

Haivision

Furnace™
InStream™ Video Player
User's Guide Version 6.6

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Issue 01

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About This Guide

Welcome to the User's Guide for Haivision's InStream™ player, Version 6.6. This guide describes how to use the InStream player to view video available through the Furnace IP video system.

To access the InStream online help, right-click anywhere in the player window and select Help from the Player Settings menu.

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About Haivision

Haivision Network Video is a global leader in delivering advanced video networking, digital signage, and IP video distribution solutions. Haivision offers complete end-to-end technology for video, graphics, and metadata to help customers to build, manage, and distribute their media content to users throughout an organization or across the Internet. Haivision has specific expertise in the enterprise, education, medical/healthcare, and federal/military markets.

Haivision is based in Montreal and Chicago, with technical centers in Beaverton, Oregon; Austin, Texas; and Hamburg, Germany.

Reliability of Information

The information contained in this user's guide has been carefully checked and is believed to be entirely reliable. However, as Haivision Network Video improves the reliability, function, and design of its products, the possibility exists that this guide may not remain current.

If you require updated information, or any other Haivision product information, contact:

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Or visit our website at: <http://www.haivision.com>

Obtaining Documentation

You may download the latest software, Release Notes, Quick Start Guide, and other relevant documentation from our Download Center at:

<http://www.haivision.com/download-center/>



NOTE All customers may access the Download Center; however, a login is required. If you do not have a login, select the link to create an account.

Related Documents

In addition to this guide, the following documents are also available through Haivision's Download Center (see link above):

- Furnace Quick Start Guide
- Furnace Administration Guide
- Furnace API Integrator's Guide
- Stingray User's Guide
- Mantaray User's Guide

Service Support

Haivision Network Video is committed to providing the service support and training needed to install, manage, and maintain your Haivision equipment.

For more information regarding service programs, training courses, or for assistance with your support requirements, contact Haivision Technical Support via our Support Portal on our website at: <http://www.haivision.com/support/>

Document Conventions

The following document conventions are used throughout this guide.



TIP The light bulb symbol highlights suggestions or helpful hints.



NOTE Indicates a note, containing special instructions or information that may apply only in special cases.



IMPORTANT Indicates an emphasized note. It provides information that you should be particularly aware of in order to complete a task and that should not be disregarded. IMPORTANT is typically used to prevent loss of data.



CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in damage to data or equipment, or minor to moderate injury. It may also be used to alert against unsafe practices.

CHAPTER 1: Launching InStream

This chapter introduces the InStream™ player and describes how to launch InStream.

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Introduction

Haivision's Furnace™ is a complete end-to-end IP video solution that delivers live and pre-recorded video programming over IP to LCD displays or desktops in hospitals, schools, enterprises, military applications, and live venues. The Furnace viewing experience provides access to live, recorded, and on-demand content through the “zero footprint” InStream™ player.

“Zero-Footprint” InStream Player

InStream is a platform independent soft player delivered “on demand” to the desktop through simple web links. InStream supports Apple OS X and Windows systems.

Whether delivered to the desktop as needed or to Stingray Set Top Boxes on power-up, InStream requires no software installation, software upgrades, or maintenance. It is secure, easy-to-use, and allows for very controlled player distribution and a harmonious user experience across the enterprise.

Recommended Hardware Specifications

Following are the recommended hardware specifications for computers running InStream, v6.6 in a single HD stream configuration:

- CPU: Intel i7 870 at 2.94 GHz
- Memory: 4 GB DDR3-1333

Note that this type of platform can support playback of multi HD streams as well.

Following are the recommended hardware specifications for additional stream configurations:

- SD MPEG-2 Intel Pentium III 500 MHz or PowerPC G3 700 MHz
- SD H.264 Pentium D 2.8 GHz
- HD H.264 Intel Core 2 Quad 2.66 GHz

Getting Started



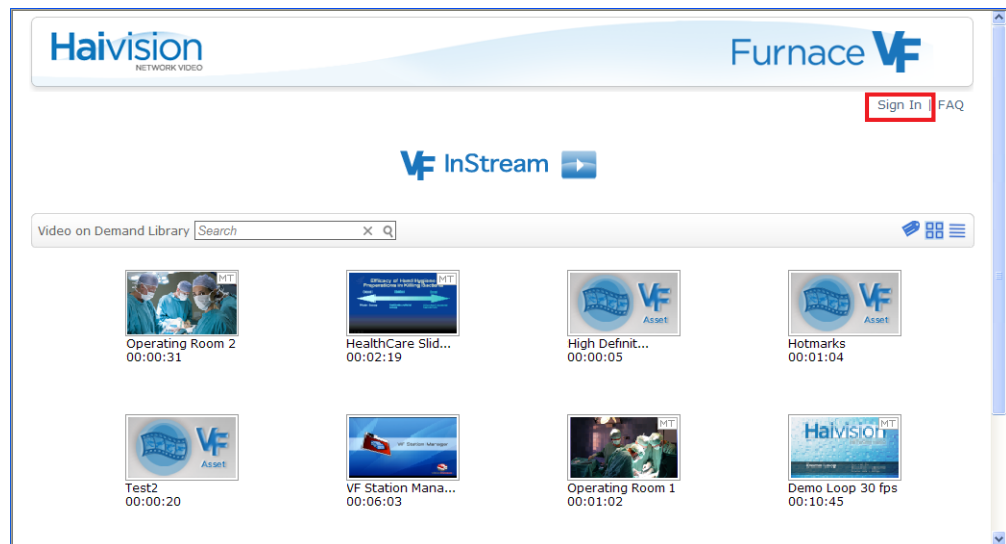
NOTE Your system administrator will provide the URL or IP address for your Furnace server, as well as your username and initial password.

Accessing the Furnace Launch Portal

To access the Furnace Launch Portal:

1. Launch a Java enabled Web browser of your choice (such as Internet Explorer, Firefox, Chrome, or Safari).
2. Type the URL or IP address for your license server in the browser's address bar and press **ENTER**.

The Furnace Launch portal appears, as shown in the following example.



NOTE Your system may have been configured to have some content available to “guest” users, i.e., available without signing in, such as being able to launch InStream or to access active VoD Now links. For this reason, the Launch portal may include thumbnail links to On-Demand (VOD) assets (as shown in the example above).

Also, the theme may have been configured for a different look and feel.

3. Click **Sign In** from the navigation bar.

4. If you see a Security Certificate warning, click [Continue to this website](#) (or equivalent) to accept the certificate and continue to the Sign In page.
5. On the Sign In page, sign in with the username and password supplied by your system administrator. Then press **ENTER** or click [Sign In](#).

Below is an example of the Sign In page.

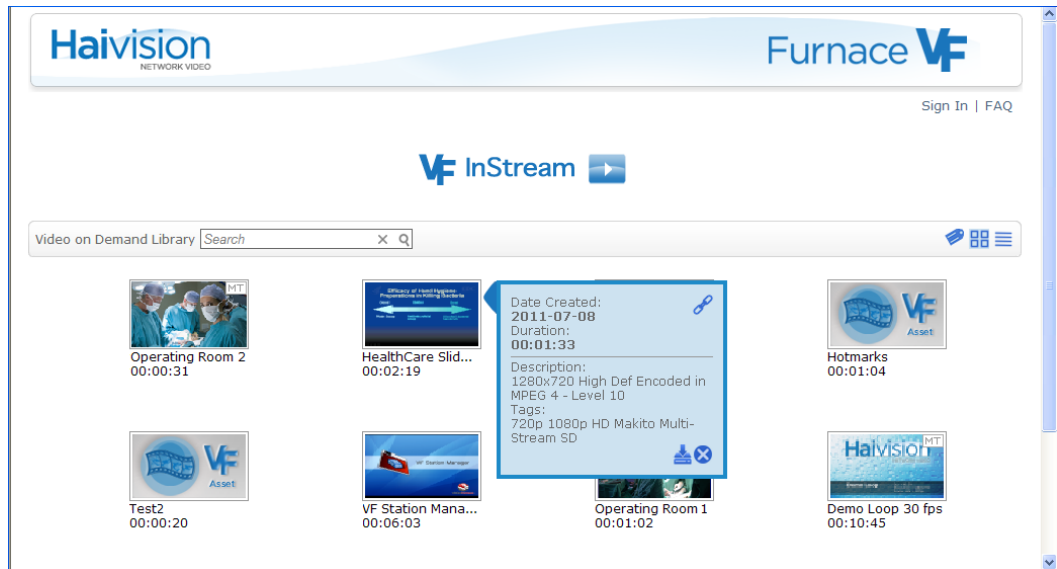
The screenshot shows the Haivision Sign In page. At the top left is the Haivision logo (NETWORK VIDEO) and at the top right is the Furnace VF logo. The main heading reads "Welcome to the Furnace IP Video System by Haivision". Below this is a sign-in form with two input fields: "Username" and "Password". A "Sign In" button is positioned to the right of the Password field. A red rectangular box highlights the Username and Password fields. Below the form, a note states: "Note: Username and Password are case sensitive." At the bottom of the page, there is a footer with the text "Haivision Network Video Montreal - Chicago - Beaverton - Austin Hamburg - Dubai - Hong Kong" on the left, a central navigation bar with icons, and "www.haivision.com Copyright © 2015 Haivision Network Video. All rights reserved." on the right.

Once you have successfully signed in, the Launch portal re-appears with your account information and links to the Profile and Tools pages added to the navigation bar (as shown in the following example).

The screenshot shows the Haivision InStream user dashboard. At the top left is the Haivision logo (NETWORK VIDEO) and at the top right is the Furnace VF logo. Below the logos, a navigation bar contains the text "Welcome admin [View Profile]" on the left and "Sign Out | Tools | FAQ" on the right. The main heading reads "VF InStream" with a play button icon. Below this is a "Video on Demand Library" section with a search bar. The library displays four video thumbnails: "Operating Room 2" (00:00:31), "HealthCare Slid..." (00:02:19), "Demo Loop 30 fps" (00:10:45), and "Hotmarks" (00:01:04). At the bottom of the page, there is a footer with the text "Haivision Network Video Montreal - Chicago - Beaverton - Austin Hamburg - Dubai - Hong Kong" on the left, a central navigation bar with icons, and "www.haivision.com Copyright © 2015 Haivision Network Video. All rights reserved." on the right.


VOD Viewing Options

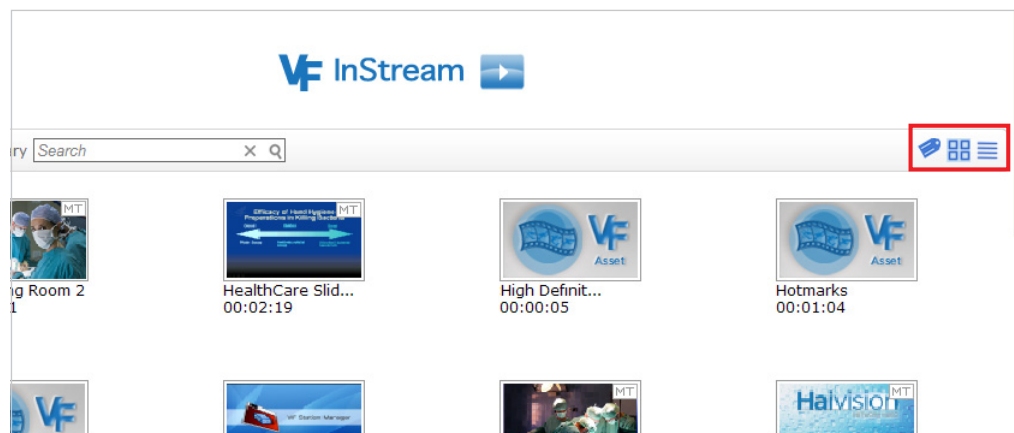
The Launch portal opens with available On-Demand (VOD) assets displayed in Thumbnail View, with the asset Title as the caption for each thumbnail. When you hover over a thumbnail, a small dialog appears with additional information about the asset, including the Date Created, Duration, Description, and Tags (if defined).



TIP The **MT** logo on top of the image indicates that it is a multi-track asset. If there is no MT logo, it means that it is a single track asset.


You can change the display to List View, which replaces the thumbnails with horizontal rows of information. In List View, you can click any of the column headers to sort the list by that header type (each click toggles between ascending or descending order).

1. To switch from Thumbnail View to List View, click  on the toolbar.



- To sort the list by a different category (for example, Description, Creation Date, or Duration instead of Title), click any of the column headers.


Title	Description	Date Created	Duration
2Mb720x480p30	2Mb720x480p30	2011-05-13	00:05:00
2mb1280x720p1fps	2mb1280x720p1fps	2011-05-13	00:05:24
352x480	from vweb	2011-05-13	00:05:24
2mb1920x1080p30	2mb1920x1080p30	2011-05-13	00:05:01
Closed Captioning	CC 1-4 Text 1-4	2011-05-13	00:00:31
Composite Color Bars	Encoded from Composite via DVD	2008-03-13	00:04:02
Heart surgery	Bypass	2011-06-07	00:00:38
Home of the Brave	High Definition 1080p at 9Mbps	2005-12-26	00:02:29
Hotmarks	No Description Available	2010-05-14	00:01:04
javascript:alert("hello");	javascript:alert("hello");	2011-07-08	00:00:08
Making of Modern Britain	Andrew Marr	2011-05-18	00:00:00
multistream_test	No Description Available	2011-07-05	00:05:00
myTitle	No Description Available	2011-05-13	00:00:05
Operating Room 2	Test	2011-06-07	00:01:02

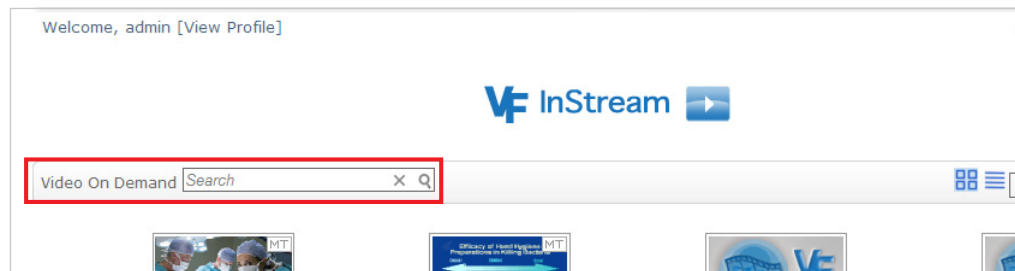
- To change the sort order of the list (i.e., from ascending to descending order), click the selected column header. In the above example, the list is sorted by Title in ascending order. To change to descending order, click [Title↓](#).
- To switch from List View back to Thumbnail View, click .

VOD Search Options

From the Launch portal, you can either search for keywords in the asset Title or Description, or you can select tags to filter your search (this only applies to assets for which tags have been assigned).

To search for assets:


- Type a keyword or phrase in the Search field and click .

