



Switch 2.1 User Guide for Windows

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Preface

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Telestream, LLC.
848 Gold Flat Road
Nevada City, CA 95959

You can call Telestream via telephone at (530) 470-1300.

Telestream Contact Information

To obtain product information, technical support, or provide comments on this guide, contact us using our web site, email, or phone number.

Table 1. Telestream Contact Information

Resource	Contact Information
Telestream Technical Support	Web site: www.telestream.net/telestream-support Support Email: desktopsupport@telestream.net
Telestream, LLC.	Web site: www.telestream.net Sales and Marketing Email: info@telestream.net Telestream, LLC. 848 Gold Flat Road Nevada City, CA. USA 95959
International Distributor Support	Web site: www.telestream.net See the Telestream Web site for your regional authorized Telestream distributor.
Telestream Technical Writers	Email: techwriters@telestream.net If you have comments or suggestions about improving this document, or other Telestream documents—or if you've discovered an error or omission, please email us.

Overview

Introduction

Switch is a professional media player that plays files and allows you to inspect and edit them. Switch opens and plays virtually any media file, displays detailed information about that file, and lets users make changes to the file - saving time and ensuring higher accuracy in media inspection.

The built-in inspector displays information about your media such as audio channels, speaker labels, aspect ratio, clean aperture, bitrate, metadata, encoding formats and more. Edit mode enables modifications including trim, resize, and crop; changing aspect ratio; rearranging audio tracks; editing speaker assignments. You can also attach secondary audio to your video when exporting.

When Switch is unlicensed (the free Player version), it watermarks the video by placing the Switch logo in the upper right portion of the display. The audio is also watermarked with an occasional message. To remove the watermarks during playback, you must purchase and enter a valid Switch license serial number and activate it. There are two licensing levels: Plus and Pro. The Plus license removes all watermarking except for iTunes exporting, and of files created using J2K, DNxHR, and DNxHD video codecs.

Note: Switch will watermark your media when in *transcode* mode and will truncate it when in *pass-through* mode.

Topics

- [Play License Restrictions](#)
- [Switch Pro Features](#)
- [Switch Pro Features](#)
- [System Requirements](#)
- [Summary of License Features](#)

Play License Restrictions

Playback Restrictions:

- Video watermark overlay for DNxHD, HEVC on both Mac and Windows
- Video watermark overlay for MPEG-2 on Windows only
- Audio watermark heard for AC-3 audio

Application Restrictions:

- Cannot add secondary subtitle files
- Cannot enable caption decoding
- Cannot display advanced metadata

Export Restrictions:

- If audio and video are in *transcode* mode, a watermark is added to the export.
- If either audio or video (or both) are in *pass-through* mode, export will be truncated to thirty seconds, or half the duration (if the source is less than thirty seconds).
- If audio and video are in *transcode* mode, and the source has AC-3 audio, export will have the audio watermark added.

Switch Plus Features

The Switch Plus license removes watermarking on all features except iTunes exporting, and of files created using J2K, DNxHR, and DNxHD video codecs. The Plus license also enables Captions and the playback of STL, and enables Audio Levels.

Switch Pro Features

The Switch Pro license enables all the features of the Plus license along with iTunes exporting and creation of files created using J2K, DNxHR, and DNxHD video codecs. The Pro license also enables playback through external preview devices such as SDI monitors, and it adds loudness meters and deep data inspection.

The table below lists the features of Switch for Playback, Inspection, and Export.

Table 2. Switch Pro Features

Features	Details
Playback	
Containers	AAC AC31 AIFF AVI (open DML) AVC (AVC Elementary Stream) DV Flash GXF HEVC2 (HEVC Elementary Stream) LXF MOV3 M1V (MPEG-1 Video Elementary Stream) M2V (MPEG-2 Video Elementary Stream) MP3 (MPEG Layer 1,2,3 Audio Elementary Stream) MP4 (ISO Base Media Format) MPG (MPEG-1 System Stream) MPS (MPEG-2 Program Stream) MTS (MPEG-2 Transport Stream) MXF (OP-1a; AS02, AS03, AS11) MXF (OP-Atom) MXF (OP-1a proxy) MXF (OP-1b) SCC4 TIFO WAV WMV, WMA, AVI, ASF

Table 2. Switch Pro Features

Features	Details
Video Codecs	Apple ProRes DV 25 DVCPro 25 DVCPro 50 DVCPro 100 DVCPro HD DNxHDX DNxHR H.263 H.264 H.2651 JPEG MPEG-1 MPEG-2 MPEG-4 Uncompressed YUV Uncompressed R10k Uncompressed R10g
Audio Codecs	AAC AC31 MPEG Audio Layer 1,2,3 Microsoft ADPCM G.711 aLaw G.711 uLaw G.726 PCM3
Captions/Subtitles	CEA-608 & CEA-708 captions, SCC, DVB, TTML (ITT and SMPTE-TT) and WebVTT, SRT and STL subtitle files.
Navigation	Step, skip or jump forward/reverse navigation, JKL playback, command/period stepping, slow motion playback. Loop, instant replay navigation
Position display	Frame number / timecode

Table 2. Switch Pro Features

Features	Details
Inspection	
Video & audio property inspection	Video and audio formats, bitrates, subsampling, Color Space, language, duration, frame rate, encoded size, Clean Aperture, aspect ratio, display size, metadata, audio tracks and channels, audio sample rates, secondary audio files, secondary subtitle files
Property pass-through	Yes
Export	
Editable properties	Crop, resize, change clean aperture, change pixel aspect ratio, change colorimetry, down-mix (audio)
Video Encoding Format support	Apple ProRes
iTunes Asset Preparation	Built-in packaging presets for iTunes store package: Music Video (NTSC) Music Video (PAL) Music Video (HD) Television (NTSC) Television (PAL) Television (HD) Film (NTSC) Film (PAL) Film (HD)

System Requirements

OS Version: Windows 7 SP1 and later.

Platform Update for Windows 7.

CPU: 2.4 Ghz Core 2 Duo or faster. Any Core i3, i5, or i7

RAM: 4 GB (minimum)

Display: 1280 x 768 or larger, 50 Hz or faster

Graphics:

- Correct DirectX 10.0 ->10.1
- Intel GMA X4500 or higher -> Intel HD Graphics 3000 or higher.

- Any discrete graphics card with support for DirectX 11 or better (hardware level DirectX 10.1 at minimum). **Note:** For Windows 7 users, Switch requires a card that supports DirectX 10.1 hardware feature level 10.1 or better. For more information, view the Switch product Knowledgebase.

Summary of License Features

Play it	Switch Player	Switch Plus	Switch Pro
Multiformat playback – formats include MOV, MP4, MXF, GXF, MPEG Program Streams & Transport Streams, and more	✓	✓	✓
Added playback support for HEVC, AC3	Watermarked	✓	✓
Added playback support for DNxHD, DNxHR, JPEG2000	Watermarked	Watermarked	✓
Step, skip or jump forward/reverse navigation including JKL navigation	✓	✓	✓
Fast forward/reverse & Slow Motion	✓	✓	✓
Playback support for 608/708, SCC, DVB, TTML (ITT and SMPTE-TT), captions, and WebVTT, SRT, STL subtitle files			✓
Check it			
File properties: Size, type, duration, metadata	✓	✓	✓
Video properties: format, bit rate, subsampling, color space, Aspect Ratio, Clean Aperture, and more	✓	✓	✓
Audio properties: audio channels, speaker labels, format, sample rate	✓	✓	✓
Professional Audio Meters displaying true-peaks and momentary loudness values		✓	✓
Professional Audio Meter with loudness monitoring panel			✓
Advanced inspection of application-specific metadata such as AS11 with UK DPP metadata, AS03, and others			✓
External preview output via AJA devices for preview and quality check			✓
Fix it			
Pass through export	Limited to 30 seconds or 1/2 the file duration	✓	✓
Export	Watermarked	✓ ²	✓ ²
iTunes package preset including media content, secondary subtitle or audio files, chapter information and an XML file			✓

Installing Switch

Introduction

This section will demonstrate how to install, remove, update, and customize Switch.

Note: Switch installers are available at: www.telestream.net

Topics

- *Installing Switch*
- *Uninstalling Switch*
- *Updating/Activating/Deactivating Switch*
- *Opening Switch*

Installing Switch

To install Switch, follow these steps:

1. Download the installer from the Website at:
<http://www.telestream.net/switch/overview.htm>

Note: If you have a previous version of Switch installed on your computer, you must first uninstall it before installing the new version of Switch.

2. Run the installer program and follow the instructions provided.

Windows Error Messages

Here are some possible installation error messages that you might encounter:

- .NET Framework is not installed Switch requires the .NET Framework 4.0 runtime. Try installing it before installing Switch.

- Attempting to install 64-bit version on 32-bit OS: Switch requires a 64-bit operating system. You can not install Switch on this version of Windows.
- Media foundation not installer (Windows N or Server without Desktop Experience): Switch requires Windows Media Foundation. Try installing the Windows Media Feature Pack before installing Switch.

Uninstalling Switch

To uninstall Switch:

1. Select *Switch* on the list of programs in *Control Panel>All Control Panel Items>Programs and Features*, then click *Uninstall* at the top of the window.
2. The installer asks if you want to repair or remove the existing version. Select *Remove* to uninstall the existing version of Switch.

Updating/Activating/Deactivating Switch

To check for software updates, see [Update](#) in the Preferences and Updates section.

To activate a serial number for Switch, see [Activating a Serial Number](#) in the Preferences and Updates section.

To deactivate a serial number for Switch, see [Deactivating a Serial Number](#) in the Preferences and Updates section.

Opening Switch

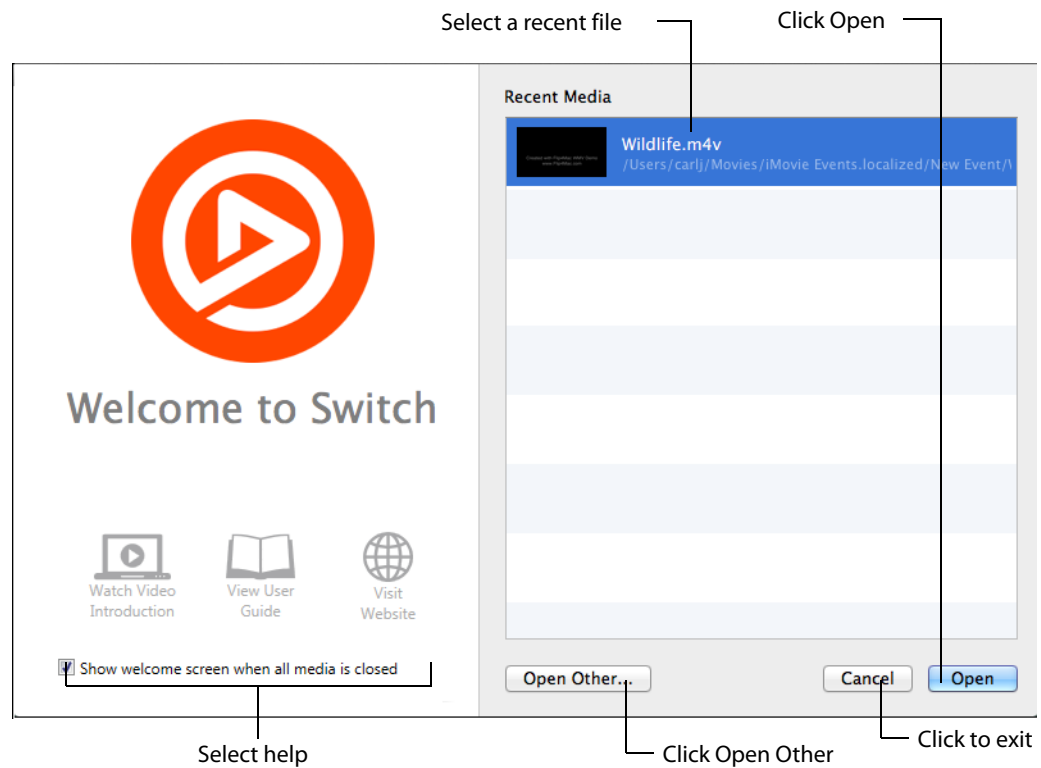
After you have installed Switch (See [Installing Switch](#)), you can open Switch by double-clicking the Switch shortcut icon located on the desktop.



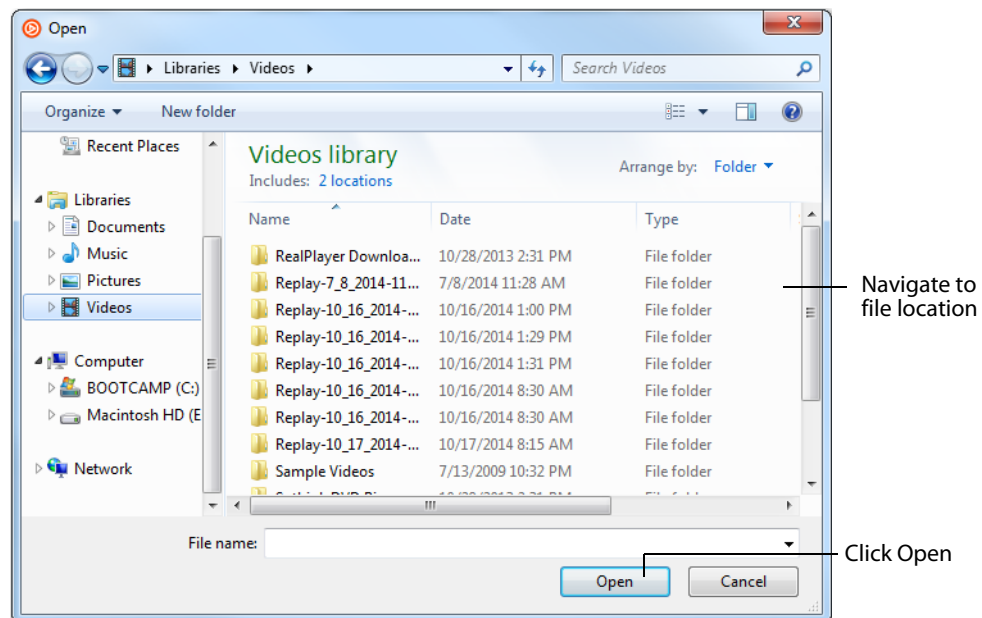
Double-click Switch shortcut Icon

When Switch opens it displays a welcome screen. You can watch an introductory video, browse the user guide, visit the Telestream Website, or open a media file. To open a

media file, select a recently opened file and click *Open*. If you do not have any recent files, or if you want to open another file, click *Open Other* to navigate to a media file.



If you click *Open Other*, a navigation window displays. Navigate to the location of your file and click *Open*.



Opening Files

Introduction

This section presents how to open media files as primary or secondary files (audio and subtitle files), and how to open recently accessed files. It also describes how to associate and close media files.

