
Advanced Control Systems

OB Trucks



Increasing demands on resources, budgets, and the rapid adoption of IP and remote production means that it is essential for control systems to be able to hide underlying system complexities so that operators can remain focused on making great content.

Empowering operators by helping them to optimise their workflow.

Imagine you are a customer with 1 large truck supporting 10 (expandable to 12) cameras and 1 medium sized truck, designed to support 4 (expandable to 6) cameras to cover regular TV events.

The control system must include the ability for the vans to work as a single operation, or in tandem as required, sharing resources for larger events linking control functions, routing, tally, signal labeling and configuration of remote resources.

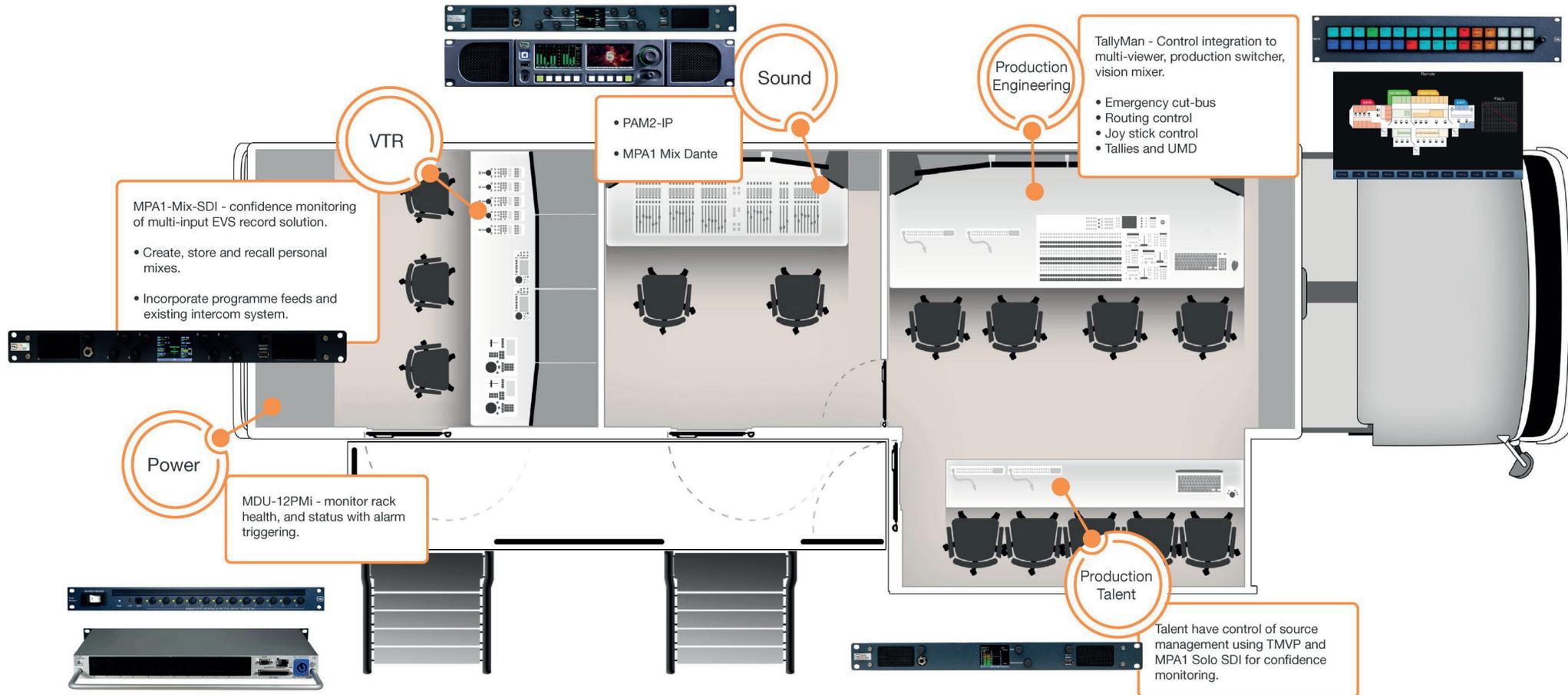
When linked, the resources such as audio routers must be able to be utilised together for greater flexibility and efficiency.