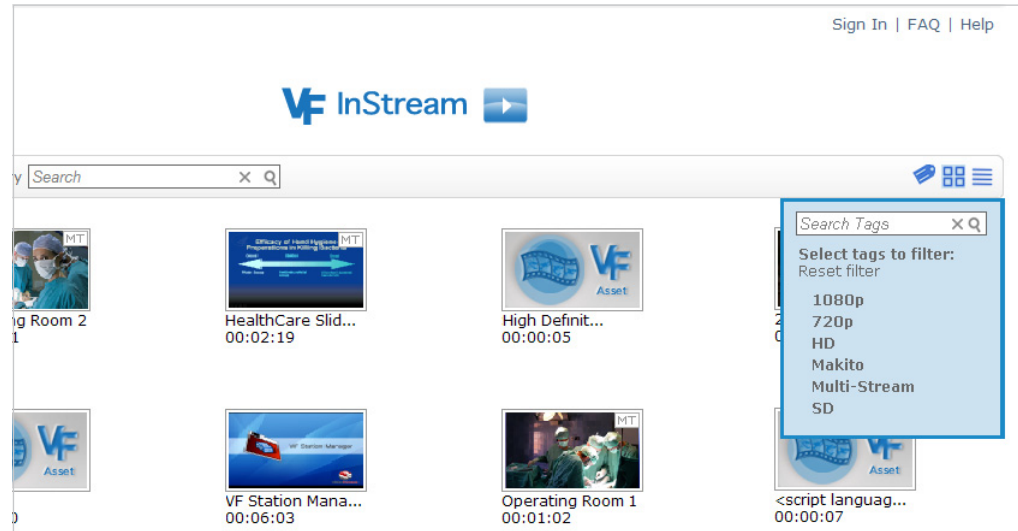


The Launch portal will then only show assets that contain that word or phrase in the Title or Description.

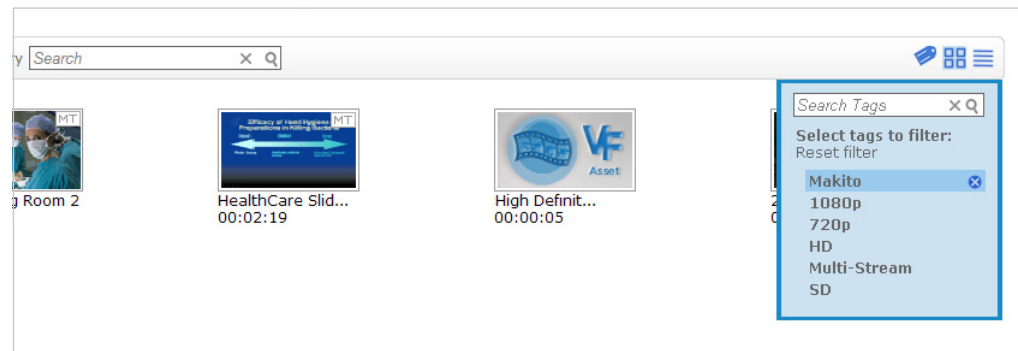
- To clear the search, click **X**.


To select tags to filter your search:

- Click  to open the Search Tags dialog.



- To filter a long list, you can type a keyword or phrase in the Search Tags field. As you type, the list immediately shows only matches for your text. To restore the list, click **X**.
- Each time you select a tag, it moves to the top of the list and is highlighted blue. The Launch portal then only shows assets that have been assigned that tag.




- To de-select a tag, click . To de-select all tags, click [Reset filter](#).

Sharing and Managing Assets

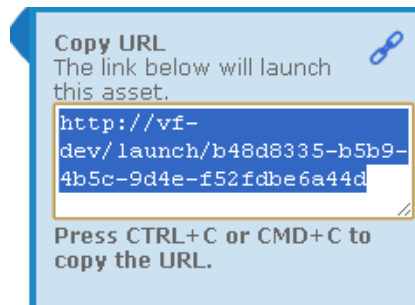
When you hover over a thumbnail or a row, the information dialog that opens includes an option to copy the URL in order to share the asset. Depending on the permissions assigned to your account, you may also download the asset or delete the asset from your system. The asset will be downloaded as an indexed .ts (Transport Stream) file with no metadata.

If your Viper is part of a Furnace realm, when you hover over a thumbnail or a row, the information dialog that opens includes an additional option to “publish” the asset to the host Furnace server.

To copy and share the asset:


1. Hover over the selected thumbnail and click .

The asset information dialog will now show the URL link.



2. Press **CTRL+C** (or for Mac OS X **CMD+C**) to copy the URL.
3. You can paste the URL into an email or into a new browser window, according to your requirements.


To download the asset:

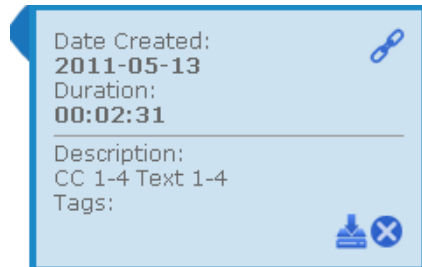
1. Hover over the selected thumbnail and click .



2. When prompted, confirm the file name and save location and then click [Save](#).

To delete the asset:

1. Hover over the selected thumbnail and click .




2. Click **OK** to confirm the deletion.

Publishing Assets to the Furnace

If your Viper is part of a Furnace realm, you can also “publish” the asset to the host Furnace server.

To “publish” the asset to the host Furnace server:

1. Hover over the selected thumbnail and click .



You will see a confirmation message that the asset is being published.

Updating Your User Profile

Once you have successfully signed in, you can view your account information. Depending on the permissions assigned to your account, you may also modify this information, change your password or PIN, and/or delete the account.

To view and update your user profile:

1. From the Furnace Launch portal, click [View Profile](#) to open the Profile page.

The following example shows an account with full permissions.

The screenshot displays the 'Profile Editor' interface. At the top left is the Haivision logo, and at the top right is the Furnace VF logo. Below the logos, there is a welcome message 'Welcome, kpalmer [Go Back]' and navigation links 'Sign Out | Portal | Tools | FAQ'. The main heading is 'Profile Editor'. The form contains the following fields: Username: kpalmer; Name: Kai Palmer; Email Address: kpalmer@haivision.com; Phone Number: 612-684-3434. Below these is a red heading 'Change Password (optional)'. This section includes 'Current Password:', 'New Password:', and 'Repeat New Password:' fields, each with a password strength indicator. There is also a 'Delete Account?' checkbox. A 'Save Changes' button is located at the bottom of the form. The footer contains the text 'Haivision Network Video' with a list of cities: Montreal, Chicago, Beaverton, Austin, Hamburg, Dubai, Hong Kong. It also features a row of icons and the website URL 'www.haivision.com' with a copyright notice for 2015.

2. Type in the required changes (such as your contact information).
3. If it is the first time you are accessing your account, be sure to change your password and PIN (a PIN can be 4 or 12 characters long).
4. Click [Save Changes](#).



NOTE If your account has been configured with view-only permissions (as shown in the following example), you will need to contact your system administrator to make any changes to your account.

Haivision
NETWORK VIDEO

Furnace VF

Welcome, kpalmer [Go Back] Sign Out | Portal | Tools | FAQ

Profile Editor

Username: kpalmer

Name:

Email Address:

Phone Number:

Haivision Network Video
Montreal - Chicago - Beaverton - Austin
Hamburg - Dubai - Hong Kong

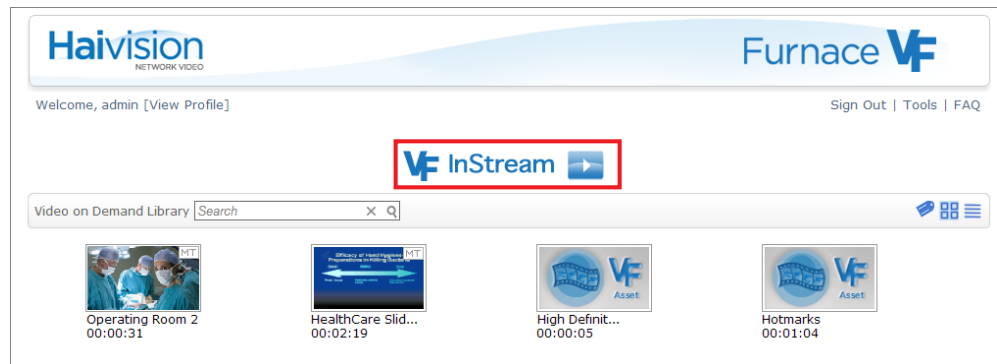


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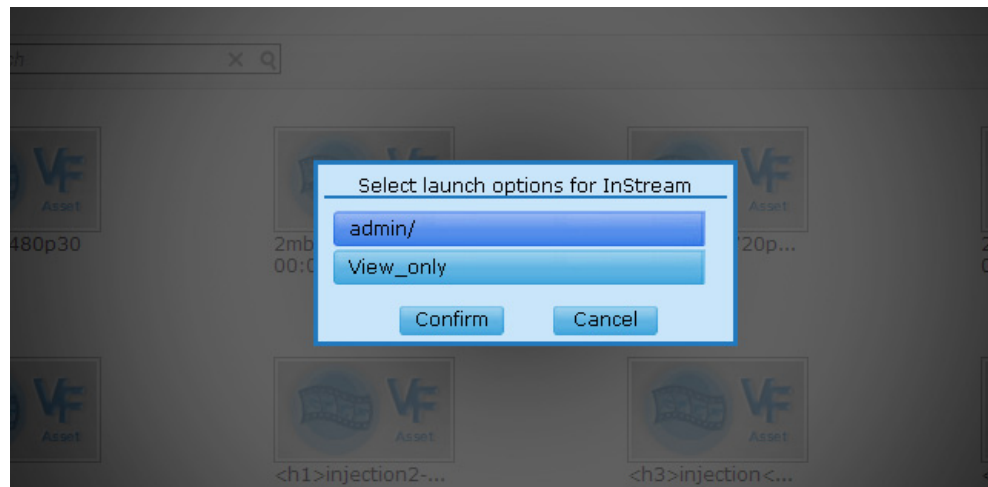
Launching the InStream Player

To launch the InStream player:

1. From the Furnace Launch portal, click the InStream launch button to start the process of delivering the InStream player to your computer.



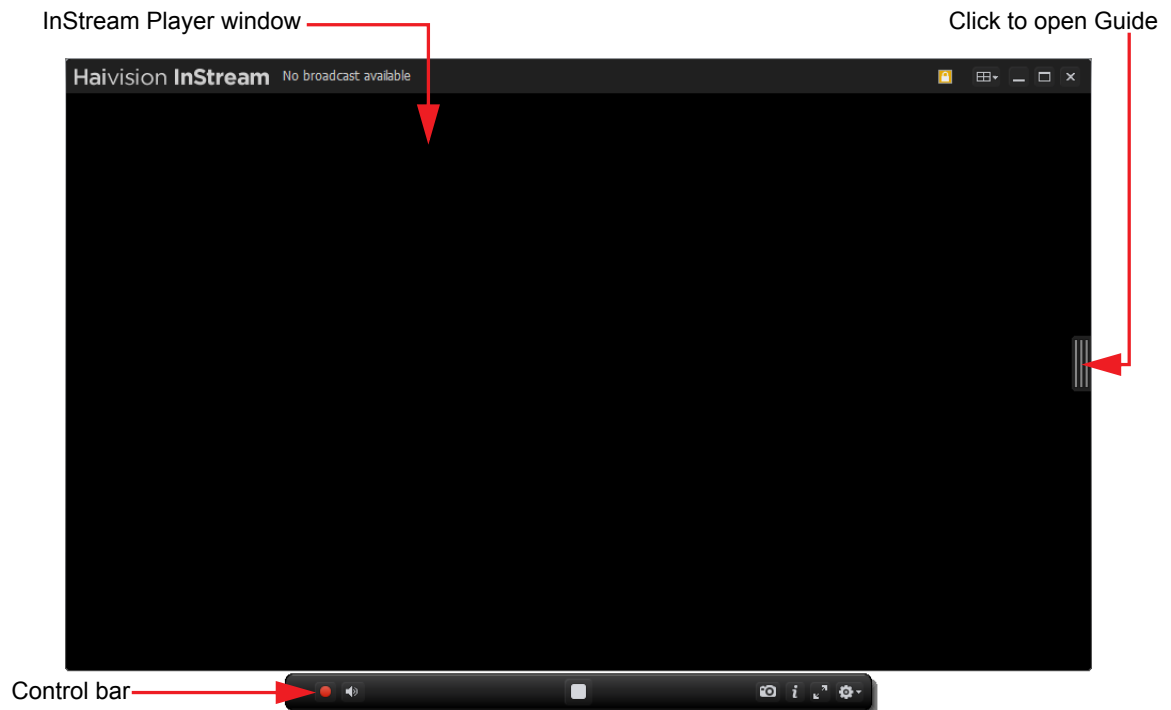
NOTE If your account has been assigned to more than one user group (with conflicting launch permissions), when you launch InStream, a dialog box (such as the following example) will appear prompting you to select one of the groups:



2. If you see the Select Launch Options prompt, select a group and click [Confirm](#).
This will cause InStream to launch with the permissions of the selected group enabled.

The first time you launch InStream, you will need to select the channel(s) or asset(s) to watch. Afterwards InStream will remember your preferences and will launch playing the last selected channel(s) or asset(s).

Interface controls such as the Control bar and Guide button appear when you pass the cursor over the player window.



TIP To access the InStream online help, right-click anywhere in the player window and select Help from the Player Settings menu.

For tips on launching and running InStream, click the [FAQ](#) link on the launch portal.



NOTE On-Demand (VOD) assets launched from the Launch portal will *not* automatically restart upon relaunch. Only those launched from the InStream Guide will be restarted automatically.

For an overview and details on using the InStream player, see the following section [“InStream Interface”](#).

CHAPTER 2: InStream Interface

This chapter describes the InStream interface and provides information you need to know to get started viewing live video and VOD assets.

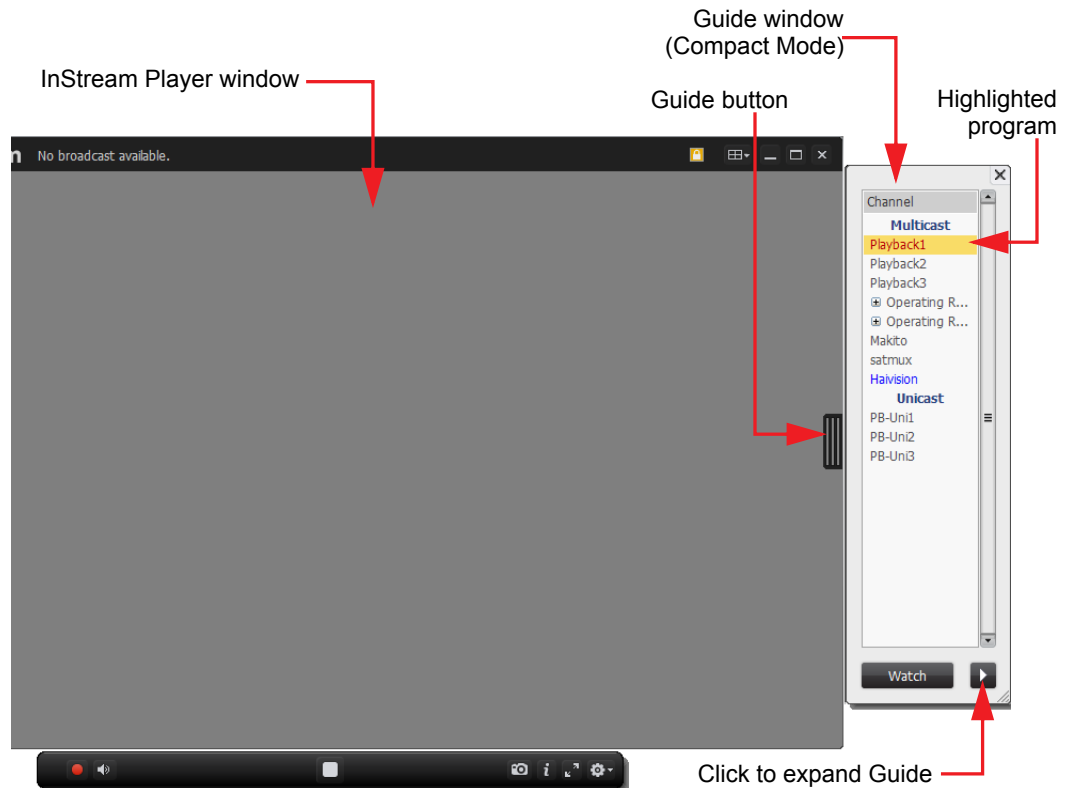
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Overview

InStream launches with the Guide closed, showing just the player window. Interface controls such as the Guide button and Control bar appear whenever you pass the cursor over the player window. To open the Guide, click the Guide button.


