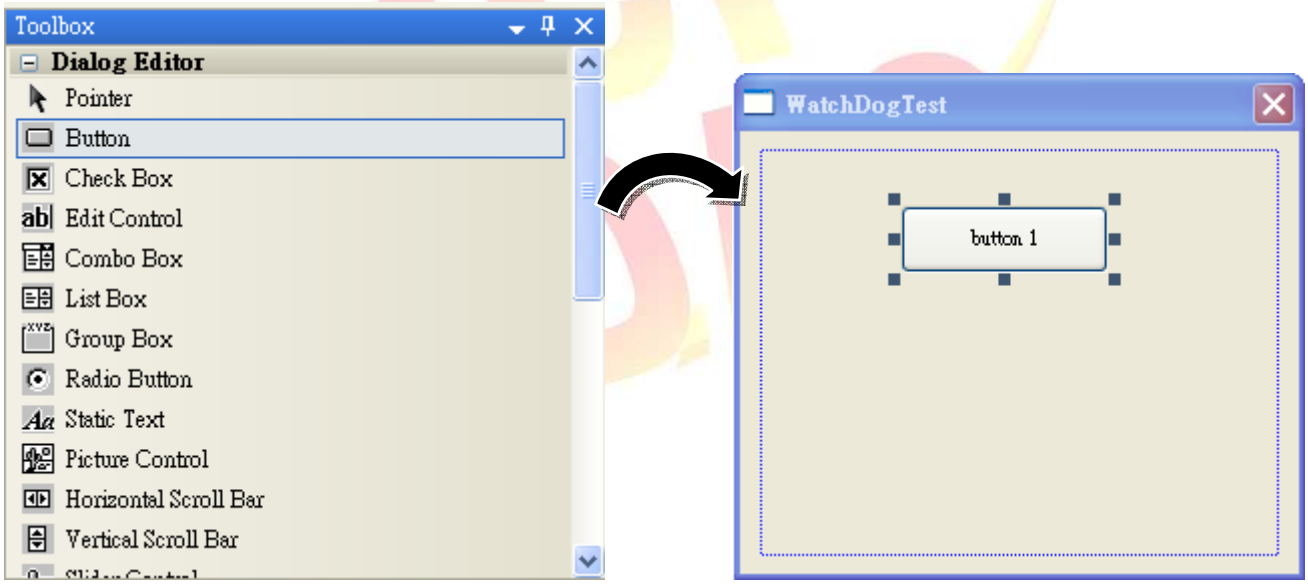
Platform	*OS version*	*XPAC utility version*
XPAC series	*All versions (WinCE6)*	*All versions*

The XPAC SDKs provides a complete solution to integrate with XPAC and compatible with Visual C#, Visual Basic .net and C++.

The examples below using MFC、C# and VB.Net demonstrates how to enable, disable and refresh watch dog, please perform the following steps to build a program.

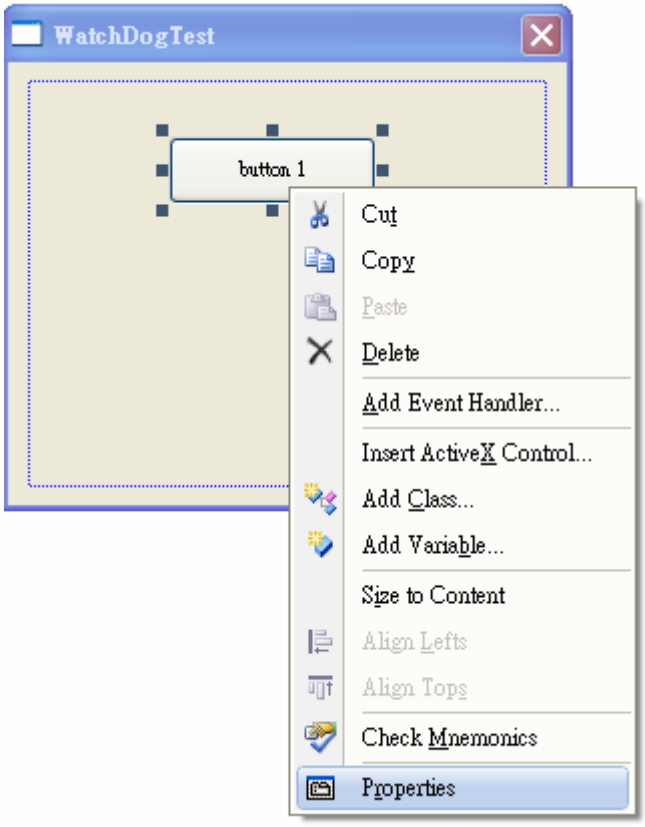
Using MFC enable、disable and refresh watch dog.