Topics

- [Opening Files](#)
- [Opening Secondary Files](#)
- [Opening Recent Files](#)
- [Closing Files](#)

Opening Files

Select *File > Open File*, (or press the Ctrl + O keys), to open a media file in Switch. When the *Open* dialog box displays, navigate to the file you want to open, and click *Open*. Click *Cancel* if you decide to not open any media files.

Opening Secondary Files

You can open a Secondary audio file by selecting *File > Open Secondary Audio File*, or a Secondary Subtitle file by selecting *File > Open Secondary Subtitle File*. When the *Open* dialog box displays, navigate to the secondary file you want to open, and click *Open*. Click *Cancel* if you decide to not open a secondary file.

Secondary audio and subtitle files play along with the primary media file you have open. These are useful for supplying background audio for a video that has no embedded audio, or for supplying subtitles for a video that has no embedded subtitles. You can open up to 28 secondary files.

Opening Recent Files

You can re-open previously opened media files by selecting *File > Open Recent*. This displays a list of your most recently accessed media files. Every time a file is opened or exported it is entered into the list. You may also (optionally) clear the menu list by selecting *Clear Menu*.

Closing Files

To close a file, first select (make active) the media window displaying it, then select *File > Close*.

Media Playback

Introduction

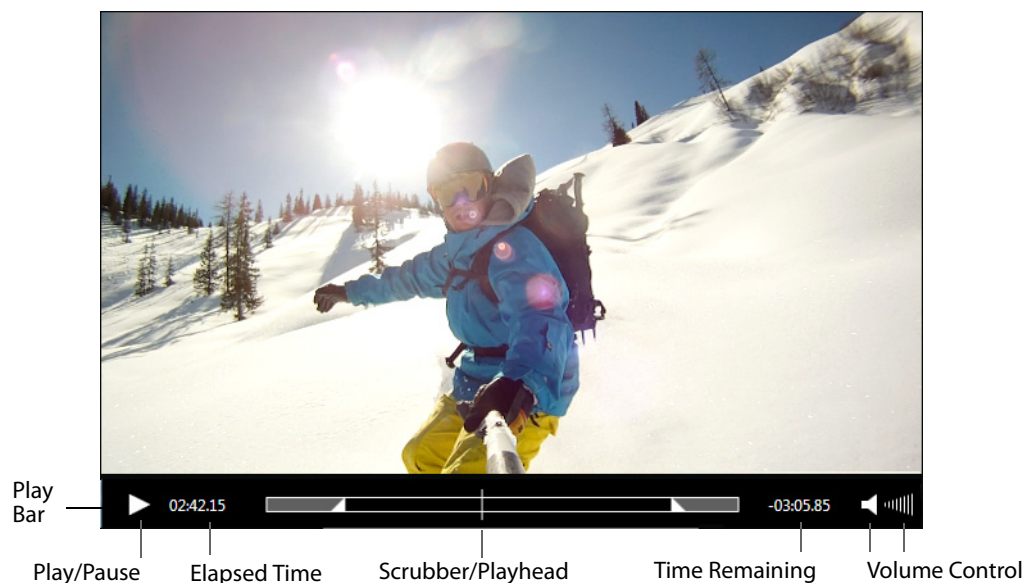
This section presents how to playback media files using Switch. Playback is controlled using a Play Bar. A complete set of controls are provided through the Control menu.

Topics

- [Play Bar](#)
- [Control Menu](#)
- [Timeline](#)
- [Audio Control](#)

Play Bar

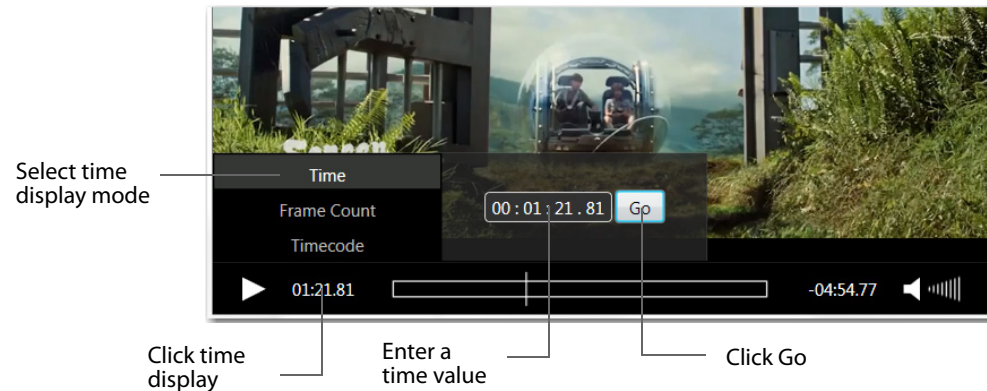
The easiest way to control the playback of your media is through the Switch Play Bar. The features of the Play Bar are described below.



Play/Pause Click the play/pause button to play the video; click again to pause it.

Note: In addition to clicking Play/Pause on the Play Bar, you can also play and pause by pressing the Spacebar. It acts as a toggle between play and pause modes.

Elapsed Time Displays how long the video has been playing. Click the time display to change display mode: Time, Frame Counter, or Timecode. You can also enter a time value and click Go to go to that time in the video.



Scrubber/Playhead Click and slide to change the location in the video you are viewing. You can also click on any position in the scrubber timeline to jump the playhead to that location.

Time Remaining Displays time remaining for the video to play. Display is shown in either seconds or frames depending on the Elapsed Time display mode (Time, Frame Counter, or Time Code).

Volume Control Click the speaker icon to mute or un-mute the audio. Click and slide the bars icon to increase or decrease the volume.

Control Menu

Switch also provides a complete set of playback controls through the Control menu. The Control menu includes play, rewind, fast and slow motion, jump, skip, and loop controls.

Play Starts playing your selected media. When a media is playing the *Play* menu item changes to *Pause*. To pause a media, select *Pause*. Select *Play* again to restart it.

Play All Starts playing all open media files.

Play Forward Plays your selected media forward at normal or increased speed. Pressing the "L" key also plays your media forward. Repeated "L" key presses increases the play speed up to 16x.

Stop Stops forward or backward playing of your media. Pressing the "K" key also stops media playing. If your media is playing at increased speed when Stop is selected (or the

"K" key is pressed), any new playing of media will be at normal speed (the increased speed is not remembered).

Play Backward Plays your selected media backward at normal or increased speed. Pressing the "J" key also plays your media backward. Repeated "J" key presses increases the play speed up to 16x.

When a media is playing at increased speed, the speed is displayed in the upper left corner of the window.



Slow Motion Forward enables you to forward play video at one-half of normal speed. You can also press the Ctrl+L keys. If your media is playing in slow motion, when Stop is selected (or the "K" key is pressed), any new playing of media will be at normal speed (the slow motion is not remembered).

Slow Motion Backward enables you to backward play video at one-half of normal speed. You can also press the Ctrl+J keys. If your media is playing in slow motion, when Stop is selected (or the "K" key is pressed), any new playing of media will be at normal speed (the slow motion is not remembered).

Step Forward Steps forward in the video, one frame at a time. You can also press the right arrow key to step forward. The L, K, and J keys (Backward, Stop, and Forward) remain active.

Step Backward Steps Backward in the video, one frame at a time. You can also press the left arrow key to step backward. The L, K, and J keys (Backward, Stop, and Forward) remain active.

Skip Forward (1 sec) Moves the video one second ahead. You can also press the Ctrl+Right Arrow keys.

Skip Forward (10 sec) Moves the video ten seconds ahead. You can also press the Ctrl+Alt+Right Arrow keys.

Skip Backward (1 sec) Moves the video one second backward. You can also press the Ctrl+Left Arrow keys.

Skip Backward (10 sec) Moves the video ten seconds backward. You can also press the Ctrl+Alt+Left Arrow keys.

Next Chapter Enables you to jump to the next chapter location.

Previous Chapter Enables you to jump to the previous chapter location.

Chapters Enables you to jump to a location by selecting a chapter title from a list.

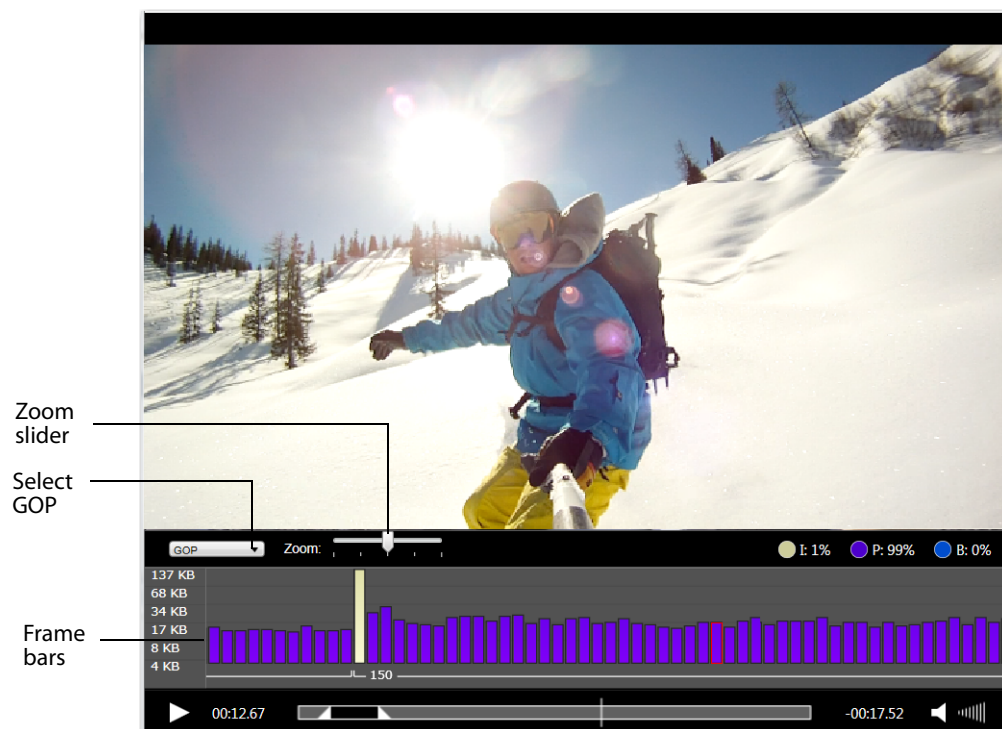
Note: The Chapter menu items (Next Chapter, Previous Chapter, and Chapter) are only enabled if the video has chapter markers embedded in it. If no chapter markers are present, the menu items are grayed out. Chapter markers are sometimes embedded in longer movie clips to divide sections of the media topically or by edit points.

Loop When selected, your video plays repeatedly and the movie will play again from the beginning whenever it reaches the end.

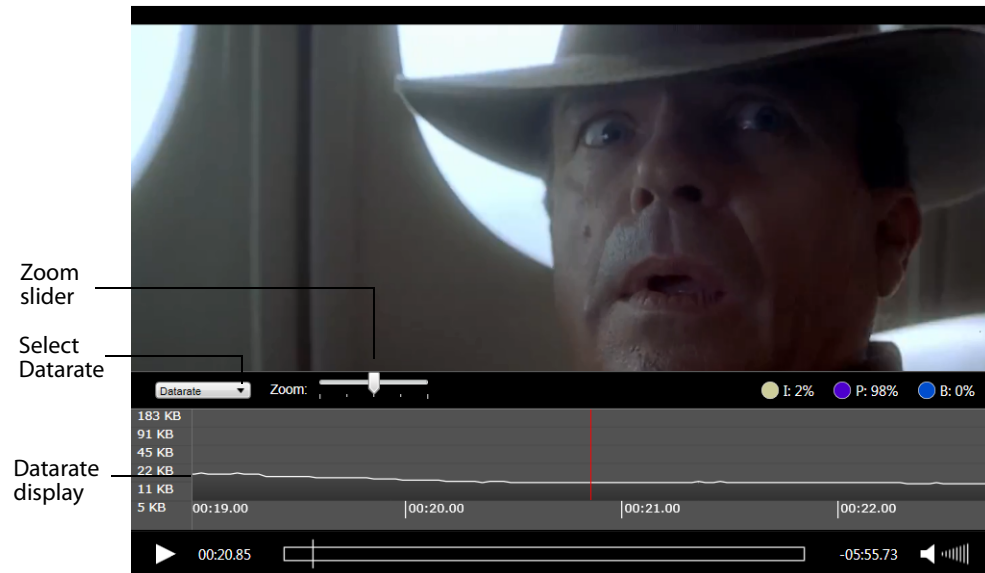
Timeline

The timeline enables you to view the frame types or the datarate of your video. To open the timeline, select *View > Show Timeline*. After the timeline opens, the menu changes to *Hide Timeline*. You can also press Ctrl+T to show or hide the timeline.

Select *GOP* (Group of Pictures) mode to display the video frame types. Each bar represents a frame, which can be selected by clicking it. Purple bars represent P-frames, which are *predictive frames* that only contain the changes from the previous frame. Blue bars represent B-frames, which are *bi-predictive frames* that contain both the changes between the previous and the next frame. White bars represent I-frames, which are *intra-coded frames* that contain the entire picture being displayed. You can also zoom the timeline display by sliding the Zoom slider.



Select *Datarate* mode to display the datarate for each video frame, showing the overall data of the video charted across the timeline in the form of peaks and valleys. You can also zoom the timeline display by sliding the Zoom slider.



Audio Control

The Audio menu enables you to control playback volume.

Select *Increase Volume* or *Decrease Volume* to change the audio volume level, or select *Mute* to silence it entirely. You can also mute all non-active media windows by selecting *Mute Inactive Windows*. Additionally, you can mute all audio, or just the audio of selected files, tracks or channels by selecting *Mute Files*, *Mute Tracks*, or *Mute Channels*. Select *Solo Files*, *Solo Tracks* or *Solo Channels* to mute all but the selected file, track or channel.

Inspecting Media

Introduction

Switch allows you to either inspect or edit your media files through a Media Inspector window. This section presents how to use Switch to *inspect* media files. (See [Editing Media](#) on how to edit media files).

