

Create Stunning Graphical User Interfaces Featuring:

Realistic Look and Feel

Custom Component Sizing

Compact Code

Royalty-free Distribution when Designed in Your Application

Easy Setup Using Property and Theme Editors



Features

XControls

XControls, a collection of software modules, bring the combined experience of programmers and graphic artists to you in a set of extremely easy-to-use and interchangeable modules. As such they may be used to develop realistic instrument panels and displays that are customized for the application. Programmers and non-programmers alike can produce stunning graphical user interface for their data acquisition applications. This may be accomplished from a programming language such as Visual BASIC, Visual C++, C++Builder, and Delphi, or a non-programming environment such as Excel.

Compatibility

XControls is compatible with all DATAQ Instruments data acquisition hardware, WinDaq data acquisition software, our family of ActiveX controls for data acquisition, and WinDaq/XL. XControls is also compatible with popular 32-bit versions of Microsoft ActiveX and Borland VCL development environments.

Easy Setup Using Property and Theme Editors

Themes give you a head start when creating professional-looking component designs. With very little effort, they teach you about the capabilities of each component, showing the many possibilities that are available.

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. This array of controls may be combined on a virtual panel and organized in any manner dictated by the application to deliver a realistic and completely customized view of the data acquisition process being monitored.

Custom Component Sizing

Click and drag to perfectly size any component without loss of graphic quality.

Realistic Look and Feel

The realistic look and feel of the controls simplifies XControl implementation and makes their use intuitive.

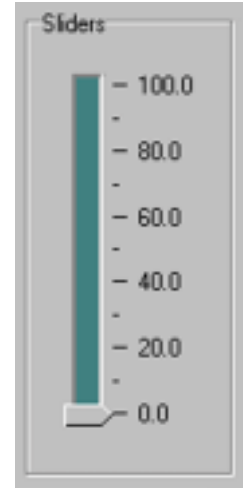
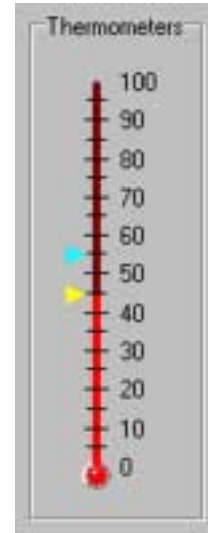
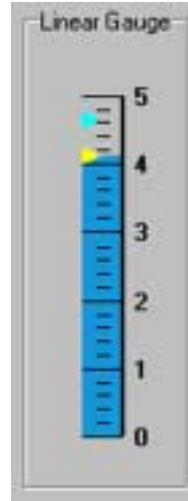
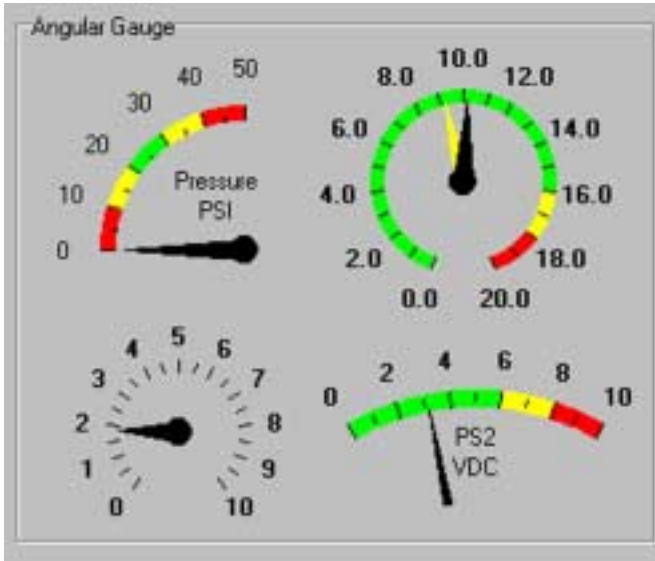
'Linked Cell' Property Allows Real-time Link to Excel

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.