Typically, the first time you click the Guide button, the Guide window opens in compact mode, showing only the Channel List.

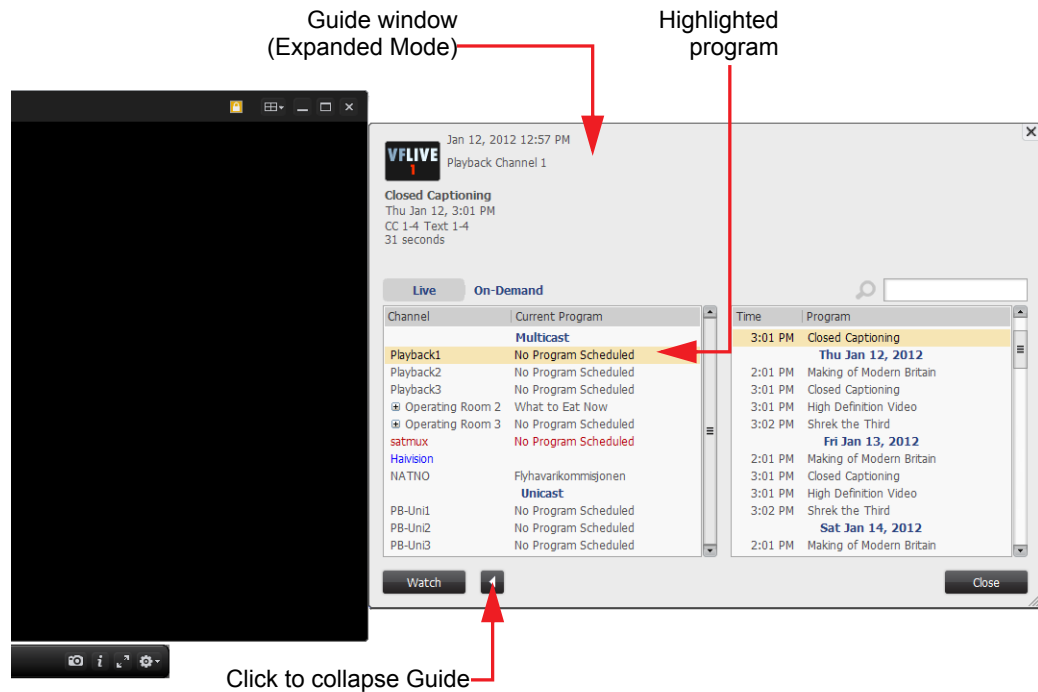


NOTE Your system may have been configured by your system administrator to display the Guide only in compact or expanded mode. If this is the case, the  arrow button will not appear.



TIP To open or close the Guide, click the Guide button or press **CTRL+G** on the keyboard. You can also close the Guide by pressing **Esc**, clicking the **X** button in the upper right corner, or (expanded mode only) clicking the **Close** button in the lower right corner.

To expand the Guide to show the Program List or display the On-Demand List, click the  arrow button. Afterwards, InStream will remember your preferences and will launch with your most recent selections.



The player and expanded Guide are two separate windows that can be opened, closed, moved, and resized independently. You can drag either window anywhere on the desktop to suit your preferences (just click anywhere in the window while holding down the left mouse button).

When the Guide is in compact mode, the player and Guide are docked and will move and resize together. For details on the Guide, see the following section [“InStream Guide”](#).

Controls over the viewing experience are available on the player window and Player Settings menu (right-click to open). For details, see [“InStream Player Window”](#) on page 31.

InStream Guide

Expanded Guide Mode

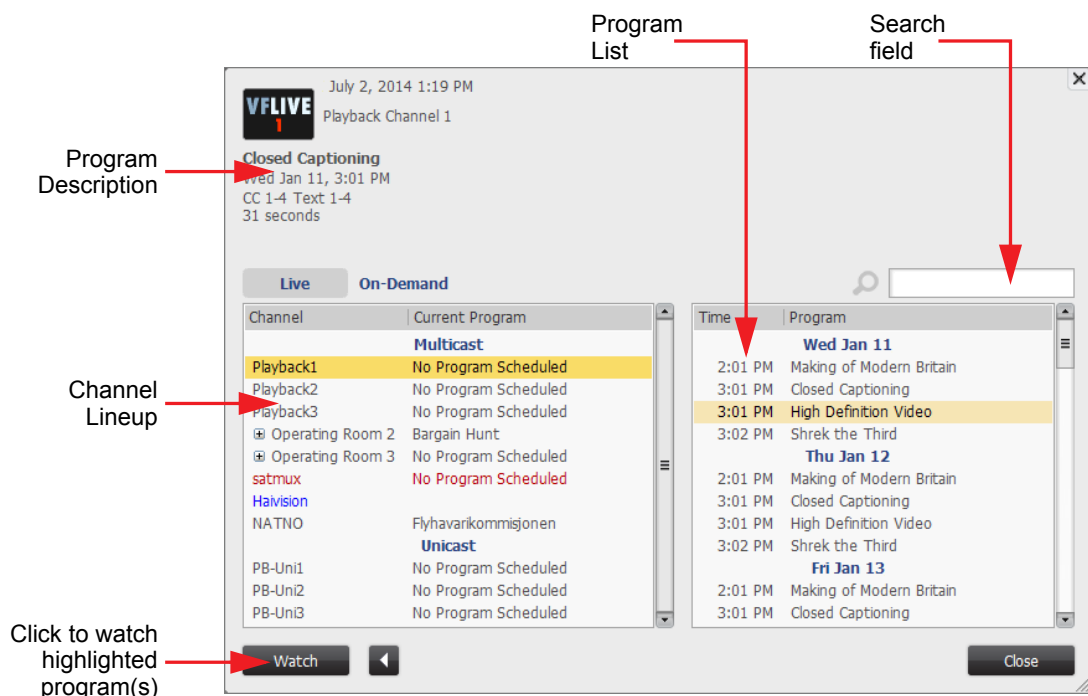
Expanded Guide mode provides two alternate lists – either the [Live Channels List](#) or the [On-Demand List](#) – that are available for viewing.

- You can switch between the two lists by clicking either the [Live](#) or [On-Demand](#) selector button (left side, above the list).
- Clicking [Watch](#) closes the Guide and starts playing the highlighted channel(s) or asset(s).

Live Channels List

The Live Channels list (shown in the example below) provides a channel lineup, with up to two weeks of program listings and program descriptions:

- The **Program Description** (top left) displays the channel icon for the selected channel and information at a glance about the currently highlighted program.
- The **Channel Lineup** (left pane) displays a list of available channels as well as the current program scheduled on the channel. The currently selected channel is highlighted.
- The **Program List** (right pane) displays the list of programs scheduled for the selected channel for the next two weeks, sorted by date and time. The currently playing program for the selected channel is highlighted.



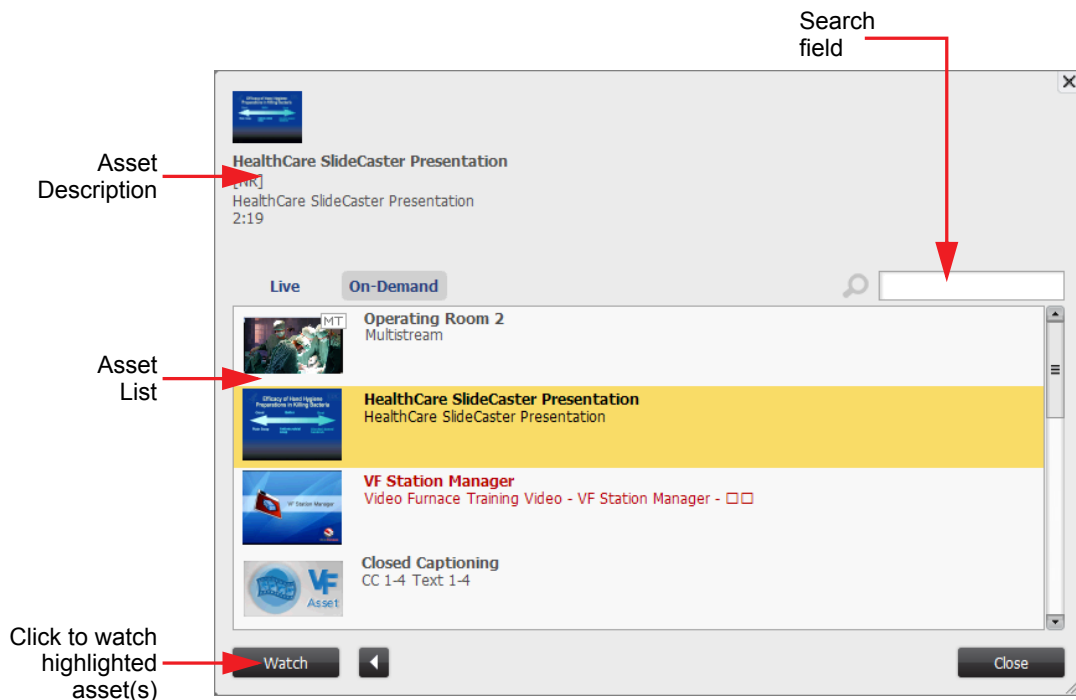
i **NOTE** InStream supports dual-stream playback from two encoder sources to one channel. Dual-stream channels are indicated by a + [plus] sign next to the channel name. For details, see [“Dual-Stream Playback”](#) on page 48.

💡 **TIP** You can change the font size in the Guide by clicking the window and then pressing **CTRL++** (plus) to increase the size, or **CTRL+-** (minus) to reduce the size. To reset the text to the normal size, press **CTRL+O**.

On-Demand List

The On-Demand list (shown in the example below) lists the available VOD assets in your system.

- The **Asset Description** (top left) displays the thumbnail, title, a brief description, and the duration of the selected asset.
- The **Asset List** displays the list of available assets. The currently selected asset is highlighted, and the currently playing asset is in red text.



Navigating Through the Guide Lists

As you navigate through the Guide lists, the Program Description displays the details for the new channel/asset. You can:

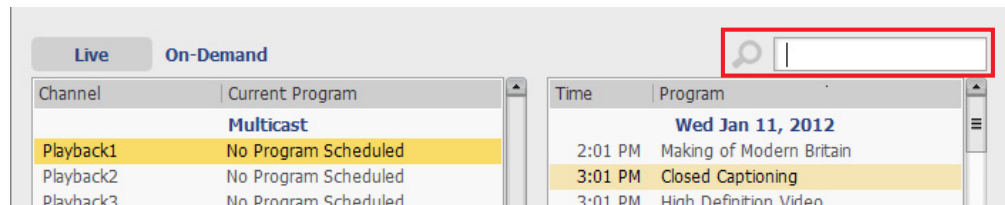
- Single-click a channel/asset or use the arrow keys to move the cursor through the list and review program information for channels or assets (other than the tuned channel).
- Use the keyboard **UP/DOWN** keys, or click and drag the scroll bar in the list, or use the mouse scroll wheel to move the list up or down in the list.
- Press the **TAB** key to move the cursor through the list and controls, i.e., from the Channel Lineup to the Program List (Live Channels only), to the **Watch** button, etc. The control that has the focus can be activated by pressing **Enter**.

Pressing the **TAB** key while pressing **Shift** cycles through the list and controls in reverse order.

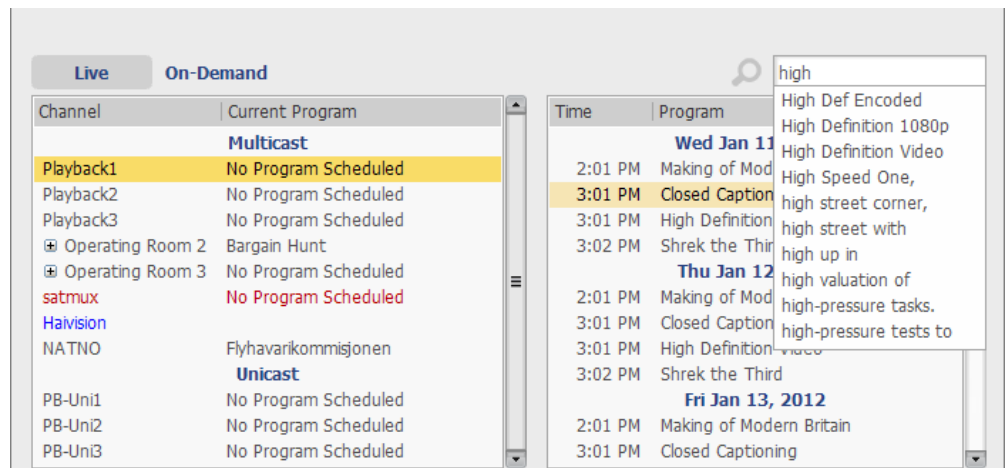
Searching for Programs or Assets

To search for programs or assets:


1. Type text (such as in the program title or asset description) in the Search field.



2. Select from the drop-down list (which appears as you type in your search text).

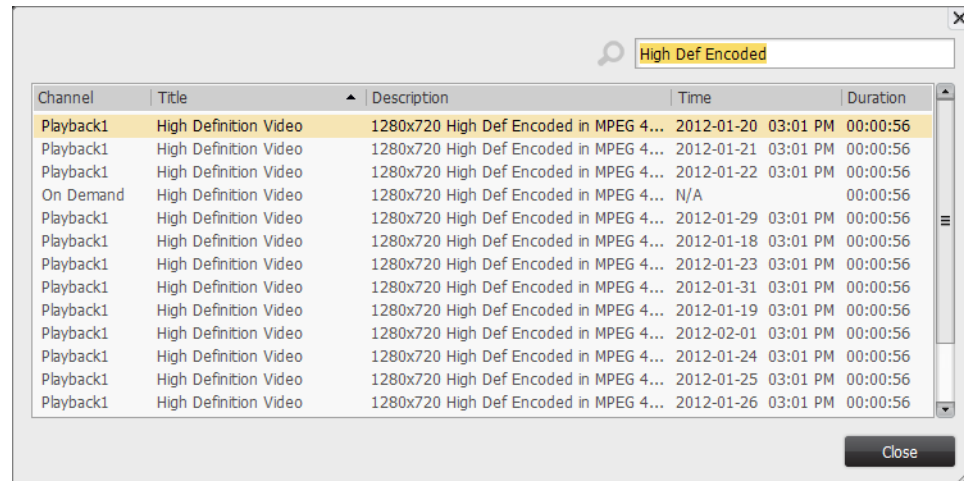


-or-

Click  or press **Enter**.

