



Southwestern University School of Law

A prosecutor faces the traditional challenge of convincing the jury that the defendant on trial is guilty beyond a reasonable doubt. But the courtroom housing the trial is not traditional by any means. In this forum, the prosecutor has the capability of exhibiting a crucial piece of evidence through an array of digital displays, positioned at key locations throughout the courtroom. Everyone present, particularly the jurors, views this evidence close-up and with all of its native clarity. The result: a highly compelling presentation with maximum impact.

This high technology courtroom is representative of an ever-increasing number of state and local courts throughout the US, utilizing advanced A/V and IT functionality. One such facility in an academic setting is the Julian C. Dixon Memorial Courtroom and Advocacy Center at Southwestern University School of Law in Los Angeles. Intended to serve as a model for jury and appellate courtrooms of the future, this center will provide law students with the capability to leverage A/V and IT technologies for effective advocacy and litigation in tomorrow's courtrooms. In addition to serving as an important venue for teaching and training, the center houses actual court sessions and is also a community resource for attorneys, judges, and court administrators.



Photo Courtesy of Southwestern Law School



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A State-of-the-Art Legal Center

The Dixon Courtroom and Advocacy Center features an extensive lineup of Extron equipment, including matrix switchers, HSA (Hideaway™ Surface Access) enclosures, distribution amplifiers, switchers, and video scalars. Collectively these products provide a major portion of the underlying infrastructure for the center's highly sophisticated A/V operations.

The centerpiece of the Dixon Courtroom and Advocacy Center is the jury trial and appellate courtroom. Adjoining the courtroom is the jury deliberation room, as well as a small conference room as part of the judge's chambers. In addition, an Alternative Dispute Resolution (ADR) suite, comprising a conference room and two interview rooms, is devoted to conferences and settlement negotiations. Each


Above: The building housing the Dixon Center was originally the Bullocks Wilshire department store and is listed on the National Register of Historic Places.

Left: The jury trial and appellate courtroom features plasma displays that remedy sight line problems.

room has been equipped for various A/V presentation needs. The building housing this center was originally the Bullocks Wilshire department store (opened in 1929), and is listed on the National Register of Historic Places.

A central control room, directly adjacent to the courtroom, ties together the technical operations and A/V signal distribution for all rooms. Altogether, the legal center boasts the following A/V and IT capabilities:

- Audio and video distribution throughout the facility
- Plasma displays for presentation of evidence, multimedia content, videoconferencing, and camera feeds
- LCD monitors at strategic locations for personalized viewing of evidence, electronic documents, and presentations
- Comprehensive audio systems and optimized acoustic treatments

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- Multimedia and Web-based evidence presentation
- Electronic distribution of legal materials including appellate briefs
- Local computer-video, power, data, and phone connectivity
- Videoconferencing for remote testimonies, depositions, court appearances, settlement negotiations, etc.

Uniquely Complex and Sophisticated A/V System Design

For the design and specification of the Dixon Center's A/V operations, Southwestern collaborated with Martin Gruen of Applied Legal Technologies and Fredric Lederer, Chancellor Professor of Law and Director of the Courtroom 21 Project at College of William & Mary School of Law. ExhibitOne Corporation served as the systems integrator for this project, implementing the equipment acquisition, installation, set-up, and support of the A/V operations.

Courtrooms augmented with A/V capabilities require effective signal distribution and processing solutions to meet the day-to-day needs of mission critical applications with con-

sistent reliability and robustness. According to ExhibitOne, Extron equipment was selected for their "reliability, benchmark products, size, price, and signal quality in meeting specifications." Gruen, who has specified Extron products for several other courtroom installations, commented, "I've been very comfortable with the overall performance of Extron products." He noted further, "It's a nice feeling to know that you can put equipment into the system and know that it's going to work properly."

According to Gruen, the specific requirements for the Dixon Center were unprecedented, and therefore, particularly challenging given the sheer scale and complexity. The A/V infrastructure for the Dixon Center would have to fulfill the needs of not only a fully functioning courtroom, but also a classroom. Comprehensive audio and video processing and distribution was necessary so that the facility could accommodate live proceedings and conferences, both within the center and with remote participants via videoconferencing. Audio and video would have to be distributed to classrooms throughout the campus, so that students can remotely monitor mock trials,



The HSA 822 facilitates various A/V connections for the jury foreman.

jury deliberations, settlement negotiations, and more.