By providing a unified layer built on powerful logic and open third-party protocols, an advanced control system puts ownership back in to the hands of the user to manage:

- Camera assign – assign camera names to CCUs effortlessly.
- Joystick multiplexing – use fewer RCPs to control multiple cameras and assign cameras to RCPs on the fly.
- Video/audio routing – routing control over video and audio routers. Single crosspoint, associated sources, and salvos.
- Tally – complete scalable solution across multiple OB trucks.

Meanwhile, fully configuring outside broadcast trucks is made simple and efficient with one-button touch to set devices, whilst sharing and managing resources between systems to save time, space and money.





The TSL Eco System

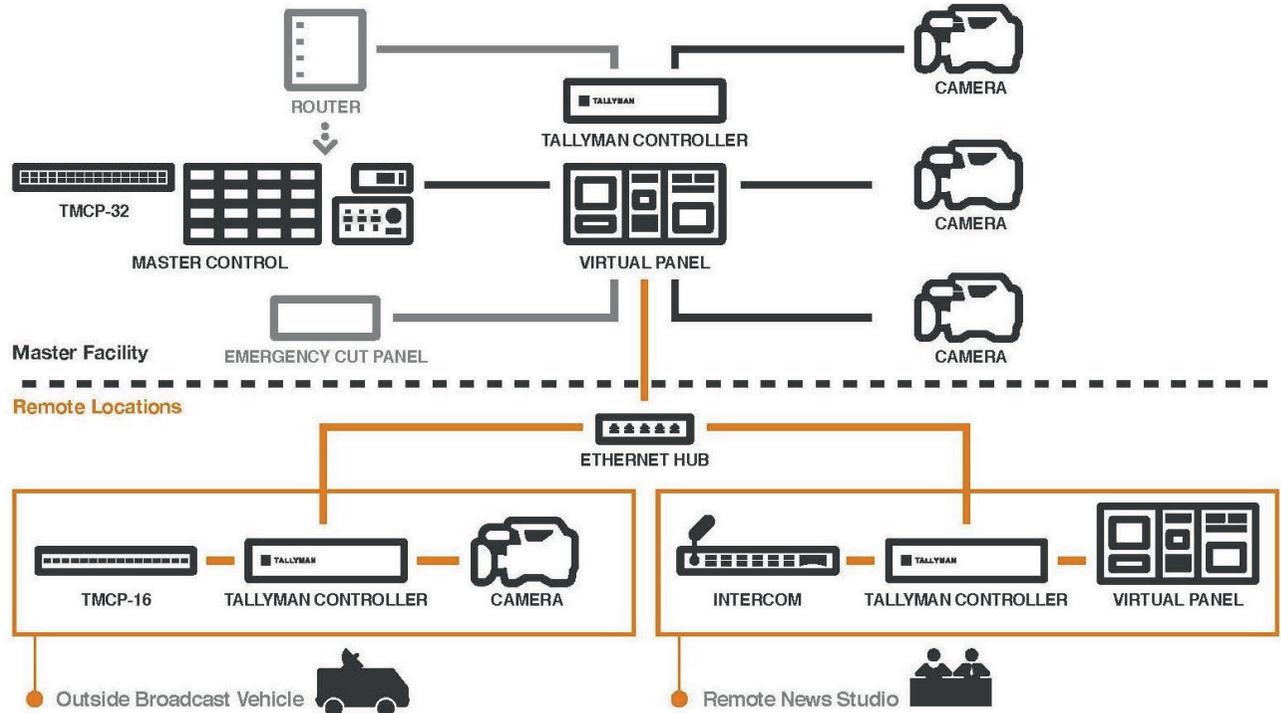
In addition to the standard functions, TSL's Control Systems can integrate with our MPA1 Audio Monitors via SNMP, and the PAM-IP audio range via Ember+ as well as InSite Management Software for monitoring alarm triggers for any device within the system.

