Discover Video

User Guide

Sept 19, 2017
V4.5

Discover Video LLC
www.discovervideo.com

Chapter 1: Introduction

Purpose

The DVExpress is a powerful, multifunction, live and on-demand visual communications platform for offices, schools, corporations, departments, government agencies, and anyone with a need to deliver live or on-demand video, or Digital Signage.

Applications typically include:

- Schools conducting live “Morning Announcements”
- Executives broadcasting live “Town Hall Meetings”
- News and information displays located in multiple places in any organization
- Live training
- Marketing and Sales
- Video on Demand Libraries
- Emergency Notifications to desktops and Digital Signs

General Description

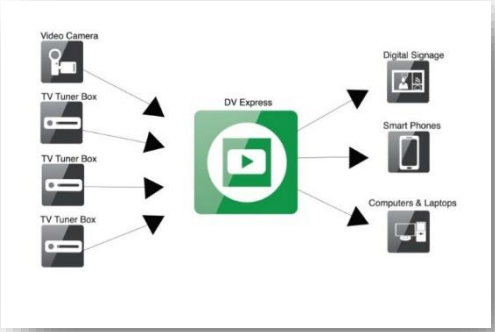
DVExpress is a simplified version of the powerful DEVOS system. But unlike DEVOS, the DVExpress includes four built-in live streaming encoders.

The system is self-contained and requires no special integration. It is generally "plug and play", allowing you to be up and operational in minutes. It is used and managed via its web page interfaces which are compatible with virtually all modern browsers.

It supports live streaming, Video-on-Demand, Digital Signage, and Priority Alert. Content can be easily organized into channels.

System Description and Architecture

The system consists of one DVExpress server and optional components. It includes everything needed to encode and deliver live and on-demand video.



The optional components include:

- Streamsie® for streaming and/or recording from a computer
- Streamsie® iOS for streaming and/or recording from an iPhone or iPad
- StreamEngine® for encoding multiple live video channels
- StreamPump® for scaling video to remote locations
- SignStick®2 for Digital Signage display
- Mantis™ live streaming appliance
- Hornet™ live streaming & decoding appliance
- Set Top Box, allows viewing of live video on any TV
- Rover, a laptop computer with Streamsie installed
- Spirit, a desktop computer with Streamsie installed

Capacity

System capacity is a function of available network bandwidth, network, CPU, disk storage. The system has a fixed 2TB drive for content storage. DVExpress is typically capable of supporting 1,000 or more streams.

DVExpress places no limits on the number of streams, content, signage, channels, or other features and functions. However, unlimited does not mean "infinite", and actual capacity depends on network, encoding rates, and various configuration options.

Public Internet

You can put your DVExpress on an inside or outside IP address, or NAT the inside address to the outside. When DVExpress is visible to the public, the streams can be viewed by a wide audience (which has been published to a channel, and you can optionally password-protect content). You can increase your streaming capacity to public Internet viewers by using optional Arcus or Streamsie service.

Chapter 2: Installation

Installation

The DVExpress is a 1U rack-mountable server, 1.7" x 17.2" x 14.4", 43cm x 427cm x 369cm. It has a single 350W power supply, Quad-Core CPU, 8GB RAM, a 120GB drive for the software and a 2TB drive for the content, and two 1Gbps Ethernet ports. The rear of the DVExpress has four HDMI input ports.

Install the DVExpress in a standard 19" rack or place it on suitable surface.

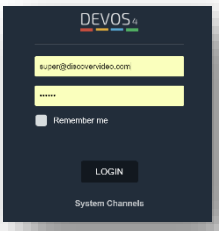
- Connect 110 nominal AC power and the server will power up.
- Connect keyboard, mouse and VGA monitor.
- Log in to the system using username: Administrator, and the password provided with the product (normally, printed on the top of the hardware).
- Set the IP address as desired, as you would for any Windows computer. The two Ethernet ports come equipped for teaming as "team1".

We suggest this IP address be resolved to a DNS name for the convenience of your viewers (e.g. dvexpress.yourcompany.com).

You may now log in to the system from any computer on the network. If you wish to use or configure the system using the VGA monitor/keyboard/mouse, open Chrome from the desktop and enter "localhost".

Chapter 3: Operation

Getting Started

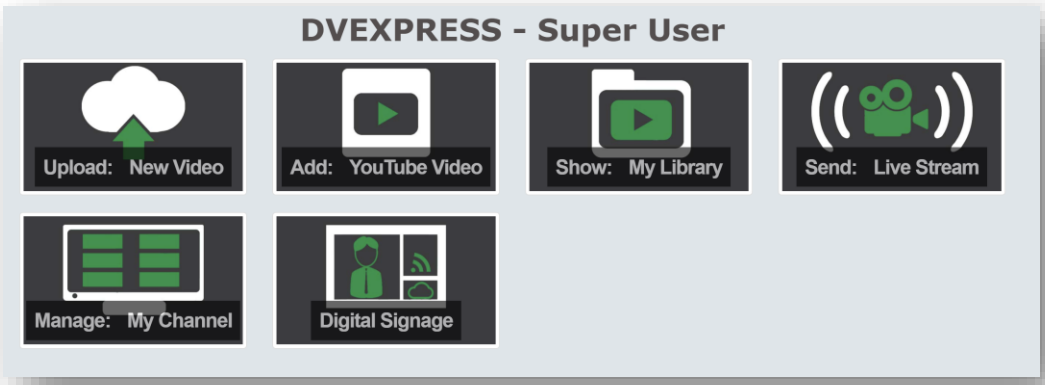


Log in to the system by entering the system's IP address or URL in a browser. This will bring you to a login page.

For username, enter "super@discovervideo.com".
For password, enter "asdasd".

<u>You can change this password from the profile settings, later described in this document.</u>

After login, you will be presented with a simple user interface. Select a function to manage it.



On the upper right of this page, you will find the Advanced link. This takes you to an advanced interface that you will need for initial setup.

Advanced Administration

All functions are accessible from the left menu panel. Selecting an item from the menu will expose additional functions.

Profile

The profile shows information about your content. You can edit your profile to include and image, set email address, etc.

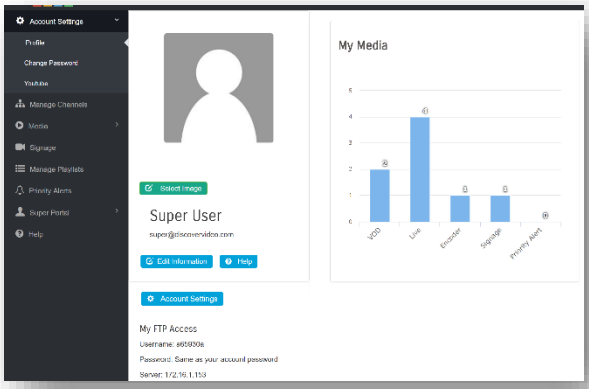
The profile also shows your FTP information, and the Account Settings allows you to specify a channel to be used for default publishing.

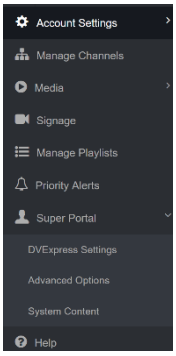
Change Password

The user may change their password (for non-Active Directory accounts).

YouTube

If you have a YouTube account, you may link it to the system. Once linked, any content uploaded to YouTube will be automatically downloaded to the system.



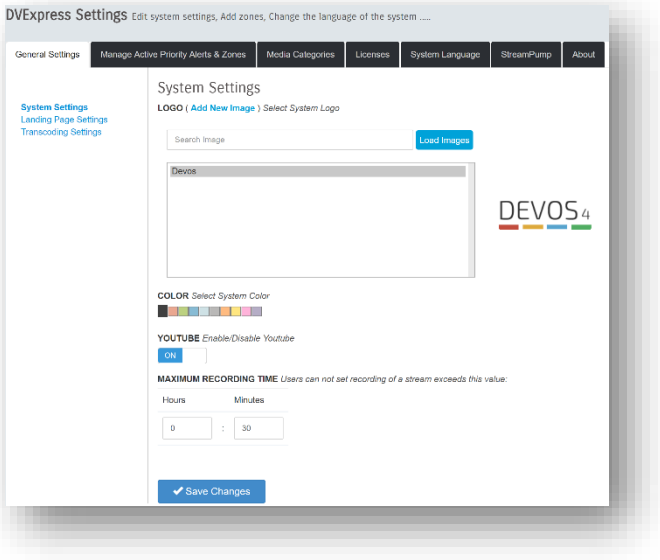


Super Portal

Super Portal functions include DVExpress Settings, Advanced Options, and System Content.

DVExpress Settings

System Settings are the global system configuration values for the system.



- Logo -- Select an image to be used for the system logo. You can upload new or select an image that you previously uploaded.
- Color -- Select a color theme for the system.
- YouTube -- Enables YouTube account.
- Maximum Recording Time -- Sets the maximum server-side recording duration (prevents disk filling up due to user not stopping a recording).

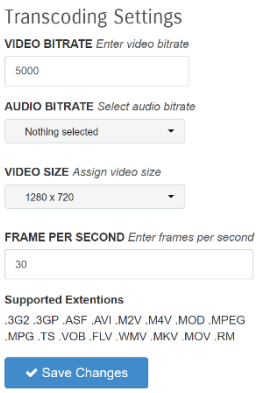
Landing Page Settings

You may set the initial landing page that is presented to users.

- Sign-in Page -- User is presented with login screen. Note that DVExpress has only one user.
- System Channel Page -- User is presented with listing of all Channels.
- Specific Channel -- User is presented with a specified Channel page.

Transcoder Settings

The transcoder allows users to upload videos that are not in H264/AAC format, and the server will convert them automatically.



Video and Audio Bitrate -- sets the bit rate for converted video

Video Size -- sets the size of the converted video

Frames Per Second -- sets the FPS of the converted video

Accepted Extensions -- the acceptable file extension types they may be uploaded

After upload, the video will appear in the video-on-demand manager and its status will display. A few moments after upload, the transcoding process will begin and the status of the file will change to "transcoding". If the process fails, the status will indicate error. When transcoding is complete, the file will become available for viewing. The transcoder won't repair a bad video file.

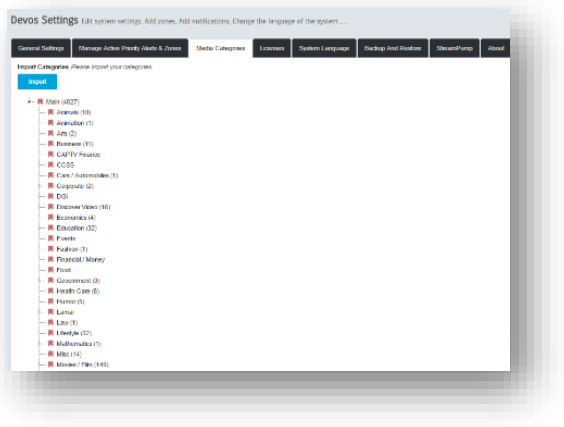
For mass upload, the transcoding function operates on files upload using the Discover Video File Uploader and video files are upload via FTP.

Manage Priority Alert Zones

Priority Alert operates on zones. You may add or delete zones here. These zone definitions are available for users to use in their Priority Alert configurations. You may also use this function to stop any active alert.

Media Categories

Categories allow publishers to select from a list of possible categories that the Super Admin creates. This makes category selection uniform and makes content easy to find.



To create categories, right-click on the "Main" icon and select "Create New Category", then rename the new category as desired. To create a sub-category, simply right-click on an existing icon and select "Create New Category", then rename that.

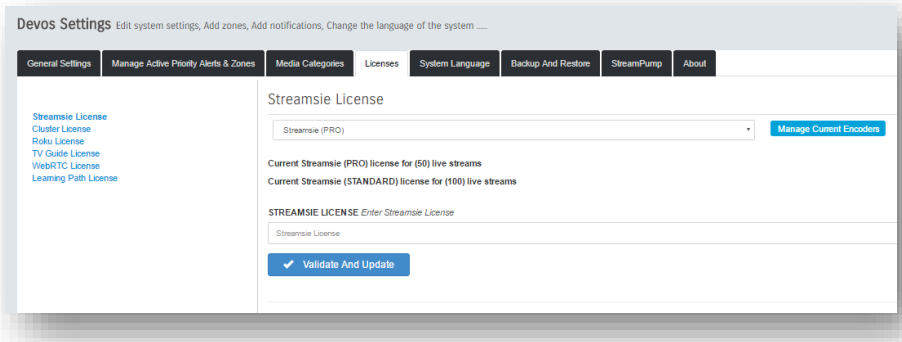
You may also upload a text document to define categories.

The form of the document must be one new category per line, with pipe separating sub-category. For example, create a text file as “category.txt” and add:

Science
Science|Physics
Science|Physics|Astrophysics

Licenses

Optional license keys may be entered using the Licenses tab.