Step 1: From the Toolbox, drag a Button control onto the form

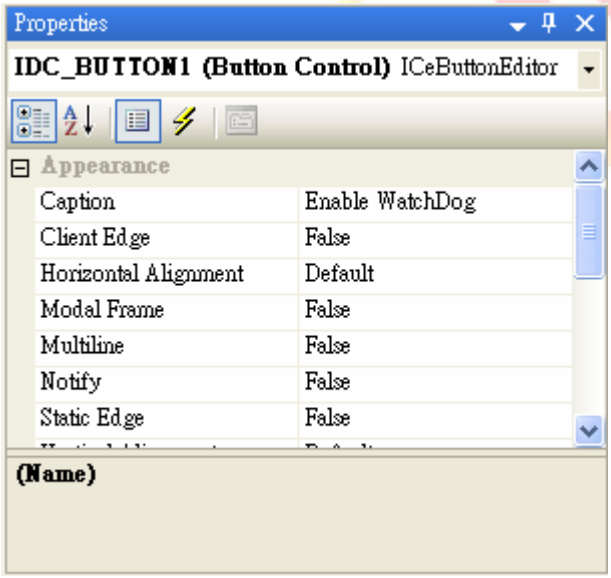


Step 2: Right-click the Button control, and then click Properties

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Step 3: In the Properties window, type" Enable WatchDog", and press ENTER to set the Caption property.



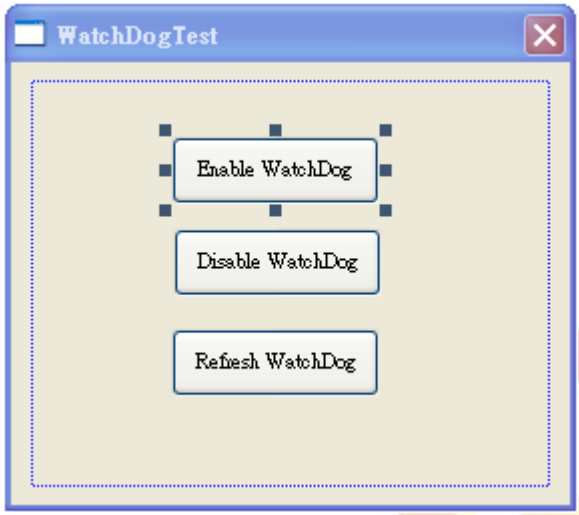
Step 4: Repeat the Step 1~3 to add a button named as "Disable WatchDog" and "Refresh WatchDog".

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Step 5: Add “#include "XPacSDK_CE.h" in main file.

```
#include "stdafx.h"
#include "WatchDogTest.h"
#include "WatchDogTestDlg.h"
#include "XPacSDK_CE.h"
```

Step 5: Double-click the buttons on the form



Step 6: Inserting the following code

Insert following code in the click event of “Enable WatchDog” button.

```
void CWatchDogTestDlg::OnBnClickedButton1()
{
    // TODO: Add your control notification handler code here
    pac_EnableWatchDog(0,5);
}
```

Using “pac_EnableWatchDog” to enable watch dog, 1st parameter of this function is the watch dog type (0: software watch dog, 1: hardware watchdog), 2nd parameter is the watch dog time.

“pac_EnableWatchDog” Syntax

```
BOOL pac_EnableWatchDog(int wdt, DWORD value);
```

Insert following code in the click event of “Refresh WatchDog” button.

```
void CWatchDogTestDlg::OnBnClickedButton3()
{
    // TODO: Add your control notification handler code here
    pac_RefreshWatchDog(0);
}
```


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Using “pac_RefreshWatchDog” to refresh watch dog, this function parameter is refreshing watch dog type (0: software watch dog, 1: hardware watchdog).

“pac_ RefreshWatchDog” Syntax

```
void pac_RefreshWatchDog(int wdt);
```

Insert following code in the click event of “Disable WatchDog” button.

```
void CWatchDogTestDlg::OnBnClickedButton2()
{
    // TODO: Add your control notification handler code here
    pac_DisableWatchDog(0);
}
```

Using “pac_DisableWatchDog” disable watch dog, this function parameter is the watch dog type (0: software watch dog, 1: hardware watchdog).

