

Invenio[®] Motion

Intelligent Media Movement



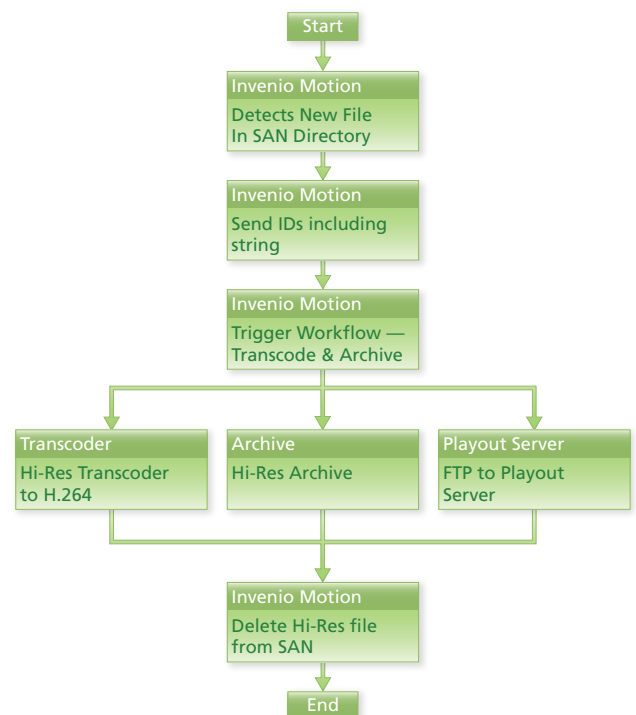
Set Your Content into Motion

Managing your media assets is a lot like solving a different puzzle every day — except the pieces are always moving, always changing. Processes and workflows are also becoming increasingly complex, resulting in cost pressures to do more with less. Your ultimate goal — effectively manage your media assets, and generate more frequent and higher returns from your content. You need to get the right content to the right device for the right objective, so it's critical you have all of the necessary tools to identify, move and repurpose your media assets.

Harris[®] Invenio[®] Motion is the ultimate platform for digital media management. The system creates a unified workflow that allows you to ingest once and maintain the asset in the digital domain for the life of the media. Access, manage and move material across any number of storage devices including multilevel storage systems. Transform media from one file format to another by incorporating a transcoder into your Invenio Motion workflow. Capture metadata automatically to improve accuracy and save on duplicate entry — high volumes of rich metadata capture let you know that you are working with the right piece of content. In addition to these automatic operations, workflows can be triggered manually, and tasks and priorities can be modified based on your immediate needs.

Invenio Motion Highlights

- Trigger workflows automatically based on new, updated or deleted media in storage
- Schedule tasks at fixed times and dates
- Start workflows from external systems such as Harris automation and media asset management
- Copy, move, delete, rename, check IDs and retrieve metadata from video file servers and other storage
- Archive, restore and transcode
- Monitor storage usage, and automatically e-mail system administrators
- Query the traffic system to extract a purge list
- Import work order lists of material to process
- Design or modify workflows using industry-standard tools



Invenio Motion provides a comprehensive toolset to create automatic processes that reduce or eliminate manual intervention and transparently manage all your media movement and repurposing requirements. Fully automated processes allow a highly efficient and cost-effective operation working across ingest, QC, production, playout and New Media distribution systems.

For Single-Station Operations or Small Playout Facilities:

Invenio Motion brings operational efficiencies for:

- Ingest, automatic transfer, transcoding and QC of file-based material
- Repurposing and distributing material for desktop access, IPTV, Web site, etc.
- Enhancing playout by extending your automation system to automatically restore missing media from any defined location (video disks, online storage, archives, FTP servers) to the playout server

For Multichannel Operations, Networks, Cable and DTH:

