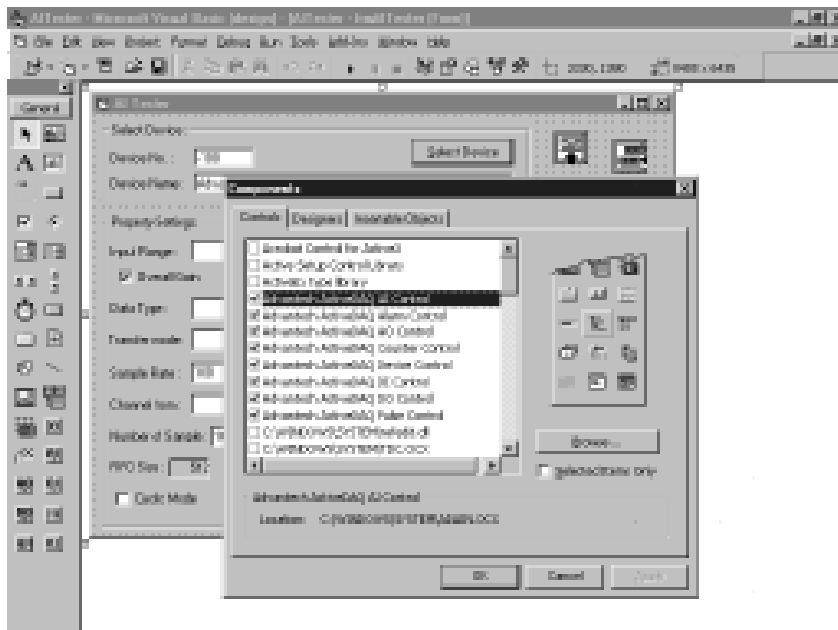


# Advantech ActiveDAQ



**Advantech ActiveDAQ** is a collection of 32-bit ActiveX controls that perform analog, digital and timing I/O operations for a wide variety of Advantech's data acquisition and control hardware.

ActiveDAQ enables you to control your data acquisition devices simply by setting properties, thereby avoiding the frustration of low-level programming. You can now develop your DAQ application in your favorite programming environment and enjoy the benefits of rapid application development without sacrificing ease of use or program performance. Advantech ActiveDAQ fulfills your driver programming needs with ease of use, high performance and flexibility.

## Major Development Environments

Advantech ActiveDAQ leverages Microsoft's ActiveX control technology to provide DAQ functions for Advantech hardware. It can be used in any development environment that supports ActiveX controls, including Microsoft Visual Basic, Visual C++ and Microsoft Office applications, Inprise Delphi and C++ Builder, and even industrial automation software tools such as LabVIEW and HP VEE.

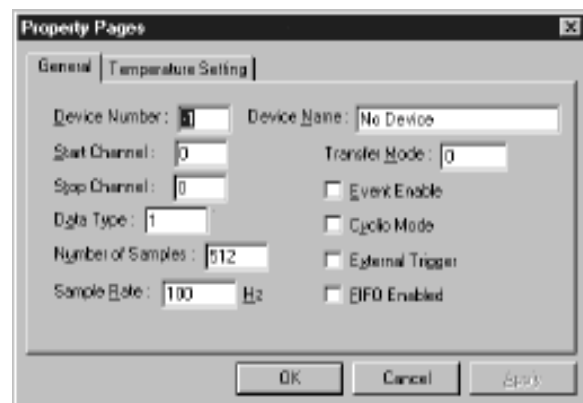
Since ActiveX controls are based upon Microsoft's popular Component Object Model (COM), the number of development environments that support them will increase in the future. ActiveDAQ combines the power and flexibility of industry-standard development tools with DAQ functions. You can leverage your existing investment and expertise in your favorite development tool to easily build DAQ applications.

## Configure Your DAQ Operations through Property Pages

Unlike DLL drivers, ActiveDAQ is tightly integrated with industry-standard visual development tools. ActiveDAQ integrates seamlessly with your development environment. You can use a property page interface for configuring I/O devices. The events function signals hardware status, and the methods function controls DAQ operations. ActiveDAQ also takes advantage of the many time-saving features of visual development tools, including automatic code completion and an object browser. The intuitive ActiveDAQ controls give you a familiar interface, and many DAQ applications can be finished without consulting the manual.

## Event-driven Architecture to Enhance Program Performance

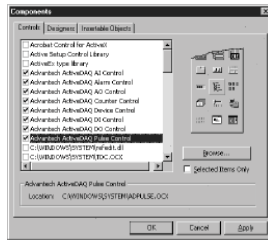
In traditional data acquisition programming, the status of I/O operations are checked by polling the hardware. This is time-consuming, and continual polling causes inefficiencies in the program code. Advantech ActiveDAQ controls use an event-driven mechanism. When events occur in the device, it will notify your program by executing event routines. Programmers only have to code the actions in response to the event routines. They no longer have to manually check the hardware status. ActiveDAQ provides more efficient program control, and improves the overall performance of the program.



## Controlling Your Data Acquisition Devices Through Four Easy Steps

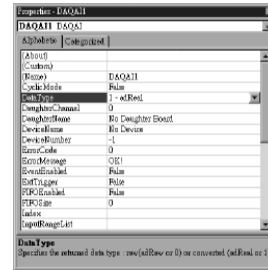
### Step 1: Select the ActiveDAQ controls

Add the ActiveDAQ controls that you want to use in your application to your project.



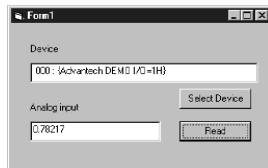
### Step 2: Configure the ActiveDAQ controls

Configure the component through the property sheet.



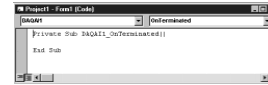
### Step 4: Run the program

Execute the program to test your code.



### Step 3: Write event routines for ActiveDAQ controls

Develop code for event routines in response to some occurrence in the component.



## Functions Supported by ActiveDAQ

Advantech ActiveDAQ provides eight ActiveX controls for I/O operations:



- AI control: Single data reading, waveform data reading and temperature measurement.



- AO control: Single point analog output and waveform analog output.



- DI control: Single point digital input, waveform digital input and digital input with hardware interrupt.



- DO control: Single point digital output



- Counter control: Event-counting or frequency measurement.



- Pulse control: Pulse output operations.



- Alarm control: Determines whether the input value exceeds the pre-defined alarm limits, and sends the alarm event.



- Device control: Device selection operation.

## Compatible Tools

- ☒ Visual Basic
- ☒ Visual C++
- ☒ Inprise Delphi

## Supported I/O Hardware

ActiveDAQ supports the following Advantech I/O products:

- PCI series I/O cards
- ISA series I/O cards
- ADAM-4000 series remote data acquisition modules
- ADAM-5000 series remote data acquisition modules
- MIC-2000 I/O cards: MIC-2718/2728/2730/2732/2750/2752/2760
- PCM series I/O cards: PCM-3718H/HG, PCM-3724/3725/3730

## System Requirements

- IBM compatible PC (66 MHz 80486 processor or higher)
- Microsoft Windows 95/98/NT/2000
- VGA resolution (or higher) video adapter
- ActiveX control container, such as Visual Basic (32-bit version), Visual C++ , or Delphi (32-bit version)
- Minimum of 16 MB of memory
- Minimum of 15 MB of hard disk space
- Microsoft-compatible mouse

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AWS

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TPC

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FPM

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IPC

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