Intuitive System Design

From simple routing, to remote device control, by grouping multi-level actions in to a single, simple control interface, broadcasters can make production much more engaging.

A control layer must be capable of allowing the creative management of live remote productions or configure complete outside broadcast trucks at the touch of a button. This can be achieved through an intuitive user interface design toolkit where control can be easily customised for every user.

A control system that is built on independent and protocol agnostic integration provides the flexibility needed to choose best-fit with confidence, for new or existing systems; whilst a powerful control engine takes the efficiency found in automated systems and multiplies it to dramatically reduce production costs and support facility-wide management.



Inter-Linking Systems

By using a control system that offers complete a selection of LCD hardware and virtual control panels with technical signage, it becomes simple to manage tally, names, routing and device control. The system can also be designed to automate emergency workflows, made possible by using configurable rules responding automatically to system alarms.

Stand-alone systems can be linked together over a TCP/IP connection using one of two methods:

1. Pre-programmed presets pooling available resources when the two systems are linked. Resources from each van can be mapped across both systems becoming available when the vans are linked.
2. A button press can load a complete configuration on both vans simultaneously that is tailored to the dual linked van operation.

Using either method can prompt a change on either the virtual or hardware control panels to show the correct control operations for the current system whether stand-alone or linked.

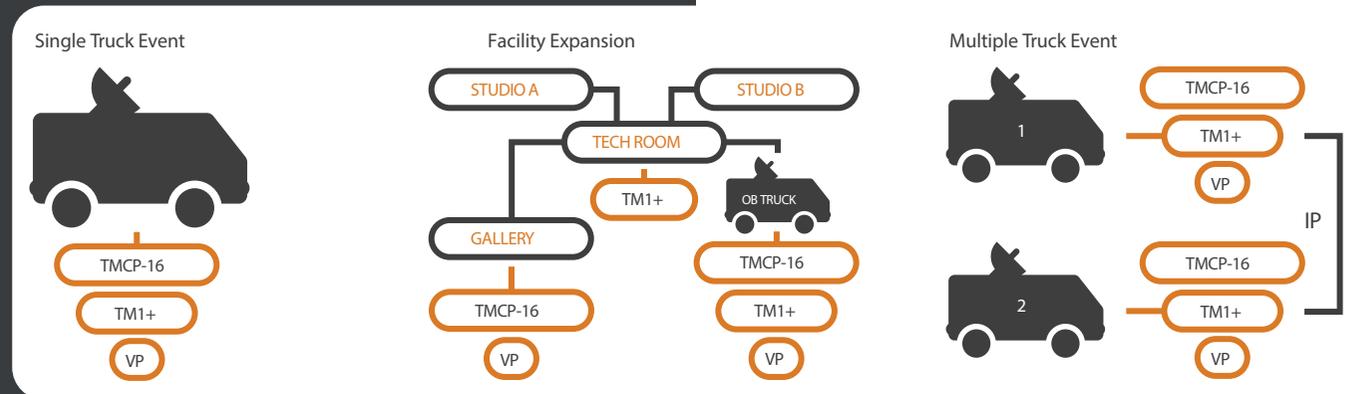
For example, a router control panel can show its local sources when in stand-alone mode but when linked with the second van can automatically show not only the sources from the second van but also the trunking management between them.

Linked or stand-alone status can be easily displayed via technical signage keeping operational staff informed and confident of the current control system status.

Any tally and naming management operations will automatically adapt to the mode of operation whether stand-alone or linked.

The system will update any changes in signal routing and names of sources and destinations automatically read and applied to the control panels.

From the control panels the user will also maintain the ability to update name and mnemonic data.



