Wave Science Technology

Where did the Director go?

A flexible, automated vision control system, specified by Wave Science Technology

The Challenge

Automated or semi-automated sound systems have been used for meetings and conferences for many years, where there is fixed seating and 'one microphone per delegate'. Once set up, these systems usually run without an operator and provide high quality output – both technically and editorially – for recording and broadcast.

Broadband web services and the number of traditional broadcast stations covering live events have increased the demand for footage of conferences, public meetings and courts with the expectation of high artistic quality, but at low cost. In the past, these events were covered using broadcast-specification cameras – robotic pan, tilt and zoom - together with vision mixing and monitoring equipment forming a small gallery, or using an OB truck. They provided excellent editorial and technical quality, but had a large initial investment and high ongoing costs, with skilled camera operators and a director needed for constant shot selection and picture adjustment.

Simple CCTV grade cameras, driven from a sound system, have been used for webcasting of regularly occurring events. But, the editorial quality is often below broadcast standards, especially for debates between two people.

The Solution

To address the issues, Wave Science Technology has specified a Vision Control System, which is capable of automating camera coverage of events, with high editorial and technical quality.

The high Editorial quality provided by the Control System is generated by 'intelligence' from data sources:

- a microphone selection datastream from the sound system – this identifies the microphone(s) in current use and provides a related, time-dependant switching cue
- a database of available shots (established at the configuration stage) – this stores multiple shots for each desk or seat and identifies the priority level of the shots (e.g. close up, medium, wide, reverse shot)
- a number of shot 'rules' – e.g. to prevent moving cameras being cut to air.

The system can be overridden by an operator or director, if needed for special events, for tighter close-up shots or with alternative cameras.

Each control unit is designed to be resilient and fail-safe in its operation: for example, no 'cuts to black' to output; faulty cameras will not be switched to air. A 'Private Mode' is provided where cameras rotate to face the wall so delegates can see that no pictures are being sent outside the room.

The results

The Vision Control System offers automated coverage of high editorial standard suitable for broadcast, webcast and archiving of high-profile events, with reliable and fail-safe operation. Most importantly, once configuration is complete, no camera operators or directors are needed, making this solution highly cost-effective.

The system has already been proven in different environments, being extended from a single room installation to cover additional rooms in a client venue.

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