

Outside Broadcast/Mobile Production Vehicles

Harris Multiviewers — The Preferred Choice for Outside Broadcast Vehicle System Designers

As high definition has rolled out across Europe and the rest of the world, one of the first areas to be upgraded has been the Outside Broadcast (OB) or mobile production vehicle. Prestige events such as the World Cup have encouraged broadcasters to invest in new equipment and production facilities to provide the high-quality content that will entice the consumer to make the leap to HD. Whether it is the refit of an existing truck or a brand-new state-of-the-art vehicle, the same challenges arise — space, flexibility and reliability.

With space at a premium in these vehicles, Harris multiviewers have been used in conjunction with slim-line LCDs to replace the traditional monitor stack. Harris multiviewers can provide savings on wall area, depth, weight and air conditioning requirements, as well as provide the flexibility to reconfigure the setup with a single button press. Supporting equipment such as Under Monitor Displays (UMDs) that indicate channel identity, tally lamps and studio clocks can be virtualized onscreen by the multiviewer, providing further space and cost savings.



High Resolution, High Standards

Harris HD multiviewer solutions have been hugely successful in this market thanks to a highly competitive feature set. The compact design of the Harris multiviewer range (with offerings including in-monitor multiviewers, as well as 1RU and 3RU formats) enables the systems to occupy a minimum of space within the restrictive environment of an OB/mobile production vehicle. This small footprint is complemented by the Dual Head (ZdH™) feature, which allows the multiviewer to drive two separate, independent display devices from one compact system — spanning horizontally mounted displays or configured on vertically mounted LCDs to mimic portrait effect — at a much lower cost.

While space saving is hugely important, it cannot be achieved at the expense of performance. Harris multiviewers offer true HD-quality images, auto-detection of SDI or HD sources (including 720p or 1080i), and a true HD output to 1080p. All multiviewers can be quickly configured, with flexible source allocation and easy-to-use layout design software via the Harris Z-Configurator™ user interface. Harris multiviewers have also been designed to interface directly with many industry router and switcher protocols for dynamic UMD assignment.

The Top Choice for Italy's SBP Vehicle

Italy's leading broadcast services company, SBP, chose a mixture of Harris Predator™ HD8 and FusionPro+™ multiviewer systems for their new state-of-the-art OB van. The 14-metre long truck boasts two FusionPro+ systems, each driving two Clarity 46" high-resolution LCD displays from Planar Systems. These large displays are the central focus of the control room, providing the production director with 26 high-quality images over an impressive video wall. The FusionPro+ systems have been programmed with a number of predefined screen layouts and system configurations that can be switched at the touch of a button, allowing an immediate update to the monitor wall. The fact that the system can be quickly reconfigured in such an effective way saves costly setup delays — very important as each new outside broadcast event brings different production monitoring requirements.

Six Predator HD8 systems were used to drive 12 Sony® 17-inch monitors in the engineering control area, providing the technical team with the ability to monitor a signal at many points along the chain. SBP based their choice of monitoring technology on ease and flexibility of configuration, as well as the Predator systems' ability to display dynamic UMD text and tally information associated with the video sources. Instant tally indicators allow the director to easily identify "program" and "preview" channels. According to Sergio Nuvolini, technical manager at SBP and designer of the complete OB system, "The flexibility of the Harris systems makes it easy to create and configure the monitor wall to match the needs of any particular event."





Designed for Performance, Trusted by United Kingdom's Arqiva

Since most OB vehicles are required to travel long distances and perform dependably during live broadcasts, it is essential that the equipment in the vehicle is robust and reliable.

Harris multiviewers have proved themselves in different environments — from Alpine snow to Mediterranean sunshine — to have a consistently high level of performance. This reliability, along with quick and simple reconfiguration options, provides a high level of reassurance to our production customers.

These factors were key in the decision of Arqiva (located in the United Kingdom) to install 48 Predator HD8 multiviewers in their two HDTV OB trucks, which were to be used to monitor HD content for championship football for Sky Sports HD.

The superior processing technology of the Predator HD systems results in performance that is second to none. Each model boasts immediate system startup to enable monitoring almost as soon as the unit is powered up (rather than lengthy software boot cycles). The systems also feature native HD input processing and the lowest minimum frame delays (< 1 frame) from source to output, providing the ultimate in image excellence and control in Arqiva's critical HD sports production and monitoring environment.

In each truck, 24 Predator HD8 multiviewers are installed — 10 in the production area, 12 in the video tape recording area and two in audio. The Dual Head (ZdH) mode has enabled Arqiva to build up a dynamic display wall using an array of 26x17-inch and 32x23-inch LCD screens. Eight images from each system are displayed across two LCDs with no loss of functionality or control.

Ewen Hamilton, operations director for Arqiva, explains the benefits of using the Predator HD8 multiviewers. "We can configure the system so that each screen displays three small previews of HD material alongside a single, larger output image. With the flexibility of the Harris units, we are able to change or manipulate the images to our specific project."

At any time, the Arqiva operators have full dynamic control over the configuration of all sources being shown on any single display — including the display of dynamic UMD and tally from external routers, clocks and timecodes.



“Driving HD” for Alfacam’s OB Fleet

In what is one of the largest broadcast installations of multiviewers in Europe, over 200 Predator HD8 multiviewer 1RU units were provided to Alfacam, the Belgium-based television facilities provider. The Alfacam fleet of trucks is used worldwide for a diverse range of high-profile projects, such as international sporting events, operas, rock concerts and other events in which images are shown around the globe.

There are between 14 and 28 Predator HD8 multiviewers installed in each of 11 Alfacam OB vehicles, and they are used for driving HD production and mixing monitoring. The multiviewers are configured to use the DualQuad functionality for the display of eight video inputs across two displays. In the main production monitoring wall, the Predator HD8 multiviewers are configured using the easy-to-use Z-Configurator software, which routes any eight inputs to true native HD/SDI monitors with full dynamic UMD and tally display. The multiviewers drive up to 1080p in single- and dual-output mode. The production console is designed for maximum flexibility and can be used from left to right, with additional sub-mixing areas. In the mixing area, the multiviewers are fed signals from a routing switcher and provide up to 32 pictures in any configuration for display on 20-inch LCD monitors.

In the past, Alfacam was the first broadcaster to install over 75 Harris DX™ systems for standard-definition monitoring across their fleet of OB vans. “Because our OB vehicles are working on many events, our production needs are constantly changing,” said Gabriel Fehervari, CEO at Alfacam.



“We also chose them because of reliability, build quality and outstanding image quality.” Space, performance, flexibility and reliability are the key elements in any good mobile vehicle design. Harris multiviewers are fast becoming the preferred choice for OB vehicle designers due to their winning combination of picture quality, strong feature set and small design footprint.



Images courtesy of Alfacam (Belgium), SBP (Italy), and Sony Professional Services on behalf of Arqiva

For more information, please visit www.broadcast.harris.com/multiviewers.

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