UNIVERSITY OF GLASGOW
BUILDS NEW TEACHING SPACE

Courtesy of UG

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Recently, a surge in student admissions created the need for an additional teaching space that could accommodate up to 600 students and offer the latest AV presentation capabilities for lectures, graduations, exams, conferences and special events. Historic Bute Hall, a majestic facility that was designed by Sir George Gilbert Scott and completed in 1878, was chosen to house this multi-purpose space.

The new design plan called for an inspirational atmosphere for students to be created within this building that maintains the sense, look and feel of its heritage. It also included the latest state-of-the-art technology to support teaching and learning experiences. Taking on the task of realizing this dual-purpose vision was University of Glasgow's AV Manager Brian Husband.

"For this project, equipment performance and reliability is a 100 percent key requirement. All gear must work every day, hour and minute for the 50 weeks a year that classes are in session," said Husband. "At the same time, it was important that we did not lose any of the hall's grandeur or take away from Bute Hall's esthetics in any way."

In fact, due to strictly enforced criteria for historic buildings, Husband and his team needed to transport all video signals over Cat6 cabling, which, along with the AV equipment, was not allowed to be permanently affixed to the interior of the structure. In addition, it was imperative that the robust

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system take up a minimal footprint and be as "mobile" as possible, as it would have to be reconfigured or dismantled and stored elsewhere during special events.

Additional design challenges included the need for a total of four screens to be installed to accommodate the extended width of the presentation area. Because of this setup, it was crucial that the same image be presented to each screen simultaneously and without distracting latency or delay. As professors, instructors and students bring multiple devices to class from which to share content of varying formats, it was important that everything could be correctly projected on each screen with the highest possible quality.

Lastly, the new AV system would also have to be integrated into an existing audio loudspeaker system and offer monitoring over the university's LAN.

These factors, as well as the need for superior performance, value oriented price points and an assurance of reliability, led Husband and his

university AV staff to choose an array of Atlona gear—including switchers, extender kits, scalers and audio de-embedders—as the crucial connectivity components for this project.

"This was a unique and complex integration, taking into account the historic venue and layout of the space," said Husband. "We chose Atlona gear because it not only accommodated our performance needs, but the special needs of this project. Also, by using Atlona products on a system-wide approach, we minimized incompatibility issues."

Adding the Latest AV Presentation System to a Historic Venue

The Bute Hall design plan not only called for an all-digital video matrixing and extension system, but for a smaller HDMI distribution system as well. Here, Husband's team selected the AT-HDDA-8 HDMI distribution amplifier system. One output would provide a signal to the main video switching system.
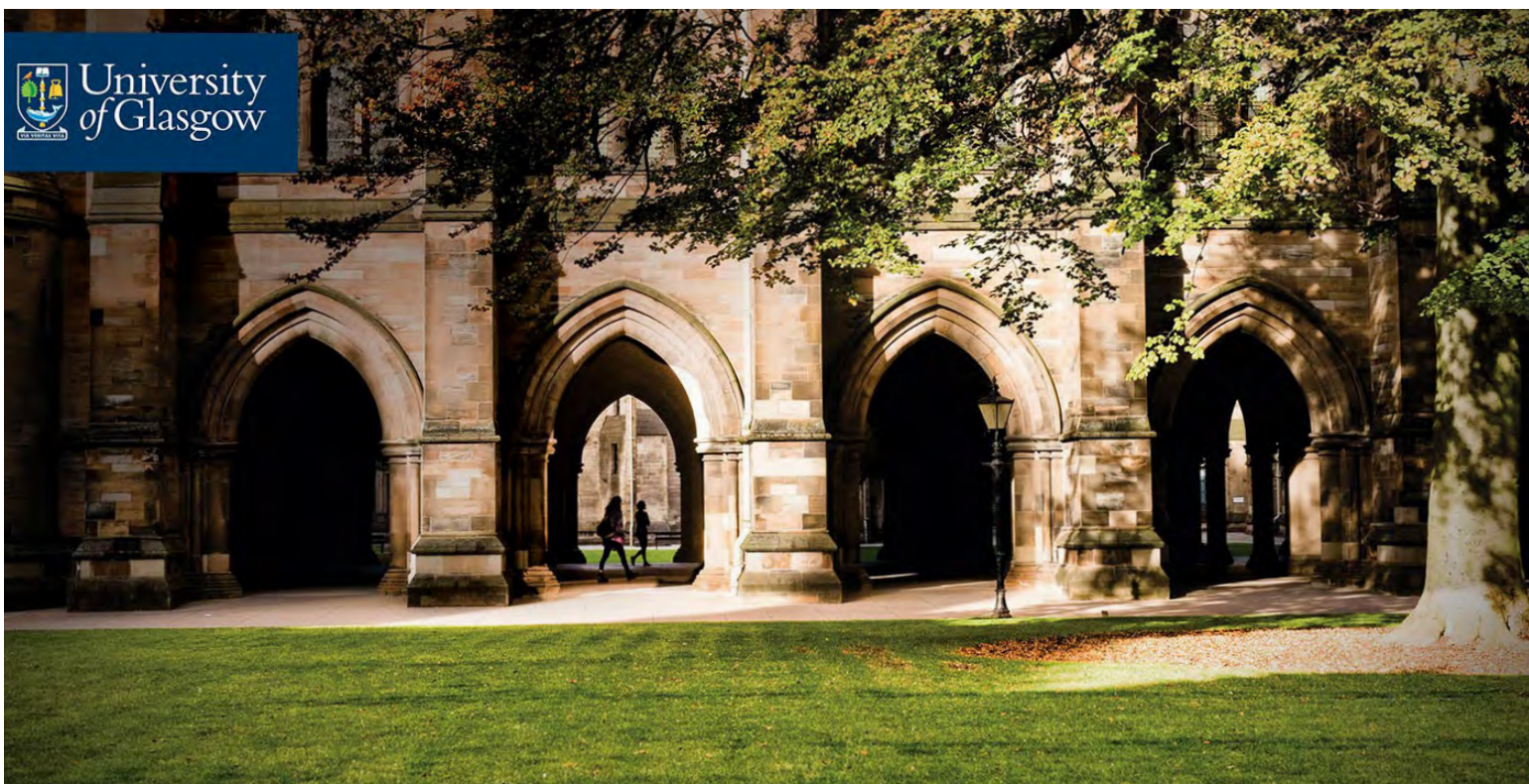
For the critical centerpiece of the system, an Atlona HDMI matrix switcher was chosen, which enables presenters to quickly share their content from virtually any device to any or all the room's multiple screens. The same, or multiple presenters, are also able to share different content simultaneously on the screens.