Optional licenses include:

- Streamsie / Streamsie Pro -- The Streamsie License defines how many Streamsie Accounts may be created on DVExpress. Adding licenses is a simple copy-and-paste of a code provided by Discover Video. Account licenses may be Streamsie Standard or Streamsie Pro.
- Roku – allows Roku devices to be used
- TV Guide – enables display of program data for TV programs (see below)

TV Channel Guide

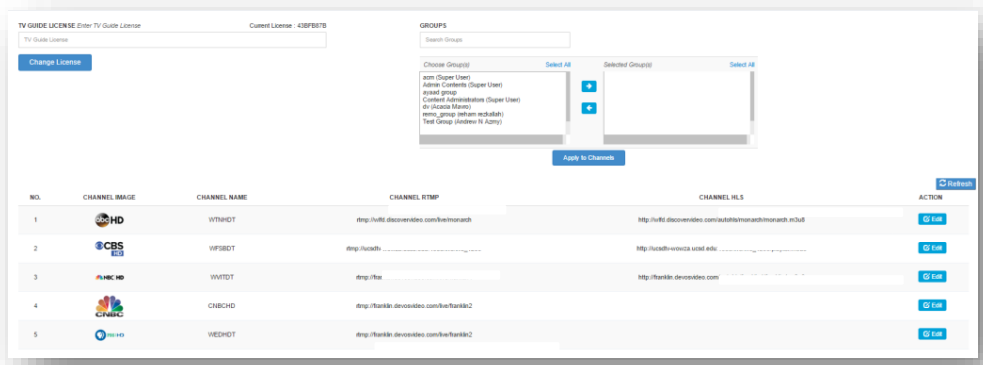
The TV Channel Guide provides an <u>optional</u> TV channel listing service that allows viewers to tune in to a provided TV channel and to see "what's on" now and for up to 6 days in the future (7 days total). Currently, this is available for U.S. customers only.

To enable the service, the customer must provide:

- U.S. Zip code (e.g. 06492)
- Content Provider (e.g. "Comcast Digital", "Dish", etc.)
- Up to 10 TV Channel Identifiers (e.g. "WTNH", "CNN", etc.)

With this information, Discover Video can then generate a license that is unique to your system. Simply paste this license code into the System / TV Guide option field.

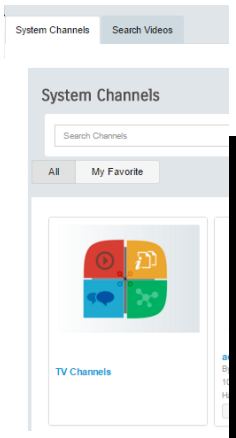
After entering the code, your channels will appear. Select Edit for each channel and enter the live RTMP and HLS stream URL's (same as you would enter for a live stream).



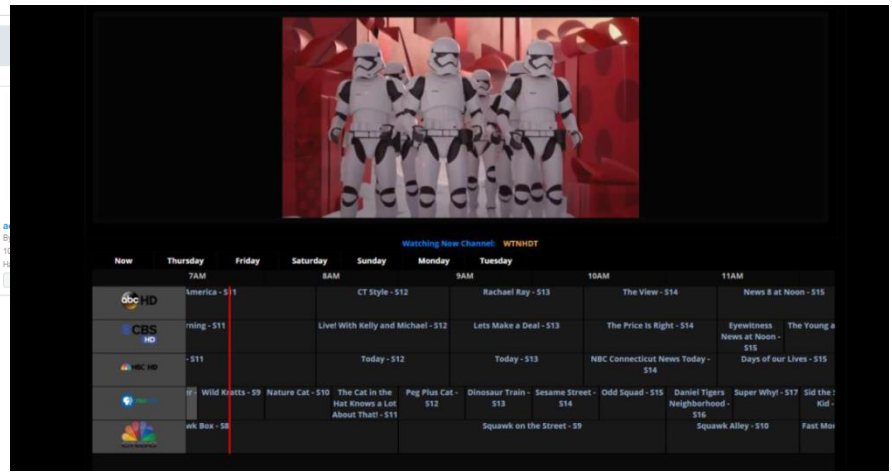
For example, if you are sending a live stream from StreamEngine, Mantis, or 3rd party encoder to DVExpress using rtmp://123.1233.123.123/live/channel1, then enter this for the RTMP stream, and enter http://123.123.123.123/autohls/channel1/channel1.m3u8 for the HLS stream.

If using the built-in encoders, use rtmp://localhost/channel1 thru /channel4 and http://localhost/autohls/channel1 thru /channel4

When TV Channel Guide is enabled, the first channel on the system landing page is "TV Channels".



Opening this channel shows the live TV Channel Guide, illustrated below.

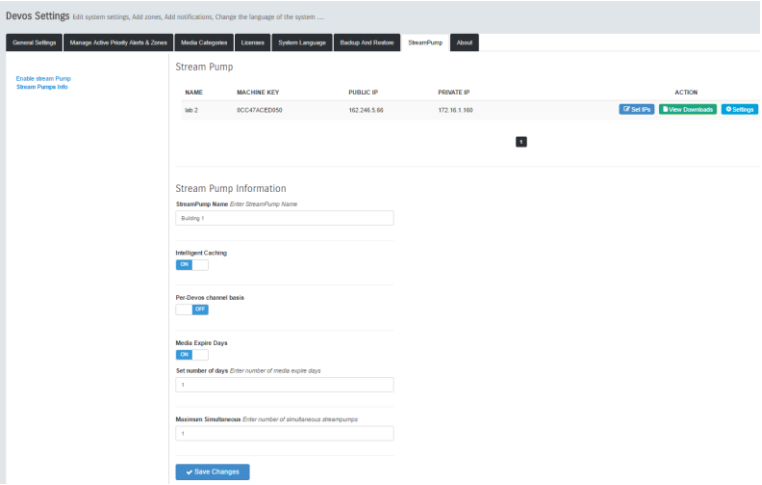


The TV Channel display shows the live TV and a full program guide for each TV channel. Mouse-over any time slot to reveal program information, and click on any time slot to reveal program details.

Recording a program causes that program to be added to the Media / Video on Demand manager.

StreamPump

If you have StreamPump(s) configured, and if "Allow Remote" is enabled on the StreamPumps, they will appear in the StreamPump sections, and you may manage them from this page. Select StreamPump Info, and then Settings for each StreamPump.

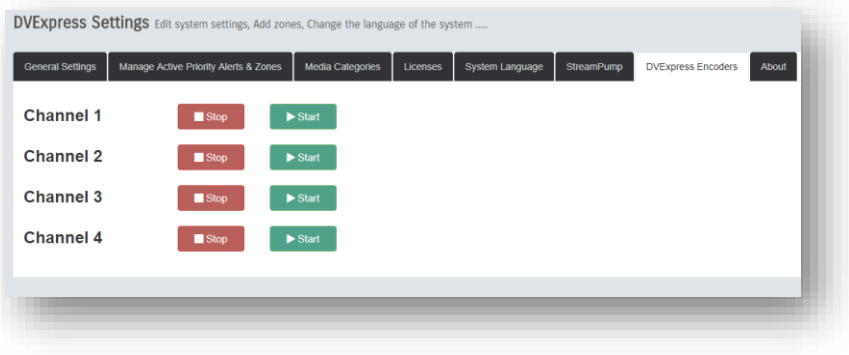


- Name – change the name
- Intelligent Caching – when set to ON, the StreamPump will cache content as needed.
- Per-channel basis – when on, any channel that as "StreamPump" enabled will have that content downloaded to the StreamPump at the specified time (the time setting is shown when you select On).
- Media Expire Days – When On, any content on the StreamPump will be removed this number of days after it was downloaded to the StreamPump.
- Maximum Simultaneous – sets the number of simultaneous downloads the StreamPump may use. Default is 1.

Select "Set IP" for each StreamPump if you wish to modify which network the StreamPump will serve. Enter the IP using the format shown.

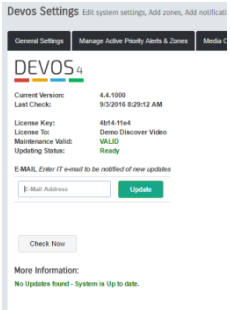
This allows you to specify the portions of your network to be served by this StreamPump. By default, the StreamPump will serve everyone on the same network. But if you want StreamPump to only serve those with an address 192.168.x then enter that and add it.

DVExpress Encoders



You may start and stop the internal encoders using the DVExpress Encoders tab. Please see “Internal Encoders” section for more information or refer to StreamEngine product manual.

About & Update



The About tab provides system information and automatic system update capability. Select "Check Now" to learn if a new system software update is available. The system will show if an update is available, and what is new in the update. If an update is available, "Update Now" button will appear and you can perform the update by selecting this button when you are ready.

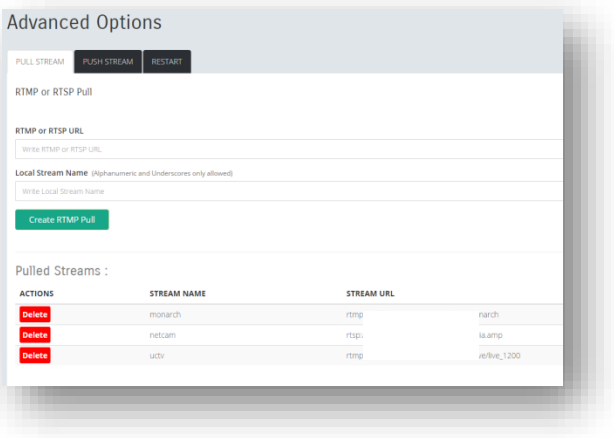
Most system updates complete in less than 20 minutes, but you should use the displayed message as your guide.

Advanced Options

You may create Push and Pull streams, and may restart the streaming server.

Pull

Pull is used to bring an external live stream into the system continuously



You do not need to create a pull to view external streams because you can use "Live Stream" function which will allow viewing without pull, but will pull the stream for recording when necessary.

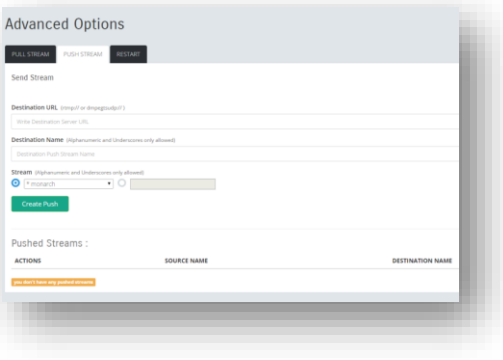
Use Pull when you want to bring a live stream into the system and also push it at the same time.

RTMP or RTSP URL -- enter rtmp:// or rtsp:// URL for the live stream
Local Stream Name -- enter an arbitrary name that is not already in use (e.g. "mystream_date".

When you create a Pull, DVExpress automatically creates a viewing page that you can later edit with appropriate title, description, etc. To receive a multicast, enter “dmpegtsudp://IP:Port”. The source must be a TS stream with H264/AAC.

Push

Push is used to send a known live stream to Arcus, Streamsie Service, another DVExpress or DEVOS server, or a 3rd party CDN. Push is also used to create IP Multicast streams in a local network.

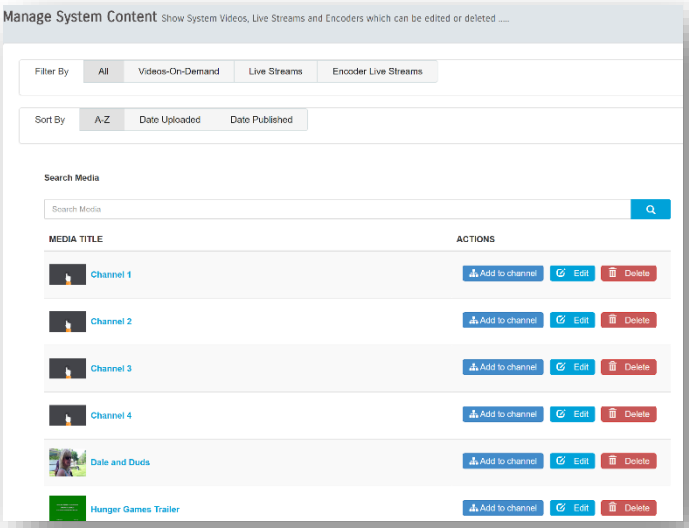


Destination URL -- Enter the RTMP URL (e.g. rtmp://server/app)
Destination Name -- Enter the stream name (e.g. "mystream")
Stream -- Select an existing live stream from the dropdown box, or enter streamname

Multicast: Enter Destination URL "mpegtsudp://[IP:PORT]" (see appendix)

System Content

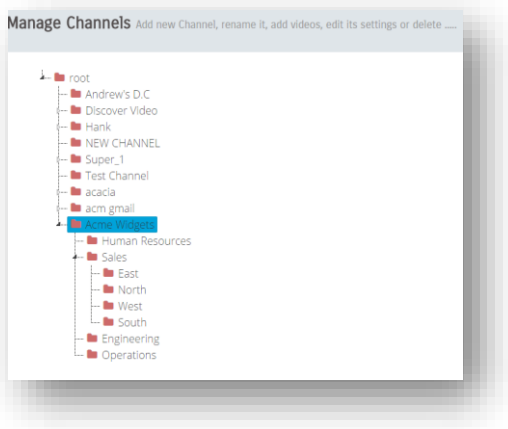
The Super's System Content function gives access to all content and channels, and allows you to search and sort the content in several ways.



