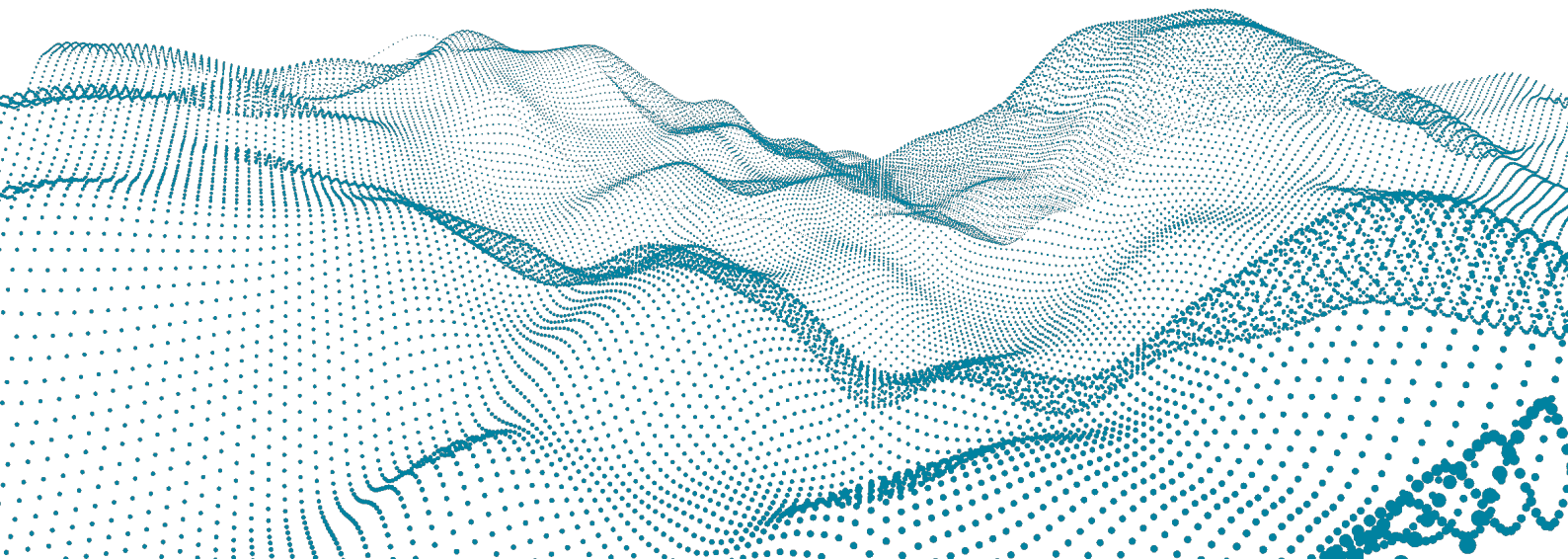
roboception

Roboception GmbH | October 2026

SGM® Producer

CHANGELOG



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26.10.0 (2026-10-08)

New Features

- Added possibility to get raw images in RGB8 format if streaming from a color camera

Improvement and Fixes

- Updating of dependencies:
  - GenICam reference implementation version 3.5.1
  - zlib version 1.3.2
  - libpng version 1.6.59

26.07.0 (2026-07-13)

Improvement and Fixes

- Improved camera calibration by considering out-of-plane deformation
- Fixed CUDA compatibility for Nvidia Blackwell and newer architectures

26.04.0 (2026-04-09)

Improvement and Fixes

- Minor bug fixes

26.01.2 (2026-03-06)

Improvement and Fixes

- rc_calib:
  - Optimized position and size of exposure region that is automatically defined for calibration
- Also accept camera pairs with suffix ‘l’ and ‘r’ additionally to ‘L’ and ‘R’

26.01.1 (2026-02-24)

Improvement and Fixes

- Added AppImages for tools for aarch64 architecture
- Fixed hanging if image height is set to less than number of available CPU cores

26.01.0 (2026-01-13)

New Features

- Added GenICam parameters OffsetX/Y and made Width and Height changable to define a ROI. This reduces bandwidth and processing time.
- Extended rc_viewer to show left camera image and disparity image and allow defining ROI and exposure region

25.10.1 (2025-11-10)

Improvement and Fixes

- Minor fixes

25.10.0 (2025-10-15)

Improvement and Fixes

- Added GenICam Parameters RcHDRExposureTime… for adjusting the exposure time sequence for HDR mode

25.07.1 (2025-08-16)

Improvement and Fixes

- Building debian packages for Ubuntu noble (24.04) and removing packages for focal (20.04)

25.07.0 (2025-07-11)