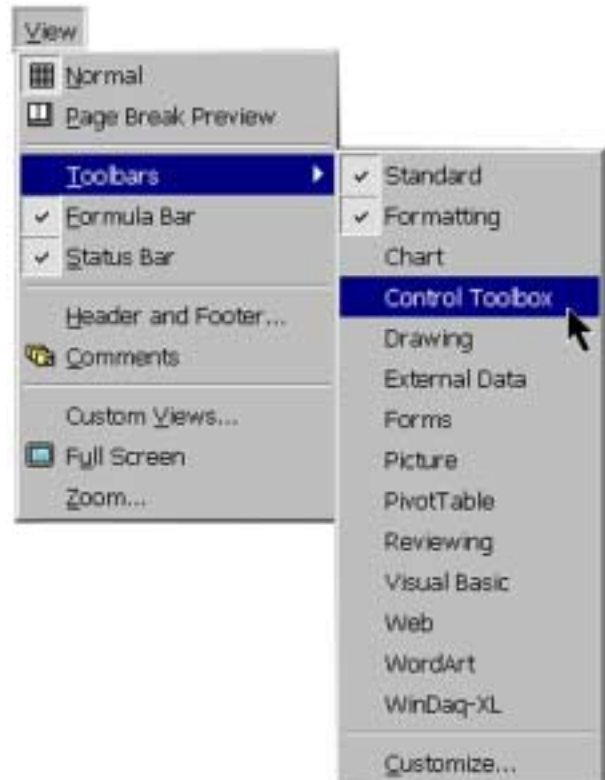
Let’s say you need to measure the power and endurance of a motorcycle engine. You may want to test the engine to see how long it can run at its maximum level without overheating. This would involve a control to measure RPM, a control to measure the temperature, an odometer control, and an LED control 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:



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


Step 1:

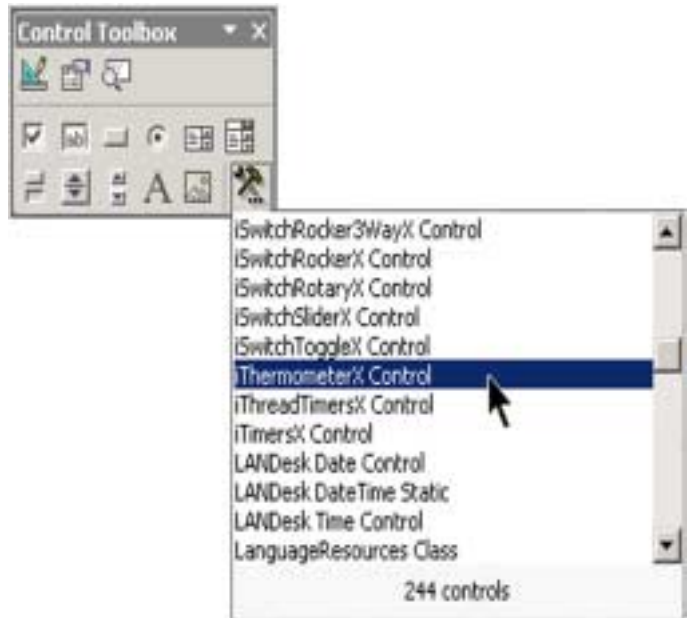
Go to View > Toolbars > Control Toolbox to display the Control Toolbox.



Using XControls with WinDaq/XL, cont'd

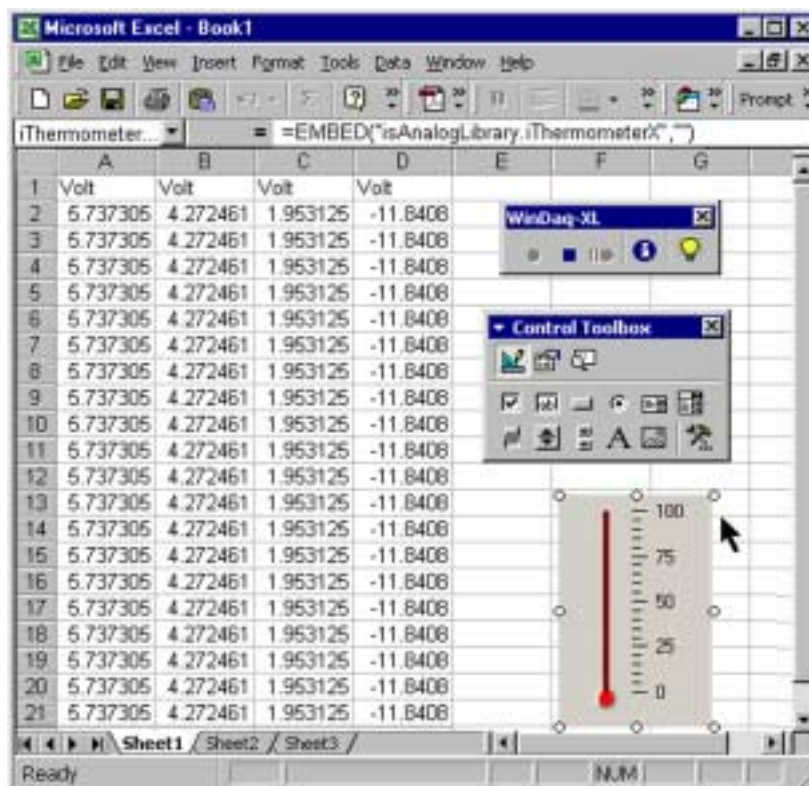
Step 2:

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.