You can filter by type, sort by title, date, and then search by title, etc. For any video, you can add it to a channel, edit it, or delete it.

Manage Channels

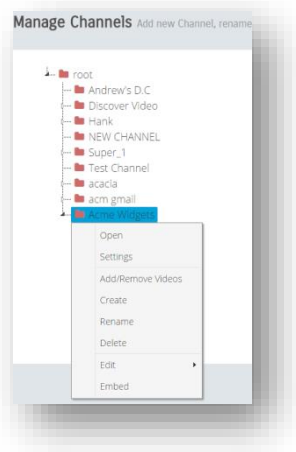
Channels are viewer entry points into the System.



For example, you may wish to create a channel called "Acme Widgets", add content to it, and give the web page address of that channel to desired viewers, post the web page address on social media, and/or embed the web page in their own web site.

Channels can have many levels, or sub-Channels. The point at which a viewer accesses a Channel determines whether that viewer has access to sub-channels. For example, you may have a channel called "Acme Widgets", and under this you may have channels called "Human Resources, Sales, Engineering, Operations". If you distribute the web page for "Acme Widgets" then the viewer has access to the content there, and can also navigate to sub-channels. If you distribute the web page for "Widget Details/Human Resources" then the viewer cannot navigate "up" to "Acme Widgets".

To create or mange a channel, right-click on a folder to expose the menu.

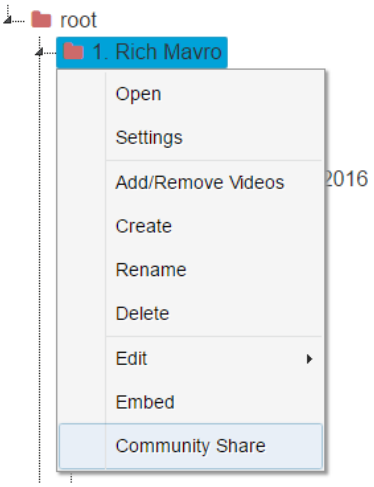


Select desired function.

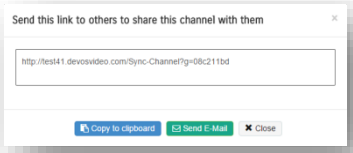
- Open -- Opens the channel in a new window
- Settings -- Access the channel settings
- Add/Remove Videos -- allows you to manage the videos in your channel
- Create -- makes a new channel under the selected channel
- Rename -- renames an channel
- Delete -- deletes an channel
- Embed -- shows channel embed code

Community Channel Share

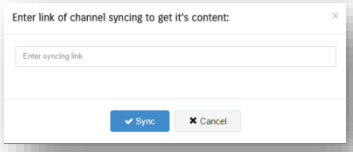
If "Shared Channel" then is check in the Channel Settings, then it is eligible for Community Share. Community Share allows another Discover Video system to duplicate your channel on that system. The shared channel content will be downloaded to the other system, and will remain synchronized with the source channel. This means that if the source channel adds, deletes, or edits a video, the changes will flow to other systems that have subscribed to your channel.



To share a channel, select Community Share by right-click on the channel in the channel manager. A dialog box will appear with a special channel share URL. Copy this URL to your clipboard then paste it to an email or document. Send this URL to another Discover Video system owner.



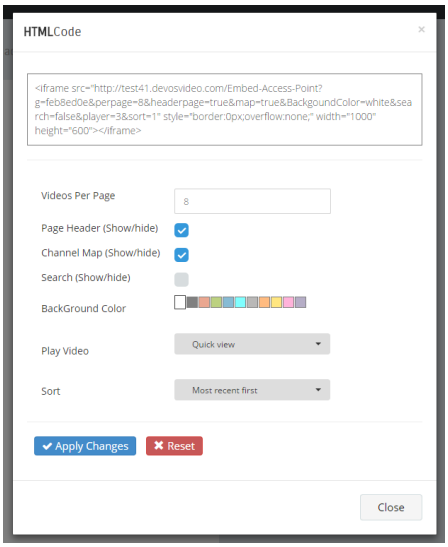
To subscribe to Community Channel, right-click on the root folder in the channel manager and select Community Share. Paste the URL into the dialog box and select save.



You can have any number of subscribers to a channel. For example, a headquarters system might have a channel called "Human Resources", and a system at multiple divisions would subscribe and make that same content available on their local system.

Channel Embed Code & API

The Channel Embed Code give you many options for how your channel will appear if you insert it in another system. The embed code illustration shows the available options and generates the desired embed code. Simply copy/paste the code into a web page, a LMS, SharePoint, etc.



Note that you may wish to adjust the iframe width and height values to suite your preference.

API

The Application Program Interface is:

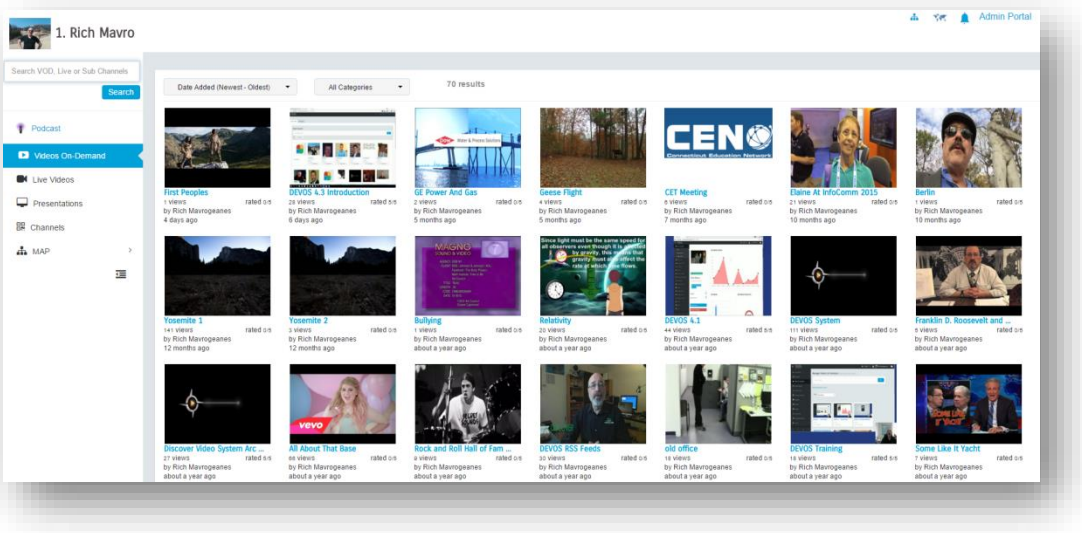
http://[DVExpress]/Embed-Access-Point?g=[ChannelID]&perpage=[VideosPerPage]&headerpage=[Header]&map=[Map]&BackgoundColor=[BackgroundColor]&search=[Search]&player=[Player]&sort=[Sort]

Where

DVExpress	URL, is the system server address
Channel	text, is the channel ID GUID
VideosPerPage	number, is the number of videos to be shown per page
Header	boolean, true/false, displays the header
Map	boolean, true/false, displays the channel map
BackgroundColor	text, sets the background color
Search	boolean, true/false, displays the search box
Player	number, sets the player style where 1 = open new page, 2 = show video in same page/frame, 3 = quick view
Sort	number, 1=most recent first, 2=most recent last

Using Channels

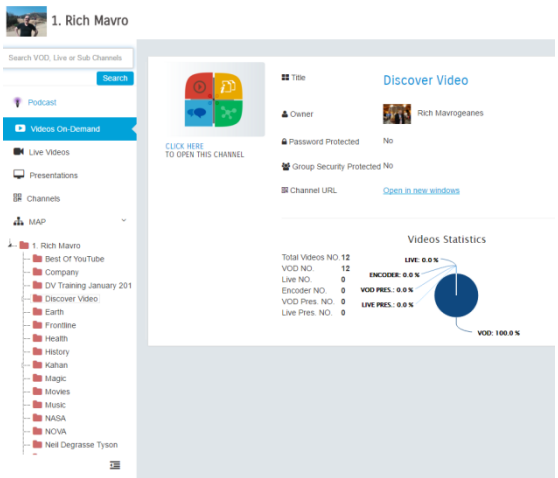
Simply open the channel web page (using the right-click function from the channel manager) to view any channel. The channel page shows the content of the channel organized as VoD, Live, Channels and Map. The viewer may search and sort, or select to view only desired categories.



Click on any video to view (or use Quick View). The left navigation panel is used to select type of content to view.

Understanding Channel Map and Sub-Channels

Opening the Channel Map show a tree folder of all sub-channels. Clicking on any sub-channel displays the selected sub-channel and information about that sub-channel.

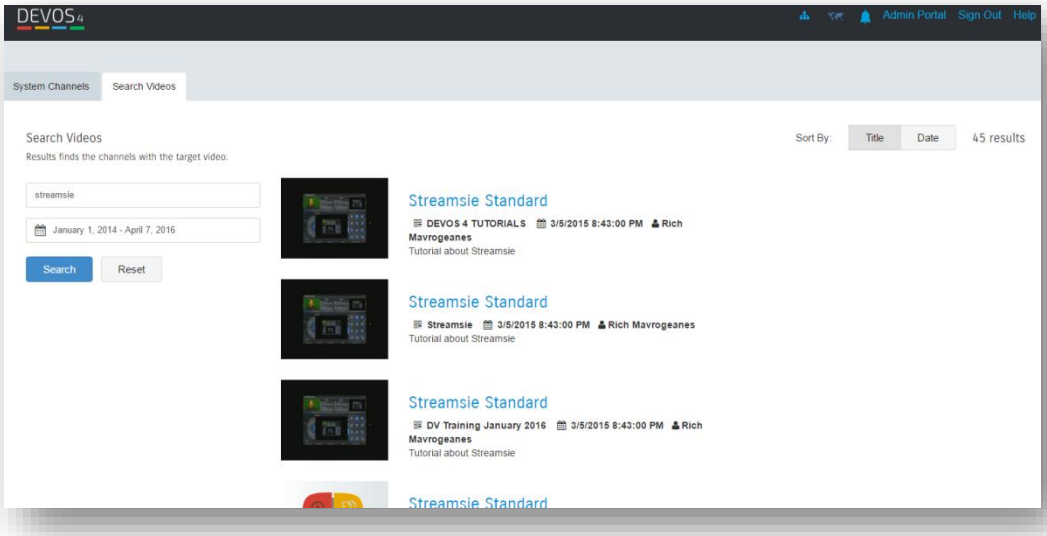


Clicking on the sub-channel image icon opens that sub-channel.

When a sub-channel is opened, there is a clickable navigation bar above the content area that allows rapid navigation back to higher-level channels.

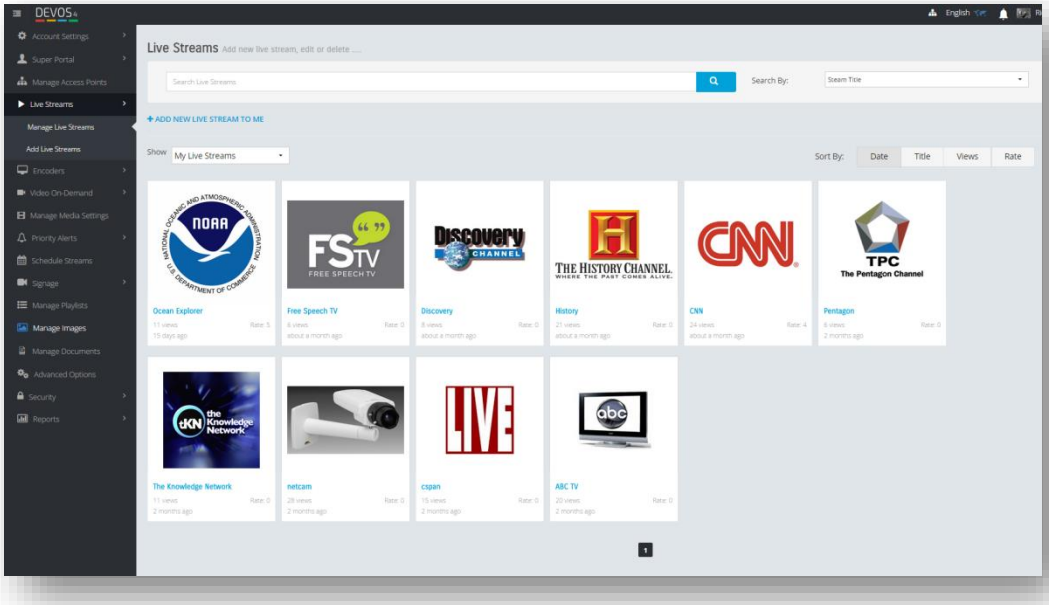
Channel Search

Select the Channel Search function on the system landing page. The search allows you to rapidly find content by channels that match your search criteria.

