

# Imperial College London

## Reflex Case Study

### Setting the standards in Audio Visual Solutions

#### Imperial College London Installation Project



As you would expect from an organisation ranked as the world's fifth best university in the 2007 Times Higher Educational Supplement, when Imperial College London decided to upgrade the audio visual facilities at their South Kensington Campus their standards were high.

Historically, the responsibility for providing and maintaining audio visual facilities had rested with individual departments. In 2007 the College committed to undertake a project for the refurbishment and subsequent service, maintenance and associated services of 38 lecture theatres spread across the College campuses with the goal of establishing College-wide standardisation of audio visual equipment with all the associated benefits including ease of use for lecturers and ease of support for the equipment.

#### AV Requirements

The key requirement for this project was to achieve standardised audio visual facilities in 38 lecture theatres across the South Kensington Campus whilst allowing some flexibility to tailor the exact specification to the needs of individual departments. For example some departments have chosen to add a second projector giving them the ability to display different images side-by-side.

In terms of standard equipment, each of the lecture theatres was to be equipped with a projector displaying images from 2 resident PCs, DVD and visualiser onto a main screen. There was a requirement for a high quality audio system capable of transmitting sound from the input devices and from a lecturer's microphone, routed through the existing induction-loop amplifier.

At the heart of the solution was a presentation lectern used to house all of the source equipment in a rack, whilst on top of the lectern there was a touch screen display used to drive the Crestron room control system. The control system was designed to operate all of the source and display equipment and to integrate with the existing lighting control, electric blinds and screens.

To overcome security issues all equipment was fitted with Kensington locks, equipment racks were fastened with secure screws and projectors were housed in Dalen security cages and fitted with Sonic Shock alarms.

#### Maintenance and Service Requirements

Having made a substantial investment in new audio visual facilities the College were very keen to ensure they got the best out of their investment by having appropriate support in place.

For first level support, the College use their own staff. To assist them in their task Reflex have installed Crestron Roomview remote monitoring software.





This solution enables the AV department to monitor and take control of the equipment in the lecture theatres from any PC and can be used for fault finding, equipment diagnostics and for switching off equipment when not in use.

As part of the contract Imperial College have taken out a 7-year, 4-hour response maintenance agreement with Reflex. This agreement includes 3 preventative maintenance visits per annum during which Reflex engineers; test and clean all equipment, inspect and make good cabling and connectors, and provide refresher training for users as required. Reflex also have access to the Roomview software so if a fault occurs the precise equipment can be identified and a fully briefed engineer despatched to carry out the repair or swap out the faulty item from loan units held on site.

In addition to maintenance Reflex also “tag” the equipment with bar-coded labels and maintain an asset register for the College.

### Delivery

The key to any successful project is the Project Management. To ensure smooth running Reflex allocated a full-time project manager to the job. The project manager was responsible for liaising with all the parties involved. These included the College’s AV and IT Departments, electricians working on site and the individual academic departments within Imperial College. By being involved from start to finish the project manager was able to ensure that the needs and requirements of all parties were met and that the overall project proceeded in accordance with the agreed timetable.

Time was always of the essence with installations having to take place during holiday periods. To ensure we met these constraints the lecterns (and integral equipment racks) were built and tested at Reflex’s premises and we ensured that we allocated the same installation team and programmers throughout the project.

### Main Equipment List

- Hitachi CPSX-1350 Projector
- Denon DV-V310 DVD
- JBL Control 24C Ceiling Speakers
- JBL Control 5 Program Sound Speakers
- Beyerdynamic Opus 800 C Radio Microphone Receiver
- Crestron CP2 E Control System
- Elo 1715L Touch Panel
- Elmo P100 Visualiser

