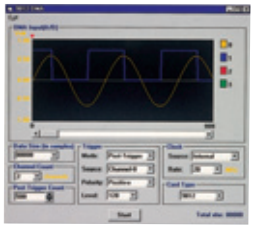
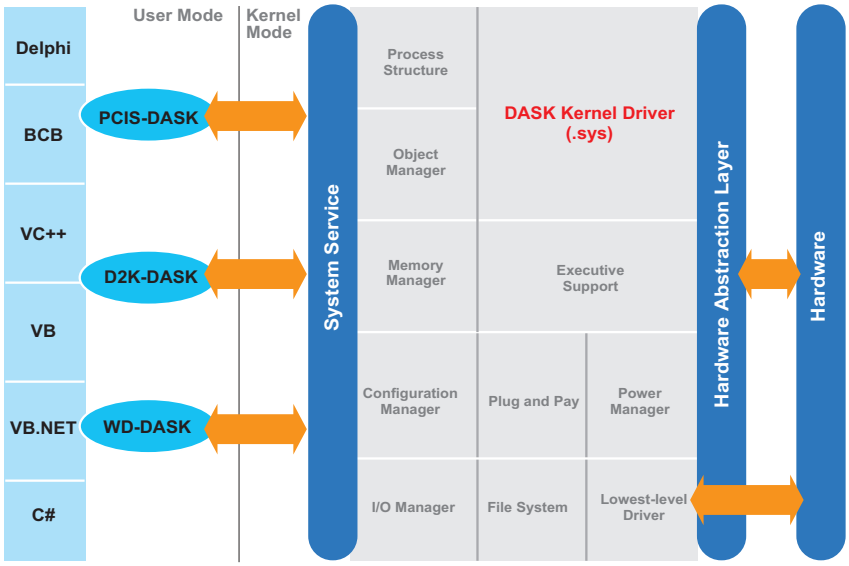
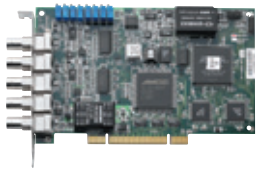
# PCIS-DASK, D2K-DASK, WD-DASK for Windows

## ADLINK DAQ Card Drivers for 32-/64-Bit Windows





### Features for 32-bit Windows

- 32-bit Windows kernel drivers/libraries for data acquisition cards
- Supports Windows 98/NT/2000/XP/Server 2003/Vista x32
- Provides full functionalities of ADLINK data acquisition cards
- Provides kernel-level event and memory mapping for sophisticated applications
- User-defined callbacks for asynchronous data acquisition
- A new CodeCreator utility to automatically generate C codes
- Complete tutorial and sample programs
- Provides header files and linkage files for
  - Microsoft Visual Basic/Visual C++
  - Borland C++Builder/Delphi
  - Microsoft Visual Basic .NET
  - Microsoft C#
- Provides example programs of Microsoft Visual Basic, Visual C/C++, Visual Basic .NET and C#

### Features for 64-bit Windows

- 64-bit Windows kernel drivers for data acquisition cards
- Supports Windows Vista x64/XP x64/Server 2003 x64
- Supports both AMD64 and Intel x86-64 architecture
- Digitally signed for 64-bit edition of Windows Vista™
- Ensures that 32-bit applications run on 64-bit editions of Windows XP, Windows Server 2003 and Windows Vista™ without modification using WOW64 subsystem

### Introduction

ADLINK DASK drivers are the device drivers for custom data acquisition applications for Windows. The DASK driver libraries provide API sets for ADLINK PCI Express®, PCI, CompactPCI, and PXI data acquisition cards to access full hardware functionalities, such as buffered/double-buffered data acquisition, pattern generation, digital input/output and etc. For novice users, the built-in CodeCreator utility helps you create your first program in just a few minutes. For experienced users, the DASK libraries expose some low-level functions for accessing kernel-level objects and allow you to program a sophisticated data acquisition operation with optimal efficiency. ADLINK DASK drivers deliver great performance, reliability and portability to your data acquisition systems.

### Get Ready For Windows Vista

Windows Vista is the newest operating system from Microsoft and came as Windows® biggest launch after Windows XP. Following years of anticipated release, Windows Vista rolled off early this year and offered major improvements in areas of performance, security, and visual presentation. Windows Vista comes as an opportunity for engineers and scientists to solve critical technical problems and achieve greater, faster data processing not possible on earlier Windows releases. Windows Vista 64-bit edition supports memoryintensive applications including vision acquisition and large-scale data processing that are not possible on 32-bit operating systems.

For Windows Vista, ADLINK provides both 32-bit and 64-bit versions of kernel drivers for its full-range of DAQ cards. As earlier stated, PCIS-DASK, D2K-DASK, and WD-DASK also supports Windows XP and Windows Server 2003 for 64-bit Extended Systems, including AMD64 and Intel x86-64 system architectures. PCIS-DASK is Windows Kernel Driver APIs for ADLINK NuDAQ PCI/cPCI Series. D2K-DASK is Windows Kernel Driver APIs for ADLINK DAQ-2000 and PXI-2000 Series. WD-DASK is Windows Kernel Driver APIs for ADLINK PCI/PXI-9820 High-speed digitizer.

