



**ZTEC Instruments**  
 7715 Tiburon Street NE  
 Albuquerque, New Mexico 87109  
 (505) 342-0132  
 (505) 342-0222 FAX  
 www.ztec-inc.com

## ZT1428VXI Getting Started Manual

The ZT1428VXI Getting Started Manual is organized into the following sections.

Introduction					
Before		You			Begin
Setting	User	Defined		ID	Information
HP		E1428A			Compatibility
Software	Drivers	and	Soft	Front	Panels
The		Product			CD

### **Utilities**

This provides installations for the “ZT1428VXI User ID Utility” and “ZT1428VXI Flash Utility” applications.

The “ZT1428VXI User ID Utility” application allows you to easily change the instrument ID information on the ZT1428VXI. By default, this ID is set to ZTEC Instrument specific values. However, this information is easily changed to fit your needs. In particular, this information must be changed to HP specific values in order for the ZT1428VXI to emulate the HP E1428A.

The “ZT1428VXI Flash Utility” application allows field upgrades of the DSP firmware.

### **Contacting Technical Support**

#### **Introduction**

The ZT1428VXI Getting Started Manual and the product CD contain the resources needed to get you up and running with the ZT1428VXI. This manual is intended for customers using Microsoft Windows version 95, 98, 2000, and XP. For customers using other operating systems, please review this document and then contact ZTEC Instruments for additional assistance if needed.

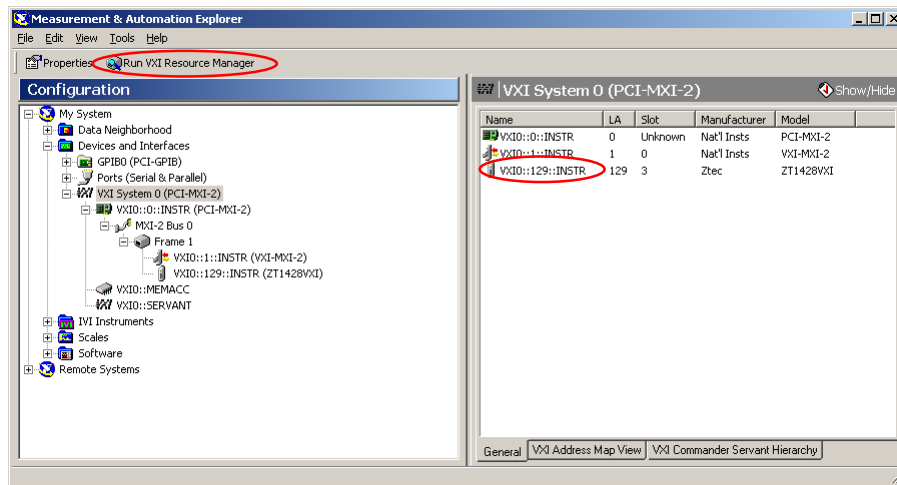
Please note that the ZT1428VXI is a drop-in replacement for the Hewlett-Packard (Agilent) E1428A digital storage oscilloscope. As such, the ZT1428VXI is compatible with many Agilent and other 3<sup>rd</sup> party products originally designed for the HP E1428A. Many of these products, which can be freely downloaded from the Word

Wide Web, are provided on the product CD for your convenience. For any questions or problems with these products working with the ZT1428VXI, please contact ZTEC Instruments using the technical support information provided at the end of this document.

## Before You Begin

Before you begin programming your ZT1428VXI, you must first configure your hardware. This is done by running the Resource Manager provided with your VXI controller. Please refer to your VXI controller documentation for more details.

If you are using a National Instruments VXI controller, Resource Manager is found in the Measurement and Automation Explorer (NI-MAX). The below figure shows a ZT1428VXI properly configured using NI-MAX and a National Instruments PCI-MXI-2 VXI controller. In this example, “VXI0::128::INSTR” is the VISA resource given to the ZT1428VXI.



## Setting User Defined ID Information

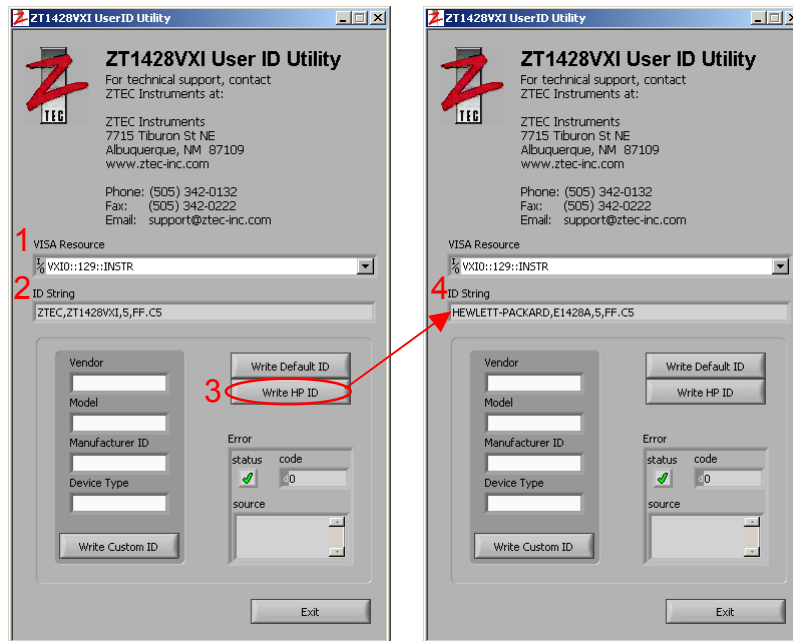
Each VXI instrument has unique user ID information. By default, the ZT1428VXI user ID is set to values specific to ZTEC Instruments. However, it is possible to programmatically change this user ID information. Changing user ID information might be desirable for a number of reasons, such as setting the user ID to your own company standards.

