



The Royal Society and Panasonic share Science

Panasonic 4K PTZ cameras help the Royal Society continue pioneering work in live streaming

Challenge

To equip the Royal Society with a complete end-to-end 4K system to capture and stream a mix of physical and virtual events.

Solution

Panasonic AW-UE150 PTZ cameras, supported by Panasonic AW-HE40 integrated HD cameras, with a Panasonic AW-RP150 touchscreen remote camera controller.

“With the new system and the capabilities of the Panasonic PTZ cameras, the Royal Society is set to continue trailblazing with the streaming of next generation blended physical and virtual events.”

Liam Helm, AV Manager at
The Royal Society.



When the Royal Society, the world's oldest independent scientific academy, wanted to upgrade its camera systems for live events and streaming online from its London Carlton House Terrace HQ it turned to Panasonic. The Royal Society has always been a trailblazer in event streaming, starting in 2004. Today, it typically streams around 20 live events a year to its YouTube channel, mainly lectures aimed at increasing public engagement in science. Carlton House Terrace HQ, with its 12 rooms for venue hire, is also a popular location for events organised by external organisations for groups ranging in size from 10 to 300.

Historically, the Royal Society had successfully used Panasonic camera technology, such as the AK-HE870 SD box cameras and pan-tilt heads, before upgrading to HD with the AK-HC1800 HD box camera.

The first priority was to upgrade the building's Wellcome Trust Lecture Hall, as part of a major refresh completed by Whitwam AV Integration. "We tested numerous PTZ offerings from Panasonic and were so impressed with the image quality of the AW-UE150," said Liam Helm, AV Manager at The Royal Society. "The zoom range was another strong factor. We needed a wide depth of field when operating at the extremes of the zoom range and we have found that the digital zoom feature really helped. We can punch into the image that much more without losing image quality."

The Panasonic AW-UE150 camera is the flagship model in Panasonic's professional PTZ camera line-up. Featuring a 1-type MOS large sensor, the PTZ camera supports high-quality 4K 50p video with simultaneous 4K/HD operation. It is equipped with a 75.1 degree viewing angle, 20x optical zoom and versatile outputs, including 12G-SDI, HDMI, optical fibre and IP.

Four cameras were installed in the room - two at the front, one on the left-hand side wall and a rear camera on the front of the control room with a Panasonic AW-RP150 touchscreen remote camera controller inside. In addition, the team installed a Panasonic PT-RQ22K projector, providing a 4K-ready multi-screen presentation system. Panasonic AW-RP150

The Royal Society also has an additional UE150 camera placed on a tripod that can be deployed around the room. "The benefit of the additional roaming camera is that it can support hybrid events taking place in other spaces using live stream platforms like Wirecast and V-MIX. This is supported by an additional two Panasonic AW-HE40 PTZ cameras."





A further three AW-UE150s cameras have been installed in the Dining Room alongside a PT-RZ970 projector, operable from the Wellcome Trust Lecture Hall control room, and two additional AW-UE100s are to be installed in the Kohn Centre to support event capture.

A flexible professional AV infrastructure

The Royal Society live streams to its YouTube channel from the Wellcome Trust Lecture Hall using Teradek encoders. Audio was upgraded to a K-Array audio system, alongside Sennheiser Speechline digital wireless microphones, and a Shure ceiling array microphone above the stage for voice uplift. The ceiling array is ideal for panel discussions. All audio then inputs into a Yamaha QL5 mixer and is embedded into the video.

While the Society has been unable to use the venue during the pandemic, virtual events in the form of Zoom webinars, have continued and are remotely streamed to its YouTube channel.



"When we can access the building again, we now have the resources to produce 'high value' events, all which can be streamed from software, predominantly using both Wirecast and VMix," said Liam. "As physical events begin to return, I expect that we will initially have a smaller audience and we will almost certainly have both virtual audiences and virtual participants. This is where the camera system will come into its own by providing a view of all speakers and any audience - whether present or virtual."

"With the new system and the capabilities of the Panasonic PTZ cameras, the Royal Society is set to continue trailblazing with the streaming of next generation blended physical and virtual events."