Improvement and Fixes

- Fixed loading local dll dependencies under Windows, even if directory is not in path
- Fixed blocking buffers if an error happens while filling
- Only report capture time in chunk data if host and device time are consistent (and PTP is on)
- Fixed deadlock in rc_check tool upon refresh
- Increased timeout in rc_viewer for finding corresponding left and disparity images to 1 second
- Fixed rc_viewer to not loose connection if there is an error on one buffer, which happens when switching HDR on or off

25.04.1 (2025-06-03)

Improvement and Fixes

- Added possibility for license on USB dongle instead of camera

25.04.0 (2025-04-07)

Improvement and Fixes

- In HDR mode, brightness is computed for image with “middle” exposure time. This makes it more easy to adjust the Gain properly for HDR images.
- The calibration tool now chooses rectified focal length such that no pixels are out of bound, before it was possible to have interpolated pixels near the image border.
- Fixed device lost event node in local device nodemap
- Fixed disabling of RawCombined and Calibration components in synchronized multi-part mode
- Properly forwarding error codes and messages from underlying transport layer when connecting
- Added ChunkRcTiming values that report internal timings

25.01.0 (2025-01-13)

New Features

- Sending device lost as module event of the local device

Improvement and Fixes

- Fixed updating throughput and SCPD values whenever one of them is changed
- Do not report missing transport layer as error but as debug if 'no-path' is configured, which means that this is wanted
- Do not show grabbing errors any more when frame rate is set higher than camera can deliver

24.10.0 (2024-10-11)

Improvement and Fixes

- Under Windows without GPU, improving speed of stereo matching on the CPU by vectorization (this was already done under Linux)
- Making chunk parameters in the nodemap independent of general nodemap parameters

24.07.1 (2024-09-12)

Improvement and Fixes

- rc_calib: Improved auto exposure setting for calibration
- Locking throughput parameters during streaming
- Added streamable flag to most changable parameters and fixed some linking between parameters
- Added default throughput reduction in case of limited link speed for Windows

24.07.0 (2024-07-24)

Improvement and Fixes

- Fixed passing timeout for discovery of devices through SGM producer to transport layer
- Added invalidators for PTP offset and status parameters in GenICam nodemap
- Waiting for 200 ms until proceeding after unexpected exceptions to throttle down in case of errors
- Ensure that last error is properly set

24.04.1 (2024-05-27)

Improvement and Fixes

- Fixed applying self calibration offset also to manual calibration
- rc_calib now suggests recalibration if self-calibration counter > 0
- The stereo module now automatically re-triggers image acquisition when software trigger is enabled and if it skips images due to auto exposure adaptation
- Providing camera firmware version in DeviceFirmwareVersion parameter instead of duplicating DeviceVersion
- Fixed namespaces of custom parameters in nodemap and increased size of DeviceManufactureInfo to 48 bytes

- rc_viewer now uses low quality for computing depth images on startup when running without GPU and images are bigger than 3 Mpixel

24.04.0 (2024-04-19)

New Features

- Added binning for rc_viscore
- Added trigger support for rc_visard NG
- Added automatic software retriggering for getting internally needed images, e.g. for HDR or if Out1 is set to ExposureAlternateActive

Improvement and Fixes

- Increased image timeout for rc_visard to 1.1 s and report timeout as warning instead of error
- Suppress errors when setting TriggerActivation and ensure consistency by re-applying
- Change timeout message from error to trace level
- Renaming of manual and public changelog for consistency

24.01.0 (2024-01-09)

New Features

- Added SynchronizedAlternateComponents mode to parameter AcquisitionMultiPartMode
- Calibration (rc_viscore only)
  - Added parameters RcCalibrationFlip for mirroring the annotated calibration images
  - Added RcCalibrationAutoAccept and ChunkRcCalibrationNextPose to support calibration via robot
  - Added calibration image flipping, auto accept and next pose feedback to rc_calib tool
- Manual
  - Describing all proprietary GenICam parameters in manual
  - Added description of proprietary GenICam calibration interface

Improvement and Fixes

- Fixed not delivering images when HDR is turned on right after startup
- Added smoothing of input images for stereo when matching is done in full resolution, which reduces image noise and can lead to significant improvement
- Return PTP offset of left camera instead of worst case offset as also timestamp is taken from left camera
- Fixed wrong rpath in TGZ packages

23.10.0 (2023-10-24)

Improvement and Fixes

- Much faster adaptation of auto exposure from overexposed images for rc_viscore camera

23.07.0 (2023-07-25)

New Features

- rc_check: Added posibility to set some defaults for rc_viscore that is stored in calibration file on the camera

Improvement and Fixes

- rc_check, rc_calib and rc_viewer: Use relative rpath for finding libraries under Linux to permit relocating directory
- Fixed issues for using Matrix Vision producer as transport layer
- Added printing device version and info as debug on opening the connection
- Added printing used system filenames to debug log output

23.04.1 (2023-04-28)

