Switch™

Telestream® Switch is an award-winning cross platform media player, inspector, and correction tool for professionals. Switch comes in three versions: Switch Player ($9.99), Switch Plus ($199), and Switch Pro ($499).

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

Switch Plus is perfect for video editors and post-production professionals. Plus adds support for embedded caption playback and subtitle files; professional audio meters; export to MP4, QuickTime MOV, MXF (OP-1a and OP-Atom), and MPEG-2 Program Streams and Transport Streams; publish to Vimeo, YouTube and Facebook; as well as additional playback support for HEVC, DNxHD, DNxHR, JPEG-2000, and AC-3 audio.

Switch Pro is designed for Broadcast and Media QC analysis professionals. Pro extends the professional Audio Meters (included in Plus) to include a loudness panel with options to calculate loudness gated (BS1770-3) or un-gated (BS1770-2); as well as deeper inspection of application specific metadata (e.g., AS-11 with DPP metadata). Switch Pro also includes visual representation of the video's GOP structure; an interlacing option to display fields, and a Compare Alternate Media feature to easily check multiple adaptive bitrate files in ABR workflows for easy comparison of multi-format media. Switch Pro includes all the export support of Switch Plus and adds an iTunes export preset for creating asset-only iTunes store packages.

System Requirements

Mac Minimum System Requirements
- Operating System: OS X 10.12 or higher (Includes macOS High Sierra)
- CPU: All Macs that support 10.12 and above, 2.4 Ghz Core 2 Duo or faster.
- Any Core i3, i5, or i7
- RAM: 4 GB or more
- 256 MB or more graphics memory
- Display: 1280 x 768 or larger, 50 Hz or faster

Windows Minimum System Requirements
- Operating System: Windows 7 SP1, Windows 8.1, Windows 10
- CPU: 2.4 Ghz Core 2 Duo or faster. Any Core i3, i5, or i7
- RAM: 4 GB or more
- Any graphics adapter that supports Direct3D feature level 10.1 or better
- 256 MB or more graphics memory
- Display: 1280 x 768 or larger, 50 Hz or faster

*Note: Minimum specifications are the required hardware for playback of standard definition content. Playback of demanding content such as 4K, HEVC, and high frame rate video may require more powerful hardware.

Switch 4.5

NEW

- Switch is now able to export to the Windows Media format (WMV and WMA in the ASF container).
- Added support for display of CEA-608 background colors.
- Added support for pass-through exports of HEVC into the MP4 container.
- Added support for pass-through exports of DNxHR into an MXF OP-1a container.
- Added support for decoding and playback of Avid Meridien files.
- Added support for decoding and playback of DV in MXF OP-Atom containers.
- Added support for decoding and playback of MCC secondary subtitle files.

Customer Requested New Features

- Switch now displays all supported timecodes and allows selection of the source to display.
- Added the ability to view alpha channels.
- Added the ability to view safe area overlays for action, titles, and captions.
- Added the ability to export inspector information as a text or JSON file.
- Audio tracks and channels can now be muted or soloed directly from the inspector window.
- Added the ability to adjust synchronization of MCC and TTML (DFXP, iTT, etc…) secondary subtitle files.

- Added support for pass-through exports of HEVC into an MPEG-2 TS container.
- Added the ability to display Active Format Description (AFD) codes in the frame metadata overlay.
- Added the ability to decode and display Extended Data Services (XDS) metadata, including V-Chip.
- Added support for decoding and playback of FLAC audio as well as from FLAC containers.
- Added the ability to loop playback within trim in/out points.
- Switch will now recognize the DCI P3 colorspace.
- Added display of video bit depth to the inspector.
- Audio track name metadata from Quicktime MOV files will now be displayed in the inspector.
- Switch now recognizes Discrete-0, Discrete-1, etc… speaker labels.
- Added support for decoding and displaying DVB Teletext from MPEG-2 Transport Streams.

IMPROVEMENTS

- Expanded the title fields for flags in the inspector.
- Added additional flag colors to denote good or neutral flags.
- Added the ability to set 'Out' points for flags on the player timeline.
- Switch now remembers when you mute/unmute audio and will reapply that setting to subsequent videos that are opened, including after relaunching the application.
- Switch now displays the default black background for WebVTT secondary subtitle files.
- Switch will no longer display roll-out frames from MXF containers.
- Switch will now peak into SCC files and determine if the timecode format inside is drop or non-drop frame before opening the file. Switch will default the timecode format to the video's frame rate, and if it is 29.97 or 59.94 it will set it to drop or non-drop frame based on the SCC file data. Instead of defaulting the start time for secondary subtitle files to the last one used, Switch will now default to the timecode of the first frame of video.
- Switch now automatically displays the flags tab in the inspector immediately after a flags file is opened.
- Added support for the .dfxp file extension as a synonym for the existing TTML extensions (.ttml, .itt, .xml).
- Added support for language tagging in MXF exports, with limitations. MXF OP-1a will only support language/locale tags for audio, not for video. If you specify only a language (i.e. "de" for German) and not a region (i.e. "de-DE" for German spoken in Germany) Switch will append the current region (i.e. "de-US" for German spoken in the United States).
- Added a Matrixed Stereo (Left Total & Right Total) audio program.
- Added a preference option to disable desktop playback while playing out over SDI/HDMI external preview in order to reduce the burden on the computer and improve playback performance.
- Switch will automatically default to the supported speaker labels for AAC 7.1 surround sound.
- Added the ability to specify the timecode format including frame rate for interpreting Lambda CAP secondary subtitle files.
- Switch will now preserve subtitles, captions, and/or Teletext when exporting to a codec that

