INTEGRATED CONTROL FOR MULTIPLE MULTI-FUNCTIONAL SPACES

Epsom College

Epsom College's Core Strategy for Success

Epsom, England

Lush greenery, stately brick buildings and rolling downs make up the eighty-five-acre campus of Epsom College, an institution with an over 150-year history. Initially established with royal patronage granted by Queen Victoria to provide education for orphans, this independent day and boarding school is now among the top one percent of schools in the United Kingdom. And as the college looks forward to equipping pupils for life in the 21st century, they required transformative audio, visual and control system updates.

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>
> **Adam Broom**
> *Project and Installations Manager of Autograph*

Challenges

Drama, music, sports, and other events makeup Epsom College's busy schedule and their AV infrastructure needed updating to remain in line with the requirements of a leading independent school. Three target areas became the first recipients for a site-wide revitalisation. To achieve this, Q-SYS is placed at the heart of each space, with the Q-SYS Core 8 Flex processor and Q-SYS Core 110f processor supporting their vision of a centralised AV control and integration system.

"The flexibility of Q-SYS in dealing with the extensive variety of media now available has proved invaluable, and its scalability is another big plus," explains Adam Broom of Autograph. "Epsom College can now extend existing systems longer, which is why Q-SYS continues to remain our go-to method of integrating and controlling networked systems."

Future-Proof

To enhance the ROI of the investment, the college wanted to add new features easily with minimal hardware purchases.

Integrated

Epsom College needed a solution that combined audio, video & control in a single processor.

Networked

Stakeholders required a networked system that could support media being shared across spaces.

Solutions

To help Epsom College accommodate its many use-cases, Autograph was brought on board as the AV design and installation partner. The first step entailed networking three high-value spaces together: Big School – their main auditorium used for large gatherings, Main Hall – a smaller auditorium used for assemblies and meetings, and the Chapel of St Luke (the Chapel) – in place for services and more. This would allow Epsom College to deliver a top-notch experience for students and guests, as these spaces are available not only for student extracurriculars but also for outside rental.

Three Spaces, One Vision

The Q-SYS Core 8 Flex processor was selected for both the Chapel and the Main Hall. Designed specifically for smaller installations and offering a compact and cost-effective solution, Q-SYS Core 8 Flex supports a full-featured Q-SYS Control engine as well as up to up to 32 x 32 Dante audio channels (8 x 8 included). "The Core 8 Flex enables the flexibility we need for these spaces, and the recent introduction of Software-based Dante makes integration with other devices even simpler and cheaper; both support the scalability we're working to build into the design," stated Adam Broom.

The Epsom College team took advantage of both benefits directly within the installation, using the Q-SYS Control engine to handle eight HD monitors on motorised, automated arms that were mounted in the Chapel. They can be either held flat to the walls or extended, and both aspects are controlled via the Q-SYS Core 8 Flex. Though originally only slated for the displays and screen content, now the Cores are part of the networked solution handling all AV media, including the Chapel's public address system.

Solutions

Experiences Amplified

The Main Hall was also fitted with a Q-SYS Core 8 Flex, with similar success. This space received further upgrades in the form of four Q-SYS SPA Series power amplifiers. These amplifiers are driven in bridged mode to power four loudspeakers, which act as both the main and delay loudspeakers for the Main Hall.

Supporting internal as well as outside events required a broad solution capable of hosting multiple events in multiple spaces quickly, easily and professionally. The space bearing the brunt of this would be the Big School. In addition, this space needed both 'college' and 'performance' modes. Because of these requirements, the Q-SYS Core 110f processor was chosen due to the additional analogue I/O required.

The system runs in 'college' mode the bulk of the time. Audio from lectern microphone, radio microphones, auxiliary inputs and video sources are routed through Q-SYS Core 110f and out to the system, which is then controlled by the touchscreen at the rear of the room. This means that academic and non-technical staff can operate the system without having to be intimidated by the sound desk or vision mixer.

In 'performance' mode, the room is used for larger contracted events. When performance and technical staff operate the system, the video audio, lectern mic and radio mics are routed (without any processing) to the digital mixing console via Dante so that the operator can utilise those inputs in their mix. The digital mixing console returns the mixed audio via Dante back into Q-SYS.

Using a standard IP network infrastructure also reduces the amount of extra hardware required and simplifies the connection of audio input and output devices throughout the college. The ability to integrate any Dante or AES67 device means Epsom College keeps the design in the digital domain as much as possible, can easily apply signal processing, as well as allow signals to be accessed and monitored from anywhere throughout the college's AV network.

A fibre network now links the Core processors, widening access to activities and events even when social distancing limits in-room attendee numbers. By networking the three spaces, content can stream between the rooms via Core-to-Core Audio Streaming functionality, broadening the opportunities available to students and the community.

Solutions

In Touch With The Future

For easy access to controls, a wall-mounted Q-SYS TSC Series touch screen controller was installed in all three areas, which allows operation and mode-switching by school staff from any location. The companion Q-SYS UCI Deployment license was also deployed to allow the team to quickly build custom user control interfaces that adhered to Epsom College style guide and branding. The centralised control access via these custom touch screens freed up the college's full-time AV team to handle things such as live streaming events, and a web-based user interface enables remote access, monitoring and control of the site-wide streaming of audio and video between spaces.

Adam Broom explains, "For Epsom College, the touch screen controllers allowed us to create a sophisticated user interface for each room, as well as a web-based user interface for remote access. Q-SYS effectively gives us 'one-box' integration, and that's a great thing."

With a strong legacy to uphold, Epsom College successfully strikes a balance between staying true to its origins and forging ahead in supporting a modern program. The integrated audio, visual and control solution developed for Epsom College supports the continuation of their vibrant community and student body, and Q-SYS is proud to have supported them in their ongoing mission.

Q-SYS Equipment List

Model	Pcs Used	Description	Image
Core 110f	1	Q-SYS Audio, Visual and Control Processor Networked I/O: 128 x 128 Local I/O: 24	
Core 8 Flex	2	Q-SYS Audio, Visual and Control Processor Networked I/O: 64 x 64 8x on-board Flex channels and GPIO	
SPA2-200	4	Q-SYS SPA Series Energy Star Power Amplifier 2 Channel 200 W/ch into 8 Ω & 4 Ω	
TSC-80W-G2-BK	3	Q-SYS Touch Screen Controller (wall mount) 8.0" (203 mm) screen dimension 1280 x 800 resolution	
Software Based Dante™	1	Q-SYS software feature license Dante™ network audio integration	
UCI Deployment License	1	Q-SYS software feature license Create and deploy custom UCI onto available control devices	

Q-SYS™

Q-SYS is a globally recognized manufacturer of audio, video and control (AV&C) solutions for huddle rooms to stadiums—and everything in between. Our systems make it easy for your team to design and integrate flexible, scalable solutions and deliver the native IT integration and standards-based technology your customers expect.

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