GoPxL 1.0 – Release Notes

Firmware Version 1.0.109.203
Document Revision C

Compatibility

- Devices supported:
  - Gocator Line Profilers: 2300 C/D revision, 2400, 2500, 2600
  - Gocator Snapshot Sensors: 3200, 3500
  - Gocator Line Confocal Profilers: 5500
  - GoMax NX
  - X64-based PC (Intel/AMD) with Windows 10
- The following series and models are not supported:
  - Gocator Point Sensors: 1300
  - Gocator Line Profiler: 2100, 2880
  - Gocator Multi-point Profiler: 200
  - GoMax (pre-NX version)
- Web Interface
  - The web interface requires latest Google Chrome, Mozilla Firefox or Microsoft Edge version 79 or later

New Features

This section covers new functionality that is available in GoPxL 1.0 compared to Gocator 6.x firmware.

Gocator 5500 support	Support for Gocator 5500 line confocal imaging (LCI) sensors
User interface improvements	• Tool search, icons and categories - Find appropriate measurement tools more quickly and easier • Integrated tool help - Learn about tool details more easily • Drag and drop tool addition and reordering • Visualizer pane splitting • Restructured layout - More suitable for wide screens, allowing maximized visualizer • Resizable panels - Adapt UI to suit your common actions • Variable rate recording playback - See individual frame's data while automatically advancing through many frames of data • Looped recording playback - Quickly improve your measurement configuration while immediately seeing updated measurement results for each frame. No need to click "Start" each time.

	• Alignment wizard interface - Easier configuration through added guidance
Array data type	GoPxL supports bundling data inputs or outputs (such as measurements, Profile or Surface data, and so on) into a single structure called an array. Together with tool batching, this can reduce the number of tools required to process multiple similar elements in a single scan.
GoHMI	GoHMI allows users with no programming knowledge to develop custom user interfaces with sensor data, measurements and control elements on HMI terminals.
Multi-layer scanning	GoPxL can receive and process Gocator 5500 sensor multilayer data produced when scanning transparent or translucent targets.
Surface roughness tool	The Surface Roughness tool generates measurements of surface roughness. The tool supports Sa, Sq, Sp, Sv, Sz, Ssk, and Sku measurements.
PROFINET on GoMax NX	GoPxL provides support for PROFINET on GoMax.
Measurement Formula Tool	The Measurement Formula Tool allows performing mathematical calculations and conditional statements on tool measurements.
.NET SDK	The .NET SDK is a standalone SDK allowing for more portability.
REST API Protocol	The GoPxL SDK can use REST API to gain low level device access to the sensor, GoHMI Designer and other web applications.
Surface Pattern Matching and Surface Track files in support file	While in Gocator 6.x, users need to use the Pattern Editor to download models and transfer them separately, GoPxL now contains the Surface Pattern Matching and Surface Track files in the support file.

Known Issues

General

GoMax memory leak	Running a sensor accelerated by GoMax over a period of days may result in memory usage accumulating and eventually lead to a reset. Workaround: Restart the system once every 24 hrs if memory usage is consistently climbing.
Active Area editing	Under some circumstances, the Active Area editing view may show transformed data even though the view is labeled “Sensor frame of reference” Workaround: Stop and Start the sensor or refresh the browser.
Job loading/switching	Loading or switching jobs may be slower than expected with small job files with less than 10 tools.

Large job files	The responsiveness of the UI is slow when making modifications to large job files. With a large job file and the UI open, performing Start and Stop operations might be delayed.
Industrial Protocols: PROFINET	Once the service is enabled, it cannot be disabled. Workaround*:* Toggle off the service, save the job, restart the sensor, and load the job again.
Restricted IP address binding	Some Ethernet services bind to all IP addresses even when a single local IP address is specified in GoPxL Manager.
Support file load	Loading a support file may fail if the same sensor in the support file is also available on the same network as the device on which the support file is loaded. Workaround: Temporarily disconnect the sensor from the network while loading the support file.
Gocator 6.x .rec file load	Loading scan data from .rec files from Gocator 6.x is supported but some specific files may fail to load depending on configuration details. Workaround: Factory restore may resolve the issue.
Failed recording load	If a recording or support file load fails, the GoPxL instance may be left in a bad state causing other issues to occur. Workaround: Factory restore and restart the GoPxL instance if you experience other issues after failing to load recorded data.
Trigger delay	When using External Trigger mode, the trigger delay function has no effect

Tools

Tool performance	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.

