ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Keithley / MetraByte DASCard 1002* at our website: *Click HERE*

DASCard-1000 Series Quick Start

Thank you for purchasing the Value Pak from Keithley MetraByte. In addition to your data acquisition card, the Value Pak provides the following software:

- **VTX™** (Visual Test Extensions™) - Install this software if you want to create data acquisition applications using an integrated set of custom controls within the Microsoft® Visual Basic® for Windows™ programming environment.
- **Standard software** - Install this software if you want to create data acquisition applications at the driver level using Microsoft QuickBasic™ or Microsoft Professional Basic under DOS.
- **ASO software** (Advanced Software Option) - Install this software if you want to create data acquisition applications at the driver level using Microsoft C/C++ (for DOS or Windows), Borland C/C++ (for DOS or Windows), Microsoft Visual C++, or Microsoft Visual Basic for Windows.

Follow the quick start instructions for the software package you want to use. *Refer to page 2 for VTX quick start instructions; refer to page 9 for Standard software and ASO software quick start instructions.*

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

VTX Quick Start

➨ **Install the software.**
If you need help during this procedure, refer to Chapter 1 of your *VTX User's Guide* or to your Visual Basic documentation.

1. Install Version 3.0 or 4.0 (the 16-bit version) of Visual Basic for Windows.
2. Insert the VTX DAS disk in the appropriate disk drive.
3. *If you are using Windows 3.1*:
   - From the File menu of the Program Manager, choose Run.

   If you are using Windows 95:
   - From the Windows 95 task bar, click Start and point to Run.
4. In the Run dialog box, enter the appropriate drive letter and the setup command. For example, if the VTX DAS disk is in drive A, enter

   ```
   a:\setup
   ```
5. Respond to the prompts, making sure that you include the DASCard-1000 Series software and that you choose to automatically add the VTX controls to your Visual Basic Toolbox.
6. When the installation is complete, review the README file for important information.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

➨ **Register and configure your card, and install the Keithley Memory Manager.**

If you need help during this procedure, refer to Chapter 1 of your *VTX User's Guide*.

1. *If you are using Windows 3.1*:

   – From the Keithley VTX group window in the Program Manager, double-click the VTX Configuration icon.



   If you are using Windows 95:

   – From the Windows 95 task bar, click Start, and then point to Programs, Keithley VTX, and VTX Configuration.

2. From the DAS Hardware configuration window (displayed on top), choose the Add New button to register your card for use with the VTX software.

   The Add New Board dialog box appears, with a list of the board families whose VTX-compatible software is currently installed.

3. From the Add New Board dialog box, select **DASCard-1000 Series** and choose the OK button.

   The DASCard-1000 Configuration panel appears.

4. From the Name list, select the appropriate card type.

   For this quick start session, the remaining default values are assumed. If your configuration differs from the default settings, refer to Chapter 3 of your *DASCard-1000 Series User's Guide* for help on configuring the card.

5. To save the configuration, choose the Save option from the File menu.
6. To exit the DASCard-1000 Configuration panel, choose the Exit option from the File Menu or choose the Exit button.
7. Choose the Keithley Memory Manager tab.
8. In the Desired Setting field, enter the amount of memory that your VTX applications will require (the default is 128K bytes).
9. Choose the Update button.
10. If you changed the default value, choose the Restart Windows button to ensure that the changes take effect immediately.
11. To exit the VTX configuration utility, choose the Close button.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

➨ Install PCMCIA Card and Socket Services.

If you are using Windows 3.1:

– Make sure that PCMCIA Card and Socket Services (PCMCIA standard 2.10 or higher) are installed. Typically, PCMCIA Card and Socket Services are loaded from your CONFIG.SYS file. However, many portable computers are shipped with PCMCIA Card and Socket Services already installed; in these cases, you may be unaware of the name of the Card and Socket Services or how they are used in your computer.

If you are using Windows 95:

– Install the CardWorks for Windows 95 software, which was shipped with your DASCard-1000 Series card, and restart your computer. Refer to the *CardWorks Quick Reference Guide* for information.

