

# BBC Scotland viewers

BBC Scotland's new Glasgow headquarters is more than just a TV production facility and a corporate office – it's also a visitor centre

**B**BC Scotland's new headquarters, at Pacific Quay in Glasgow, has been built to provide an end-to-end digital, high-definition production infrastructure, with a full range of facilities including television studios and post production.

One of the declared objectives of opening the new facility was to bring BBC Scotland closer to its audience. To achieve this it has designed its entrance foyer to be the 'accessible front for BBC Scotland', with free entrance and lots to see and do once inside.

Graven Images, a Glasgow-based design group, was appointed exhibit designer for the visitor experience, and Derek Kemp was appointed a-v consultant. As designs were finalised, Electrosonic's AVC office was appointed a-v systems integrator.

BBC Scotland is responsible for the main content shown in the foyer exhibits. Principal exhibit content is carried on a content media server, and there is also access to the BBC's General Media Viewer or GMV – a network-based system that carries all the BBC's output, so that any display fitted with a GMV interface can access any channel currently broadcasting.

The foyer is a flexible space and is frequently used for special events and broadcasts. While the

exhibits all work independently, it is a requirement that principal exhibits can have content changed instantly – for example, the whole area can be themed to match a 'football week'.

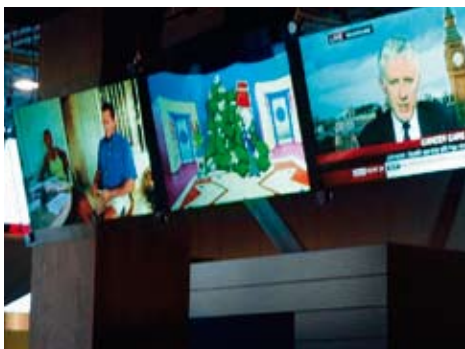
The idea is that many of the exhibits are automatically updated. For example, the 'immersion' exhibit has a custom application to determine how content is displayed, but the content itself is hot off the air.

## The Immersion Zone

At the entrance, the idea is that visitors are immersed in current TV images, which was easier said than done, because the building exterior is made of glass, and the problem is achieving an image of sufficient contrast. From a creative point of view it was important that the images seemed to be part of the building, as opposed to being presented on a TV set.

Three sides of the glass entrance lobby carry rear-projected images. Although the effect is of one overall image collage, there are in fact six projectors, each projecting a 1400mm-wide SXGA+ image. The screens are simply the glass walls, to which a high-contrast diffusing film has been attached.

The image collage is one of restless activity, with many streams of video moving around the screens in widows or banners against varying backgrounds.



The 'monitors over' section uses 3m Vikuiti film mounted on 3.5m glass panels by Paradigm AV



The 'Scotland Live' interactive table with a touch-screen overlay and a 82in Samsung LED

Education: in the 'Learn About' area visitors can listen and learn installed headphones or induction loop. The idea of the foyer at

# engages with



Audio umbrellas: these helped the designers solve the problem of interference from other exhibits

## KEY FACTS

The BBC Pacific Quay headquarters has a series of visitor attraction exhibits designed to connect BBC Scotland to its audience as well as the broadcast facilities and internal meeting spaces.

Suppliers to the a-v part of the development included exhibit design company Graven Images and a-v consultant Derek Kemp. The principal content comes from BBC Scotland, but other systems providers includes Crash Media (the immersion software application), Chunk (the circuit exhibit software), Stand (the touch table) and Paradigm AV. Lighting design was by Northern Light and Siemens managed the project. The a-v systems integrator was Electrosonic AVC.

\* [www.electrosonic.com](http://www.electrosonic.com)

\* [www.rearpro.com](http://www.rearpro.com)

The presentation requires a custom application, but the content itself comes from the media server and is constantly updated.

### Floating monitors

In the main circulation/café area two sets of three screens seem to float above visitors. The effect is achieved by back projection onto glass, and a high-contrast picture is achieved under difficult lighting conditions. Each screen section is 1200mm wide and has associated directional loudspeakers. The screens have access to content carried on the content server and to the GMV. Different channels can also be selected using a touch-screen controller.

### Mini cinemas

There are two cylindrical mini-cinemas in the foyer that comfortably accommodate a family group.

When they are not occupied, the door is open and the 'lid' of the cylinder is raised and LED signage is used as an attractor.

Inside the cylinder, visitors can touch-screen select from a wide choice of clips, of familiar and new material. A play list can be assembled and the show begins. The 'lid' comes down on the cylinder and the houselights dim. Both standard-definition and high-definition clips are shown. One of the aims is to get people excited about high definition.

### Learn About and Web Touchdown

In another area, called Web Touchdown, two groups of three internet terminals provide an internet café facility. The main computer interactive terminals are in two groups of five and support the Learn About facility, designed to familiarise visitors with all kinds of BBC 'product'. Both areas were designed to allow maximum accessibility. »

about all all kinds of BBC 'products' via loudspeakers, the Pacific Quay is to let BBC Scotland interact with its audience

As far as possible, all Learn About material is presented in visual and aural form. Visitors can listen to the audio through loudspeaker, the installed headphones, their own headphones or via induction loop.

