Choose the Right Pack for Your Needs

XControls is provided in two versions: the Instrument Pack and the Professional Pack. The Instrument Pack provides 27 controls that are commonly used to provide a realistic virtual environment. These include such controls as rotary knobs, sliding knobs, 7-segment displays, LED bars and spirals, linear gauges, thermometer gauges, rotary switches, toggle switches, waveform plotter, and many more. The Professional Pack adds 26 more controls to those provided by the Instrument Pack to deliver tank and valve icons, sliding scale gauges, threaded and unthreaded timers, and much more. The Professional Pack also includes the "Linked Cell" property of each control, which provides exceptional power when coupled with WinDaq/XL software. WinDaq/XL is real-time porting software that allows WinDaq-acquired data to be ported to definable Excel cells both in real time and after acquisition from the WinDaq Waveform Browser. When those cells are linked to any given XControl using its Linked Cell property, the control has real-time access to data: Thermometer columns rise and fall, panel meter displays update, angular display needles rotate to values, and LED bar graphs change color and size. All this and more is possible in real time and without a single line of programming code.

‘Linked Cell’ Property Allows Real-time Link to Excel

Within the Excel environment, absolutely no programming is required to produce a custom virtual instrument that operates in real time. This capability is made possible by the “Linked Cell” property of each control, which provides exceptional power when coupled with WinDaq/XL software. WinDaq/XL is real-time porting software that allows WinDaq-acquired data to be ported to definable Excel cells both in real time and after acquisition from the WinDaq Waveform Browser. When those cells are linked to any given XControl using its Linked Cell property, the control has real-time access to data: Thermometer columns rise and fall, panel meter displays update, angular display needles rotate to values, and LED bar graphs change color and size. All this and more is possible in real time and without a single line of programming code.

Who should use XControls?

XControls are for anyone, programmer and non-programmer alike, who wants a simple way to design virtual instrument panels that visually represent measurements taken from a device or process under test. These can be, but are not limited to: programmers using Microsoft products such as Visual BASIC and Visual C++, programmers using Borland products such as Delphi and C++ Builder, Excel users, and programmers using VBA.
Instrument and Professional Pack XControls

...and many more!

Professional Pack Only XControls

...and many more!
Using XControls with WinDaq/XL

XControls are easy to use with Excel. However, to use XControls with WinDaq software, you will need to use WinDaq/XL. WinDaq/XL is a software add-on to WinDaq/Lite, /Pro, and /Pro+ that allows data acquired by these packages to be ported to a Microsoft Excel spreadsheet. The port can occur either in real time as data is being acquired, or through a direct link between Excel and WinDaq Playback software. Once resident in the Excel spreadsheet, the full analytical power of Excel may be brought to bear on WinDaq-acquired data to generate a limitless array of real-time calculations that lend insight and perspective to many applications. Continuous, real-time throughputs as high as 5,000 samples per second are achievable, depending on the speed of the computer.

The “Linked Cell” property of each control provides exceptional power when coupled with WinDaq/XL software. When those cells are linked to any given XControl using their LinkedCell property, the control has real-time access to data without a single line of programming code.

Let’s say you need to measure the power and endurance of a motorcycle engine. You may want to test the engine to see how long it can run at its maximum level without overheating. This would involve a control to measure RPM, a control to measure the temperature, an odometer control, and an LED control that will let you know immediately when the engine has overheated. When you place all of these controls on a panel, it might look something like this:

![Motorcycle Engine Test Stand](image)

To create and link controls in Excel takes only a few simple steps:

**Step 1:**

Go to View > Toolbars > Control Toolbox to display the Control Toolbox.
Using XControls with WinDaq/XL, cont’d

Step 2:

Click on the “More Controls” button in the lower right corner to reveal additional controls. Find the control you want and then click on it.

Step 3:

Your cursor will become a crosshair and then you can click wherever you want the control to be placed.
Using XControls with WinDaq/XL, cont’d

Step 4:

Right click on the control and select “Properties” or just press the Properties button in the Control Toolbox. Next to “LinkedCell”, type in the Column and Row of the cell to which you would like the control linked. (For example, to specify a cell in Column “C”, Row 5, you would just type “C5”, as shown at right.)

Step 5:

You can change other properties by right clicking on the control and selecting “(the name of your control) Control Object” and then click on “Properties”. (For our example, you would select “iThermometerX Control Object” > “Properties”.)

This would display another window specific to the control (as shown below).

Step 6:

To exit Design Mode and apply any property changes you have made to the control, click the “Exit Design Mode” button on the upper left-hand side of your Control Toolbar. This is also the button you will need to press if you would like to enter Design Mode at any point to make changes to the control.

Your control is now linked!
XControls Ordering Guide

<table>
<thead>
<tr>
<th>Description</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>WinDaq/Lite: Recording software with limited 240 Hz record-to-disk rate</td>
<td></td>
</tr>
<tr>
<td>WinDaq/Pro: Recording software</td>
<td>WinDaq/Pro</td>
</tr>
<tr>
<td>WinDaq/Pro+: Recording software supporting variable sample rates per channel</td>
<td>WinDaq/Pro+</td>
</tr>
<tr>
<td>WinDaq/XL: WinDaq add-on that allows acquired data to be ported to a Microsoft Excel spreadsheet</td>
<td>WinDaq/XL</td>
</tr>
<tr>
<td>ActiveX Control Library: Programming solution for WinDaq or any Windows programming language</td>
<td></td>
</tr>
<tr>
<td>XControls Instrument Pack: 27 ActiveX Controls that are commonly used to provide a realistic virtual instrument environment</td>
<td>XCTRL-IP-1</td>
</tr>
<tr>
<td>Instrument Pack Additional License</td>
<td>XCTRL-IP-2</td>
</tr>
<tr>
<td>Instrument Pack Site Developer License</td>
<td>XCTRL-IP-3</td>
</tr>
<tr>
<td>XControls Professional Pack: Adds 26 more controls to the Instrument Pack to deliver tank and valve icons, sliding scale gauges, timers, and more</td>
<td>XCTRL-PP-1</td>
</tr>
<tr>
<td>Professional Pack Additional License</td>
<td>XCTRL-PP-2</td>
</tr>
<tr>
<td>Professional Pack Site Developer License</td>
<td>XCTRL-PP-3</td>
</tr>
</tbody>
</table>

WinDaq/Pro+ is a complete programming solution for all WinDaq software, including WinDaq/XL.

WinDaq/Pro+ is available for a single license for $995 or a site license for $3,995.

WinDaq/XL is an add-on to WinDaq/Pro+ that allows acquired data to be ported to a Microsoft Excel spreadsheet.

WinDaq/XL is available for a single license for $295 or a site license for $995.

XControls Professional Pack is an add-on to WinDaq/Pro+ that delivers additional controls to the Instrument Pack.

XControls Professional Pack is available for a single license for $295 or a site license for $995.

For more information, please contact

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