Switch™

Telestream® Switch is an award-winning, cross platform media player, inspector, and correction tool for professionals. Switch comes in two versions: Switch Player (free) and Switch Pro ($295).

Switch Player is a robust multiformat media player with deep inspection capabilities. The media player supports high-quality playback for MXF, GXF, MPS, MTS, MOV, MP4, MKV and more. The inspector displays media properties including audio channels, aspect ratio, bitrate, encoding formats and more. In Switch Player, export is watermarked and limited to 30 seconds or half the duration of the media file.

Switch Pro adds full playback support for additional formats: DNxHD, HEVC and AC3; support for caption/subtitle playback; as well as deeper inspection of application specific metadata (e.g., AS11 with DPP metadata). Switch Pro also adds export capabilities including an iTunes export preset for creating asset-only iTunes store packages.

System Requirements

Mac Minimum System Requirements
- Operating System: OS X 10.9 Mavericks or later
- CPU: All Macs that support 10.9 and above, 2.4 Ghz Core 2 Duo or faster. Any Core i3, i5, or i7
- RAM: 2 GB or more
- Display: 1280 x 768 or larger, 50 Hz or faster

Windows Minimum System Requirements
- Operating System: Windows 7 64-bit SP1, Windows 8, Windows 8.1
- CPU: 2.4 Ghz Core 2 Duo or faster. Any Core i3, i5, or i7
- RAM: 2 GB or more
- Graphics: Intel GMA X4500 or better. Any discrete graphics card with support for DirectX 10.0 or better. 256 MB or more
- Display: 1280 x 768 or larger, 50 Hz or faster

Switch 1.5

Fixes and Enhancements

- New! **Now available for Windows**
- New! Supports extraction and playback of CEA-608 & CEA-708 captions
- New! Supports playback of SCC, DVB, TTML (iTT and SMPTE-TT captions) and WebVTT subtitle files
- New! Fullscreen playback
- New! Supports playback of MXF (OP-1a proxy) and MXF (OP-1b) files
- New! Supports playback of Apple ProRes XQ
- New! Supports playback of 10-bit uncompressed YUV ('v210') video.
- New! Now includes validation of audio and video codecs for iTunes Store packages

- New! Now supports export of 32-bit signed integer and 32-bit floating point LPCM audio in both big and little endian formats.
- Modernized User Interface appearance
- Improved viewing of AS-11 DPP metadata
- The screensaver is now disabled during playback

Bug Fixes
- Chapter order is now recalculated if the chapter time is changed manually using the timecode box and chapter time is set before/after another chapter
- MXF DNxHD 4:4:4 10 bit RGB files made with Adobe Premiere will now open and play in Switch
- A-Law and μ-Law PCM are now audible in Switch
- Fixed several bugs that could cause exports to be malformed if the movie, track, or media duration could not be expressed in the given timescale in 32-bits
- Fixed an issue where files created by Switch could not be used in Omneon or Vantage Server 6.3 because the component type value of the 'hdlr' atom was null
- Alpha channels are now passed on in transcoded exports to ProRes 4444
- Displayed position of captions is now adjusted for changes to CLAP

Known Issues
- HEVC support is experimental, please notify Telestream Desktop Support if you have an HEVC file that cannot play back in Switch
- When using SCC caption files, the first caption must be at zero timecode to be displayed in sync with the video
- 59.94 timecode is displayed in 29.97 with two frames per timecode when doing double rate de-interlacing

Switch 1.1

Fixes and Enhancements
- New! iTunes Timed Text (ITT) subtitle files can now be added as secondary subtitle files and will be included in iTunes Store Package exports.
- New! The table columns in the inspector are now resizable horizontally.
- Updated the code signing of Switch to support the new Gatekeeper requirements of OS X 10.9.5 and later.
- Added support for muting or soloing entire secondary audio files via the Audio menu or via contextual menus in the Audio Meters window.
- Moved the Container Metadata section to second from the top in the inspector, just below the File section, and above the Secondary Audio and Secondary Subtitle sections.
- Added support for reporting a problematic file via the Help menu, even if the file is not open.
- Container, video, and audio metadata field now requires a Switch Pro license for viewing and/or editing.

Bug Fixes
- Fixed a bug that caused the inspector to enter Export mode whenever the user changed tabs.
- Fixed a bug that caused a crash on Mavericks when scrubbing to the end of the video and then holding the "J" key to rewind.

