ActiveDAQ Pro Introduction

What is ActiveDAQ Pro ?

ActiveDAQ Pro is a collection of ActiveX controls for performing I/O operations within any compatible ActiveX control container, such as Visual Basic, Delphi, etc. You can easily perform the I/O operations through properties, events and methods. With ActiveDAQ Pro, you can perform versatile I/O operations to control your Advantech devices.

The ActiveDAQ Pro package contains the following components:

- Advantech ActiveDAQ Pro Device Control: Enumerate all ADVANTECH devices, direct I/O operation.
- Advantech ActiveDAQ Pro AI Control: Retrieve data from ADVANTECH AI device.
- Advantech ActiveDAQ Pro AO Control: Export data to ADVANTECH AO device.
- Advantech ActiveDAQ Pro DIO Control: Digital input/output operation.
- Advantech ActiveDAQ Pro Thermo Control: Retrieve temperature by thermocouple measurement.
- Advantech ActiveDAQ Pro Counter Control: Counter input signal.
- Advantech ActiveDAQ Pro Pulse Control: Pulse signal output.

You can use these ActiveX controls in any development tool that supports them, including Microsoft Visual C++, Microsoft Visual Basic, Borland C++ Builder, Borland Delphi and Microsoft Visual Studio .NET.


What's New in ActiveDAQ Pro ?

In the latest version of the ActiveDAQ series: ActiveDAQ Pro, efforts have been made to improve on the technical aspects and to provide a clear-cut mode of operation, as explained in the following summary:

Graphic User Interface Control Components

Advantech ActiveDAQ Pro GUI control collection consists of abundant of graphic user interface (GUI) control components, which enable users to conveniently and quickly build graph display modules for data acquisition so as to supervise the changing status of the object. ActiveDAQ Pro GUI control collection also helps users easily develop prototype vision applications in an interactive environment without programming. These control components include:

- **Button control:** It offers various display styles (2D and 3D) and is a Boolean control that displays an on or off state (True or False).
- **Graph control:** This control provides abundant graph display functions, which enable the user to displays data of various sources simultaneously.
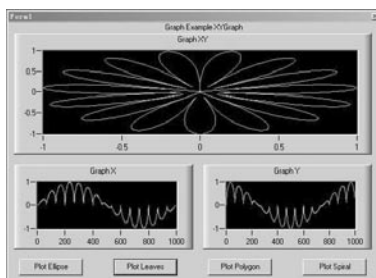

- **Intensity control:** It offers two-dimensional display and simple interpolation for scattered 3D data points so that the user can conveniently check the intensity variation trend of scattered 3D data points.
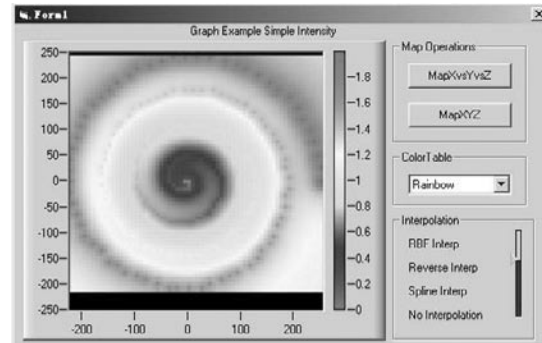
- **Knob control:** It is a circular data controlling control that provides various graph styles and can be used to display one or more values on the same interface.
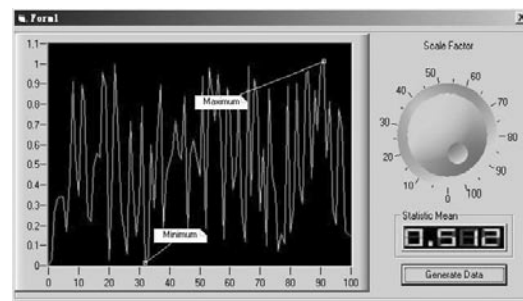
- **LED control:** This control provides data display and editing functions with the seven-segment nixie tube mode. After the Formatstring has been chosen or defined by the user, the displayed value of the control will be adjusted automatically according to the FormatString and displayed in the text edit box.
- **NumEditor control:** This control provides the user with the functions of data displaying and editing. After the Formatstring has been chosen or defined by the user, the values of the control will be adjusted automatically according to the FormatString and displayed in the text edit box.
- **Slider control:** It is a linear data controlling control that provides various graph styles. A Slider control can be used to set or display one or more values.
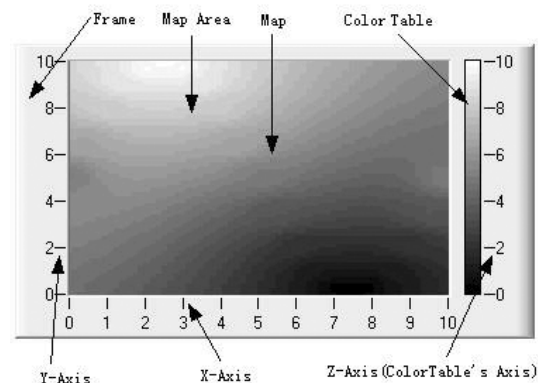
### Supports all Advantech DAQ devices with high speed functions