“pac_ DisableWatchDog” Syntax

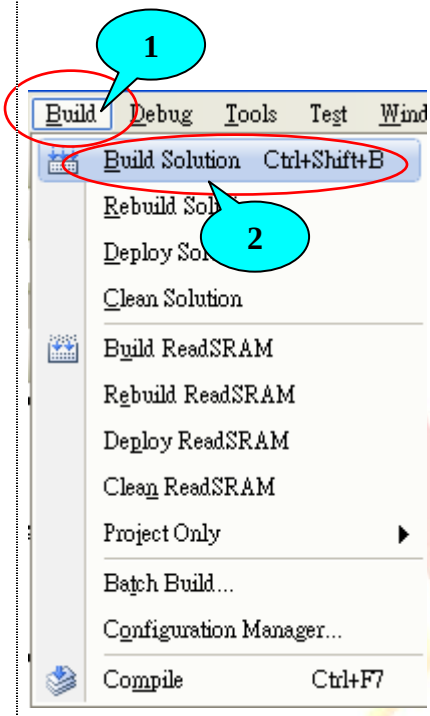
```
void pac_DisableWatchDog(int wdt);
```


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Step 7: Build and execute

Click “Build”->”Build Solution” to build the project, and a execute file will be obtained in the project folder. Put this execute file in your XPAC and execute it.

If you haven’t refresh or disable the watch dog within the watch dog time, XPAC will reboot while the watch dog time is expired.



Tips & Warnings

Refer to the FAQ documents below to upload the execute file to XPAC.

- X5-02_How_to_debug_XPAC_programs_in_Visual_Studio_2005(2008)_online_through_the_TCPIP_english
- X5-27_How to write a MFC application with XPAC SDK in visual studio 2005
- X5-30_How to write a MFC application with XPAC SDK in visual studio 2008

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Using C# to enable, disable and refresh watch dog.

Step 1: From the Toolbox, drag three buttons control onto the form. The text properties of there buttons are “Enable WatchDog”, “Disable WatchDog” and “Refresh WatchDog”.

Step 2: Get the XPacNet.dll and copy it to the project folder. The XPacNet.dll can be obtained from any C# demo program that has been provided on the CD or by downloading the latest version from ICP DAS web site.

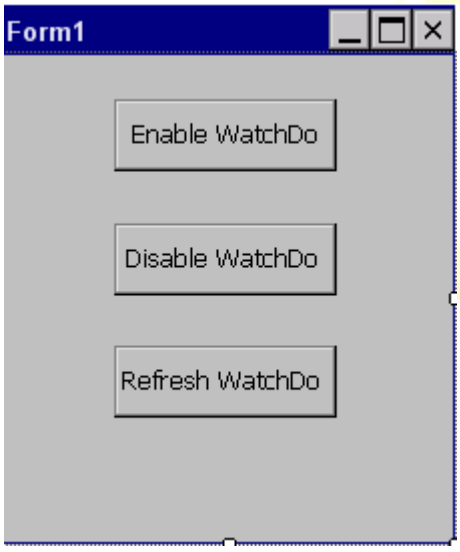
1. CD:\SDK\XPacNET
2. ftp://ftp.icpdas.com/pub/cd/xp-8000-ce6/sdk/xpacnet/
3. ftp://ftp.icpdas.com/pub/cd/xpac-atom-ce6/sdk/xpacnet/

Tips & Warnings

Refer to the FAQ documents below to add XPacNet.dll to the project.

- X5-28_How to write a C#.net application with XPAC SDK in visual studio 2005
- X5-31_How to write a C#.net application with XPAC SDK in visual studio 2008

Step 5: Double-click the buttons on the form



Step 6: Inserting the following code

Insert following code in the click event of “Enable WatchDog” button.

```
private void button1_Click(object sender, EventArgs e)
{
    XPacNET.XPac.pac_EnableWatchDog(0, 5);
}
```


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Using “pac_EnableWatchDog” to enable watch dog, 1st parameter of this function is the watch dog type (0: software watch dog, 1: hardware watchdog), 2nd parameter is the watch dog time.

“pac_EnableWatchDog” Syntax

```
bool pac_EnableWatchDog(int wdt, uint value);
```

Insert following code in the click event of “Refresh WatchDog” button.

```
private void button2_Click(object sender, EventArgs e)
{
    XPacNET.XPac.pac_DisableWatchDog(0);
}
```

Using “pac_RefreshWatchDog” to refresh watch dog, this function parameter is the refreshing watch dog type (0: software watch dog, 1: hardware watchdog).

“pac_ RefreshWatchDog” Syntax

```
void pac_RefreshWatchDog(int wdt);
```

Insert following code in “Disable WatchDog” button click event.

```
private void button3_Click(object sender, EventArgs e)
{
    XPacNET.XPac.pac_RefreshWatchDog(0);
}
```

Using “pac_DisableWatchDog” disable watch dog, this function parameter is the watch dog type (0: software watch dog, 1: hardware watchdog).

