

Voice Modem Installation and Removal Procedure

VTScada Alarm Notification System

These procedures are intended for users who intend to use the voice dial-out feature of the VTScada Alarm Notification System.

The procedures must be followed precisely to ensure proper modem installation.

The actions required to access the various Windows user interfaces described herein may differ somewhat between different Windows Operating Systems. These procedures were written specifically for Windows XP.

Caution: Proper modem installation and configuration can be difficult and time consuming. If you experience difficulties during modem installation, driver installation or VTScada Alarm Notification System, contact Trihedral Technical Support (1-800-463-2783) for assistance.

Equipment Selection

Trihedral staff has verified that the following devices and software versions will work with the VTScada Alarm Notification System running on version 9.1.09 and up.

Voice Modem	2003 Server	2008 Server	XP	Vista	7	8
Multitech MT9234ZPX-PCIE (PCI Express Internal Modem) *	X	X	X	X	X	TBA
Multitech MT9234ZPX-UPCI (Universal PCI Internal Modem) *	X	X	X	X	X	TBA
Zoom 3095 USB Modem - (Does not work well with pagers.)			X	X	X	TBA
AOPEN Fm56			X			TBA

* **Caution: Avoid Multitech modems with model numbers ending in -NV (no voice)**

Refer to Multitech's website for a list of product dealers

http://www.multitech.com/en_US/PRODUCTS/Families/MultiModemZPX

Before You Begin

- Ensure that the computer has been installed with the latest manufacturer's drivers for the sound card being used.
- If your VTScada version did not ship with an Ivona voice, check that a text-to-speech voice has been selected in the Speech Recognition dialog of the Windows Control Panel. Test the selected voice through the computer speakers.

Installation Procedure

If your VTScada application is running, stop the application and shut down VTScada before beginning this procedure. If VTScada is not already installed, it may be installed either before or after the modem installation.

1: Install the voice modem

Your modem will come with specific instructions to guide you through proper modem installation. This will include proper installation of the modem within the computer chassis, as well as proper installation of the modem drivers.

Follow the manufacturer's instructions exactly as written. If you have Internet connectivity, it is recommended that you download and install the most updated device drivers.

2: Verify modem driver has been installed correctly

Your modem driver installation must now be verified to ensure that the voice feature of the modem will work correctly.

Verify the voice feature as follows:

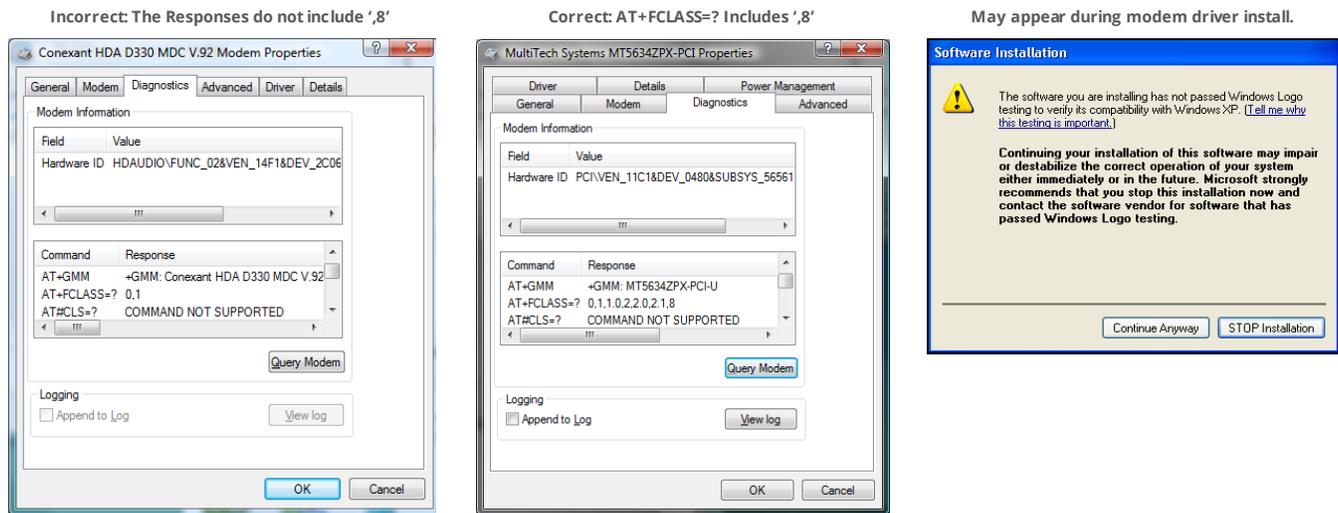
1. Access your Windows Control Panel.
2. Open Phone & Modem Options.

- If this is the first time that you have configured a modem in this computer, you will be prompted for location information. If so, complete this information and select OK. The Phone & Modem dialog box will open to the Dialing Rules tab.