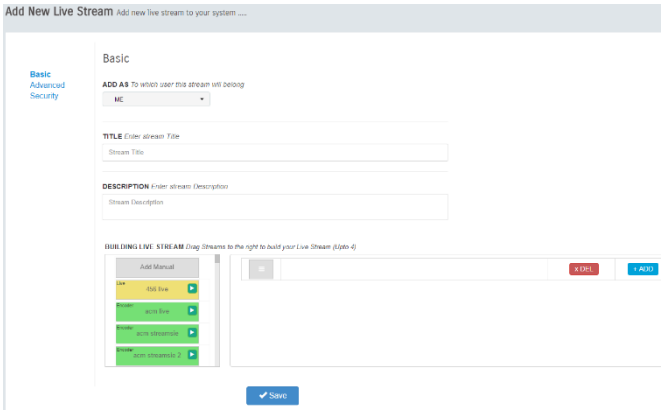


Manage Live Streams

Live Streams are streams from encoders such as the built-in encoders, Discover Video StreamEngine, Mantis, streams from network cameras, 3rd party encoders, and streams from the public Internet such as CSPAN, etc. Live Streams may be a



conventional single player or a multi-player. To create a new live stream, select Live Stream, and Add Live Stream.



<u>Basic</u>
Title -- Enter the title for your stream

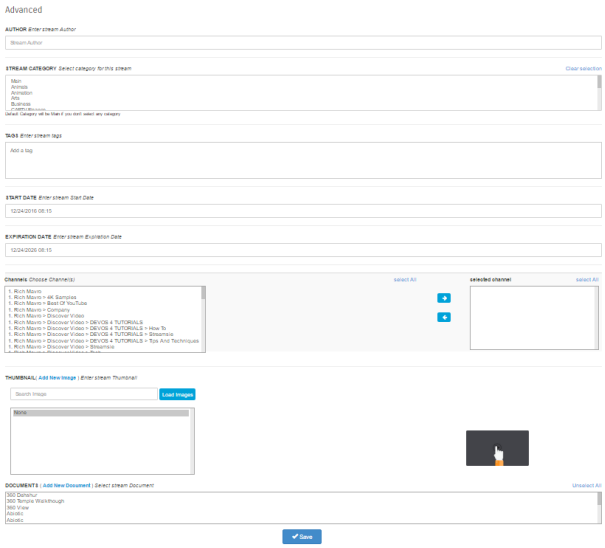
Description -- Enter description

If you wish to manually enter the stream address, select the grey "Manual" box and drag and drop it to the right to insert it. This is the most common case for a live stream. You must then manually type in the RTMP and HLS address for the stream.

If you wish to create a multi-player stream, select "ADD" to create an additional stream slot, then drag/drop an additional stream to the slot. All available live streams (yellow) and encoder (green) are available. Up to four live streams may be selected.

Advanced

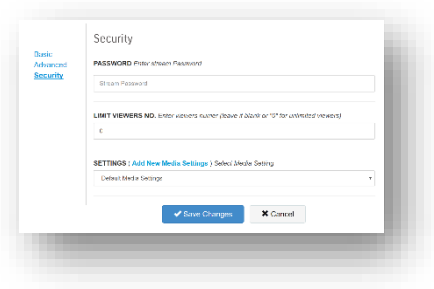
Select Advanced to enter additional values.



Author -- Optional, enter author name
Tags -- Enter text separated by comma, for search criteria in Channel pages
Start Date -- Enter date/time when the live stream will appear in an AP.
Expiration Date -- Enter date/time when the live stream will be removed from an AP
Channel -- Select the Channel for this video (optional)
Thumbnail -- Select the desired image for the channel (optional, or upload new)
Documents -- Select (or add new) documents to be associated with this video.

Security

Select "Security" to enter security values.



Password -- Optional. Enter a password that the viewer must enter to view the video

Limit Viewers No. -- Enter the maximum number of simultaneous viewers. Leave blank or 0 for no limit.

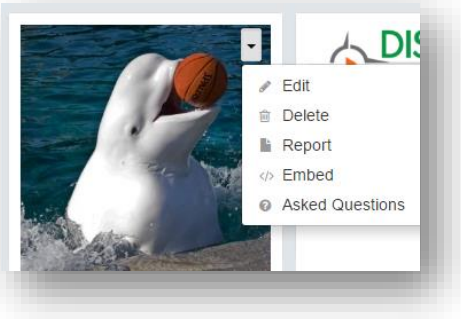
Settings -- Select (or add new) desired Media Settings. Media settings are templates you have created to set common attributes.

Save -- Saves your setting.

Manage Live Video

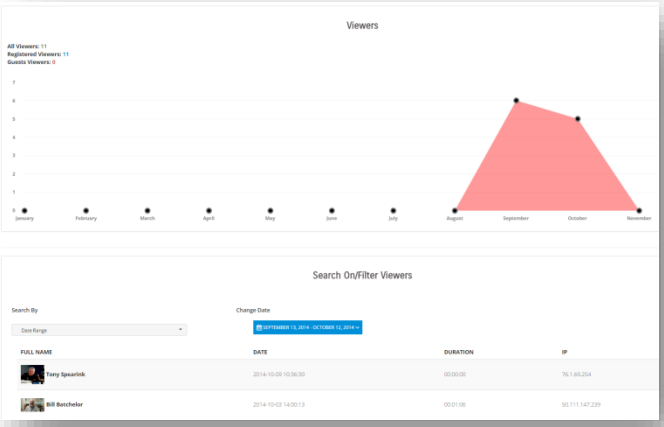
Edit Live Video

Mouse over any live video to expose the edit box.



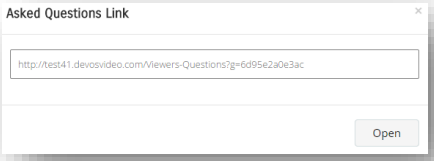
-Select Edit to change any settings.
-Select Delete to delete the live video.
-Select Report to view report.
-Select Embed to get Embed code.
-Select Asked Questions to enable questions and to view them.

Live Viewer Report



Select Report to view detailed statistics of any live video. The report shows how many viewers watched this live stream in selectable periods, and shows who viewed, for how long, and also shows the IP address of the network the viewer came from.

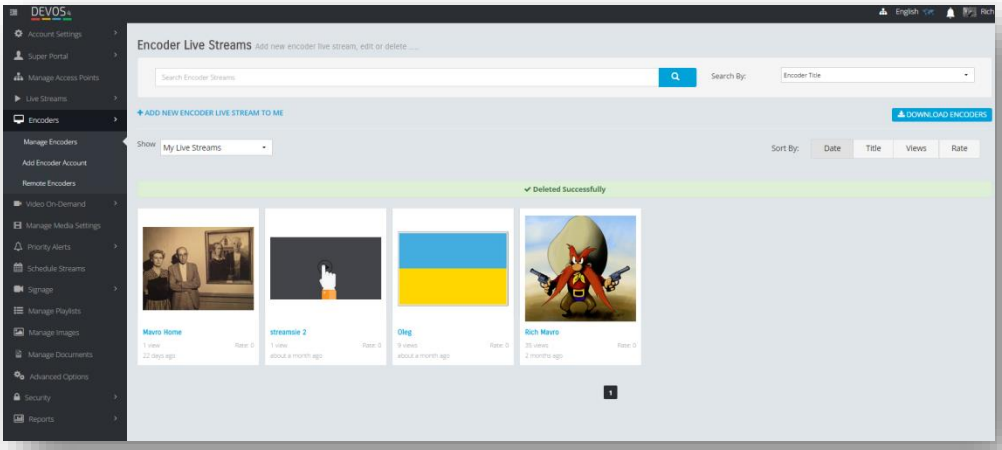
Live Questions



Live videos include the ability of the viewer to ask questions that only the owner of the video can see. This is useful in a presentation environment for near real-time audience feedback. To view the live questions, select "Asked Questions" then open the provided page. You may copy the URL to another computer, for example the desktop of an assistant that would read the questions, or make it available to the live presenter so they can read the questions and respond to them visually and verbally. The ASK QUESTION button only appears on the viewing page when this page is open.

Encoders

Select Encoders to configure and manage Encoders. Encoders include Streamsie software encoder, Hornet, and Mantis.

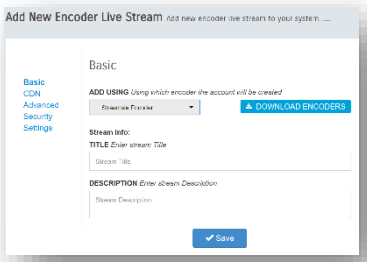


Streamsie is licensed by the server. The number of streaming accounts you can configure for Streamsie PC/Mac depends on your Streamsie license. Streamsie licenses are portable, and you can think of them as being licensed to a person. That person can use Streamsie on multiple computers, but only one at a time.

Streamsie 2 iOS (for iPad/iPhone) is available for free from the iTunes store and it uses a standard Streamsie account.

Streamsie PC is available as Streamsie Standard and Streamsie Pro. Streamsie Pro provides professional features such as watermarks, chroma key, and video file as input. Streamsie Pro is not currently available for Mac.

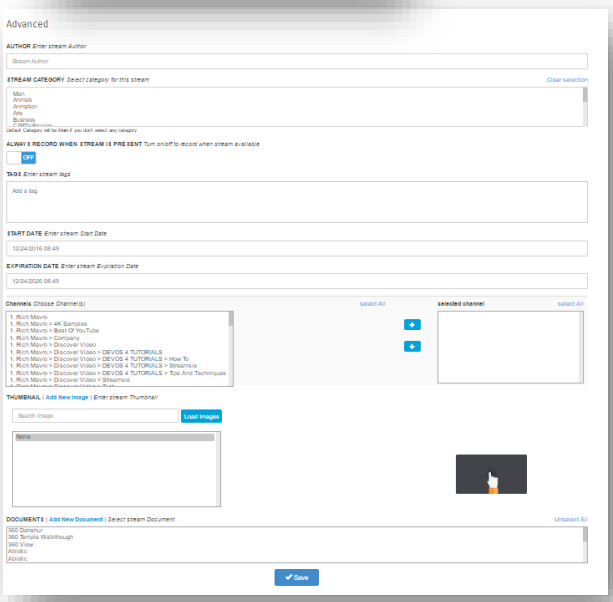
Add New Encoder



Basic
Add Using – Select Streamsie, Streamsie Pro, Hornet, or Mantis.

Title – The title to be shown on the player.

Description – the description to be shown on the player.



Advanced
Author – the author to be shown on the player.

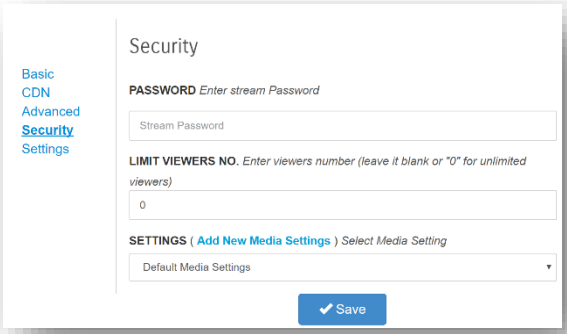
Stream Category – select a category.

Start Date -- The date/time when the video will appear in Channels.

Expiration Date -- The date/time when the video will be removed from Channels.

Tags -- Optional. Additional content tags to search within Channels. Use comma to separate entries.

Channels -- Select a channel where the encoder stream will appear (optional)
Thumbnail -- Select (or upload new) image for your video thumbnail
Documents -- Select (or upload new) document to be associated with the video.

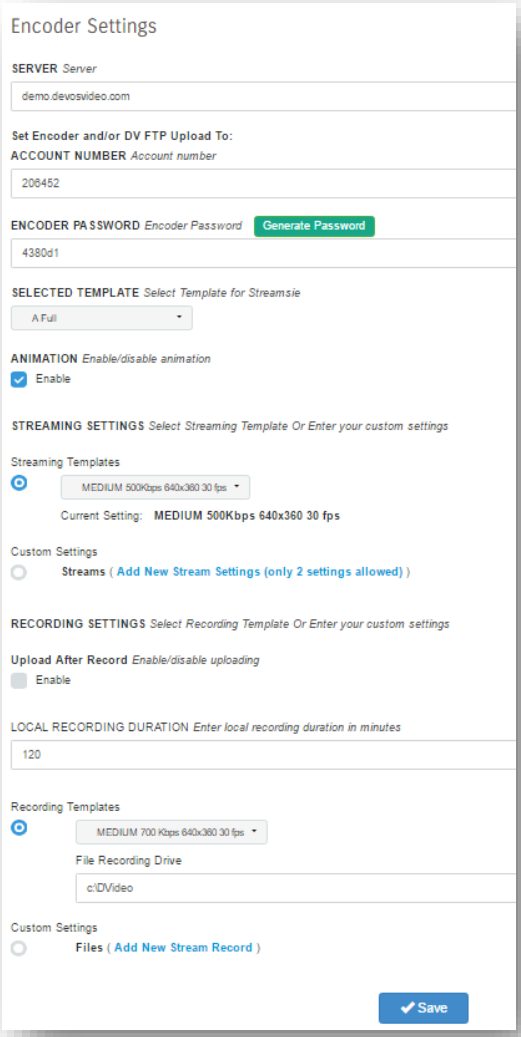


Security
Password – enter optional password required to view the live stream.