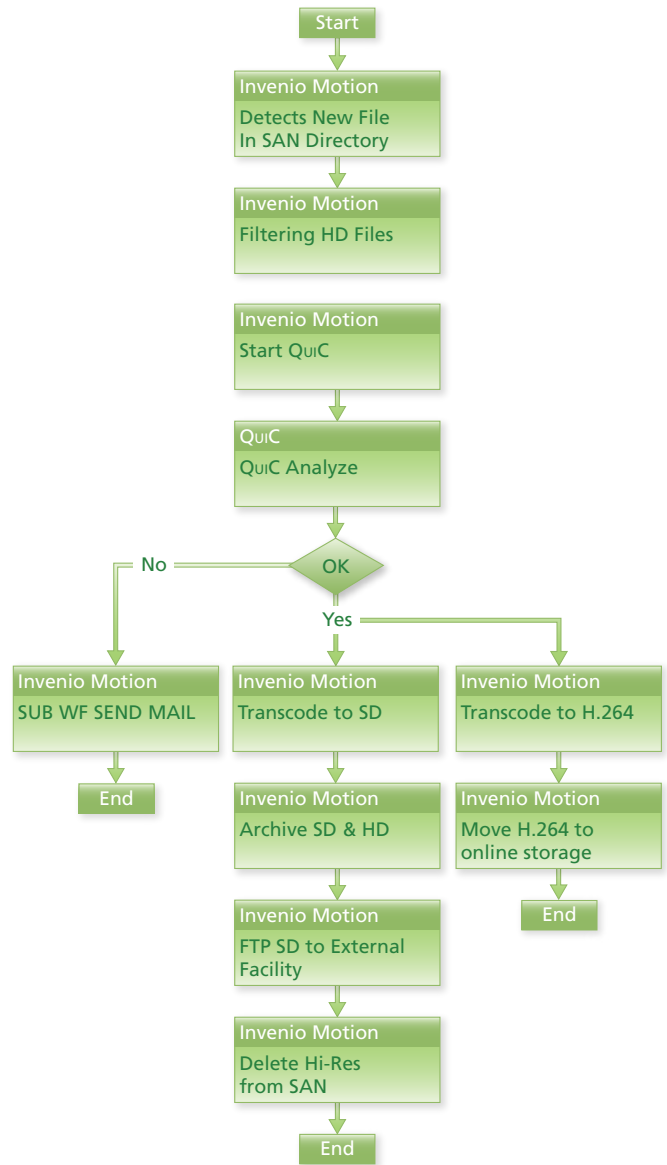
Invenio Motion provides solutions for:

- Automatic ingest, QC and archiving file-based material
- Large-scale, complex material movement support
 - Ingest
 - Archive
 - Near-Line storage
 - Playout
 - VOD
 - Remote uplink/headend
 - Disaster recovery site
 - Ability to scale to tens of thousands of items per day
- Extending your Harris D-Series™ and ADC™ automation systems — enhance playout by automatically restoring missing media from any defined location to the playout server

For Mobile, IPTV, VOD and NVOD:

Invenio Motion provides automatic repurposing and distribution using automatic workflows to:

- Ingest material
- Quality check/correct material
- Transcode to multiple formats
- Distribute to multiple platforms
- Automatically manage your media from the data center through the NOC to the remote head-end/insertion point



Invenio Motion can talk to many devices using different protocols to automatically handle media localization and movement based on your workflow. The modular architecture allows the integration of devices from multiple vendors without making any changes to the Invenio Motion application, enabling reduced integration costs and improved operational stability. In addition, the system centralizes media movement tasks requested by other interfaced applications including playout, traffic, ingest, delivery and more, allowing those systems to remain focused on their primary roles. This enables a broadcaster to globally manage the prioritization of all media movement requests from different applications — providing a real-world advantage, as restoring files for playout will always be a higher priority than archive processes.

Invenio Motion can behave as a standalone media movement tool, enhance the power of your playout automation system or supercharge your media asset management system. The automated workflows become an integral part of your normal operations and keep the complexity away from your users, allowing them to focus on other critical operations. Imagine the potential for productivity gains, reduced costs and fewer errors.

Invenio Motion Capabilities

Invenio Motion monitors and manages changes in your asset portfolio and initiates workflows to manage your media. The system provides your organization with these key media management capabilities:

Spy it! Media Detection

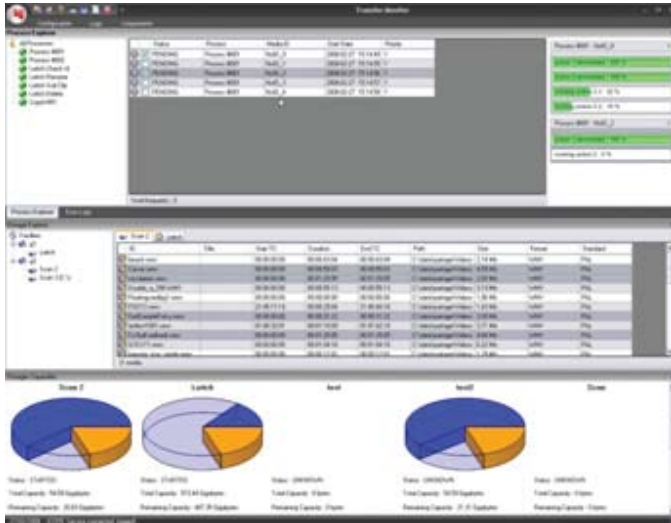
Invenio Motion monitors your asset portfolio by watching your devices. The system looks for changes in materials including new content additions, updates to existing media or media locations, and deletions. When new content is spied or a change in content is identified, Invenio Motion workflows are automatically triggered, using pre-defined rules configured to your organization's workflows.

