TEKVOX Lecture Hall

White Paper

TEKVOX now offers an innovative approach to Lecture Hall audio video systems. This new approach gives the customer all of the features they want without destroying their budget. The system is sold in a fully tested kit form allowing for lower cost and easy installation. The kit can be purchased in different option and includes the following:

- TEKVOX TekTouchView™ Control system with Touchscreen confidence monitor
- TekFlex-16 or 32 Modular Seamless HDMI/HDBaseT matrix
- Multiple display support
- Two single cable HDBaseT cameras
- One instructor Auto tracking camera (Optional)
- TEKVOX ViewVault lecture capture system (Optional)
- DSP audio system (Supplied by Integrator)
- Easy interface for PC base videoconferencing like Zoom, Webex and BlueJeans
- Single network connection (Optional)
- Cat 6A Shielded HDBaseT cables and connectors
- HDMI and other required cables
- Remote control and monitoring

TekTouchView™ Control System

At the heart of the Lecture Hall is the new TEKVOX TekTouchView Control system with Touchscreen confidence monitor. This is a breakthrough type control system allowing the podium monitor to be used as touchscreen controller, confidence monitor and PC Annotation monitor. In the past these types of systems were very expensive and required a lot of extra hardware.

Unlike other systems that stream video to a touchscreen and may have a few seconds delay, TekTouchView is design for full motion full screen video. An overlay on the right side of the screen expands out for easy control and maintain full screen of the source. Blu-ray and camera controls are placed on an opaque overlay for easy control without blocking the view.
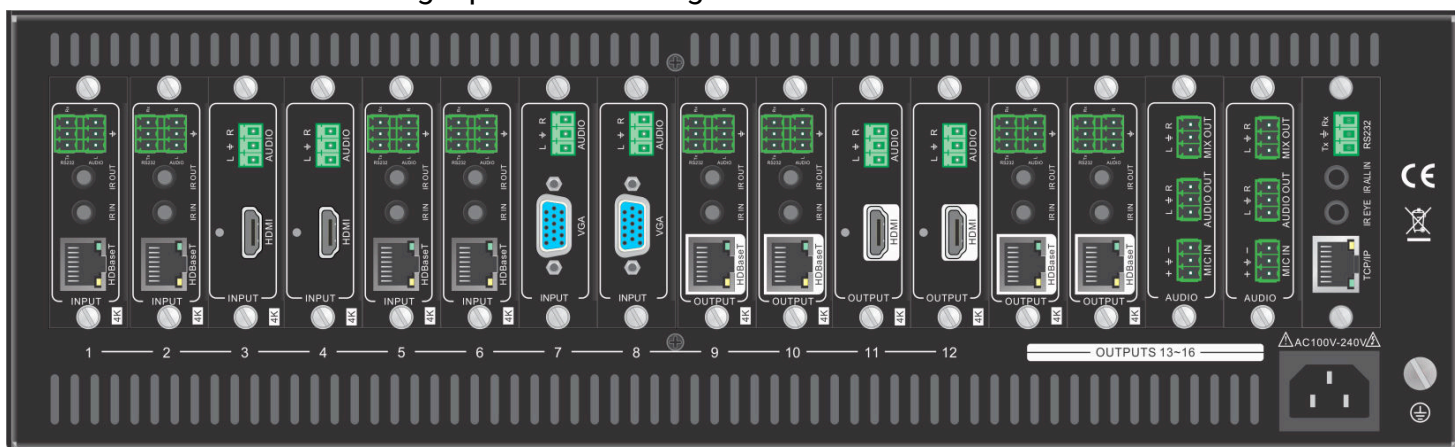
One of the biggest issues when installing controls systems that require several network connections is the University's network may not be ready or they only allow a single network drop. This can cause the system not to be operational after the installation is complete and people pointing fingers. To solve this issue the TekTouchView Control system has the ability to operate with two network connections, one for campus network and another for a local network. Although it might sound like a great idea to separate the local IP devices from the campus network, maintaining the system becomes a problem with typical control systems. With the TEKVOX TekTouchView Control system you are able to remotely manage it using a VNC viewer application and run device software on it to manage local devices. A great feature of the VNC viewer application allows you to see and control the system just like you are at the touchscreen. You can operate the system and its cameras from your office PC or Smartphone.