Limit Viewers – enter the maximum number of live viewers that will be supported from the web page player.

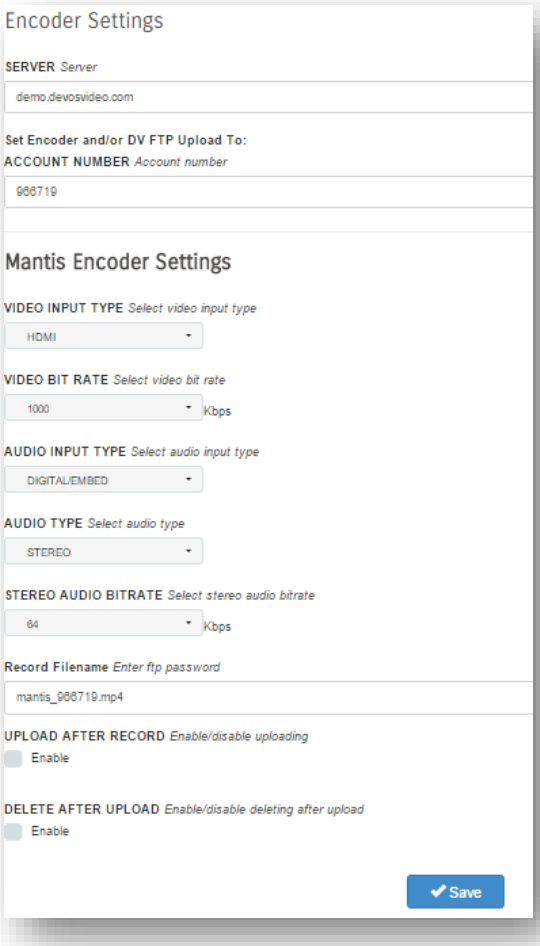
Settings
Select Settings to configure the encoder values.

For Streamsie:



Server – read only, enter this in Streamise
Account – read only, enter this in Streamsie
Encoder Password – read only, enter this in Streamsie. You can select "Generate Password" to change the password.
Selected Template – causes Streamsie to use the selected layout.
Animation – when switching templates, configures whether the video does quick cut or animation.
Streaming Templates – Select live streaming bit rate and resolution settings from dropdown list. Select custom to create your own values.
Recording Templates – When recording locally (on Streamsie computer), sets the bit rate and resolution from template or custom values.
Upload After Record – if selected, then Streamsie will automatically upload just-recorded video to the server.
Local Recording Duration – sets the duration for any local Streamsie recording.

For Hornet or Mantis:



Server – read only.
Account Number – read only.
Video Input Type – selects the video input.
Video Bit Rate – selects the video bit rate.
Audio Input Type – selects audio input.
Audio Type – selects audio type.
Stereo Bitrate – selects audio rate.
Record Filename – automatic, do not change.
Upload After Record – enables upload after local Mantis recording.
Delete After Upload – configure Mantis to remove the local recorded file after successful upload (to save disk space).

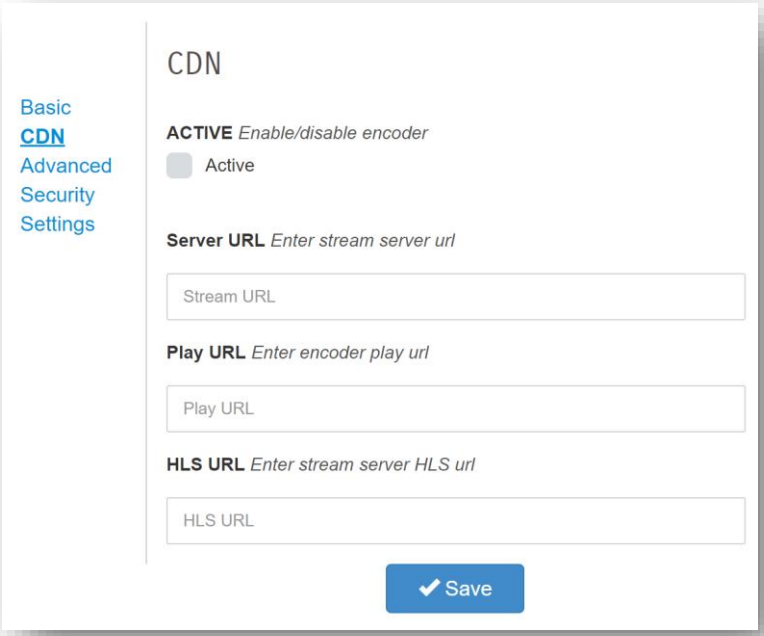
After creating an account, save it and *then* select Edit. The first line of the edit page shows the Stream URL that you should paste into the Mantis or Hornet encoder to enable DVExpress to configure and manage the Mantis encoder.

IMPORTANT! Allow up to 30 seconds for changes to apply. Do not change more than one value at a time.

HORNET AND MANTIS ACCOUNTS ARE NOT INTERCHAGABLE!

CDN

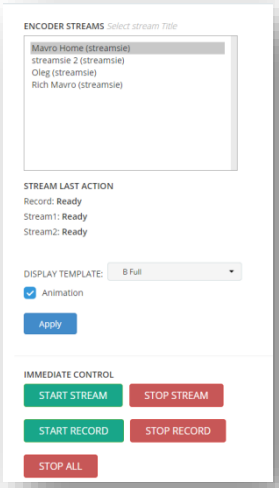
For Streamsie type encoder accounts, you have the option to use a CDN such as Arcus, Streamise Service, or 3rd party. When using CDN, the live stream does not pass through the streaming server.



Server URL – enter the RTMP address that you want Streamsie encoder to push to.
Play URL – enter the RTMP address that will be used by the player (e.g. the distribution URL from the server)
HSL URL – enter the HLS address that will be used by mobile player

Remote Encoder Control

Select Encoder Remote from the Encoders page to control encoders from the server.



For Streamsie PC, you can start and stop streaming and recording, and select the template in use.

Control is delayed by up to 30 seconds so please be patient when using remote control.

For Mantis and Hornet, remote recording is available when there is a USB storage device inserted into the Mantis USB port.

Remote Control of is useful for managing streaming from remote, unattended locations.

IMPORTANT

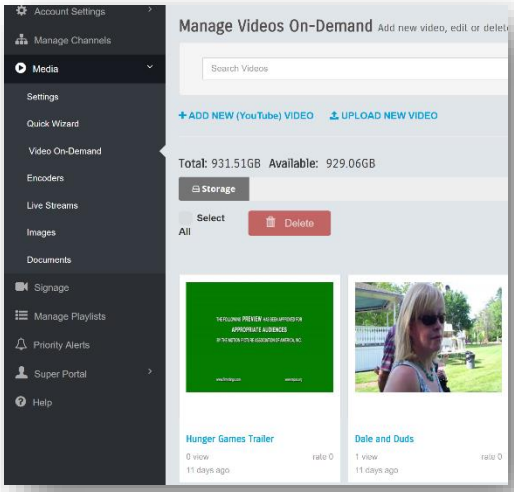
Recording is done on the encoder. If upload after recording is configured for that encoder, then the just-recorded video will be uploaded after recording. The function does not control server-side recording.

For Mantis or Hornet, you must have a USB (Mantis requires formatted FAT16 or FAT32) inserted.

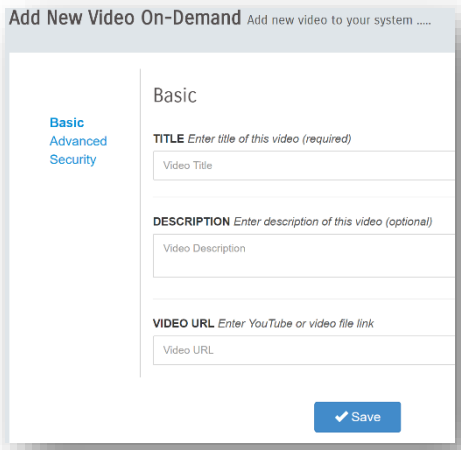
Mantis upload uses passive FTP. Your system must have passive FTP configured for upload to occur.

Manage Video On Demand

The Mange Video On-Demand function allows you to upload and mange Video content. You can search and sort your existing content, add YouTube, and view reports for any VoD content.



Add New (YouTube) Video



Basic
Title – enter title (required)

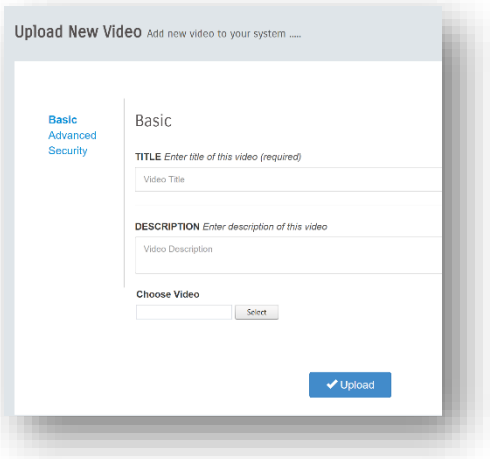
Description – enter description

Video URL – paste in the URL of a YouTube video (not a YouTube channel, playlist or similar).

Save, or enter additional Advanced and Security settings.

Upload New Video

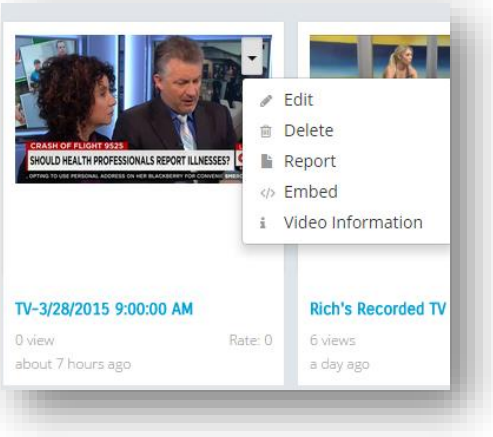
Uploading a video from your computer is easy and the same as previously described under YouTube, but here you will browse to a video file (up to 2GB) and save to start the upload.



When upload is complete, the video will appear in the video manager with status "Upload" or "Transcoding" and will be ready for viewing or further editing in a few minutes.

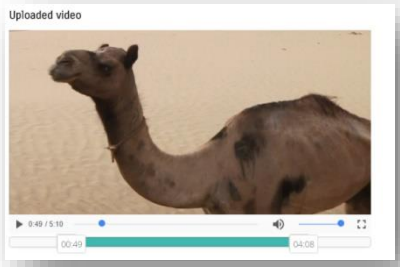
Edit Video

Mouse over any video to expose the menu. Select Edit to modify any value. Select Delete to delete that video. Select Embed to access the video embed code, and select Video Information to get technical details.



Video Trim

When you edit a Video, you have the ability to trim the starting and ending point that will be shown to viewers. Simply drag the player starting and ending position and save your edit.

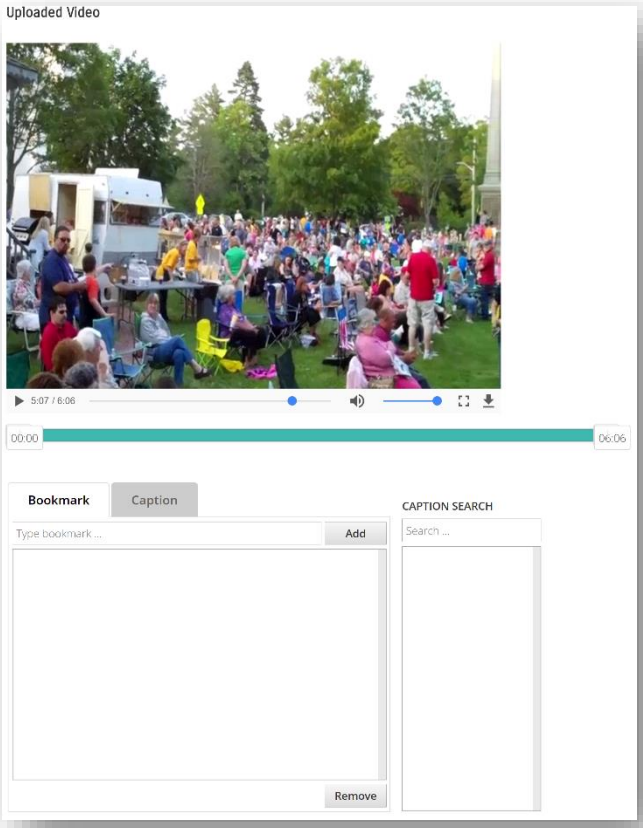


Trimming is particularly useful for scheduled recordings of live events when actual start time differs from the schedule start time.

Video trimming is non-destructive: the original video file is not altered.

