The Challenge

The International Space Innovation Centre (ISIC) was officially opened in Harwell, Oxfordshire, in May 2011. ISIC is a not-for-profit organisation based in the UK, formed between industry, academia and government. The centre was created to drive innovation and enterprise by supporting businesses in creating new technologies and developing products and services using satellite data for the benefit of the UK.

ISIC needs to be able to deliver high resolution, large scale, interactive visualisations of space data derived from satellites. Earth observation satellites generate large amounts of data as they constantly monitor the Earth’s environment - unfortunately conventional tools and screens are limited in either size or resolution. It was therefore key for ISIC to have a visualisation display surface that could be used for analysing complex data in a visual form, and to then share and communicate results with a wider audience.

The display surface would be required for various high impact modes of use including: a cinema mode to handle video playback; presentation mode for conferences; reception mode for informal stand up events, and research mode to enable small groups of researchers to discuss specific points of the visual data.

The Solution

ISIC’s requirement for a very high resolution display that could support visualisation software led to the decision to build a video wall – a display surface constructed from a number of flat screen panel displays. ISIC undertook a six month consultation phase with Samsung to discuss concepts and solutions that would best fulfil their requirements.

“We were impressed with the large display surface and high resolution of Samsung’s Large Format Displays (LFD) and in particular the thin bezel because without intrusive borders, the viewing experience is significantly better.”

Andy Shaw, Director of Knowledge Exchange, National Centre for Earth Observation, and Project Owner, UK.

Given that the video wall had multiple purposes to fulfil, it was important to ISIC that it offered flexibility and that it could be integrated with other technologies. It also needed to be easy to use. Samsung’s Large Format Displays can be used in different modes and provide the option of controlling different parts of the display area by a variety of sources such as laptops and Blu-ray players. The entire Samsung display surface can be controlled via a control desk at the rear of the room by a HARP Merlin video wall processor running Windows 7, used to select the appropriate inputs.

The video wall was installed by Harp Visual Communications in ISIC’s dedicated Visualisation and Application Centre, the main conferencing suite, and arranged in a 7 x 4 matrix of panels forming a seamless display. With an overall display area of 7.2m x 23m this is one of the largest multipurpose video walls in the UK.

“Digital signage is a very efficient way in which to present large amounts of information, significantly stretching the boundaries of the amount of visual content that can be displayed. Samsung’s leading technology ensures this information is presented at a high resolution. For ISIC, the video wall was an ideal solution as it directly meets this objective and offers great flexibility in that it can be used to present many different applications,” said Phil Gaut, General Manager, Samsung UK Display Division Samsung.

Samsung’s multi-purpose video wall helps International Space Innovation Centre display the biggest concept ever... space
The Results

The Samsung video wall is now one of the key facilities at ISIC and has been used with great success to deliver interactive visualisations of Earth observation, space science and data for scientific, economic and societal benefit.

“The ISIC video wall has exceeded our expectations for a flexible, high performance visualisation facility, capable of supporting scientific analysis of complex earth observation datasets while at the same time providing an exciting, impressive outreach facility for ISIC partners,” said Andy Shaw.

“The latter was demonstrated at the ISIC’s formal opening which was launched by the HRH Duke of York and Minister for Science. The video wall performed brilliantly in both expressing what ISIC is about and demonstrating what space derived data can do for science and commercial applications. We have since booked out the video-wall room for many events and also had enquiries regarding the possibility of further installations around the UK,” continued Andy Shaw.

“The opportunities with Samsung LFDs are infinite and the project with ISIC demonstrates Samsung’s domination of the LFD market. With our expertise we can work in partnership to help ISIC display the biggest concept ever... space,” said Phil Gaut.

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