supports the metadata container type (DVB, VBI, ATSC A/72 SEI, etc…), or when exporting to MOV which allows for this data to be placed into a caption track.
- Added the following new speaker labels: Left Wide (Lw), Right Wide (Rw), LFE2, Left Rear Surround (Lrs), Right Rear Surround (Rrs), and Mono (M).

Windows

- Added keyboard shortcuts for jumping to the first or last frame via the 'Home' and 'End' keys.

FIXES

Customer Issues

- Fixed a bug that prevented Switch from remembering the last Teletext page selected, including both when closing a document and when quitting Switch.
- When exporting flags files, the XML inside will now have a single <Switch> root element in order to improve compatibility with other applications. Both old and new flags files can still be opened by Switch so backwards compatibility is retained.
- Fixed a bug that caused DFXP captions to be truncated.
- Fixed a bug that caused chroma displacement of some interlaced AVC content.
- Fixed a bug that prevented Windows Media Audio 9 from playing in certain files.
- Fixed a bug that prevented PAC secondary subtitle files from displaying.
- Fixed a bug that prevented playback of MPEG-2 content that changed between field and frame encoding partway through the file.
- For SDI output via AJA devices, Switch will now respect the reference source for playback timing specified in the AJA Control Panel.
- Fixed a bug that caused the SCC timecode format to be set incorrectly.
- Fixed a bug that prevented the display of MXF material timecode in some cases.
- Fixed a bug that prevented the use of some HEVC videos while in split-screen or difference view of the Compare Alternate Media feature.
- Fixed a bug that caused Switch to use the estimated container duration rather than the actual duration obtained by indexing if the estimate duration was larger. This behavior is still necessary when watching for growing files, but not in other cases.
- Fixed a bug that caused the default soloing of an audio track to be lost after audio coding analysis (Dolby-E detection) completed.
- Fixed a bug that caused decoding problems with some Motion JPEG-2000 content.
- Fixed a bug that caused color quality problems in some ProRes 4:2:2 exports.
- Fixed a bug that caused 30fps EBU STL subtitle files to play out of sync.
- Fixed a bug that caused MPEG-1 System files containing MPEG-2 video to display using the wrong default pixel aspect ratio.
- Fixed a bug that prevented playback of certain GXF files with a mark-in point.
- Fixed a bug that prevented display of the decibel value for the minimum of the loudness range in the audio meters window.

- Fixed a bug that caused some ProRes CEA-608 captions to be scrambled on playback.
- Fixed a crash that occurred when opening some malformed files.
- Fixed a bug that caused a particular Omneon MOV MPEG file to display as progressive when it was actually interlaced.
- Fixed a bug that caused H.264 MP4 exports from certain XDCAM MXF files to be missing two frames.
- Fixed the 'chan' atom in MOV/MP4 exports so that it matches the "implicit" AAC speaker labels that Switch supports for 5.1 and 7.1 surround sound.
- Fixed the sound sample description in MOV files to be version 2 when using more than 2 channels, as required by the Quicktime File Format specification.

General

- Fixed a bug that caused field-encoded AVCHD exports to MXF to have frames out of order.
- Fixed a bug that caused the desktop preview to be blank when outputting 10-bit video to an external device.

Windows

- Fixed a bug that caused some Windows exports to ProRes 4:2:2 HQ to come out as ProRes 4:4:4 XQ.
- Fixed a bug that caused vertical positioning of WebVTT to be ignored on Windows. This fix will only work on Windows 8 and later.

KNOWN ISSUES

General

- Frames with long durations make time display appear to stall because it always shows the presentation time of the frame.
- ASF files with variable frame rate display incorrect frame rate in the inspector.
- No detection of interlaced content is done for some Windows Media files.
- Removed support for publishing directly to Vimeo, YouTube, and Facebook.

Windows

- Ancillary LTC timecode is not pass when using the KONA 4G with the 4K driver.
- Ancillarry LTC timecode is not passed while seeking/scrubbing.