

GoPxL 1.6 BETA 2 – Release Notes

Firmware Version 1.6.7.24

Document Revision A

Compatibility

- Devices supported:
 - Gocator sensors & cameras
 - Line Profilers: 2100/2300 C/D version, 2400, 2500, 2600, 6300
 - Snapshot: 3200, 3500 (including B version)
 - Line Confocal Profilers: 4000, 5500
 - 2D Smart Cameras: 1050, 1120
 - GoMax NX, ORIN, ORIN+
 - X64-based PC (Intel/AMD) with Windows 10 and Windows 11
 - Alvium G1 2.4MP to 16MP
- The following series and models are not supported:
 - Gocator Point Sensors: 1300
 - Gocator Line Profiler: 2342, 2880
 - Gocator Multi-point Profiler: 200
 - GoMax (pre-NX version)
- Minimum browser requirements:

	Google Chrome	Microsoft Edge	Mozilla Firefox
GoPxL Web UI	91+	91+	79+
GoHMI	80+	80+	74+

For G2600 models, the X subsampling option has been removed since they provide no benefit. If you require larger X spacing, use Custom spacing with the desired spacing amount.

For accelerated G3 sensors, using a PC with NVIDIA graphics, the minimum driver version has been increased to version 576.57.

New features

G2610/2618 B version

The new B version of the G2610 and G2618 models are supported with this release.

Saved data viewer views

Added named views in the data viewer, so users can save a viewing angle or zoom level and restore it later from a dropdown without manually readjusting the data viewer. Save, rename, delete, and set a default view; saved views persist across page reloads.

<i>Surface Inference & Image Inference tools</i>	The new tools Surface Inference and Image Inference allow using externally trained Segmentation or Object Detection YOLO AI models in GoPxL
<i>New G2500 spot algorithm</i>	A new algorithm “Precise” has been added for G2500 sensors offering
<i>Protocols Help pane</i>	Added a help panel at the bottom of every Communicate page (Industrial, Gocator, HMI, Digital Output, Storage), so protocol user guides can be read in-app without the need to open the full manual.
<i>Data viewer view state</i>	Added the ability to capture the data viewer's active pane view state to a shareable URL, so the viewer always reopens to the exact same view. Use the link button in the Displayed Outputs panel to capture, and the Clear persisted view button to remove it.

Improvements

<i>Tool list</i>	The Tool List panel on the Inspect page is now a floating window with a draggable tool picker, where tools can be viewed and filtered, grouped by the new application category so tools from the same application type are grouped together and easier to find.
<i>Tool icons</i>	Replaced the acronym-based tool icons with a set of unique icons, color-coded by application category, so tools are identifiable at a glance without hover.
<i>Active area</i>	Added a banner in the Visualizer during active area editing. The banner provides a clear visual cue for switching between scan modes and includes controls to apply or discard changes directly, eliminating the need to navigate through separate panels.
<i>Job actions</i>	In the Jobs page, multi-select is added to the jobs list with shift or ctrl + click, so bulk actions such as delete can be performed on multiple jobs at once through a context menu.
<i>G7150 Surface tool color support</i>	For the G7150 sensor with color surface output, color intensity data now flows through a broader set of tools.
<i>Image OCR</i>	The Image OCR tool is now faster and reads text more reliably for single lines of text. It also now supports rotated regions and provides a confidence score
<i>Image Edge Count</i>	The Image Line Count has been renamed to Image Edge Count. It now also features a 1D edge detection mode and new intuitive UI for parameter adjustments.
<i>Image color conversion</i>	Color Conversion is added to Image tools like Edge, OCR and Barcode to allow tuning of how color images are converted to grayscale in processing
<i>Data viewer image display rate</i>	With Gocator 2D and Alvium cameras, the image display rate in the data viewer is greatly improved for smoother display.

Bug Fixes

This section will be completed in a future release

Known Issues

General

<i>Accelerated G3 with older NVIDIA drivers</i>	Older NVIDIA drivers can result in accelerated G3 sensors producing a flat surface output with no errors logged indicating the driver incompatibility. Upgrade to the latest driver version to ensure correct G3 surface generation.
<i>Duplicating Tool Groups</i>	Duplicated tool groups do not preserve internal tool references correctly and could require manual relinking in some workflows.
<i>Higher CPU with pinned measurements</i>	Pinning measurement results in the UI leads to increased CPU usage and extra processing delay
<i>G2650 performance</i>	Single-sensor full-X surface performance is reduced from ~3000 to ~2500–2600
<i>Pixel Format Acquisition</i>	Alvium color models may not display the full image correctly and limit their frame rate when using RGB8 or BGR8 pixel format.
<i>Gocator 3210 upgrade</i>	The free storage on a Gocator 3210 sensor may limit its ability to be upgraded to a different firmware version. Workaround: If upgrade fails, perform a factory restore and ensure that any tool-created files are removed (for example from Surface Pattern Matching or Surface Track) by adding the tool and then deleting any files from the tool's Operation drop-down. If you have previously run the Gocator Classic firmware on the sensor, make sure files created with these tools are also removed (you will need to downgrade first)
<i>Interleaved Multiple Exposure</i>	On G2/G4/G5 sensors, enabling Interleaved exposure mode may result in dropped triggers, leading to missed data.

