PARLIAMENT, TILT, ZOOM:
SERBIAN CHANNEL ELECTS CANON CAMERAS TO BROADCAST LIVE DEBATES

The Parliament of Serbia finds the perfect low-light broadcast solution in the Canon CR-N500 PTZ camera, shining a clearer spotlight on the country's most important political issues of the day.

Company Name: RTS (TV broadcaster for the Serbian Parliament)
Industry: Government and public bodies
Founded: 1958 (RTS)
Location: Belgrade, Serbia
Services: Government affairs
Website: www.rts.rs, www.parlament.gov.rs/nationalassembly.467.html
Products purchased: CR-N500 (4 units), ME-200S-SH, CN-E18-80mm T4.4 L IS KAS S
Canon installation partner: Zanus

Objective

- Upgrade from SD to a full HD imaging system
- Find an effective, reliable solution to enable a single operator to capture 250 speakers
- Deliver high-quality TV productions of live Parliament sessions on a medium budget
- Integrate PTZ cameras, old 3 CCD HD EFP tape-based cameras with matching picture quality so you can't distinguish which camera is on air

Approach

The deal came about after RTS announced a tender, which was won by Zanus. With the help of Serbian systems integrator, Zanus, RTS explored the different PTZ cameras on the market, including two competitor brands. Canon has a long-standing relationship with Zanus. Together, both Canon and Zanus provided programming support and training on the new solution – the latter even designed and built bespoke shaders for the cameras to block light from the glass roof.

Challenges

- Switching quickly and accurately between each Parliament member when speaking
- Need to support hundreds of pre-sets for each member
- Performing under challenging indoor lighting conditions
- Filming long durations with sessions lasting up 14 hours
- Small production team with limited resources

Scope

RTS operates 13 channels in Serbia, recording around 10 days of sessions each month, which are often broadcasted on RTS 1. They needed a system that could power through long debates up to 14 hours a day, stressing the importance of robust and reliable equipment. Due to unpredictable changes in the schedule, it was important to install an imaging system that could work 24/7.

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Results

- The 4K UHD resolution and low-light performance vastly improved image quality
- PTZs are now a permanent fixture covering the Parliament debates
- Excellent feedback from operators, including image quality and speed of pre-sets
- Saved money with fewer operators needed
- Streamlined workflow with multi-cam setup controlled by Skaarhoj controller
- ME-200S-SH is used in the RTS TV studio on a daily basis

Located in the Belgrade Square of Nikola Pašić, the Parliament of Serbia is where 250 deputies in the National Assembly debate the top political issues of the day. With a duty to uphold transparency and visibility for its citizens, the government institution broadcasts important political events on national media service Radio Television Serbia (RTS). RTS runs 13 channels in total of which 3 of them are national. Yet with 9 outdated cameras, which all required round-the-clock operators, it was time for an upgrade albeit on a limited budget.

The objective was simple. To boost the image quality to HD, while shifting towards a more reliable, remote-controlled system. Aleksandar Topalovic, Deputy Chief Technical Officer at RTS, explains: "Depending on the schedule of Parliament, we broadcast an average of 10 days per month normally from 10am-6pm. Extraordinary sessions can last up to 14 hours a day! We needed a system that could work 24/7, sometimes until the early hours of the morning."

"We had an SD system with 9 cameras, but only 4 operators, while the other cameras were static. The challenge was to find a solution where one operator could control all cameras, some PTZs and some robot cameras, with an upgrade to HD."

"Now we have 7 cameras controlled by one person from one place"

Quality to match

Since RTS is a public company, they had to announce a tender for the new equipment. After researching what's on the market, they found local systems integrator, Zanus, who supplied different PTZ cameras. According to their needs, the options were narrowed down to Canon and a competitor. Zanus then brought a Canon CR-N500 PTZ camera to Parliament for testing alongside the rival.

"Our first concern was picture matching, which we were happy with. We wanted to keep the old EFP HD with tape recorder cameras, so it was important that the quality matched. Then we tried out where we could position the cameras in the main hall and what shots we could capture. Another thing was to test the image quality and compare it to our existing system. Everything worked well, we were happy the Canon CR-N500 met our requirements. We started to integrate the system in between two elections in September 2022!" tells Aleksandar.

"We had good support from Canon during the integration, and Zanus as well. They even invented a bespoke shade to fit on top of the camera to block out some of the light from the glass roof." In terms of the multi-cam placements, one PTZ is central, two are on the side and one is fixed upstairs in the gallery for a wide shot and voting. "Now we have 7 cameras controlled by one person from one place, with two operators taking turns, reducing the overall manual operation."

Broadcast made easy

"You don't need a university degree!" remarks Aleksandar about how easy the CR-N500 is to set up. The power over ethernet streamlines the number of cables for easy integration, while the pre-sets have made life simple for the operator.