The software for the Learn About terminals is continuously updated by BBC Scotland and text and graphics are available in user-selectable high-visibility versions for the sight or colour-recognition impaired.

## Audio umbrellas

Radio has its place in the exhibition. The problem was ensuring high-quality sound reproduction without the problem of interference from other exhibits. The designers and their a-v consultant came up with the idea of 'audio umbrellas' fitted with full range speakers. The designers felt that devices for playing back highly directional sound in exhibitions compromise the sound quality, especially in respect of frequency response.

## The Circuit

Eight decades of the BBC are celebrated in a historical exhibit called The Circuit, which is made up from eight artefacts (such as radio sets), one from each decade. An LCD display next to each exhibit describes its place in history. Where appropriate, the artefact is working, having been modified by Electrosonic AVC to do so.

One of the problems with the "Circuit" exhibit is that all of the items have to be movable. When special events are held, they have to be moved out of the way, both to clear space and to ensure their own security.

## Scotland Live

This exhibit is in the form of a large interactive table. The consultant had originally specified a back-projection screen for this, but in the exhibit design phase, large LCD, single-panel displays became available. So the display now consists of an 82in LCD display with a touch screen overlay. The exhibit draws its content from live websites and includes a Google Earth facility, so that live events can be geographically located.

## System control

The flexibility of the systems installed at Pacific Quay had to be combined with ease of use, so the entire exhibition runs under a single, show control system.

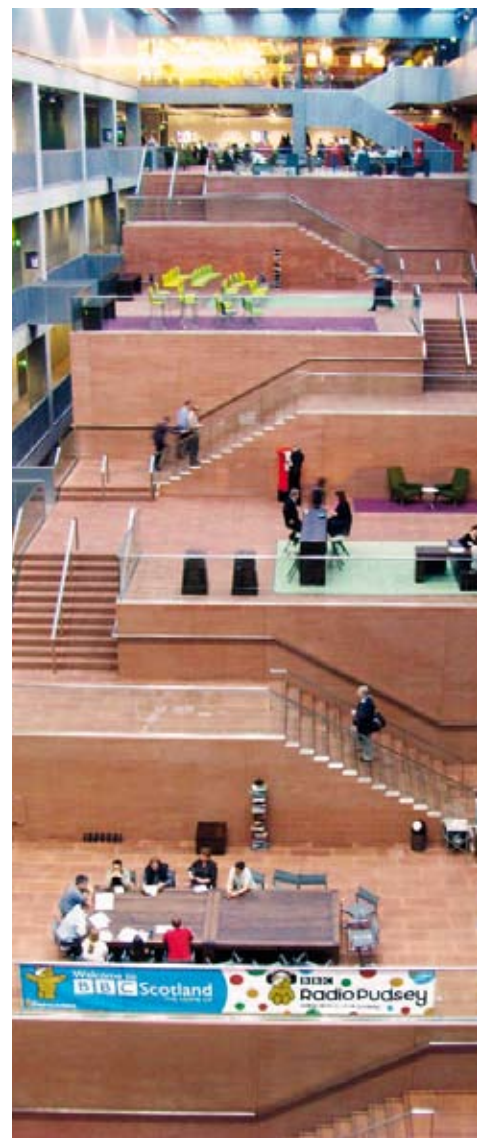
This normally runs the exhibits automatically and looks after all the housekeeping routines such as ensuring the correct audio equalisation is selected, and that projector shutdown routines are correctly carried out.

It also allows full manual intervention for special events, for example, if it is required that all programme sound be muted and all projection screens show a live video image, this can be selected. The whole foyer area has a flexible PA system that is also controlled by the show control system.

Audiences for live TV shows assemble in a wide corridor that runs from the foyer. While waiting to enter the studio, video monitors, under show control, keep them informed. ■



The Circuit shows radios from different decades



The Street, an open area that rises over five floors

## THE EQUIPMENT

The on-glass projection installations use 3M Vikuiti black rear-projection film and Panasonic PT-D770 0 SXGA projectors, while the 'monitors-over' area used Schott glass and Panasonic PT-DW5000e projectors. The mini cinemas uses Sim2 D80 projectors, Stewart Ultramatte 150 screens and Arcam Solo 5.1 sound systems with KEF speakers.

The audio umbrella systems are based on Fostex F200A speakers, Apart amplifiers and Behringer equalisers.

The Scotland Live LCD display uses an 82in Samsung, with a Paradigm overlay. Overall show control is handled using Medialon systems and BSS Soundweb for audio equalisation, mixing and routing.

The gateways are fitted with 46in Sharp LCD screens and Mitsubishi WD2000 projectors are used in the meeting rooms.

## ELECTRONIC INSIDE

Electrosonic AVC's work at Pacific Quay was not confined to the exhibition area. The building has a spectacular open area at its core that rises over five high floors and is known as The Street. At various levels 'gateways' lead off the street into production and office areas. There are conference rooms, dressing rooms, green rooms and other spaces, including a large staff restaurant at the top of the building.

In these areas Electrosonic AVC's work included the installation of 20x 46in widescreen displays in the gateways; a complete PA and a-v presentation system in the staff restaurant; 10 main meeting room a-v presentation systems and 20 display/playback systems in green rooms and dressing rooms.

Electrosonic's Service Department is providing continuing support to the project now that it is successfully open.