

Polaris™ Play

CHANNEL-IN-A-BOX AUTOMATION SYSTEM



Polaris™ Play from Harmonic automates the playout of fully branded UHD, HD and SD channels on the cost-effective, highly-integrated Spectrum™ X platform.

Polaris Play is a complete automation software suite integrated with Harmonic's Spectrum family of media servers including the highly-integrated, channel-in-a-box Spectrum X, the mid-sized, value-priced MediaCenter and the large-channel count, scalable MediaDirector. Polaris Play's Mirror feature seamlessly synchronizes Main and Backup server configurations for maximum peace of mind. Polaris Play delivers a reliable, integrated solution that is purpose-built for serious broadcasters.

Polaris Play provides low total cost of ownership for customers needing both scheduled and live playout capabilities. The software enables a flexible and highly efficient solution that includes ingest and playout with the Spectrum X integrated channel playout system. A rich software toolbox for ingest, playlist control, media prep, traffic integration, and scheduled and live playout combines with Spectrum's high-density I/O capabilities to simplify multichannel playout workflows while reducing both CAPEX and OPEX.

With Polaris Play, master control room (MCR) capabilities are brought under the control of a simple-to-use interface. Scheduled operations can be driven either by traffic or by manually created playlists. Tight integration of Polaris Play with Harmonic's Polaris Live manual device control application even allows the same play-to-air hardware to fulfill both scheduled and live playout roles. The result is an integrated MCR (iMCR) environment that blurs the lines between production and MCR, further simplifying workflows and helping accelerate the launch of new revenue-generating channels.

HIGHLIGHTS

- High-density channel-in-a-box solution controls all UHD/HD/SD channels on the Spectrum server
- Rich software toolbox, including Playlist Control, Scheduler and Media Fetch
- Simplified management of graphics, DVEs and other secondary events
- Support for BXF traffic system integration, including Myers® ProTrack™
- Provides router control via the playlist
- Mirrors content and playlists on Main and Backup server configurations
- Integrates with Polaris Live for high-efficiency integrated MCR applications

Playlist Control Capabilities

The Polaris Play toolbox includes a suite of license-keyed applications for automating the essential elements of a broadcast workflow. At the heart of the solution is the Playlist Control service, which runs on the Spectrum server and manages the playlists for all channels. Key components of the service include the Media Fetch, Playlist, Traffic Interface and Scheduler applications.

Media Fetch

Media Fetch is used to assure that all primary and secondary assets required by a playlist are ready for playout at the appropriate time. If an asset is not found in integrated Spectrum storage, Media Fetch can search for and retrieve it from up to four external storage systems, including other Spectrum servers, Harmonic MediaGrid shared storage and IT storage. The content is copied to Spectrum automatically based on the schedule, with content closest to air being copied first. Any missing media is flagged and can either be updated later, manually transferred, or ingested via baseband with the Polaris Play Ingest client. If all these fail, “evergreen” content specified by the user will be played by default.

To maintain storage space, Media Fetch can be configured to purge content automatically. A high-water mark is simply set for desired storage capacity, and as that limit is approached material no longer needed by the playlists is deleted. Operators may also choose to manage content manually, and have the ability to search, view metadata, review and make intelligent decisions before deleting content.

Playlist

The Playlist application provides a common UI that lets the operator monitor activities on all playout channels. List and timeline views are available, and the operator can easily make last-minute changes — such as adding, deleting, reordering and modifying the playlist. Users also have the ability to skip items and to break away from the schedule to accommodate live events.

Traffic Interface

Polaris Play supports the import of BXF traffic files via an easy-to-use XML Traffic Interface application. Native support for Myers ProTrack traffic and scheduling software is also included. Whether driving Polaris Play from traffic or from a playlist manually built with Polaris Play Scheduler, control over primary events (clip playout and live video) and secondary events (graphics, mix effects, audio controls, DVE and more) are covered. The ability to make last-minute changes, switch in and out of live events, skip events and join-in-progress is also included.

Polaris Play can import a traffic file for each on-air channel and play its primary and secondary events. If content needed by the traffic file is not located in Spectrum storage and cannot be copied from any attached disk storage via Media Fetch, the missing material is flagged in each playlist. The missing video clips are also flagged for the Polaris Play Ingest client, enabling content to be automatically ingested via baseband or SMPTE ST 2110, if needed. This capability provides a simple failsafe mechanism to reduce or even eliminate on-air issues.

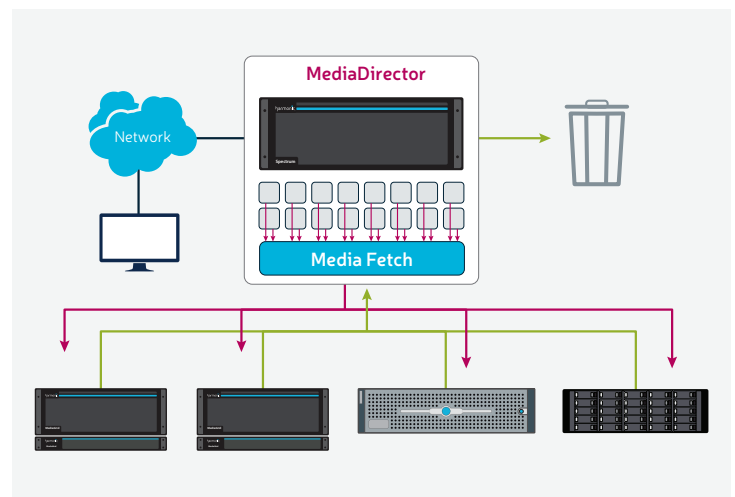
Scheduler

In the event that a traffic system is not used, the Scheduler application can be used to manually build a playlist with primary and secondary events. The intuitive user interface makes list creation easy. With the Polaris Play Preview Tool, it is even possible to preview material on an off-air Spectrum X channel to check placement of DVEs and graphics in relation to clip content.