Microsoft requires a digital signature on all drivers starting from Windows Vista x64 Edition. By requiring signed drivers, Microsoft aims to reduce failures and improve stability by setting the spotlight on vendor responsibility with regard to driver bugs and glitches. For this reason, all ADLINK 64-bit DASK drivers are digitally-signed for Windows Vista x64 Edition that can be installed well under the user-privilege model.

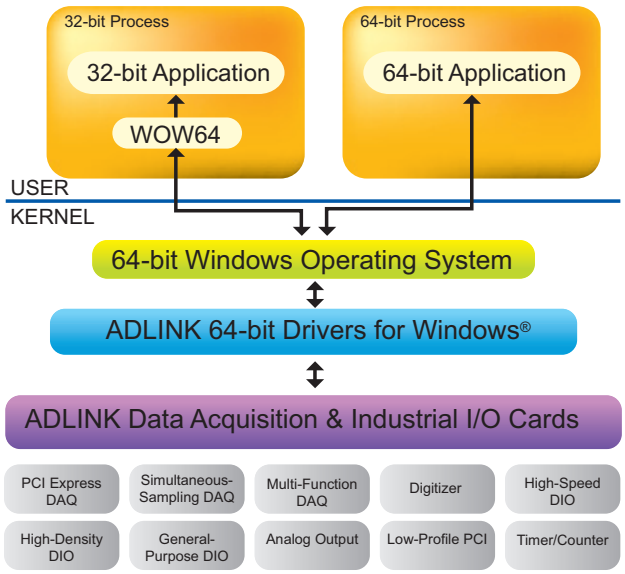
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In Windows Vista, .NET Framework 3.0 (formerly known as WinFX) interface delivers a straightforward way to program applications on Vista territory. Moreover, all existed 32-bit samples programs can function normally on the 64-bit version of Windows Vista without modifications through Microsoft WOW64 (Windows-on-Windows 64-bit) subsystem, please refer to **Figure 1**. Launched in both 32-bit or 64-bit edition, Windows Vista enables the user to choose the edition depending on their computer hardware. On a 64-bit windows system, the WOW64 translation layer can allocate as much 4 GB of RAM to 32-bit Windows applications. That gives the application the full 4 GB memory space, a significant increase for heavy computing applications.

Windows Vista is ready, and so is ADLINK. Spending months of preparation before the release of Windows Vista, ADLINK now offers relevant kernel driver releases and software updates to allow users to enjoy this new and exciting operating system through smooth and convenient creation of applications for data acquisition, measurement, and automation.

***For more information about Windows Vista support, please visit http://www.adlinktech.com/TM/VistaSupport.html***

**Figure 1**




## .NET Support

Considered one of the most significant changes to the Windows® platform, the .NET Framework brings into the operating system unified features and responsibilities that are previously provided individually by programming languages and tools from various sources.

For .NET programmers that require direct calling of ADLINK DASK DLL libraries (Native Regular DLL Form) such as PCIS-DASK, D2K-DASK, and WD-DASK, ADLINK provides the example programs for of C# and Visual Basic .NET that speed up the development of your applications in Microsoft Visual Studio .NET 2003/2005.

## Standardized Application Programming Interface (API)

ADLINK DASK maintains a set of consist programming interfaces across different Window's platforms, and therefore provides portability between different platforms and programming languages.

In addition to basic I/O support, the DASK API also provides sophisticated build-in capability to handle memory and data buffer management. A double-buffered mode processes can be repeated endlessly to provide a stream of data to your applications.

## Software Migration

ADLINK DASK is designed to maximize programming flexibility and data throughput. There is only one set of Application Programming Interface (API), so each card can be programmed with the same API. This greatly shortens developer's learning curve if more than one type of NuDAQ PCI/cPCI or DAQe/DAQ/PXI-2000 data acquisition cards is used.

## Data Acquisition Functions

**ADLINK DASK provides full functionalities of NuDAQ PCI/cPCI, DAQe/DAQ/PXI-2000, and PXI-9820 digitizer**

- Single-point analog input
- Buffered data acquisition
- Double-buffered data acquisition
- Single-point analog output
- Digital I/O control
- Buffered digital I/O
- Double-buffered digital I/O
- Counter/timer I/O

## Supported Modules

- **PCIS-DASK**
  6202, 6208, 6216, 6308, 7200, 7224, 7230, 7233, 7234, 7248, 7250, 7258, 7260, 7296, 7300, 7348, 7396, 7432, 7433, 7434, 7442, 7443, 7444, 7452, 8554, 9111, 9112, 9113, 9114, 9118, 9524, 9221, 9810, 9812, 9222, 9223
- **D2K-DASK**
  2005, 2006, 2010, 2016, 2204, 2205, 2206, 2208, 2213, 2214, 2501, 2502
- **WD-DASK**
  9820

**Free Download!!**

Please visit ***http://www.adlinktech.com*** and search for

- **PCIS-DASK**
  ADLINK PCI/PCIe/cPCI Series DAQ Card Drivers for Windows
- **D2K-DASK**
  ADLINK DAQ/DAQe/PXI-2000 Series DAQ Card Drivers for Windows
- **WD-DASK**
  ADLINK PCI/PXI-9820 Digitizer Driver for Windows

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