Advanced Control for Sports

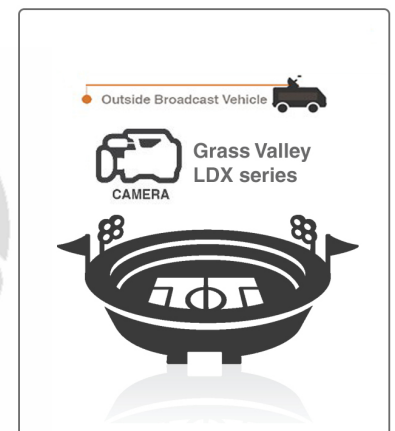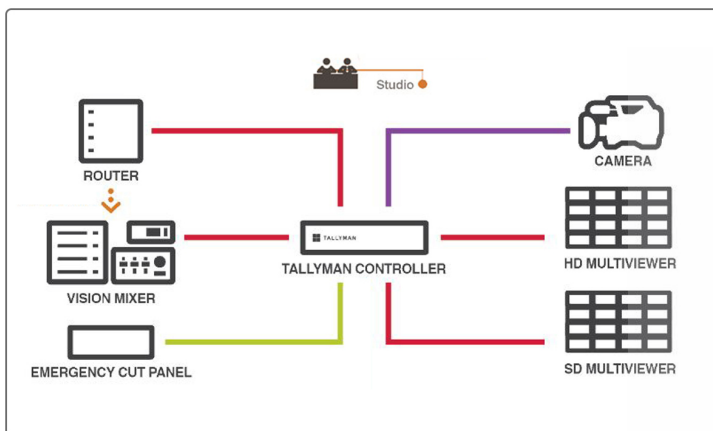## Empowering Sports Broadcasters by helping them to optimise their workflow.

Sports broadcasters constantly search for ways to capture better shots within a game's fast-paced, high-stress environment. This starts with improving the capabilities of production facilities and Outside Broadcast (OB) trucks with equipment that offers simplified and streamlined workflow management solutions.

With over 1,000 global installations and counting, TSL Products' user configurable TallyMan Advanced Broadcast Control System continues to be an asset to production crews worldwide. By simplifying complex broadcast processes and eliminating human error, TallyMan enables operators to focus on what truly matters: producing great content.

TallyMan was built to be independent, universal, configurable and infinitely scalable, allowing broadcasters to achieve interoperability between equipment regardless of manufacturers and format specifications. Whether a broadcaster needs to connect two trucks with different manufacturers' cameras or upconvert HD signals into a 4K truck, TallyMan can easily group multi-level actions into a simple control surface that provides a single, shared entry point for signal flow and routing control.

One TallyMan can route a 4K broadcast through an HD truck with minimal equipment and cost. With just a 4K camera and 4K cable switcher plugged into a standard router, TallyMan can detect and differentiate between HD and 4K signals, and automatically implement the pre-programmed workflow throughout the truck. "The only person who had to do anything different on the day they're shooting in 4K as opposed to the day they're shooting in HD, is the person who plugs the cameras in," says Dan Bailey, product manager - control systems, TSL Products. "TallyMan detects the rest, so operators don't have to do anything differently."

TSL's control system in sports conficuration, including IP Tally Conrol with Grass Valley LDX Series Cameras.

Application

TallyMan's Virtual Panel Interface allows operators to ensure this process is easily configurable. With intuitive, drag-and-drop controls, users can customize production setups to fit specific needs. The interface can be set up to outline an overhead view of a stadium, floor plan or track on the panel, and add sources and destinations as needed for that location. With everything pre-configured prior to the production, TallyMan presents a simplified workflow that requires minimal labor and training to operate effectively, resulting in a substantial decrease in the potential for mistakes and increase in operational cost savings. Presets can be established across a fleet of broadcast trucks, ensuring the same configuration when required.

With traditional control infrastructures, sports broadcast operators spend tens of seconds taking multiple steps to secure a certain shot of the crowd in the stadium, or the field of play. "After an operator picks a shot, they would then need to zero in on that location, fade up the microphones on their audio console, route the footage back into their multi-viewer and then route that signal for broadcast," explains Bailey. "TallyMan can repackage these steps into pre-defined commands long before the game begins, automating multi-step processes into single functions and capturing the action in a matter of milliseconds."

For a recent professional auto racing series, TallyMan was used to circumvent conflicting commands from its camera operators. If an operator sees a crash or particularly strong performance, the camera includes a "pick me" button, which routes the camera feed onto a specific spot on the multi-viewer to indicate a "suggested shot." However, since a producer must choose whether to take that shot, there is a delay before the feed goes live to air. Conversely, unrestricted control could lead to multiple live cuts within milliseconds. TallyMan offered the broadcaster a powerful decision-making engine. Instead of routing operators' "pick me" triggers to the router or the multi-viewer, it is first fed through TallyMan. The system sends the first camera operator live to air and locks out all other cameras for four seconds, while still allowing the producer to kill that functionality, if they choose. The process happens in less than half a second.

"TallyMan adds security and speed, removes human error and allows cameramen to capture a key shot and move it efficiently along the production pipeline," adds Bailey. "Milliseconds can make the difference, when broadcasting live."

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