Utilities

Pattern/Track editor with multiple GoPxL instances	When using multiple GoPxL instances on PC, it is not obvious which instance is which in the Pattern editor application's Source drop-down. In the Track editor application, PC instances that are running can be missing in the Source drop-down.
GenTL driver	The GenTL driver has the following known issues: ● When using the GenTL driver with a G3 sensor through GoPxL on PC, a crash may occur. ● When using GoPxL on PC, the surface size received through the GenTL driver can be incorrect if the X spacing interval in the GoPxL

	scan configuration is set to "Auto". Use a manual spacing interval to work around this issue. • The Align command is asynchronous, requiring a wait period after calling to ensure alignment is completed. • With uniform spacing disabled in profile mode, the output data can have empty lines in X. • With a Gocator 5500 sensor with intensity disabled, the intensity output is not empty. • With a Gocator 5500 sensor with intensity enabled, the intensity output is brighter in the first rows, not matching the intensity values shown in the UI. • It is not possible to connect to GoPxLService.exe run directly without GoPxL Manager

GoHMI

Default HMI App	A factory restore is required to update the default HMI app.
Updating HMI App on PC	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.

SDK and REST API Protocol — SDK API version 3.0.0

No significant changes were made to the C++ and .Net SDKs as compared to the 1.0 Beta release.

The REST API Protocol underwent a number of changes. For a full list, refer to the REST API documentation located in the following folders where the updates are flagged with a “1.0.x.x” tag:

`14630-1.0.109.203_SOFTWARE_GoPxL_SDK\GoPxL_SDK_<Cpp/dotNet>\doc\`

Functionality compared to Gocator 6.x firmware

This section covers functionality that is available in Gocator firmware versions 6.1 or 6.2 but not available in GoPxL.

G2880, G2100 & G200	These models are not currently supported in GoPxL
Replay CSV Export	CSV Export is currently not supported. The Replay Converter utility can be used to convert to different formats, including CSV.
Script tool	The script tool is not available in the same form as in Gocator 6.x. With the 1.0 release, a Measurement Formula is provided. In later releases, a Python scripting environment will be added.
Digital, Analog, and Serial output	Digital, Analog, and Serial output are not supported. Digital output support will be added in a future release.

User roles and accounts	Gocator 6.x Administrator and Technician accounts are not supported in 1.0 but are planned for future releases. Currently HMI functionality allows creating a reduced access interface.
Surface Section and Polygon region	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.
Recording filtering	There is currently no ability to conditionally record data with recording filter settings.
Translations	GoPxL is only available with an English user interface currently.
Mixed-model buddying	Mixing different G2 line profile models in a merged system (buddying) is not supported. The models must match.
G2 Tracking, Translucent spot detection	The tracking functionality and translucent spot detection are not available.
SDK	Alignment configuration is not possible through the SDK currently. Alignment parameters must be configured in a job. The SDK can be used to switch between different jobs with different alignment configurations.
Surface Barcode	The Surface Barcode tool is currently not supported in GoPxL.
Runtime variables	Runtime variables from PLC are not supported
Quick Edit mode	Quick Edit mode is not available
Autostart	The ability to automatically start a sensor after power cycle is not yet available
GoMax Independent acceleration	GoMax can only accelerate a single sensor or a single set of grouped G2 or G5 sensors (formerly known as “buddy” system). Accelerating multiple sensors independently is not supported.
Maximum frame rate simulation	When loading a support file in GoPxL, the maximum frame rate is not calculated as it is in Gocator Emulator.