Advanced Automation for Multi-Channel Media Delivery

Colossus is the market-leading, multi-channel automation system from OmniBus Systems that delivers a robust and highly scalable solution to broadcasters worldwide. This unique, full-featured transmission and control product provides an extremely advanced solution that accommodates the complex demands of sophisticated premier network channels.

**KEY FEATURES**

- Automated scheduled playout of SD or HD content in multiple channels
- Highly scalable architecture
- Control of the latest broadcast hardware devices
- Single operator control of high numbers of channels via a timeline-based user interface from dedicated OmniBus G3 Desktop layouts
- Specific assignment of channel views to manage operator access to channels
- XML-based schedule storing and searching
- Item preview in online and offline schedules
- Multi-region schedule break-outs
- Manually controlled failover to a back-up source for system resilience
- Hard panel support for manual item playout control
- Sophisticated automatic error recovery and logging
- Support of GPI inputs and outputs

The automation solution of choice for the control of large numbers of complex channels, Colossus has been designed using the ground-breaking OmniBus G³ technology, which delivers user-configurable desktop layouts and modular functionality that can be easily adapted to suit the individual needs of broadcast organizations. It uses the backbone of proven OmniBus device drivers to control a wide range of traditional broadcast hardware and offers a radical approach to the design of automation and content delivery systems.

This feature-rich solution provides automation and control for single-channel broadcasters as well as for large, multi-channel facilities and those wishing to rapidly add significant numbers of channels to their existing output. Its functionality includes sophisticated schedule management and preview, event building and transitions, graphical timeline monitoring, live-event management, dynamic device allocation, multi-timezone playout and cache management for multi-channel transmission.
Building on this solid foundation, Colossus v3.5 is the result of significant further development, making this powerful multi-channel playout automation system increasingly sophisticated and more flexible to meet the demands of the rapidly changing broadcast industry.

**Colossus Core**

At the heart of every Colossus system is the Colossus Core, the schedule-processing and playout engine. It controls the audio-visual devices (video servers, graphics machines, master-control switchers etc.) that deliver the output of a large number of television channels.

A typical Core may host 10 channels, with up to 35,000 items due to play out in schedules across those channels. Since a system can include any number of Cores working seamlessly together, Colossus can control the playout of an extremely high number of channels.

Separate Cores may be used to run back-up channels to provide system resilience.

**Colossus Viewer**

The Colossus Viewer is the user interface of a Colossus system. Based on the highly flexible OmniBus G³ technology, it is made up of an OmniBus G³ Desktop with layouts containing the features used by operators to monitor and control system activity:

- A dynamic Timeline Display, which gives a graphical representation of the events being played out in selected channels.
- A constantly-updating Schedule Grid, which displays a list of the schedule items required in the currently selected channel.
- A Content Selector, from which items can be added to a schedule by dragging-and-dropping to either the Schedule Grid or the Timeline Display.
- An Item Editor, which enables the properties of any selected schedule item to be changed prior to playout.
- A number of Playout Control buttons such as Cue, Drop or Take, allowing instant manual control of items scheduled for playout.
- The powerful OmniBus search tool, OPUS PinPoint, which can be launched from within the Content Selector to search for clips and other schedule items in the system database.

Schedule items are colour-coded to indicate their current status (on-air, cued, ready, etc.). Each Viewer can be custom-built on installation and configured to give individual operators access to the specific groups of channels they are controlling.
New Colossus v3.5 Viewer Features

- Enhancements to the Timeline Display with vertical scrolling simplify the monitoring of multiple channels at a glance. An operator responsible for dozens of channels can also use selection buttons to switch the Timeline Display to show preset groups of channels and tracks.
- Global search-and-replace functionality gives the ability to search the displayed schedule and replace either single items or multiple instances of the same item.
- Speed and ease of operation are increased by the use of customizable keyboard shortcuts.
- Hard panel control of key operations such as Take Next. Colossus supports standard OmniBus hard panels, as well as units from Quartz, J L Cooper and Contour Design.

Colossus Device Control

The versatility of Colossus v3.5 is underpinned by its ability to control a wide variety of third-party broadcast devices. Colossus provides:

- Playout control of different types of video server, including the latest models from Omneon, Quantel, Harris and Thompson GVG.
- Insertion of logos and CGs by various devices including Pixel Power Clarity, Leitch Logomotion and Harris IconStation.
- Feature-rich support of a range of master-control switchers from a variety of manufacturers. These include the Pro-Bel TX 520, Miranda Presmaster, GVG Maestro, Snell and Wilcox Kahuna. If a mixer can produce audio-video lead/lag transitions, Colossus can play them out.
- GPI support: Colossus can send GPI outputs to trigger the operation of other broadcast equipment.

Depending on the capabilities of the devices in the transmission chain, Colossus can deliver either SD or HD output.

Special Features

Regional Break-Outs

Local stations requiring regional insertion of local programming or commercials have the ability to break away from the main schedule. With multiple channels running on one Colossus Core, the main schedule runs a master channel, with the local schedules in separate sub-channels. Colossus switches the output of either the master channel or the sub-channels to the local stations at the specified times.
**Special Features, continued**

**Recording of Live Programmes for Re-Broadcast**
While playing out a live feed, Colossus can simultaneously record it to a video server for transmission at a later stage.

**Multiple Language Tracks**
Using the audio track stacking functionality of Omneon servers, Colossus can play out video clips with multiple audio tracks, offering viewer selection of different language tracks from a single channel.

**Recent Enhancements**

**Support for BXF Schedules**
- A new Schedule Data Service supports the import of schedules from third-party traffic systems in the XML-based format defined by the SMPTE BXF standard. Since the service uses the extended level of this standard, Colossus can handle schedules with logos, captions, data streams and complex transitions.

**As-Run Logs**
- Using the new Schedule Data Service, As-Run logs that Colossus produces can be delivered instantly to a requesting application, reducing waiting time for the information.

**Improved Schedule Searching**
- With schedules being stored in the SQL database, Colossus can provide quick, sophisticated searching of these schedules from OPUS PinPoint.

**Assignment of Schedules to Channels**
- Schedules stored in the SQL database can be assigned to specific channels and easily loaded from OPUS PinPoint.

**Report Printing**
- Colossus may incorporate a report-printing feature, which enables the contents of the Schedule Grid to be sent to an online printer. This allows schedules and missing materials lists to be generated for viewing away from a G3 Desktop.

**Future Development**
With its extended feature set and enhanced integration with third-party playout devices, Colossus v3.5 is one of the most versatile automation systems available today. Development will continue to ensure it maintains its prestigious position within the broadcasting technology sector.