“pac_ DisableWatchDog” Syntax

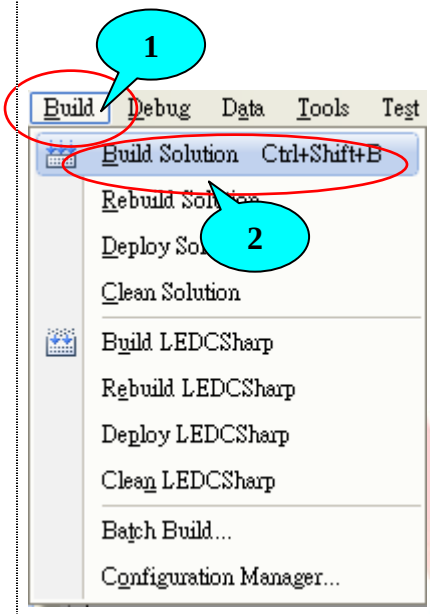
```
void pac_DisableWatchDog(int wdt);
```


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Using VB.Net to enable, disable and refresh watch dog.

Step 1: From the Toolbox, drag three buttons control onto the form. The text properties of there buttons are “Enable WatchDog”, “Disable WatchDog” and “Refresh WatchDog”.

Step 2: Get the XPacNet.dll and copy it to the project folder. The XPacNet.dll can be obtained from any C# demo program that has been provided on the CD or by downloading the latest version from ICP DAS web site.

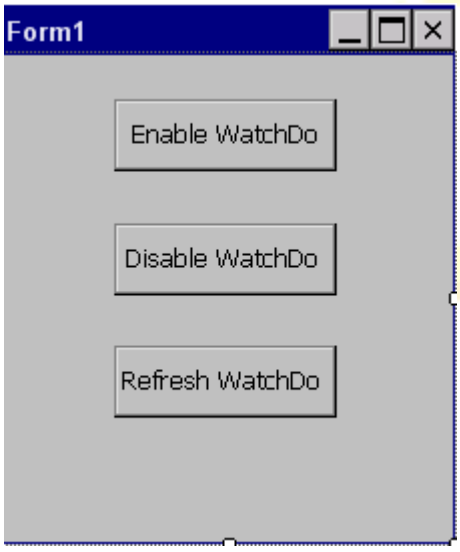
1. CD:\SDK\XPacNET
2. ftp://ftp.icpdas.com/pub/cd/xp-8000-ce6/sdk/xpacnet/
3. ftp://ftp.icpdas.com/pub/cd/xpac-atom-ce6/sdk/xpacnet/

Tips & Warnings

Refer to the FAQ documents below to add XPacNet.dll to the project.

- X5-29_ How to write a VB.net application with XPAC SDK in visual studio 2005
- X5-32_How to write a VB.net application with XPAC SDK in visual studio 2008

Step 5: Double-click the buttons on the form



Step 6: Inserting the following code

Insert following code in the click event of “Enable WatchDog” button.

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click
    XPacNET.XPac.pac_EnableWatchDog(0, 5)
End Sub
```

Using “pac_EnableWatchDog” to enable watch dog, 1st parameter of this function is the watch

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dog type (0: software watch dog, 1: hardware watchdog), 2nd parameter is the watch dog time.

“pac_EnableWatchDog” Syntax

```
bool pac_EnableWatchDog(wdt AS Integer, value AS UInteger);
```

Insert following code in the click event of “Refresh WatchDog” button.

```
Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button3.Click
    XPacNET.XPac.pac_RefreshWatchDog(0)
End Sub
```

Using “pac_RefreshWatchDog” to refresh watch dog, this function parameter is refreshing watch dog type (0: software watch dog, 1: hardware watchdog).

“pac_ RefreshWatchDog” Syntax

```
void pac_RefreshWatchDog(wdt AS Integer);
```

Insert following code in the click event of “Disable WatchDog” button.

```
Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button2.Click
    XPacNET.XPac.pac_DisableWatchDog(0)
End Sub
```

Using “pac_DisableWatchDog” disable watch dog, this function parameter is watch dog type (0: software watch dog, 1: hardware watchdog).

“pac_ DisableWatchDog” Syntax

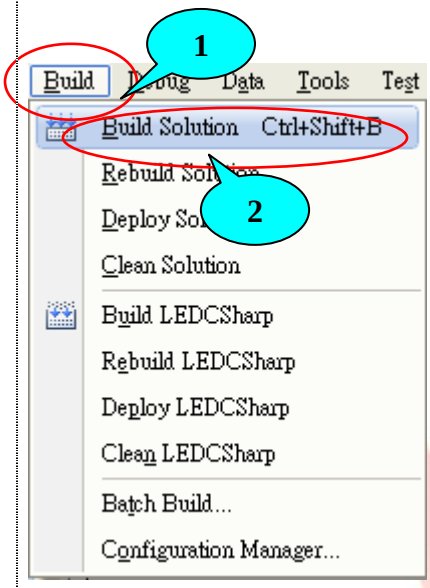
```
void pac_DisableWatchDog(wdt AS Integer);
```


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