The Search dialog box (shown in following example) will open with a list of results that match your search criteria. The list includes the Channel, Title, Description, scheduled Date/Time, and Duration for each program/asset.

You can click any of the column headers to sort the list by that header type (each click toggles between ascending or descending order).



3. With VOD assets, you can double-click an asset in the Search list, and it will start playing in the current viewer.

Compact Guide Mode

Compact Guide mode displays only the Live Channel Lineup. The currently selected channel is highlighted.

- Clicking [Watch](#) closes the Guide and starts playing the highlighted channel(s).



Starting to Play Video

To start playing programs or assets in the player window, you can:

- Double-click a channel or VOD asset in the Guide lists to start playing the highlighted program or asset in the currently selected viewer.
- Click the [Watch](#) button to start playing the highlighted programs or assets (this also closes the Guide).
- Drag and drop channels or assets from the Guide lists to the player (or to individual viewers in a multi-viewer layout).

If the Multi-viewer option is available on your system, you can:

- Select multiple channels or assets from the Guide and click [Watch](#) to view them simultaneously.
- Drag and drop channels or assets from the Guide lists into each viewer.
- In the player window, press and hold the **CTRL** key to select multiple viewers. Then from the Guide, load the highlighted programs or assets into the selected viewers when you click [Watch](#).

For details, see [“Multi-viewer Layouts”](#) on page 44.



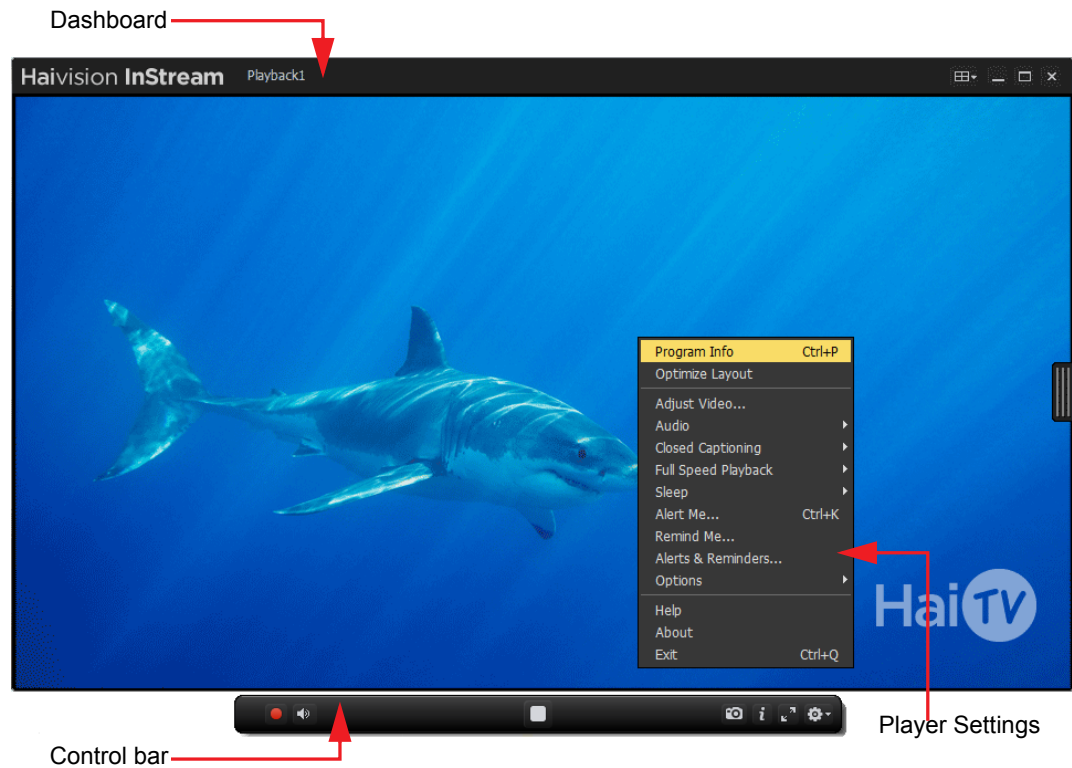
TIP If you are having trouble tuning into a stream with InStream, please keep in mind that factors other than the Furnace server may need to be inspected. For example, personal firewalls and security software may prevent a system from tuning into the stream. Please check with your network and IT personnel for more information.


InStream Player Window

The InStream player window allows you to view Live Channels and On-Demand video streams in a variety of layouts, with numerous controls over the viewing experience. The player window controls are arranged in two areas:

- The **Dashboard** runs across the top of the player window.
- The **Control bar** is a “floating palette” located by default just below the player window, but you can move it anywhere on your screen. When you launch InStream, the Control bar appears when you pass the cursor over the player window.

The InStream player window is designed to maximize viewing resources, so playing videos takes up the entire player window. If you do not move the cursor for about 4 seconds, or if it is outside the player window, the Control bar, Dashboard and Guide button fade out. These controls reappear when you move the cursor over the player window (although you can set the Dashboard to remain visible via the Player Settings menu, as shown below).



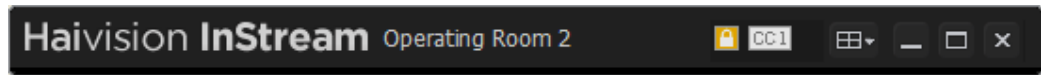
The Player Settings menu opens when you right-click anywhere in the player window or when you click the  Player Settings button on the Control bar. For more information, refer to [“Adjusting the Player Settings”](#) on page 36. The following section describes the Dashboard and Control bar controls.








For a list of keyboard shortcuts for the player controls (where available), refer to [Appendix A: “Keyboard Shortcuts”](#).

InStream Player Controls

Dashboard

The Dashboard (top of player window) serves to identify the video and to control basic aspects of the player window. The Dashboard controls are described in the following table.












Dashboard Control	Description
Logo [e.g., "Haivision"]	This area is typically used to display your organization's logo.
Message area [e.g., "Operating Room 2"]	This area is used to display information about the video stream currently playing, as well as messages broadcast by your system administrator.
 Lock	Indicates that encryption (either AES-128 or 256) has been enabled for the channel.
 CC	Indicates that Closed Captioning has been enabled via the Player Settings menu and shows the caption channel.
 SAP	Indicates that SAP has been enabled via the Player Settings menu.
 Multi-viewer Settings	Click to open the Multi-viewer Settings dialog to select player window layout options for multi-viewing. See "Multi-viewer Layouts" on page 44.
 Minimize	Click to reduce the InStream player to a button on the toolbar. This minimizes both the player and Guide windows. TIP: You can also press ALT+UP ARROW .
 Maximize	Click to expand the player window to occupy the entire screen (while still showing the toolbar). TIP: You can also press ALT+DOWN ARROW . NOTE: To maximize the player window and remove the toolbar, select Full Screen All from the player settings menu (right-click).
 Close	Click to close the player window and exit InStream. TIP: You can also press CTRL+Q or ALT+F4 .

Control Bar – Live Channels

The Control bar (located by default below the player window) is used to control video playback and perform various other functions. The controls vary depending on whether Live Channels or On-Demand assets are being played. The following table describes the Live Channel controls.





Live Channel Controls	Description
	(Optional feature) Click to start talking into your microphone (i.e., to talk directly to individuals at the video source). For details, see “Audio Talkback” on page 58.
	Click to start recording live channel programs to a standard MPEG Transport Stream (.ts) file to your local hard drive. You will be prompted for the recording Save location each time local recording starts. TIP: You can enable or disable the prompt for the recording Save location from the Player Settings Options menu. For details, see “Player Settings” on page 37.
	Click the volume icon to toggle the sound On or Off (Mute). The Volume icon also changes to indicate the volume level. TIP: You can also press CTRL+M .
	Position cursor over Volume icon to display the volume level slider. Click and drag the volume slider to the right (to increase the volume) or left (to decrease the volume). TIP: You can also press CTRL+UP ARROW or CTRL+DOWN ARROW to increase or decrease the volume.
	Click to start or to stop video playback. Note that Live streams cannot be paused. TIP: You can also use the spacebar to toggle between the two.
 Snapshot	Click to take a snapshot of the current video frame (excluding visible controls) and place it on the clipboard. TIP: You can also press CTRL+C .








Live Channel Controls	Description
 Information	<p>Click to display information in the Dashboard:</p> <ul style="list-style-type: none"> • 1st click: Channel/asset name • 2nd click: Video status (Playing, Paused, etc.) • 3rd click: InStream version • 4th click: Reception status <p>TIP: You can also press CTRL+I to cycle information displayed.</p>
 Fullscreen Current	<p>Click to expand the current video frame to full screen (i.e., no toolbar). Double-click or press ESC to return the frame to its former size.</p> <p>TIP: You can also press ALT+ENTER.</p>
 Player Settings	<p>Click to open the Player Settings menu. For details, see “Adjusting the Player Settings” on page 36.</p>

Control Bar – On-Demand Assets

The controls unique to viewing On-Demand assets are described in the following table.



On-Demand Controls	Description
Time code	<p>Displays the time code value that uniquely identifies the current frame in a digital video sequence.</p> <p>TIP: Pressing CTRL+B on your keyboard changes the time reference from time-codes to a frame index. Press it again to return to time format.</p>
 HotMarks menu	<p>Click to display a list of Hotmarks and Chapter Marks (if defined). Hotmarks are typically used to create shortcuts to jump to predefined points in the video, while Chapter Marks are typically used to mark breaks in the recording.</p>
 Scrub bar	<p>Shows the progress of the video playback. Click and drag to move through the video.</p>

On-Demand Controls	Description
 Hotmarks & Chapter Marks	<p>If defined, Hotmark and Chapter Mark indicators appear when you pass the cursor over the scrub bar. When you rest the cursor on one of the indicators, a caption appears displaying the title, such as “Chap1” or “Hot2”. Clicking on an indicator causes the video to jump to that spot in the video.</p>
 Play /  Pause	<p>Click to start or pause video playback. TIP: You can also use the spacebar to toggle between the two.</p>
 Previous Hotmark/Chapter	<p>Click to jump to the previous Hotmark or Chapter. TIP: You can also press CTRL+LEFT ARROW.</p>
 Rewind / Step Backward (Shift - Slow Motion Reverse)	<p>Click to rewind the video. If paused, click to step backward one frame at a time. TIP: You can also press the LEFT ARROW key.</p>
 Fast Forward / Step Forward (Shift - Slow Motion Forward)	<p>Click to fast forward the video. If paused, click to step forward one frame at a time. TIP: You can also press the RIGHT ARROW key.</p>
 Next Hotmark/Chapter	<p>Click to jump to the next HotMark or Chapter. TIP: You can also press CTRL+RIGHT ARROW.</p>
<p>Duration</p>	<p>Displays the duration (HH:MM:SS) of the current video. Hovering over the timeline or dragging the scrub bar will turn the duration field yellow to indicate the current position.</p>


For more information on playing On-Demand (VOD) assets, see [“On-Demand Videos”](#) on page 60.

Adjusting the Player Settings

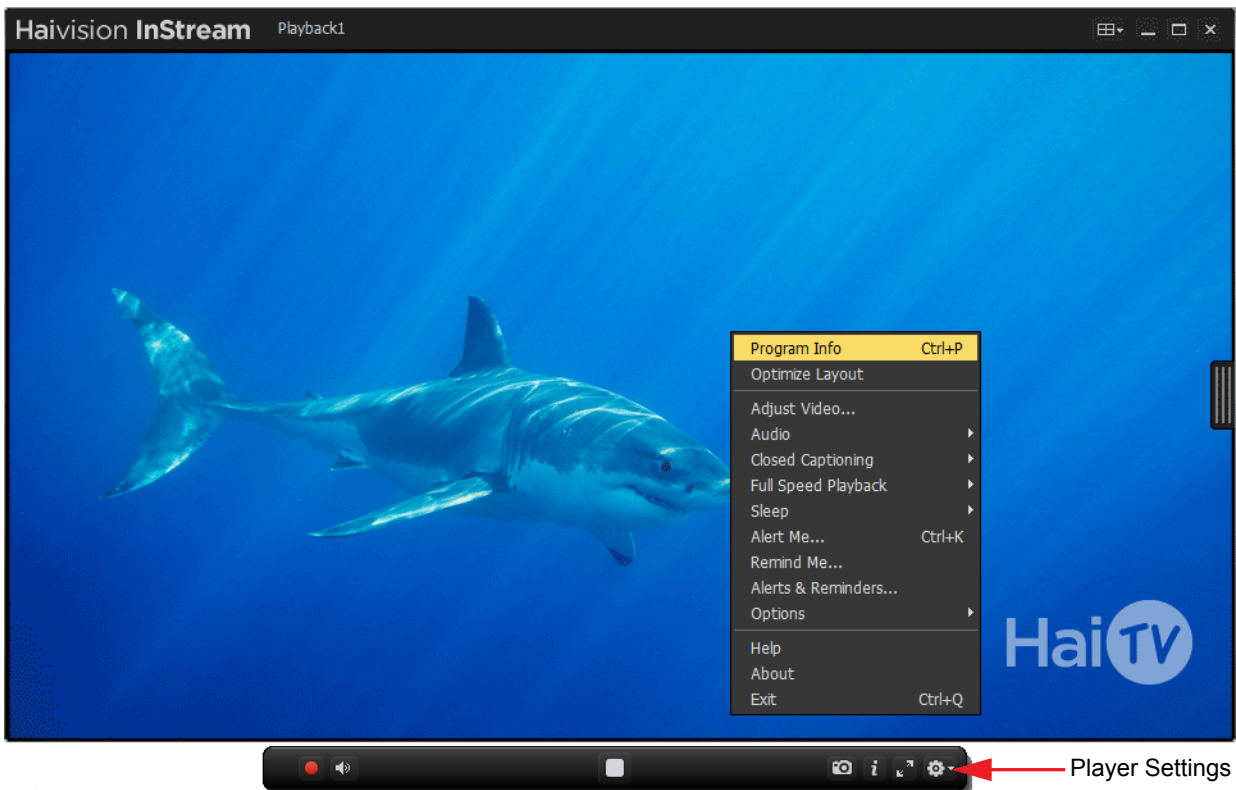
The InStream Player Settings provide additional controls over the viewing experience, such as adjusting the video, enabling Full Speed Playback, hiding the Dashboard, and swapping the PIP stream with the video stream (dual-stream playback). You can also turn On or Off the prompt for the recording Save location each time local recording starts.

From the Player Settings menu, you can also enable Closed Captioning and configure Alerts and Reminders to monitor Closed Captioning streams. For details, see [“Closed Captioning Alerts”](#) on page 52.

To display the Player Settings menu:

1. Right-click the player window, or click the  Player Settings button on the Control bar.


The Player Settings menu opens (shown below).



The Player Settings menu varies according to the context. For example, the Picture-in-Picture menu options are only available when a dual-stream channel is playing, and Audio Track Selection is only available with dual-track recordings. For the complete list of the Player Settings, refer to the following section [“Player Settings”](#).

Keyboard shortcuts (where available) for the Player Settings are listed at the right of the menu options. For the list of shortcuts, refer to [“InStream Keyboard Shortcuts”](#) on page 64 (Appendix A).