With the necessity to design the A/V foundation that would meet all of the needs of instruction and legal proceedings, Gruen noted that the audio and video needs for the Dixon Center were pushing the envelope well beyond that of previous, advanced technology courtroom projects. "What we have here at Southwestern is really unsurpassed throughout the country," commented Gruen.

Extron Equipment Provides the Foundation for A/V Distribution, Signal Processing, and Access

Essential to successful implementation of the center's A/V operations was the ability to flexibly route video, computer-video, and audio to any room, display, or recording/documentation device. Two Extron matrix switchers were selected for this purpose, the Extron CrossPoint Plus 3232HVA for distribution of computer-video, and the Extron MAV 3232 Composite for composite video routing of camera feeds throughout the center. Both matrix switchers are situated in the control room of the center. Each offers the ability to distribute any of 32 input sources to any of 32 output destinations.



Top: Alternative Dispute Resolution (ADR) room
Right: The judge's bench and witness stand.





The Extron CrossPoint Plus 3232 HVA is used to distribute computer-video throughout the Dixon Center and to classrooms throughout the campus.

The matrix switchers significantly exceed the requirements of the Dixon Center, but the intention is to enable video and audio distribution to classrooms throughout the law school, each of which features advanced A/V and IT capabilities of their own, as well as additional areas of the Bullocks Wilshire building. The matrix switchers enable evidence, multimedia presentations, video, and live camera feeds from the center to be shared with professors and students as valuable resources for education, as the students monitor mock proceedings and conferences.

Extron HSA products offer convenient connectivity so that the users (judge, counsel, students, instructors, etc.) can easily tie their laptops into the center's sophisticated A/V resources. In the courtroom, nine HSA 200S units have been installed at locations where laptop computer-video, power, and data connectivity are likely, including the plaintiff and defendant seating areas, judge's desk, witness stand, and the clerk's desk. In the ADR conference room, three **HSA 400** and four **HSA 402** units allow for laptop power, data, and phone access, as well as computer-video hookup for presentations. For the jury deliberation room, an **HSA 822** with various Architectural Adapter

Plates (AAPs) facilitates various A/V connections for the jury foreman, including laptop power and data, as well as audio and video to accommodate a document camera, VCR, and DVD player for viewing evidence. Similarly, an HSA 822 is used in the small conference room for the judge.

In addition to the HSAs and matrix switchers, several Extron distribution amplifiers and VGA switchers are in the system. The Extron **CVDA 6 MX Quad** Composite Video Distribution Amplifiers are used for video distribution from 13 video cameras. The Extron **SW VGA Series** switchers provide local autoswitching for computer-video sources and document cameras. Video signal processing to ensure compatibility and optimized picture quality is provided by the Extron **System 75C** Switcher with Built-In Video Scaler and two **DVS 204** Digital Video Scaler units. An Extron **MVP 104GX** Multi Video Processor enables display of multiple video sources for videoconference applications.

"I've had many years of past experience with Extron products and have always been pleased with their reliability and functionality," commented Keith Evans, Audio-Visual


Technologies Specialist for the Dixon Center. "In our very sophisticated world of A/V operations, I feel confident in stating that Extron products are serving in many of the most important roles for our facility."

Video Displays Everywhere

Perhaps the most visible aspect of the Dixon Center's A/V operations is the nearly ubiquitous presence of flat panel displays. These displays can play a key role in the presentation of evidence, as well as the shared viewing of documents. In the Dixon Center courtroom, six LCD monitors are located in the jury box, each shared between two jurors. LCD monitors also figure prominently in the ADR room, with seven displays on the conference table for viewing of electronic presentations, documents, or evidence. A total of 23 LCD displays have been installed throughout the center, with three of them serving double duty in the courtroom as A/V system control panels and computer-video monitors.

The courtroom also features a total of six plasma displays. In addition to the four units installed on the support columns, a plasma display is located behind the judge, and an interactive display is situated on a mobile cart. Plasma displays are also used in the judge's chamber, ADR room, and jury deliberation room. They serve multiple purposes, including evidence viewing, multimedia presentations, and videoconferencing.

The Vital Role of A/V Technology in the Courtrooms of Tomorrow

Regarding the integration of A/V technologies into courtrooms, Fredric Lederer has written that "Lawyers who wish to win have little choice but to investigate the potential offensive and defensive options supplied by legal technology. Increasingly, for many cases, technology will not be an option but a necessity." The Dixon Courtroom and Advocacy Center gives law students, as well as those already in the legal profession, a special opportunity to learn how to effectively employ advanced A/V courtroom technologies to help optimize their advocacy, litigation, and alternative dispute resolution skills. 



HSA 200S