➨ Load the Enabler.

If you need help during this procedure, refer to Chapter 3 of your *DASCard-1000 Series User's Guide*.

1. Exit Windows and return to DOS. (You cannot load the Enabler from the MS-DOS Prompt in Windows.)
2. Change to the directory containing the Enabler (KMENABLE.EXE) and enter the following at the DOS prompt:

   ```
   KMENABLE
   ```

   The Enabler requests a base address, interrupt level, and memory segment address for your DASCard-1000 Series card from PCMCIA Card Services.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

➨ Install the card.

If you need help during this procedure, refer to Chapter 3 of your *DASCard-1000 Series User's Guide*.

1. Following proper antistatic techniques, unpack and inspect the card.
2. If necessary, remove the cover from the Type II, PCMCIA socket 0.
3. Insert the 68-pin PCMCIA bus connector end of your DASCard-1000 Series card into socket 0 until it makes contact.
4. Replace the socket cover, if appropriate.
5. If your hardware does not support hot-swapping, you may have to reapply power to your DASCard-1000 Series card using the appropriate PCMCIA Card Services function.

➨ Run the diagnostics utility.

If you need help during this procedure, refer to Chapter 3 of your *DASCard-1000 Series User's Guide*.

1. Exit Windows and return to DOS, if necessary.
2. Change to the directory containing the diagnostics utility (KMINFO.EXE) and enter the following at the DOS prompt:

   ```
   KMINFO
   ```

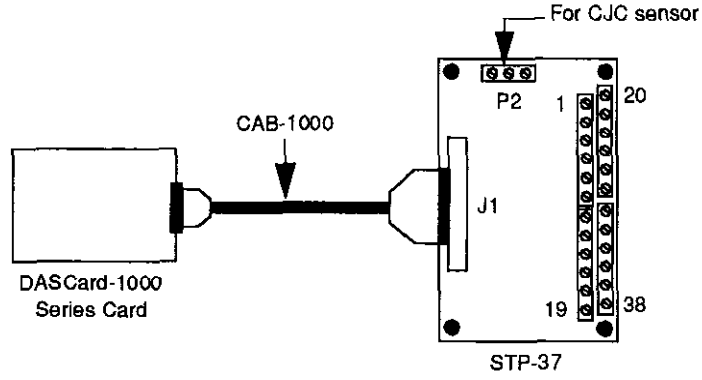
   The diagnostics utility displays information about your DASCard-1000 Series card, including the base address and interrupt level assigned by PCMCIA Card Services. If either the base address or interrupt level displayed is being used by another device in your system, load the Enabler again using command-line options to select an unused base address or interrupt level. Refer to Chapter 3 of your *DASCard-1000 Series User's Guide* for information.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

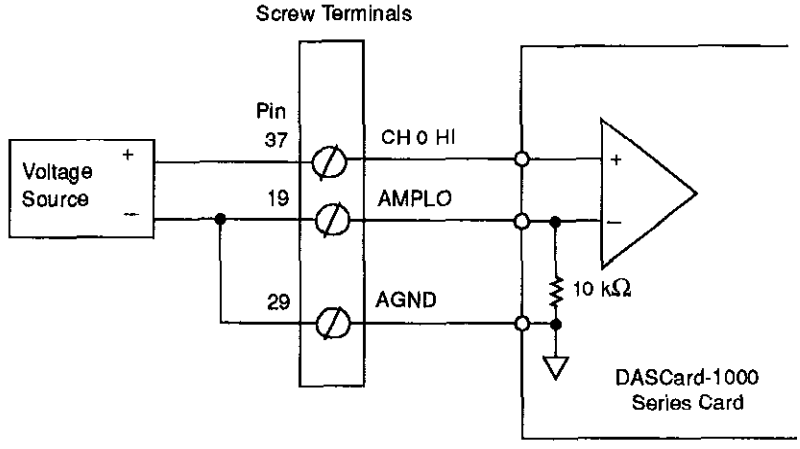
➨ Connect a signal to the card.

If you need help during this procedure, refer to Chapter 4 of your *DASCard-1000 Series User's Guide*.

