# 2.24.xx Initial Public Release October 2017

The 2.24.xx software release provides the latest software for SightLine Video Processors.

**2.24.16 (7/30/2018)**

- All - (fixed) Potential frame-to-frame registration result error.

- All - (fixed) LUA script cases where system could crash when being used to enable video recording.

- All - (fixed) Previous fixes to reduce jitter made in 2.24.15 could result in big stabilization jumps under certain high vibration scenarios.

- All - (fixed) RTSP video stalls or dropout with high frequency motion and high target bit rate when encoding with H.264.

- All - (fixed) Encoding stopped for 320x240 output when Set Ethernet Video Parameters (0x1A) down-sample of 4 was used.

- 1500 - (improved) Change to default FPGA version.  Identified manufacturing-lot based issue with V6 firmware and Sony and HDMI cameras where video quality at high temperatures can be degraded. Recommend using FPGA V12 when using Sony and HDMI cameras.

- 1500 - (fixed) Radiometric detection could cause crash in some scenarios.

- 3000 - (added) New H.264 compression mode = Constrained Bit Rate which improves bit rate variability to stay close to Target Bit Rate. 1500-OEM does not exhibit the same magnitude of bit rate fluctuations.

- 3000 - (fixed) H.264 video flickering when set to low max bit rates.

- Panel Plus - (fixed) Run time error when decoding KLV (Note:  this library is also used in SLADecoder).

**2.24.15 (6/19/2018)**

- All - (fixed) Auto-detection of NTSC and PAL analog cameras is now documented.

- All - (fixed) During static scenes a small stabilization jitter occurred when rotation and zoom were enabled.

- 1500 - (improved) When using the Acquisition Settings, Generic Digital may now use InitVisca script with FPGA 6.

- 1500 - (improved) Improved dynamic range for input video on 1500-HDMI.

- 1500 - (fixed) Using SLASetVideoMode (0x1F) to set the commanded camera in LUA scripts would fail. LUA script can now be used to set the commanded camera with SLASetVideoMode.

- 1500 - (fixed) Heavy ARM processor load could cause 1500-OEM video processing to lock up during snapshot and video recording.

- 1500 - (fixed) SLA-1500 Firmware Upgrade Utility will validate the hardware ID before pushing up the license file to the target hardware preventing mis-matched or incorrect license file movement.

- 3000 - (fixed) An NTSC size could result when using the SLASetVideoMode (0x1f) to set the display resolution for analog video (analogRes) byte to a PAL format size (value = 10).

- Panel Plus - (improved) Improved network receive thread in SLA-Example code.

- Panel Plus - (improved) Users could persist IP addresses of target SightLine hardware that were manually added in the Network dialog. Address can be added or deleted.

- Panel Plus - (improved) Hardware ID and license number are now reported in the About dialog for easy unit identification for license upgrade and support diagnostics.

- Panel Plus - (improved) Command and control listen ports (Set Network Parameters 0x1C) can now be configured in Connect tab. Useful when C2 port has been changed on target hardware from default port (14001).

- Panel Plus - (improved) Provide generic digital camera parameters for known cameras types in a pull-down list available in the Acquisition Settings dialog.

- Panel Plus - (fixed) Panel Plus About Box will now download the license file and parameter file from target hardware.

## 2.24.14 (05/09/2018)

- All - (added) Support for KTC ATC-HZ7810LC camera (Sony FCB replacement)

- All - (added) Support for Airborne Innovations Monochrome 720p global shutter.

- All - (improved) Added configuration flexibility.  Serial ports can now be configured for either telemetry, command and control, or both when configured for SLA protocol.

- All - (improved) MTI Track Index overlays can now draw in bottom right to prevent obscuring target.

- All - (fixed) Addressed system crash due to poorly formed string in KLV overlays using Draw Object (0x3B) command.

- All - (fixed) Addressed system crash when sockets were closed by FTP server while snapshots were being recorded to FTP server.

- 1500 - (fixed) Telemetry output is now available on Serial Port 2.  Previously, only command and control were available when SLA protocol was selected.

- 3000 - (fixed) HDMI input board had limited color range. Expanded range support for video captured using 3000-HDMI boards.

