# Simplon revision history

# Log of changes between individual Simplon versions

**Leutron Vision** 

# Simplon revision history: Log of changes between individual Simplon versions

**Leutron Vision** 

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# **General information**

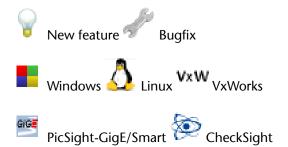
# Scope of the manual

The document lists all major updates, new features and bug fixes as they appeared in individual released Simplon versions.

### **Related documents**

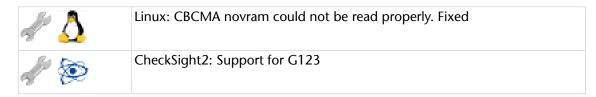
- PicSight-GigE & PicSight-Smart revision history overview of new features and fixed bugs between individual releases of PicSight-GigE/PicSight-Smart firmware.
- CheckSight revision history overview of new features and fixed bugs between individual releases of CheckSight firmware.

# 1. Release notes for Simplon, sorted per version



### Version 1.00.102

### **Simplon GenTL Producer**



### **Simplon API**



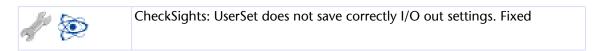
### Version 1.00.099

### **Simplon GenTL Producer**



### Version 1.00.098

# Simplon GenTL Producer



# Version 1.00.097

√ <u>\</u>	Linux adaptions
d €	CheckSights: Some sensors may get triggered during acquisition configuration. Fixed.

### Simplon GenTL Producer



All CCD sensors not functional in 1.00.095. Fixed

### **Simplon API**



Simplon .NET 4.0 x64 was not correctly recompiled. Fixed.

### Version 1.00.095

### **Simplon GenTL Producer**



CheckSight: HW resource conflict caused User signal 0 to be activated without user intervention. Fixed.

### Version 1.00.094

### **ImageProcLib**



Bg fixes in GreenToGreyscale and NearestNeighbour Bayer decoding methods.

### **Simplon GenTL Producer**







Win7 filter driver (NDIS6): Was not possible to recover from buffer overflow, no more image acquired when going out of buffers. Fixed

# **Simplon API**



 $Introduced\ the\ Is Available By Name ()\ and\ Is Implemented By Name ()\ functions.$ 

### Version 1.00.088

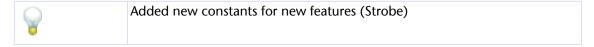
### Simplon GenTL Producer





CheckSight: Added the possibility to trigger a timer via User Output.

### **Simplon API**



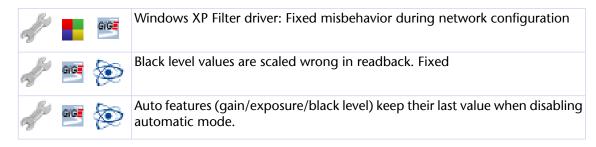
### Version 1.00.086

### **Simplon GenTL Producer**

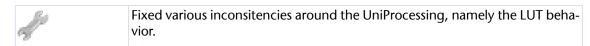
<b>₩</b>	CheckSights: Completed LUT / White balance handling
4	CheckSight2: Added Strobe control

### Version 1.00.085

### **Simplon GenTL Producer**

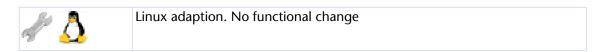


# **Simplon API**



### Version 1.00.084

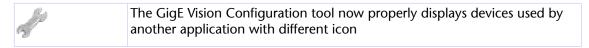
# **Simplon GenTL Producer**



### Version 1.00.083

df ■	LvGev: channel threads might be terminated before natural completion possibly not releasing owned resources. Fixed.
Jr 📘	Filter Driver: Prevented BSOD on client application unexpected termination (crash/process kill) while acquiring from camera.

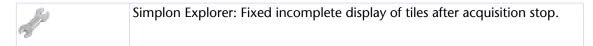
### **Tools**



### **Simplon GenTL Producer**

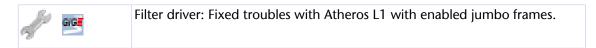
og og	GenTL: Camera IP address properly updated upon rescan.
A 🐑	CheckSight: Fixed BUFFER_INFO_PIXELFORMAT_NAMESPACE query.
A second	Fixed device discovery and ForceIP issues in special network configurations.

### **Simplon API**



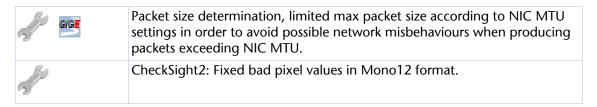
# Version 1.00.081

### **Simplon GenTL Producer**



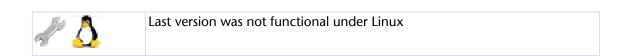
### Version 1.00.080

### **Simplon GenTL Producer**



# Version 1.00.079

### **Tools**





### **Simplon GenTL Producer**



### Version 1.00.078

### **Simplon GenTL Producer**

A 🎘	Repeated start/stop acquisition was changing exposure time on CCD sensors. Fixed.
<b>€</b>	Max streaming packet size could not be determined after a stream acquisition. Fixed

### **Simplon API**

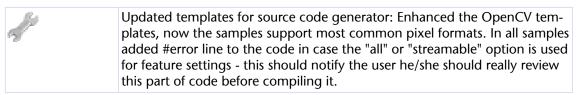
V	Simplon Explorer: Added button to search currently selected feature in the selected PDF manual (Windows only, Adobe Acrobat Reader must be installed). Incomplete images are announced besides the chunk data label.
	Introduced LvBuffer_UnilmageOffset, added to source code templates.
8	Fixed bug causing that code for find by TLType on CheckSight was generated with an empty string.
	Fixed bug in source code generator, causing the correct target folder was not opened when it was changed by user.

### Version 1.00.077

### **Simplon GenTL Producer**

and the same of th	CheckSight2: 8bit monochrome LUT fixed
	Win XP: PC freeze on acquisition when filter driver in use. Fixed.

# **Simplon API**



# **Simplon Setup**

A second	Fixed the setup of the Filter Driver for x64 operating systems.
8	



### Simplon GenTL Producer



Removed various resource/memory leaks

### Version 1.00.075

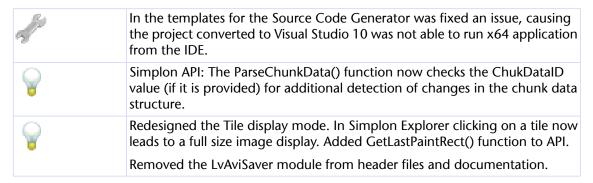
### **Simplon GenTL Producer**





Windows Vista/7: Problem with acquisition when filter driver is installed but not enabled on a specific adapter. Result was no error but no image received. Fixed.

### **Simplon API**



### **Simplon Setup**



The filter driver update was not reliable, now the filter driver is first uninstalled, then new version of the driver installed.

# Version 1.00.074

#### **Tools**



Fixed bug preventing the Simplon Explorer and other tools to run on some systems because it failed to find some of the required libraries.

N 🔯	Feature Tree: Added LUT reset
N 🐑	CheckSight1/2: Enabled White balance procedures.



### **Simplon Setup**



Added installation of Simplon adapter for Cognex software

### Version 1.00.072

### **Simplon GenTL Producer**



Fixed a bug in CheckSight device driver, which was preventing the driver to compile with the latest kernel versions.



CheckSight: Fixed inconsistency in image format parameters (offset X, Y) when reducing sensor readout dimensions.

# Version 1.00.071

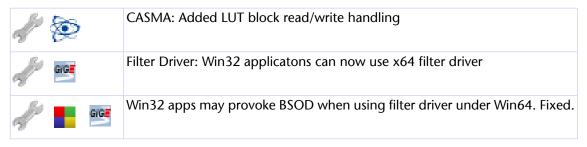
### Simplon GenTL Producer



CheckSight2: Device features according FW version

### Version 1.00.069

### **Simplon GenTL Producer**



# **Simplon API**



Fixed bug in Simplon .Net Class Library, causing that some output parameters were not correclly returned. For example the GetFeatureByName() function did not return the proper feature ID for other modules than LvModule.

### Version 1.00.068

# **Simplon GenTL Producer**





NDIS6 filter driver included

### **Simplon API**



Fixed bug in source code generator, causing the enums were set by the string values and not by Simplon constants (which also caused enums were not included at all in source code for PicSight Smart).

### **Simplon Setup**



Fixed a bug in Simplon Log system, which could under certain conditions cause a crash at the application exit.

### Version 1.00.067

### **Tools**





Fixed bug that could cause the GigE Vision config tool crash when verifying an invalid IP address

### **Simplon API**



The number of tiles is now automatically limited to the number of postponed buffers.

### Version 1.00.066

### **Simplon GenTL Producer**





CheckSights: XML Updated

# Version 1.00.065

### **Simplon GenTL Producer**





All CheckSights: Fixed problem causing system to freeze when short in acquisition buffers.





CheckSight: Fixed wrong polarity for opto input when used as frame trigger.

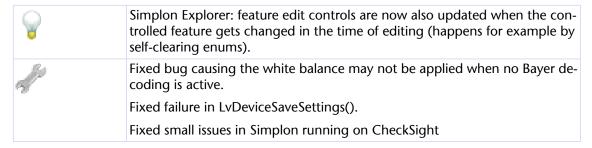
# Version 1.00.064

# **Simplon API**



Remote device XML - workarounds to overcome flaws in GenApi by autofeatures.