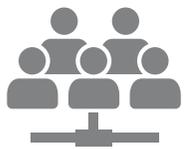
Complete System Ownership

One key point of value for any control system should be the ability for the end-user to have ownership over its system, acting as a software tool box with a powerful logic engine that offers a wide variety of configurability.

These configuration tools need to be freely available so that the system can be integrated and edited at any time and a majority of functions modified and mapped whilst the system is online and operational.

Panels for Intuitive Control

TallyMan Virtual Panels offer a complete software control interface, with an intuitive editor that allows multi-page configurations with easy access, configuration creation and editing; whilst hardware control panels offer LCD button control with integrated GPIO in 16, 32 and 48 panels with assignable rotary encoder and 4x GPIO and serial expansion interface. All panels can be modified on a live system.



A Focus on Sports Production

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. 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.

Dynamic Control of Everyday Production

Powerful configuration capabilities offer the user a large number of tools to solve everyday problems. From workflow issues to device control, tally and name management to emergency cut-busses and linking of multiple systems.

TallyMan is a problem solver product and has proven time and again to be versatile enough to make it the solution to the many hurdles broadcast production can throw up.



PTZ camera control - Full control over PTZ camera functions including preset store and recall, movement and picture parameters.

VTR/Slow Motion transport control - Control multiple VTRs and slow motion replay from a single or multiple panels.

IFB routing and control - Simple IFB control on either software or hardware panels.

Power management control - Control and monitor individual or groups of power supplies for equipment.

Configuration and setup snapshot store and recall - Store program setups for later recall using a single button.

Emergency cut bus - Router control and tally/name management in the event of a vision mixer failure.

Audio console backup control - Use a TMVP software control panels to control an audio mixer in the event of a console failure.

Video vision mixer backup control - Control a vision mixer frame in the a failure.

Intercom cross-point management - Monitor and make cross points on your comms system.

Voice over control - Provide dedicated routing control for local monitoring and audio controls for voice over operations.

Independent Control

TallyMan offers multiple methods of connections to third party equipment, and while most connections are made using IP, legacy equipment is also supported using serial and GPIO. All TSL system controllers and hardware panels offer serial interfaces for communication with third party equipment, every TMCP hardware control panel or ESP-1R+ interface unit adds additional I/O to your system.

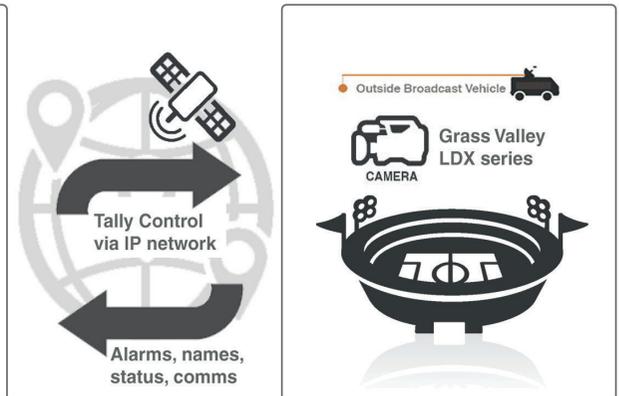
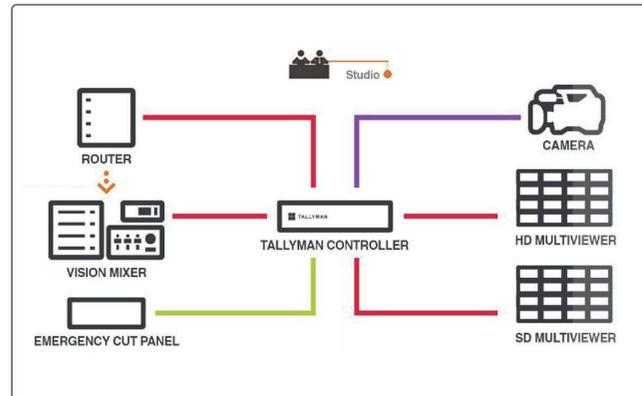
Other equipment without either IP or serial interfaces can connect to the on-board GPIO of the TM1-MK2+ system controller or the GPIO provided on each of the TMCP hardware control panels meaning that no further hardware expansion will be required, all other devices connect over IP.