New Features

- Added LineInverter, RcLineRatio and ChunkRcLineRatio for rc_viscore

Improvement and Fixes

- Fixed not loosing first SW/HW trigger after switching trigger mode on (rc_viscore)

23.04.0 (2023-04-20)

Improvement and Fixes

- rc_calib: Fixed sometimes not accepting save button in rc_calib tool
- rc_viewer changes for rc_viscore:
  - Added more controls for trigger
  - Added possibility to invert the out1 signal
  - Added possibility to reduce the output signal width

23.01.2 (2023-02-23)

Improvement and Fixes

- Fixing performance and memory issue of rc_viewer tool that occured with rc_viscore as sensor

23.01.1 (2023-02-23)

New Features

- Added hardware and software triggering for rc_viscore
- All tools (rc_check, rc_calib and rc_viewer) are now available as AppImage for Linux x86_64

Improvement and Fixes

- Pre-selecting depth computation in low quality for rc_viscore if no GPU is available
- Added storing backup of rc_viscore calibration and license with rc_check tool
- Minor fixes and updating of manual

23.01.0 (2023-01-25)

New Features

- Added rc_viewer tool for live 3D visualization and testing
- Allow changing gain when using HDR mode
- Added controlling HDR mode on rc_visard (only available with rc_visard firmware >= 23.01.0)

Improvement and Fixes

- Improved switching between HDR and other exposure control modes
- Fixed seeing sometimes projector pattern in images without projector in ExposureAlternateActive mode
- Fixed rc_check responding wrongly with no access instead of missing in some cases

22.10.1 (2022-11-22)

New Features

- HDR auto exposure mode for rc_viscore
- Added GenICam parameters to set link throughput limitation for rc_viscore
- Setting link throughput limit to current link speed as default (currently only for Linux)
- Added possibility to set link throughput limit in rc_calib tool

Improvement and Fixes

- Clarified output of rc_check tool

22.10.0 (2022-10-14)

New Features

- Added support for Ubuntu 22.04 LTS

Improvements and Fixes

- Minor performance improvements

22.07.2 (2022-08-11)

New Features

- Added TLDisplayName to the nodemap of the system module

Improvements and Fixes

- Added table with GPU memory and FPS to manual
- Increased default frame rate for rc_viscore from 8 Hz to 9 Hz
- Single and multi frame acquisition now returns with the correct number of requested images
- Under Windows, restrict search for transport layers by default to rc_genicam_api sub-directory

22.07.1 (2022-07-21)

Improvements and Fixes

- Increased limit for maximum exposure time from 20 ms to 30 ms in Out1High and AdaptiveOut1 auto exposure mode

22.07.0 (2022-07-15)

Improvements and Fixes

- Implemented gamma parameter for rc_visard (if rc_visard firware version >= 22.07.0)

22.04.2 (2022-05-30)

Improvements and Fixes

- Fixed finding libraries under Windows
- Added version for ARM64

22.04.1 (2022-05-11)

Improvements and Fixes

- Set Gamma to 1 in rc_calib program as calibration grid detection relies on linear mapping.

22.04.0 (2022-04-26)

New Features

- New tool for checking connection and configuration of rc_viscore sensor (`rc_check`)
- rc_visard and rc_viscore sensors serve as dongle, i.e. USB dongle not needed any more
- Added parameter Gamma for controlling gamma factor for rc_viscore sensors and using default of 0.5

Improvements and Fixes

- Make package installation relocatable by specifying the transport layer paths at runtime
- Fixed bug with changing calibration states, limited size of annotated calibration image and limited auto exposure time
- Showing min/max error during verification of calibration in rc_calib
- Fixed switching of calibration and monocalibration radio buttons
- Fixed possibility to change Gain during auto exposure
- Fixed TL type for rc_viscore

22.01.0 (2022-01-18)

New Features

- Support for new rc_viscore sensor

- Calibration program (`rc_calib`) for rc_viscore sensor

Improvements and Fixes

- Use AcquisitionAlternateFilter only if ExposureAlternateActive is set for out1
- Limiting maximum exposure time to 20 ms in Out1High and AdaptiveOut1 mode
- Changed way of limiting memory for stereo matching
- Explicitely testing rc_visard for IOControl license to improve error message in log file
- Fixed auto_exposure_adapting to report 0 if further adaptation is not possible

21.10.0 (2021-10-23)

New Features

- Added GenICam parameter DepthExposureAdaptTimeout

Improvements and Fixes

- Fixed internal single frame trigger timestamp
- Added some debug log output for single shot stereo
- Fixed always complaining about pending trigger
- Fixed crashing when connection to rc_visard is interrupted
- Fixed disabling of depth smoothing
- Removing prefix rc_ from IDs and combining internal interfaces of same type

21.07.0 (2021-07-16)

- First stable version of producer for rc_visard

roboception

SGM® Producer

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