



BANGOR UNIVERSITY

PONTIO CINEMA &

LECTURE THEATRE

CASE STUDY

Backed by European and Welsh Government funding the £49m Pontio project at Bangor University is designed to create a world-class centre for innovation, science and the creative industries.

The new building brings the local and academic populations together in a way that has not previously been possible.

The £500K audio visual project awarded to Pure AV following competitive tender through the NWUPC framework included a digital cinema, lecture halls and teaching spaces, along with a video wall and building-wide digital signage.

A VENUE FOR ENTERTAINMENT AND LEARNING

The Digital Cinema room had to be dual purpose. Used as a lecture theatre during the day and as a cinema for the paying public in the evening and weekends, it had to deliver both a first class environment for learning and an entertainment venue for the local community.

The priority was to provide value for money with emphasis placed on image and sound performance as well as ease of use. The cinema installation was to adhere to the DCI standards for projection and SMPTE guidelines for image brightness. An appropriate cinema surround-sound audio system was to be installed, facilitating a wide range of audio decoding.

The challenge was to create a truly multi-functional space that would meet the expectations and needs of the academic staff without compromising the experience of those paying for a cinema visit.

From a management perspective, the ability to have a rapid turn-around of the room was particularly important. Careful consideration was given to the system design and programming to ensure that the capacity to manage the switch between the two different room applications is straightforward and achieved in the shortest possible time with the minimum level of disruption.

It was also necessary to ensure that the experience of the lecturer using the space was in common with what they would encounter in other teaching areas.

“ Pure added significant value in the development of the design of the solutions in place at Pontio; in particular in the specification of the dual purpose lecture theatre and digital cinema. ”

PAUL WOOD

Deputy Director, IT Services
Bangor University



MANAGING LIGHT AND DARK

The choice of the projector was crucial. Any solution provided needed to cope with the relatively bright lighting levels of a standard lecture theatre as well as the darkness of a cinema environment. We were able to use our experience of work with existing client Odeon to support the development of the specification. And our contact at Odeon was also able to provide the team at Pontio with some valuable insight into the practical aspects of the management of a commercial cinema environment.

PERFORMANCE WITHOUT COMPROMISE

In order to avoid any compromise on performance and provide an energy efficient solution it was decided to use two separate projectors. An NEC NC2000C Digital Cinema projector with the Dolby 3D System for when the room is in cinema mode and a 10,000 lumen Epson WUXGA projector for lectures.



The projectors are stacked in the projection room and switched on and off according to the requirement of the room usage. Both are used independently without either affecting the performance of the other.

REDUCED RUNNING COSTS

Energy efficiency was a key consideration in the decision to use two units for the project. We calculated, taking into consideration the lamp and power requirements of the cinema projector that it would be inefficient to use the cinema projector during the day time when the room is used for lectures.

The second Epson unit offered a much better level of energy efficiency and ultimately lower running costs for use when the room was not in cinema mode.

The use of the two units ensured that there was no compromise on performance in either application and offered the best results in terms of ongoing running costs.

Paul Wood, Deputy Director, IT Services, Bangor University states;
"Pure AV added significant value in the development of the design of the solutions in place at Pontio; in particular in the specification of the dual purpose lecture theatre and digital cinema. They have helped us to arrive at a solution that offers, the right level of technical performance, and that also takes into account environmental impact and longer term running costs; delivering best value for the University."

THE WIDER SOLUTION

The Cinema / Teaching Room 1 seats 200 and is equipped with a 7.2m screen, and uses two separate projectors. An NEC NC2000C Digital Cinema projector with the Dolby 3D System for when the room is in cinema mode and a 10,000 lumen Epson WUXGA projector for lectures.

The lecturer has a Dalen Voyager desk available and can use a 65" touchscreen as a teaching board, the content of which can be directly relayed to the large projector and onto the screen. Alternatively, a Wolfvision visualiser can be utilised, or a BluRay disc, and any connected computer can be presented. The theatre can act as an overspill to the Large Lecture Theatre (part of the wider Pontio project), using the fibre links to receive video and audio. There is a remote PTZ camera in the room linking to the university's lecture recording system. A satellite system will allow for screening of live events, such as Covent Garden Opera, Royal Shakespeare Company productions etc.

Revolabs presenter, AKG audience microphones, and all recorded soundtracks are handled by Dolby DoReMi, BSS Blu and Denon sound processors, prior to the Crown amplifiers feeding the Community line arrays and the JBL Cinema Sound system.

An Ampetronic induction loop system is fitted for the Hard of Hearing. Routing, switching and distribution is by Extron and the control system uses Crestron equipment programmed in-house by Pure AV to allow dual language operation in English and Welsh.