Move it! Media Movement and Other Media Workflows

Invenio Motion manages the movement of media from the point of ingest to the point of delivery. Workflows can be initiated by a user, triggered automatically or by applications such as digital asset management, automation, news or post production systems.

Track it! Workflow Management and Monitoring

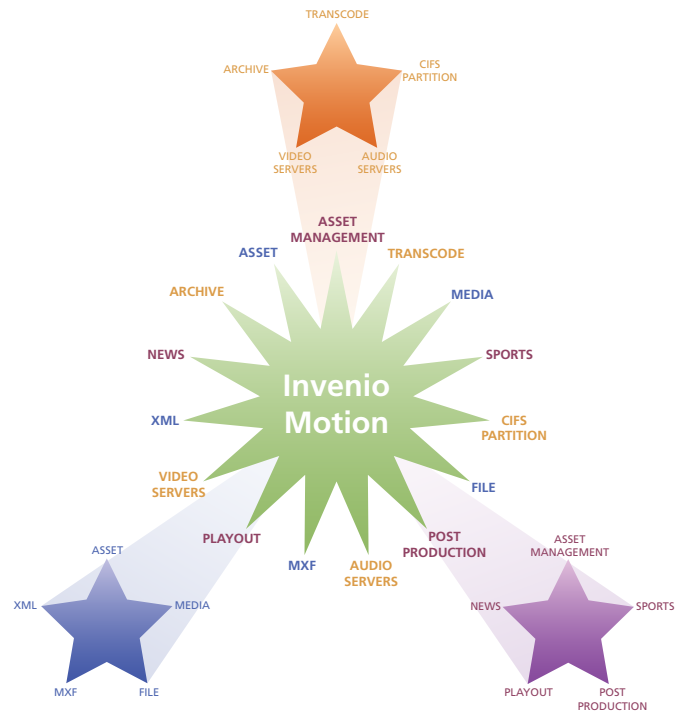
Invenio Motion provides rich capabilities with which to monitor and initiate workflows to effectively monitor, manage and move media. Through a simple digital dashboard, the system allows you to track workflows, identify bottlenecks, track media presence on devices and monitor your storage. Tools to initiate workflows, manage priorities and intervene in processes are all in easy reach.



Supercharge Your Operation

Using Invenio Motion, automate your content movement processes, tailor them to your operations and maximize the value of your media assets. Invenio Motion provides an essential link among your media management processes by tying together your media, your storage capabilities and your business and operational systems into a unified, accountable, efficient and process-driven system.

Invenio Motion can be easily integrated with both Harris and third-party applications, ensuring seamless workflows across mixed environments.



Invenio Motion fuses devices, metadata and workflow into a cohesive system.

Invenio Motion Advantages

- Provides unlimited plug-in possibilities
- Enables automatic workflow triggers
- Allows managing of workflow priorities
- Delivers metadata information with transfers
- Displays status and percent complete of workflows
- Enables file-based and FTP delivery
- Automates copies from/to archive
- Provides Software Development Kit (SDK) for third-party applications

Supported Devices

Invenio Motion works with a wide range of products to provide the most complete media movement system. Here are a few examples of the devices and products that work with Invenio Motion. Check with your Harris representative for the most current list.

Media Servers

- NEXIO®
- NEXIO AMP™
- K2™
- Spectrum™
- Profile® XP/PDR
- MediaStream™
- Pinnacle Thunder™
- SeaChange®
- EVS
- SGI® (MVCP)

Media Distribution

- Pathfire®
- Vyvx®
- On the Spot
- DG
- Centaur

Transcoding

- Telestream®
- RadiantGrid™

File and Transfer Protocols

- CIFS file server
- MOG MXF Un/wrapper/Metadata
- FTP servers

Archive

- DIVArchive (DIVA API & DivaNet)
- MassTech (MMP)
- Isilon® Sytems
- SGL FlashNet Archive
- XenData™