Caution: Neglecting to complete the location information will cause your modem to function improperly.
- Select the Modems tab.
- Choose the modem you have just installed and click on Properties. The properties dialog box for your modem will open.
- Select the Diagnostics tab and click on the Query Modem button. When your modem responds, you will see a set of modem commands and responses as shown below. A modem that is correctly configured for voice will include a comma followed by the number eight (i.e.,8) within the responses from either the AT+FCLASS=? command or the AT#CLS=? command.

Note: If neither response includes an ',8' then it is not a voice modem. You will need to start over with an actual voice modem
- Close Phone & Modem Options.

3: Install the VTScada modem driver and service provider



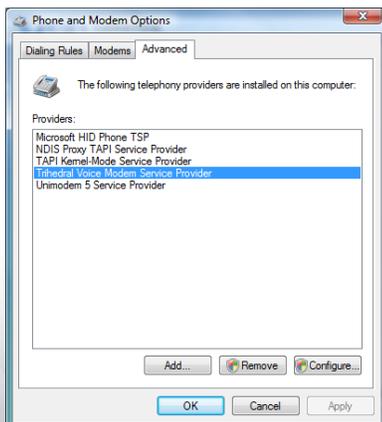
Install and start VTScada. Upon VTScada startup, the program will recognize that a new device was installed and attempt to install a wave bus enumerator, a voice modem wave device and a modem TSP (Telephony Service Provider). Depending on the settings of your operating system, you might be prompted with a 'Found new Hardware' popup. If so:

- Select 'Install Automatically' when prompted. Click 'Next'
- Select 'Not this time' when prompted to connect to Windows Update. Click 'Next'.

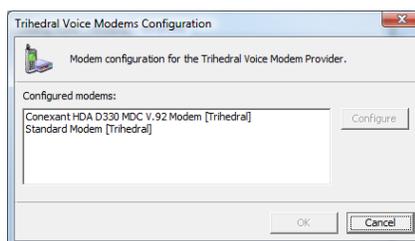
As part of this installation, you will see a popup titled 'Software Installation.' Select 'Continue Anyway' to allow installation.

Note: DO NOT select 'STOP Installation' or the VTScada modem drivers will not be installed.

Select 'Trihedral Voice Modem Service Provider'.



Your new modem must be listed.



4: Verify correct installation of VTScada voice modem TSP

Your VTScada voice modem TSP installation must now be verified to ensure the modem voice feature will work correctly with the VTScada Alarm Notification System.

1. Access your Windows Control Panel.
2. Select Phone & Modem Options. The Phone & Modem dialog box will open to the Dialing Rules tab.
3. Select the Advanced tab.
4. Verify that the 'Trihedral Voice Modem Service Provider' is listed.
Note: If not, your VTScada modem drivers have not been installed correctly. Contact Trihedral Support (1-800-463-2783).
5. Select 'Trihedral Voice Modem Service Provider'
6. Click on the Configure button. A 'Trihedral Modems Configuration' popup will show the modems associated with the Service Provider.
7. Ensure your new modem is listed.
Note: If not, your VTScada modem drivers have not been installed correctly. Contact Trihedral Support (1-800-463-2783).
8. Close Phone & Modem Options.

5: Verify correct installation of voice modem wave bus enumerator

Your VTScada voice modem wave bus enumerator must now be verified to ensure the voice feature of the modem will work correctly with the VTScada Alarm Notification System. This is done as follows:

1. Access your Windows Control Panel.
2. Select System.
3. Select the Hardware tab.
4. Select Device Manager.
The Device Manager dialog box should appear.
5. Verify there is a System device named 'Voice Modem Wave Bus Enumerator' as shown here.
Note: If not, your VTScada modem drivers have not been installed correctly. Contact Trihedral Technical Support (1-800-463-2783).
6. Close Device Manager

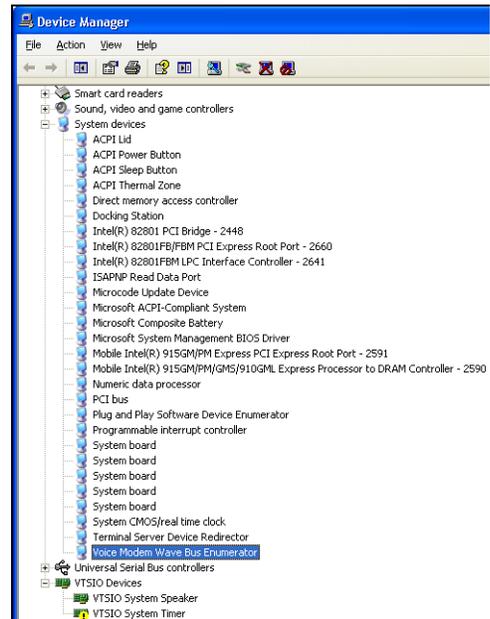
6: Verify installation of the voice modem wave device

Your VTScada voice modem wave device must now be verified to ensure the modem voice feature will work correctly with the VTScada Alarm Notification System.