Closed Captions and Bookmarks

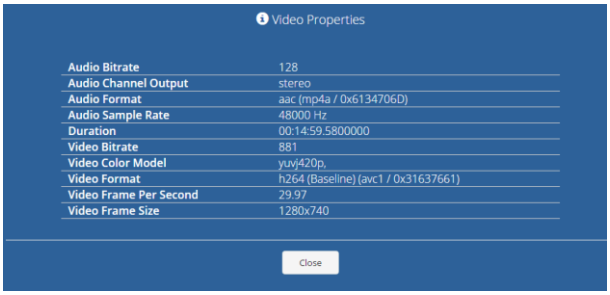
When you edit a video, you can enter closed caption text in real time. When you type the video will pause and when you press Enter the video will resume. This makes it very easy to rapidly caption a video.



You may also enter Bookmarks at any point.

Bookmarks appear on the player page and provide rapid navigation to points in the video that you have entered.

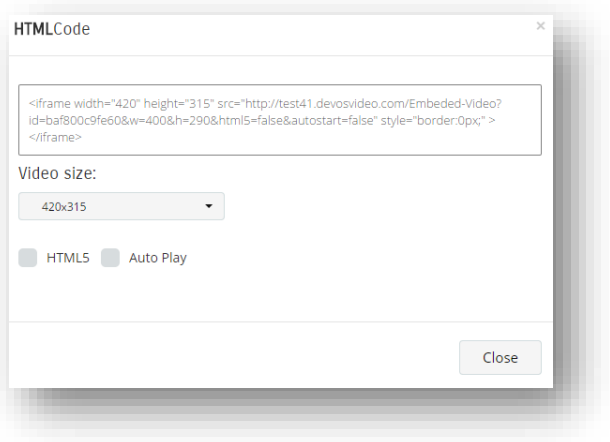
Video Information



The video information gives you details about the video, which can be very useful to troubleshooting issues with playback and compatibility.

Video Embed Code

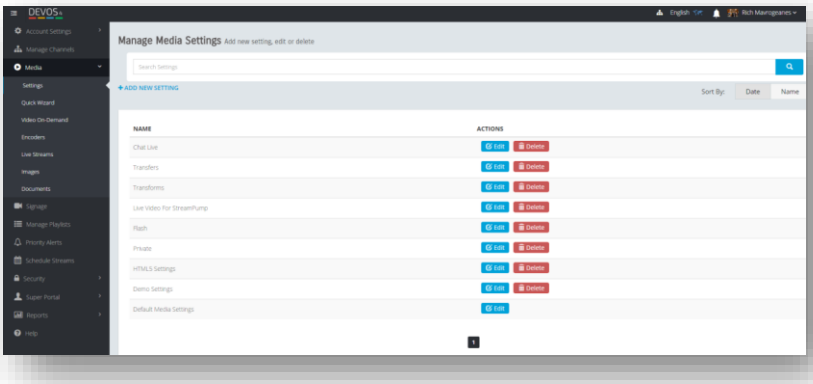
Video embed code allows you to select a video, set the desired size, and copy the embed code to your web page.



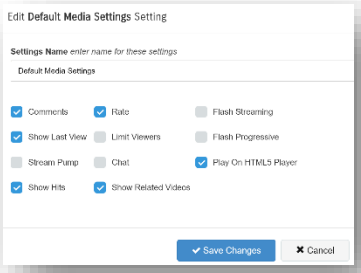
Select size, optional HTML5 player, and select Auto Play to cause the video to start playing automatically.

Media Settings

Media Settings are convenient templates of commonly used settings. Every system comes with Default Media Settings, and you can edit these to your preference. You can create new Media Settings that you can apply to content for different use cases.



When you edit or create new Media Setting, possible values are

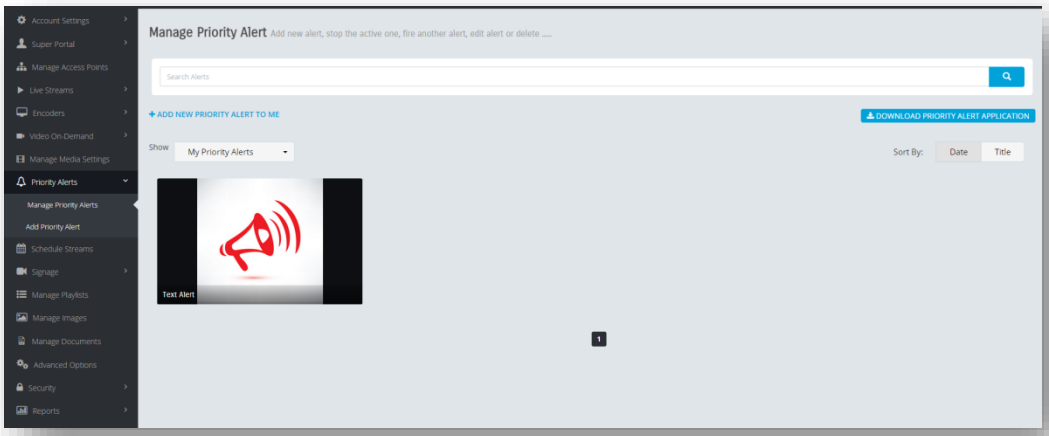


Comments -- Allow viewers to post comments
Show Last View -- Sets whether the last view date/time is shown
StreamPump -- Sets whether live videos are replicated
Show Hits -- Sets whether viewing hits are shown
Rate -- Allow viewers to rate the video
Limit Viewers -- Allows limiting of viewer count if value set on the video
Chat -- Enables chat on the viewing page
Flash Streaming -- Plays the video via streaming in Flash Player
Flash Progressive -- Play the video via progressive in Flash Player
Play on HTML5 Player -- Play the video via HTML5
Show Related Videos – Based on tags, sets whether the player shows related videos.

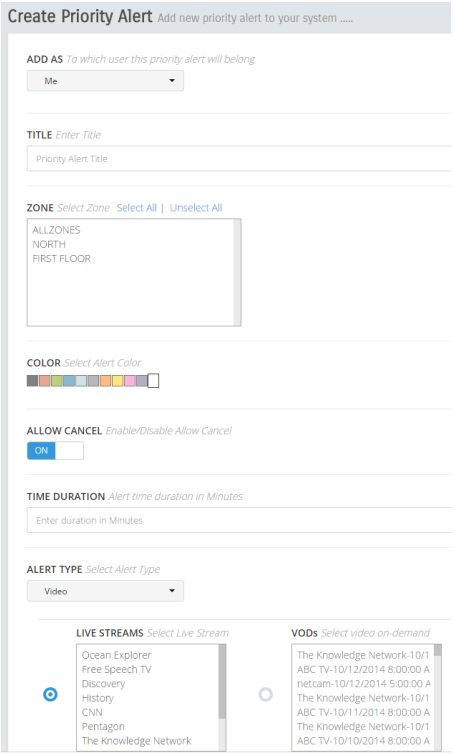
Priority Alert

Priority Alert causes a live video, an on-Demand video, a text message, or a web page, to automatically appear on one, some or all desktops in an organization without the desktop user needing to take any action.

To issue an alert, simply select the Alert Icon.



To create an alert button, select "Add New Priority Alert".



Add As -- create an alert as you or if you are a delegate, then for another account.

Title -- The name of the alert (displayed in the button)

Zone -- The zones that the alert is for

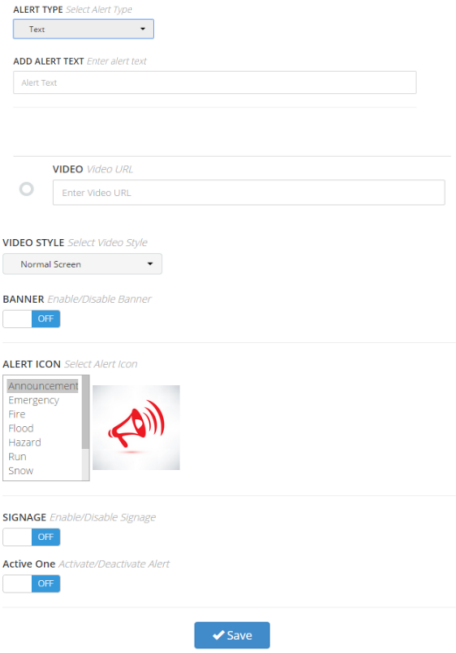
Color -- The color to be displayed in Text alerts

Allow Cancel -- If on, then the viewer can close the alert. Otherwise, the viewer cannot close and must wait for it to expire or for you to end the alert

Time duration -- The number of minutes the alert will last

Alert Type -- Video, Web, or Text

Live Stream / VoDs -- If type is Video, select the live or VoD for the alert.



If type is text, enter the text to be displayed.
If type is Web, enter the web page URL

If type is video, you can enter a video URL

Video Style can be normal (which is a popup video player) or full screen.

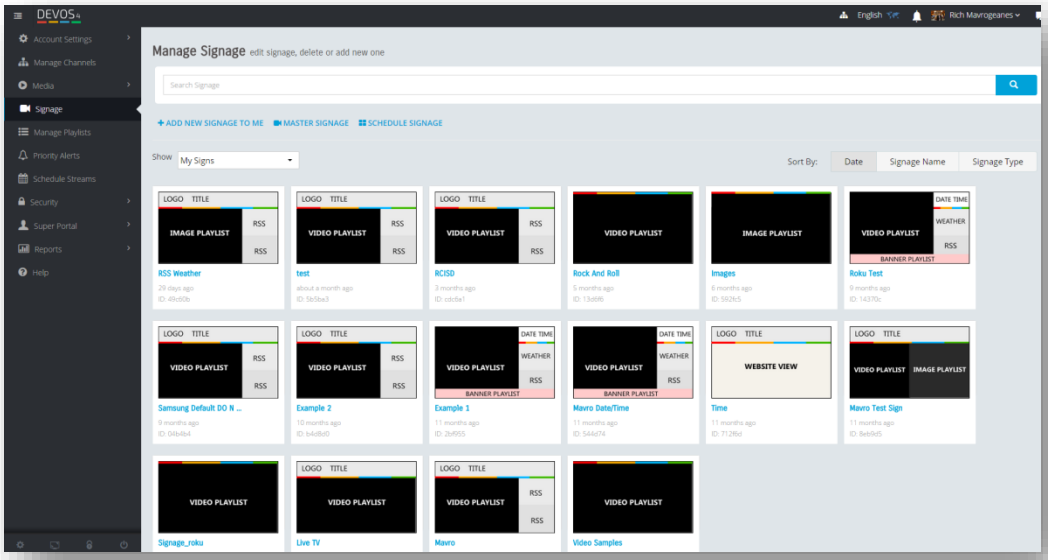
Banner is a text display for Digital Signage

Select Alert Icon

If Signage is enabled, select the sign(s) that will be affected by this Alert (except SignStick which uses zones)

Signage

Digital Signage allows you to display desired content on TV's or monitors in common areas, lobbies, or other locations. Each user can create and manage their own signs, and there is no limit to the number or variety of signs available.



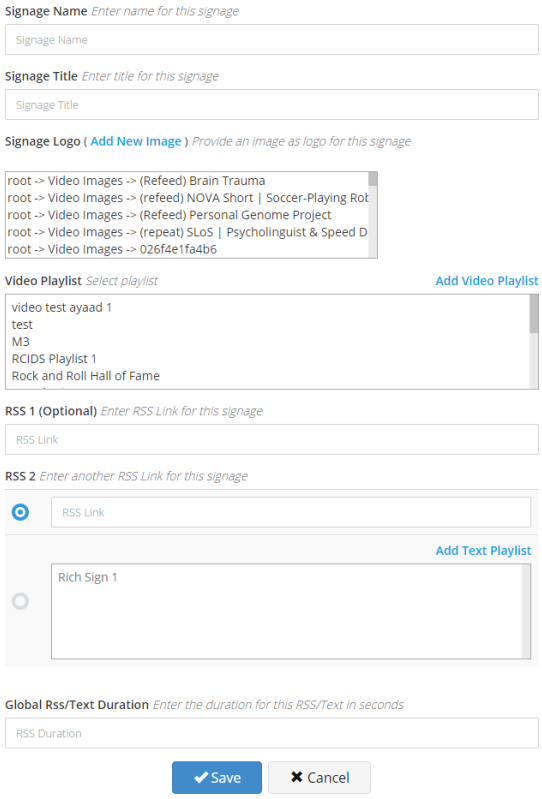
Create Sign

To create a new sign, select Add New Signage and select from one of the available templates.

Each template is created using a wizard that prompts you for required values.

NOTE: Many templates use video playlists, text playlists, and banner playlists. You should be sure you have created desired playlists prior to creating a sign.

Example Entry For Template 1



Signage Name -- enter a reference name for the sign

Signage Title -- enter the text to appear as the title in the sign

Signage Logo -- select or upload an image to be shown as a logo in the sign

Video Playlist -- video signage uses pre-existing video playlists. You must create a playlist to be used in the signage before creating the sign. Select the desired playlist.

RSS 1 -- Optional. Enter a valid RSS feed such as from a public news aggregator (e.g. "CNN" or "NPR").