Topics

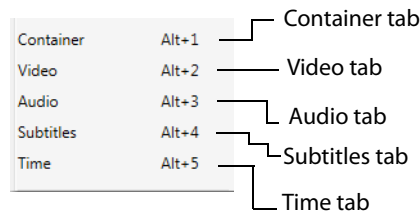
- [Media Inspector](#)
- [Container Tab](#)
- [Video Tab](#)
- [Audio Tab](#)
- [Subtitle Tab](#)
- [Time Tab](#)

Media Inspector

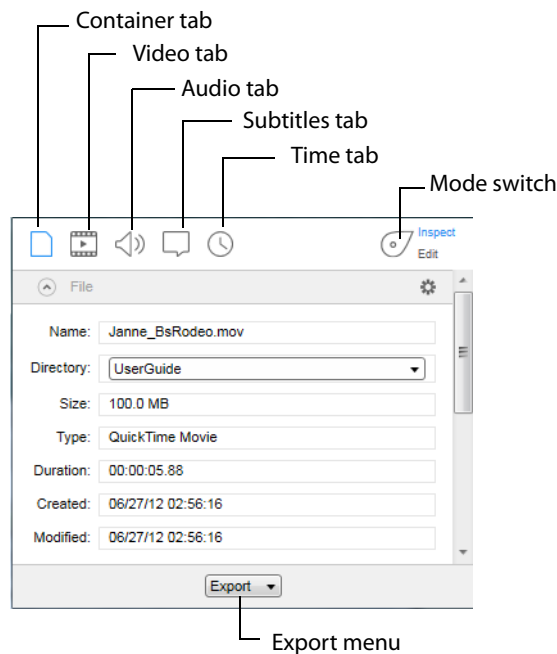
The Media Inspector window enables you to inspect or edit your media files. To open the Media Inspector window, select *Window > Show Inspector*.

Note: If *Hide Inspector* is displayed as a menu item, it means that the Media Inspector is already open.

The Media Inspector window can also be opened by selecting one of its five tabs from the Edit menu.



The media Inspector window has five Media Inspector tabs: Container, Video, Audio, Subtitles and Time. There is also a switch that enables you to select either Inspect or Edit mode.



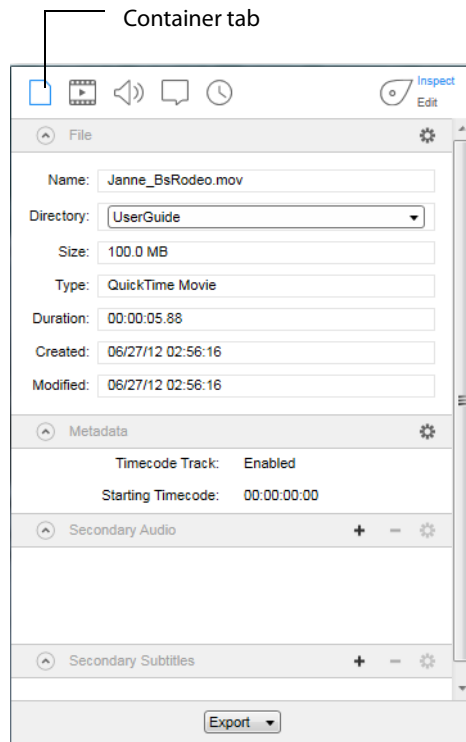
Common to all five tabs is an Export menu at the bottom of the inspector window. You can export your video at any time by selecting one of the menu items: Movie, iTunes Store Package, or Current Video Frame. This is the same as the Export menu at the top of the Switch media window.

Inspect/Edit Mode Switch

The Inspect/Edit mode switch enables you to select either Inspect or Edit mode. When the switch is in *Inspect* mode, settings cannot be edited -- they can only be inspected (viewed). When the switch is in *Edit* mode, settings can be edited. You can export your media in either mode. See [Exporting Media](#) for details on how to export media files.

Container Tab

The Container tab provides a way to inspect the container for your media (name, location, size, type, etc.). To access the Container tab, open the Media Inspector by selecting *Window > Show Inspector*, then click the Container tab.



You can also display the Container tab by selecting *Edit > Container*.

File Controls

Name Displays the filename of your media. To change the file name, consult the [Editing Media](#) section.

Directory Select a location (directory) for your media file from the list displayed in the drop-down menu.

Size Displays the size of the media file (when known).

Type Displays the container type. To change the container type, consult the [Editing Media](#) section.

Duration Displays the duration of the media file (when known).

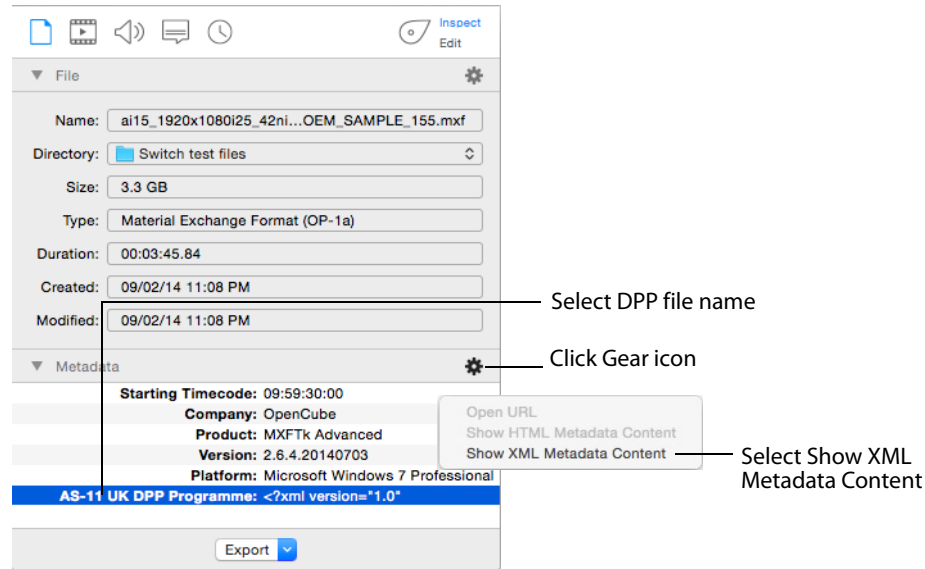
Created Displays the date when your media file was created.

Modified Displays the date when your media file was last modified.

Metadata and Secondary Audio/Subtitles

Metadata and Secondary Audio/Subtitles are displayed along with information about them. To add metadata, secondary audio, or secondary subtitles, see [Metadata and Secondary Audio/Subtitles](#) in the Editing Media section.

To view an embedded DPP file content, select the file name from the list at the bottom of the Metadata window, then click the gear icon and select *Show XML Metadata Content* from the drop-down menu.



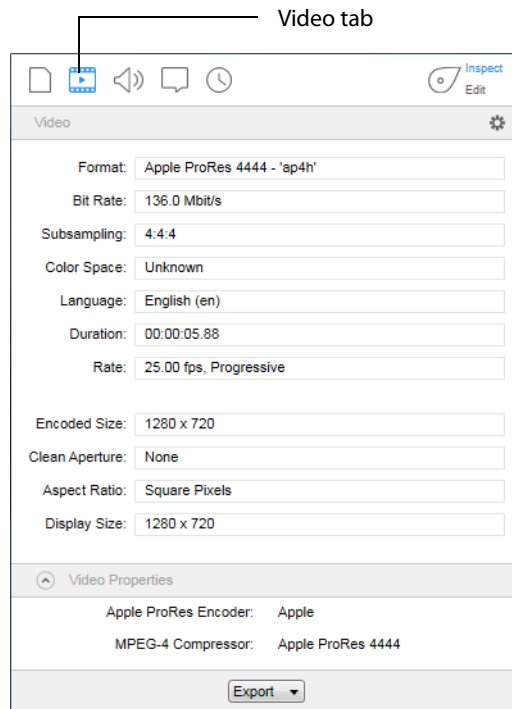
The metadata content displays in a window:

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<Programme xmlns="http://www.digitalproductionpartnership.co.uk/ns/as11/2012">
  <Editorial>
    <SeriesTitle/>
    ROOT6
    <ProgrammeTitle/>
    ROOT6
    <EpisodeTitleNumber/>
    ROOT6 at BVE
    <ProductionNumber/>
    ROOT6TEST
    <Synopsis/>
    This is ROOT6 DPP test material
    <Originator/>
    ROOT6
    <CopyrightYear/>
    2014
  </Editorial>
</Programme>
```

Video Tab

The Video tab provides inspection of the video portion of your media (video format, size, rate, etc.). To access the Video tab, open the Media Inspector by selecting *Window > Show Inspector*, then click the Video tab.



You can also access the Video tab by selecting *Edit > Video*.

Format Displays the video format of your media file. To change the format, consult the [Editing Media](#) section.

Bit Rate Displays the video bit rate (when available).

Subsampling Displays the subsampling ratio.

Color Space Displays the Color Space. To change the Color Space, consult the [Editing Media](#) section.

Language Displays the language used in metadata. To change the language, consult the [Editing Media](#) section.

Duration Displays the time duration of the video.

Rate Displays the video rate in FPS (frames per second). To change the rate, consult the [Editing Media](#) section.

Encoded Size Displays the encoded media file and whether it is HD, UHD, SD, etc.

Clean Aperture Displays the Clean Aperture setting. To change Clean Aperture, consult the [Editing Media](#) section.

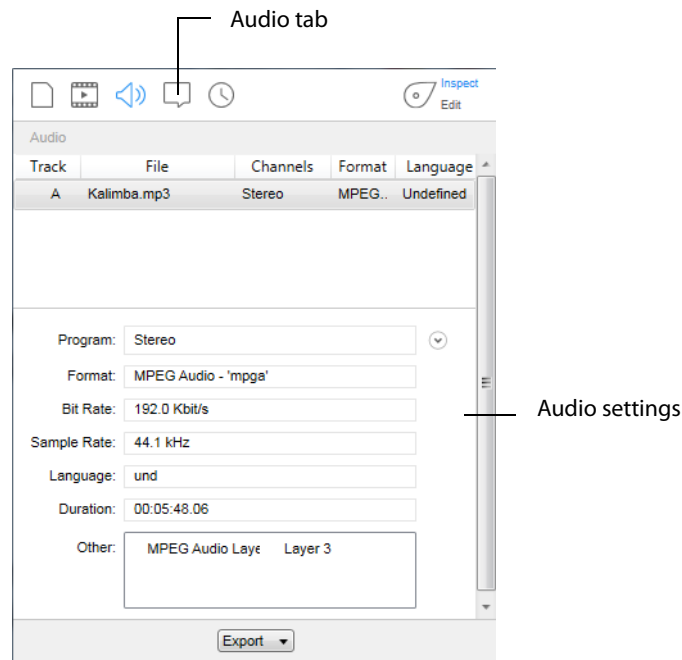
Aspect Ratio Displays the aspect ratio. Click the eye icon on the right side to see a preview the aspect ratio setting. To change the Aspect Ratio, consult the [Editing Media](#) section.

Display Size Displays the size (resolution) of the video after crop, resize, etc. are applied. Also displays whether the video is HD,UHD, SD, etc.

Video Properties Displays video metadata.

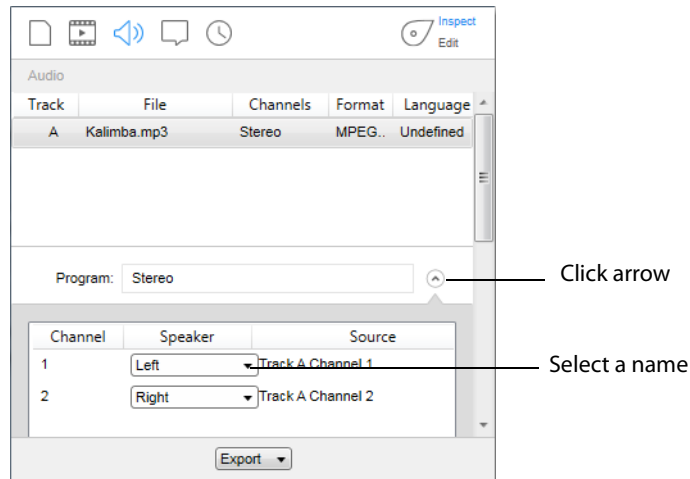
Audio Tab

The Audio tab enables you to inspect the audio portion of your media. This includes channel, format, bitrate, duration, etc. To access the Audio tab, open the Media Inspector by selecting *Window > Show Inspect*, then click the Audio tab. You can also select *Edit > Audio*.



Program Displays the type of audio channel (Stereo, 5.1 Audio, etc.). Click the down arrow on the right to display channel settings. For some channel selections, you can

also change the speaker name. To do this, click on the current speaker name and then select a new name from the displayed list.



Format Displays audio codec used.

Bit Rate Displays the audio bit rate.

Sample Rate Displays the sample audio rate (44.1Khz or 48Khz).

Language Displays the language to use in metadata.

Duration Displays the time duration of the audio.

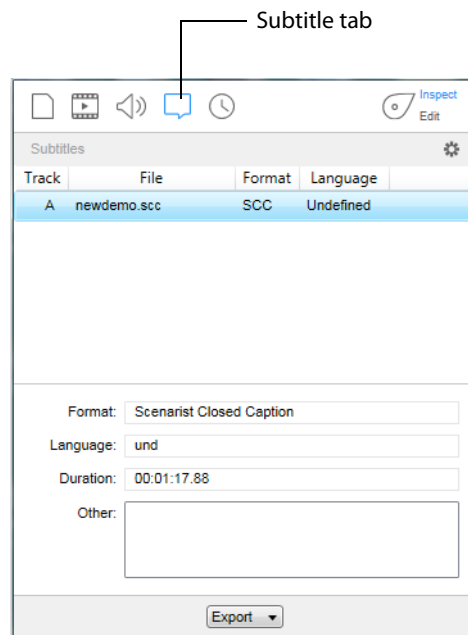
Subtitle Tab

The Subtitle tab enables you to inspect the subtitling in your media.

Subtitle files are added by opening them from the *File > Open Secondary Subtitle File* menu. You can add up to 28 files, but only the subtitles from the first subtitle file are displayed. Once opened it is associated with the currently open primary video file. When the subtitle file displays in the subtitle tab list, select it to display its controls. SCC is the only supported format.

Note: You must have a subtitle at time 00:00:00 in your subtitle file (even if it is just a blank subtitle) or else your subtitles will be out of sync with your audio.

To access the Subtitle tab, open the Media Inspector by selecting *Window > Show Inspector*, then click the Subtitle tab. You can also select *Edit > Subtitles*.



Format Displays the type of subtitling used in your media.

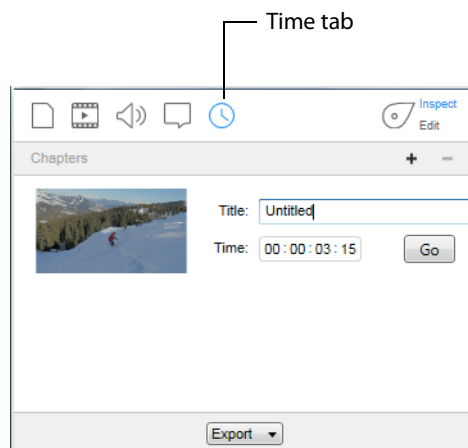
Language Displays which language the subtitles are written in.

Duration Displays the time duration of the subtitles.

Other Displays metadata.

Time Tab

The Time tab enables you to inspect the timing portion of your media (In, Out, Length, and chapter controls). To access the Time tab, open the Media Inspector by selecting *Window > Show Inspector*, then click the Time tab. You can also select *Edit > Time*.



Chapters Displays entry points (chapters) in your media that you have created in Switch. To change the chapters, consult the [Editing Media](#) section.

Note: You can only view the chapter markers you have created in Switch. Chapter markers resident in the file when opened in Switch will not be visible -- even if they were previously created using Switch.

Editing Media

Introduction

Switch allows you to either inspect or edit your media files through a Media Inspector window. This section presents how to use Switch to *edit* media files. (See [Inspecting Media](#) on how to inspect media files).

Topics

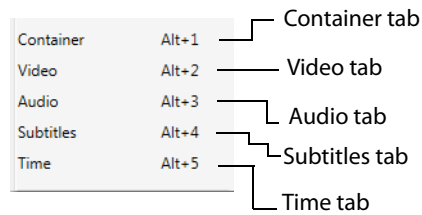
- [Media Inspector](#)
- [Container Tab](#)
- [Video Tab](#)
- [Audio Tab](#)
- [Subtitle Tab](#)
- [Time Tab](#)

Media Inspector

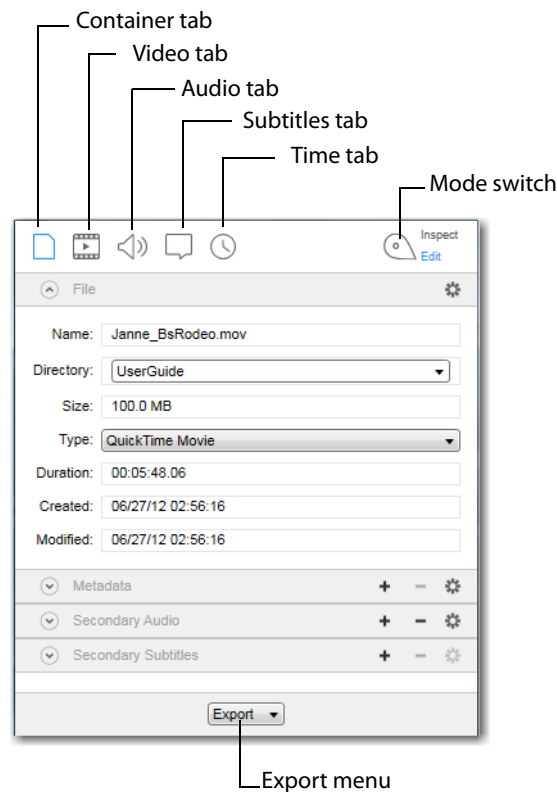
The Media Inspector window enables you to inspect or edit your media files. To open the Media Inspector window, select *Window > Show Inspector*.

Note: If *Hide Inspector* is displayed as a menu item, it means that the Media Inspector is already open.

The Media Inspector window can also be opened by selecting one of its five tabs from the Edit menu.



The media Inspector window has five Media Inspector tabs: Container, Video, Audio, Subtitles and Time. There is also a switch that enables you to select either Inspect or Edit mode.



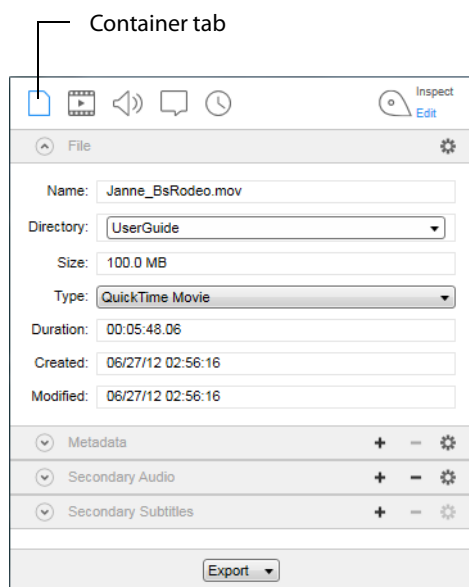
Common to all five tabs is an Export menu at the bottom of the inspector window. You can export your video at any time by selecting one of the menu items: Movie, iTunes Store Package, or Current Video Frame. This is the same as the Export menu at the top of the Switch media window.

Inspect/Edit Mode Switch

The Inspect/Edit mode switch enables you to select either Inspect or Edit mode. When the switch is in *Inspect* mode, settings cannot be edited -- they can only be inspected (viewed). When the switch is in *Edit* mode, settings can be edited. You can export your media in either mode. See [Exporting Media](#) for details on how to export media files.

Container Tab

The Container tab provides a way to inspect and edit the container for your media including information such as: name, location, size, type. To access the Container tab, open the Media Inspector by selecting *Window > Show Inspector*, then click the Container tab.



You can also display the Container tab by selecting *Edit > Container*.

File Controls

Name Displays the filename of your media. (You can change the name of the file when exporting.)

Directory Select a location (directory) for your media file from the list displayed.

Size Displays the size of the media file (when known).

Type Select the container type by clicking on the double arrow and selecting a type from the menu: MOV, MP4, TS, and MPEG

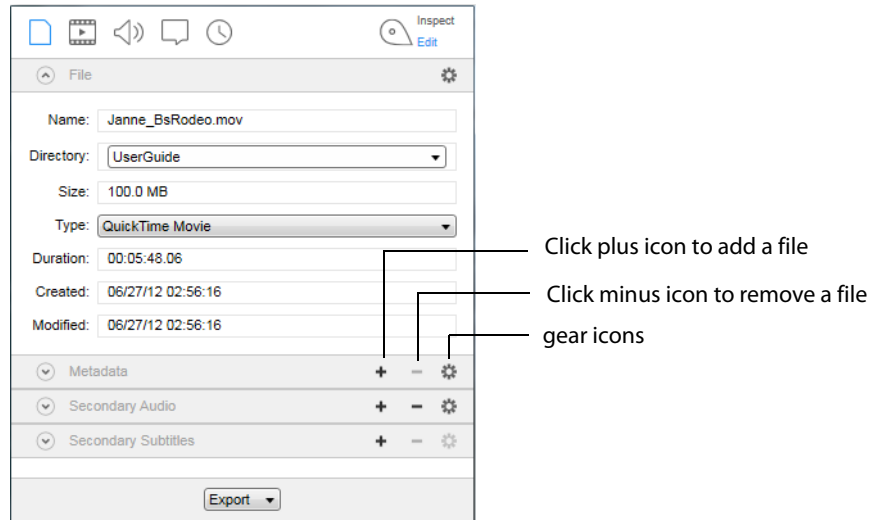
Duration Displays the duration of the media file (when known).

Created Displays the date when your media file was created.

Modified Displays the date when your media file was last modified.

Metadata and Secondary Audio/Subtitles

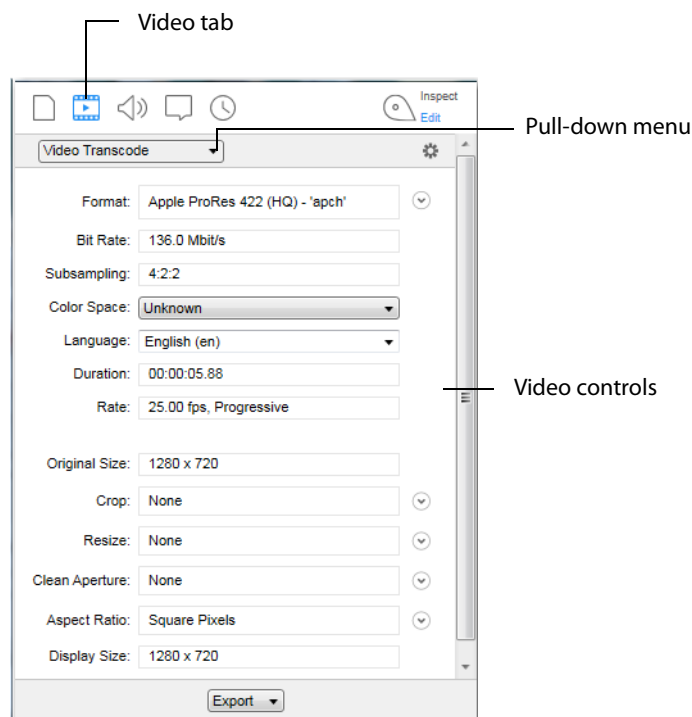