1. Attach an STP-37 screw terminal panel to the DASCard-1000 Series card, as shown. If you are using an EXP-1600 expansion accessory, refer to Chapter 4 of your *DASCard-1000 Series User's Guide* for cabling information.



2. Wire an analog input signal to channel 0 of the STP-37, as shown. If your configuration differs, refer to Chapter 4 of your *DASCard-1000 Series User's Guide* for wiring information.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

➨ **Verify that the card and software are working properly.**
If you need help, refer to your *VTX User's Guide* or to the online help.

1. Start Windows, then start Visual Basic by double-clicking the Microsoft Visual Basic icon in the Keithley VTX window. A new form appears.



2. Double-click the VTX DAS control icon in the Visual Basic Toolbox to place the control in the middle of the Visual Basic form.
3. Make sure that the DAS control is selected by clicking it once with the mouse. While pressing and holding down the left mouse button, use the mouse to drag the DAS control to the left side of the form.

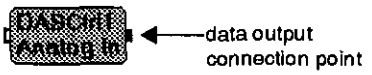


4. Double-click the VTX Text control icon to place the control on the form.
5. Click the DAS control once to select it, press **F4** to display the Properties window, and double-click the ProcessSrc property in the Properties window until your DASCard-1000 Series card name appears.
6. Click the Text control once to select it, press **F4** to display the Properties window, and double-click the Process property in the Properties window until the Grid process appears.
7. Click the Text control again to select it, and use the mouse to drag one of the corner sizing handles until the Text control is large enough to hold several samples.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

8. Connect the data output connection point of the DAS control to the data input connection point of the Text control, as follows:

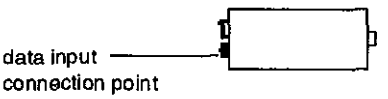
   – Position the cursor over the small, dark rectangle on the right side of the DAS control. This rectangle is called the *data output connection point* of the DAS control.





   – When the cursor changes to an arrow with a wiring icon, press and hold down the left mouse button.

   – When the arrow disappears, drag the wiring icon to the small, dark rectangle on the left side of the Text control. This rectangle is called the *data input connection point.*



   – When the arrow with the wiring icon reappears, release the left mouse button.

   You should see a solid line that connects the two controls together.

9. Run the program by choosing Start from the Visual Basic Run menu.

   If your card and the software are working properly, the program displays the data from channel 0 in a grid. If data is not displayed or if an error message appears, refer to Chapter 7 of your *DASCard-1000 Series User's Guide*. If you cannot resolve the problem, call (508) 880-3000 for technical support.

Now that you've verified that your card and software are working properly, you can configure the card and software according to your needs and build a more sophisticated application using VTX. For a VTX tutorial, refer to Chapter 2 of your *VTX User's Guide*. Refer to the VTX online help for detailed information.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Standard Software or ASO Software Quick Start

➨ **Install the software.**
If you need help during this procedure, refer to Chapter 3 of your *DASCard-1000 Series User's Guide*.

1. Insert disk #1 of the standard or ASO software package in the appropriate disk drive.
2. Start Windows, if necessary.
3. *If you are using Windows 3.1*:
   - From the File menu of the Program Manager, choose Run.

   If you are using Windows 95:
   - From the Windows 95 task bar, click Start and point to Run.
4. In the Run dialog box, enter the appropriate drive letter and the setup command. For example, if the disk is in drive A, enter

   ```
   a:\setup
   ```
5. Respond to the prompts.

   The installation program automatically creates a directory on the drive you specified and then copies all files, expanding any compressed files, to the new directory.
6. When the installation is complete, review the FILES.TXT and README.TXT files for important information.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

➨ Create a configuration file.

If you need help during this procedure, refer to Chapter 3 of your *DASCard-1000 Series User's Guide.*

1. *If you are using Windows 3.1*:



   – From the Keithley DASCard-1000 group window in the Program Manager, double-click the DASCard-1000 Series Configuration icon.