<i>Unmerged multiple exposures</i>	With Uniform spacing disabled, multiple exposures, enabling "Unmerged multiple exposure", and switching from Profile to Surface mode, data processing errors occur.
<i>GoMax upgrade with Anomaly Detector</i>	It is not possible to directly upgrade a GoMax device from Gocator Classic 6.3 SR2 and earlier with the GoMax Anomaly Detector upgrade package (.dat file). This is due to an upgrade package size restriction. Workaround: First upgrade to GoPxL 1.1 before upgrading with the GoMax Anomaly Detector build.
<i>Job loading/switching</i>	Loading or switching jobs may be slower than expected with small job files with less than 10 tools.
<i>PROFINET disable</i>	Once the service is enabled, it will remain running in the background until a power cycle is performed. Workaround: Toggle off the service, save the job, restart the sensor, and load the job again.
<i>EtherNet/IP simultaneous implicit and explicit communication</i>	With EtherNet/IP, simultaneous implicit/cyclic and explicit message communications can cause communication faults. Specifically, an implicit RPI that is a multiple of a shorter, fixed explicit message interval can corrupt multiple implicit messages from GoPxL in row, causing a temporary disconnect.
<i>HMI Designer</i>	GoHMI projects that were opened, upgraded, or saved in the 1.4 or 1.5 Designer may no longer open, import, or upload correctly in older environments. For systems that must remain older versions such as 1.3, keep a separate copy of the project and maintain it in the matching older Designer version. If a project was already updated in 1.4 or 1.5, rework in the older version may be required to restore compatibility.
Tools	
<i>Image Object Detector bounding box limit</i>	Max number of bounding boxes is limited to 16 per image.
<i>Tool performance</i>	The execution time of some tools may be slower than expected. Workaround: Ensuring that the Web UI is closed can improve performance of some tools.
<i>Default region size</i>	When using surface tools on the output of Profile Part Detection, the default tool regions may be inappropriately sized and placed relative to the surface dimensions.
<i>Surface Stitch</i>	Stitching multiple large surfaces may cause GoPxL to become unresponsive due to excessive memory.

<i>Script tool</i>	Drawing APIs may require an additional Surface input or an explicitly specified output index (e.g., output = 0) to ensure points and labels render correctly
<i>Data storage</i>	Due to memory constraints, G3520 with data storage enabled on device may become unresponsive. Workaround: Accelerate sensor on PC with GoPxL.

Utilities

<i>Track editor with multiple GoPxL instances</i>	When using multiple GoPxL instances on PC, it is not obvious which instance is which in the Track editor application's Source drop-down.
<i>Pattern Editor Compatibility</i>	Patterns generated using the Image Pattern Locator algorithm currently cannot be edited within the Pattern Editor. Workaround: Renaming the pattern file extension to .hdb. Create directory C:\GoTools\GoPxLImagePatternMatching (if it does not exist). Moving the renamed file into this directory.

GoHMI

<i>Default HMI App</i>	A factory restore is required to update the default HMI app.
<i>Updating HMI App on PC</i>	The browser cache must be cleared in order for a newly updated or created HMI app to show. In Chrome, open Developer Tools (Shift+Ctrl+J or F12), Right-Click on the browser Reload Button, and select "Empty Cache and Hard Reload". This is not required for GoHMI on sensor or GoMax NX.

SDK and REST API Protocols

REST API version 3.x.x
GDP Protocol x.x.x

SDK

TBD

This section will be completed in a future release

REST API

TBD

This section will be completed in a future release

Functionality compared to Gocator 6.x firmware

This section lists features that are available in Gocator firmware versions 6.x but not available in GoPxL.

<i>GoMax Independent acceleration</i>	GoMax can only accelerate a single sensor or a single set of grouped G2 or G4/G5 sensors (formerly known as “buddy” system). Accelerating multiple sensors independently is not supported.
<i>G2 Tracking, Translucent spot detection</i>	The tracking functionality and translucent spot detection are not available.
<i>More user interface translations</i>	GoPxL is only available with English, Chinese and Japanese user interface currently. More translations are planned for future releases.
<i>Analog, and Serial output</i>	Analog, and Serial output are not supported.
<i>Technician login</i>	Gocator 6.x Technician login with restricted UI is replaced by GoHMI functionality allowing creating a reduced access interface.
<i>Surface Section and Polygon region</i>	Surface Section does not allow editing the section line by dragging end points and no polygon region is supported. These will be added in a future release.
<i>G2342, G2880, G200</i>	These models are not currently supported in GoPxL