A customer wants you to design a video system for a sanctuary that includes 4 or more displays and needs a simple method for control. So you spend hours designing a solution with an HDBaseT matrix, a control system and a touch panel interface. You give your customer the quote and you never hear back. You find out later someone installed the LCDs with just an HDBaseT splitter, because the cost of control system blew their budget.

A new solution by TEKVOX can help you simplify your installation and greatly reduce the cost of the system. By simply including our TekTouchPad with the TEK MHD44TP HDBaseT matrix you will be able to control the matrix and displays using just a single cable. A unique feature in the TEK MHD44TP allows special embedded RS232 routing commands to be sent to any display or broadcasted to all displays. To use broadcast commands all displays must be the same. Another solution is to place a TekMonitor at each display. This allows the displays to be different, remotely monitor the displays and in the future easy change out of displays.

Direct Operation

Control of the system is provided using the TekTouchPad LCD virtual button panel. This single gang button controller allows for easy configuration of scripts assigned to buttons. TekTouchPad has a single RS232 output connected to the TEK MHD44TP matrix control port.

For direct operation the TekTouchPad sends RS232 routing commands directly to displays via the TEK TPHD402PR HDBaseT receivers. For example, to send the Power On command to an LG LCD send "/+5/3:ka 00 01\0D.", where "5" is the broadcast command and "3" sets the baud to 9600. The command must end with a period. See page 14 in the manual.
www.tekvox.com/downloads/UM-TEKMHD44TP.pdf

Pressing "System ON" located on the TekTouchPad powers on the TEK MHD44TP and then waits 2 seconds before sending the command to route the PC to all outputs followed by the RS232 broadcast command to power on all of the LCDs. Selecting any of the source buttons (PC, Apple TV and HDMI AUX) routes the selected input to all outputs.

Pressing "System OFF" broadcast the power off RS232 command to all of the LCDs, sends the command to clear all routs, and then powers off the matrix.

In this system all LCDs must remain the same or at least have the same Power On and Off commands.
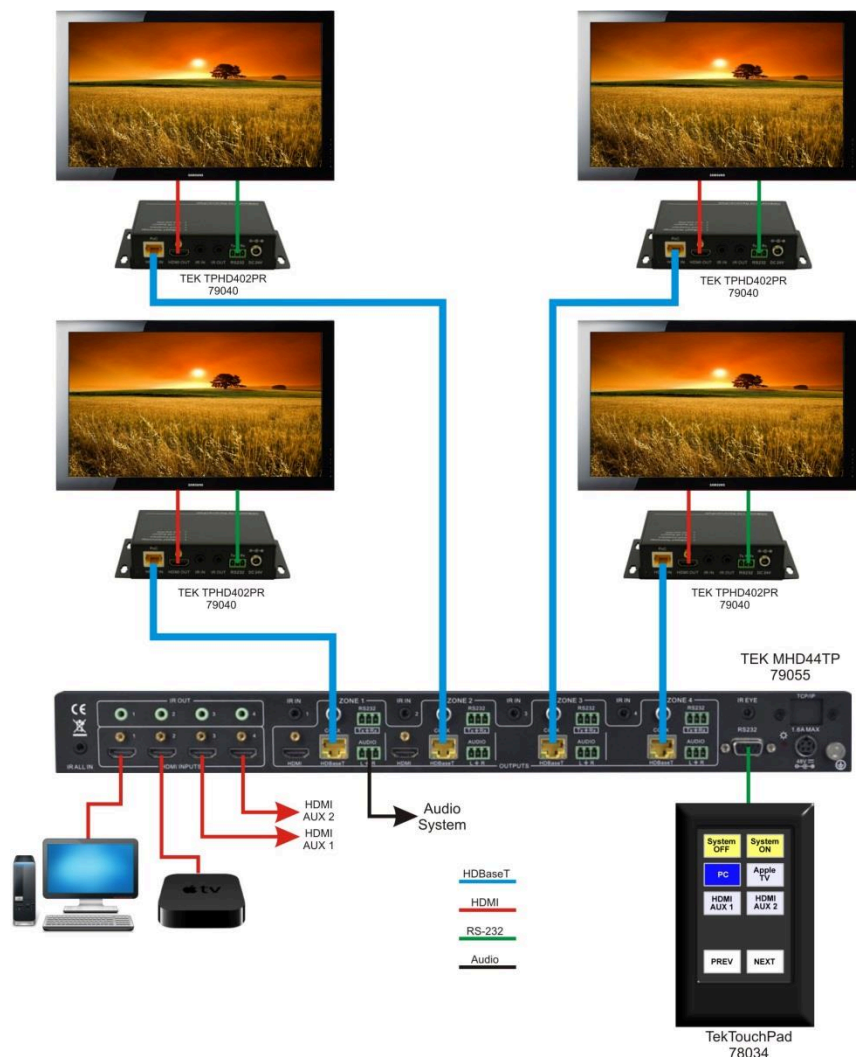
TEK 3 Operation

In this example TekMonitors (TEK 3) are located at each display to provide for protocol conversion. There are two drivers loaded into the TEK 3. A driver for the display is loaded into Serial port 1 (TekSecurity) to control the display. Serial port 2 is load with the driver "TekVox Serial Control". This driver allows for easy control of the TEK 3 by recalling Macro commands created in the TEK 3.