Player Settings

The following table lists the InStream Player Settings menu options. To access this menu, right-click anywhere in the player window or click the  Player Settings button on the Control bar.

InStream Player Setting	Description
Program Info	Displays a window with information about the current program, such as the channel/station, program title and description.
Optimize Layout	Resizes the Player Window to encompass all viewers. You can also double-click on the border of the player to resize to encompass all viewers.
Adjust Video...	Opens the Video Settings window, which includes controls, such as Brightness and Contrast, to adjust the appearance of the video. For the list of controls, see “Video Settings” on page 42. See also “Adjusting the Video Settings” on page 40.
Audio ▶	
SAP Audio	<ul style="list-style-type: none"> Enables/disables Secondary Audio Programming (SAP). SAP is an auxiliary audio channel for Analog television that is often used for an alternate language.
Track Selection	<ul style="list-style-type: none"> Selects the audio track for multi-track recordings.
Closed Captioning ▶	Enables/disables Closed Captioning Text On/Off (if present in content).
CC1 - CC4	<ul style="list-style-type: none"> Selects one Closed Captioning channel
Full Speed Playback ▶	Assigns the best video playback (i.e., smooth, full speed playback as opposed to compressed playback that plays I Frames only) to either:
Active Stream Only	<ul style="list-style-type: none"> The currently selected stream.
All Streams	<ul style="list-style-type: none"> All streams playing.
None	<ul style="list-style-type: none"> Full Speed Playback is disabled (I Frames only).
Refresh	<ul style="list-style-type: none"> Forces the update of the Full Speed modes for all of the viewers. It allows refreshing without having to change your selection.


InStream Player Setting	Description
Picture-In-Picture ►	Used to manage Picture-in-Picture (PIP) functionality for multi-stream playback. For more information, see “Dual-Stream Playback” on page 48.
Swap	<ul style="list-style-type: none"> Swaps the PIP stream with the video stream
Hide/Shows	<ul style="list-style-type: none"> Hides the PIP window
Small Window Medium Window Large Window	<ul style="list-style-type: none"> These options select the size of the PIP window
Attach/ Detach	<ul style="list-style-type: none"> When the PIP window is outside the player window, attaches or “docks” the PIP window to the adjacent player window border. A magnet icon appears to show that the windows are docked. When the windows are docked, detaches the windows so that they can be moved independently.
Optimize	<ul style="list-style-type: none"> Resizes the PIP window to encompass the PIP video. You can also double-click the border of the PIP window to resize to encompass the PIP video.
Sleep ►	Allows selection of sleep time as well as turning off sleep. Select any of the following: <ul style="list-style-type: none"> Off, 15, 30, 45, 60, 90 <p>NOTE: When the sleep timer reaches one minute, a popup will ask if you wish to cancel the timer or continue. This will stay visible for 15 seconds.</p>
Alert Me...	Opens the Manage Closed Captioning Alerts dialog box. From here, you can define keywords to monitor Closed Captioning streams. A check next to the menu option indicates that Alerts have been enabled. For more information, see “Closed Captioning Alerts” on page 52.
Remind Me...	Opens the Manage Reminders dialog box. Shows the list of reminders you have set from the Guide Program List. For more information, see “Reminders” on page 55.

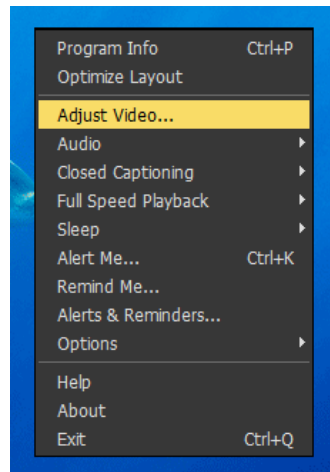
InStream Player Setting	Description
Alerts & Reminders...	<p>Opens the Alerts & Reminders Settings dialog box. From here, you can specify:</p> <ul style="list-style-type: none"> • CC Alert action(s) that keyword occurrences will trigger. For more information, see “Specifying CC Alert Actions” on page 54. • Reminder action(s) when programs you want to watch are about to begin. For more information, see “Specifying Reminder Actions” on page 56.
Options ►	Select any of the following:
Thumbnail	<ul style="list-style-type: none"> • (Single-viewer only) Switches the view to a very small thumbnail version of the video.
Full Screen All	<ul style="list-style-type: none"> • Maximizes the player window to occupy the entire screen and removes the toolbar. <p>NOTE: In contrast, the Maximize button on the Dashboard expands the player window but still shows the toolbar. Also, the Full Screen Current button expands just the current video frame to full screen.</p>
Native Resolution	<ul style="list-style-type: none"> • Resizes the player window to the original stream resolution. <p>NOTE: 1 pixel/screen = 1 pixel in video (up to the maximum screen size).</p>
Video On Top	<ul style="list-style-type: none"> • Keeps InStream always on top of other open windows on the desktop when selected.
Dashboard	<ul style="list-style-type: none"> • Removes or replaces the “dashboard” controls at the top of the InStream player.
Timecode	<ul style="list-style-type: none"> • Turns On/Off the timecode display in VoD player controls.
VU Meters	<ul style="list-style-type: none"> • Turns On/Off the audio VU (Volume Unit) bars along the bottom of the player.
Stream Status	<ul style="list-style-type: none"> • Turns On/Off the stream status display along the bottom of the player.
Recording Prompt	<ul style="list-style-type: none"> • Turns On/Off the prompt for the recording Save location each time local recording starts.
Every Space (OS X) *No effect on Windows	<p>Every Space is for the OS X Spaces virtual desktop implementation and keeps the InStream window on all virtual desktops. You can have up to four “spaces”. With Every Space enabled, you will see InStream on each space as you switch back and forth.</p>

InStream Player Setting	Description
Help	Opens the InStream online help in a new tab. TIP: If an outdated version opens, you may need to clear your cache.
About	Provides an informational notice about the InStream application.
Exit	Exits/Closes the InStream player.

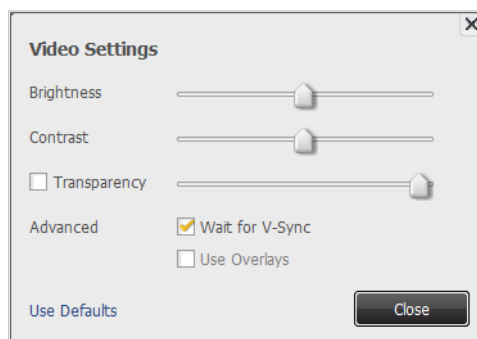
Adjusting the Video Settings

To adjust video settings:

1. Right-click the player window, or click the  Player Settings button.
2. On the Player Settings menu, select Adjust Video....



The Video Settings dialog box opens with sliders to adjust the brightness, contrast, and transparency.





NOTE Transparency is only available on Windows Vista and above. For details, see [“Transparency”](#) on page 42.

3. Make the desired adjustments. See [“Video Settings”](#) on page 42.

Your changes take effect immediately.

4. When you are satisfied with your adjustments, click [Close](#).

5. To return to the original video settings, click [Use Defaults](#).



TIP You can also adjust the contrast and brightness using keyboard shortcuts:

[CTRL+F1/F2](#) to adjust brightness down/up

[CTRL+F3/F4](#) to adjust contrast down/up

[CTRL+F5](#) to reset the picture settings

Video Settings

The following table lists the Video Settings for the InStream player. To access this dialog box, select Adjust Video... from the Player Settings menu.

Video Setting	Description
Brightness	Adjusts the overall level of light or dark for the display. Drag or click the slider to the right to make the display brighter, or to the left to make it darker.
Contrast	Adjusts the contrast between the lightest and darkest parts of the display. Drag or click the slider to the right to increase the contrast, or to the left to decrease the contrast.
Transparency	<p>Adjusts the level of transparency for the InStream player. Drag or click the slider (50% toggles the option) or check the checkbox.</p> <p>This setting makes the player window semi-transparent while remaining on top of all other windows. When the transparency threshold is below 50%, either by adjusting the slider or selecting the Transparency checkbox, all mouse and keyboard events will be passed to the window below the player. Above 50%, the player window itself will process the events.</p> <p>NOTE: Transparency is only available on Windows Vista and above.</p>
Advanced	Select either one:
Wait for V-Sync (checkbox)	<ul style="list-style-type: none"> (Not available if Use Overlays is enabled) Vertical synchronization (V-Sync) refers to the synchronization of frame changes with the Vertical blanking interval. V-Sync eliminates page-tearing artifacts and ensures that only whole frames are seen on-screen.
Use Overlays (checkbox)	<ul style="list-style-type: none"> (Only on Windows systems with one screen) Video overlay speeds up the video display.

CHAPTER 3: Using InStream

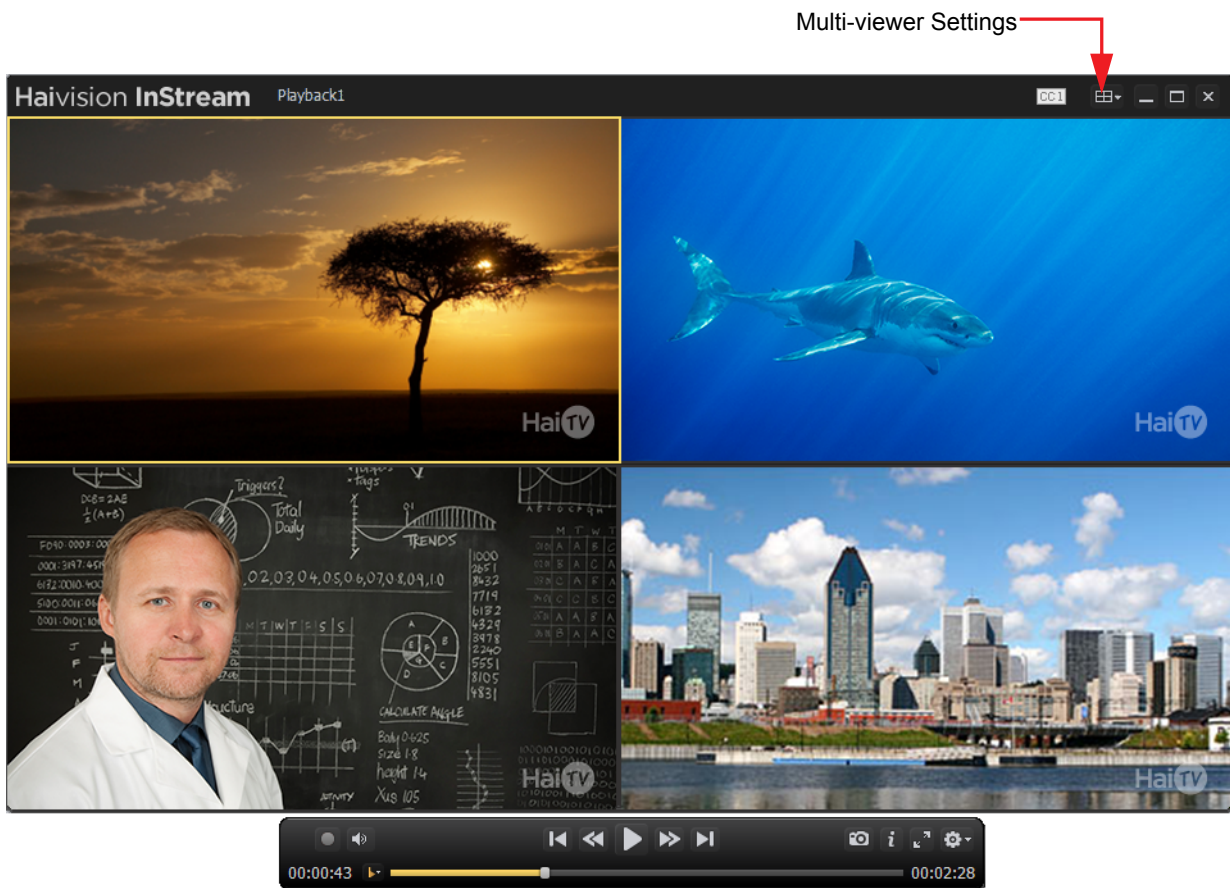
This chapter provides additional information on InStream viewing capabilities.

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Multi-viewer Layouts

If the Multi-viewer option is available on your system, you can view multiple channels or VOD assets in multiple viewing panes or “viewers” within the same player window, similar to a video wall. You can also customize the layout of the InStream viewers. Below is an example of InStream configured for a 4x4 grid layout:




The Multi-viewer option includes support for playing multiple channels at once, multiple VOD sessions at once, and a mix of Live Channels, Playback and VOD concurrently. (Note that playback of these separate streams is not synchronized.)

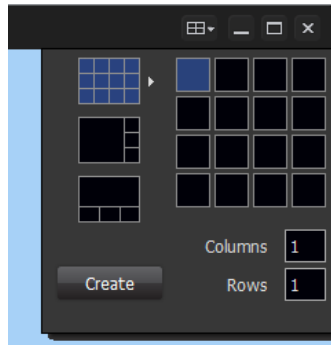
InStream provides two ways to set up Multi-viewer layouts. You can either:




- Set up the Multi-viewer layout in the player window and then populate the viewers, or
- Select multiple channels/assets in the Guide window and allow InStream to auto-build the Multi-viewer layout.

The following sections describe these two methods.

Setting Up Multi-viewer Layouts from the Player

Clicking the  Multi-viewer Settings button on the Dashboard opens the Multi-viewer Settings dialog box (shown below), from which you can select one of three layouts:



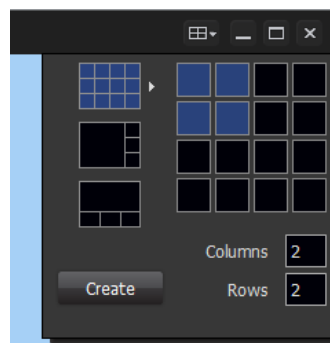
Layout	Description
 Grid	A customizable grid of multiple viewers in the player window.
 Main Left	One large viewer to the left of three smaller viewers in the player window.
 Main Top	One large viewer above three smaller viewers in the player window.

To create a Multi-viewer layout:

- On the Multi-viewer Settings dialog box, do one of the following:
 - Select [Main Left](#) or [Main Top](#).
 - Select the [GRID](#) and drag to select the number of Columns and Rows (4x4 maximum).

-or-

 - Enter values in the Columns and Rows fields to specify multiple viewers.



2. Click [Create](#).

The Multi-viewer Settings dialog box closes and the player window is divided into the specified number of viewers.

3. To populate the viewers, select each viewer (one by one), open the Guide, and double-click or click and drag a channel or asset to play in the viewer.
4. When you have finished your selections, click [Close](#) to close the Guide and start watching.



NOTE Clicking [Close](#) does not change the player selection or viewer layout (which is useful when viewing Multi-viewer layouts). However, clicking [Watch](#) will close the Guide window and may reformat the layout to increase the number of viewers to play the highlighted channels or assets.



TIP From the player window, you can swap viewer grid positions by pressing and holding the [SHIFT](#) key while you drag the viewer. When dragging viewers (or channels/assets from the Guide), the drop zone will be highlighted in green.

Selecting Multiple Channels/Assets from the Guide

If you select multiple channels/assets in the Guide list and click [Watch](#), InStream will auto-build a Multi-viewer layout based on the number of selected channels/assets.