### Simplon API



### Version 1.00.062

### **Simplon GenTL Producer**

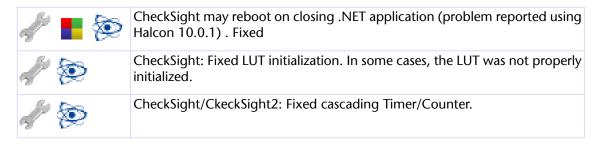


### **Simplon API**



### Version 1.00.061

### **Simplon GenTL Producer**



P	Simplon API: UniLUT now available also via LUT features in the same way as remote device LUT.
	Added new Device features: DeviceEndianessMechanism, LvGevFindMaxPacketSize, LvGevPacketSizeValue, LvGevTestPacketSize, LvGevPacketSizeTestSuccess, LvGevCCTT, LvGevCCRC, LvUniLUTMode, LvUniLUTSelector, LvUniLUTEnable, LvUniLUTIndex, LvUniLUTValue, LvUniLUTValueAll
	Device features marked as obsolete: GevFirstURL, GevSecondURL, LvSensorExposureMode, LvGevFindMaximumPacketSize, LvGevMaximumPacketSize, LvUniResolvePixelFormat, LvExposureMode_TriggerWidth





To Image Processing Library added functions for accessing single LUT value.

# Version 1.00.060

### **Simplon GenTL Producer**



### **Simplon API**

A second	Bugfix in Simplon Explorer source code generator - float value entered manually (not by slider or buttons) was not recorded to history.
A second	Fixed bug in source code templates for OpenCV samples for Linux.

# Version 1.00.059

### **Simplon API**

	- Simplon header files updated to fully comply to plain C compilation
<b>o</b>	- Updated source code generator and templates. Added a solution for the case the camera autoloads its configuration from file after connect.
○ A	Added Source Code Generator template for Linux application based on Qt
¥ 🚣	Improvements in all Linux sample templates
₽ 🐧	Added Source Code Generator template for Linux application using OpenCV library
	Small improvements in other Linux templates

# Version 1.00.058

# **Simplon GenTL Producer**

A 🐑	CheckSight: Fixed dimension limits when AOIMode=Manual. Wrong limits were causing corrupted acquisitions when changing OffsetX/Y
d 🐧 🔯	Fixed access mode of the CheckSight user-set files, so that they work reliably in multi-user environment.
N ∆	Fixed possible hang when starting acquisition from a GigE Vision camera Various minor fixes and improvements in Linux version of Simplon

8	Added option to Simplon Explorer: Automatically save camera settings on disconnect and load back when it is connected again.
	FPS now measured with more precise timer.





Chunk data display updated, fixed occasional 0 shown in some chunk data.

### Version 1.00.057

### Simplon GenTL Producer

- GGE	PicSight Firmware version sometimes wrongly displayed in updater tools. Fixed
A second	GetNumPortURLs never return error but zero as number of URLs in case no XML is available.
- GGE	PicSight: Fixed access to RGB LUT.
J 🐑	CheckSight: exposure adaptions on framerate change

### Version 1.00.054

### **Simplon GenTL Producer**





PicSight: Double received events, due to resend requests, are now filtered and not delivered to consumers.

### Version 1.00.053

### **ImageProcLib**



Added support for RGB formats in LvipApplyLut() and LvipApplyColorCorrection() (besides the originally supported BGR formats)

### **Simplon API**



- Updated the bahevior for White Balance calculation when HW LUT is used.
- Simplon Explorer bugfix when polling was switched off, the white balance calculation disabled the white balance reset command

# **Simplon Setup**



Fixed failure to uninstall previous version when Simplon was installed to a different folder. Enhanced setup logging.

# Version 1.00.052

### **Documentation**



The HTML Help files generated in the Simplon documentation failed to support full text search. Now fixed and available again.



# **Simplon GenTL Producer**

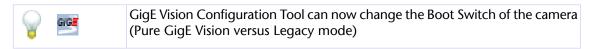
A Partie	G/G <mark>.</mark>	Packet size calculation performed on device open when the following ini entry is set [GenTL.Device.GEV] TestPacketSizeOnOpen
1	GIGE	Added Device features for GVCP timeout and retry count
\$ P	GIGE	Fixed Manifest feature incompatibility. Requires NXSDS2 >= 2.00.051

### **Simplon API**

8	Added support for variable pixel format.
8	Simpon: The delay-loading of lv.simplon.display.dll could cause dropped images at startup, fixed.
	Simplon Explorer:
	- Enhanced the Statistic tab in
	- Added possibility to save all images
	- Optimized image skipping in display when the live is too fast.
	- Removed the option for image skipping from lv.simplon.ini
	- Changed all open/save dialogs to a faster version

# Version 1.00.051

### **Tools**



# Version 1.00.050

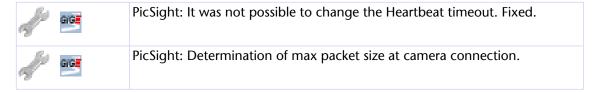
### **Simplon GenTL Producer**



G43A: Improved image quality. Prevent vertical stripes in trigger mode on certain gain values.
Added syntax highlighting to Explorer source code snippet.

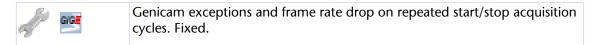


### **Simplon GenTL Producer**



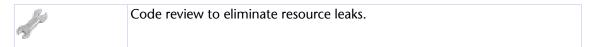
### Version 1.00.041

### **Simplon GenTL Producer**



### Version 1.00.040

### **Simplon GenTL Producer**



### **Simplon API**



### **Simplon Setup**



# Version 1.00.039

<b>₩</b>	Increased logged information about loaded filter driver.
	PicSight extended chunk mode reported wrong image info when filter driver is in use. Fixed.

### **Simplon GenTL Producer**

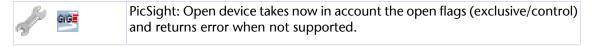
a financia de la companya della companya della companya de la companya della comp	GenTL 1.2: GCGetPortURLInfo/GCGetNumPortURLs/GCReadWritePortStacked
N 🥯	CheckSight: User sets are now specific to the mounted sensor to prevent incompatible settings.
d of ∆	Fixed bug potentially causing device access problems when using from multiple user accounts.

### **Simplon API**

	Upgraded GenlCam GenApi to version 2.1.1
A so	Fixed wrong names by LvLUTMode, LvBalanceRatioSelector, LvBalanceWhiteAuto, LvGevDeviceClass, LvGevIPConfigurationStatus and LvGevSCPDirection enums (were accidentaly prefixed like non-Net constants and were causing compile error in generated source code).
P	Simplon API: Added SetInt(), GetInt() and GetIntRange() function to all APIs for convenience - this is equal to SetInt64(), GetInt64() and GetInt64Range(). The SetInt() should be now preferred instead of SetInt32() to avoid possible sign problems with 32-bit unsigned int parameter.

### Version 1.00.037

### **Simplon GenTL Producer**



# **Simplon API**



# Version 1.00.036

- FEE	PicSight Gige: LUT values correctly accessed through direct index and LUT-ValueAll
A.	LvGev: Use of GigeVision 1.2 features to prevent firewall issues on streaming and message channels



### **Simplon API**

A.	Fixed CPP code generator templates which did not compile on some systems
Ago.	- Simplon Explorer: Figed bug in source code generator - the Enums for which a Simplon constant was not defined were written incorrectly in the source code.
	- Simplon Renderer module - enahnced the functionality of display modes.
<b>\text{\tin}\text{\tetx{\text{\tetx{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\}\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex</b>	- Simplon Source code generator: Win01 templates for CPP and PlainC modified - added support for setting white balance and saving it to INI file.
	- Simplon Explorer - changes in some features are now reflected in GUI (Display Mode, Update Device List)
8	The Source code generator now offers as the default option the History (of feature changes) for the code generation. Only for GigE cameras with FW < 2.00.039 it uses as default the original Streamable option, because the old FW did not reset the camera parameters after its connection.
A.	In Simplon Settings the former 2 options "Use Queue" and "Buffered Logging" were unified into one: "Disable All Buffering".
A second	Fixed a bug causing a crash in Simplon Explorer, when the device was receiving the user log from a smart camera, then it was closed and reopened.

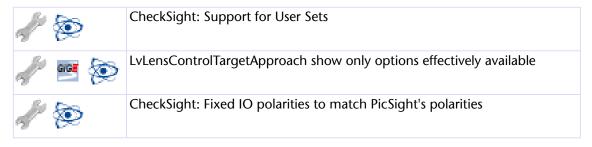
### Version 1.00.035

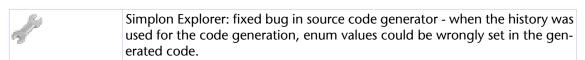
### **Simplon API**



# Version 1.00.034

### **Simplon GenTL Producer**







### **Documentation**

8	Added chapter about using our cameras in 3rd party libraries (in the hardware manuals)
8	Chapter about features of the Simplon GenTL Producer added to the hardware manuals

### **Simplon GenTL Producer**



# **Simplon Setup**



# Version 1.00.032

# **Simplon GenTL Producer**

N 🐧	Fix to the random system hangs during image acquisition (especially with faster sensors).
d €	CheckSight. Fixed image corruption on stop acqusiition (few pixels in top left corner were not belonging to the image)
df 🐑	CheckSight: Handling of line debouncing parameters
df 🐑	CheckSight: Fixed startup state of output lines, they are now set in the same way as their boot up state.
dr 🔯	CheckSight: Fixed inconsistency with chunk mode, when no field is enabled the only image field is now transferred instead of no chunk, same as PicSight.

df 🐑	Reduced maximum readout height to a multiple of 4 because of bayer pattern: P32, P33, P34, P52, P83, G32
A 🐑	R312AB: fixed binning/decimation



### **Simplon API**



Simplon Explorer: added source code templates for QT 4.5 sample applications

### Version 1.00.030

### **Simplon GenTL Producer**

	PicSight GigE: Displayed IP updated on rescan
A second	Cameras were still reported (as unavailable) when disconnected. They are now correctly listed/not listed when present/not present.

