

A-DAQ Pro Introduction

What is A-DAQ Pro ?

A-DAQ 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 A-DAQ Pro, you can perform versatile I/O operations to control your Advantech devices.

The A-DAQ 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 Digital I/O Control: Digital I/O 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 LabView, Microsoft Visual C++, Microsoft Visual Basic, Borland C++ Builder, Borland Delphi, and Microsoft Visual Studio.NET.

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A-DAQ Pro
ActiveX Control-based Software for Data Acquisition

Your Software, Your Control DAQ However You Like

A-DAQ Pro
ActiveX Control-based Software for Data Acquisition

Features :

- 32 Bit ActiveX controls for data acquisition, control and presentation.
- Compatible with various Microsoft Visual Basic, Visual C++, Microsoft Visual Studio.NET, Borland C++ Builder and Delphi.
- Complete program control methods for configuring controls.
- Flexible program control through properties, events, and methods.
- Complete Advantech DAQ controls for analog, digital, and timing I/O operation.
- Optimize interface for strength use.
- Automatically saved methods for fast speed analog input according to hardware connectivity.
- Virtual Utilities support: Waveform I/O, Virtual Multimeter, Virtual Oscilloscope.

System Requirements :

Hardware:

- IBM compatible PC (Minimum 266 MHz CPU)
- Microsoft Windows 2000/XP/ Vista
- 1GB compatible graphics card (Minimum 256 colors)
- Minimum 544MB of RAM
- Minimum 100MB of free local disk space
- One CD-ROM drive

Installation :

- Insert the A-DAQ Pro controls installation CD-ROM into your computer.
- The installation program should start automatically.
- Follow the instructions in the installation wizard.

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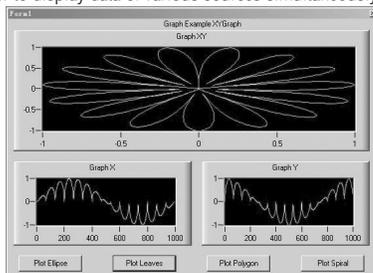
What's New in A-DAQ Pro ?

In the latest version of the ActiveDAQ series: A-DAQ 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:

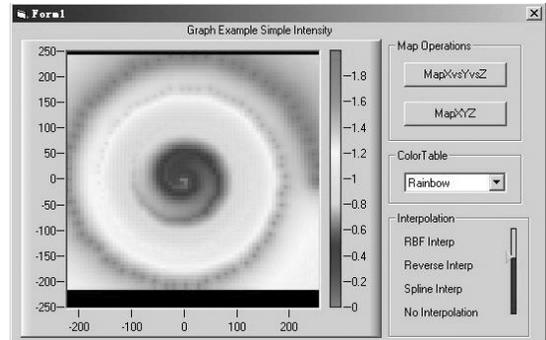
Graphic User Interface Control Components

Advantech A-DAQ 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. A-DAQ Pro GUI control collection also helps users easily develop prototype vision applications in an interactive environment without programming. These control components include:

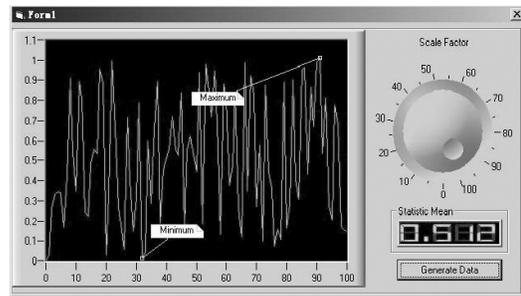
- Button Control:** It offers various display styles (2D and 3D) and is a Boolean control that displays an on or off state (True or False).
- Graph Control:** This control provides abundant graph display functions, which enable the user to display data of various sources simultaneously.