RSS 2 -- Enter 2nd RSS feed, or select text playlist (which must have been previously created)

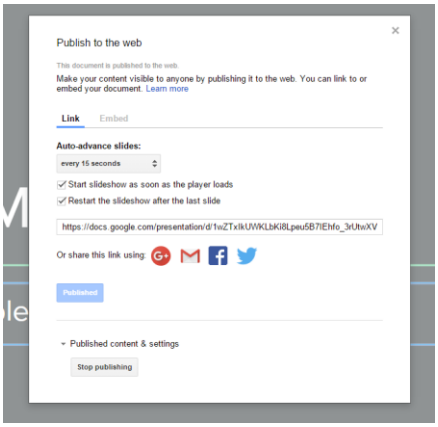
Global RSS Duration -- enter the number of seconds for display of each RSS element (e.g. 15)

NOTE: Some RSS feeds will not operate properly in Digital Signage displays. RSS feeds that attempt to display web links or show images or videos should be avoided. Conventional text RSS feeds, such as NPR, CNN, and similar are usually the most successful.

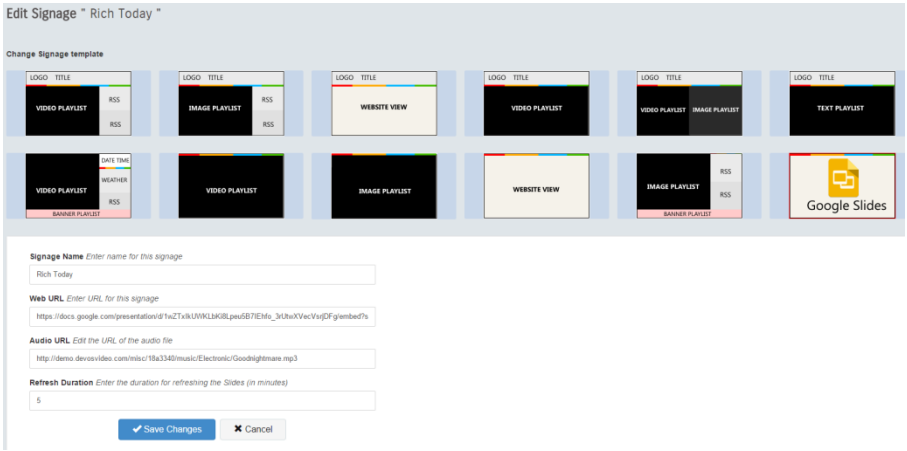
Google Slides

Digital Signage supports Google Slides, which provides an online alternative to Microsoft PowerPoint and provides the ability to change the content on-the-fly. You may also elect to share your Google Slides account so that multiple users can edit the slides.

Create your presentation on Google Slides. When done, select File / Publish To Web. Check the boxes and set the slide advance time. Copy the URL using Control-C or right-click/copy.



Select Google Slides from the template list.



Paste the URL as the Web URL, enter a title, and enter a link to optional audio. You may get royalty-free music from http://discovervideo.com/music. You may also use a popular Internet radio station link (must be .m3u type).

Set the refresh duration to set how often DVExpress will check your Google Slides for changes. If you make changes rarely, use a large number. If you make changes every hour, use 60 minutes, etc.

Google Slides will not display on Roku because Roku does not support web types.

Displaying Signs

Digital Signage may be displayed using all or any of these methods:

SignStick2®

These are small, compact devices designed for Digital Signage display. Follow the setup instructions to configure them.

Samsung Smart TV

Discover Video has published a free App called "Signage" available on the Samsung Smart TV App Store, that you may download directly in your Smart See http://discovervideo.com/samsung

Roku Box

Discover Video has published a free App called "Signage" available on the Roku Box. See http://discovervideo.com/roku. NOTE: Web Templates including Google Slides are not supported by Roku.

Web Browser

Open the Digital Signage page by clicking on it. The signage will display in your web browser. You may copy the URL to any computer and simply display the browser on a monitor.

Warning! Roku, Samsung and other devices are for consumers and have little security, limited functions, and may not be suitable for continuous operation without manual intervention.

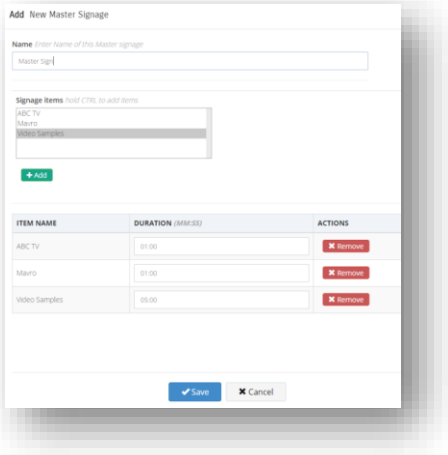
Controlling Your Sign

The Discover Video Digital Signage system in DVExpress will automatically change the signage display when you edit your sign. You can change the contents of playlist, or change the sign style without needing to visit each display to make configuration adjustments.

The Priority Alert system will override what is displayed on your sign(s) if the alert has been set to include selected sign(s).

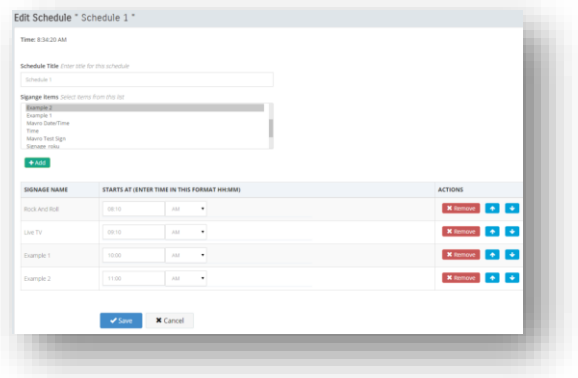
Master Signage

You can create a "Master Sign" which is a "sign of signs". The Master Signage will display each of the selected signs for the specified duration.



Schedule Signage

You may create a schedule to display a sign at the same time every day. Select "Schedule Signage" to create or edit a schedule. Give your schedule a name, select the sign you want to use, and add it to the list. Enter the time for each sign and save. After saving, click on the Schedule Signage Name to open it in your browser.

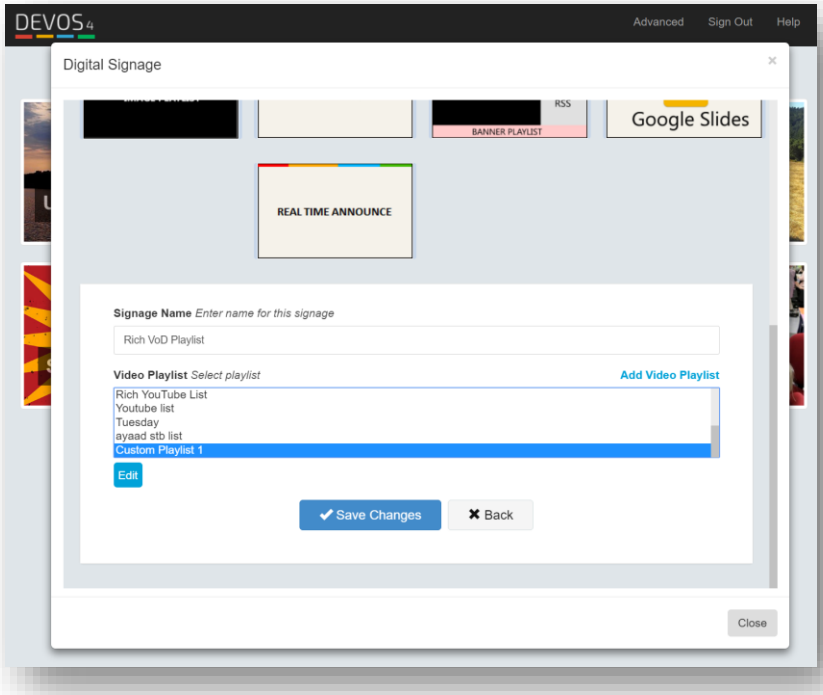


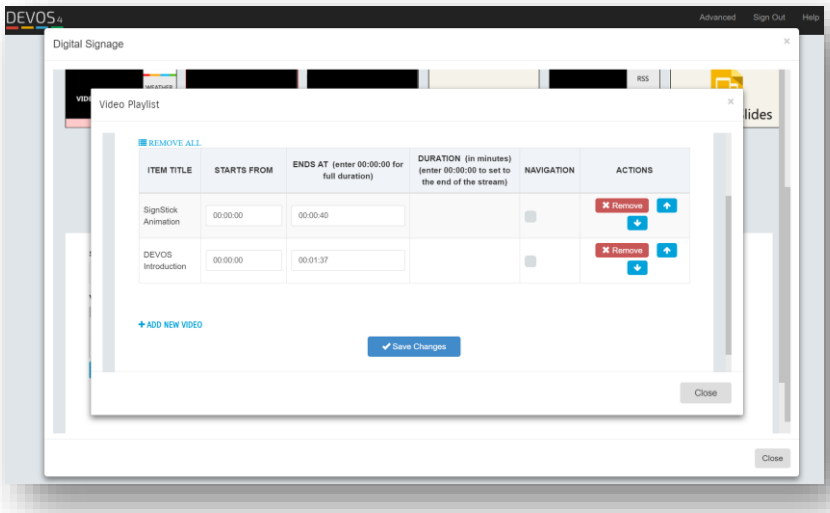
You may create as many schedules as desired. Note that you can include any sign in your schedule (any template), so you can show image playlist in the morning, video playlist in the afternoon, etc.

Schedule Signage display is supported in the web page, but not currently on 3rd party devices such as Roku, Samsung, etc.

Simple User Interface

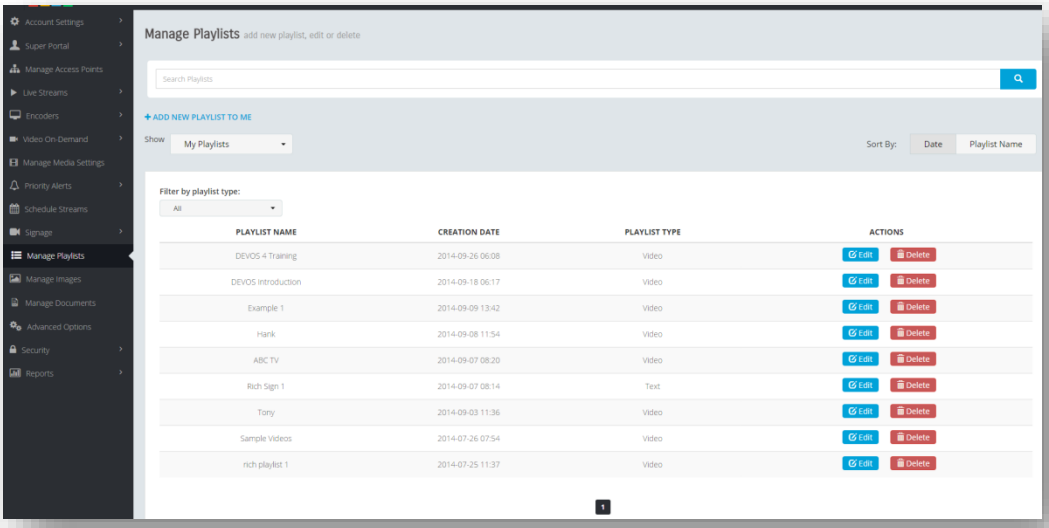
An important feature in the initial simple interface is the ability to edit playlists directly from the signage page. To edit any playlist, edit the sign then select the playlist to reveal the Edit button. Then edit the playlist as desired.



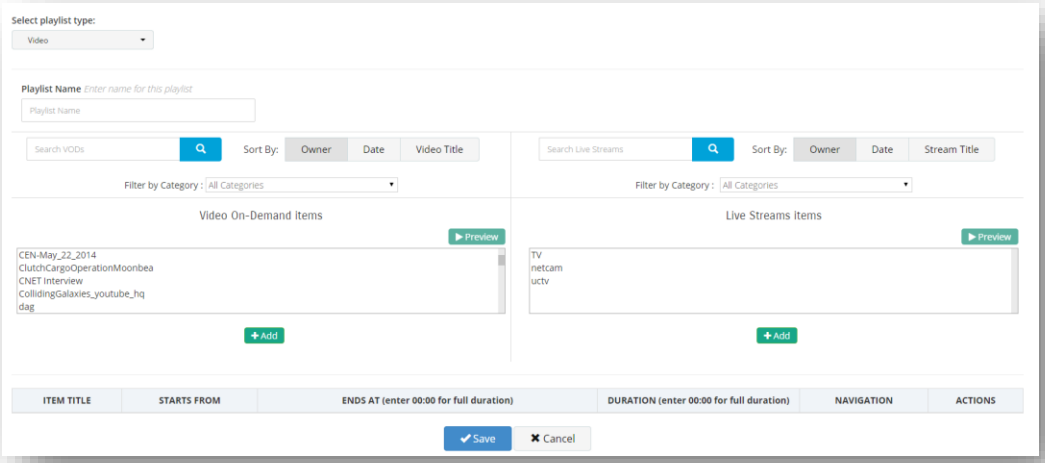


Playlists

A Playlist is an ordered list of content. Playlists are used by Digital Signage, and may be added to Video on Demand players too.