### **Simplon API**

A second	Source code templates for OpenCV samples: fixed problem with RGB pixel format and added OpenCV exception handling.
P	Simplon Explorer: added source code template for a Windows application, which does not use a callback function; instead it picks images in the main thread on a timer.
P	Simplon API: Enhanced the ParseChunkData() function - now automatically forced to decode the layout on next buffer, if the decoding of the layout on the current buffer fails.

### Version 1.00.029

# **Simplon GenTL Producer**







Fixed crash on device rescan while camera(s) in use

# **Simplon API**





G32: Fix exposure range in trigger mode

# Version 1.00.026

# **Simplon API**



Simplon Explorer: fixed bug causing the IP addresses could not be set.

### Simplon GenTL Producer



The Setup now installs also the PDB files for MS debugger to Bin\Debug folder.

### Simplon API



#### Simplon Explorer:

- added possibility to save/load the whole configuration
- to control the acquisition on multiple cameras with one click
- issue the SW trigger periodically by timer

### Version 1.00.024

### **Simplon GenTL Producer**





CheckSight: UserOutput handling.

### **Simplon API**



To all templates added FlushQueue(AllDiscard) before the buffers deletion - to satisfy the GenTL standard.



Simplon API adapted so that the stdint.h file need not be distributed.



Simplon .Net Class Library: added missing constants to enums.

# Version 1.00.023

### **Simplon GenTL Producer**





PicSight: Restarting the acquisition may produce a number of corrupted images on start when not using filter driver. Fixed.

# Version 1.00.022

### **Simplon API**





G43AB: fixed vertical stripes at reduced readout width

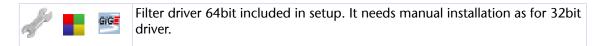
# **Simplon GenTL Producer**

	Windows x64: Use of GEV filter driver
N 🐑	CheckSight: Added retrieve of IO line status
A second	Fixed exception on lv.explorer exit

# **Simplon API**

J 🐑	Increased minimum readout height to 4 lines, for CheckSight CCD color sensors.
8	Simplon Explorer: added I/O dialog for easy monitor and manual control of input and output lines.
	Simplon Explorer:
*	- Redesigned the chunk data display in the line, to support string chunks, integer selectors and unknown chunks.
	- The FW checking now offers immediate switch from 1.x to 2.x and reboot.
	- Fixed bugs appearing when working with a smart camera in the feature locked mode.

# **Simplon Setup**



# Version 1.00.020

# **Simplon GenTL Producer**

3/20	GIG	<b>©</b>	Updated buffer info according GenTL 1.2
1	GIGE		Updated event log handling according GenTL 1.2

# **Simplon Setup**

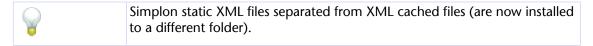
So	Included sample script for Halcon
T	



### **Simplon API**



### **Simplon Setup**

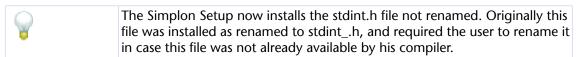


### Version 1.00.018

### **Simplon API**

ó	& P	Simplon Explorer: now opens the camera in the LvDeviceAccess_Control mode (previously in the LvDeviceAccess_Exclusive). The same applies to all source code templates.
ø	J.	Simplon Explorer: fixed a bug causing a crash when editing an integer feature with a hexadecimal representation.
	P	Simplon Explorer: Added notification about obsolete FW on Leutron GigE cameras (optional). The timeout on CmdExecute changed from 5 seconds to infinite (for Leutron cameras) + added possibility to set the timeout in the lv.simplon.ini file.

### **Simplon Setup**

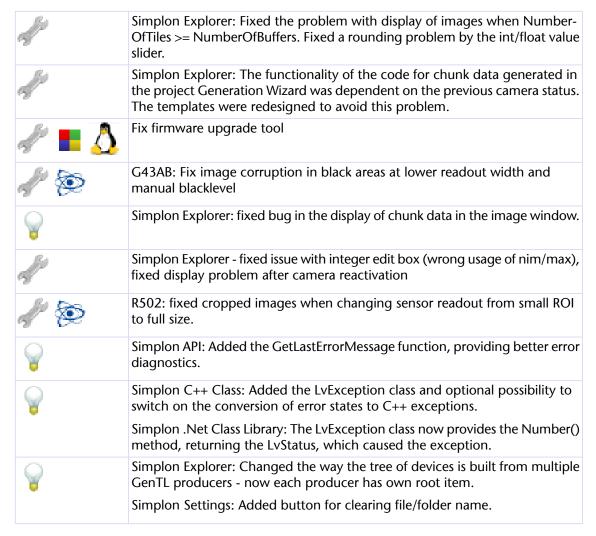


# Version 1.00.017

J 👰	CheckSight: Exposure limits updated with change of image formatting
J 🐑	CheckSight: LUT Handling: LUT access selection now based on current pixel format.
d <u>■</u>	CheckSight: RS232 was not receiving characters. Fixed.
J 👰	CheckSight: HW driven frame rate control.

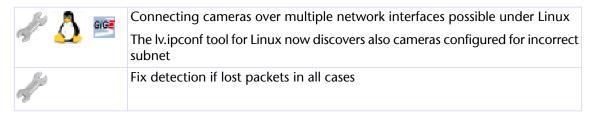


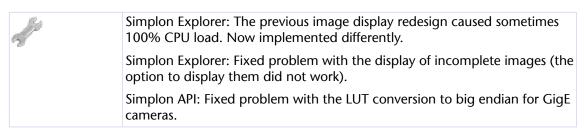
### Simplon API



### Version 1.00.016

# Simplon GenTL Producer







### **Simplon GenTL Producer**

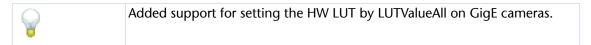


### **Simplon API**

A Since	Simplon Explorer: redesigned the implementation of buffer painting, the previous solution sometimes caused the image painting loop was broken and images stopped to be displayed until the camera was disconnected and connected again.
GGE	Fixed GigE firmware update on Windows 7
P	Implemented FindBySerialNumber and FindByUserID options for the LvInter-faceFindDevice function. Added FindByUserID to source code generator templates.
8	Added the DontPaintIncomplete flag to LvRenderer - disables painting of incomplete images. Simplon Explorer now uses this flag as an option inSettings to avoid painting incomplete images.
J 👰	R502: fixed hardware triggering

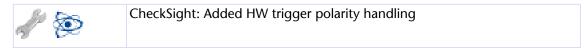
### Version 1.00.014

# **Simplon API**



# Version 1.00.012

# **Simplon GenTL Producer**



# Version 1.00.011

P	R312AB: synchronized exposure time changes in triggered mode. Limited exposure time range.
P	R502: global reset support
N 🐑	R502: inverting pixel clock



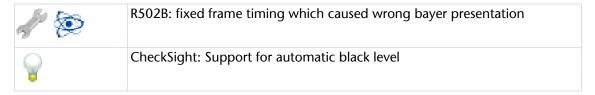
### **Simplon Setup**



x64 distribution was incomplete

### Version 1.00.010

### **Simplon API**



### Version 1.00.009

### Simplon GenTL Producer



R502: increased framerate to 14 FPS at full resolution

### **Simplon API**



QT applications available also for the x64 platform.

Source code generator templates modified to support the x64 platform.

### **Simplon Setup**



Finalized the installation of 64-bit Simplon, new dialog for selecting the platform. Filter driver not yet available.

# **Version 1.00.008**

### **Simplon API**



Simplon Explorer - changed the behavior of the image window (not staying on top), added the handling of the <Enter> key in the Send command combo box.

Source code generator: templates extended to provide code for chunk data setting and processing. Enhanced error handling in source code.

### Version 1.00.007

### Simplon GenTL Producer







PicSight/CheckSight: Enabled strobing on frame rate controlled acquisitions





NickName and Serial number can be retrieved by Gige interface without opening the camera.

### **Simplon API**



Fixed bug in Simplon Explorer causing the Info tab was disabled when SysLog was not enabled in Simplon Settings.

### **Simplon Setup**

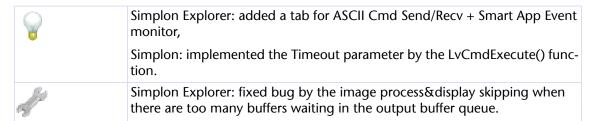




Inclusion of 64bit DLLs for beta testing.

### Version 1.00.006

### **Simplon API**



### **Simplon Setup**



Added the DisableFileLog option to LvSetup.ini.