TekFlex

TekFlex is a unique modular seamless matrix switcher with 16 or 32 slots. Unlike other matrix switchers that use dedicated inputs and outputs, TekFlex uses slots and most of the slots can be either input or output. Other matrix switchers require HDBaseT receivers to have scalers at end-point devices, but with TekFlex each HDBaseT output card has a scaler allowing HDBaseT displays to be directly connected. Another nice TekFlex feature is RS232 control commands can be sent over the HDBaseT connection making it possible for single cable connections of devices.

Cameras

For ease of installation the HDBaseT HD camera only requires a single Cat-6A shielded cable. Just directly connect one cable from the camera to the TekFlex matrix and the camera is powered, controlled and provides video.

An auto-tracking is also available and is used to track a single instructor on stage. The camera is basically two cameras in one; a pan/tilt/zoom that follows the instructor and a fixed wide angle camera to determine the position of the instructor. During setup of the camera, software is used to set the tracking boundaries. Once set, the camera is placed into tracking mode and remains in this mode. There is no user control of this camera and only the HDBaseT cameras are used for positioning.

These cameras also support video streaming; just connect it to the campus network.
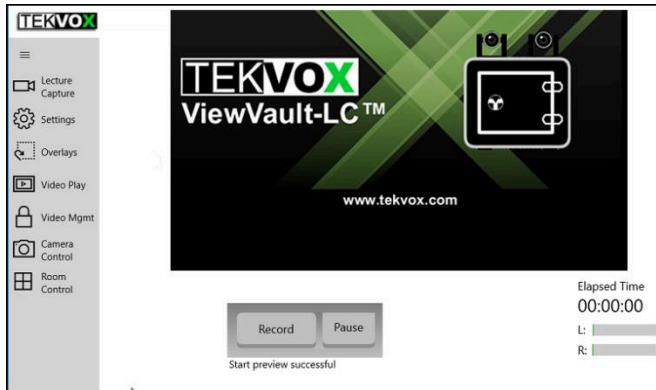

ViewVault Lecture Capture

TEKVOX ViewVault-Lecture Capture (VV-LC) is a new concept in classroom Lecture Capture. Unlike other systems that only record to USB or stream to a video streaming service, VV-LC records separate copies to both a USB and its internal drive and external drive. These methods guarantee that there is always a backup copy of the video. For other Lecture Capture systems that only record to USB, it is far too often for the video to get corrupted if the user removes the USB too early. VV-LC can also record to USB drives formatted to NTFS allowing very long recoding times depending on the USB drive space. VV-LC also has the capability to use the VNC viewer application for remote management.

ViewVault-Lecture Capture also has the capability to record at 4K using a quad Multiviewer. This allows four individual 1080P sources to be recorded on one singe video stream. Using the TEKVOX TekViewer 4K playback software a user can watch the video in quad view or select the individual video sources.

Another option of ViewVault-Lecture Capture is it has the capability to be operated from a 10" touchscreen. In this application the VV-LC can also be used to control a classroom including cameras. Just select Room or Camera Control and the control buttons are displayed at the bottom. Video screen shows what is being recorded as a confidence monitor.

PC Base Videoconferencing

More-and-more Universities are opting out of the expensive Video Codec hardware and going with PC based videoconferencing like Zoom, Webex and BlueJeans. With the seamless switching of TekFlex and easy integration of HDMI video and DSP audio to USB, TEKVOX makes it easy to add video and audio to the classroom PC. If you still prefer a video codec based system, TEKVOX makes this easy to perform People and Content with seamless switching.

Benefits of a TEKVOX Lecture Hall Audiovisual System

- 20% or more in cost savings compared to traditional audiovisual system
- Remote and VNC management included
- Project kit from TEKVOX for easy installation
- Advanced features only found in high-end audiovisual system
- Available using single network drop