You can create, edit, or delete a playlist. The following illustrates creating a video playlist (text, image, and banner playlists are similar).

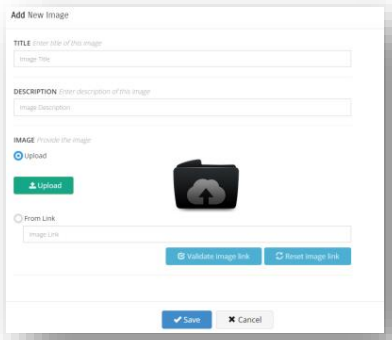


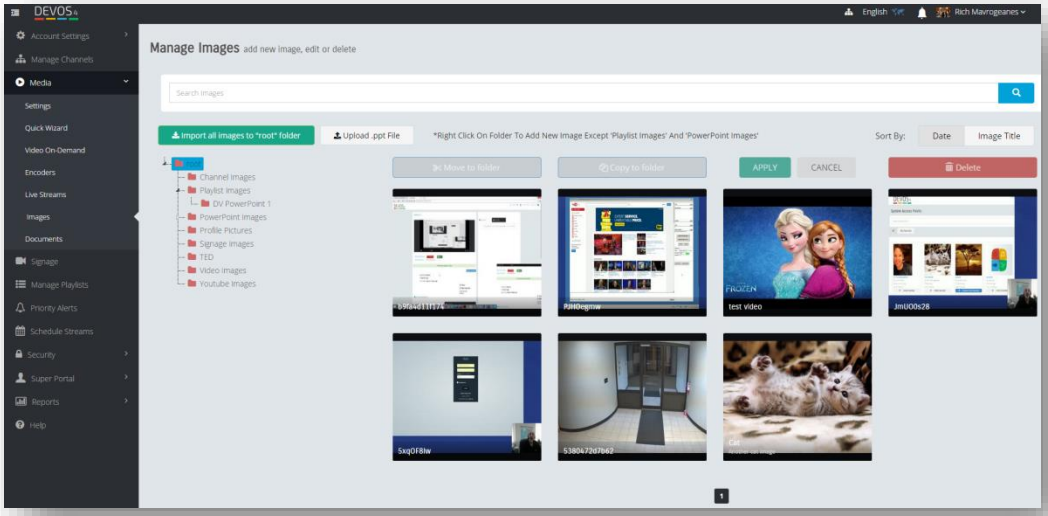
Enter a playlist name. You may search and sort videos and filter by category. Select the Video On Demand or Live Stream and select Add. Optionally enter a "Starts From" time and "Ends At" time if you wish to specify less than the full length of the video. For live video, you *must* enter a duration. Use the Up and Down arrows to adjust the position of the item in the playlist.

Select "Navigation" if you wish to allow the video to be skipped or allow the player slider to function. Navigation does not apply to Digital Signage. Select Save when done.

Manage Images

Images are added to the DVExpress system automatically when you web upload or FTP a video, add a YouTube video, synchronize your YouTube account, and when you record a live video. Images can be added manually by uploading a new image or PowerPoint presentation.





Images are organized in folders to make it easy for you to find a desired image. Default folders include root, Channel Images, Playlist Images, PowerPoint Images, Profile Pictures, Signage Images, Video Images, and YouTube Images. By default, the system will use the proper folder (e.g. new YouTube videos will have the image in the YouTube Images folder).

You can copy and move images between folders by:

1) Select source image(s) by checking the image(s)
2) Select Move or Copy button

3) Select the destination folder
4) Select Apply

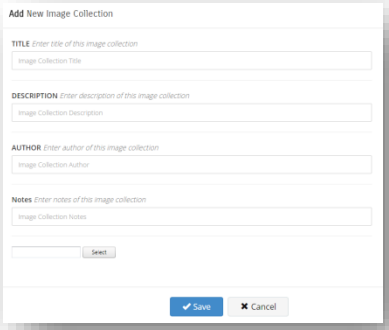
You can also delete multiple images by selecting them and then selecting Delete.

You can create a new folder by right-click on the root folder or other folder and select "Create New Folder". To add a new image, right-click on a folder and select "Add New Image". You can edit any image to change its name and give it a description. To edit, simply mouse over any image and select the edit icon. You can also add an image to the system from a web URL link. Simply select "From Link" and enter the URL to the image (must be a JPG or PNG). DVExpress will then download and copy that image to the system.

Do not use copyrighted works without permission.

PowerPoint

You can upload a PowerPoint presentation (.ppt, .pptx) file and the system will create an image collection in a new folder with your title.



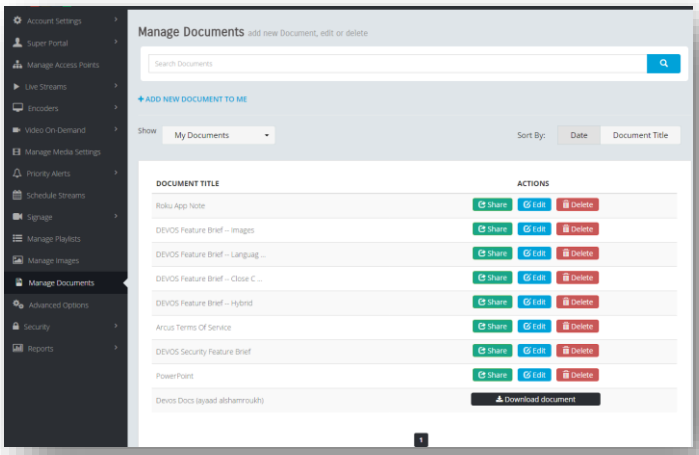
If your presentation has speaker notes, the notes will be listed as the description of each slide.

You may add notes to your collection for your convenience.

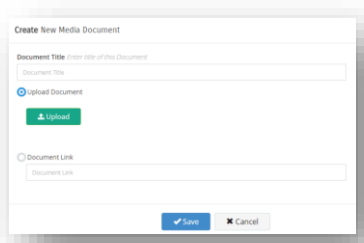
Manage Documents

Documents uploaded to the system may be associated with any live or on-demand video asset. This allows you to include enrichment materials, presentations, workbooks, etc. with any video so that a viewer may download them.

Any document you upload may be marked as shared, which allows other users to include your document with their videos. The illustration below shows a document library and includes one shared document.



To upload a new document, select "Add New Document". Enter a document title, and select Upload to select the document from your computer. You may also enter a URL link to a document found on the web, in which case DVExpress will download it and add it to your library. Document types supported include PDF, DOC, PPT, PPTX, XLS, XLSX.

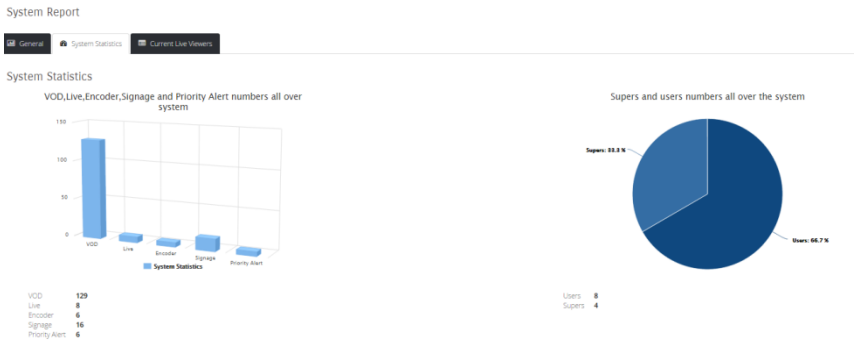


Document Links Are Very Useful!

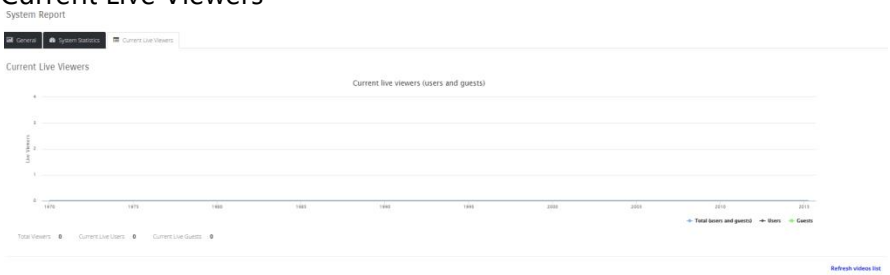
A Document Link is a URL to virtually any web page, or it may be a link to a LMS page. You may include reference materials from any web search by simply pasting the URL and saving the "Document". Then simply include this document with your video and you have a complete lesson package. Document links can also be used to provide download of the video.

System Report

The System Report is only available to users with Super Portal privilege. This report shows all viewer activity for all users, and includes General, System Statistics, and Current Live Viewers:

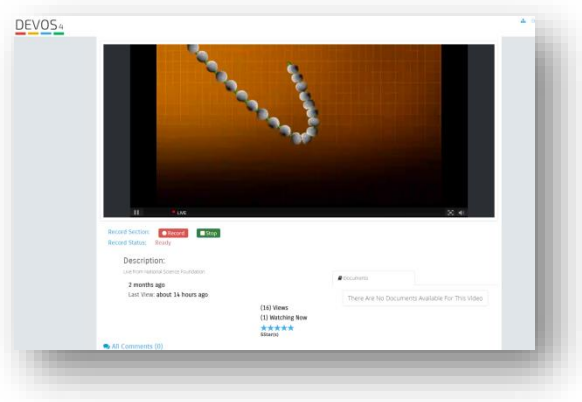


Current Live Viewers



Recording Live Streams

You can record compatible live streams by simply opening the live video ("Live Stream" or "Encoder") from the management panel.



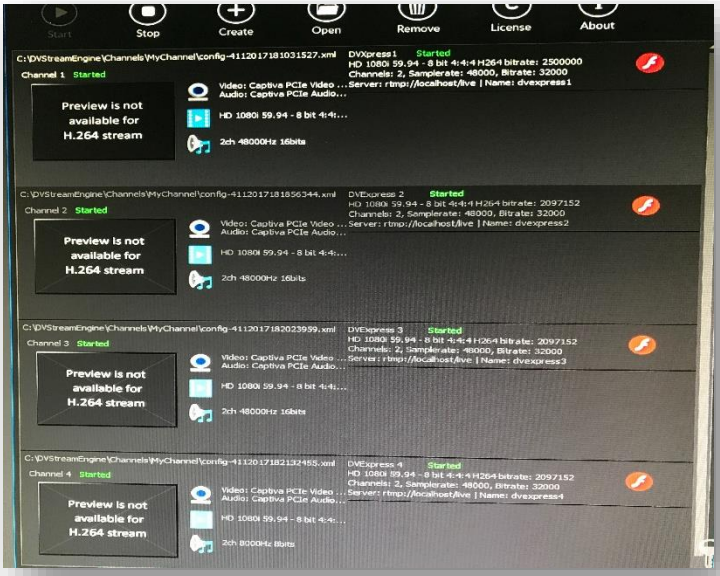
When you are logged in as the owner of the video and access it from the management panel, the player displays Record and Stop buttons. Simply select Record to start recording, and Stop to end recording.

It is possible that a live stream may work in the player but not record (e.g. the recording has audio but the video is black). This is usually the result of using a 3rd party encoder that does not meet standards, or a configuration error in the encoder setup. Be sure to verify recording with your target video before you rely on it.

Also note that the maximum recording time allowed is set by the Super Portal settings.

Internal Encoder

DVExpress has a 4-channel StreamEngine encoder. You can access the StreamEngine manager from the program menu.



Each of the four channels is configured to stream at approx. 2 Mbps, and the destination of the stream is always “rtmp://localhost/live/dvexpress1” through “/dvexpress4”. To change the bit rate, follow the instructions in the StreamEngine manual or contact Discover Video support.

Appendix

Copyright Issues

It is both illegal and wrong to make copies of copyrighted material without permission. You should follow advice of your council, but the following is provided as a starting point:

- The Fair Use doctrine and the Teach Act (please search these terms on the public Internet) allows for use in certain cases, especially for educational use and especially when only portions (clips) of a copyrighted work is used. *Use the DVExpress start/end time or playlists to create clips of larger movies.*
- You can easily create your own content using Streamsie, and with other tools in which case you may elect to declare a copyright. Here is the Creative Commons web site: http://creativecommons.org/choose/
- You can generally deliver over-the-air broadcast TV (content received via an antenna and encoded and delivered via DVExpress without issues, provided the viewers are in the same broadcast area. Most "Cable TV" providers allow private distribution too in areas where you may otherwise string your own legacy coax cable.
- Use "Maximum Viewer" feature. For example, if you set the value to "1", then only one viewer can access that content simultaneously, effectively replicating the behavior of physical media (e.g. a disk) and demonstrating your commitment to copyright enforcement[1].
- The interface for commercial HDMI ports, such as Blue-Ray players and Cable Set Top Boxes, may be encrypted (HDCP) and cannot be captured. Cameras with HDMI are not encrypted. Analog interfaces (composite, SVideo, Component RGB) are not encrypted. Splitters are available that may overcome this issue.

[1] This is not intended as legal advice but as a description of a DVExpress feature.

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