### Version 1.00.005

### **Simplon API**

A second	Simplon Explorer - fixed 2 bugs with the repaint of images.
8	Added shortcut keys to Simplon Explorer.  Added first beta version of Simplon .Net Class Library

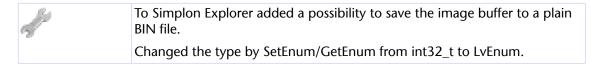
### Version 1.00.004

A second	R502 frame timing fixed
N 🐑	CheckSight: New chunk layout including availability bits.





### **Simplon API**



### **CASM Firmware**



### Version 1.00.002

### **Simplon GenTL Producer**

A Total	Halcon crashed on querying available devices. Fixed.
J 🐑	CheckSight: LUT updated properly on change
J 🐑	CheckSight: Programmable frame rate

# **Simplon API**

P	For the PicSight Smart source code templates the Simplon Explorer now determines the set of available API functions from the currently installed version of Smart SDK (NX-SDS). The "Open target folder" button opens a command line window in the target folder and runs automatically the LvSetup.bat file.
1	Fixed memory leak happenning when pixel format was changed and UniProcessing was ON.

# Version 1.00.000

Sec.	First official release
8	

### Version 0.01.094

### **Simplon GenTL Producer**



### **Simplon API**

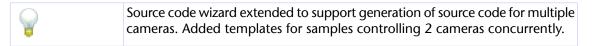


### Version 0.01.093

### **Simplon GenTL Producer**

d 🐑	CheckSight: Support for asynchronous reset and IOs for secondary acquisition path. Requires FW >=17-001
d 🐑	CheckSight: Fixed mapping of frame trigger sources. It was hardcoded to TTL1 in previous versions.

### **Simplon API**



### Version 0.01.092

## **Simplon API**

	Simplon API: Added new LvDevice constants and enumerations.
¥	Simplon Explorer: updated camera tree behavior and icons
A second	Fixed a bug, causing the Info panel in Simplon Explorer was sometimes hidden in the multiple camera mode.

# Version 0.01.091

The second secon	Added templates for source code generator for the usage of the OpenCV library	
<b>a</b>	in Windows.	

# Version 0.01.090

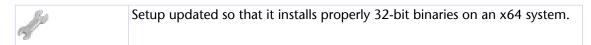
### **Simplon GenTL Producer**

	G	iiG.	Filter driver correctly reports incomplete frames.
<b>₩</b>	G		Driver related threads were running at normal priority possibly causing misbehavior on system load.
1			Multiple instances allowed. Locking mechanism moved to single device level.

# **Simplon API**

8	Simplon Explorer redesigned to support running multiple cameras concurrently. The original design still available as an option in Settings.
A Section of the sect	Fixed a bug in the source code generator, causing wrong code generation from a template under a certain combination of options (nested IFs incorrectly parsed in the templates).
9	Simplon Explorer: Added icons by cameras, indicating the access status of each camera. Added link to PDF manual as help and link to a web page. Added a Statistics tab.
A so	Fixed issues in the Renderer tile mode in Simplon API.

# **Simplon Setup**



# Version 0.01.089

# **Simplon GenTL Producer**

A 🔯	CheckSight: Enabled Long time exposure mode
A second	Redirect lygev.log to common ly.simplon.log

8	Image processing library API changed (#defines to enums)
	Simplon Explorer: the list of chunk data values displayed on the line above the image is now built dynamically, from chunk data actually available.





Fixed 2 bugs in the source code generator - missing were selectors in other than DeviceRemote group, code for some read-only features was not shown.

### Version 0.01.088

### **Simplon GenTL Producer**

J 🐑	CheckSight: Enabled ManualAOI mode.
J 🐑	CheckSight: Support for Decimation
J 🐑	CheckSight: Enabled autoexposure for sensors providing it.
<b>₩</b>	CheckSight: Fixed binning/decimation. Was causing crash/hang when enabled.

# **Simplon API**

8	Simplon Explorer: Added persistence of the "Source code" menu items.	
P	Simplon Explorer: unsuccessful feature write operations are indicated by changing the value color to red and adding a label: (write failed!).	
A second	Small bugfixes in Simplon Explorer (resizing limits of image, 5% and 10% feature increments and decrements, hexadecimal number edit, icons changed).	

# Version 0.01.087

### **Simplon GenTL Producer**

€ GG	PS-Gige low buffer handling reviewed.
N 🐧	Fixed issues in Linux version: Logging file access rights in multi-user environment.
	Problems with GigE camera discovery, resolved on single network card configurations, pending for multiple NC configuration.

P	Redesigned the way the camera is connected in Simplon Explorer (now the tree of cameras is available in a tab). Reorganized buttons and icons.
N 🐧	Fixed issues in Linux version:  Fixed crashes when displaying images on 24-bit display configuration
	Fixed output to TIFF and JPEG
	Fixes in the source code generator outputs



### **Simplon Setup**





Improvements to Linux Simplon setup (RPM, DEB). Added post-install steps to update environment and configure dynamic linker. Included lv.ipconf tool.

### Version 0.01.084

### **ImageProcLib**



Added functions for saving and loading JPEG images.

### **Documentation**





Initial version of CheckSight user manual available

### **Simplon API**



Added API for polling the non-cached features - LvStartPollingThread(), LvStopPollingThread(), LvPoll().

Added info features for obtaining the cached status and recommended polling time.

In Simplon Explorer the features are polled with the frequency of 1 second. Polling can be switched off in the Settings dialog. Furthermore added an option to switch on chunk data features at camera open to Simplon Explorer (before it was switched on always).



Simplon Explorer: Added possibility to use C escape sequences in string features (to be able to express non printable characters in RS232 commands); added "Update feature tree" button for refreshing the whole tree.



Implemented functions for saving and loading JPEG images. Added JPEG format as option to Simplon Explorer Save Image dialog.

### Version 0.01.082

### **GigE-Vision**



GigE-Vision config tool: changing IP configuration, UserID and updating Pic-Sights

### Simplon GenTL Producer





CASMA1: Changed novram search order

### Version 0.01.081

### **Simplon GenTL Producer**



Fixed CASMA Timer/IO setup after FPGA change (FW12)

### Version 0.01.080

### **ImageProcLib**



Fixed overflow in gain and offset calculation in LUT functions.

# Simplon GenTL Producer



CASMA RS232 support

### Version 0.01.079

### **Simplon GenTL Producer**



Changed CASMA name to official CheckSight

# **Simplon API**



Added the display of the LUT to Simplon Explorer

Added persistence to expand/collapse states of tree nodes when switching between levels.

# Version 0.01.078

### **Simplon GenTL Producer**



Allow multiple, nested InitLib/CloseLib

### **Simplon API**



Simplon Explorer: added the Settings dialog, the feature tree is not expanded by default, the last used camera can be automatically open.

## Simplon API



Simplon Explorer: cameras made sorted alphabetically, added button for SW trigger, added saving to BMP and TIFF formats.

## **Simplon Setup**



Fixed problem with creating the GENICAM\_GENTL32\_PATH and GENICAM\_GENTL64\_PATH environment variables.

## Version 0.01.074

## **Simplon API**



Changed name of features: LvTimestampsResetMaskValueAll->LvImageStampsResetMask, LvTimestampsResetMaskSelector->LvImageStampSelector, LvTimestampsResetMaskValue->LvImageStampResetEnable. Implemented mechanism of backward compatibility with old features.

## Version 0.01.073

## **Simplon API**



Fixed bug in the source code generator causing uncompilable code for enum entries, for which a predefined constant did not exist.

Fixed bug causing a camera without defined vendor could not be open.

# Version 0.01.069

# Simplon API

P	Added constants for LvVariablePayloadSize, LvSerialPortxxx, LvSmartAppExitEvent, renamed some LvChunk constants to Chunk, redefined Line constants.
8	Simplon Explorer now handles the IsDone() for command features - a hour glass cursor is displayed during the wait and other features in the tree are not clickable during the wait.
P	Added 2 new native functions: LvSystemFindInterface() and LvInterfaceFind-Device().
	Updated Simplon Explorer source code generator to offer usage of these 2 functions.
A Second	Th LvGetEnumStrByVal() was not accepting NULL for symbolic name - fixed.



## **Simplon API**

\$ E	GIG	Filter driver: fixed problem on acquisition stop that could cause BSOD
8		Added support of "Plain C for PicSight Smart" to the source code generator in Simplon Explorer.

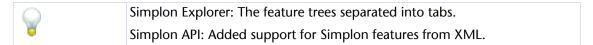
## Version 0.01.065

## **Simplon API**



## Version 0.01.063

## **Simplon API**



## Version 0.01.061

# **Simplon API**



# Version 0.01.060

# **Simplon API**

A Since	- In Simplon Explorer fixed bug with the wrong colors of some read-only items.
P	- Added new GUI types: LvFtrGui_IpV4Address, LvFtrGui_IpMacAddress. For features with this GUI type can be used LvSetString() and LvGetString()
	- In Simplon Explorer used new GUI types - IP and MAC adresses now displayed naturally.

### **Documentation**



The introductory manual "Getting Started Simplon" available

## **Simplon GenTL Producer**



Add support for GEV 1.1 and 1.2

## **Simplon Setup**





Linux installer for Simplon is available in rpm, deb and tar.gz formats.