Ingest

Content captured from baseband sources or SMPTE ST 2110 is controlled via the Polaris Play Ingest client, an easy-to-use application that offers comprehensive ingest, clip preparation and management capabilities. The process can be performed one of three ways via automated record based on the schedule, crash record, or manual control of VTRs. The Ingest client is used to control the Spectrum X channel, as well as source VTRs and routers, and may be operated from anywhere on the network. As content is ingested, the operator can annotate and add descriptive metadata, a capability that simplifies content search and organization.

File-based ingest is via FTP to Spectrum storage so customers can use off-the-shelf FTP clients, as well as NLEs with FTP Send support. As files are pushed to the Spectrum, they are automatically registered with the server’s file system, and all available metadata is immediately accessible to the operator. This is even true for content that is imported based on the schedule. The Ingest client also provides comprehensive clip preparation capabilities to ensure that the content stored on your server is ready for transmission whenever you need it. Operators can jog and shuttle through the clip, find points of interest, mark new in and out points, segment clips, and automatically create new sub-clips based on this data.



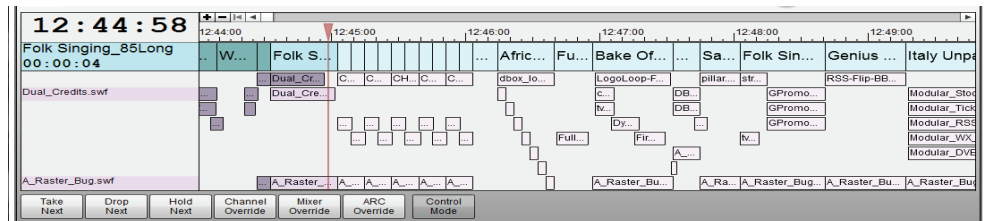
Polaris Play’s Media Fetch technology automatically imports assets stored on up to four external storage systems, and then purges the files from Spectrum’s internal storage to make room for new content.

Additional Benefits

Event control

Clips and live content are the primary events that drive the playout schedule. Program elements such as graphic branding, DVE, effects, audio mixing and switching make up the secondary events normally associated with each primary event. Polaris Play can control up to eight simultaneous layers, each of which can comprise complex events, graphics and animations. In addition, multi-lingual audio track mapping, AFD (active format descriptor for aspect ratio control), Emergency Alert System (EAS), SMPTE 104 and other advanced functionalities are enabled.

During scheduled playout, Polaris Play plays out primary and secondary events frame accurately based on the playlist. The system can also break away from the schedule to cover live events. If the live event is scheduled, Polaris play can switch to a predefined live input and pass the live feed through. Graphics, DVE, effects and audio processing capabilities remain in effect, allowing the channel to retain its look and feel while under operator control. Once the live event ends, Polaris Play rejoins the playlist at the scheduled time.



Automated playout of both clips and live events can include program elements such as graphics, DVE moves, effects and audio mixing with Polaris Play.

If the live event is not scheduled and will need to rejoin the playlist at some unknown time in the future, Polaris Play can handle these situations as well. At the touch of a button, Polaris Play can take a defined live input as its source to pass through. As with the scheduled live event, graphics, DVE and audio processing capabilities remain in effect. Once the live event ends, the operator can either rejoin the playlist at the next scheduled event or rejoin it in progress, frame accurately.

iMCR

As an added value, Polaris Play can work in conjunction with Polaris Live to bring high-efficiency iMCR capabilities to any broadcast operation. Since Polaris Play and Polaris Live both natively control Spectrum X and share the same router device control mechanism, they can share one Spectrum X-based playout channel. When the scheduled playlist is running, Polaris Play has control. When a live event occurs, control can be passed to Polaris Live. This handshaking mechanism ensures that the scheduled and manual control systems do not conflict with each other, and further reduces the costs of operating a fully branded channel.

Channel configurations

Polaris Play offers modular channel flexibility with both software licensing and hardware. Software capabilities are licensed on a per-channel basis, with Polaris Play applications added as needed.

Users also have a choice of Spectrum hardware configurations:

- **Spectrum X channel-in-a-box server**
Up to four bidirectional channels with simulcast outputs
- **MediaCenter mid-size, integrated server**
Scalable channel count with integrated storage
- **MediaDirector and MediaStore scalable server**
Expandable channel count with external SAN storage

With a Spectrum server featuring Polaris Play automation, you pay only for the capabilities you need, assuring exceptional total cost of ownership.

World-Class Service and Support

Harmonic stands behind the Polaris Play CiaB automation system with comprehensive service and support programs, including system design, service deployment, technical support and network maintenance. World-class service plans and a global network of flexible and responsive support professionals help ensure your ability to deliver outstanding “anytime, anywhere, any-device” customer experiences.

SUPPORTED ROUTER PROTOCOLS

BlackMagic Designs® VideoHub™	NVision®
Grass Valley Native®	Pro-Bel®
Grass Valley® VM 3000™	Quartz®
Leitch® Pass-Through	Sandar®
Network	Sierra Video® Aspen™
Neveion® Sublime™	Utah Scientific® RCP-3™