To add metadata, click the associated plus (+) icon and add available metadata (Album, Artist, Director, Year, etc). To add secondary audio and subtitle files, click the associated plus (+) icon and navigate to the file you want to add. To remove an added file, select it and click the minus (-) icon. Click the gear icon to make additional settings.



Click the Metadata gear icon to open the metadata URL or to display the metadata in HTML or XML format. Click the Secondary (Audio or Subtitle) gear icon, to copy the URL of the audio or subtitle file, or to show its location.

Video Tab

The Video tab provides controls for the video portion of your media. This includes video format, size, rate, etc. To access the Video tab, open the Media Inspector by selecting *Window > Show Inspector*, then click the Video tab.

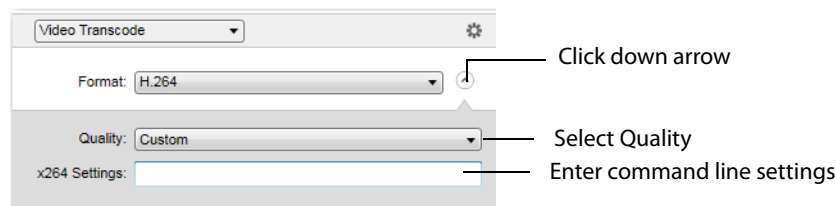


You can also access the Video tab by selecting *Edit > Video*.

Video Transcode/Video Pass-Through You can select *Video Transcode* (use transcoder) or *Video Pass-Through* (do not use transcoder) by selecting one of these from the pull-down menu.

Format Displays the current video format used. When in transcode mode you can change the format by making a selection from the drop-down menu: H.264, H.262, and ProRes.

Click the down arrow to the right of the Format menu, then select the quality and enter any needed command line settings.



Bit Rate Displays the video bit rate (when available).

Subsampling Displays the subsampling ratio.

Color Space Select the Color space from the drop-down menu.

Language Select a language to use in metadata from the drop-down menu.

Duration Displays the time duration of the video.

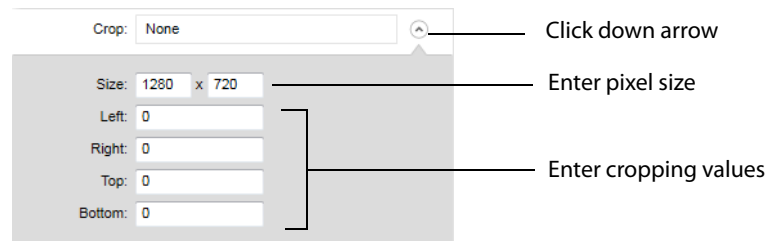
Rate Displays the video rate in FPS (frames per second).

Note: Frame rate changes (beyond those supported as part of deinterlacing) should be made outside of Switch.

Original Size Displays the original size (resolution) of the video and whether it is HD, UHD, SD, etc.

Crop The crop tool enables you to use just a selected portion of the visible picture. This is useful in making the picture frame smaller to fit in a Web window application. It is also useful for fitting in a 4:3 or 16:9 aspect ratio that is sized smaller than the existing frame geometry.

To open the cropping controls, click the down arrow. You can crop the visible area of your media by entering the pixel size you want, or by entering the number of pixels to crop in each direction of the image (left, right, top, bottom).

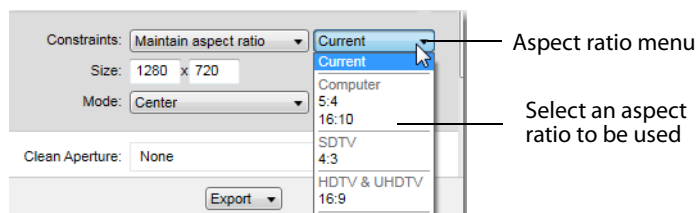


Resize You can resize the picture (and optionally change the aspect ratio) for devices or applications. Resize the video by clicking the down arrow to display the control panel and entering size (resolution) values.

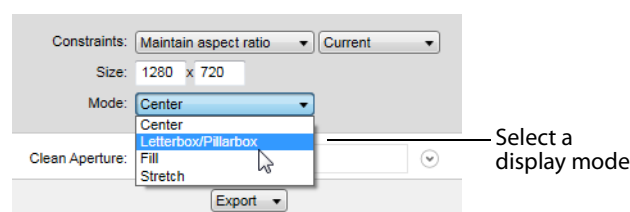


You can set constraints on resizing. Select *Maintain Aspect Ratio* or *Fit To Screen* from the Constraints menu to determine how aspect ratio changes as you resize your video. Select *None* to remove all constraints on cropping.

If you have selected *Maintain Aspect Ratio*, select (from the aspect ratio menu) the aspect ratio to be used.



Select a display mode from the Mode menu. Your choices are: Center, Letterbox, Fill, and Stretch.



Center: When increasing the dimensions, the video remains the same size and black is added on all sides as needed to fill in. When decreasing the dimensions, the video is cropped.

Letterbox: The video is resized both vertically and horizontally so that each axis is less than or equal to the target dimensions. If one dimension is less than the target dimension, black is added to fill in.

Fill: Fills the dimensions with video by scaling the video up or down, by cropping the video, or by adding black as needed to fill.

Stretch: The video is resized to fit the target dimensions, ignoring the aspect ratio. This may distort the video.

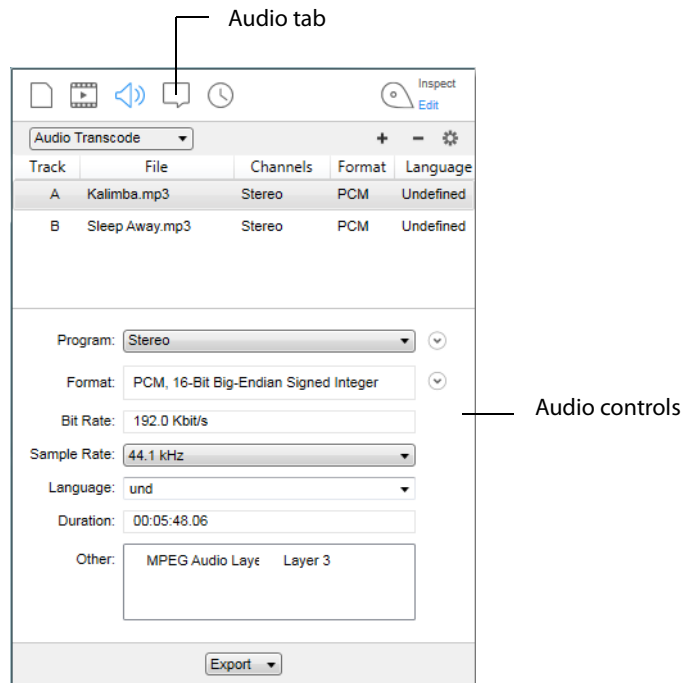
Clean Aperture To set Clean Aperture, click the down arrow on the Clean Aperture menu. Enter the desired size, left, right, top, and bottom aperture settings.

Aspect Ratio Click the down arrow to open the Aspect Ratio control panel. Select the aspect ratio type (PAR or DAR) from the Type menu. Select also an aspect ratio from the Aspect Ratio menu list.

Display Size Displays the size (resolution) of the video after crop, resize, etc. are applied. Also displays whether the video is HD,UHD, SD, etc.

Audio Tab

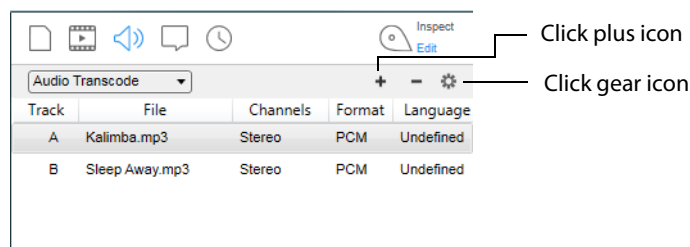
The Audio tab enables you to inspect and edit the audio portion of your media. This includes channel, format, bitrate, duration, etc. To access the Audio tab, open the Media Inspector by selecting *Window > Show Inspector*, then click the Audio tab. You can also select *Edit > Audio*.



Audio Transcode/Audio Pass-Through You can select *Audio Transcode* (use transcoder) or *Audio Pass-Through* (do not use transcoder) by selecting one of these from the pull-down menu.

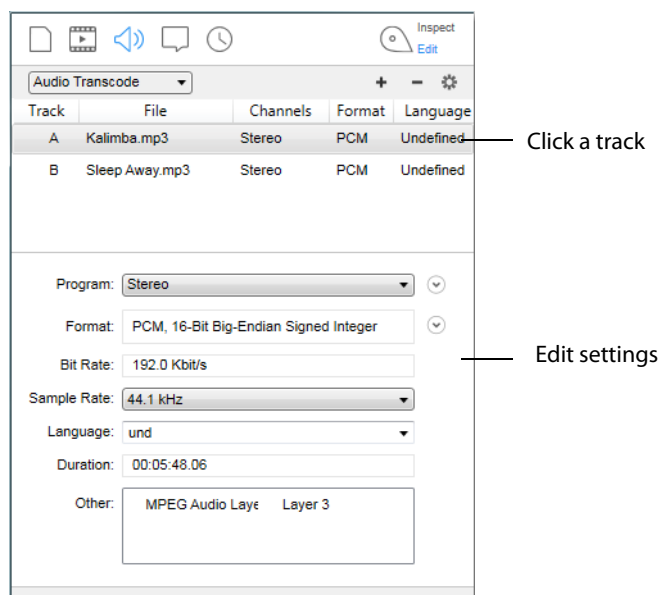
Note: When exporting to an iTunes Store Package, If you have selected *Feature* for the Asset Type, secondary audio files are included in the exported iTunes package. But if *Preview* is selected as the Asset Type, the audio files are not included in the exported iTunes package.

Click the plus icon to add a track. (Click minus icon to delete a selected track.)

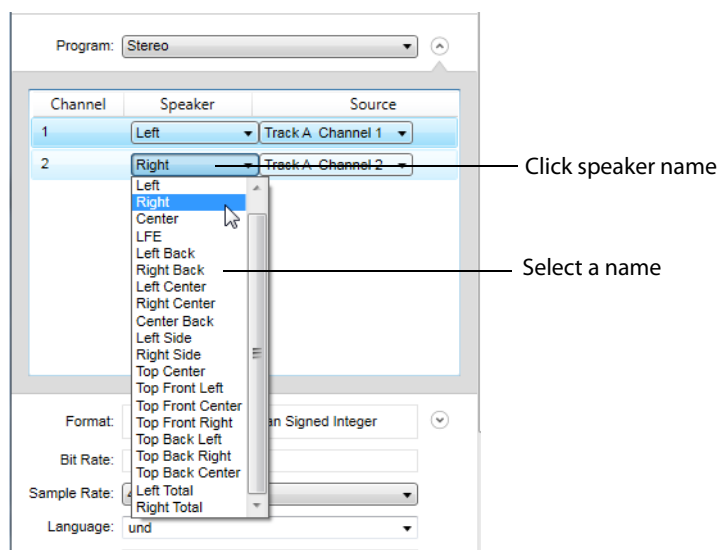


Note: When creating a *Feature* iTunes package using *Audio Pass-Through*, the secondary audio files will be added separately from the primary asset. When creating a *Preview* iTunes package, secondary audio files will be ignored when using *Audio Pass-Through* mode.

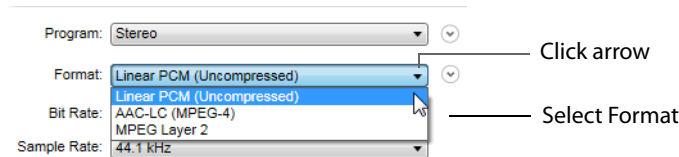
Click a track to edit its settings.



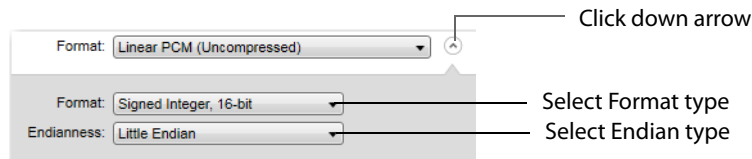
Program Select a type of audio channel from the Program pull-down menu (Stereo, 5.1 Audio, etc.). Click also the down arrow on the right to display channel settings. For some channel selections, you can also change the speaker name. To do this, click on the current speaker name and then select a new name from the displayed list.



Format Select an audio codec from the pull-down menu: LPCM, AAC-LC, or MPEG Layer 2.



Click the down arrow on the right of the drop-down menu, and select the format type. Also select Big or Small Endian.



Bit Rate Displays the audio bit rate.

Sample Rate Select a sample audio rate from the Sample Rate menu: 44.1Khz or 48Khz.

Language Select the language to use in metadata.

Duration Displays the time duration of the audio.

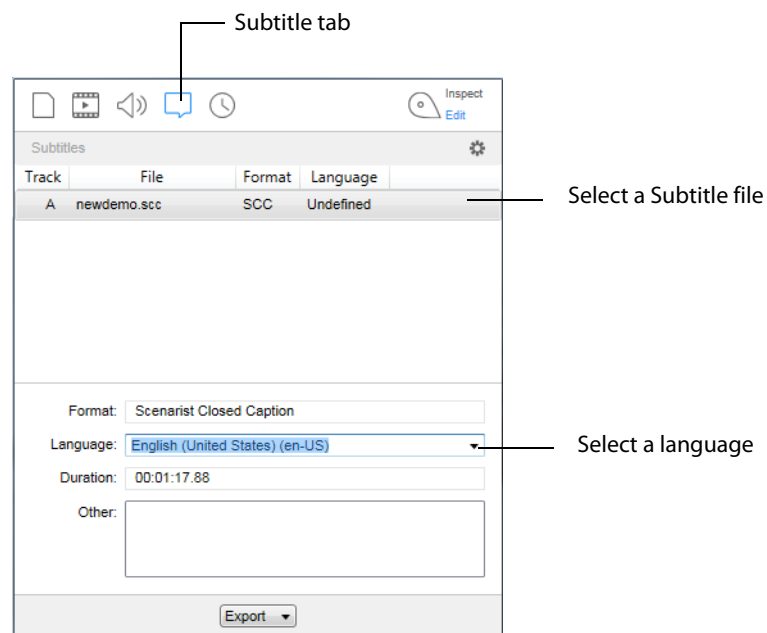
Subtitle Tab

The Subtitle tab enables you to inspect and edit the subtitling in your media.

Subtitle files are added by opening them from the *File > Open Secondary Subtitle File* menu. You can add up to 28 files, but only the subtitles from the first subtitle file are displayed. Once opened it is associated with the currently open primary video file. When the subtitle file displays in the subtitle tab list, select it to display its controls. SCC is the only supported format.

Note: You must have a subtitle at time 00:00:00 in your subtitle file (even if it is just a blank subtitle) or else your subtitles will be out of sync with your audio.

To access the Subtitle tab, open the Media Inspector by selecting *Window > Show Inspector* or select *Edit > Subtitles*, then click the Subtitle tab.



Format Displays the type of subtitling used in your media.