## Version 0.01.054

### Simplon API



The buffer handling in the API was changed so that the buffers are treated in the same way as System, Interface, Camera, ... objects. Some functions were renamed as they now belong logically to the Buffer object, not to the Stream.

## Version 0.01.049

## **Simplon GenTL Producer**





Support for LV Atom-based Streaming Module (CASMA)



Device handle is now different from remote device handle as requested by GenTL specifications.

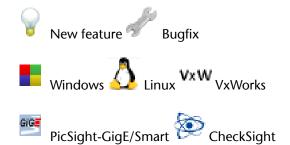
# Version 0.01.044

# **Simplon GenTL Producer**



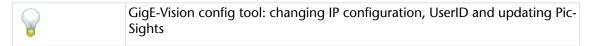
Rmoved pre-SenIf support. Obsolete lv.camdef.dll / lv.camdef.dat

# 2. Release notes for Simplon, sorted per product



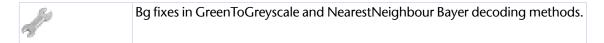
# **GigE-Vision**

### Version 0.01.082

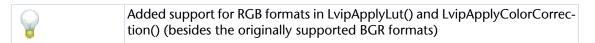


# **ImageProcLib**

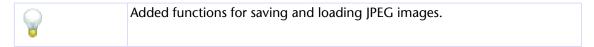
### Version 1.00.094



### Version 1.00.053



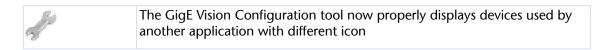
### Version 0.01.084



### Version 0.01.080



### **Tools**







Last version was not functional under Linux

### Version 1.00.074





Fixed bug preventing the Simplon Explorer and other tools to run on some systems because it failed to find some of the required libraries.

## Version 1.00.067





Fixed bug that could cause the GigE Vision config tool crash when verifying an invalid IP address

### Version 1.00.051





GigE Vision Configuration Tool can now change the Boot Switch of the camera (Pure GigE Vision versus Legacy mode)

## **Documentation**

### Version 1.00.052



The HTML Help files generated in the Simplon documentation failed to support full text search. Now fixed and available again.

## Version 1.00.033

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٦		Ú	r
	Ę	J	
	7		

Added chapter about using our cameras in 3rd party libraries (in the hardware manuals)



Chapter about features of the Simplon GenTL Producer added to the hardware manuals

### Version 0.01.084





Initial version of CheckSight user manual available

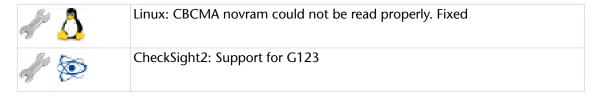
### Version 0.01.056



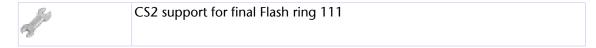
The introductory manual "Getting Started Simplon" available

# **Simplon GenTL Producer**

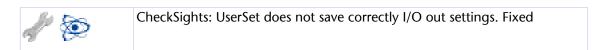
### Version 1.00.102



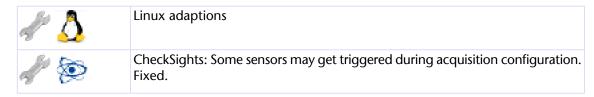
### Version 1.00.099



## Version 1.00.098



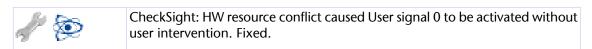
### Version 1.00.097



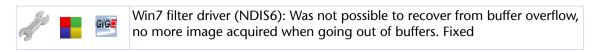
## Version 1.00.096

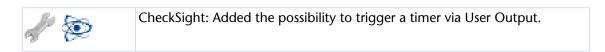


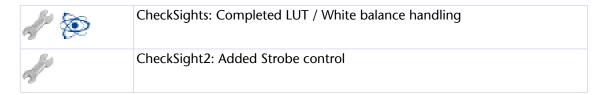
# Version 1.00.095



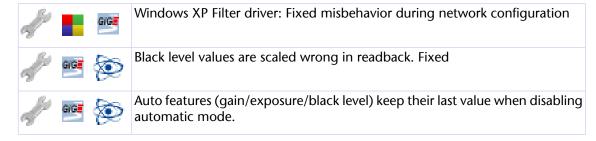
### Version 1.00.094







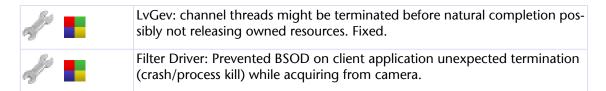
### Version 1.00.085



### Version 1.00.084



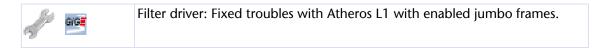
### Version 1.00.083

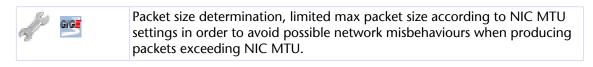


### Version 1.00.082

	GenTL: Camera IP address properly updated upon rescan.
A 🐑	CheckSight: Fixed BUFFER_INFO_PIXELFORMAT_NAMESPACE query.
A second	Fixed device discovery and ForcelP issues in special network configurations.

### Version 1.00.081

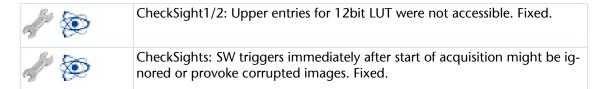




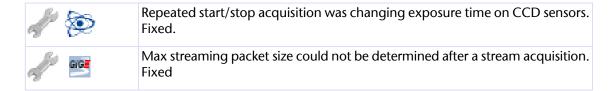


CheckSight2: Fixed bad pixel values in Mono12 format.

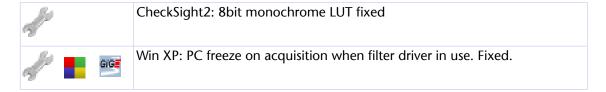
### Version 1.00.079



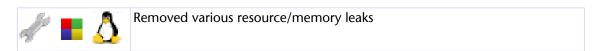
### Version 1.00.078



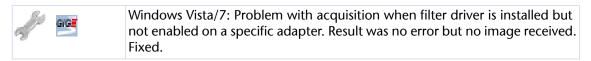
### Version 1.00.077



### Version 1.00.076

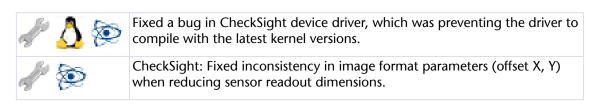


## Version 1.00.075



### Version 1.00.074

<b>₩</b>	Feature Tree: Added LUT reset
A 🐑	CheckSight1/2: Enabled White balance procedures.





## Version 1.00.069

1	<b>©</b>		CASMA: Added LUT block read/write handling
A solution	G/G.		Filter Driver: Win32 applications can now use x64 filter driver
A solution		GIGE	Win32 apps may provoke BSOD when using filter driver under Win64. Fixed.

# Version 1.00.068



# Version 1.00.066



## Version 1.00.065

ARREST CARGO COM	All CheckSights: Fixed problem causing system to freeze when short in acquisition buffers.	
<b>₩</b>	CheckSight: Fixed wrong polarity for opto input when used as frame trigger.	

# Version 1.00.062

S0	GenTL: Read/WritePortStacked were not properly exported. Fixed
o.Al.	

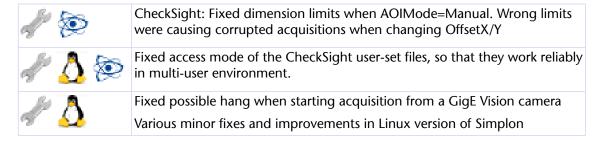
<b>₩</b> 📘 🐑	CheckSight may reboot on closing .NET application (problem reported using Halcon 10.0.1) . Fixed
d 🐑	CheckSight: Fixed LUT initialization. In some cases, the LUT was not properly initialized.
J 🐑	CheckSight/CkeckSight2: Fixed cascading Timer/Counter.





CheckSight Frame rate handling fixed.

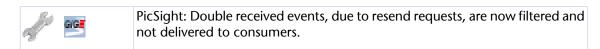
### Version 1.00.058



### Version 1.00.057

	PicSight Firmware version sometimes wrongly displayed in updater tools. Fixed
A Comment	GetNumPortURLs never return error but zero as number of URLs in case no XML is available.
- GGE	PicSight: Fixed access to RGB LUT.
J 🐑	CheckSight: exposure adaptions on framerate change

### Version 1.00.054



## Version 1.00.052

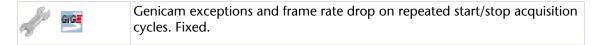
380	GIGE	Packet size calculation performed on device open when the following ini entry is set [GenTL.Device.GEV] TestPacketSizeOnOpen
200	GIGE	Added Device features for GVCP timeout and retry count
3	GIGE	Fixed Manifest feature incompatibility. Requires NXSDS2 >= 2.00.051

3	GIGE	Disabled packet size arbitration as it may cause misbehaviour on certain NICs.

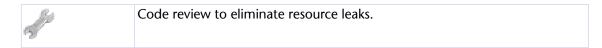


age:	PicSight: It was not possible to change the Heartbeat timeout. Fixed.
- BEE	PicSight: Determination of max packet size at camera connection.

## Version 1.00.041



## Version 1.00.040



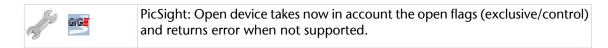
## Version 1.00.039

- G	ii G.E	Increased logged information about loaded filter driver.
<b>G</b>	100 m	PicSight extended chunk mode reported wrong image info when filter driver is in use. Fixed.