ActiveDAQ Pro now fully supports all Advantech DAQ cards and functions with complete high speed data acquisition, including AI (analog input), AO (analog output), DI/O (digital input/output) and counter cards. These high speed functions are preformed by interrupt and DMA data transfer which were previously excluded.

Easy-to-use property sheet interface for configuring controls

The property page will offer selections which will give easy access to all settings eliminate unnecessary programming. Programming will only be required in specialized situations.

Independent operation of controls

ActiveDAQ Pro offers total independent control operation, needing no support from other existing controls.
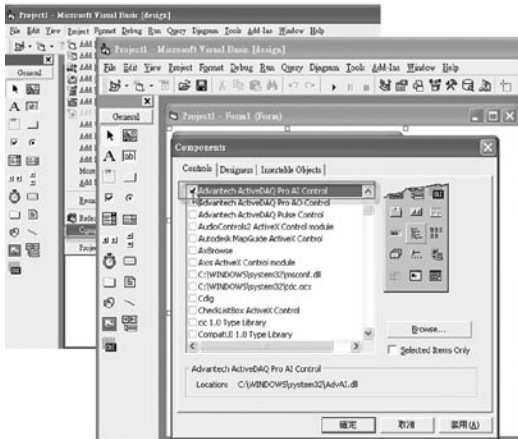
Uses known physical properties

Physical properties like voltage, current and frequency can now be directly applied by the user and will automatically be reassigned to the data needed by GainCode and sampling rate. Making these changes has ensured that ActiveDAQ Pro has become much more user friendly.
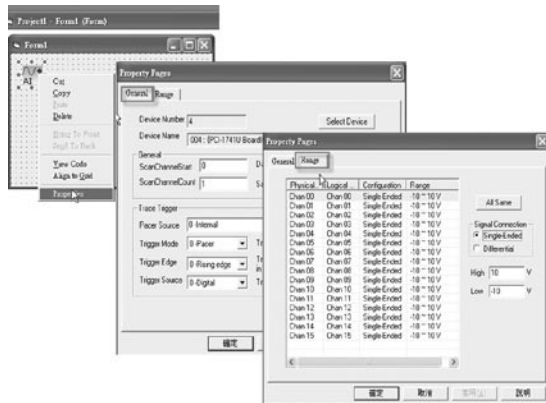
Straightforward user interface

The new version has become less-hardware dependent and it has relied more on intuition during the user interface. During the redesigned process, the target was to decrease the development difficulties. It has become easier for both entry level and advanced level users to manage.

Uses optional lists instead of direct input

Now lists are provided with values which remain limited over various processes. This option is much more convenient to input and will eliminate a large portion of the direct data input.

Default settings for immediate execution

Proper default settings have now been added to all methods and properties. That means quicker execution for the user, which will offer a prompt response.

Properties and parameters are chosen automatically

When the user opts for some specific methods in ActiveDAQ Pro it can result automatically in appropriate properties and parameters. For example, ActiveDAQ Pro control can automatically determine an appropriate data transferring method to perform the data acquisition. (Software, interrupt and DMA transfer)

Parameter check-up and correction

Each input parameter has to be within a certain range. As a result it has to have check-up to ensure legitimacy. In most cases the user will be notified and in others there will be an automatic correction.

Better defined error messages and diagnostic guide

ActiveDAQ Pro offers clear error messages description and diagnostic guides for all return errors.

Supports all widely known development platforms

ActiveDAQ Pro support Microsoft Windows 2000 and Windows XP operation system.

As with the previous version, ActiveDAQ 1.6x, it continues to support all widely known development platforms based on ActiveX technolygy. These platforms include Microsoft Visual Basic, Visual C++, Visual Basic.Net, Visual C#, Borland C++ Builder and Delphi.

System Requirements

- IBM compatible PC using at least a 266 MHz or higher microprocessor
- Microsoft Windows 2 K/XP
- VGA compatible graphics card, supporting at least 256 colors.
- Minimum 64 MB of RAM.
- 74 MB of free local hard disk space.
- One CD-ROM driver

Ordering Information

- **PCLS-ADPSTD**