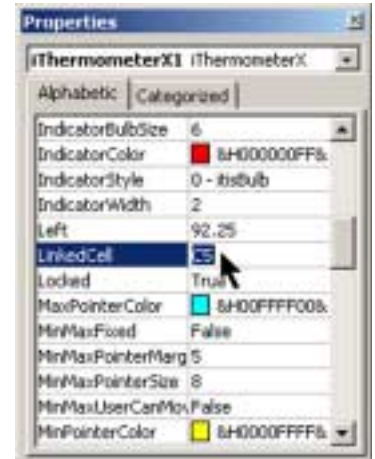
Using XControls with WinDaq/XL, cont'd

Step 4:

Right click on the control and select "Properties" or just press the

Properties button in the Control Toolbox . Next to "LinkedCell",

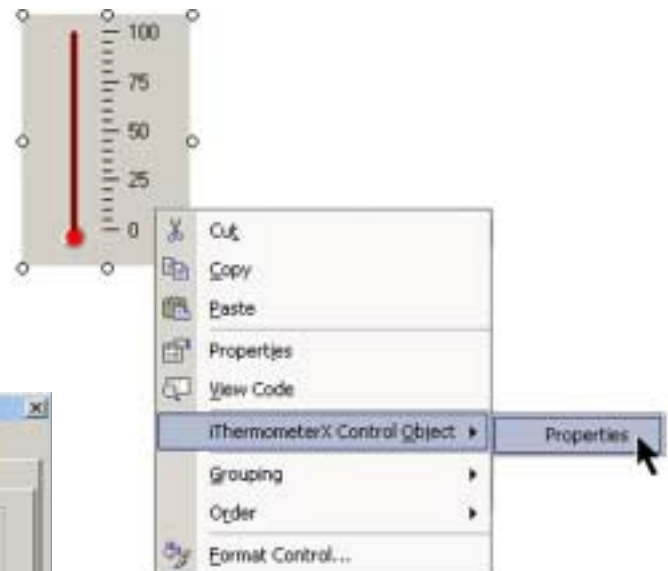
type in the Column and Row of the cell to which you would like the control linked. (For example, to specify a cell in Column "C", Row 5, you would just type "C5", as shown at right.)



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:

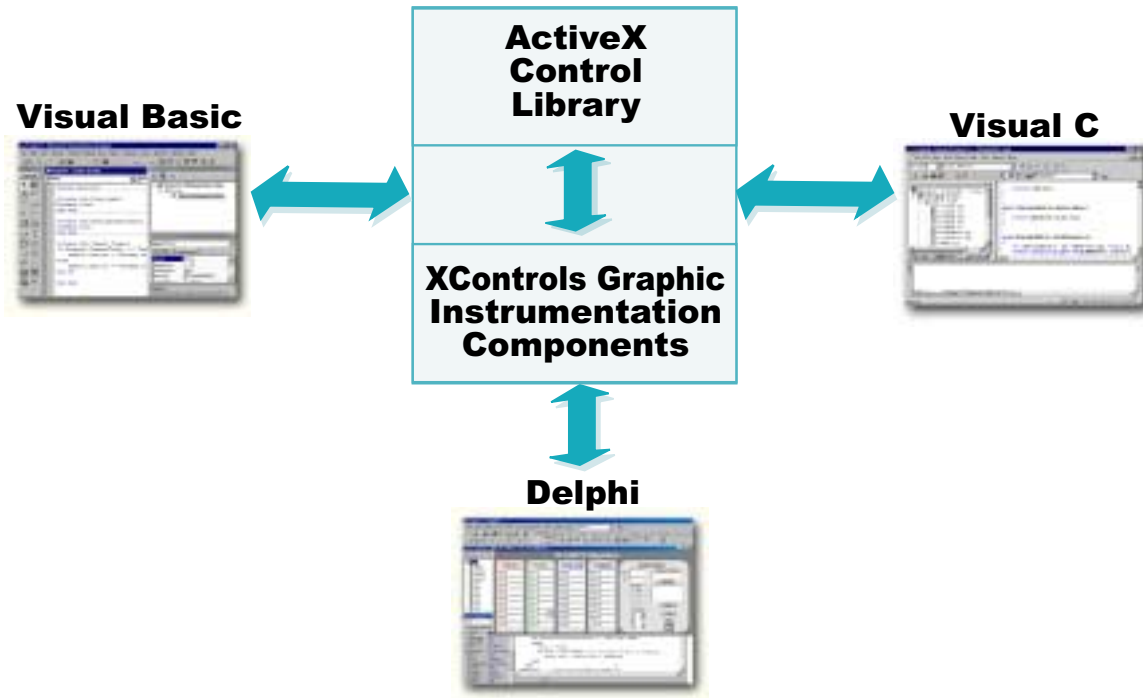
To exit Design Mode and apply any property changes you have made to the control, click the "Exit Design Mode"

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.