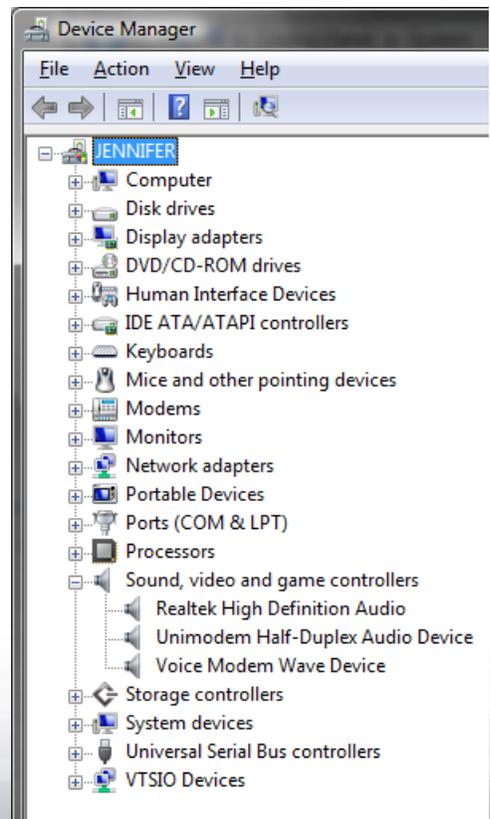
Verify the device as follows:

1. Access your Windows Control Panel.
2. Open 'System'.
3. If running Microsoft Vista, access 'Advanced System Settings'.
4. Select the Hardware tab.
5. Click on 'Device Manager'.
The Device Manager dialog box should appear.
6. Verify there is a 'Sound, video and game controllers' device named 'Voice Modem Wave Device' as shown here.
Note: If not, your VTScada modem drivers have not been installed correctly. Contact Trihedral Technical Support (1-800-463-2783).
7. Close Device Manager

'Voice Modem Wave Bus Enumerator' must be listed.



'Voice Modem Wave Device' must be listed.



7: Configure the VTScada Alarm Notification System

Your voice modem drivers and VTScada voice modem drivers have now been properly installed and configured. You are ready to configure the VTScada Alarm Notification System. See the VTScada Developers Guide (electronic version) included with your VTScada software for details on proper Alarm Notification System configuration.

Removing a Modem

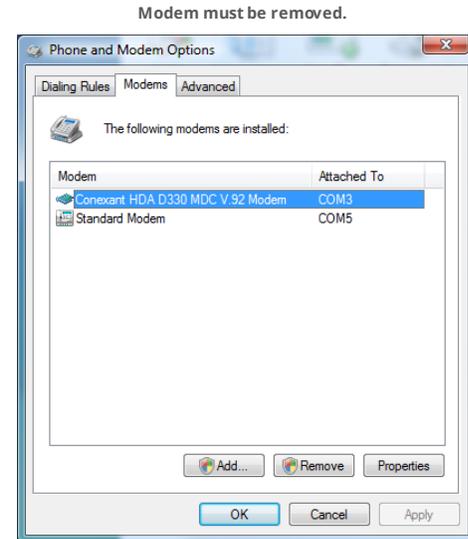
There are various reasons why a modem might need to be replaced. However, correct modem and driver removal is critical before a new modem can be installed.

Note: The procedure must be followed precisely to ensure proper modem and driver removal.

1: Remove the modem driver

Remove the modem manufacturer's device driver.

1. Access your Windows Control Panel.
2. Select Phone & Modem Options.
The Phone & Modem dialog box will open to the Dialing Rules tab.
3. Select the Modems tab.
4. Select the Modem to be removed.
5. Click on the Remove button.
The modem should now be removed from the list.
6. Close Phone & Modem Options.



2: Remove the modem from the computer chassis

1. Shut off your computer and physically remove the modem from the computer chassis.
2. Restart your computer

3: Verify the voice modem driver entries in the registry have been removed, deleting if necessary.

Note: Manually making changes to the Windows Registry may cause your Windows Operating System to become unstable and should only be attempted by advanced users. If you are not familiar with accessing and working within the Windows registry, contact Trihedral Technical Support (1-800-463-2783).

1. Create a system restore point
Refer to your Windows Help system for guidance on creating and using system restore points.
2. Open your registry editor.
3. Navigate to the registry folder shown below.
 My Computer
 HKEY_LOCAL_MACHINE
 SYSTEM
 CurrentControlSet
 Control
 Class
 {4D36E96D-E325-11CE-BF01-08002BE10318}

Note: Any sub-folders of the one indicated, are numbered 1000 or higher, refer to the VTScada modem TSP. As such, ONLY DELETE FOLDERS NUMBERED 1000 OR HIGHER. All keys within these folders will be deleted when the folders are removed.

Caution: If there are any existing folders with labels less than 1000, contact Trihedral Technical Support (1-800-463-2783).

The removal of the modem and its associated drivers should now be complete. You may install a new modem if required.

The folder highlighted in yellow must be removed.