- Fixed a bug that caused a crash when adding more than 32 channels of audio.
- Fixed a bug that caused the current display scale of the video to be lost when reverting changes, resulting in improper calculations for video edits, when the movie was not displayed at 100%.
- Fixed a bug that allowed the crop top inset to persist when changing from video transcode to pass-through.
- Fixed a bug in the remapping of audio input channels to output channels that prevented the preservation of old mappings when the speaker label order of the source did not match the order defined by the program (i.e. Source: L C R Lb Rb LFE, Export: L R C LFE Lb Rb) and the source contained another track with the desired speaker label. Previously, the remapping code would only preserve the mapping if it was in the same order with the same speaker label. Now, if that fails, we also accept the first unused old mapping with the desired speaker label.
- Fixed a bug with stuttering when pausing and resuming playback.
- Fixed a bug that occasionally caused the loss of 1 or 2 video frames off the end of a video in transcode exports if the compressor was more than 1 frame behind in delivering its output.
- Fixed a bug that prevented the purchase of a new serial number if a deactivated serial number was installed.
- Fixed a bug that prevented the increase and decrease size menu items from working with the shift key down if the video had no audio tracks.
- Fixed a bug that caused black bars on the top, right, and bottom of non-square-pixel H.264 video decoded by Core Video and shown with the pixel aspect ratio (PAR) disabled, such as when in crop, resize, or clean aperture modes.
- Fixed three bugs where Switch incorrectly mapped Left Center (Lc) and Right Center (Rc) speaker labels to Left Side (Ls) and Right Side (Rs), respectively.

Switch 1.0 Features

Media Playback
Switch has the playback control features of a professional player, such as: Fast forward and rewind, slow motion, as well as single-frame forward and back. Switch also supports playback of secondary audio files as well as SCC files.

Containers:
- AAC
- AC3[*]
- AIFF
- AVC (AVC Elementary Stream)
- AVI (open DML)
- DV
- HEVC (HEVC Elementary Stream)[*]
- GXF
- LXF
- MOV
- M1V (MPEG-1 Video Elementary Stream)
- M2V (MPEG-2 Video Elementary Stream)
- MP3 (MPEG Layer 1/2/3 Audio Elementary Stream)
- MP4 (ISO Based 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)
- SCC
- WAV

Video Codecs:
- Apple ProRes
- DNxHD[*]
- DV 25
- DVCPro 25
- DVCPro 50
- DVCPro 100
- DVCPro HD
- H.263
- H.264
- H.265[*]
- JPEG
- MPEG-1
- MPEG-2
- MPEG-4

Audio Codecs:
- AAC
- AC3[*]
- Microsoft ADPCM
- MPEG Audio Layer 1,2,3
- G.711 aLaw
- G.711 uLaw
- G.726
- PCM

*Note: due to royalties DNxHD, HEVC and AC3 playback is watermarked in Switch Player.

Media Inspection
Switch enables inspection of container, video and audio codec properties, and subtitle assets.

Container information
File name, location, size, type, duration, creation date, modified date, secondary audio, secondary SCC files, metadata

Video codec information
Format, bit rate, subsampling, color space, locale, duration, frame rate, whether the file is interlaced or progressive, encoded size, clean aperture, pixel aspect ratio, display size and additional metadata*

Audio codec information
Per track: source file, channels, format
Per channel: speaker labels, source track

Additional information: bit rate, sample rate, locale, duration and additional metadata

*Note: Advanced inspection of application-specific metadata included only in Switch Pro.

Media Edit and Export

In export mode, users can make changes to the file: Trim, scale or crop the video; change the aspect ratio and clean aperture; rearrange audio tracks; edit speaker assignments; add metadata; insert chapter markers; and add caption tracks. Video and Audio pass-through mode enables users to make non-encoding-related changes to media. For more in-depth details see below.

Edit Details

Container:
Edit: file name, file type and metadata

Video:
Edit: format, color space, locale, trim, scale, crop, change the aspect ratio and clean aperture

Audio:
Edit: format, rearrange audio tracks, channels, edit speaker assignments, sample rate, and locale

Video and Audio pass-through mode enables users to make non-encoding related changes.

Subtitle*:
Inspect your subtitle track

Time:
Set trim in-and-out points and add chapter markers*

*Note, export of SCC files and chapter markers are only supported as part of an iTunes store package. iTT files can be added as secondary file for export as part of an iTunes store package.

Export formats
Containers:
• MOV
• SCC (only as part of an iTunes package export)

Video Codecs:
• Apple ProRes

Audio Codecs:
• PCM

Export to iTunes
Switch contains an iTunes export option that creates a complete asset-only iTunes store package.

Coming Features
• Full screen playback
• Switch for Windows
• Support for embedded closed captions

- Support for adding captions to file export
- Support for opening and displaying chapter markers in MOV files
- Support for adding chapters to exported movies
- Additional containers and codecs for export

Known Issues
- HEVC support is experimental, please notify Telestream Desktop Support if you have an HEVC file that cannot play back in Switch
- Chapter order is not recalculated if the chapter time is changed manually using the timecode box and chapter time is set before/after another chapter
- Displayed position of captions is not adjusted for changes to CLAP
- When using SCC caption files, the first caption must be at zero timecode to be displayed in sync with the video
- Alpha channel is not passed on in transcoded exports
- 59.94 timecode is displayed in 29.97 with two frames per timecode sample