

Most campuses have been providing classrooms with multimedia-equipment and support for some time. These classrooms may have AMX™, Crestron™ or a combination of both types of room controllers. If these room controllers are at least 5 or more years old, the issue of remotely monitoring and controlling these rooms may be a problem.

TekPatrol™ is the Solution. TekVox offers a collection of products and software called TekPatrol. Our products allow simple remote management and control of audio and video equipment.

The TekPatrol collection includes:

- TekMonitor
- TekManager
- TekWizard
- TekControl
- TekTranslator



**TekMonitor** is at the center of TekPatrol. Each TekMonitor is an Ethernet-based, asset management tool providing equipment monitoring, security and control of audio visual devices. A TekMonitor maintains information about a device on its own and can send Email information about the device.

**TekManager** is an administrator program for asset management and monitoring of TekMonitors over the campus network.

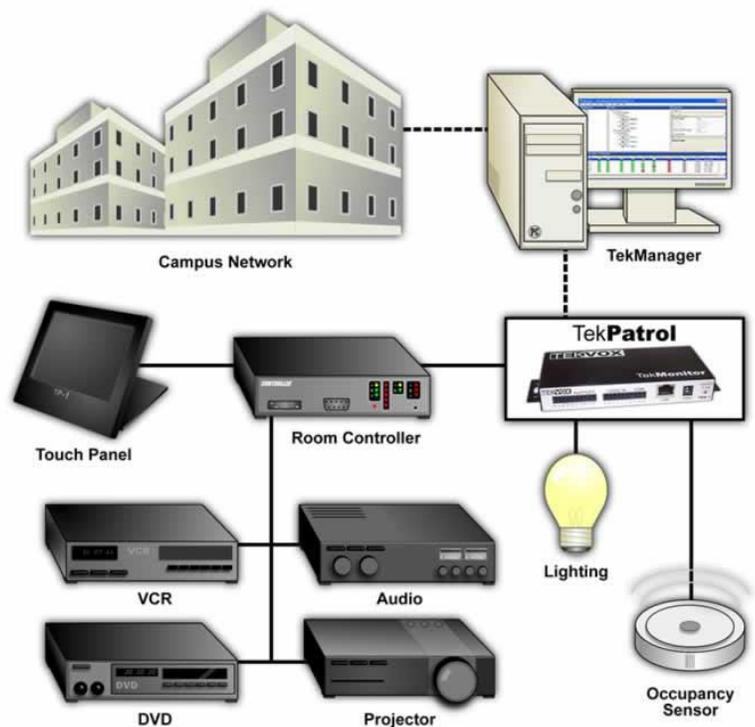
**TekWizard** works in conjunction with TekManager to make TekPatrol the “easiest to configure” asset management tool on the market.

**TekControl** provides an easy-to-configure software platform allowing end users to control a TekMonitor from the room computer.

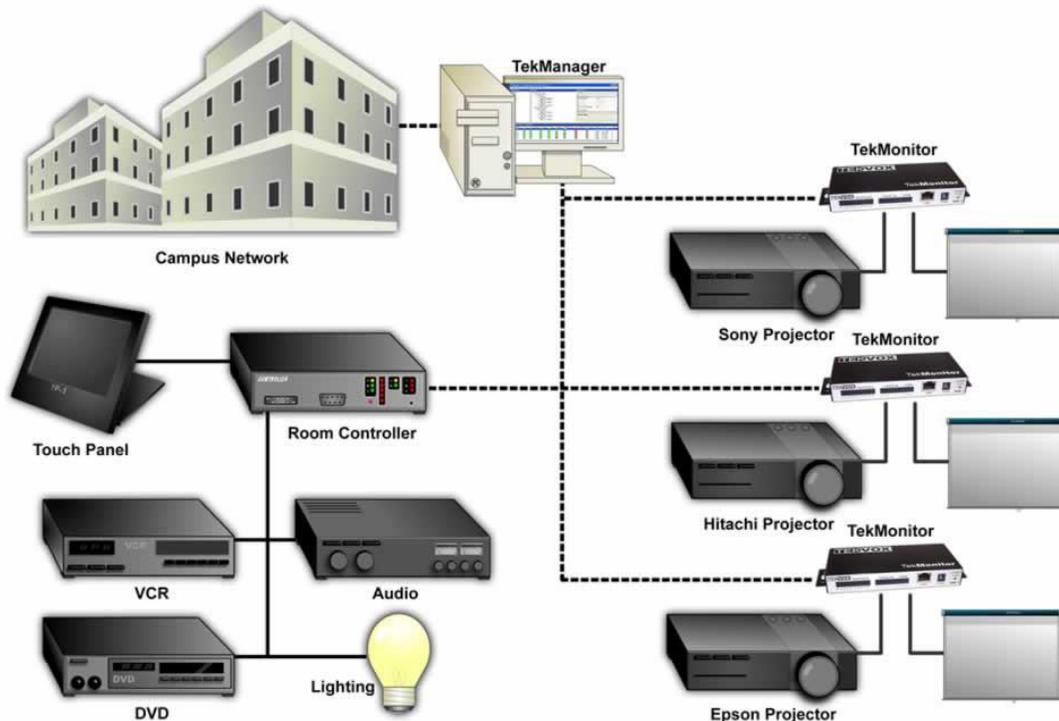
**TekTranslator** is AMX and Crestron software used in conjunction with a TekMonitor to allow remote asset management, monitoring and control of these room controllers by TekPatrol.