To set up Multi-viewer viewing from the Guide:

1. Press and hold the [SHIFT](#) key while you select multiple contiguous channels or assets from the Guide list.

-or-

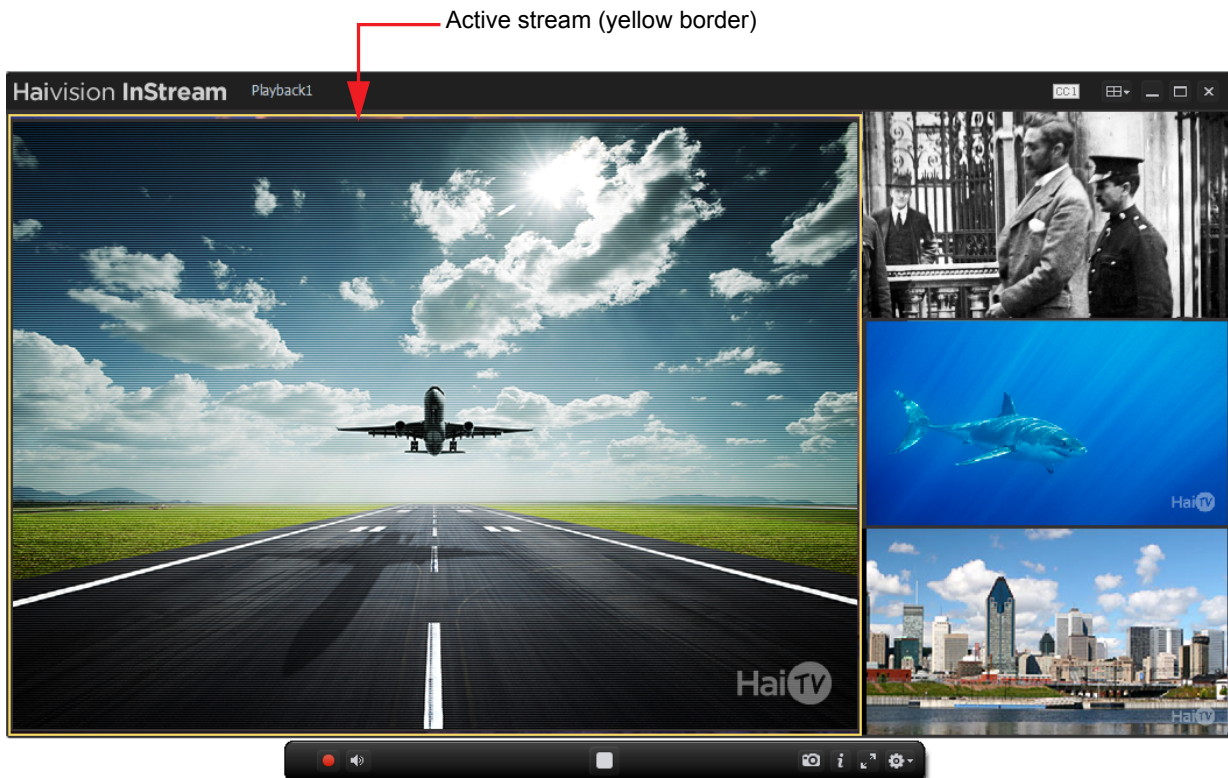
Press and hold the [CTRL](#) key while you select multiple non-contiguous channels or assets from the list.

2. Click the [Watch](#) button.

InStream will open in Multi-viewer layout playing the selected channels or assets. The channels/assets will be arranged in the same order as in the list, not the order of selection.

Playing Video in Multi-viewer Layouts

In Multi-viewer layouts, the current focus or “active” stream is highlighted by a yellow border. Below is an example of InStream configured for a Main Left layout:



Only the active stream’s audio is audible; the audio for the other streams is muted.

With Multi-viewer layouts, you can drag a border of the player to resize the player window and the individual viewers will resize to fill the available space.

You can switch to Full Screen view by double-clicking a single viewer to make it full screen, and then press **ESC** or double-click again to return to the Multi-viewer view.

When you open the Guide, the active stream will be highlighted in the Guide list.



TIP To replace the active stream, simply double-click another channel or asset in the Guide list.

You can also enable Full Speed Playback for either All Streams, the Active Stream only, or None. For these and other player settings, see [“Adjusting the Player Settings”](#) on page 36.

Dual-Stream Playback

InStream also supports dual-stream playback from two encoder sources to one channel. You may select one or both streams for playback with standard Picture-in-Picture (PIP) functionality.

InStream also supports dual-stream playback from two encoded sources to one channel with standard Picture-in-Picture (PIP) functionality.



TIP In the Live Channels List, you can click the + [plus] and - [minus] signs next to dual-stream channel names to expand and collapse the list to view and select each stream.

Single-Stream Playback

In the Live Channels List, you can click the + [plus] sign next to a dual-stream channel name and select one of the streams (as shown in the example below).

Channel	Current Program
Multicast	
Playback1	No Program Scheduled
Playback2	No Program Scheduled
Playback3	No Program Scheduled
+ Operating Room 1	No Program Scheduled
- Operating Room 2	No Program Scheduled
Room Camera 1	
Room Camera 2	
Makito	Sommeråpent
Makito Low	No Program Scheduled
NVR-Review	No Program Scheduled

When you click [Watch](#), the selected stream then starts playing in a standard player window.

Dual-Stream Playback

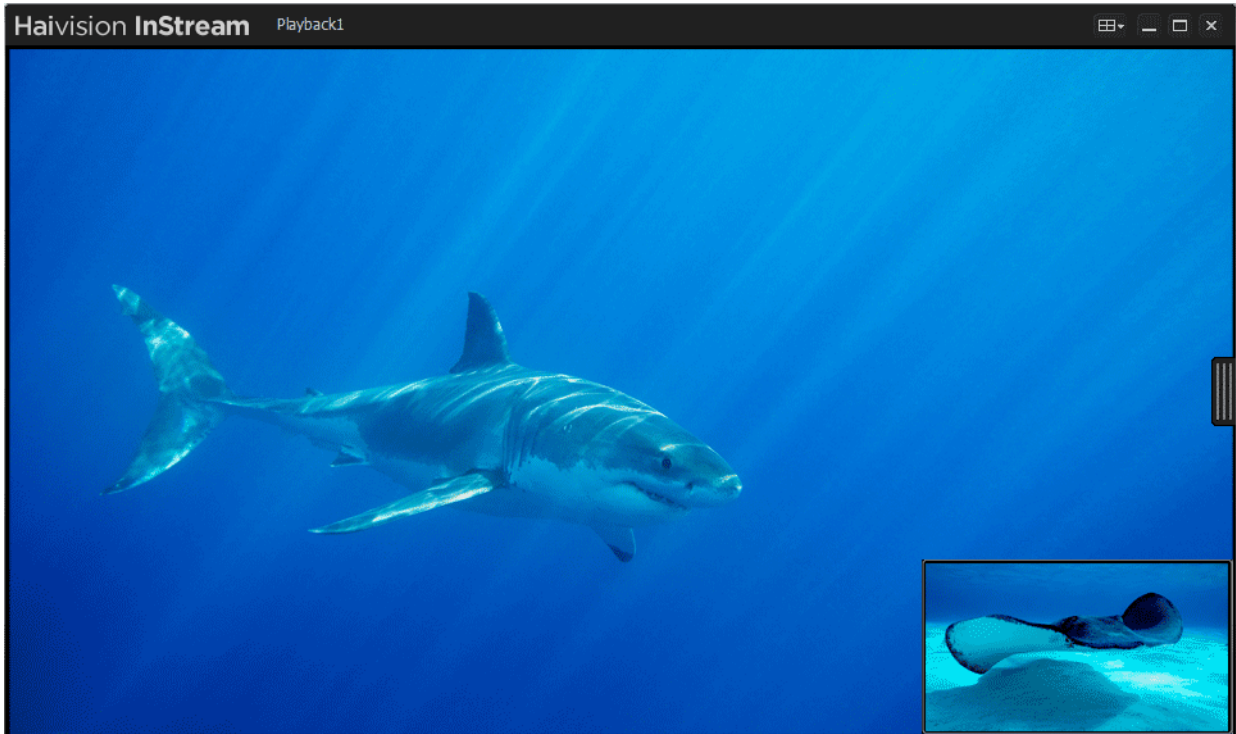
In the Live Channels List, you can also select a dual-stream channel without expanding the list (as shown below).

Channel	Current Program
Multicast	
Playback1	No Program Scheduled
Playback2	No Program Scheduled
Playback3	No Program Scheduled
+ Operating Room 1	No Program Scheduled
+ Operating Room 2	No Program Scheduled
Makito	Sommeråpent
Makito Low	No Program Scheduled
NVR-Review	No Program Scheduled
Link Guide	Testing of Link Guide
SPEEDUP	No Program Scheduled

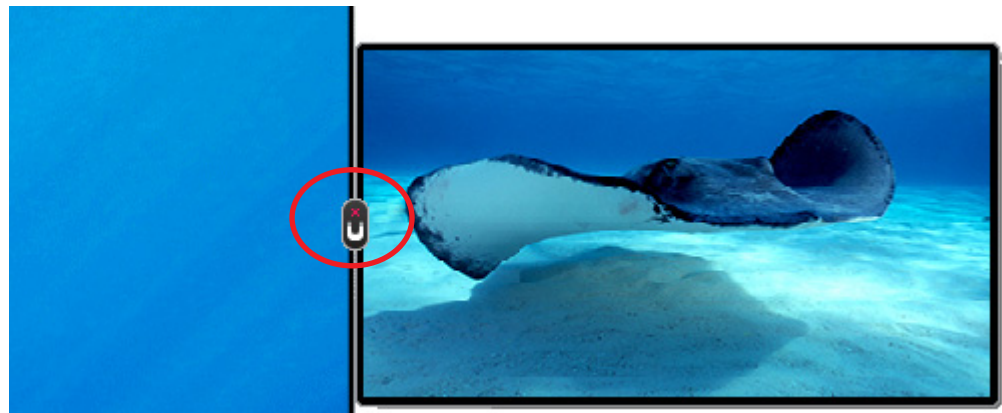
When you click [Watch](#), the Primary stream opens in the player window with the Secondary stream in PIP mode (as shown in the following section).

Playing Dual-stream Channels

When you start playing a dual-stream channel, by default, the PIP window is in the lower right-hand corner (as shown in the example below).



- You can select the PIP window and either reposition it within the player window or drag it outside the window.
- When the PIP window is moved outside the player window, you can attach or “dock” it to any of the player window borders (right, left, top, or bottom) by moving the PIP window close to that border until the magnet icon appears (as shown below).





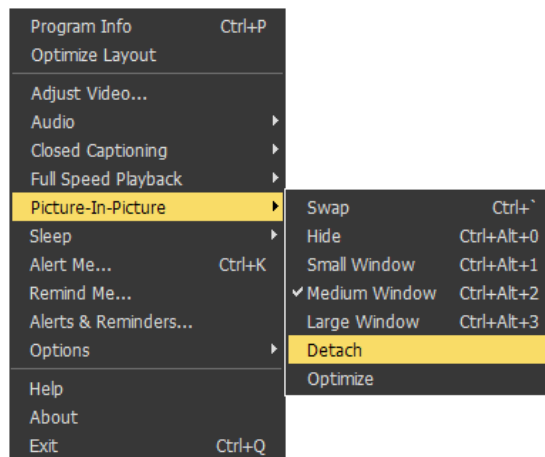
IMPORTANT You can only move the PIP window outside of the player window when you are viewing one channel. If you are viewing more than one channel or asset concurrently in a Multi-viewer layout, the PIP window will be locked inside of the main viewing pane for that channel.

When the PIP and primary windows are docked, they move in unison when you click and drag either window.

To detach the windows so that they can be moved independently:

- Click the magnet icon.

Or right-click and select **Detach** from the Player Settings menu, which now includes Picture-in-Picture ▶▶ (shown below).



The Picture-in-Picture menu options are used to manage dual-stream playback functionality. When the PIP window is outside the player window, the Picture-in-Picture menu includes the **Attach/Detach** toggle options.

To swap the PIP stream with the video stream:

- Select **Swap** from the Picture-in-Picture menu.



NOTE Audio cannot be swapped. It is always from the “primary” stream (as defined in the Channel Editor).

To hide the PIP window:

- Select **Hide** from the Picture-in-Picture menu.

To resize the windows:

- To resize either window, drag its border with the mouse.
- To resize the PIP window, right-click either window and select either **Small Window**, **Medium Window**, or **Large Window** from the Picture-in-Picture menu.
- To resize the PIP window to encompass the PIP video, select **Optimize**.

For the list of Picture-in-Picture menu options, refer to [“Player Settings”](#) on page 37.

Closed Captioning Alerts

InStream allows you to monitor Closed Captioning streams by defining keywords to monitor and specifying alert action(s) to be triggered by occurrences of the keywords. Examples of alerts include unmuting the audio, bringing the player window in front, or beeping. Using alerts allows you to keep the video player minimized on a channel but be alerted if/when the keyword occurs in the Closed Captioning stream.

From the Manage Closed Captioning Alerts dialog box (shown below), you can create a list of alerts that can be individually activated/de-activated or deleted. Your list of alerts is automatically saved for the next time you open the player.

For any alerts that are activated, InStream tracks and displays the number of “hits” or occurrences of each keyword in the Closed Captioning stream. You can reset the count for individual alerts or select and reset all alerts. You can also enable or disable monitoring in one selection using the Enable Alerts checkbox.



NOTE With dual-stream playback, Closed Captioning shows in both windows. However, alerts can only be used to monitor the CC stream in the “primary” window.

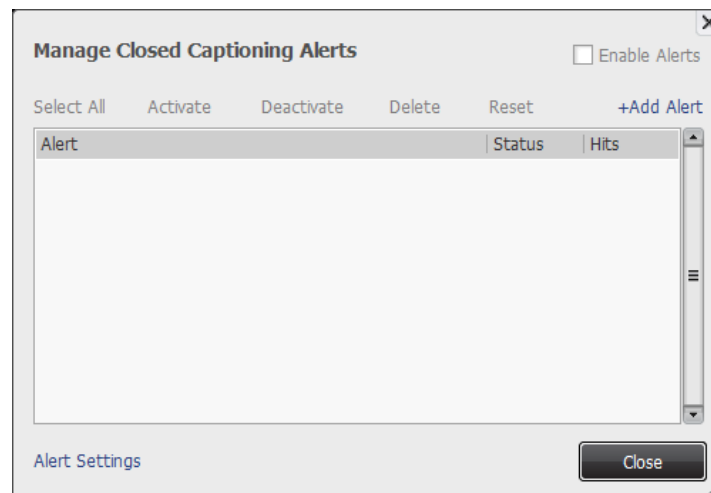
Managing Closed Captioning Alerts

To define Closed Captioning alerts:

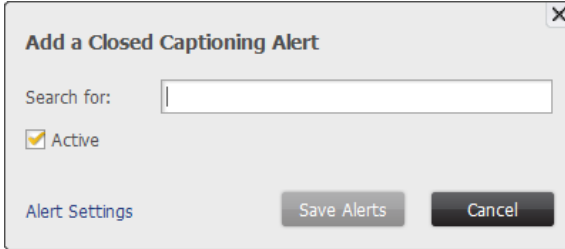
1. Right-click anywhere in the InStream window to open the Player Settings menu, and select Alert Me.... (A check next to the menu option indicates that Alerts have been enabled.)