   If you are using Windows 95:

   – From the Windows 95 task bar, click Start, and then point to Programs, Keithley DASCard-1000, and DASCard-1000 Configuration.

   The DASCard-1000 Configuration panel appears.

2. From the Name list, select the appropriate card type.

   For this quick start session, the remaining default values are assumed. If your configuration differs from the default settings, refer to Chapter 3 of your *DASCard-1000 Series User's Guide* for help on configuring the card.

3. To save the configuration in the default configuration file (DAS1000.CFG), choose the Save option from the File menu.

4. To exit the DASCard-1000 Configuration panel, choose the Exit option from the File Menu or choose the Exit button.

➨ Install the Keithley Memory Manager (Windows users only).

If you need help during this procedure, refer to Appendix C of your *DASCard-1000 Series User's Guide.*

1. *If you are using Windows 3.1*:



   – From the Keithley DASCard-1000 group window in the Program Manager, double-click the Memory Manager Setup icon.

   If you are using Windows 95:

   – From the Windows 95 task bar, click Start, and then point to Programs, Keithley DASCard-1000, and Memory Manager Setup.

   The Keithley Memory Manager - Setup panel appears.

2. In the Desired Setting field, enter the amount of memory that your VTX applications will require (the default is 128K bytes).

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

3. Choose the Update button.
4. If you changed the default value, choose the Restart Windows button to ensure that the changes take effect immediately.

➨ Install PCMCIA Card and Socket Services.

If you are using Windows 3.1:

– Make sure that PCMCIA Card and Socket Services (PCMCIA standard 2.10 or higher) are installed. Typically, PCMCIA Card and Socket Services are loaded from your CONFIG.SYS file. However, many portable computers are shipped with PCMCIA Card and Socket Services already installed; in these cases, you may be unaware of the name of the Card and Socket Services or how they are used in your computer.

If you are using Windows 95:

– Install the CardWorks for Windows 95 software, which was shipped with your DASCard-1000 Series card, and restart your computer. Refer to the *CardWorks Quick Reference Guide* for information.

➨ Load the Enabler.

If you need help, refer to Chapter 3 of your *DASCard-1000 Series User's Guide*.

1. Exit Windows and return to DOS. (You cannot load the Enabler from the MS-DOS Prompt in Windows.)
2. Change to the directory containing the Enabler (KMENABLE.EXE) and enter the following at the DOS prompt:

   ```
   KMENABLE
   ```

   The Enabler requests a base address, interrupt level, and memory segment address for your DASCard-1000 Series card from PCMCIA Card Services.

➨ Install the card.

If you need help during this procedure, refer to Chapter 3 of your *DASCard-1000 Series User's Guide*.

1. Following proper antistatic techniques, unpack and inspect the card.
2. If necessary, remove the cover from the Type II, PCMCIA socket 0.
3. Insert the 68-pin PCMCIA bus connector end of your DASCard-1000 Series card into socket 0 until it makes contact.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

4. Replace the socket cover, if appropriate.
5. If your hardware does not support hot-swapping, you may have to reapply power to your DASCard-1000 Series card using the appropriate PCMCIA Card Services function.

➨ **Run the diagnostics utility.**

If you need help during this procedure, refer to Chapter 3 of your *DASCard-1000 Series User's Guide.*

1. Exit Windows and return to DOS, if necessary.
2. Change to the directory containing the diagnostics utility (KMINFO.EXE) and enter the following at the DOS prompt:

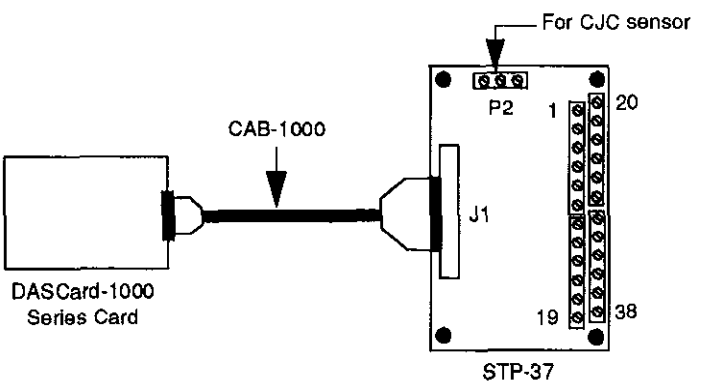
   ```
   KMINFO
   ```

   The diagnostics utility displays information about your DASCard-1000 Series card, including the base address and interrupt level assigned by PCMCIA Card Services. If either the base address or interrupt level displayed is being used by another device in your system, load the Enabler again using command-line options to select an unused base address or interrupt level. Refer to Chapter 3 of your *DASCard-1000 Series User's Guide* for information.

➨ **Connect a signal to the card.**

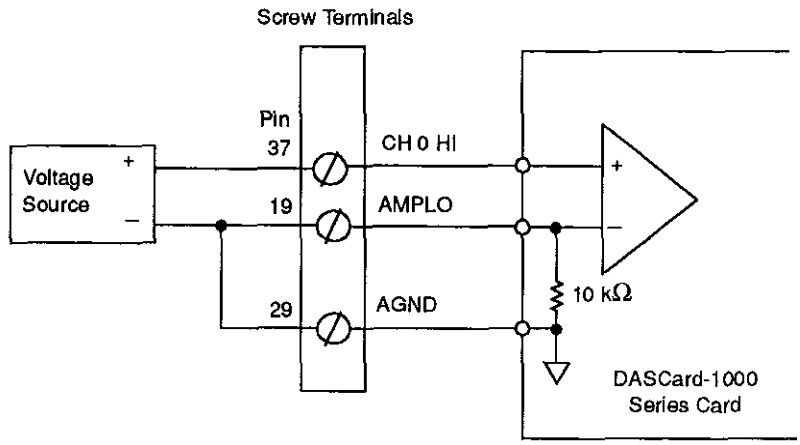
If you need help during this procedure, refer to Chapter 4 of your *DASCard-1000 Series User's Guide.*

1. Attach an STP-37 screw terminal panel to the DASCard-1000 Series card, as shown. If you are using an EXP-1600 expansion accessory, refer to Chapter 4 of your *DASCard-1000 Series User's Guide* for cabling information.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

2. Wire an analog input signal to channel 0 of the STP-37, as shown. If your configuration differs, refer to Chapter 4 of your *DASCard-1000 Series User's Guide* for wiring information.



➨ **Verify that the card and software are working properly.**
If you need help during this procedure, refer to Chapter 5 of your *DASCard-1000 Series User's Guide* and to the online help provided for the DASCard-1000 Series Control Panel.

1. *If you are using Windows 3.1*:



– From the Keithley DASCard-1000 group window in the Program Manager, double-click the DASCard-1000 Series Control Panel icon.

If you are using Windows 95:

– From the Windows 95 task bar, click Start , and then point to Programs, Keithley DASCard-1000, and DASCard-1000 Control Panel.

The Open Configuration File panel appears.

2. Choose the OK button to use the default configuration file (DAS1000.CFG).

The DASCard-100*x* Test & Control panel appears, where DASCard-100*x* indicates the model of your DASCard-1000 Series card. This panel allows you to acquire, display, and transfer analog input data and to set up and display the analog input parameters.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

3. Read the data from channel 0 by clicking the Start button.

   If your card and the software are working properly, the program displays the data from channel 0. If data is not displayed or if an error occurs, refer to Chapter 7 of your *DASCard-1000 Series User's Guide*. If you cannot resolve the problem, call (508) 880-3000 for technical support.

4. When you are finished using the control panel, choose the Exit option from the File menu.

Now that you've verified that your card and software are working properly, you can configure the card and software according to your needs and build your application using the Function Call Driver. Refer to the source code examples and the EXAMPLES.TXT file in the installation directory for programming tips. Refer to your *DASCard-1000 Series Function Call Driver User's Guide* for detailed information.

© Copyright Keithley Instruments, Inc., 1996.

MetraByte is a trademark of Keithley Instruments, Inc. All other brand and product names are trademarks or registered trademarks of their respective companies.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP