

University of Hertfordshire's Auditorium Upgrade — with Christie HD10K-M's and Vista Spyder



Back at the start of the 2003-4 academic year, the University of Hertfordshire proudly unveiled its new £120m de Havilland Campus, including the 450-seat, state-of-the-art Weston Auditorium.

Ely-based QAV were entrusted with equipping the theatre with what at the time was an advanced multimedia infrastructure.

After five years continuous use, the venue's Events & Technical Support Manager, Adam Harvey, sensed that much of the original kit had reached end-of-life — including the projectors. His view was shared by Tony Bidgood, general manager of QAV, who had been retained to carry out ongoing service and maintenance.

So in February last year, Harvey presented a comprehensive business case and successfully secured funding that would enable the entire control room (including desking and four 37U 19in racks) to be replaced, and the auditorium future proofed for at least another five years.

An HD environment was required but, the technical manager was yet to decide how much headroom to build into the new system and whether to replace like for like or opt for top-of-the-range projectors.

Technology had long overtaken the University's three existing 5000 ANSI lumens LCD projectors, and the University's ten-strong technical team — including Events & Technical Support Consultant Lucy Bolton and, Events & Technical Support Officer James Scutt — were soon evaluating Christie's new award-winning HD10K-M 3-chip DLP® projectors, first at *InfoComm* in June 2008, and more comprehensively at *ISE* in Amsterdam the following February.

While the HD10K-M's would provide the image quality necessary Tony Bidgood had to decide whether the projector had the necessary throw, and could fill the 12m x 5m perforated screen. "But thanks to the superb range of lens on offer, as soon as the HD10K-M was demoed in the venue we knew we had found the solution," he said.



As a result, the two projectors have been mounted on a rock-solid overhead ladder system in the control booth, custom designed by QAV, to withstand weight loading far in excess of the fixtures presently attached.

Yet both Harvey and Bidgood acknowledge that what had really sealed the deal was the versatility offered by the Christie Vista Spyder 344 processor, which is used in combination with the two 10,000 ANSI lumens projectors. This not only optimises the potential of the HD10K-M's but by controlling the vast Lightware 32 x 24 digital and Kramer 32 x 32 analogue matrixes, a large number of sources can now be mixed quickly and simply in multiple windows, replacing the cumbersome patch-fields previously used.

"At this point the decision-making became pretty straightforward," says Harvey, pointing to an intuitive drag-and-drop system which enables simple switching, whether from VTR devices or Blu-ray HD.

With 59 mapped inputs on the Spyder this high degree of flexibility and functionality also enables the University to support the vast range of events and clients that use the system. "For instance we can now present a screen background with, say, four PIPs dropped in front depending on the event; these are fully adjustable on the fly so we can change the size of the window in live mode."

With the two departments at the University, UH Arts and Conference Hertfordshire, respectively booking a vast programme of different events into the auditorium — from pure theatre and cinema presentations, to conference and seminars, product launches, comedy festivals and professional lectures — rapid reconfiguration became a key prerequisite. For example a recent top table panel discussion needed to make way rapidly for a feature length film. This can now be implemented.

Since Adam Harvey's team had registered concerns about processing HDMI/DVI, multiple resolution digital sources and other codes, QAV have also ensured that within the new switching environment, older signal formats can be patched straight in and recorded onto their existing systems. "We are using Kramer scalers and upconverters, and there isn't a format we can't cater for — even RGB & Sync," he says.

The cabling too has been upgraded to CAT5 while digital links from the stage have been converted to fibre and floor boxes replaced with custom built solutions.

The entire installation — from the house lighting to the projection — is under the overall command of Crestron automated control.

This will change the mode of the Christie projectors, between presentation at the lecterns, to films (when the screen is fully lowered into position) — and when the screen is in store position the images will fire over the fixed raked seating onto the back wall cyclorama. The Crestron will then automatically move the Christie focal point and long-throw lens position for a 28-metre throw to the very back (rather than the 22m distance to the projection screen).

In addition to the playback devices, four fixed position pan and tilt HD cameras (and a fifth at the rear, which can double as a roving camera), can be mixed on the new Panasonic vision mixer (with option cards to facilitate VGA as well as SDI mixing), while almost every event that takes place can be recorded direct to hard drive.

Adam Harvey knows that thanks to the Christie 1080p and Spyder combination The Weston Auditorium now has the blueprint for expandability as content increasingly is shot in HD. "In fact, we only need expansion cards and software to give us full 3D capability," he notes.



Additionally, live events can be streamed to the web or recorded and uploaded to StudyNet (the University of Hertfordshire's sophisticated on-line learning environment). Using their Polycom facilities videoconferencing has taken place between personnel at the University and their counterparts in Queensland, Australia, and this can also be used to relay signals to other lecture theatres or their external digital signage systems stationed around the campus.

Finally, the University of Hertfordshire can patch in third party equipment from incoming productions and send feeds to scanner trucks (for broadcasting) or to their own TV studio, based on the nearby College Lane campus.

Some redundancy has been built into the system with the matrixes on dual power supply, and manual mixing is possible in the event of one of the systems failing.

Having provided full operator training QAV maintain the system with online support from their offices in Cambridgeshire.

The new HD capability has certainly created the expected impact. And within the academic sector, those who attend the digital animation courses can now see the effects of their colour grading in vivid cinematographic quality as they have never seen their rushes before.

As for Adam Harvey, he is not only delighted with the overall Christie package but is able to demonstrate to his superiors an energy-efficient system which ultimately will provide a low cost of ownership. "The green credential was a consideration and while Crestron controls the power-up cycle in an energy hungry room, we have options with the twin mercury lamp configuration of the HD10K-M.

"The projector also runs cooler and quieter [than what we had previously] with a lower power draw ... in fact these projectors have all the featureset we wanted and more, and will certainly see us through the next five years minimum.

"As for Spyder, with its control of the matrixes the headache of what is being patched to where has been removed entirely."

About The University

The University of Hertfordshire is the UK's leading business-facing University and an exemplar in the sector. It is innovative and enterprising and challenges individuals and organisations to excel.

The University of Hertfordshire is one of the region's largest employers with over 2,700 staff and a turnover of more than £235 million. With a student community of over 24,500 including more than 2,000 international students from over eighty five different countries, the University has a global network of over 165,000 alumni. For more information, please visit www.herts.ac.uk

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