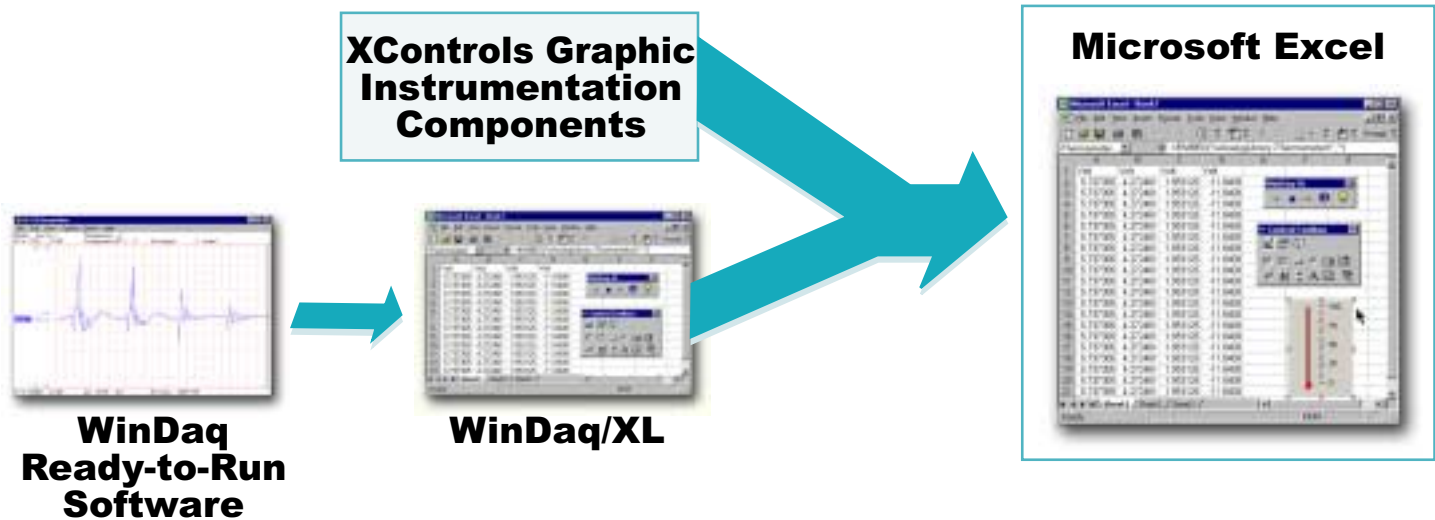
Your control is now linked!

XControls Software Environment

Programming Solutions:



Ready-to-Run Solutions:



XControls Ordering Guide

Description

Order Code

WinDaq/Lite: Recording software with limited 240 Hz record-to-disk rate **FREE DOWNLOAD**
WinDaq/Pro: Recording software **WinDaq/Pro**
WinDaq/Pro+: Recording software supporting variable sample rates per channel **WinDaq/Pro+**
WinDaq/XL: WinDaq add-on that allows acquired data to be ported to a Microsoft Excel spreadsheet **WinDaq/XL**
ActiveX Control Library: Programming solution for WinDaq or any Windows programming language **FREE DOWNLOAD**

Description

Order Code

XControls Instrument Pack: 27 ActiveX Controls that are commonly used to provide a realistic virtual instrument environment **XCTRL-IP-1**
Instrument Pack Additional License **XCTRL-IP-2**
Instrument Pack Site Developer License **XCTRL-IP-3**
XControls Professional Pack: Adds 26 more controls to the Instrument Pack to deliver tank and valve icons, sliding scale gauges, timers, and more **XCTRL-PP-1**
Professional Pack Additional License **XCTRL-PP-2**
Professional Pack Site Developer License **XCTRL-PP-3**



DATAQ® 241 Springside Drive, Suite 200, Akron, OH 44333
 Phone: (330) 668-1444 Fax: (330) 666-5434
 www.dataq.com