Project Profile

Applied Electronics Implements Customized Control System and Content Display Solutions into Rogers Sportsnet's New NHL Hockey Central Studio

Toronto, Ontario



Forward-Thinking, Leading-Edge Production Workflow

After winning an exceptional 12-year NHL deal in late 2013 to retain hockey media rights across Canada, Rogers Sportsnet commenced its plan to build a brand new broadcast studio in downtown Toronto that would surpass the expectations of the country's extraordinarily diehard hockey fan base for the 2014-2015 NHL season.

Rogers Sportsnet wanted to deliver the largest, most innovative sports studio in the country and provide fans with a sports entertainment playground that places them in the heart of the action and brings the NHL experience to life. With the bar set high, Rogers Sportsnet reached out to Applied Electronics for forward-thinking, leading-edge production workflow and content display solutions to help bring the ideas and concepts for their new 11,000 square foot studio to reality.

Nine distinct sets define the awe-inspiring studio, designed by Jack Morton PDG:

• A 58-ft Cat Walk bridge featuring 'Goliath', a dynamic 38x11-ft titled LED backdrop composed of 170 panels – the largest in a Canadian television studio – with a Sharp 90-inch LED display monitor on each end of the bridge;





• A rotating anchor desk with LCD and **Boland** LED in-desk talent monitors and a 360-degree open environment allowing cameras to shoot from any angle;

• Two regional sets which are stacked on top of each other – each featuring anchor desks with LCD in-desk monitors, multiple 46-inch LED monitors, and a **Sharp** 90-inch LED display monitor;

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A third regional set used for 'Coach's Corner' on Hockey Night in Canada and features six 55-inch LED monitors creating a striking digital backdrop and two additional monitors on each side to complement the video wall;

• An analyst set as an interview corner for host, George Stroumboulopoulos, boasting six 60-inch LED monitors exquisitely arranged as creative art pieces;

• A large demo area boasting a unique 12-panel LED floor and a 16-panel LED monitor wall that displays videos and graphics;

• A Rogers Tech Zone virtual area that includes an 80-inch touch screen monitor and two peripheral 46-inch monitors showing live and interactive stats; and

• An interactive Puck Wall that features a 70-inch vertical LED monitor, 30 RFID pucks and an automated **Orad** control system that calls up specific NHL team stats.





Applied Electronics Custom Solutions & Integration

In addition to integrating the assortment of display monitors into the visually breathtaking studio, Applied Electronics worked closely with the engineering teams at Sportsnet and Orad Hi Tec Systems, a world-leading provider of real time 3D broadcast graphics and video server solutions, to design and implement an intricate control system solution, customized to automate various production operations within the nine-set studio.

At the core of the studio's live production system is the **Orad TD Control** which manages studio content distribution by simplifying the complexity of a traditional production workflow and consolidating all tasks into a single user interface, while enhancing the on air look. It reduces the amount of resources required to facilitate the complex graphics and content workflows into one easy-to-use solution and ensures content distribution, despite the variances in display monitors within the studio.

The Puck Wall Concept

A unique and impressive component of the studio is the interactive Puck Wall, which is automated by the Orad TD Control system. The RFID (radio frequency identifier) Puck Wall concept is a one-of-a-kind feature that was conceived by the Sportsnet design and engineering team and brought to life through a custom solution designed and integrated by Applied Electronics and Orad. The Puck Wall area features two LED-lit display walls housing 30 acrylic pucks - one for each NHL team – which contain RFID chips. When a puck is placed in the cradle, an RFID reader triggers the Orad TD Control system Continued on page 3 ...





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to call up an associated 'Team Statistics' page on a 70-inch vertical LED display monitor. From there, the host utilizes an iPad to transition through multiple pages of team statistics and video footage.

Similarly, the Rogers Tech Zone virtual area features an 80-inch interactive touch screen display monitor that uses Orad Interact software which allows the host or analyst to control and access team stats and video footage.

Driving the TD Control system is the **Orad HDVG** 4, a universal HD/SD video graphics rendering platform which was designed for real time graphics and establishes a direct connection between the I/O board and the graphics board, eliminating the need for graphics read backs through the mother board.

In dynamic scenarios that require instant switching between video sources and immediate changes to the video box's layouts, Sportsnet's production crew is able to control the live signals, pre-recorded signals, graphics and animations. The content is automatically converted and pixel-mapped through the Orad HDVG system to fit the various screen sizes in the collection of 52 display monitors located throughout the studio. All files used by the five Orad HDVGs within the studio are stored on a **Scale Logic Genesis NX** NAS platform with 12TB of protected storage.

Solid Collaboration Among Rogers Sportsnet, Orad and Applied Electronics

Rogers Sportsnet successfully debut its new NHL Hockey Central Studio on October 8 – opening night of the NHL season.

"The joint Applied Electronics-Orad team was driven to make television history. A cutting-edge installation of this magnitude was so successful because everyone was completely vested in producing the best images possible," states Peter Gillespie, Manager of the Broadcast Systems Group at Applied Electronics. "Working with Orad to optimize the workflow was a seamless process. TD Control truly benefits Rogers in terms of workflow, convenience and image quality."

"It was an honor for us to contribute to and be a part of this exciting project," says Brian Kelly, General Manager, North America, Orad. "The level of innovation in this studio and the storytelling options enabled by the technology are truly unprecedented."

"I have seen many amazing artist conceptions for studios in my over-25 years in the industry, but this is the first that has resulted in a remarkable on-screen 3D effect that has actually surpassed its original beautiful design," says Jamie Easson,



Manager of Systems Engineering at Applied Electronics. "The solid collaboration among the Rogers Sportsnet, Orad and Applied Electronics teams in bringing some of the elaborate ideas to reality was truly phenomenal. We delivered fully customized solutions in software and hardware under incredible time restraints – in half the time of a typical studio-build of this magnitude – and the results are outstanding."