Support for Emerging Standards

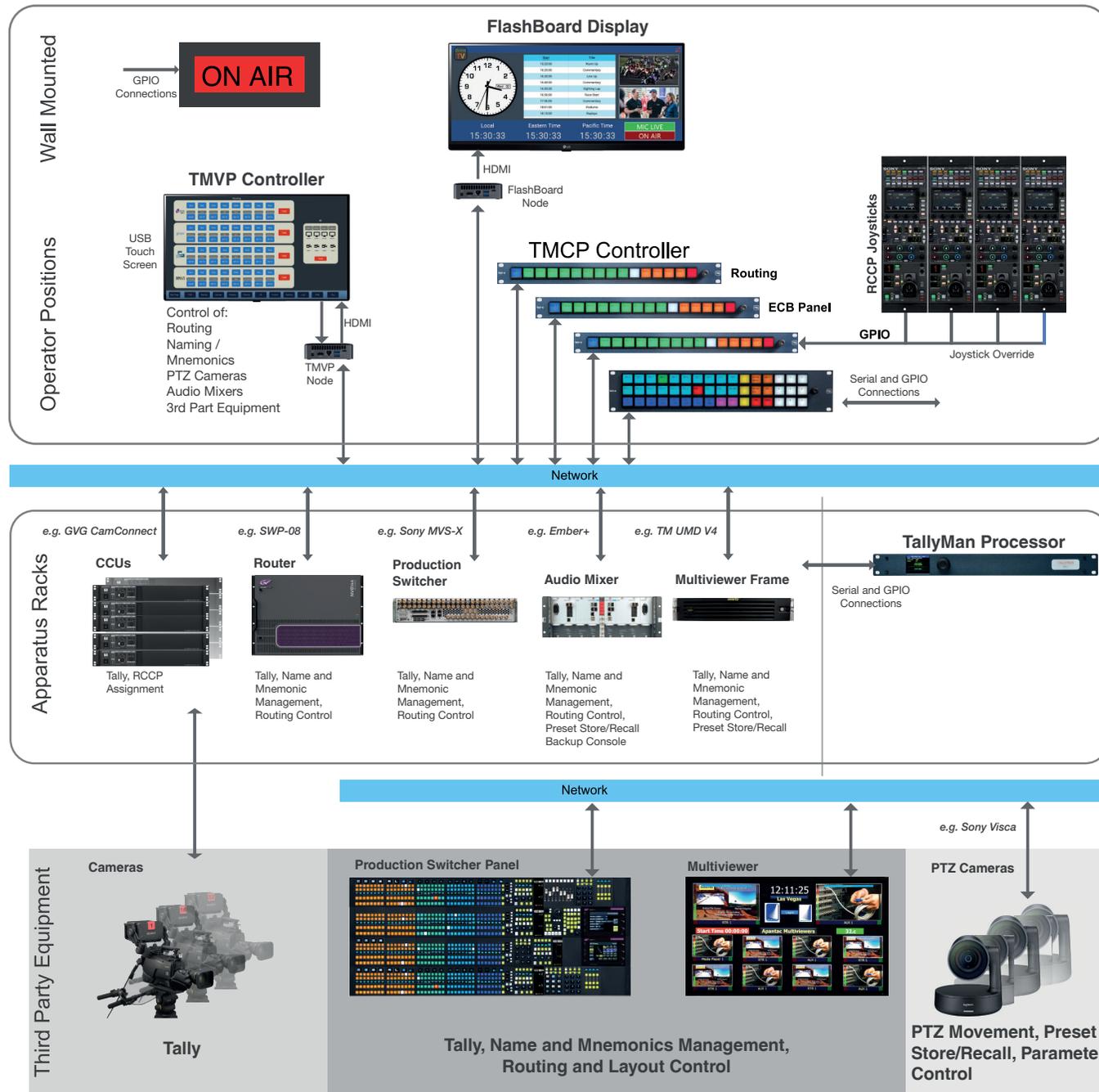
In the IP-connected world, the ability to hide the complexity from the operators will be key to success. This plays to the strengths of the TSL Products' range of solutions. Combining our deep understanding of controlling third party equipment with our Advanced Control Platform and our audio and video monitoring solutions, we are well positioned to provide complete solutions with our own products, but will also easily integrate with third party kit.