## Version 1.00.038

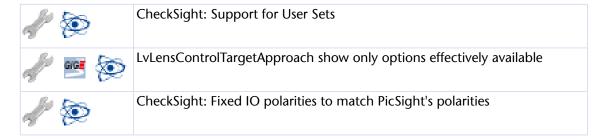
	GenTL 1.2: GCGetPortURLInfo/GCGetNumPortURLs/GCReadWritePortStacked
J 🐑	CheckSight: User sets are now specific to the mounted sensor to prevent incompatible settings.
<b>₫</b>	Fixed bug potentially causing device access problems when using from multiple user accounts.

### Version 1.00.037



<b>₩</b>	PicSight Gige: LUT values correctly accessed through direct index and LUT-ValueAll
A Section of the sect	LvGev: Use of GigeVision 1.2 features to prevent firewall issues on streaming and message channels





## Version 1.00.033



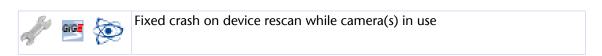
## Version 1.00.032

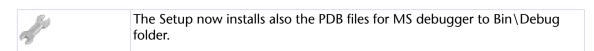
√ <u>\</u>	Fix to the random system hangs during image acquisition (especially with faster sensors).
J 🐑	CheckSight. Fixed image corruption on stop acqusiition (few pixels in top left corner were not belonging to the image)
J 🐑	CheckSight: Handling of line debouncing parameters
J 🐑	CheckSight: Fixed startup state of output lines, they are now set in the same way as their boot up state.
J 🐑	CheckSight: Fixed inconsistency with chunk mode, when no field is enabled the only image field is now transferred instead of no chunk, same as PicSight.

### Version 1.00.030

	PicSight GigE: Displayed IP updated on rescan
A	Cameras were still reported (as unavailable) when disconnected. They are now correctly listed/not listed when present/not present.

## Version 1.00.029









# Version 1.00.023



## Version 1.00.021

<b>₩</b>	Windows x64: Use of GEV filter driver
A 🥯	CheckSight: Added retrieve of IO line status
A Second	Fixed exception on lv.explorer exit

## Version 1.00.020

1	GGE 🤕	Updated buffer info according GenTL 1.2
3	GIGE	Updated event log handling according GenTL 1.2

## Version 1.00.017

<b>₩</b>	CheckSight: Exposure limits updated with change of image formatting
d 🐑	CheckSight: LUT Handling: LUT access selection now based on current pixel format.
<b>₩ =</b>	CheckSight: RS232 was not receiving characters. Fixed.
<b>₩</b>	CheckSight: HW driven frame rate control.

# <u>\$</u>	G/GE	Connecting cameras over multiple network interfaces possible under Linux The lv.ipconf tool for Linux now discovers also cameras configured for incorrect subnet
1		Fix detection if lost packets in all cases





Initialize network library explicitly to avoid GenTL library load problems.

## Version 1.00.012



CheckSight: Added HW trigger polarity handling

## Version 1.00.009



R502: increased framerate to 14 FPS at full resolution

## Version 1.00.007







PicSight/CheckSight: Enabled strobing on frame rate controlled acquisitions





NickName and Serial number can be retrieved by Gige interface without opening the camera.

## Version 1.00.004

A second	R502 frame timing fixed
d 🎘	CheckSight: New chunk layout including availability bits.
d €	CheckSight Frame rate handling was not properly working. Fixed.
A second	Fixed GetPortURL for non existing XML

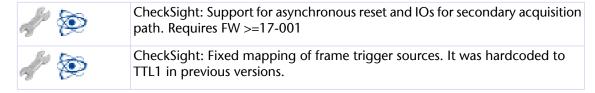
### Version 1.00.002

\$ T	Halcon crashed on querying available devices. Fixed.
d 🐑	CheckSight: LUT updated properly on change
J 🐑	CheckSight: Programmable frame rate

## Version 0.01.094







# Version 0.01.090

1	GIGE	Filter driver correctly reports incomplete frames.
<b>₩</b>	G/G <u>=</u>	Driver related threads were running at normal priority possibly causing misbehavior on system load.
1		Multiple instances allowed. Locking mechanism moved to single device level.

## Version 0.01.089

df €	CheckSight: Enabled Long time exposure mode
8	Redirect lygev.log to common ly.simplon.log

## Version 0.01.088

J 👰	CheckSight: Enabled ManualAOI mode.
A 🐑	CheckSight: Support for Decimation
J 🐑	CheckSight: Enabled autoexposure for sensors providing it.
J 🐑	CheckSight: Fixed binning/decimation. Was causing crash/hang when enabled.

## Version 0.01.087

GGE	PS-Gige low buffer handling reviewed.
A A	Fixed issues in Linux version:
V 🎎	Logging file access rights in multi-user environment.
	Problems with GigE camera discovery, resolved on single network card configurations, pending for multiple NC configuration.





CASMA1: Changed novram search order

### Version 0.01.081



Fixed CASMA Timer/IO setup after FPGA change (FW12)

## Version 0.01.080



CASMA RS232 support

### Version 0.01.079



Changed CASMA name to official CheckSight

### Version 0.01.078



Allow multiple, nested InitLib/CloseLib

### Version 0.01.056



Add support for GEV 1.1 and 1.2

## Version 0.01.049





Support for LV Atom-based Streaming Module (CASMA)



Device handle is now different from remote device handle as requested by GenTL specifications.

### Version 0.01.044



Rmoved pre-SenIf support. Obsolete lv.camdef.dll / lv.camdef.dat

# **Simplon API**

### Version 1.00.102



Bayer decoding Bilinear Color Correction was not decoding properly to RGB32 images. Fixed.





Simplon .NET 4.0 x64 was not correctly recompiled. Fixed.

### Version 1.00.094



Introduced the IsAvailableByName() and IsImplementedByName() functions.

### Version 1.00.087



Added new constants for new features (Strobe)

### Version 1.00.085



Fixed various inconsitencies around the UniProcessing, namely the LUT behavior.

### Version 1.00.082



Simplon Explorer: Fixed incomplete display of tiles after acquisition stop.

### Version 1.00.078



Simplon Explorer: Added button to search currently selected feature in the selected PDF manual (Windows only, Adobe Acrobat Reader must be installed). Incomplete images are announced besides the chunk data label.



 $Introduced\ LvBuffer\_UniImageOffset,\ added\ to\ source\ code\ templates.$ 

Fixed bug causing that code for find by TLType on CheckSight was generated with an empty string.

Fixed bug in source code generator, causing the correct target folder was not opened when it was changed by user.

### Version 1.00.077



Updated templates for source code generator: Enhanced the OpenCV templates, now the samples support most common pixel formats. In all samples added #error line to the code in case the "all" or "streamable" option is used for feature settings - this should notify the user he/she should really review this part of code before compiling it.

### Version 1.00.075



In the templates for the Source Code Generator was fixed an issue, causing the project converted to Visual Studio 10 was not able to run x64 application from the IDE.



P	Simplon API: The ParseChunkData() function now checks the ChukDataID value (if it is provided) for additional detection of changes in the chunk data structure.
V	Redesigned the Tile display mode. In Simplon Explorer clicking on a tile now leads to a full size image display. Added GetLastPaintRect() function to API.
	Removed the LvAviSaver module from header files and documentation.



Fixed bug in Simplon .Net Class Library, causing that some output parameters were not correclly returned. For example the GetFeatureByName() function did not return the proper feature ID for other modules than LvModule.

# Version 1.00.068



Fixed bug in source code generator, causing the enums were set by the string values and not by Simplon constants (which also caused enums were not included at all in source code for PicSight Smart).

### Version 1.00.067



The number of tiles is now automatically limited to the number of postponed buffers.

## Version 1.00.064



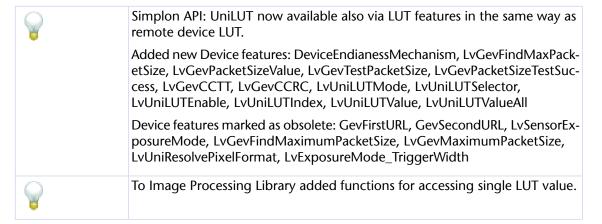
Remote device XML - workarounds to overcome flaws in GenApi by autofeatures.

### Version 1.00.063

	Simplon Explorer: feature edit controls are now also updated when the controlled feature gets changed in the time of editing (happens for example by self-clearing enums).
Sp.	Fixed bug causing the white balance may not be applied when no Bayer decoding is active.
	Fixed failure in LvDeviceSaveSettings().
	Fixed small issues in Simplon running on CheckSight

J 🐑	G32: Improved image quality on high gain values
<b>₩</b>	P142A: increased framerate





## Version 1.00.060

A second	Bugfix in Simplon Explorer source code generator - float value entered manually (not by slider or buttons) was not recorded to history.
S. Carlotte	Fixed bug in source code templates for OpenCV samples for Linux.

