



RWE deploys Panasonic PTZ cameras for new VR broadcast studio

The 4K PTZ cameras, KST-CamBot control and ground-breaking Zero Density virtual production software deliver a powerful and affordable VR and AR solution.

Challenge

To create a state-of-the-art VR broadcast studio in a confined space on the RWE campus.

Solution

The KST-CamBot system as the central automation unit, four Panasonic AW-UE150 4K PTZ cameras, the Zero Density Reality Engine™ virtual production software, and the Panasonic AV-UHS500 4K Live Switcher as part of a wider system.

“Zero Density’s Reality Engine is the technology leader in live graphics and the Panasonic AW-UE150 camera is currently the only PTZ camera capable of the tracking needed for the graphics.”

Felix Moschkau, Product and Project Manager at KST



In the fast-moving world of global business and digital media, large organisations are installing their own broadcast production studios to respond quickly to events with effective corporate and internal communications on a regular basis. The energy supplier RWE has recently commissioned its own virtual and augmented reality broadcast production studio - powered by Panasonic ProAV equipment- at its new campus in Essen, Germany.

"We have employees in over 50 different countries, offshore and onshore, working at power plants through to open cast mines, and it's very important to be able to communicate with everyone effectively," said Frank Arens, Head of PR at RWE AG. "Our management want to be able to discuss topics quickly and virtually with our colleagues in different countries and this studio is our broadcasting hub."

Broadcast and VR system specialist, KST Moschkau GmbH, demonstrated studio options to the RWE decision-makers at its Innovation Center, in Düren, and it quickly became clear that the company required a VR/AR studio delivering UHD quality broadcasts. Another important consideration was the need for automated workflow production processes, as RWE would not be using professional studio staff to operate the system. RWE commissioned KST for a turnkey solution, to be deployed in just four weeks, using two newly constructed rooms at the RWE campus.

Virtual system benefits

"The great benefit of a virtual system is that it is completely independent from the physical set-up in the studio," said Axel Moschkau, Managing Director at KST. "With the green screen, it is possible to create a studio in a confined space and, contrary to traditional studio productions, generate an incredibly wide range of customised backgrounds."

The studio was equipped with an L-shaped green screen and KST-VR LED lighting. The studio and control room solution included the KST-CamBot.System as the central automation unit, the Zero Density Reality Engine™ virtual production software, four Panasonic AW-UE150 PTZ cameras, ideal for confined studio spaces, the Panasonic AV-UHS500 image mixer, an AJA 32x32 12G Kumo crossbar and a 16x16 HDMI matrix switcher.

The 4K PTZ cameras, with real-time positioning data capabilities using the FreeD protocol, feed the ground-breaking virtual production software to deliver a powerful, high-quality and affordable VR and AR solution. The 1-type MOS large sensor delivers high-quality 4K 50p video and features a 75.1 degree viewing angle, 20x optical zoom and supports versatile outputs, including 12G-SDI, HDMI, optical fibre and IP. Simultaneous 4K/HD operation makes the camera ideal for those looking to future-proof their system.

"Zero Density's Reality Engine is the technology leader in live graphics and the Panasonic AW-UE150 camera is the leading PTZ camera capable of the tracking needed for the graphics," explained Felix Moschkau, Product and Project Manager at KST. "Using the KST-CamBot.System on top, as the control software, enables us to complete a high level of automation. Once programmed, the automated movement of the camera can be reproduced as often as needed, which is something not possible with manual operations."

The compact control room uses the KST studio system table, designed for 3 main operators: a CamBot production automation operator, live mixing and playout and a graphics operator. KST was also responsible for equipping additional filming facilities for use with the studio, such as a large multi-purpose room for live events, an outdoor interview zone and an OB vehicle connection point.

Versatile and intuitive to use

The whole system is incredibly flexible with the capability to combine feeds from inside and outside locations, both on and off the RWE campus. For example, up to four online conferences or participants can be switched directly into the VR production, simultaneously translated into up to 4 different languages and broadcast live in various formats (3G, 12G, ST2110, NDI, Skype/Teams/ Zoom/YouTube -Stream etc).



The studio went live with four, one-hour productions in July 2020. To date, the studio has mainly been used for internal, company-wide communication, but work is also underway on other uses such as media briefings and financial reporting.

The RWE employees operating the studio did not have professional video production experience but were still able to operate the system very quickly with some initial training. "Automation and intuitive user guidance make it so much easier and the team have a number of standard system settings that they can work with," explained Axel. "The high degree of automation between the KST-CamBot.System and the Zero Density Reality Engine makes operating the program a pleasure."

Highlighting the value of the virtual studio, Frank Arens concluded: "Now we can quickly broadcast our management statements to the world and that is crucial in these times of social media, where a fast response is so important. Having a digital solution, where we can quickly contact our employees is also essential. Using the system, senior managers can address employees, even those working on an offshore platform in the middle of the ocean. The employees feel included and this is reflected in the participation rates. Many departments and work councils also use the studio for online meetings in addition to our general communication needs."