Media Analysis/Automated QC

- QuC™

Automation and Asset Management

- D-Series™
- Invenio®
- ADC™
- Centergy™

Invenio Motion Sample System Recommendations

Intel® Core™ Duo 3.8 GHz, 4 GB RAM, 250 GB hard drive (15,000 rpm)
 Dual (2) Gigabit/100 Mb/s TCP/IP network cards
 Microsoft® Windows Server 2003 or XP Pro SP2
 Microsoft SQL Server 2005

Invenio Motion Grows With You

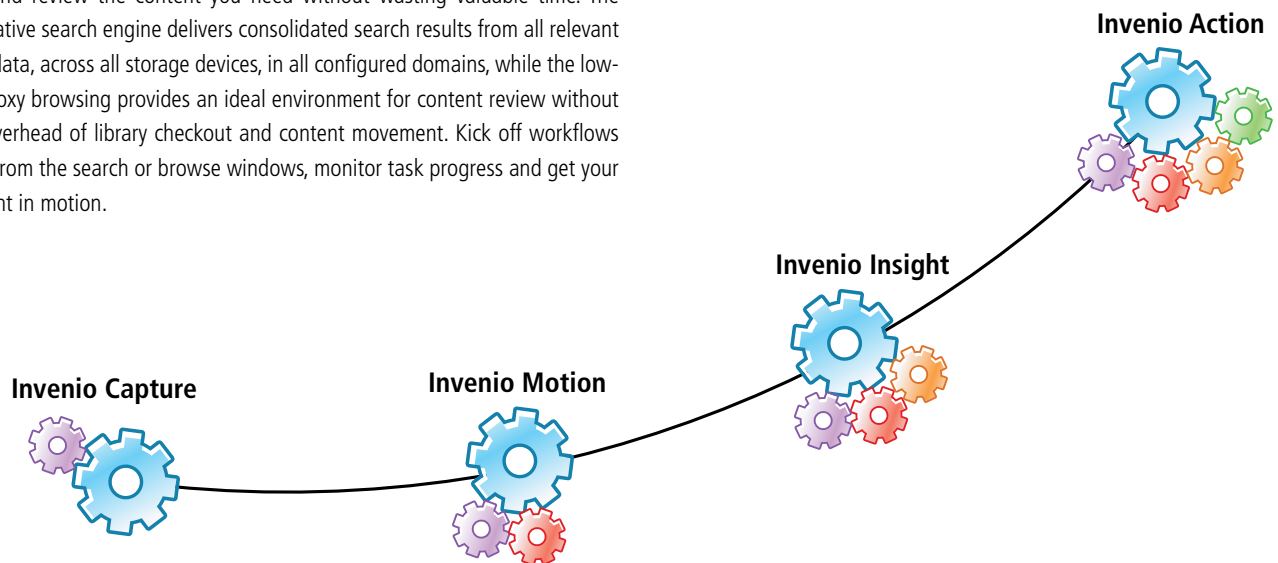
Extend Invenio Motion with Invenio Search & Browse capabilities, or add insight to your media management system with digital asset management.

Search & Browse: Enhance your Invenio Motion workflows with the tools to track down a specific asset, or research your content with optional search and video browsing tools. Invenio Motion Search & Browse helps you find and review the content you need without wasting valuable time. The innovative search engine delivers consolidated search results from all relevant metadata, across all storage devices, in all configured domains, while the low-res proxy browsing provides an ideal environment for content review without the overhead of library checkout and content movement. Kick off workflows right from the search or browse windows, monitor task progress and get your content in motion.

Invenio Insight: When you're ready to expand your content management system beyond media movement and workflow, Invenio Insight can provide the engine to create and manage new revenue opportunities by monetizing your vault. Leveraging the power of Invenio Motion workflows, Invenio Insight automatically extracts metadata from ingested content and makes it available for search, browse and basic editing at the desktop, allowing rapid repurposing of current and archived content into new products. Insight links metadata to a single frame, clip, cut list or entire program, laying the foundation to search, find, retrieve and utilize associated content rapidly, effectively and productively.

Invenio® Family

Invenio Motion is a key member of the Invenio® suite of media asset management software solutions. Providing a total media asset management platform, Invenio empowers content creators, owners and distributors to manage the entire content lifecycle — from ingest to cataloging to storage and retrieval — to support today's multiple platform distribution. The suite's modular design lets you build a system from the bottom up, enabling you to meet current requirements and to scale as the needs of your operation grow.



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

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