### Version 1.00.059

	- Simplon header files updated to fully comply to plain C compilation
	- Updated source code generator and templates. Added a solution for the case the camera autoloads its configuration from file after connect.
A	Added Source Code Generator template for Linux application based on Qt
Ŭ <u> </u>	Improvements in all Linux sample templates
$\mathbb{V}$	Added Source Code Generator template for Linux application using OpenCV library
	Small improvements in other Linux templates

### Version 1.00.058

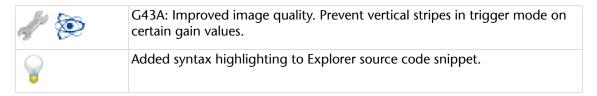
	Added option to Simplon Explorer: Automatically save camera settings on disconnect and load back when it is connected again.
	FPS now measured with more precise timer.
A second	Chunk data display updated, fixed occasional 0 shown in some chunk data.

A so	- Updated the bahevior for White Balance calculation when HW LUT is used.
	- Simplon Explorer bugfix - when polling was switched off, the white balance calculation disabled the white balance reset command



V	Added support for variable pixel format.
8	Simpon: The delay-loading of lv.simplon.display.dll could cause dropped images at startup, fixed.
	Simplon Explorer:
	- Enhanced the Statistic tab in
	- Added possibility to save all images
	- Optimized image skipping in display when the live is too fast.
	- Removed the option for image skipping from lv.simplon.ini
	- Changed all open/save dialogs to a faster version

## Version 1.00.050



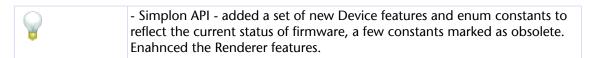
## Version 1.00.040



## Version 1.00.038

8	Upgraded GenlCam GenApi to version 2.1.1
A)	Fixed wrong names by LvLUTMode, LvBalanceRatioSelector, LvBalanceWhiteAuto, LvGevDeviceClass, LvGevIPConfigurationStatus and LvGevSCPDirection enums (were accidentaly prefixed like non-Net constants and were causing compile error in generated source code).
9	Simplon API: Added SetInt(), GetInt() and GetIntRange() function to all APIs for convenience - this is equal to SetInt64(), GetInt64() and GetInt64Range(). The SetInt() should be now preferred instead of SetInt32() to avoid possible sign problems with 32-bit unsigned int parameter.

### Version 1.00.037



250	Fixed CPP code generator templates which did not compile on some systems
8	



A so	- Simplon Explorer: Figed bug in source code generator - the Enums for which a Simplon constant was not defined were written incorrectly in the source code.
	- Simplon Renderer module - enahnced the functionality of display modes.
P	- Simplon Source code generator: Win01 templates for CPP and PlainC modified - added support for setting white balance and saving it to INI file.
	- Simplon Explorer - changes in some features are now reflected in GUI (Display Mode, Update Device List)
8	The Source code generator now offers as the default option the History (of feature changes) for the code generation. Only for GigE cameras with FW < 2.00.039 it uses as default the original Streamable option, because the old FW did not reset the camera parameters after its connection.
A Comment	In Simplon Settings the former 2 options "Use Queue" and "Buffered Logging" were unified into one: "Disable All Buffering".
A See	Fixed a bug causing a crash in Simplon Explorer, when the device was receiving the user log from a smart camera, then it was closed and reopened.

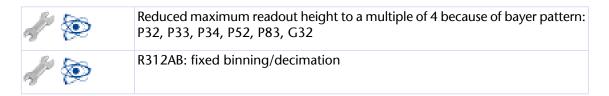
A Comment	Simplon code generator: Fixed bug causing compilation errors in .Net code when a Simplon predefined constant was not available for the feature.
	Enhanced support for variable image size in Simplon API and Simplon Explorer.

### Version 1.00.034



Simplon Explorer: fixed bug in source code generator - when the history was used for the code generation, enum values could be wrongly set in the generated code.

## Version 1.00.032



## Version 1.00.031

<b></b>	Simplon Explorer: added source code templates for QT 4.5 sample applications
¥	

A Single	Source code templates for OpenCV samples: fixed problem with RGB pixel format and added OpenCV exception handling.
	Simplon Explorer: added source code template for a Windows application, which does not use a callback function; instead it picks images in the main thread on a timer.





Simplon API: Enhanced the ParseChunkData() function - now automatically forced to decode the layout on next buffer, if the decoding of the layout on the current buffer fails.

### Version 1.00.029





G32: Fix exposure range in trigger mode

### Version 1.00.026



Simplon Explorer: fixed bug causing the IP addresses could not be set.

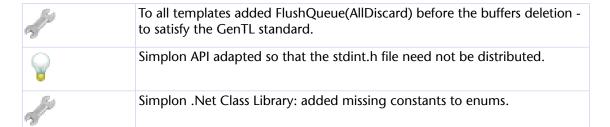
### Version 1.00.025



Simplon Explorer:

- added possibility to save/load the whole configuration
- to control the acquisition on multiple cameras with one click
- issue the SW trigger periodically by timer

### Version 1.00.024



### Version 1.00.022





G43AB: fixed vertical stripes at reduced readout width

J 🐑	Increased minimum readout height to 4 lines, for CheckSight CCD color sensors.
9	Simplon Explorer: added I/O dialog for easy monitor and manual control of input and output lines.
8	Simplon Explorer:  - Redesigned the chunk data display in the line, to support string chunks, integer selectors and unknown chunks.  - The FW checking now offers immediate switch from 1.x to 2.x and reboot.  - Fixed bugs appearing when working with a smart camera in the feature locked mode.





## Version 1.00.018

9	g.	Simplon Explorer: now opens the camera in the LvDeviceAccess_Control mode (previously in the LvDeviceAccess_Exclusive). The same applies to all source code templates.
9	gr.	Simplon Explorer: fixed a bug causing a crash when editing an integer feature with a hexadecimal representation.
	V	Simplon Explorer: Added notification about obsolete FW on Leutron GigE cameras (optional). The timeout on CmdExecute changed from 5 seconds to infinite (for Leutron cameras) + added possibility to set the timeout in the lv.simplon.ini file.

April 1	Simplon Explorer: Fixed the problem with display of images when Number-OfTiles >= NumberOfBuffers. Fixed a rounding problem by the int/float value slider.
April 100 miles	Simplon Explorer: The functionality of the code for chunk data generated in the project Generation Wizard was dependent on the previous camera status. The templates were redesigned to avoid this problem.
d ■ 🐧	Fix firmware upgrade tool
A 🐑	G43AB: Fix image corruption in black areas at lower readout width and manual blacklevel
8	Simplon Explorer: fixed bug in the display of chunk data in the image window.
A Section of the sect	Simplon Explorer - fixed issue with integer edit box (wrong usage of nim/max), fixed display problem after camera reactivation
A 🐑	R502: fixed cropped images when changing sensor readout from small ROI to full size.
8	Simplon API: Added the GetLastErrorMessage function, providing better error diagnostics.
P	Simplon C++ Class: Added the LvException class and optional possibility to switch on the conversion of error states to C++ exceptions.
	Simplon .Net Class Library: The LvException class now provides the Number() method, returning the LvStatus, which caused the exception.
8	Simplon Explorer: Changed the way the tree of devices is built from multiple GenTL producers - now each producer has own root item.
	Simplon Settings: Added button for clearing file/folder name.



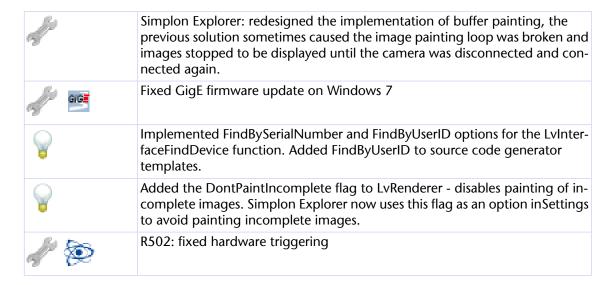


Simplon Explorer: The previous image display redesign caused sometimes 100% CPU load. Now implemented differently.

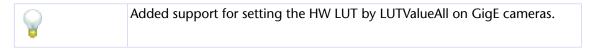
Simplon Explorer: Fixed problem with the display of incomplete images (the option to display them did not work).

Simplon API: Fixed problem with the LUT conversion to big endian for GigE cameras.

### Version 1.00.015



## Version 1.00.014



### Version 1.00.011

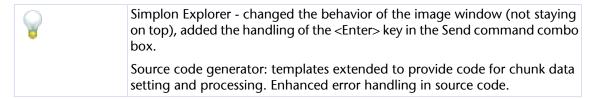
	R312AB: synchronized exposure time changes in triggered mode. Limited exposure time range.
	R502: global reset support
A 👰	R502: inverting pixel clock

J 🐑	R502B: fixed frame timing which caused wrong bayer presentation
8	CheckSight: Support for automatic black level

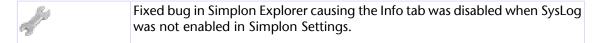


	QT applications available also for the x64 platform.
Ŭ	Source code generator templates modified to support the x64 platform.

## Version 1.00.008



# Version 1.00.007



## Version 1.00.006

8	Simplon Explorer: added a tab for ASCII Cmd Send/Recv + Smart App Event monitor,
	Simplon: implemented the Timeout parameter by the LvCmdExecute() function.
4	Simplon Explorer: fixed bug by the image process&display skipping when there are too many buffers waiting in the output buffer queue.

### Version 1.00.005

A second	Simplon Explorer - fixed 2 bugs with the repaint of images.
8	Added shortcut keys to Simplon Explorer.  Added first beta version of Simplon .Net Class Library

## Version 1.00.003

S. Carlotte and Ca	To Simplon Explorer added a possibility to save the image buffer to a plain BIN file.
	Changed the type by SetEnum/GetEnum from int32_t to LvEnum.