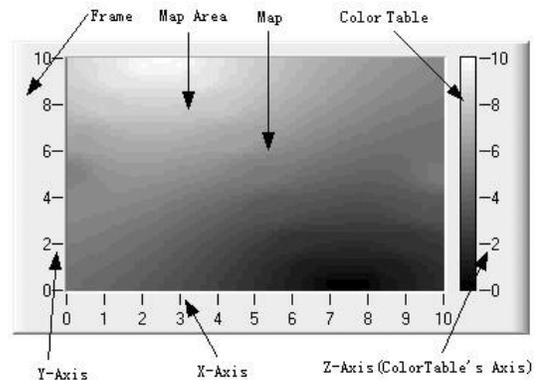
- Intensity Control:** It offers two-dimensional display and simple interpolation for scattered 3D data points so that the user can conveniently check the intensity variation trend of scattered 3D data points.



- 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.
- 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.



A-DAQ Pro Introduction

Supports All Advantech DAQ Devices with High Speed Functions

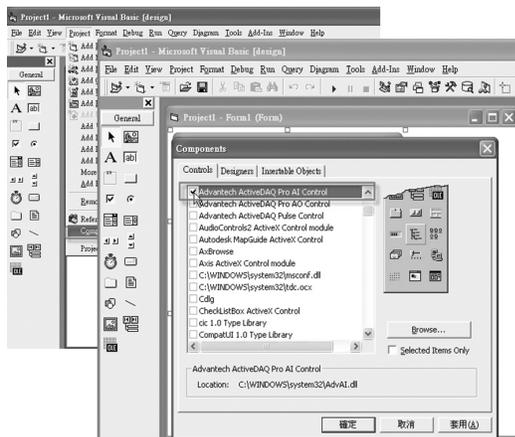
A-DAQ Pro now fully supports all Advantech DAQ cards and functions with complete high speed data acquisition, including AI (analog input), AO (analog output), DI/O (digital input/output) and counter cards. These high speed functions are preformed by interrupt and DMA data transfer.

Easy-to-use Property Sheet Interface for Configuring Controls

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

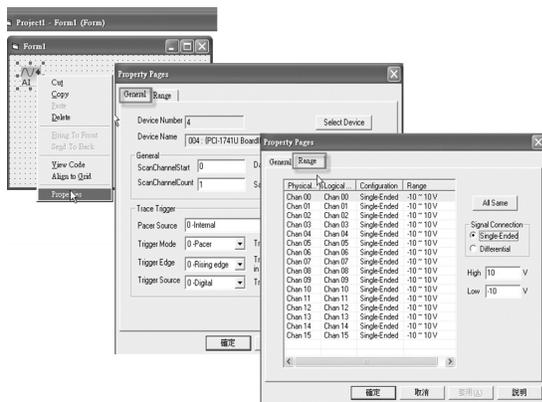
Independent Operation of Controls

A-DAQ 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 A-DAQ 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 A-DAQ Pro it can result automatically in appropriate properties and parameters. For example, A-DAQ 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

A-DAQ Pro offers clear error messages description and diagnostic guides for all return errors.

Supports All Widely Known Development Platforms

A-DAQ Pro support Microsoft Windows 2000/XP and Vista operation system.

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

What Utilities Does A-DAQ Pro Support?

A-DAQ Pro supports several useful utilities and they can really help you to save time on programming. The WaveScan 2.0 utility, can let you easily do the real-time monitoring with Advantech's devices including acquire signal and display waveforms. You can also save data as an excel file for further analysis with it. If you want to measure temperature, voltage and electric current directly, you can choose the Virtual Multimeter. It just looks like a multimeter you are always using so its interface is very easy and friendly. For the Virtual Oscilloscope, it can do the functions that are similar to a Real Digital Storage Oscilloscope. You can adjust VOL/DIV scale, shift cursor, set trigger even do the single seq function with this utility.

System Requirements

- PC with at least a 266 MHz or higher microprocessor
- Microsoft Windows 2000/ XP/ Vista
- 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-AE ActiveX Control-based Software for DAQ