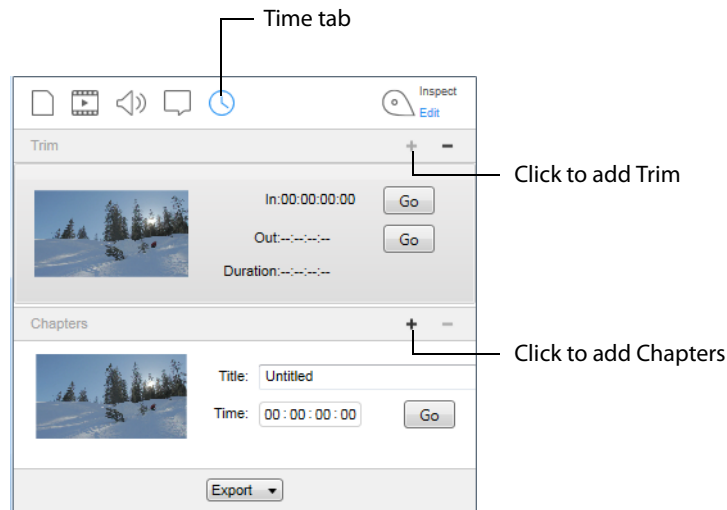
Language Select which language the subtitles are written in from the Language drop-down menu.

Duration Displays the time duration of the subtitles.

Other Displays metadata.

Time Tab

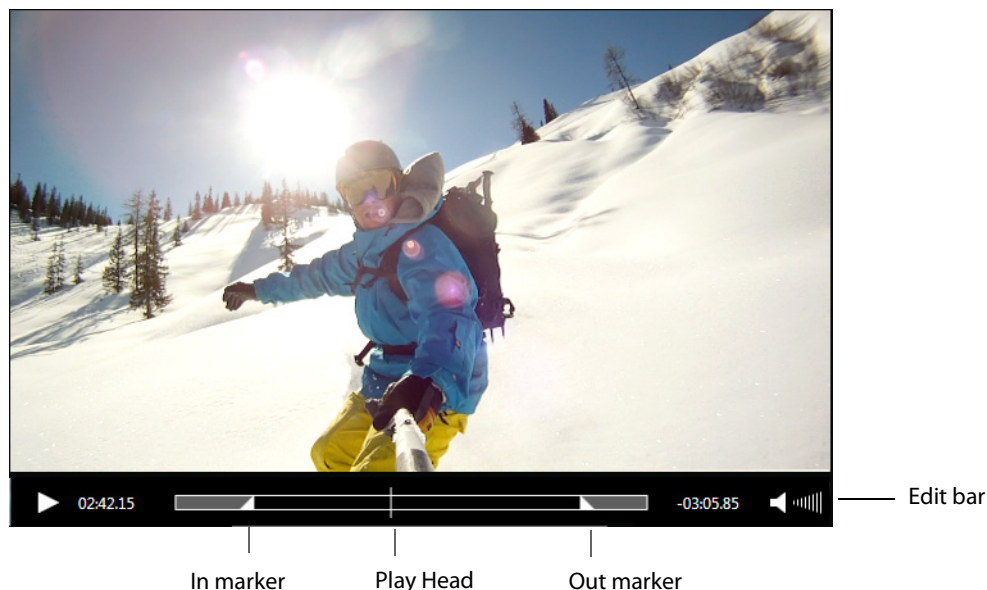
The Time tab provides controls for setting the trimming and chapter markers. This includes timing controls (In, Out, and Length) and chapter controls. To access the Time tab, open the Media Inspector by selecting *Window > Show Inspector*, or select *Edit > Time*, then click the Time tab. Click a plus (+) icon to add a trim or chapters to your video.



Trim Lets you choose where a video clip begins and ends by setting trim points.

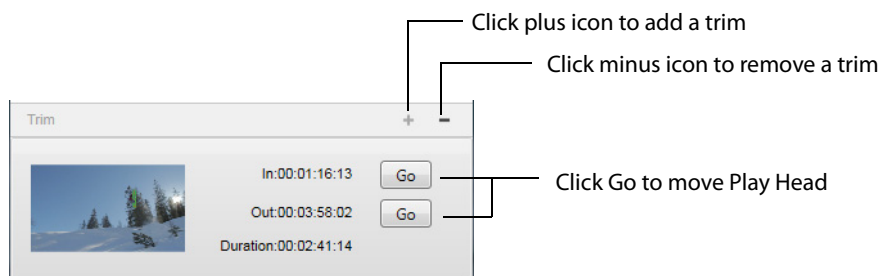
The time format is: days, hours, minutes, seconds, fractional seconds (or scale) (hh:mm:ss:fs/scale). You can also enter partial values and have the rest filled in automatically, such as entering 30 for thirty seconds.

You can set in and out markers by sliding them in the edit bar below the video. You can also select a video clip by moving the Play Head to a location in the video and pressing the "I" key to set the Mark In point, or "O" key to set the Mark Out point. The dark area between the two markers indicates the selected portion.

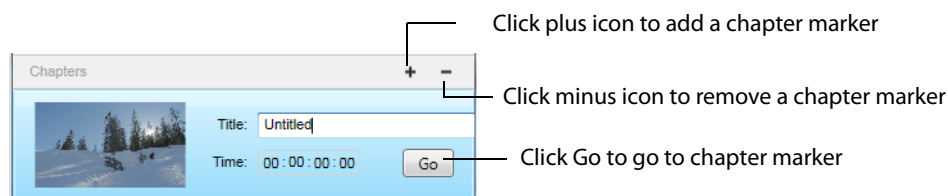


Note: *Cut, Copy, Paste, Delete, and Select All* can be used to edit fields in Edit Boxes.

Click the plus icon to create a trim. (Remove a trim by selecting it and clicking the minus icon.) Click a Go button to move the Play Head to the In or Out point.



Chapters Enables you to create entry points (chapters) in your media. Click the plus icon to add a chapter. The chapter entry point is created with a picture of the starting video frame and the timecode location. Click Go to go to that location in your video. To remove a chapter point, select the chapter point and click the minus icon.



To create a chapter thumbnail which is not the first frame of the chapter, move the playhead to the frame you want to use, click the plus (+) button to create the chapter, then adjust the time value to the intended start of the chapter.

Note: Chapters can only be created in files exported as iTunes packages, not in movie (.mov) files.

Exporting Media

Introduction

This section shows you how to export media from Switch. Media can be exported as a movie or as an iTunes package. You can also export selected video frames as single pictures.

Topics

- [Exporting Media](#)
- [Exporting Movies](#)
- [Exporting iTunes Packages](#)
- [Exporting Video Frames](#)

Exporting Media

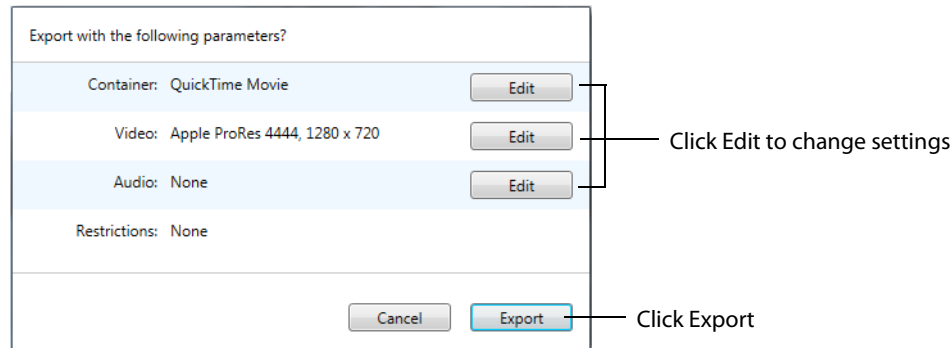
A powerful feature of Switch is the ability to re-encode video and export a new movie clip for use by other applications and many popular devices (iPhone, iPod etc.). Switch is also a file transcoding tool. While not having the powerful features of Telestream Episode or Vantage, Switch is handy for doing quick conversions of all container formats, audio codecs, and video codecs that are available in QuickTime.

To export media from Switch, select *Export*, then select the type of export you want: Movie, iTunes Store Package, or Current Video Frame.

Note: You can re-encode *from* all QuickTime supported formats, but you cannot export *to* all QuickTime supported formats.

Exporting Movies

To export your media as a movie, select *Export > Movie*. When the dialog box opens, it displays the Container, Video, and Audio setup information. You can change any of these by clicking one of the *Edit* buttons. Once the settings are correct, click *Export*.



When the Save dialog box displays, enter a filename for your movie and navigate to the location where you want to save your movie. Click *Save* when finished.

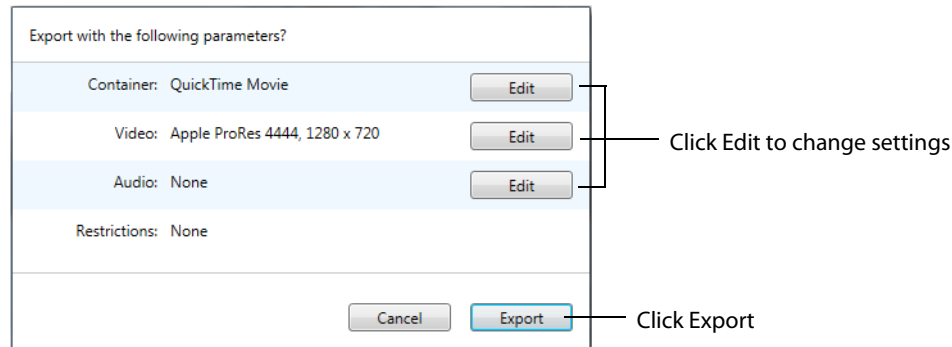
Exporting iTunes Packages

To export your media as an iTunes Store Package, select *Export > iTunes Store Package*. You can export the following iTunes packages:

- Music Video (NTSC)
- Music Video (PAL)
- Music Video (HD)
- Television (NTSC)
- Television (PAL)
- Television (HD)
- Film (NTSC)
- Film (PAL)
- Film (HD)

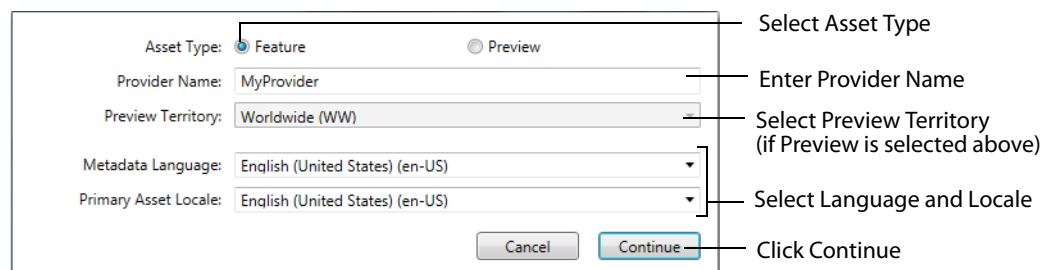
Note: If the video codec used is not Apple ProRes 422 (HQ), or if you are in *Video Pass-Through* mode, an error message will display. You will also get an error message if the audio codec is not Linear PCM, or if the audio track is not 16 or 24 bit.

When the dialog box opens, it displays the Container, Video, and Audio setup information. You can change any of these by clicking one of the *Edit* buttons. Once the settings are correct, click *Export*.

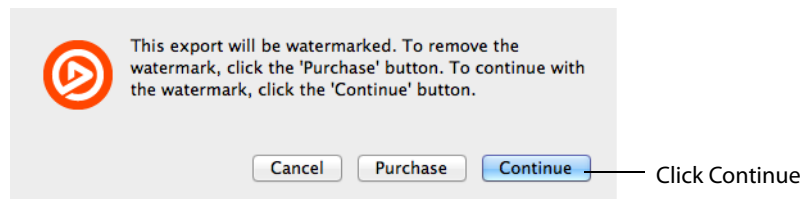


When the dialog box displays, select Asset Type: Feature or Preview. The Feature asset type embeds the secondary audio into the package, whereas Preview does not. If you select Preview, select also a Preview Territory. (Preview Territory will remain grayed-out until Preview is selected.)

Enter your provider name. (The Continue button will remain grayed-out until a provider name is entered.) Select also a language and locale for Metadata, Spoken language, and Primary Assets. Click *Continue* to continue.



If Switch is not licensed, a warning that the export will be watermarked is displayed. Click *Continue* to continue.



When the Save dialog box displays, enter a filename for your movie and navigate to the location where you want to save your movie. Click *Save* when finished.

Exporting an iTunes Asset Only .itmsp Package

Switch creates an asset-only .itmsp package, but you still need to enter additional information via *iTunes Connect* to complete the .itmsp package.

If you do not have an iTunes Connect Account, you have two options:

1. Take iTunes package created by Switch to an iTunes authorized aggregator for delivery (<https://itunesconnect.apple.com/WebObjects/iTunesConnect.woa/wa/displayAggregators?ccTypeId=7>)
2. Apply for an iTunes Account (<http://www.apple.com/itunes/working-itunes/sell-content/movie-faq.html>)

Assets must meet iTunes Video Specification:

- iTunes requires film to be delivered as ProRes 422 (HQ) at their native frame-rate: the frame-rate originally captured by the camera's image sensor.
- Movies are usually either 23.976, 24 or 25 fps. This is often different from the frame-rate that is found on tape, archived storage, NLE (Non-Linear Editor) projects or masters for broadcast which are 29.97i (NTSC or 25i (PAL). Consult with iTunes if the native frame rate is neither 23.976, 24 or 25 fps.

Subtitles must be provided as an iTunes Timed Text (.itt) formatted file.

The following settings are required for iTunes delivery

- ProRes 422 (HQ)
- 4:2:2: color space
- 1920 x 1080 1:1 (square) pixel aspect ratio for HD

Must begin and end with at least one black frame

5.1 audio when available in-addition to the stereo track

Audio source in Linear PCM 16 or 24 bit at 48Khz

Closed Caption or English iTT Subtitle required for distribution in U.S. iTunes Store

SD Assets: User must select the correct Aspect Ratio when SD assets are selected.

Chapters: The first chapter stop must be at 00:00:00. If using a frame-accurate timecode format, the first chapter stop must be at 00:00:00:00.

Accessibility XML: User must review the XML and make necessary edits to following asset and accessibility tags. Please refer to the "Vendor Tool Guide" for additional information.

Asset:

```
<attribute name="image.textless_master"></attribute>
```

```
<attribute name="image.burned_subtitles.locale"></attributes>
```

```
<attribute name="image.burned_forced_narrative.locale"></attribute>
```

Accessibility:

```
<accessibility_info>
```

```
<accessibility_role="captions" available="" />  
<accessibility role=<"captions" available=false" reason_code" />  
</accessibility info>
```

Exporting Video Frames

To export a single frame of your media, pause your media and select *Export >Current Video Frame*. When the Save dialog box displays, enter a filename for your video frame then navigate to the location where you want to save your video frame as a picture. Click *Save* when finished.

Getting Help

Introduction

This section presents how to get help using Switch. This includes online help, PDF help documents, and obtaining customer service support.

Topics

- [Getting Help](#)
- [User Guides](#)
- [Purchasing Switch](#)
- [Customer Support](#)

Getting Help

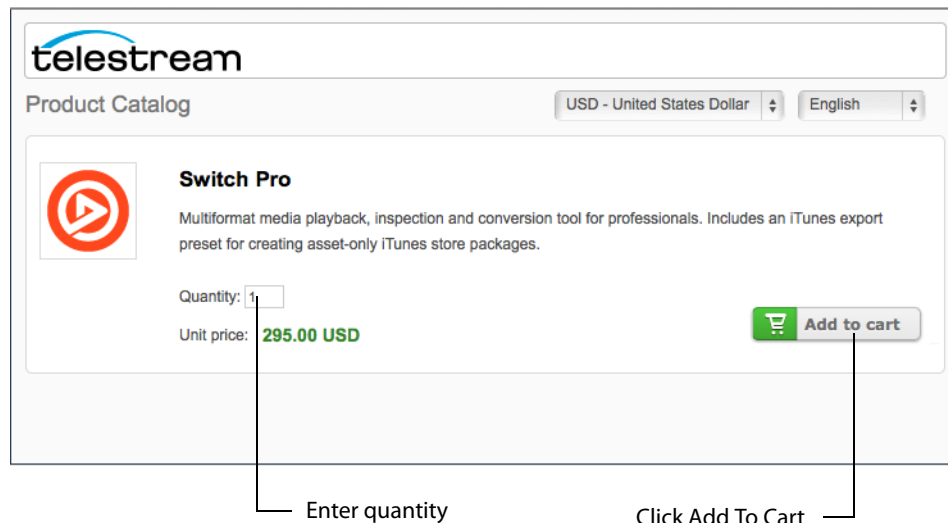
To get help using Switch, select the *Help* menu. This menu enables you to search for help by topic, open the user guide, purchase Switch, or get customer support help.

User Guides

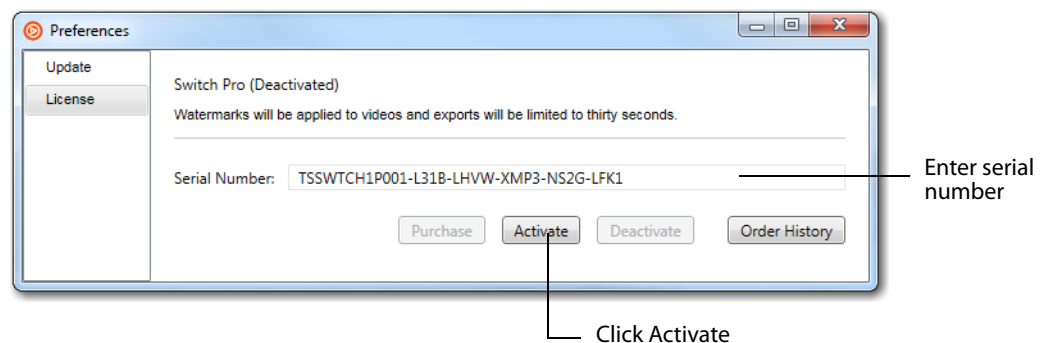
Select *Switch Help* to open the online help version of the Switch User Guide, or select *Switch User Guide* to open the PDF version of the User Guide.

Purchasing Switch

Click *Buy* to open a browser window of the Telestream product purchasing Web page. When the Telestream store Web page displays, enter quantity and click *Add To Cart* to make your purchase. You will receive a serial number in a confirmation email.



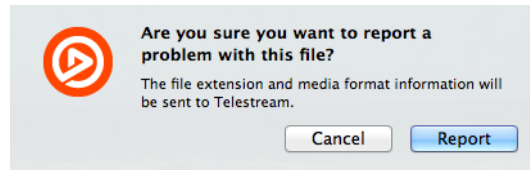
The Switch Preferences window is also opened so that you can activate your new purchase. Once you have obtained your product serial number, enter it into the Serial Number field in the Preferences window, then click *Activate*.



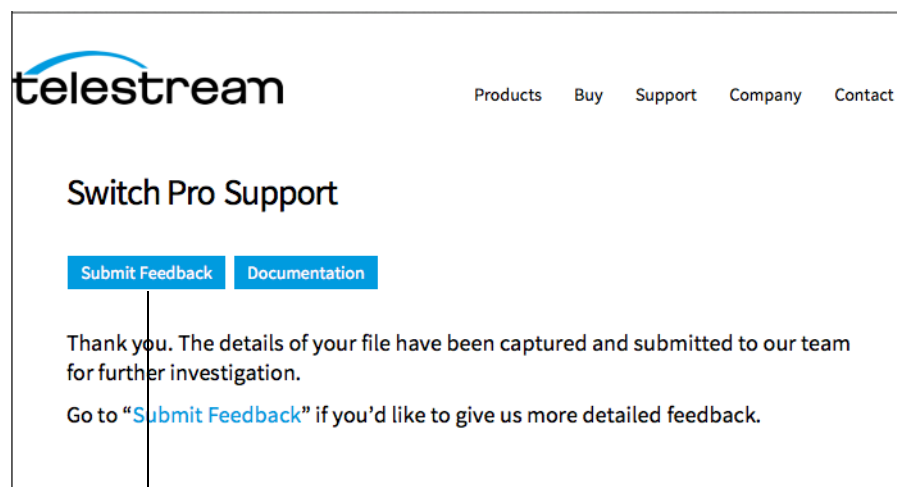
Customer Support

To report a problem with Switch, first select the window displaying the media file you want to report, then select *Report Problem File* in the Help menu.

When the reporting dialog window opens, click the *Report* button to send a technical report of your file to the Telestream support team. Click *Cancel* to abort this reporting action.

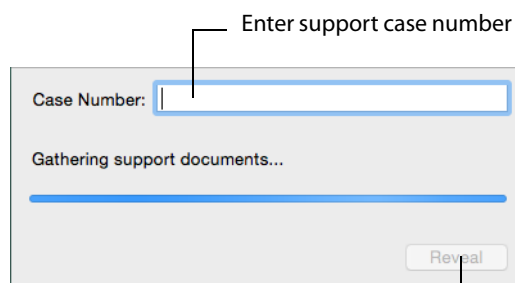


If your report is successfully sent, a confirming browser window will display. Click *Submit Feedback* to open a new support case.



Click Submit Feedback

Select *Gather Support Information* from the Help menu to collect and send information about Switch when you encounter problems. When the process finishes collecting information, enter your support case number and click *Reveal*.



Click Reveal

Support information is gathered and saved in a file to your Windows desktop. A unique filename is generated. Sending this file to Telestream enables the support team to diagnose any problems you have reported.

Select *Contact Support* to open the Switch Support page on the Telestream Website.
Select *Visit Switch Website* to open the Switch Product page on the Telestream Website.
Select *Acknowledgments* to open the Acknowledgments page on the Telestream Website.

Preferences and Updates

Introduction

This section describes how to set preferences in Switch, how to check for updates, and how to set services preferences.

Topics

- *Setting Preferences*
 - *Update*
 - *License*
 - *Display*
- *Check for Updates*

Setting Preferences

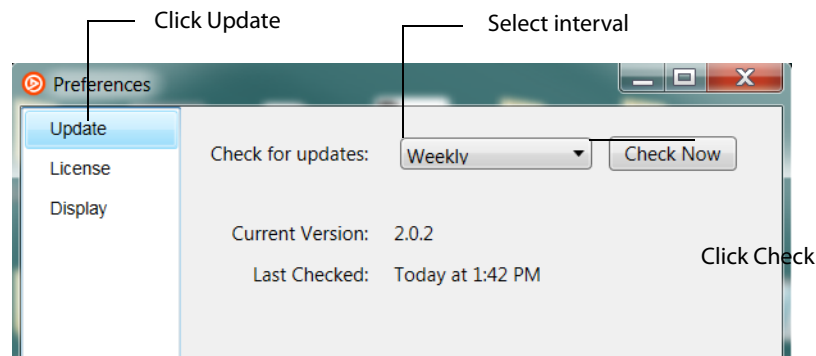
To set preferences in Switch, select *Switch > Preferences*. The preferences window enables you to change the update interval and activate/deactivate licenses.

Update

To use Switch Preferences to check for software updates (manually or at scheduled intervals) follow these steps:

1. Select *Switch > Preferences*, then click the *Update* icon.
2. To change the interval at which Switch checks for updates, choose Daily, Weekly, Monthly or Never from the *Check For Updates* menu.

3. To check for updates manually, click *Check Now*.



You can also check for updates by selecting *Switch > Check for Updates*.

License

During unlicensed *playback*, DNxHD and HEVC/H.265 are watermarked placing a transparent Switch logo in the upper right portion of the display. No other video codecs are watermarked during playback. Additionally, an audio watermark in 15 second intervals will be added to all media using Dolby AC-3 audio.

To remove the watermark during playback, you must purchase and enter a valid serial number and activate it.

All unlicensed video *exports* are watermarked in transcode mode. Exports are truncated when either audio and/or video are in pass-through mode. Licensed exports have no watermark or truncation. Truncation is set at 30 seconds, or half the duration of the media if less than 30 seconds long.

Activating or deactivating a license while a video is open will cause the video display to change accordingly and immediately.

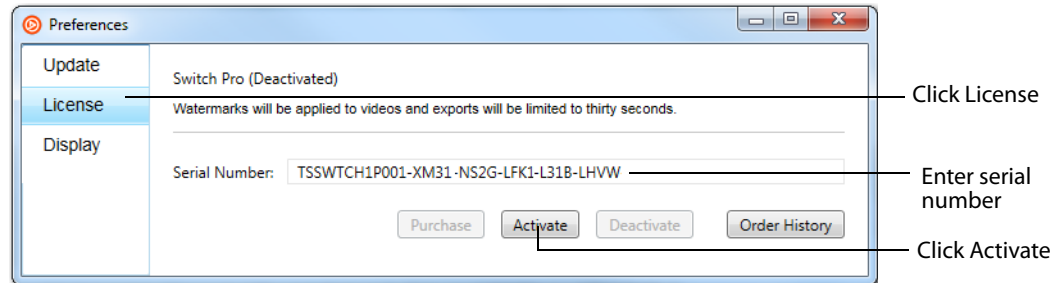
Activating a Serial Number

If your computer is connected to the Internet and you purchased an upgrade via the Telestream Store online, use the email receipt (which contains your serial number) to manually activate Switch. Manual activation is also used for activating a serial number in Switch on another PC.

To enable the upgraded features, or activate additional copies of Switch, you must have access to the Internet. Your serial number must be manually entered to activate the features purchased.

Note: If your computer does not have Internet access, do not use this process. Instead, use a separate computer with Internet access to open the Manual Activation Guide on the Telestream Web site (www.telestream.net/pdfs/user-guides/Manual_Activation_Guide.pdf). This is a step-by-step guide to manually activate Switch.

1. Select *Switch > Preferences*, click the *License* icon, enter your serial number, then click *Activate*. (When the serial number is entered correctly, the *Activate* button is enabled.)



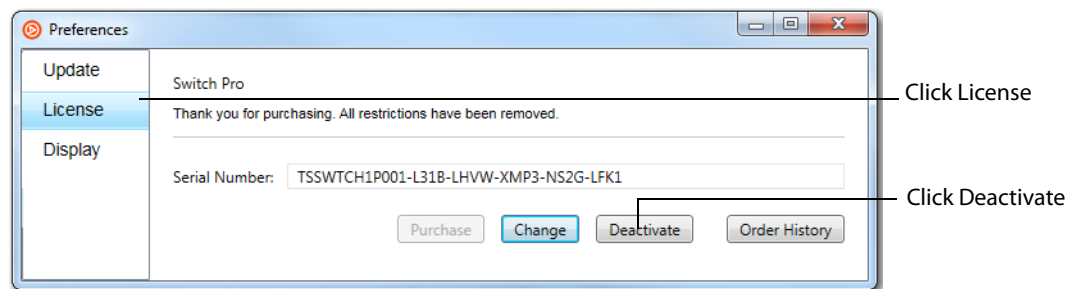
Enter the serial number exactly as it exists in your email receipt. It is best to copy and paste the serial number to avoid typing mistakes. When typing it in, be sure to enter only zeros (no letter O's), capitalize all letters, and include all hyphens. The Telestream Store is contacted and the serial number for your computer is activated.

Note: If you experience problems activating, contact Telestream Customer Support at: desktopsupport@telestream.net or 877-681-2088.

Deactivating a Serial Number

A Switch serial number can only be active on one computer at a time. But, you can enter it on multiple computers (see [Activating a Serial Number](#)), making it available on all of them. Before activating Switch on a different computer, you must deactivate where ever it is currently activated. In other words, you can deactivate it and then activate it elsewhere as needed. This makes the use of the serial number more flexible, and avoids unnecessarily purchasing extra licenses.

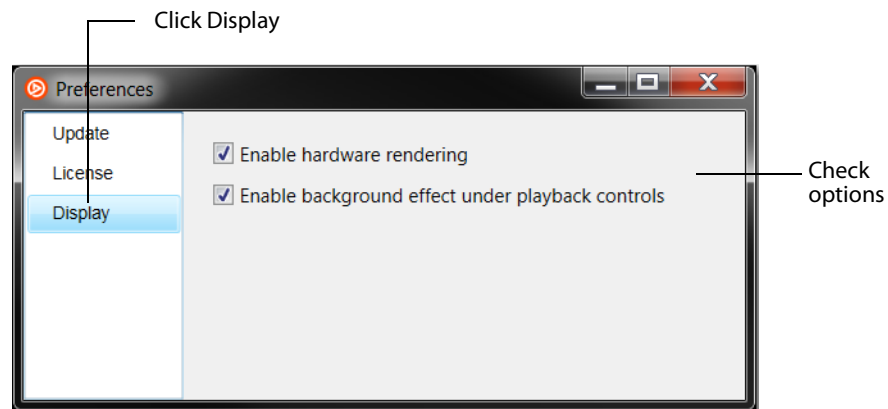
To deactivate a Switch serial number, Select *Switch > Preferences*, click the *License* icon, then click *Deactivate*.



When you deactivate your serial number on your computer, it must have Internet access. Deactivation enables you to activate this same serial number on another computer. You can also change licensing by clicking *Change* and entering a different serial number.

Display

Switch provides two options concerning the display. Check *Enable hardware rendering* to use hardware (rather than software GPU drivers) to render the video. Check *Enable background effect under playback controls* to enable video bleed-through behind the control bar. Both of these options are checked by default and should only be unchecked if your computer experiences performance problems.



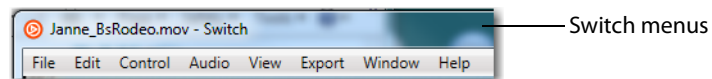
Check for Updates

To check for the latest Switch updates, select *Switch > Check for Updates*. This selection directs you to the Update tab in Switch preferences. (See [Update](#) in the *Setting Preferences* section for details.)

Switch Menus

Introduction

Switch has eight menus that provide access to all its controls and features. This section describes the functionality of each menu item in Switch.



Topics

- [File Menu](#)
- [Edit Menu](#)
- [Control Menu](#)
- [Audio Menu](#)
- [View Menu](#)
- [Export Menu](#)
- [Window Menu](#)
- [Help Menu](#)

File Menu

Open Displays the Open dialog window for opening a media file.

Open Secondary Audio File Opens a Secondary Audio files that plays along with the currently open primary media file.

Open Secondary Subtitle File Opens a Secondary Subtitle files that plays along with the currently open primary media file.

Open Recent Displays the most recently accessed media files. Every time a file is opened or saved it is entered into this list.

Close Window Closes the currently active media file window.

Preferences Opens the Switch Preferences window.

Exit Exits Switch.

Edit Menu

Undo Reverses your last change in Switch. Switch offers an unlimited number of undo actions (within computer memory limitations). Undo information is stored on a per-window basis. Also, if you close window then reopen it, your undo information is lost. Undo does not undo edit actions.

Redo Reverses your last undo action. Switch offers an unlimited number of redo actions (within computer memory limitations). Redo information is stored on a per-window basis. Also, if you close window then reopen it, your redo information is lost. Redo does not re-do edit actions.

Cut Copies (and removes) the selection and stores it on the clipboard allowing you to paste it into a selected target.

Copy Copies (but does not remove) the selection and stores it on the clipboard allowing you to paste it into a selected target.

Paste Duplicates the content in the clipboard into the currently selected location. Media is placed in the clipboard using Cut and Copy.

Select All Selects all items in the currently active window.

Container Opens the Container tab in the Media Inspector window.

Video Opens the Video tab in the Media Inspector window.

Audio Opens the Audio tab in the Media Inspector window.

Subtitles Opens the Subtitles tab in the Media Inspector window.

Time Opens the Time tab in the Media Inspector window.

Set Mark In Sets the Mark In location in your media file.

Set Mark Out Sets the Mark Out location in your media file.

Control Menu

Play/Pause Plays the selected media file. When playing, the word *Pause* is displayed and when selected causes the media to stop playing. When paused, the word *Play* is displayed.

Play All Plays all open media files.

Play Forward Causes the selected media to progressively (each time selection is made) play faster in forward direction.

Stop Causes the selected media to stop playing.

Play Backward Causes the selected media to progressively (each time selection is made) play faster in backward direction.

Note: *Play Backward*, *Stop*, and *Play Forward* are controlled by keyboard shortcuts J, K, and L (key presses), respectively.

Slow Motion Forward Places the currently playing media into forward slow motion mode. Slow motion can also be started while paused.

Slow Motion Backward Places the currently playing media into backward slow motion mode. Slow motion can also be started while paused.

Step Forward Moves selected media forward one frame.

Step Backward Moves selected media backward one frame.

Skip Forward (1 or 10 sec) Moves selected media forward one or ten seconds.

Skip Backward (1 or 10 sec) Moves selected media backward one or ten seconds.

Next Chapter Moves media to the next chapter.

Previous Chapter Moves media to the previous chapter.

Chapters Displays list of chapters. Moves media to selected chapter.

Jump To End Moves current location in media to last frame. If the media is playing, it will continue playing. If it is paused, it will continue to be paused.

Jump To Start Moves current location in media to first frame. If the media is playing, it will continue playing. If it is paused, it will continue to be paused.

Loop When checked (selected), media loops back to start when end is reached.

Audio Menu

Increase Volume Turns the media volume up.

Decrease Volume Turns the media volume down.

Mute Mutes the media audio.