P	For the PicSight Smart source code templates the Simplon Explorer now determines the set of available API functions from the currently installed version of Smart SDK (NX-SDS). The "Open target folder" button opens a command line window in the target folder and runs automatically the LvSetup.bat file.
A Port	Fixed memory leak happenning when pixel format was changed and UniProcessing was ON.

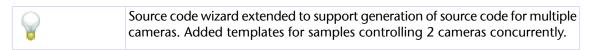


Le la	First official release
°31/	

### Version 0.01.094

(		Added support for the LvFtrType_Buffer type.
1	ĕ	Updated WatchDog features.

## Version 0.01.093



## Version 0.01.092

<b></b>	Simplon API: Added new LvDevice constants and enumerations.
<b>a</b>	Simplon Explorer: updated camera tree behavior and icons
4	Fixed a bug, causing the Info panel in Simplon Explorer was sometimes hidden in the multiple camera mode.

## Version 0.01.091

	Added templates for source code generator for the usage of the OpenCV library
¥	in Windows.

## Version 0.01.090

9	Simplon Explorer redesigned to support running multiple cameras concurrently. The original design still available as an option in Settings.
A so	Fixed a bug in the source code generator, causing wrong code generation from a template under a certain combination of options (nested IFs incorrectly parsed in the templates).
	Simplon Explorer: Added icons by cameras, indicating the access status of each camera. Added link to PDF manual as help and link to a web page. Added a Statistics tab.
A Company	Fixed issues in the Renderer tile mode in Simplon API.

## Version 0.01.089

8	Image processing library API changed (#defines to enums)
	Simplon Explorer: the list of chunk data values displayed on the line above the image is now built dynamically, from chunk data actually available.
A Section	Fixed 2 bugs in the source code generator - missing were selectors in other than DeviceRemote group, code for some read-only features was not shown.



	V	Simplon Explorer: Added persistence of the "Source code" menu items.
	8	Simplon Explorer: unsuccessful feature write operations are indicated by changing the value color to red and adding a label: (write failed!).
	A Section of the sect	Small bugfixes in Simplon Explorer (resizing limits of image, 5% and 10% feature increments and decrements, hexadecimal number edit, icons changed).

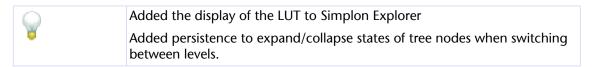
## Version 0.01.087

	Redesigned the way the camera is connected in Simplon Explorer (now the tree of cameras is available in a tab). Reorganized buttons and icons.
See A	Fixed issues in Linux version:
$\mathscr{N}$ $\Delta$	Fixed crashes when displaying images on 24-bit display configuration
	Fixed output to TIFF and JPEG
	Fixes in the source code generator outputs

## Version 0.01.084

V	Added API for polling the non-cached features - LvStartPollingThread(), LvStopPollingThread(), LvPoll().
	Added info features for obtaining the cached status and recommended polling time.
	In Simplon Explorer the features are polled with the frequency of 1 second. Polling can be switched off in the Settings dialog. Furthermore added an option to switch on chunk data features at camera open to Simplon Explorer (before it was switched on always).
8	Simplon Explorer: Added possibility to use C escape sequences in string features (to be able to express non printable characters in RS232 commands); added "Update feature tree" button for refreshing the whole tree.
8	Implemented functions for saving and loading JPEG images. Added JPEG format as option to Simplon Explorer Save Image dialog.

## Version 0.01.079



## Version 0.01.078

	Simplon Explorer: added the Settings dialog, the feature tree is not expanded
8	by default, the last used camera can be automatically open.





Simplon Explorer: cameras made sorted alphabetically, added button for SW trigger, added saving to BMP and TIFF formats.

### Version 0.01.074



Changed name of features: LvTimestampsResetMaskValueAll->LvImageStampsResetMask, LvTimestampsResetMaskSelector->LvImageStampSelector, LvTimestampsResetMaskValue->LvImageStampResetEnable. Implemented mechanism of backward compatibility with old features.

## Version 0.01.073



Fixed bug in the source code generator causing uncompilable code for enum entries, for which a predefined constant did not exist.

Fixed bug causing a camera without defined vendor could not be open.

### Version 0.01.069

	P	Added constants for LvVariablePayloadSize, LvSerialPortxxx, LvSmartAppExitEvent, renamed some LvChunk constants to Chunk, redefined Line constants.
		Simplon Explorer now handles the IsDone() for command features - a hour glass cursor is displayed during the wait and other features in the tree are not clickable during the wait.
	P	Added 2 new native functions: LvSystemFindInterface() and LvInterfaceFind-Device().
		Updated Simplon Explorer source code generator to offer usage of these 2 functions.
	A Section of the sect	Th LvGetEnumStrByVal() was not accepting NULL for symbolic name - fixed.

### Version 0.01.066







Filter driver: fixed problem on acquisition stop that could cause BSOD



Added support of "Plain C for PicSight Smart" to the source code generator in Simplon Explorer.

### Version 0.01.065



The set of constants for features and enum entries redefined - now constants are available for all Leutron features. Updated source code generator, now shows code also for System, Interface, Stream and Renderer modules.

#### Version 0.01.063



Simplon Explorer: The feature trees separated into tabs.

Simplon API: Added support for Simplon features from XML.



Simplon Explorer: Added Feature Find dialog and Update Camera(s) command. Enlarged icons. Fixed bug causing a crash when displaying info for enumds with large description.

### Version 0.01.060

A Comment	- In Simplon Explorer fixed bug with the wrong colors of some read-only items.
P	- Added new GUI types: LvFtrGui_IpV4Address, LvFtrGui_IpMacAddress. For features with this GUI type can be used LvSetString() and LvGetString()
	- In Simplon Explorer used new GUI types - IP and MAC adresses now displayed naturally.

### Version 0.01.054



The buffer handling in the API was changed so that the buffers are treated in the same way as System, Interface, Camera, ... objects. Some functions were renamed as they now belong logically to the Buffer object, not to the Stream.

# **Simplon Setup**

### Version 1.00.077



Fixed the setup of the Filter Driver for x64 operating systems.

### Version 1.00.075



The filter driver update was not reliable, now the filter driver is first uninstalled, then new version of the driver installed.

### Version 1.00.074



Added installation of Simplon adapter for Cognex software

### Version 1.00.068



Fixed a bug in Simplon Log system, which could under certain conditions cause a crash at the application exit.

### Version 1.00.053



Fixed failure to uninstall previous version when Simplon was installed to a different folder. Enhanced setup logging.





- Added automatic installation of filter driver
- Bugfix: on Win Vista nad Win 7 the silent installation did not work properly

### Version 1.00.033





The Linux installers were not generating the required empty directories in /var/opt/simplon area.

## Version 1.00.021







Filter driver 64bit included in setup. It needs manual installation as for 32bit driver.

### Version 1.00.020



Included sample script for Halcon

### Version 1.00.019



Simplon static XML files separated from XML cached files (are now installed to a different folder).

### Version 1.00.018



The Simplon Setup now installs the stdint.h file not renamed. Originally this file was installed as renamed to stdint\_.h, and required the user to rename it in case this file was not already available by his compiler.

### Version 1.00.011





x64 distribution was incomplete

### Version 1.00.009



Finalized the installation of 64-bit Simplon, new dialog for selecting the platform. Filter driver not yet available.

### Version 1.00.007





Inclusion of 64bit DLLs for beta testing.



Added the DisableFileLog option to LvSetup.ini.

### Version 0.01.090



Setup updated so that it installs properly 32-bit binaries on an x64 system.

## Version 0.01.087





Improvements to Linux Simplon setup (RPM, DEB). Added post-install steps to update environment and configure dynamic linker. Included lv.ipconf tool.

### Version 0.01.076



Fixed problem with creating the GENICAM\_GENTL32\_PATH and GENICAM\_GENTL64\_PATH environment variables.

### Version 0.01.056





Linux installer for Simplon is available in rpm, deb and tar.gz formats.

## **CASM Firmware**

### Version 1.00.003







Added firmware upgrade tool for streaming module



# **Contacting Leutron Vision**

# **Headquarters (Switzerland)**

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## Other countries

Customers residing in other countries should have a look at the list of our representatives<sup>3</sup> for a distributor in their country. If no distributor exists in their country, they should contact the headquarter office directly.

## **Useful links**

- To download software, documentation and other stuff, please visit our download area<sup>4</sup>.
- Get more information about our support<sup>5</sup>. If you need to return some (defective) material to Leutron Vision, please visit the Return Material Authorization (RMA) page<sup>6</sup>.
- Get information about prices and ordering<sup>7</sup>.
- Find out detailed information about our hardware and software product range<sup>8</sup>.



http://www.leutron.com/

<sup>&</sup>lt;sup>2</sup> http://www.leutron.com/de/

<sup>&</sup>lt;sup>3</sup> http://www.leutron.com/sales-contact/

http://www.leutron.com/support-downloads/download-area/

<sup>5</sup> http://www.leutron.com/support-downloads/

<sup>&</sup>lt;sup>6</sup> http://www.leutron.com/rma/client\_id.php

http://www.leutron.com/price-request/

<sup>&</sup>lt;sup>8</sup> http://www.leutron.com/products-machine-vision-image-acquisition/