The TSL roadmap includes full implementation of AMWA's NMOS IS04, IS05 and IS07 as part of the progression towards IP media workflows. As most equipment manufacturers are beginning to adopt either NMOS and Ember+ as the control standards to support SMPTE ST2022-6, ST2022-7 and ST2110, TSL's adoption of these standards will be included within the eco-system to allow intuitive and powerful control and tally across SDI, hybrid and fully IP infrastructures within a single package.

Visit us at NAB 2019 to find out more.



The Grass Valley Direct IP camera solution includes 4k and HDR – leads the industry today. TallyMan provides the perfect complement to the cameras, providing an IP tally solution that is fully integrated and will be a critical element as we change the landscape of live production.



A Look Under the Hood

Using a control system that includes protocols native to all the major manufacturers is a great advantage to any customer. By providing all 3rd party protocols within the system controller, unlimited connections can be made to third party equipment for control and monitoring of routers, vision mixers, multiviewers, PTZ cameras, comms systems, and more from manufacturers including: Grass Valley, Ross Video, Imagine Communications, Evertz, Lawo, Blackmagic Design, ForA, Sony, Panasonic, Clear Com, Axon, Neveon, Riedel, Studer, Calrec and more.

REAL-WORLD APPLICATION

Cinivideo Italy

A hybrid OB for HD/4K production presents an intrinsic complexity for managing the overall operational configuration for each and every production. To simplify this, TSL's Tallyman Advanced Broadcast Control System manages video, audio, UMD, tally and GPIO at a central level with a friendly user-interface, making it a key part of simplifying production operations.

Moreover, Cinevideo wanted to find a solution for the increasingly complex broadcast workflows which drive the requirement for detailed real-time signal flow management. Tallyman provides that solution by acting as the universal tool which talks to a range of different devices to give a single point of entry for signal flow, thereby simplifying workflows and bringing about operational cost savings.



RaceTech UK

For RaceTech UK, TallyMan delivers full signal flow management including grouped signal routing (with full breakaway). Automatic audio-follow-video across devices by different manufacturers from a single control surface has made it possible to select the equipment that most closely matches RaceTech's requirements. All of this functionality runs in concert with the tally, UMD and router control which TallyMan is well known for. In addition, the teams worked on creating fresh functionality, including the ability to provide freely assignable joystick controls and add camera assignment in the controls.

The TallyMan system is part of a notably high-end specification that also includes equipment from TSL's audio monitoring range, Ross Video, SAM (Snell Advanced Media), Sony and Ikegami, among other leading vendors.

The project has been so successful, that RaceTech is implementing TallyMan in to their new fleet of trucks, due for release early 2019.

"The TallyMan really started to come into its own when we had some particularly complex logic requirements that we knew a lot of router controllers could not handle. It was a combination of two cascaded routers and we wanted all the preview push-downs for the CCUs to be routed in a smart way so the operators could change them around really easily. Once again, the capabilities of the touchscreen and the control panels rendered the TallyMan a strong foundation for this project."

Questions? Contact our International Team

Whether you work in live production, at large broadcast facilities, OB broadcast remotes or post production studio environments, our powerful Audio Monitoring, Advanced Broadcast Control, Technical Display Systems and Power Management Solutions help to simplify workflows so that you can focus on making great content.



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