

# PitchBlue® Native File I/O

## APPLICATION NOTE

### PitchBlue® Native File Import and Playout on Harmonic Spectrum ChannelPort

#### Introduction

Version 7.3 software for the Spectrum™ ChannelPort branded channel playout module introduces a number of advanced new features, including support for PitchBlue® H.264 native file import and playout. This capability simplifies TV station operations by removing the need to convert PitchBlue content received via satellite back to baseband video for ingest into Spectrum servers. The content remains as a file, preserving video quality and enabling a file-based workflow.

Specifically targeted to users of the PitchBlue content distribution platform, PitchBlue file I/O on Spectrum media servers is supported solely by ChannelPort (it is not available on MediaPort encoder/decoder modules). Other forms of H.264 content are currently unsupported on Spectrum.

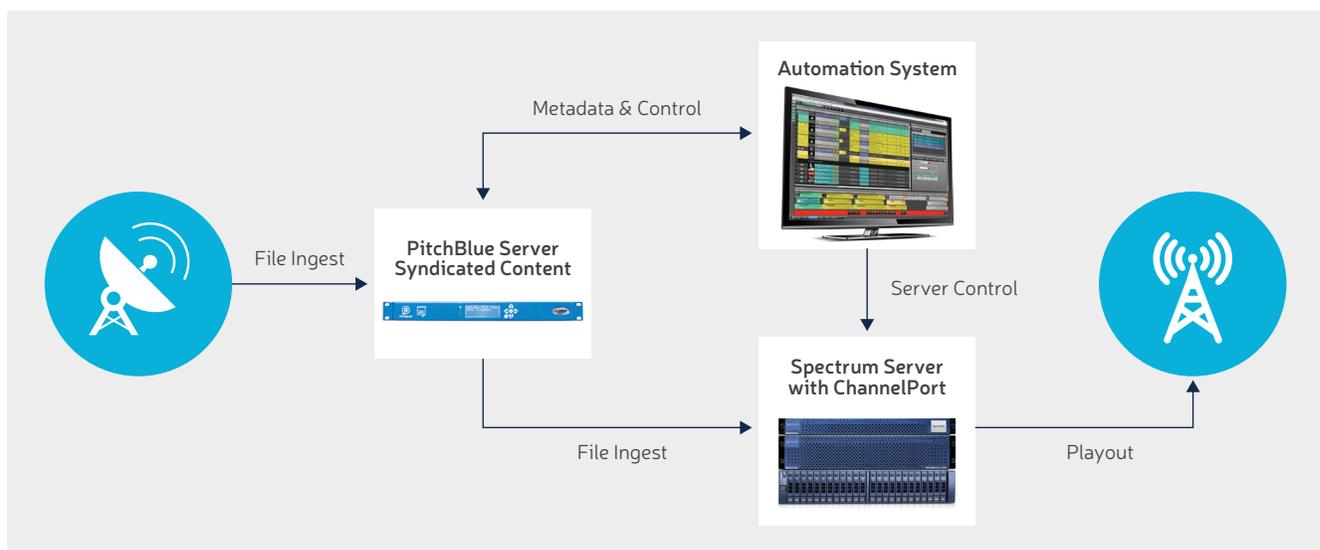
#### What is PitchBlue?

File-based distribution of program content has been popular in North America for many years, with the most well-known solutions traditionally being FastChannel® and PathFire from DG. The premise of these systems is to provide a secure infrastructure for delivering syndicated content and commercials as pre-encoded files, along with metadata, to the stations authorized to play the programming and commercial content.

PitchBlue is a relative newcomer to this field. Developed by Vigor Systems, the PitchBlue content distribution platform is now in use by CBS, Warner Bros. and Deluxe. CBS Worldwide Distribution describes the platform as follows: "This is a digital managed linear system which allows files to be distributed in HD and managed on a receiver box provided to the clients. PitchBlue was designed specifically to meet the needs of television, media and entertainment clients. Use of this technology is revolutionizing how content providers and broadcasters are serviced. Using PitchBlue, we can move your material at broadcast quality as digital files directly to over 1,400 TV broadcasters in the U.S., Canada, Mexico, South and Central America."

#### PitchBlue Workflow on Spectrum

PitchBlue utilizes an H.264 transport stream (TS) file for video and audio essence. A separate metadata file provides information for automation systems to assist with media preparation, such as segmentation for shows that have commercial breaks, and information to be used to reconcile programming with traffic systems. The essence and metadata files are transmitted via satellite and received by catch servers located at TV stations subscribing to the service.



*A PitchBlue workflow featuring a MagnuBox server, Spectrum media server with ChannelPort and customer automation system simplifies the ability to play out H.264 HD content.*



The receiving hardware needed by TV stations is the MagnuBox® server from Vigor Systems. This is a computer with hard drive storage, connectivity to the satellite dish, HD-SDI port for baseband playout and Gigabit Ethernet for file export to compliant server systems. An H.264 file for a given syndicated program is file copied from the MagnuBox server to the Spectrum server via a supported protocol, such as FTP. Normally, the user's automation system will control the transfer of content to the Spectrum server for playout.

Since a program will typically contain a number of parts separated by commercial breaks, the automation system uses the metadata to segment the content for playout. In most cases automation will simply tell Spectrum the start and end timecodes of each segment to play in the H.264 file, rather than create sub-clips. This ability keeps the PitchBlue file as one easy-to-manage clip.

Once the playlist is prepared, the content from PitchBlue will play to air based on the schedule provided by the traffic system.

## Additional Reading

CBS Worldwide Distribution: PitchBlue Distribution

[http://cwd.cbs.com/serv\\_list/pitch-blue-distribution](http://cwd.cbs.com/serv_list/pitch-blue-distribution)

Broadcast Engineering, "Digital delivery heats up with PitchBlue"

<http://broadcastengineering.com/automation/digital-delivery-heats-pitch-blue>

Javelin

<http://www.javelindelivers.com>

Vigor Systems

<http://vigorsystemsinc.com>