The ZT1428VXI User ID Utility provided on the product CD should be used for quick and easy setup of user ID information. To install the ZT1428VXI User ID Utility, run the setup program found in the “ID Utility” directory of the product CD. Once the user ID information is changed, power cycle the VXI chassis and run Resource Manager for your system to recognize the change in the instrument.

## HP E1428A Compatibility

In most cases, the ZT1428VXI can be used in existing HP E1428A applications. However, some of these applications require the ZT1428VXI to provide HP specific user ID information. If your application requires user ID compatibility, please run the ZTE1428VXI User ID Utility and follow these steps:

1. In the “VISA Resource” control, select the VISA resource assigned to the ZT1428VXI by the VXI resource manager. In our example, “VXI0::129::INSTR” is the VISA resource provided by NI-MAX.
2. Once the VISA resource is entered, the “ID String” indicator should show “ZTEC,ZT1428VXI,...” as the instrument ID.
3. To change the ID information to emulate a HP E1428A, simply click the “Write HP ID” button.
4. The “ID String” indicator will now show “HEWLETT-PACKARD,E1428A,...” as the instrument ID.



5. To reset the instrument to its default ID, simply click the “Write Default ID” button.
6. When done, simply click the “Exit” button.

## Software Drivers and Soft Front Panels

For experienced VXI users, you may begin by using the manual and drivers provided with the product CD. Please note that some drivers and soft front panels might require the ZT1428VXI to return HP E1428A user ID values. If that is the case, please change the user ID information as outlined in the HP E1428A Compatibility section of this document.

For first time users, please set the instrument ID as described in the HP E1428A Compatibility section of this document. Then, install the HP E1428A VXI Plug and Play instrument driver found in the “Drivers\VXI Plug and Play Driver” directory of the product CD. Once installed, run the Soft Front Panel which is found on the Windows Start Bar:

Start>>VXIPNP>>HP E1428 Dig. Oscilloscope (32-bit SFP)

All the files for this driver will be installed in the “C:\VXIPNP\WinNT” directory on your hard drive. These drivers can be used in a variety of programming environments, including National Instruments LabWindows/CVI and LabVIEW. Support for C and Basic is also provided.

## The Product CD

For a description of the directory contents, please see below:

### ***Drivers***

Installations that provide all the files needed (including source code) for drivers in LabWindows/CVI, LabVIEW, IVI, and Basic. For a fully functional soft front panel, it is recommended to install the VXI Plug and Play driver. All drivers can be installed on the same machine without any conflict.

The CVI, LabVIEW, and IVI drivers can be found on the National Instruments web site at:

<http://search.ni.com/query.html?lk=1&col=alldocs&nh=500&rf=3&qf=&pw=595&qp=%2BContentType%3AInstrumentDriver&qt=1428&layout=IDNet>

The HP (Agilent) Plug and Play driver can be found on the Agilent web site at:

[http://we.home.agilent.com/cgi-bin/bvpub/agilent/expandedresults/cp\\_ExpandedResults.jsp?NAV\\_ID=-536890174.536881232.03&LANGUAGE\\_CODE=eng&contentType=Editorial&entityType=ED39&COUNTRY\\_CODE=ZZ](http://we.home.agilent.com/cgi-bin/bvpub/agilent/expandedresults/cp_ExpandedResults.jsp?NAV_ID=-536890174.536881232.03&LANGUAGE_CODE=eng&contentType=Editorial&entityType=ED39&COUNTRY_CODE=ZZ)

### ***Examples***

This provides an installation of a fully functional front panel for use in LabVIEW. Both the executable and source code are installed in the "C:\Program Files\ZT1428vxi" directory. To view the source code, simply run the VI library named "ZT1428VXI\_ScopeApplication and ViTree R1\_3" and hit "CTL-." to abort execution.

### ***Manuals***

These are the original HP manuals for the E1428. For the most part, these manuals are valid for the ZT1428VXI. For a list of differences, please see the release notes that were shipped with your product. The manual can also be found at:

[http://ftp.agilent.com/pub/mpusup/vxi/E1428/.](http://ftp.agilent.com/pub/mpusup/vxi/E1428/)

### ***Utilities***

This provides installations for the "ZT1428VXI User ID Utility" and "ZT1428VXI Flash Utility" applications.

The "ZT1428VXI User ID Utility" application allows you to easily change the instrument ID information on the ZT1428VXI. By default, this ID is set to ZTEC Instrument specific values. However, this information is easily changed to fit your needs. In particular, this information must be changed to HP specific values in order for the ZT1428VXI to emulate the HP E1428A.

The “ZT1428VXI Flash Utility” application allows field upgrades of the DSP firmware.

### **Contacting Technical Support**

We are very interested to hear from you. Please do not hesitate to contact ZTEC Instruments technical support at:

ZTEC Instruments  
7715 Tiburon St NE  
Albuquerque, NM 87109  
[www.ztec-inc.com](http://www.ztec-inc.com)