### Implementing a TekTranslator

To implement a TekTranslator, the control system must have an open serial port and the software in the control system must be modified. A TEK 1 is placed at the control system and a TekVox control system driver is loaded into the TEK 1. Specialized TekVox drivers can easily be created to match the parameters of the control system. For AMX, TekVox offers both a System Call for Access and a Module for NetLinx. For Crestron TekVox offers a TEK 1 User Symbol. It is the responsibility of the integrator or end user to modify the program and implement this feature. For a fee, TekVox will assist in the implementation of this feature and will modify or write from scratch any AMX or Crestron program.



Another feature of TekTranslator is its ability to convert the communication protocol of different display devices into one simple protocol. This allows an IP-based control system to communicate with different display devices using the same software for each device. For example; a conference room has three projectors and originally these projectors were all the same model. After a few years these projectors were replaced by different models. Using the TekVox solution, the control software would not have to be modified only a simple change of the driver in the TekMonitor is required.



## Benefits

- Improves equipment life by managing operational times
- Reduces maintenance and energy costs
- Adds reliable security to room devices
- Improves equipment reliability
- Increases Administrator productivity
- Easy to install

## Features

- Supports both AMX Access and NetLinx controllers
- Supports both Crestron X-Generation and 2-Series controllers
- Easy step-by-step system integration using TekWizard
- Effortless management of devices using a view-all navigation GUI
- Supports DHCP IP configuration using a proprietary auto-discovery method
- Automatic room controller clock updates
- Security management using a true hardware security detection method to eliminate false Email reports
- Monthly Email usage reports



## Case Study

A University requires the use of a room controller to interface with the Smart Technologies annotation software and DT770 touch panel. The room controller is an AMX NI-3000 and the touch panel interface is the AMX NXP-TPI/4. The standard solution from AMX is to connect the serial cable from the DT770 to the TPI/4 and from the front panel of the TPI/4 connect a serial cable to the PC. Using the front panel serial connector on the TPI/4 is not a very elegant solution and causes other problems. One of the problems occurs when starting the PC and the serial connection between the DT770 and the PC are not made through the TPI/4. This causes the PC to report an error and disable the serial port. Another issue is the noticeably degraded PC VGA image quality passing through the TPI/4.

To solve these issues, a USB KVM is utilized to switch the DT770 USB and VGA between the PC and TPI/4. The KVM is modified by TekVox to provide input selection and detection. When USB is used as the connection between the DT770 and the PC application, the application recognizes DT770 without creating errors or causing the user to scan for the DT770. Since the KVM connects the touch panel directly to the PC, bypassing the TPI/4, the image quality is greatly improved.

Now you are probably asking, "Why do I need a TEK 1"?

There is one problem with this implementation. When the KVM switches to the PC and connects the USB, the serial communication from the DT770 stops. This causes the DT770 to quit communicating with the TPI/4 and there is no way to get back to AMX control. This is where the TEK 1 comes in. By connecting a TEK 1 to the serial port of the NI-3000, and implementing TekTranslator and some AMX code to control the KVM, the TEK 1 is used to instruct the NI-3000 to switch back to AMX mode.

How does this work?

When the PC is off, the AMX program operates normally with the DT770. Once someone logs onto the PC, our TekControl software application executes and is detected by the TEK 1, which sends a command to the AMX controller that the PC is on. If the PC is on and the user selects full screen mode, the AMX software switches the KVM to PC. To get back to AMX operation the user only needs to double-click the TekControl icon in the PC tray or right-click this icon and select Room Controller from the TekControl menu. Other control options can easily be added to the TekControl menu to control the AMX.

## Benefits:

- Standard application, does not require specialized software
- Easy to implement
- Adds remote monitoring and control
- Improved PC resolution by switching directly to the PC output during full screen operation
- Synchronizes the AMX clock to TekMonitor which is synchronized to a campus PC. No more having to go around and change the AMX clocks when the time changes.