- Panel Plus - (improved) Panel Plus can now be configured to use alternate Command and Control ports. This provides flexibility when configuring target hardware network using the Set Network Parameters (0x1C) command.

- Panel Plus - (improved) Improved behavior when switching cameras on the 1500-OEM.

- Panel Plus - (fixed) Support sending longer messages such as Set User Palette (0x72) over serial port.

- Upgrade Utility - (improved) Upgrade utility now shows subnet mask mismatch information if PC is different than target hardware.

## 2.24.13 (03/23/2018)

- All - (improved) Added Target Elevation (TAG 42) and Target Location (TAG 40 and 41) to the list of available KLV fields that can be used by Draw overlay (0x3B).

- All - (fixed) Fixed scene track mode for tracker.

- All - (added) Added support for 2400 baud rate on serial ports.

- 3000 - (fixed) When no image is detected, the system will attempt to re-initialize capture when power is cycled on HDMI camera.

- Panel Plus - (improved) Fit to Screen/Native setting now persists through power cycles.

- Panel Plus - (fixed) Start Video Recording no longer supports the resume file numbering option.

- Panel Plus - (fixed) Added RTSP streaming to Panel Minus example code.

## 2.24.12 (02/28/2018)

- All - (improved) Tracker Only - Tracking positions packet now includes track box size in addition to track position.

- 3000 - (fixed) Addressed crashes in specific multi-output mode cases.

- Panel Plus - (improved) Now prevents users from entering IP address and destination port in TCP passthrough (must be UDP).

- Panel Plus - (fixed) User can now enable Show Landing Overlay from within the landing sub-tag in the Tracking tab.

## 2.24.11 (02/16/2018)

- All - (improved) Tracker Only systems report Tracking Positions (0x51) packet allowing users to access height and width of a single tracked object.

- All - (fixed) Video encoding crashes with high frequency content scenes.  High frequency content compresses poorly and caused buffer overruns.

- 3000 - (fixed) 3000-OEM crashed when used with custom TVP7002 mezzanine that had no camera attached.

- Panel Plus - (improved) Improvements to the Panel Minus example code include reduction in network video latency and connection to SightLine hardware issues.

- Panel Plus - (fixed) Set SD Recording Parameters (0x79) now reports disk sizes greater than 4GB. Includes updates to documentation on formatting MicroSD cards.

- Panel Plus - (fixed) Panel Plus now adds leading 0 in display of Hardware ID in About box to improve identification of SightLine hardware.

- Panel Plus - (fixed) Panel Plus user warning dialog now pops up on error as default to improve user awareness of critical issues.

## 2.24.10 (01/29/2018)

- All - (fixed) The SetAppendedMetadata 0x89 did not support extended length packet and parses length correctly on the 1500-OEM and 3000-OEM.

- All - (fixed) The SetKLVData (0x61) callback did not handle length correctly for extended length sightline protocol packets.

- All - (improved) Allows user to reset auto bias state independent of the rest of the stabilization.

- 3000 - (fixed) In Generic Digital with HD-SDI cameras, some vertical and horizontal porch settings caused a crash.

- 3000 - (fixed) Separate HD input and output app bits on 3000-OEM.

- 3000 - (fixed) 3000-OEM FPC revision B board required GPIO changes (GPIO15 to GPIO25 and GPIO19 to GPIO20). Affected customers with REV A 3000-OEM FPC boards.

- 3000 - (fixed) 3000-OEM did not correctly identify TVP7002 in customer designed mezzanine board.

- 3000 - (fixed) 3000-OEM crashed when TVP7002 was attached without a camera.

- Panel Plus - (fixed) The PanelPlus send command did not support extended length Sightline protocol packets.

## 2.24.09 (01/04/2018)

- All - (added) App Bits 0x0000 now supports basic functionality of command and control, serial/Ethernet passthrough, SD input, SD output.

- All - (added) Updated the default SightLine Applications logo/watermark in overlays.

- All - (fixed) The maximum length text string overlay (64 characters) with the Draw Object (0x3B) command did not work.

- All - (fixed) RTSP crashed when disconnecting from certain client software.

- All - (fixed) Modify Tracking (0x05) was not working correctly when the width or height was not specified or set to zero. Now allows for more flexibility in setting rectangular track boxes.