Or you can press **CTRL+K**

2. On the Manage Closed Captioning Alerts dialog box, click [Add Alert](#).



3. Type the keyword into the [Search for](#) text box and click [Save Alerts](#). (Note that alert text is case-insensitive.)



The screenshot shows a dialog box titled "Add a Closed Captioning Alert". It contains a "Search for:" text box, a checked "Active" checkbox, and "Save Alerts" and "Cancel" buttons. An "Alert Settings" link is located at the bottom left of the dialog.

The keyword is added to the Alert list with an Active status, by default.



TIP To monitor a phrase, enclose it in “quotation marks”. Otherwise, InStream looks for each keyword separately.

4. Repeat until you have added all keywords to monitor. (Note that the focus remains in the text box to allow you to type in the next keyword.)
5. To change the status of a keyword, highlight it in the list and click [Activate](#) or [Deactivate](#).
6. To delete a keyword, highlight it and click [Delete](#).
7. To reset the Hits tally to 0 for a keyword, highlight it and click [Reset](#).
8. To start monitoring the Closed Captioning stream, check the [Enable Alerts](#) checkbox. (Note that one alert must be active before you can enable alerts.)

InStream will display the number of occurrences for each alert as it monitors the Closed Captioning stream. Monitoring will continue as long as alerts are enabled.

9. To return to the InStream window, click [Close](#) or the **X** button in the upper right corner.

Specifying CC Alert Actions

The Alert settings apply to all CC alerts. You can select any, all, or no actions.

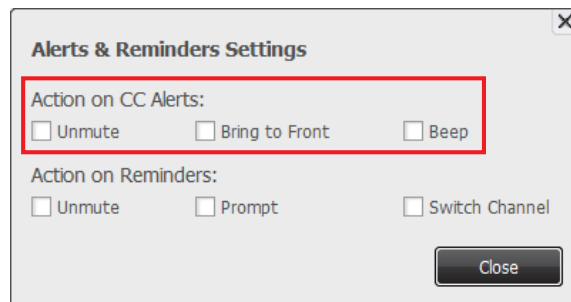
To specify the Alert action:

1. On the Manage Closed Captioning Alerts dialog box, click [Alert Settings](#).

-or-

On the Player Settings menu, select Alerts & Reminders....

2. On the Alerts & Reminders Settings dialog box (shown below), under Action on CC Alerts, check any of the following alert action(s) to be triggered when the keywords occur in the Closed Captioning stream:



- Unmute the audio
- Bring the player window to the Front (when previously behind)
- Beep

Reminders

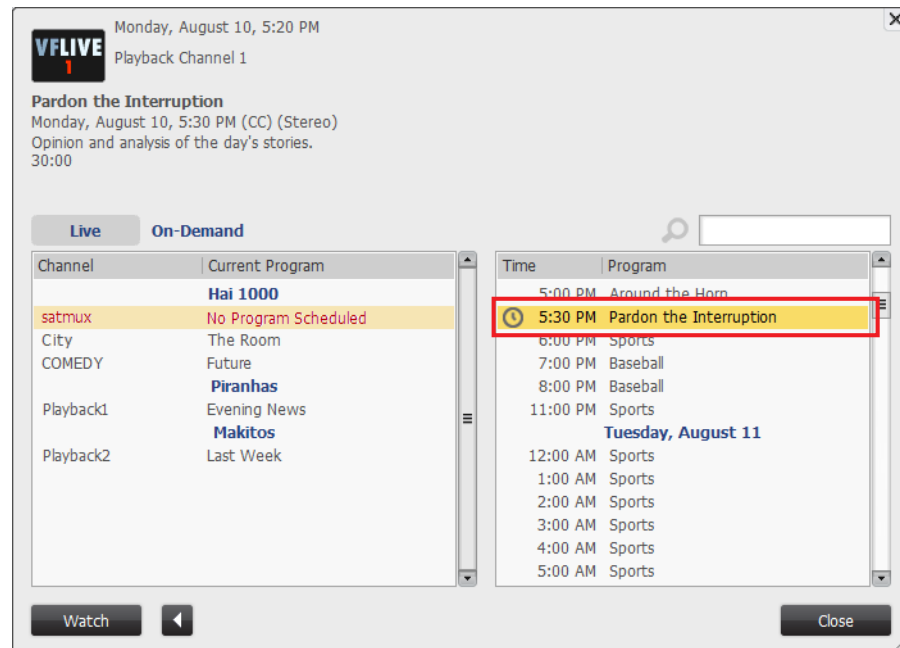
From the Guide Program List, you can set reminders for programs you want to watch. Reminder actions can include unmuting the audio when the program is about to begin, prompting you beforehand to allow InStream to change channels, and/or switching channels automatically to play the program. Reminder settings are global and apply to all reminders.

Your list of reminders is automatically saved for the next time you open the player.

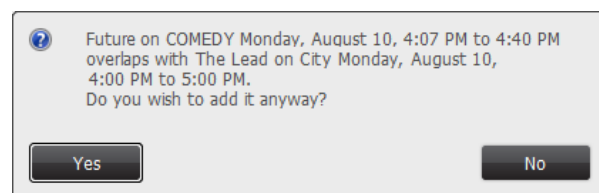
Managing Reminders

To set and manage reminders:

1. Expand the Guide to show the Program List.
2. Double-click each program you want to watch. You will see a timer next to each selected program indicating that a reminder has been set.

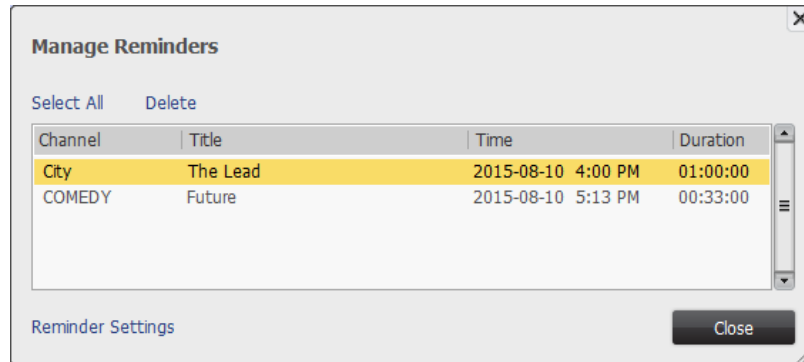


If you try to set reminders for overlapping programs, you will get a message informing you of the overlap.



- To view the list of reminders you have set, on the Player Settings menu, select Remind Me....

The Manage Reminders dialog box opens (as shown in the following example).



- To delete a reminder, double-click the selected program (indicated by the timer) on the Program List.

Or you can select the reminder (on the Manage Reminders dialog box) and click [Delete](#).

Specifying Reminder Actions

The Reminder settings apply to all reminders. You can select any, all, or no actions.

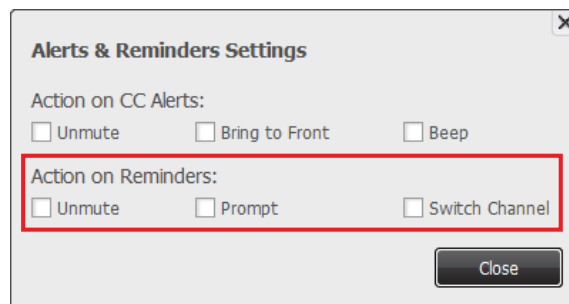
To specify the Reminder action(s):

- On the Manage Reminders dialog box, click [Reminder Settings](#).

-or-

On the Player Settings menu, select Alerts & Reminders....

- On the Alerts & Reminders Settings dialog box (shown below), under Action on Reminders, check any of the following alert action(s) to be triggered when the program is about to begin:



- Unmute the audio
- Prompt you to allow InStream to change channels

- Switch channels automatically to play the program

Audio Talkback

The Talkback option enables you to talk directly to individuals at the video source (either a Makito or Barracuda encoder). If the Talkback option is licensed on your system and is enabled for the channel you are watching, the Talkback button is present on the player window on the Control bar (as shown below). To make changes to your account, contact your system administrator.



To use Talkback, you simply “push” the Talkback button and start speaking into your microphone, like using a walkie-talkie.

Talkback is “First-In/First Served”, meaning that only one user can use the return audio channel at a time. So you must keep pushing the button to use the talkback channel. This prevents anyone from accidentally locking and not releasing the channel.



TIP (Windows only) Starting with Furnace v6.6, InStream users can activate and deactivate Talkback by double-clicking the Talkback button (on the InStream player window) and pressing CTRL+spacebar. Previously users had to keep pushing the Talkback button to use the Talkback channel.

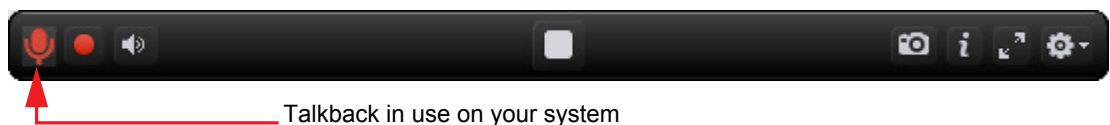
To avoid audio feedback loops, InStream mutes the audio playback of the incoming stream when the Talkback button is pressed. Your system may also have been configured to delay the unmuting of the audio once the user stops pushing the Talkback button.

The audio is only sent to the source video encoder; it is not distributed to other viewers of the stream.

To start Talkback on a licensed system:

1. Start playing the channel or asset.
2. Verify that Talkback button is present on the Control bar.
3. Click and hold the Talkback button and start speaking into your microphone.

The button turns red when in use on your system (as shown below).



4. When you have finished talking, release the Talkback button.



CAUTION Unplugging or disabling the microphone while using Talkback could cause InStream stability issues. Do not unplug or disable your microphone while holding down the Talkback button. However, there is no problem with unplugging the microphone while using InStream as long as you are not actively using Talkback.

For questions of Talkback access or group/user entitlement, please contact your system administrator.

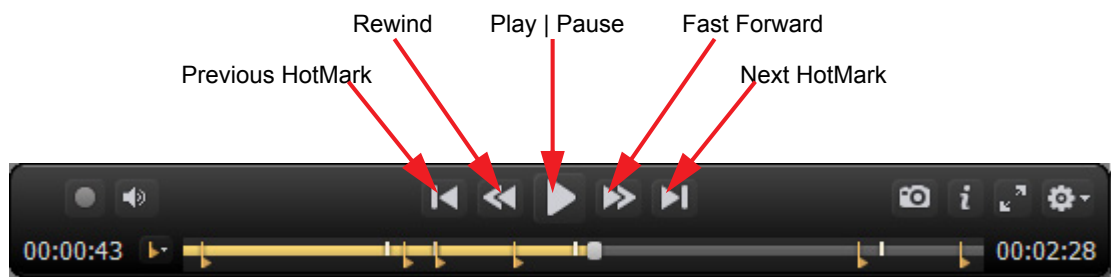
On-Demand Videos

When you launch videos from the On Demand list, in addition to the standard InStream player controls, the Control bar contains VCR-type controls such as Fast Forward/Rewind, Step Forward/Backward, Slow Motion Forward/Reverse, Next/Previous HotMark/Chapter Mark, Pause, and Play/Pause.

This type of streaming experience is different than the channel-based system. The channel-based system uses multicast streams, which means that a single stream on the network may be viewed by any number of authorized users who tune in without affecting the network bandwidth load. With On-Demand assets, InStream uses unicast streams in which each user receives a unique stream that consumes the network bandwidth necessary to support each user's unique stream.

i **NOTE** InStream provides a click and drag scrub bar on the VOD slider to move through the video. Note that there is a small delay when the scrub bar is released because the video is only stored on the server; this is a very important feature of the system for content protection. Content is never cached on your computer.





Using the VOD controls, you can speed up, slow down, or reverse the playback of videos. You can also advance or reverse a video one frame at a time.





Summary of VOD Controls

When you are in Play mode, Fast Forward  and Rewind  offer two speeds of fast forward and reverse (10x and 20x).

- Click either button once to play or rewind the video at 10x speed.
- Click it again to play or rewind the video at 20x.
- Click it again to return to normal speed.

The Fast Forward  and Rewind  icons will change to indicate the speed, i.e., one green arrow  for 10x, 2 green arrows  for 20x.




Using the **SHIFT** key in conjunction with the Fast Forward  or Rewind  button plays the video at 1/3 speed for one click and 2/3 speed for a second click.

When you are in Pause mode, Fast Forward and Rewind are downgraded to single step forward/backward.

To Pause/Resume the video:

- To freeze the video, click Pause .
- To resume playing the video from the position at which it was paused, click Play .




To use Single Frame Advance/Reverse:

- To step forward or backward one frame at a time, click Pause  and then click Forward  or Reverse .




-or-



Click Pause , press and hold the **CTRL** key, and use the mouse wheel to step forward/backward one frame at a time.

To use Slow Motion Forward:

- While InStream is playing video, **SHIFT**-click the Forward  button once to play video at 1/3 actual speed.
- Click  again to play video at 2/3 actual speed.
- Click  once more to return to actual speed.

To use Slow Motion Reverse:

- While InStream is playing video, **SHIFT**-click the Reverse  button once to play video at 1/3 actual speed in reverse.
- Click  again to play video backward at 2/3 actual speed.
- Click  once more to cancel reverse mode and return to actual speed.

Clicking Play  or Pause  always returns the InStream player to the requested mode.



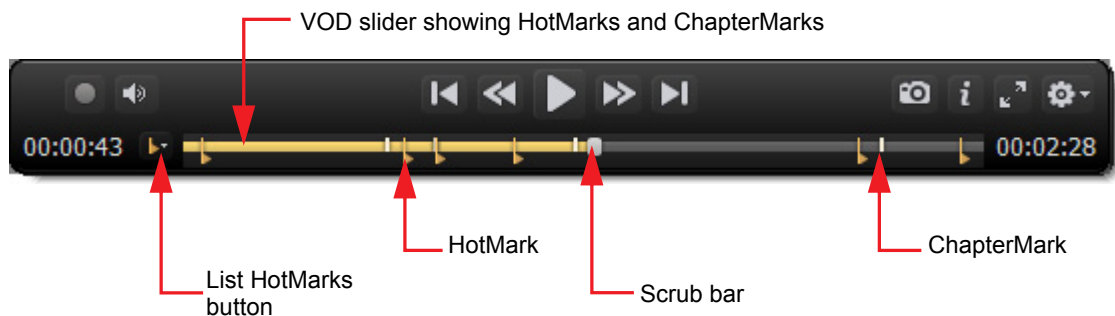
TIP Pressing **CTRL+B** on your keyboard changes the time reference on the scrub bar from time-codes to a frame index. Press it again to return to time format. See [“InStream Keyboard Shortcuts”](#) on page 64.

Hotmarks and ChapterMarks

As you move the cursor over the VOD slider (shown below), you will see any Hotmarks™ and ChapterMarks that have been added to the video.

- Hotmarks are yellow indicators (with optional annotations) and typically provide shortcuts to selected points in the recording.
- ChapterMarks are white indicators (with optional titles) and are typically used to mark breaks in the recording.

You can click any marker to jump to that spot in the video. You can also select items from the Hotmarks menu, or use shortcut keys (**CTRL+LEFT ARROW** or **RIGHT ARROW**) to cycle through the markers.



APPENDIX A: Keyboard Shortcuts

This appendix lists the keyboard shortcuts available for the InStream player.