Mute Inactive Windows Mutes all inactive windows (active window remains unmuted).

Mute Files Mutes all audio tracks in the selected file.

Mute Tracks Displays a list of tracks. Select a track to mute.

Mute Channels Displays a list of channels. Select a channel to mute.

Solo Files Solos all audio tracks in the selected file.

Solo Tracks Displays a list of tracks. Select a track to solo (all others are muted).

Solo Channels Displays a list of channels. Select a channel to solo (all others are muted).

Loudness Type Selects the loudness type: Gated or Ungated.

Play Through External Preview Device Select to play audio through the selected External Preview device. Audio will only be played through the external preview device when external preview is enabled. Also, the video must match a standard broadcast format, otherwise audio will be played through the default system audio device

View Menu

Enter Full Screen Cause the active media window to display full screen. To return to original window size, press the Escape key.

Half Size Changes the size of the selected media to half of its actual size.

Actual Size Changes the size of the selected media to its actual size.

Double Size Changes the size of the selected media to twice its actual size.

Fit to Screen Changes the size of the selected media to the max size of the screen.

Increase Size Increases the size of the selected media.

Decrease Size Decreases the size of the selected media.

Time Display Changes the time display on the selected media.

Enable/Disable Closed Captions Enables decoding of embedded captioning. (Select again to disable them.)

Note: Enable/Disable Closed Captions requires a Switch Plus license.

Subtitle Source Enables you to select a subtitle source.

Enable/Disable External Preview Enables or disables the selected External Preview device. Enabled when checked.

External Preview Device Selects an External Preview device. Switch currently supports the following external preview devices: AJA T-TAP, AJA ioXT, AJA io4K, AJA Kona 3G, AJA Kona 4. Other AJA devices may work as well. The source video must match a format that is supported by the external preview device that you have selected or external preview will not occur. Users can refer to the device manufacturer's specifications for a list of supported formats for each device. External preview currently only works in Preview mode, not in Edit mode.

Note: External Preview requires a Switch Pro license.

Output VANC Data Enables and disables the output of VANC data to the selected External Preview device. Enabled when checked. When you output via SDI, you have the option to output ancillary data along with the audio and video signal. This is

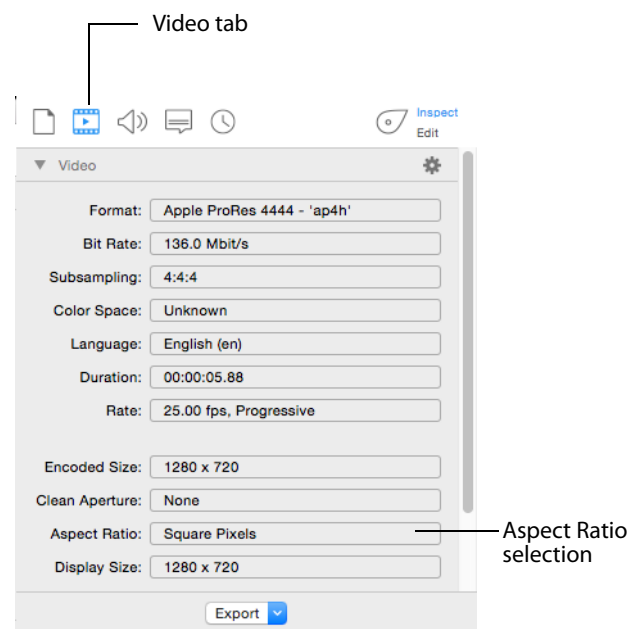
metadata that pertains to the video being output. For example, Captions are one form of metadata that a you may want to output in conjunction with your video. Like SDI out, this feature will remain on when enabled, and will output continuously whenever audio or video is being played back.

Interlacing Determines how to display interlaced video frames on your progressive computer monitor. Select which method to use: Weave Fields (default), Blend Fields, Split Fields, Field 1, or Field 2. The *Cycle Next* menu item chooses the next method in the list.

Note: Switch disables the Split Fields option when you enable the Show Gutters option.

Show/Hide Gutters Displays or hides (toggle action) the gutters on the active media window.

Pixel Aspect Ratio When checked, uses the Aspect Ratio selected on the video tab in the Media Inspector window. Otherwise the aspect ratio is 1:1.



Export Menu

Movie Exports media file as a movie.

iTunes Store Package Exports media file as an iTunes package.

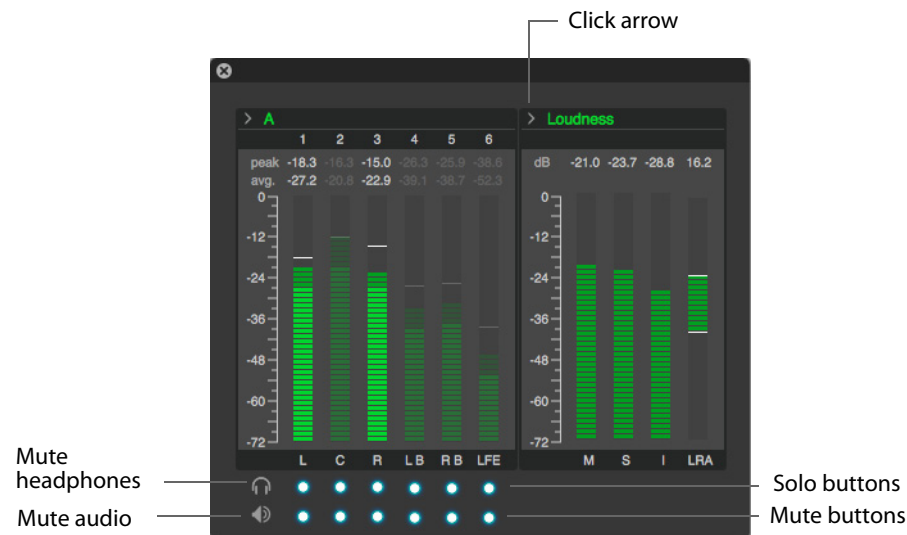
Current Video Frame Exports currently selected frame as a picture.

Window Menu

Show/Hide Inspector Shows and hides the Media Inspector window.

Show/Hide Audio Meters Displays the Audio Meters with a scale and levels. If you have a Pro license, Loudness is also displayed by clicking the arrow. There are four loudness level displays: Momentary, Short-term, Integrated, and Loudness Range.

When the audio meters are shown, you can click the mute headphones (monitor) icon, or mute audio icon, at the bottom of each track. You can also click the Solo or Mute buttons at the bottom of each level bar to solo (turn on) or mute (turn off) any or all level bars in that track. When a level bar solo button is first selected, all other levels are muted. But then you can add any or all other level bars by clicking the solo button of each. This works the same way for the Mute buttons, except the action is muting rather than soloing (turning off rather than on). When a level bar is muted, its peak meter display is dimmed but it continues to update with the value it would have were it audible.



Show/Hide Progress Window Displays the Export Progress window. Close the Export Progress window by clicking the X in the upper left corner of the window.

Show/Hide Welcome Screen Displays

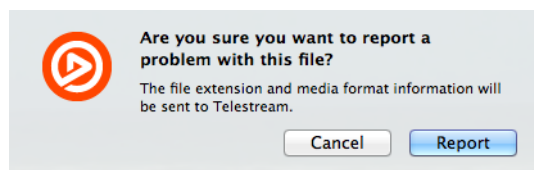
Help Menu

Switch Help Opens the online help version of the Switch User Guide.

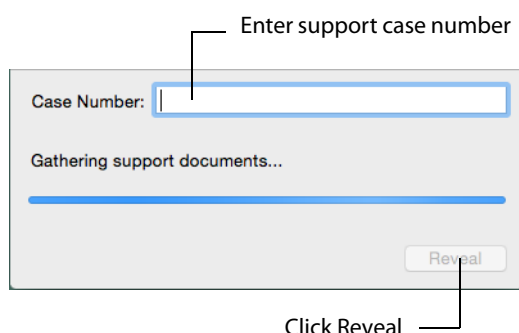
Switch User Guide Opens the PDF version of the Switch User Guide.

Buy Enables you to purchase Switch online.

Report Problem File Opens a reporting dialog window. Click *Report* to send a report of your file to the Telestream support team. Click *Cancel* to abort.



Gather Support Information Gathers support information and enables you to save a file with this information to your PC desktop. A unique filename is generated. Sending this file to Telestream enables the support team to diagnose any problems you have reported. Click *Reveal* when finished.



Contact Support Opens the Switch Support page on the Telestream Website.

Visit Switch Website Opens the Switch Product page on the Telestream Website.

Acknowledgments Opens the Acknowledgments page on the Telestream Website.

About Displays the Switch About window.

View and Window Controls

Introduction

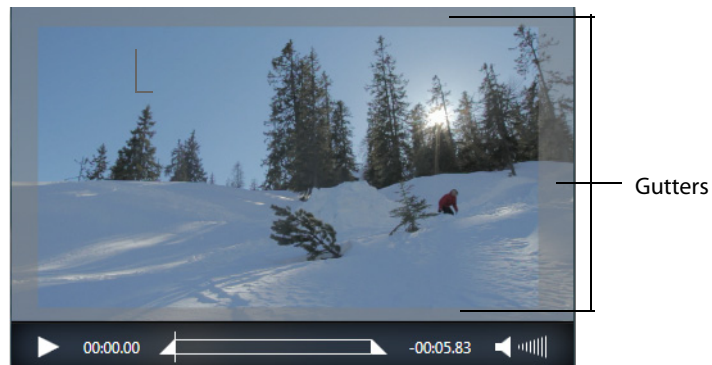
This section presents how to control how Switch is displayed (viewed) and how to manage Switch windows.

Topics

- *View Control*
- *Window Controls*

View Control

The Switch View menu provides a number of viewing controls that adjust the size and manner of the selected window.



Enter Full Screen Causes the selected window to expand to the full display of your monitor. To return to the window view, press the Escape key.

Half Size Makes the size of the selected media half of its actual size.

Actual Size Restores selected media to actual size.

Note: Actual Size is a combination of the dimensions of the video essence in the file, the aperture mode, any scale edits, any crop edits, and any rotation edits.

Double Size Changes the size of the selected media to twice its actual size.

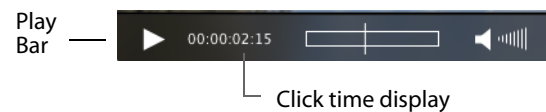
Fit to Screen Changes the selected media to the max size of the screen.

Increase Size / Decrease Size Makes the selected media incrementally larger or smaller.

Time Display changes the format of the time displayed in the Play Bar (see [Play Bar](#)).

- Select *Time* to display the elapsed time of the media in hours and minutes (03:47).
- Select *Frame Count* to display it in frames (870 F). The trailing F indicates Frame Counter mode.
- Select *Timecode* to display the elapsed time using a format of *hh:mm:ss:ff* (03:34:17:05).

You can also change the time display format by clicking on the time display in the Play Bar.



Enable Closed Captions Enables the decoding of embedded closed captions in the primary source file. If there is no secondary subtitle files added to the inspector, the Subtitle Source menu will be disabled as long as this option is disabled. From a user interface perspective, this will enable both the Subtitle Source menu and the Closed Caption submenu so that the caption track can be selected.

Subtitle Source Menu Disabled unless the user has enabled closed caption decoding, or a secondary subtitle file is added. If a secondary subtitle file is added to the inspector, this menu is enabled and the subtitle track from the secondary subtitle file is added to this menu. You can still select None to prevent any subtitles from displaying, even though this menu is enabled and secondary subtitles have been added to the inspector.

Enable External Preview Enables and disables the selected External Preview device. Enabled when checked.

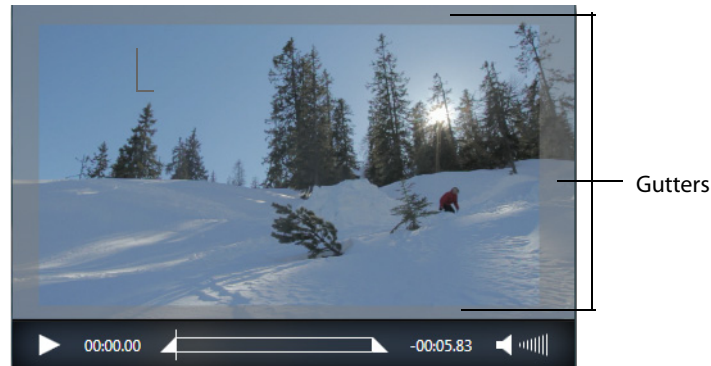
External Preview Device Selects an External Preview device. Switch currently supports the following external preview devices: AJA T-TAP, AJA ioXT, AJA io4K, AJA Kona 3G, AJA Kona 4. Other AJA devices may work as well. The source video must match a format that is supported by the external preview device that you have selected or external preview will not occur. Users can refer to the device manufacturer's specifications for a list of supported formats for each device. External preview currently only works in Preview mode, not in Edit mode.

Note: External Preview requires a Switch Pro license

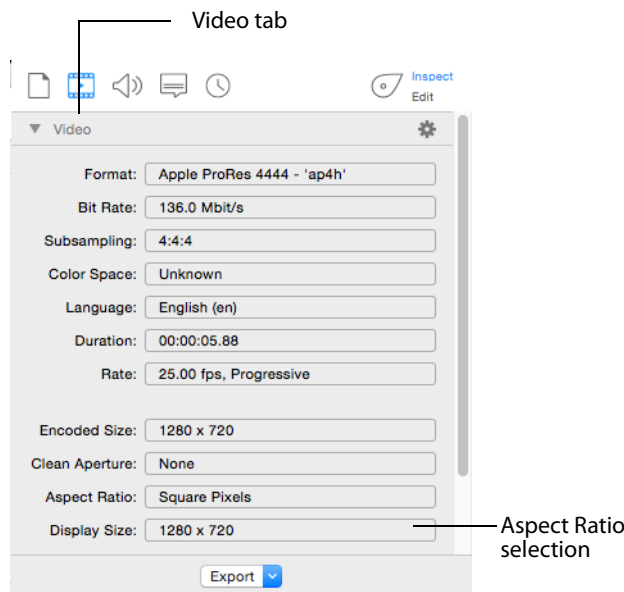
Output VANC Data Enables and disables the output of VANC data to the selected External Preview device. Enabled when checked.

Interlacing Selects the kind of interlacing used: Weave Fields (default), Blend Fields, Split Fields, Field 1, Fields 2, or Cycle Next.

Show/Hide Gutters Shows (or hides) the non-displayed portion of a cropped display.



Pixel Aspect Ratio Uses the aspect ratio that has been selected on the Video tab in the Media Inspector window. Otherwise (unchecked) the aspect ratio is 1:1.



Window Controls

To access various window controls, select the *Switch Window* menu.

Use *Show/Hide Inspector* to display (or hide) the Media Inspector window. *Show/Hide Audio Meters* displays the audio meters. Select *Show/Hide Export Progress* to display the

Export Progress window. To close either the Audio Meters window or the Export Progress window, click the X in the upper left corner of the window.

All currently open windows are listed at the bottom of the menu. Selecting a listed window makes it the active window.

Reference

Introduction

This section provides important reference information including supported codecs and formats, and network protocols.

Topics

- [Supported Codecs, Formats, & Protocols](#)

Supported Codecs, Formats, & Protocols

The following audio and video codecs and general file formats can be processed in Switch.

Note: Switch can play all codecs, formats, and protocols provided by QuickTime including uncompressed 4:2:2 10-bit (v210) and Apple ProRes 4444 XQ. Switch for Windows exports Apple ProRes 422 (HQ) within iTunes Store Package only.

Table 3. Switch Pro Supported Formats

Format	Playback Video	Playback Audio	Export Video	Export Audio
QuickTime (MOV)	AVC, AVC-Intra, DNxHD, JPEG ² , MPEG-2 ¹ , MPEG-4, Apple ProRes, XDCAM	AAC, AC3, MPEG, PCM ³	Apple ProRes	PCM ³
ISO Base Media Format (MP4)	AVC, HEVC	AAC, AC3, PCM ³		
MPEG-2 Program Stream (MPS)	AVC, MPEG-2 ¹	AC3, MPEG, PCM ³		

Table 3. Switch Pro Supported Formats

Format	Playback Video	Playback Audio	Export Video	Export Audio
MPEG-2 Transport Stream (MTS)	AVC, MPEG-2 ¹	AAC, AC3, MPEG, PCM		
Windows Audio (WAV)		PCM ³		
SMPTE 379 OP-1a (MXF)	AVC, AVC-Intra, DNxHD, DV, HDV, IMX, MPEG-2, XDCAM	AAC, PCM ³ , 331M		
SMPTE 360 Generic Exchange (GXF)	AVC-Intra, DV, MPEG-2 ¹	PCM ³		
Scenarist Closed Caption (SCC)	SCC ⁴			

1 Generic MPEG-2 ('mp2v') is supported for playback and pass through only. Constrained MPEG-2 types (IMX, HDV, XDCAM) are supported for encoding.

2 Photo JPEG is supported, Motion JPEG (A and B) will be supported in a future release.

3 PCM 16-, 20- and 24-bit signed integer (little and big endian) support only.

4 Export of .scc files is currently only supported through iTunes Package export

Acknowledgments

Acknowledgments

Portions of this software may utilize the following copyrighted material, the use of which is hereby acknowledged:

x264 The product is manufactured by Telestream, LLC under license from x.264 LLC

Main Concept © 2013 Rovi Corporation. All rights reserved. MainConcept is a subsidiary of Rovi Corporation.

Apple QuickTime, MacOS X, and Safari are trademarks of Apple, Inc. Bonjour, the Bonjour logo, and the Bonjour symbol are trademarks of Apple, Inc.

Matt Gemmell Includes MAAttachedWindow code by Matt Gemmell.