"Every Parliament member speaks from their seat. Therefore, we have a pre-set for each person, per political party, per area. Up to 10,000 pre-sets are possible. The sky is the limit!" he says. As the Chairman nominates who to speak next, the operator must pick the name of the MP to point the camera, and navigate any fine adjustments if people happen to be sitting in a different place.
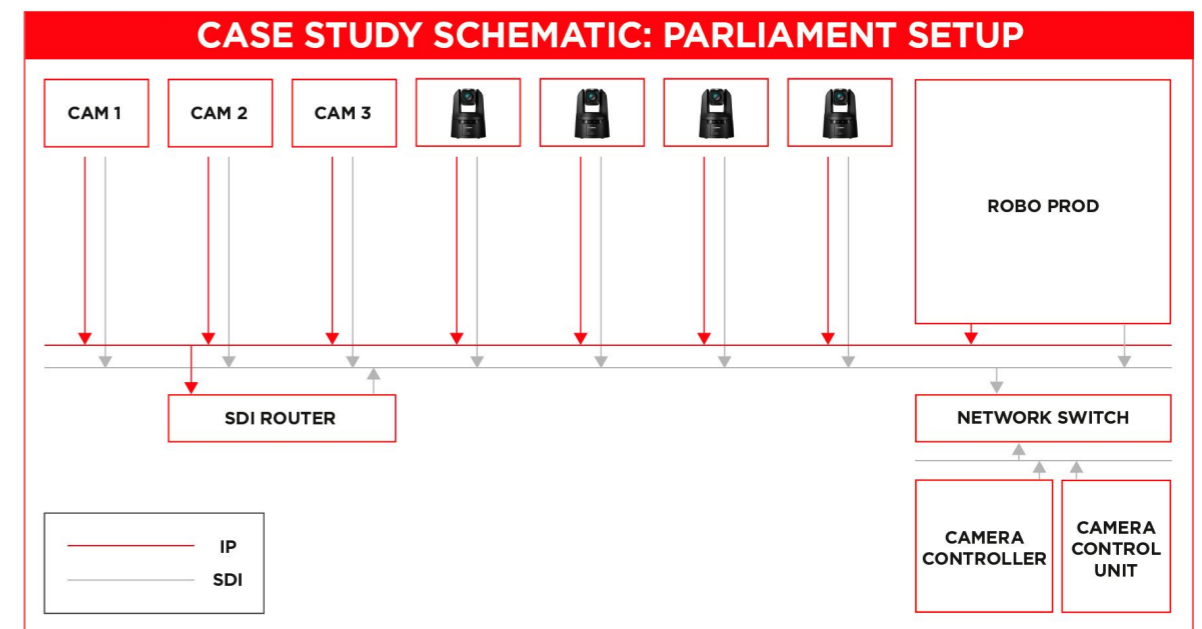
"Pre-sets help a lot. The time to find the speaker has been significantly reduced compared to when it was done by an operator in the hall." To customise and control the pre-sets, the team is using a bespoke software called RoboProd together with a Skaarhoj controller, which Zanus helped to programme and predefine. In addition, Aleksandar's team purchased the Canon ME-200S-SH camera with a CN-18-80mm lens to create a wire cam using a gimbal in the RTS studios.

"The time of finding the speaker has been significantly reduced compared to when it was done by an operator in the hall"

"It works like a spider cam that you see in football stadiums, but between two points showing an aerial view and allowing us to move between two studios," he says. "We use that every day for the Daily Show to help elevate our overall production value."

According to Aleksandar, his operators now can't tell the difference between the Canon CR-N500 PTZs and their previous broadcast cameras. Unsurprisingly, the jump from SD to HD means the quality of picture is "much, much better". Thanks to the Canon upgrade, viewers can now clearly see the Parliament interior in all its stately beauty. While most debates are more contentious, it seems the CR-N500 has received the vote of confidence from all parties.

CASE STUDY SCHEMATIC: PARLIAMENT SETUP

| CAM 1 | CAM 2 | CAM 3 | | | | | ROBO PROD |

SDI ROUTER

NETWORK SWITCH

CAMERA CONTROLLER

CAMERA CONTROL UNIT

— IP
— SDI

Canon

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The Canon Solution

CR-N500 PTZ Cameras

- 1 Inch-Type CMOS Sensor
- 4K UHD Image Quality
- 15x Optical Zoom with Image Stabilisation
- Dual Pixel CMOS Auto Focus
- Multiple in-built protocols such as RTMP and NDI | HX
- HDMI, 3G-SDI and IP Connectivity

ME-200S-SH

- Super 35mm CMOS sensor
- Full HD Image Quality
- Dual Pixel CMOS Auto Focus
- Canon EF Mount ready
- Low light video capture with maximum equivalent ISO of 204,800
- Captures infrared in colour
- Lightweight and compact body
- HDMI, 3G-SDI, Genlock, RS-422, 3.5mm Audio Jack

CN-E18-80mm T4.4 L IS KAS S

- Canon EF mount
- Dual Pixel AF Supported
- Focal length of 18-80mm and optical zoom of 4.4x
- Superior Canon optics provide stable brightness levels of T4.4 (F4) across the entire zoom range
- DC & USM motors for fast, fluid and quiet servo zoom and focus control
- 3 modes of image stabilisation
- Compact and lightweight at just 1.2kg
- 9-leaf iris for cinematic bokeh

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