



Adelaide Convention Centre Simplifies AV Operations with Extron DMP 128 and XTP Systems

“When we considered Extron against its competition, we came to the conclusion that Extron was the best fit as it met the ACC’s technical demands and had the flexibility they required.”

Neil Mackenzie
Consulting Engineer at Aurecon

The Adelaide Convention Centre, ACC, overlooking the Torrens River in the heart of Adelaide, South Australia, proudly stands as Australia’s first purpose-built convention facility. In use since 1987, its operations employ more than 400 staff at 700 events annually. It is estimated that the ACC has brought over \$1 billion Australian dollars into the state’s economy over its working lifetime.

The ACC is currently in the midst of a \$400 million renovation and expansion project on its multi-building campus. Completed in March 2015, the new West Building has added 21 meeting rooms and four exhibition halls, dramatically expanding the ACC’s capability to service major clients.

Extron Solution Optimizes AV System Flexibility

The West Building’s meeting rooms and exhibition halls are all designed to operate with flexible configurations. Three halls can combine into one large venue, four small meeting rooms can combine into two medium or one large, and everything can change from day to day. The ACC wanted an audio-visual solution that would drastically reduce the labor costs and turn-around times, making the transition from conference to cocktail mode as simple as technologically possible. This required automated handling, processing, and distribution of video and audio. Ideally, the system would be controlled from an intuitive touchscreen interface that customers and casual employees could use with confidence and ease.

Neil Mackenzie, Consulting Engineer at Aurecon, became involved early on in the process; “We met with the ACC in order to understand what they wanted in terms of meeting room configuration,



Extron Electronics
INTERFACING, SWITCHING AND CONTROL



The XTP Systems enable video and audio to move effortlessly around the building, with control and monitoring via Ethernet.

and how they intended to use them. They had locations where they proposed to mount screens, projectors, and lecterns. They already had some cabling installed, but hadn't designed a system around the infrastructure they had. We looked at a number of different AV options," he reports. "When we considered Extron against its competition, we came to the conclusion that Extron was the best fit as it met the ACC's technical demands and had the flexibility they required."

The Adelaide Convention Centre's West Building houses its meeting rooms, function spaces, and exhibition halls over three levels. Adjacent meeting rooms are combinable, as are the exhibition halls. In some cases, rooms can also combine with their foyers to create larger function spaces. Each combinable sector is serviced by its own AV rack, housed in the service corridor back-of-house. At the core of each of the racks is an Extron DMP 128 C AT ProDSP™ Digital Matrix Processor for audio routing and processing, and an Extron XTP CrossPoint® modular digital matrix switcher handling video. Three XTP CrossPoint 3200 models are deployed across the Lower and Upper Levels, while the Ground Level houses one XTP CrossPoint 1600.

DMP 128 with AEC and Dante Ensure Exceptional Sound

The audio path relies heavily on the DMP 128 processor's ProDSP™ processing, automixing, and AEC - acoustic echo cancellation capabilities. Room presets automatically mix multiple presenter microphones, both wired and wireless, without the need for an operator. Powerful automixing algorithms ensure the maximum gain

before feedback is achieved, while microphones that are live but not in use are temporarily 'ducked' under the main speaker until the presenter speaks again, keeping the system free of unwanted noise. AEC ensures that any remote two-way audio via video conference or web link is free from confusing delays and echoes.

The Dante capability of the DMP 128 processor is integral to the AV system design, with its FlexInputs used to receive signals from Dante enabled wireless microphone receivers and multiple Dante-enabled sources. The fully networked audio system means that combining and dividing rooms is extremely simple and efficient, with all inputs and outputs automatically assigned in preset states. It also facilitates easy audio distribution to break-out rooms, other locations within the building, web, and recording; all from anywhere on the network, controlled from a centrally located control computer, or from an operational position within a room.

Matthew Stanton, the Adelaide Convention Centre Technical Director, explains how the meeting rooms are wired to transmit and receive signals. "In each room, we have a custom-built lectern that houses the Extron XTP T USW 103 switcher and an Extron AXP 50 C AT audio processor to output audio as Dante. Each room has an analog local lectern mic input, plus further local inputs for adding additional mics. There are also two wireless mics, both handheld and lapel. We chose our wireless microphones for their Dante connectivity. We set up the patching of the Dante-enabled Extron devices through the Dante Controller software, and that stays fixed. If we are running an event that

Adelaide Convention Centre Simplifies AV Operations with Extron DMP 128 and XTP Systems

needs an operator, we bring in a Dante-enabled digital mixing console and Dante-enabled remote I/O units, and manage the patching through the console.”