- 1500 - (fixed) The autofocus metric region size maximum is now 640x480 for SD-only.

- 1500 - (fixed) Fixed green line in overscan area (PAL) by adjusting the offset used to center the image.

- 3000 - (fixed) VT3000 crashed when Bayer Camera Link camera was not connected.

- 3000 - (fixed) Metadata Rate (0x62) command bit mask and frame step did not persist through reset. Settings are now saved to parameter file and reloaded on reboot.

- 3000 - (fixed) System crashed when digital camera was not connected, and the region of interest was set to non-zero values using the Set Acquisition Parameters (0x37) command.

- Panel Plus - (fixed) For each camera, the telemetry rate is now reported for each telemetry type set by Coordinate Reporting Mode (0x0B). The total (global) rate in the performance graph is the sum of the maximum values.

## 2.24.07 (12/06/2017)

- All - (fixed) Video streaming to a broadcast address (e.g. 255.255.255.255) was broken.

- All - (fixed) The primary track started from drone detection mode did not track as well as user selected track.

- All - (fixed) Improved RTP - H.264 to reduce ARM utilization and improve compatibility with VMS.

- All - (fixed) When sending multiple Set SD Recording Parameters (0x1E) commands to start or stop recording – without the license – locked up the system.

- 1500 - (fixed) Improved analog output color to match fuller range of 8-bit values.

- 3000 - (fixed) JPEG snap shots showed artifacts in last 8 rows of the image.

- 3000 - (fixed) IP routing tables were not configured correctly preventing multicast video streaming.

- Panel Plus - (fixed) Serial communication reconnect failed.

## 2.24.06 (11/15/2017)

- All - (added) Command Passthrough (0x3D) can now pass data to serial port 2.

- All - (fixed) Rendering PIP video from the same camera was not consistent when using source or enhanced image.

- All - (fixed) Extra six empty bytes no longer appended to command passthrough output.

- All - (fixed) Panel Plus did not consistently show telemetry in tracker only configuration.

- All - (fixed) Easier to start a track in the tracker only configuration by making it less dependent on modify mode.

- All - (fixed) Image Enhancement / high bit-depth app bits no longer prevents use of YUV or Bayer image input formats.

- 3000 - (added) Horizontal scaling control in Advanced Capture Parameters (0x7B) is now available on the 3000-OEM.

- 3000 - (fixed) Two Up display mode caused crash when digital (out) zoom was applied to one of the image sources.

- 3000 - (fixed) Blank image frames (frame with a single gray scale value) caused encoding crash.

**2.24.05 (10/23/2017)**

- All - (added) Support for USB to RS-232 serial converters in user programs (not yet in VideoTrack).

- All - (fixed) SLADecode missing metadata KLV Tags when split over two packets.

- All - (fixed) SLADecode unpacked presentation timestamp (PTS) incorrectly.

- All - (fixed) Negative latitude and longitude not displaying correctly with Draw Object (0x3B).

- All - (fixed) Overlay graphics on analog output missing pixels due to rendering technique.

- All - (fixed) Set Display Parameters (0x16) not using camera index.

- All - (fixed) Miss matched names in stabilization parameters.

- Panel Plus - (fixed) Panel Plus serial connection to SLA-hardware.

**2.24.04 (10/12/2017)**

- All - (improved) Added parameter to clip stabilization results.

- All - (improved) Added I2C command to allow configuration of Airborne camera and other I2C bus connected devices.

- All - (improved) Added improved focus metric algorithms selectable by SetSystemValue.

- All - (fixed) Set auto chop to ON by default for analog cameras.

- All - (fixed) Low power mode - fixed missing data in performance graphs.

- 3000 - (fixed) Low power mode - the same camera can now stream to both Net0 and Net1.

- 3000 - (fixed) Now allows blending of small format camera to match format of larger camera (e.g., 240 x 320 IR camera to match 720p EO).

- 3000 - (fixed) Crash when using Blend with ColorIR mode and user defined palettes.

- Panel Plus (improved) Added autofocus parameters to Panel Plus.

**2.24.03 (10/05/2017)**

- First initial public release.  See the 2.24 Software Release for a complete list of new updates and features.