The HDMI matrix switcher supports HDMI signals with full 3D pass-through and embedded multi-channel audio. It features an extensive internal library of EDID settings, plus EDID learning, to ensure compatibility between sources and displays. The switcher is also able to be operated by the University-wide standard AMX control system, and its 8-channel input and output capacity allows for easy future system expansion and the integration of confidence monitors to aid presenters.

Matrix outputs were routed to five Atlona HDMI extender kits that provided reliable and economical means of conveying 1080p/60Hz video signals, control signals and embedded multi-channel audio up to 330 feet (100 meters), which easily spanned the distance between the switcher and the projectors. Each receiver is remotely powered from the transmitter enabling a simpler installation with fewer wires.

Also integrated in the Bute Hall system is the Atlona AT-HD-SC-500 VGA to HDMI scaler, which takes the video signal from presenters' and students' PCs or Laptops and upscales it to digital HDMI output for display on a wide range of HDTV and PC resolutions (up to 1080p or WUXGA 1920×1200). The Atlona AT-HD-570 HDMI audio de-embedder de-embeds the audio signal to either Optical or Multi-Channel analog audio outputs.

Looking back on the project, Husband and the University of Glasgow AV team are proud and amazed at what they accomplished at the historic venue.

"The system was installed and commissioned in a world-beating 14 days, which minimized downtime, and the entire system can be removed and installed in a couple of hours, depending on the needs of special events," said Husband. "It has now been in use every day for many months with no major issues, proving that we found a good and reliable solution, with the right gear, befitting this prestigious institution."

*Some products utilized in this case study have been updated. See table for current products.

PRODUCTS FEATURED

Model	Description	More Information
AT-HDDA-8	1×8 HDMI Distribution Amplifier	http://atlona.com/product/at-hdda-8/
AT-UHD-H2H-88M	8×8 4K/UHD HDMI to HDMI Matrix Switcher	http://atlona.com/product/at-uhd-h2h-88m/
AT-UHD-EX-100CE	4K/UHD HDMI Over 100M HDBaseT TX/RX with Ethernet, Control and PoE	http://atlona.com/product/at-uhd-ex-100ce-kit/
AT-HD-SC-500	Three-Input HD Video Scaler for HDMI and VGA Signals	http://atlona.com/product/at-hd-sc-500/
AT-HD-570	HDMI Audio De-Embedder with 3D Support	http://atlona.com/product/at-hd570

For more solutions, see http://atlona.com/solutions-tour/

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