XTP Systems Enable Reliable Operation

Joining their audio counterparts in the lecterns are the XTP T USW 103 three input XTP switchers. Fitted with two HDMI inputs and one VGA input, each unit provides auto-switching between connected sources. Presenters simply plug their devices into the built-in access panels in the lectern, and the XTP T USW 103 transmits the content over shielded CATx cable to the XTP CrossPoint matrix switcher within the rack. Input EDID was configured easily through the XTP Systems Configuration Software, ensuring that every presenter’s device will output reliably for each display.

Back in the rack, the XTP CrossPoint matrix switchers handle remote and local source distribution. All four XTP CrossPoint switchers are configured with a mix of XTP input and output boards for localized switching and twisted pair signal transmission all signal formats required within the system. For local sources, the boards automatically manage EDID communication via EDID Minder®, while Key Minder® continuously verifies HDCP compliance throughout the entire system. The XTP CP 4o SA analog stereo audio output boards enable local audio output to support the sound system. Like the audio system, the XTP System® allows video to move effortlessly throughout the building via the existing infrastructure, with control and monitoring via Ethernet.

Easy Control within Divisible Spaces Using Extron Pro Series

Four IPCP Pro 550 Control Processors use the LinkLicense for User Interfaces upgrade and form the heart of the AV control system. Enabling CATx connectivity to Extron control hardware, the IPCP Pro 550 also includes six bidirectional RS-232 serial ports with software handshaking, two bidirectional RS-232/RS-422/RS-485 serial ports with hardware and software handshaking, eight IR/Serial ports, eight relays, and Ethernet-controllable device support, more than covering the control needs of any third party equipment installed or to be added in the future.

Each space includes a wall-mounted TLP Pro 520M TouchLink Pro Touchpanel which communicates with the IPCP Pro 550 via Ethernet for full AV system control integration. Both staff and clients use the touchpanels to set the rooms in predetermined states, control lighting, projection, and audio, and activate the projector lifts. The user interface designs for each of the touchpanels were created by using and modifying Extron’s GUI templates. Since Extron control products are configured using Global Configurator Professional and GUI Designer,



Both staff members and clients use an Extron TLP Pro 520M TouchLink Touchpanel to select among the room’s predetermined states, which include control of audio, projection systems, and lighting.

the ACC staff are able to make modifications and adjustments to each of the systems at any time.

Future Facility Expansion with Extron

New technologies in the West Building have enabled the ACC to offer completely new products and services to their clients. Integrated web cameras in each space routed through Extron DSC 3G-HD A SDI to HDMI Scalers will soon be used to provide multi-screen views to the meeting rooms, and enable presentation streaming to the web. This opens up the scope for conventions to include remote international speakers, as well as overcoming the challenges of distance faced by regional Australia.

Internally, the implementation of Extron GlobalViewer® Enterprise management across the network allows AV staff to monitor and control all equipment, as well as schedule power up and power down, adding to both labor and environmental efficiency. Using iPad control integration frees AV technicians to make adjustments on the fly from any position, and is yet another way the Extron environment aids productivity and keeps the Adelaide Convention Centre running smoothly.

Profitable Results

The completely digital, flexible, and easily controllable video and audio backbone in the West Building gives the Adelaide Convention Centre an edge over its competition in the more populous eastern states of Australia. A new plenary theater seating 3,500 will be finished in 2017.

Fewer staff hours are required to reset spaces between events with different requirements. Sales staff are able to upsell customers with web streaming and fully interactive breakout rooms, as well as offer a lower labor cost at hire. Staff members can easily customize control systems in reaction to changing customer needs on demand.

WORLDWIDE SALES OFFICES

Anaheim • Raleigh • Silicon Valley • Dallas • New York • Washington, DC • Toronto • Mexico City • Paris • London • Frankfurt
Madrid • Stockholm • Amersfoort • Moscow • Dubai • Johannesburg • Tel Aviv • Sydney • Melbourne
New Delhi • Bangalore • Singapore • Seoul • Shanghai • Beijing • Hong Kong • Tokyo

www.extron.com