Using Macro commands in the TEK 3 allow easy command scripts to be created. A Macro command can be created to power on a projector, lower the screen and select the correct input on the projector. When setting up the system, all Macro commands numbers must match the function of the display they are controlling. If Macro command 10 is used to power on the projectors, then the same Macro command must be used for the LCDs.

When using TEK 3s, the TekTouchPad only needs to be programmed to recall Macro commands, and there is no need to look up what the actual commands to power on and off the display. This allows the TekTouchPad program to be used in all types of system with very little modifications. To send Macro command 10 using the TekTouchPad, use the command "/+5/3:MACRO,10\0D."

Other more advanced features can easily be using TEK 3s such as occupancy sensor, security, and system scheduling. By adding the campus network to the TEK 3, they displays can be remotely monitor and controlled.
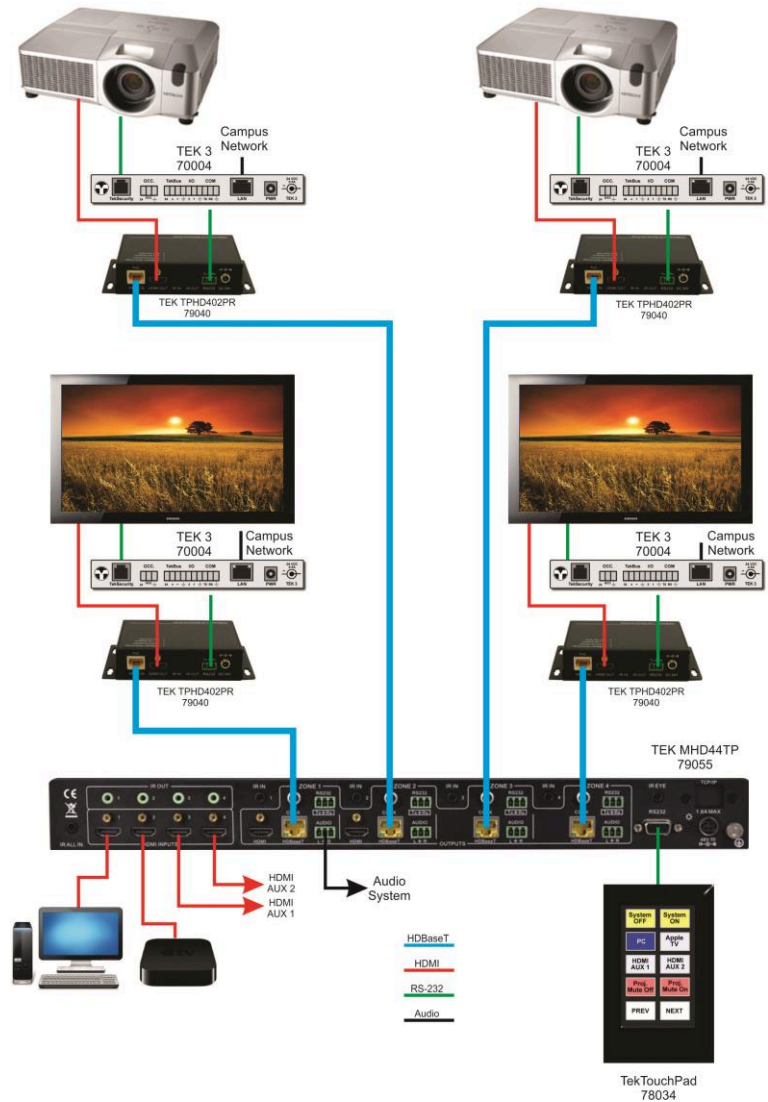
Conclusion

Using the TekTouchPad with the TEK MHD44TP or other series of TEKVOX HDBaseT matrix switchers allows for easy low cost integration of large multi-display system and with control. Systems can be installed with or without using TekMonitors. For easier integration and more flexibility in operation of the system, it is best to use a TekMonitor when designing these systems. The systems can be ordered preconfigured by TEKVOX allowing systems to be dropped into place with very little setup.

Discover the other benefits of using TekMonitors on your projects at www.tekvox.com .