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InStream Keyboard Shortcuts



TIP A list of InStream keyboard shortcuts is also available on the [FAQ](#) link on the launch portal.

The following tables lists available shortcuts for the InStream player. See also [“Player Keyboard Shortcuts”](#) on page 67 for shortcuts that apply to the player window only.

InStream Player Keyboard Shortcuts - (for Mac OS X - substitute CMD key for CTRL key, except where indicated)	
Feature	Shortcut
Guide	CTRL+G
Minimize	ALT+UP ARROW Mac OS X: CMD+UP ARROW
Maximize	ALT+DOWN ARROW Mac OS X: CMD+DOWN ARROW
Select All (selects all viewers)	CTRL+A
Volume Up Volume Down	CTRL+UP ARROW CTRL+DOWN ARROW
Full Screen On/Off	ALT+ENTER, DOUBLE-CLICK Mac OS X: CMD+ENTER
Full Screen All	ALT+SHIFT+ENTER Mac OS X: CMD+SHIFT+ENTER
Full Screen Off	ESC, DOUBLE-CLICK
Brightness Up Brightness Down	CTRL+F2 CTRL+F1
Contrast Up Contrast Down	CTRL+F4 CTRL+F3
Contrast/Brightness Reset	CTRL+F5
Closed Captioning 1 On/Off	CTRL+H Mac OS X: CTRL+H

InStream Player Keyboard Shortcuts - (for Mac OS X - substitute CMD key for CTRL key, except where indicated)	
Feature (Cont.)	Shortcut (Cont.)
Closed Captioning 3 On/Off	SHIFT+CTRL+H Mac OS X: SHIFT+CTRL+H
Closed Captioning Alerts	CTRL+K
Cycles through Full Speed Playback modes. NOTE: Default is primary window at Full Speed and others at I Frames only (see "Player Settings" on page 37.)	SHIFT+CTRL+F
Opens Search dialog from within Guide	CTRL+F
Refreshes the Full Speed Playback setting (used with multiple selection)	SHIFT+CTRL+R
VU (Volume Unit) Bar On/Off	CTRL+V
Stream Status	SHIFT+CTRL+S
Channel Logo On/Off	CTRL+L
Grow/Shrink Font (Guide)	CTRL++ (plus) CTRL+- (minus)
Reset Font	CTRL+O
Sleep Timer: 15/30/45/60/75/90 Minutes	CTRL+S
Program Info	CTRL+P
Dashboard On/Off	CTRL+D
Time/Frame Display	CTRL+B
Mute On/Off	CTRL+M
Go to Channel	000-999+ ENTER
Thumbnail Mode On/Off	CTRL+T
Cycle Information Bar	CTRL+I
Refresh Guide	F5
Copy Information Text	SHIFT+CTRL+C

InStream Player Keyboard Shortcuts - (for Mac OS X - substitute CMD key for CTRL key, except where indicated)	
Feature (Cont.)	Shortcut (Cont.)
Snapshot	CTRL+C
Exit	CTRL+Q ALT+F4
Multi-viewer layouts	
Swap positions with another viewer	SHIFT+drag viewer
Add viewer to selection	CTRL+click viewer

Player Keyboard Shortcuts

The following table lists the shortcuts for InStream that apply to the player window only and have no function or a different function in the Guide window. For example, pressing the [UP ARROW](#), [DOWN ARROW](#), [HOME](#), and [END](#) moves the focus up and down the channel listing (without changing channels) in the Guide window.

Note also that, with the exception of “Play/Pause Video” ([UP/DOWN ARROWS](#) and [SPACEBAR](#)), these shortcuts only apply to watching VOD (and not live) video.

InStream Video Player Keyboard Shortcuts (for Mac OS X - substitute CMD key for CTRL key, except where indicated)	
Feature	Shortcut
Play Video	UP ARROW
Pause Video	DOWN ARROW
Pause/Play Video	SPACEBAR
VOD only	
Fast Forward (Video playing) Rewind (Video playing)	RIGHT ARROW LEFT ARROW
Frame Forward (Video paused) Frame Backward (Video paused)	RIGHT ARROW LEFT ARROW
Slow Motion Forward (Video playing) Slow Motion Reverse (Video playing)	SHIFT+RIGHT ARROW SHIFT+LEFT ARROW
Goto Start	HOME
Goto End	END
Previous HotMark Next HotMark	CTRL+LEFT ARROW CTRL+RIGHT ARROW
Jump 30 Seconds Backward Jump 30 Seconds Forward	PAGE UP PAGE DOWN

Picture-In-Picture Shortcuts

The following table shows a list of available shortcuts for the InStream Picture-in-Picture (PIP) options for multi-stream playback.

InStream Picture-In-Picture Keyboard Shortcuts	
Feature	Shortcut
Swap PIP stream with main video stream	CTRL+`, DOUBLE-CLICK Mac OS X: CMD+`
Show/Hide PIP	CTRL+ALT+O Mac OS X: CMD+CTRL+O
Small Window	CTRL+ALT+1 Mac OS X: CMD+CTRL+1
Medium Window	CTRL+ALT+2 Mac OS X: CMD+CTRL+2
Large Window	CTRL+ALT+3 Mac OS X: CMD+CTRL+3
Optimize	Double-click border of PIP window

APPENDIX B: Warranty Information

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- (a) Haivision shall indemnify and hold You harmless against any and all actions, claims, losses, damages, liabilities, awards, costs and expenses (including reasonable attorneys' fees) ("Claims") arising out of (i) any accusation or purported violation of any third person's US and Canadian copyright, trademark, patent rights or trade secrets, proprietary information on account of Your use of the Product when used in accordance with the terms of this Agreement, or (ii) relating to or arising out of any negligence or willful misconduct on the part of Haivision or any breach by Haivision of the terms of this Agreement or any Maintenance and Support Agreement, or applicable law. You shall promptly notify Haivision in writing of any such Claim and promptly tender the control of the defense and settlement of any such Claim to Haivision. Haivision shall thereafter undertake the defense of any such Claim using counsel of its choice. You shall cooperate with Haivision, in defending or settling such Claim at the expense of Haivision; provided that Haivision shall not settle any Claim against You which would require the payment of money by You without the prior written consent of You, which consent shall not be unreasonably withheld. You shall have the right to consult and provide input into the defense with counsel of its choice at its own expense. Haivision shall not reimburse You for any expenses incurred by You without the prior written approval of Haivision, which approval shall not be unreasonably withheld.
- (b) If any Product is, or in the opinion of Haivision may become, the subject of any Claim for infringement, then Haivision may, or if it is adjudicatively determined that any of the Product infringes in the manner described above (except to the extent that any translation, modification, addition or deletion or combination by You is the sole source of such Claim), then Haivision shall, at its option, either (i) procure for You the right to continue use of the Product for the term hereof, (ii) replace or modify the Product with other suitable and reasonably equivalent products so that the Product becomes non-infringing, or (iii) terminate this Agreement and refund to You a portion of the fee paid for the relevant Product.
- (c) Haivision shall have no liability for: (i) the use of other than the then current release of the Product; (ii) the use of the Product other than as set forth in its accompanying documentation and as permitted herein; (iii) the modification of any of the Product by any party other than Haivision; or (iv) any infringement arising from the use of any Product by You after Haivision has issued a written notice to You requiring You to cease using such Product when Haivision exercises its option to terminate the License pursuant to Section 3.2 (collectively, "Exclusions"). SECTION 5.1 STATES

HAIVISION'S ENTIRE OBLIGATION WITH RESPECT TO ANY CLAIM REGARDING THE INTELLECTUAL PROPERTY RIGHTS OF ANY THIRD PARTY.

- 5.2. Indemnification by You.** You shall indemnify and hold Haivision harmless against any and all Claims directly or indirectly arising out of, or in any manner whatsoever associated or connected with Your performance, purported performance or non-performance of your rights and obligations under this Agreement, and against any and all Claims incurred by or on behalf of any of the foregoing in the investigation or defense of any and all such Claims.

6. OTHER PROVISIONS

- 6.1. Export and Other Restrictions.** This Agreement, and all Your rights and Your obligations under this Agreement, are subject to all applicable Canadian and U.S. Government laws and regulations relating to exports including, but not limited to, the U.S. Department of Commerce Export Administration Act and its associated Regulations and all administrative acts of the U.S. Government thereunder. In the event the Product or the Hardware is exported from the United States or re-exported from a foreign destination, You shall ensure that the distribution and export/re-export of the Product or the Hardware is in compliance with all laws, regulations, orders, or other restrictions of the U.S. Export Administration Act and its associated Regulations. You agree that neither you nor any of your Affiliates will export/re-export any Product, any hardware on which the Product is loaded or embedded, technical data, process, or service, directly or indirectly, to any country for which the Canadian government or United States government (or any agency thereof) requires an export license, other governmental approval, or letter of assurance, without first obtaining such license, approval or letter.
- 6.2. Content.** Your data and/or your use of the Product may not: (i) interfere in any manner with the functionality or proper working of the Product; (ii) stream any material that is copyrighted, protected by trade secret or otherwise subject to third party proprietary rights, including privacy and publicity rights, unless You are the owner of such rights or have permissions from the rightful owner to post the material; (iii) constitute, promote, facilitate or permit any illegal activities, including without limitation, activities that might be libelous or defamatory, invasive of privacy or publicity rights, abusive or otherwise malicious or harmful to any person or entity; (iv) distribute, share or facilitate unauthorized data, malware, viruses, Trojan horses, spyware, worms or other malicious or harmful distributions; or (v) otherwise violate, misappropriate or infringe the intellectual property, privacy, publicity, contractual or other proprietary rights of any third party.
- 6.3. Consent to Use Data.** You agree that Haivision may collect and use technical data and related information, including but not limited to technical information about Your device, system and application software and peripherals, that is gathered periodically to facilitate the provision of software updates, product support and other services to You (if any) related to the Product. Haivision may use this information, as long as it is in a form that does not personally identify You, to improve its products or to provide services or technologies to You.
- 6.4. Transfer and Assignment.** Haivision may assign, sublicense, or transfer this Agreement and/or any or all of its rights or obligations hereunder. You may not assign, transfer or delegate any of its rights or obligations hereunder (whether by operation of law or otherwise) without the prior written consent of Haivision. For purposes of the preceding sentence, and without limiting its generality, any merger, consolidation or reorganization involving You (regardless of whether You are a surviving or disappearing entity) will be deemed to be a transfer of rights, obligations or performance under this Agreement for which Haivision's prior written consent is not required. Any unauthorized assignment, transfer or delegation by You shall be null and void. This Agreement is binding upon and inures to the benefit of the parties hereto and their respective permitted successors and assigns.

- 6.5. Waiver and Amendment.** No modification, amendment or waiver of any provision of this Agreement shall be effective, unless in writing signed by both parties. No failure or delay by either party in exercising any right, power or remedy under this Agreement, except as specifically provided herein, shall operate as a waiver of any such right, power or remedy. Without limiting the foregoing, any additional legal terms and conditions submitted by You in any other documents, including but not limited to the Entitlement, shall be of no legal force or effect.
- 6.6. Enforcement by Third Party.** For any Product licensed by Haivision from other suppliers, the applicable supplier is a third party beneficiary of this Agreement with the right to enforce directly the obligations set forth in this Agreement against You.
- 6.7. Third Party Content.** Haivision is not responsible for examining or evaluating the data, accuracy, completeness, timeliness, validity, copyright compliance, legality, decency, quality or any other aspect of any Third Party Content. Haivision does not warrant or endorse and does not assume and will not have any liability or responsibility to You or any other person for any Third Party content. You agree that any Third Party Content may contain proprietary information and material that is protected by applicable intellectual property and other laws, including but not limited to copyright, and that you will not use such proprietary content, information or materials in any way whatsoever except for permitted uses of the Third Party Content.
- 6.8. Third Party Royalties.** Your further reuse, retransmission, rebroadcast, display or other distribution of your Third Party Content using the Product may require that you obtain a license from and / or pay royalties to the owners of certain third party audio and video formats. You are solely responsible for obtaining such licenses and paying such royalties.
- 6.9. Governing Law/Submission to Jurisdiction.** This Agreement shall be governed by and construed in accordance with the laws of the Province of Québec, Canada and the Laws of Canada applicable therein (excluding any conflict of laws rule or principle, foreign or domestic), exclusive of the U.N. Convention on the International Sale of Goods. You hereby consent to the jurisdiction of any provincial or federal court located within the Province of Quebec and waive any objection which You may have based on improper venue or forum non conveniens to the conduct of any proceeding in any such court.
- 6.10. Severability.** If any provision of this Agreement is held by a court of competent jurisdiction to be contrary to law, such provision shall be changed and interpreted so as to best accomplish the objectives of the original provision to the fullest extent allowed by law and the remaining provisions of this Agreement shall remain in full force and effect.
- 6.11. Force Majeure.** Neither party shall be liable to the other party for any failure or delay in performance to the extent that such delay or failure is caused by fire, flood, explosion, war, terrorism, embargo, government requirement, labor problems, export controls, failure of utilities, civil or military authority, act of God, act or omission of carriers or other similar causes beyond its control. If any such event of force majeure occurs, the party delayed or unable to perform shall give immediate notice to the other party, and the party affected by the other's delay or inability to perform may elect, at its sole discretion, to terminate this Agreement or resume performance once the condition ceases, with an option in the affected party to extend the period of this Agreement up to the length of time the condition endured. Unless written notice is given within 30 calendar days after the affected party is notified of the condition, the latter option shall be deemed selected. During an event of force majeure, the affected party shall exercise reasonable effort to mitigate the effect of the event of force majeure.
- 6.12. Entire Agreement.** This Agreement, together with the Entitlement and all other documents that are incorporated by reference herein, constitutes the sole and entire agreement between Haivision and You with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter.

- 6.13. Language.** The parties confirm that it is their wish that this Agreement, together with the Entitlement and any other documents relating hereto, have been and shall be drawn up in the English language only. Les parties confirment que c'est leur volonté expresse que ce contrat et tous documents y étant relative, y compris les bons de commande, le avis, le annexes, les autorisations, les pièces jointes et les amendments soient rédigés en langue anglaise seulement.
- 6.14. Headings Not Controlling.** The headings used in this Agreement are for reference purposes only and shall not be deemed a part of this Agreement.
- 6.15. US Government Rights.** Some Products are commercial computer software, as such, term is defined in 48 C.F.R. §2.101. Accordingly, if You, as the Licensee, is the US Government or any contractor thereof, You shall receive only those rights with respect to the Product and Reference Materials as are granted to all other end users under license, in accordance with:
- (a) 48 C.F.R. §227.7201 through 48 C.F.R. §227.7204, with respect to the Department of Defense and their contractors; or
 - (b) 48 C.F.R. §12.212, with respect to all other US Government licensees and their contractors.
- 6.16. Notices.** All notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given:
- (a) When delivered by hand (with written confirmation of receipt);
 - (b) When received by the addressee if sent by a nationally recognized overnight courier (receipt requested);
 - (c) On the date sent by facsimile (with confirmation of transmission) if sent during normal business hours of the recipient, and on the next business day if sent after normal business hours of the recipient; or
 - (d) On the third day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective parties at the addresses set forth on the Entitlement (or to such other address as may be designated by a party from time to time in accordance with this Section **6.16**).

If you have questions, please contact Haivision Systems Inc., at 4445 Garand, Montréal, Québec, H4R 2H9 Canada or legal@haivision.com.

