



Germany's Fresenius University Uses TouchLink for User-Friendly AV Control

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Dirk Blotevogel
AV Engineer
Mertens AG

The Fresenius University of Applied Sciences in Germany boasts a 160-year tradition of science education. When the university decided to update the AV system in a media room at its Cologne campus, it hired AV integrator, Mertens AG to install the new system, with equipment and design help from Extron Electronics.

Client Needs

The university wanted its AV system to facilitate interactive dialogue between students and teachers, and to simplify the connection of modern media sources to the media room's new displays and speakers. According to Mertens AV Engineer Dirk Blotevogel, “Teachers and students were bringing in their own personal devices. The existing AV system was outdated and couldn't support the newer sources, in addition to the PC, wireless microphones, and Apple TV already in the media room.”

Biggest Challenge

Blotevogel says that his biggest challenge was user acceptance. “The system had to be simple and user-friendly enough to overcome teachers' objections to new, unfamiliar technology,” he says. “We were very happy to learn that we could deliver an easy to use system that met all the teachers' needs within our planned budget.”

Lectern and Equipment Cabinet

Blotevogel used a large lectern to house most of the system components. A TLP 710CV 7" Cable Cubby® TouchLink® Touchpanel is mounted within the top of the lectern, between two inset



Extron Electronics
INTERFACING, SWITCHING AND CONTROL

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interactive pen displays. An equipment cabinet forms the base of the lectern and contains a PC, two wireless microphone receivers, and the bulk of the Extron equipment.

To make the system easy to operate, Blotevogel combined a fully configurable TLP 710CV touchpanel with an IPL T S2 IP Link® Control Processor, allowing a presenter to control the AV system using a full-color touchscreen. The TLP 710CV also offers the convenience of an Extron Cable Cubby enclosure, providing a variety of AV signal, power and data connections in the same enclosure as the touchpanel.

An RGB-HDMI 300 A Stereo Audio to HDMI Scaler connects legacy analog sources to an Extron DXP 84 HDMI Matrix Switcher. In addition to HDMI and DVI, the matrix switcher provides high performance routing of the digitized and scaled signals. Two Extron technologies, EDID Minder® and Key Minder®, helped simplify integration. EDID Minder ensures all sources power up properly and reliably output content for display. For encrypted content, Key Minder authenticates and maintains HDCP encryption between devices to ensure quick and reliable switching.

The media room is equipped with a microphone for the instructor, so the system benefits from the inclusion of a DMP 64 ProDSP Digital Matrix Processor. Audio is separated from the HDMI signal and sent to the DMP 64 using an HAE 100 Audio De-Embedder. The DMP 64 provides advanced line and microphone audio matrix mixing with DSP in a small form factor that is ideal for lecture halls like this one. Wall-mounted Extron SI 3 speakers are combined with an MPA 152 amplifier

for high-fidelity sound. The compact, economical, and ENERGY STAR qualified amplifier helps the school reduce power consumption.

Configurable Touchpanel System Control

The most important part of the new AV system is the TouchLink-based control system. The TLP 710CV gives teachers centralized control of the entire system. University AV staff were able to configure the touchpanel to the needs of the lecturer using Extron's GUI Configurator and Global Configurator and free, ready-to-use themes. A full-motion video display and a built-in speaker allow video preview and monitoring. In addition, the TLP 710CV offers real-time feedback on AV system status.

The TLP 710CV also helps with space and connectivity since the Power over Ethernet feature eliminates the need for a local power supply, while the Cable Cubby design offers easy access to AV, data, and power connections.

Another reason Blotevogel chose Extron TouchLink-based systems is the TouchLink for iPad app, which allows instructors to use an iPad as an additional point of control. Users can move freely around the room with the app duplicating the TouchLink touchpanel interface on the iPad.

The Results

The university's new AV system meets both the school's and the teachers' needs. "Thanks to the easy-to-use TouchLink touchpanel, teachers are very comfortable using the system," Blotevogel says. Just as importantly, the system efficiently routes signals from the latest AV sources to the latest displays and speakers, creating a fully collaborative learning environment.



The TLP 710CV TouchLink Touchpanel flips up to provide complete access to system controls at the lectern.



The Extron DXP 84 HDMI Matrix Switcher and other equipment conveniently mounted in the lectern.

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