



## Installation

### Equipment summary:

- 1 x Crestron AV2 processor
- 1 x Crestron UPX-2 Universal presentation system
  - 1 x Elotouch 17" TFT Touchscreen monitor
- 3 x AMX Endeleo UDM-1604 Distribution hubs
- 40 x AMX Endeleo UDM-RX01 Receiver units
- 40 x Kramer VP-211DS Audio Standby switchers
- 40 x NEC 175VXM+ 17" TFT Monitors
- 1 x Extron MAV Plus SAV 12 x 8 Matrix switcher
- 1 x Extron IN1508 Presentation switcher & scaler
- 1 x Sabine NAV8800 Digital matrix audio mixer
  - 2 x AKG 400 series radio microphones
- 1 x Samsung Smart Dome camera & controller
- 1 x Samsung SA-UF-80 XGA visualiser & lightbox
- 1 x Panasonic DMR EX77 HDD DVD recorder
- 1 x Middle Atlantic system rack & PDU

**Total: £73,000+**



In March 2007, Roche Audio Visual received a request from the University Dental Hospital of Manchester for a quote to supply and install specialist AV equipment. Roche AV have been supplying the University with equipment for many years and were recommended to the Dental School by various other established customers in other faculties.

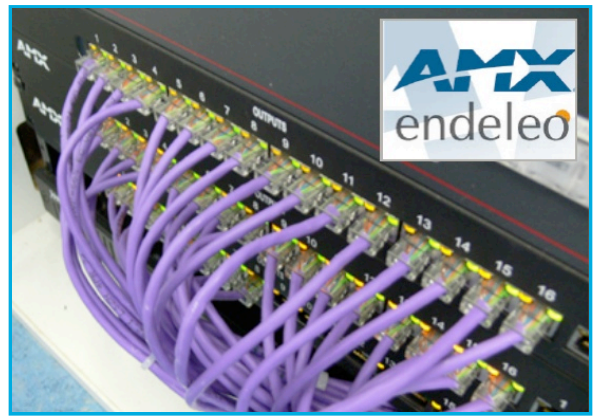
The specification provided by the Dental School had already been well thought out. Similar systems in other dental schools around the country had been used as a template for the proposed specification. In order for Roche to fully understand the requirements, a visit to a similar system at the University of Liverpool was arranged. The dental lab at Manchester was scheduled to have a full room renovation with new dental systems to be provided by A-dec.



The equipment in the lab consists of a main lecturers workstation and 40 dental simulators clustered together in groups of 4. Each dental simulator includes a local PC and monitor to provide computing facilities for each of the students. The brief required that the lecturer could link the main presentation feed from the workstation to any of the monitors in the lab. This would override the local PC thus including that student into the lecture.

The specification called for a variety of presentation aids including local PC, DVD, Visual presenter and Overhead camera. There was also to be provision for auxiliary inputs such as microscope camera. All the routing to the 40 dental simulators was to be via Cat5 cable utilising a Matrix switcher for switching & control. The quotation went through a number of changes to ensure that the specification

proposed provided the school with exactly what was required. Due to supply problems with the original Cat5 distribution system, a swift alternative had to be found. AMX's newly acquired Endeleo range fitted the bill perfectly & provided a very viable alternative. The initial 1st fix installation stage was due to take place during the busy summer installation period. As all of the Roche Engineers had already been booked, it was decided that the main contractor renovating the site at the time would also provide the Cat5 cable infrastructure required for the system. In the meantime, the main system rack was prepared at the Roche office to enable the minimum disruption when the 2nd fix installation date arrived. The system rack was made up of Crestron's AV2 processor and their award winning UPX universal presentation system. A large 17" Elotouch screen provided the main control interface. Three AMX Endeleo 16 port hubs and 40 receivers, linked together with the Kramer VGA auto switchers, provided a feed to the students monitors from the system. An Extron 12x8 matrix switcher & presentation scaler provided much of the system switching. A Sabine digital mixer routed the audio together with the 2 AKG radio microphones.



The clever use of Crestron's UPX system allowed the final presentation feed to have full annotation facilities. The lecturer could utilise the overhead camera, document camera or any other moving/still source and annotate over the top of the image. Details on teeth samples could be highlighted for the benefit of participating students. The system was finally fitted and commissioned in December 2007. Even though the lab was still being used by students, the installation was completed quietly and efficiently within five days. The building of the system rack at Roche office

together with the installation of the Cat5 infrastructure at the 1st fix stage meant that the minimum of disruption was put upon the use of the lab. The after sales care provided by Roche AV was firmly put to the test when strange malfunctions appeared in the Cat5 distribution system. Huge support was shown by AMX for the Endeleo range as specialist engineers discovered unusual spikes in the mains supply at the labs. These unusual occurrences caused the output ports to fault meaning a quick solution had to be found. AMX made good use of their Endeleo engineers by providing specially modified hubs within a few days of the issues being reported. The system is now routinely used by lecturers to provide state of the art presentations to the students at the Dental School. The Head of School Nick Grey has commented on Roche's service as being "professional and efficient". The engineers at Roche AV are now looking to other Dental schools across the country for the next challenge.



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