

Network video technology adds new dimension to sports analysis for Team GB's curling team.

British Curling's National Academy installs Axis network cameras as part of its sports analysis system to help improve athletes' performance in preparation for Winter Olympics.



Organisation:

British Curling

Location:

Stirling, Scotland

Application:

Remote guidance and teaching

Axis partner:

AnalysisPro

Mission

British Curling, the organisation that manages and develops elite curling in Britain, is responsible for delivering a top-level performance programme for the sport to ensure athletes can achieve their potential and deliver Olympic and Paralympic medals. Following great success at the Sochi Winter Olympics in 2014, the organisation received funding to build a new £3.15m National Curling Academy at the Stirling Sports Village in Scotland. To stay one step ahead of the competition and improve on a previous portable solution, the academy required an integrated visual sports analysis system to help training staff improve athletes' performance.

Solution

British Curling turned to AnalysisPro, a provider of performance analysis solutions to help enhance athlete training, to procure a fixed IP camera solution utilising its AP Capture solution. AnalysisPro installed the software alongside 16 innovative network cameras located around the four curling sheets within the Academy.

This includes eight overhead 4K network cameras with full pan, tilt and zoom (PTZ) capability, as well as an additional eight fixed position 1080p network cameras located at a lower level to show side-on views of the curlers in action. This solution gives analysts and coaches real-time footage of training sessions, so they can deliver feedback to help improve techniques during, rather than after, training.

Result

Along with the ability to capture footage and control the cameras via the AP Capture laptops, all the cameras are constantly recording onto network drives so they can be accessed both during and after a training session, ensuring that every moment is available for recall from any camera. This means that if a coach identifies an area that an athlete can improve on, they are able to provide real-time feedback to correct the techniques while on the sheet. It has also helped to reinforce when an athlete is performing well and is helping increase confidence.

“Not only do the cameras enable us to identify problem areas and correct them immediately, but the analysis system also helps us reinforce what the athletes are doing well, which increases their confidence in match play.”

Kenny More, Performance Analyst for British Curling.

Nurturing talent in time for the Olympics

Curling originated on Scotland's frozen ponds and lochs in the 16th century and is one of the world's oldest team sports. What started as a winter pastime has evolved into a modern sport, with its own world championships and a platform on the Winter Olympics and Paralympics stage.

British Curling is based in Stirling at the sport's new multi-million-pound, purpose-built National Academy. British Curling Performance Analyst, Kenny More, explained that the investment made by UK Sport focuses on Olympic outcomes, so it is essential that the British team performs well on the Olympic and Paralympic stage. The Academy currently supports 44 athletes on individualised training programmes who form part of the Men's, Women's, Mixed Doubles and Wheelchair teams.

A hotbed of curling talent

“In a given training week, our athletes spend approximately 12 to 16 hours at the National Curling Academy. This includes individual technical sessions, team tactical sessions, and video debrief sessions in the analysis room. Supporting this is a full sport science, medicine and performance lifestyle package that is tailored to the teams and individuals therein.” Kenny More explained.

Prior to the installation of the Axis cameras and AnalysisPro AP Capture software, it was up to each coach to undertake video training sessions using their mobile phones, unless the performance analyst was on site with recording equipment. However, as High Performance Manager Kevin McHugh explains, the advent of the National Academy meant they had to find innovative ways of trying to nurture talent that existed, and that meant coaches needed to focus solely on training techniques, rather than doing the filming themselves.

“We wanted to ensure coaches could concentrate on the athletes during training rather than having the distraction of filming sessions themselves. In addition, as our athletes were practising in Glasgow, Edinburgh, Perth and Stirling, it meant Kenny was essentially a

mobile roadshow, always having to pack cameras and laptops so he could film the sessions and deliver post training feedback.”

Analysing training performance in real-time

Following Team GB's success in Sochi in 2014, the National Academy soon became a reality. Kevin said, “I was specifically tasked with investigating how we could maximise this opportunity to build in performance analysis to reflect what we did in practice,” he explains. “The installation was incredibly smooth, and all parties bought into the project as a whole and were able to oversee the installation work carried out. In addition, on-site and remote support was provided so we didn't have to concern ourselves with maintenance issues.”

The installation began in October 2017 and the system was up and running to full capacity by January 2018. A total of 16 fixed and PTZ Axis network cameras are installed in multiple locations around the sheets, with screens and tablets set up to help coaches and sports analysts review training performance in real-time. The side cameras provide fixed views of technique while overhead cameras have full PTZ movement control to ensure an interactive environment with all activity being filmed.

Live feedback ensures technique is corrected in real-time

Kenny continued, “It's been a really pleasing journey since then and the coaches are finding it much easier to get on with their core job. Being able to provide feedback live while the athletes are on the ice also means any problems with technique can be rectified immediately.” A secondary benefit is that there is less planning required when an analyst has to attend training to help, as coaches are able to analyse footage for up to eight days after a training session or tournament to investigate what went wrong – or indeed, what went right. The contribution of the Axis system is recognised by coaches and athletes alike. Both Kevin and Kenny are confident that the new analysis tools will go a long way to helping improve technique and tactics, and ultimately the most important performance of their lives – at the Olympics and Paralympic games every four years.



“We utilise Axis technology because of its smooth movement controls, great image quality and open architecture which enables us to deploy different software. The system British Curling is using means they can keep themselves ahead of the competition,” says Josh Bryan, Manager at AnalysisPro .



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