



Gocator Firmware 5.2 - Release Notes

Firmware Version 5.2.18.11

Document Revision D

Compatibility

The Gocator 5.x web interface requires Chrome, Firefox or Edge. IE 11 is supported in a limited fashion (see known issues for details).

The 5.x releases are compatible with 4.x SDK.

General support for older hardware models continues, but new measurement tools and PROFINET are not available on the following sensor models:

- G1300
- G2300 A and B revisions

New Features

New device support

This release adds support for

- GoMax
- Gocator 3504 (Currently supported up to 4.6Hz. Full 6Hz performance will be supported in the next service release)

Surface Section

Lets you perform sectioning on surface data with the added advantage of being able to anchor the section to other measurement tools. Averaging across the path is also supported.

Surface Transform

Generates a new surface aligned to supplied geometric features or fixed 6DOF transform values. A zero-plane, line and origin point can be passed in to define the new coordinate system for the surface.

Feature Create

Allows creating new geometric features as well as extract values from features. For example, use two points to create a line or three points to create a circle.

Point Cloud Surface Mode

G2 profile sensors now support scanning without data loss in Surface mode by disabling the Uniform Spacing option. This allows capturing full 3D point cloud surface data on G2 sensors even in vertical or overhangs areas. Point cloud surfaces on G3 has been supported since the 5.0 firmware release.

Improvements

<i>Surface Segmentation Improvements</i>	The Surface Segmentation tool now supports measurements and output of the individual segmented surfaces. Sorting options and margins have also been added.
<i>Mesh rendering</i>	In addition to mesh triangles, individual isolated points are now also rendered. This ensures all data used in calculations can also be visualized.
<i>UI Performance</i>	When many measurements are configured, the time to switch to the Output and Dashboard pages has been reduced.
<i>Surface Opening</i>	The Nominal Angle field now allows negative values.
<i>Color scale mode "Auto - Region"</i>	The color scaling mode "Auto - Region" now defaults to the current visible data range rather than the full data range.
<i>EtherNet/IP</i>	The EtherNet/IP device information ProdCode, MajRev and MinRev have all been set to 1. This allows using the same EDS configuration across different devices and firmware versions. <i>It may be required to update existing EDS files or disable electronic keying to ensure sensors still connect over EtherNet/IP.</i> The EDS file downloadable from the Web UI has been improved to simplify setup of a Gocator sensor over EtherNet/IP.
<i>G2300 D revision default exposure</i>	The default exposure times of the G2300 D hardware revision have been reduced.
<i>Maximum Framerate description</i>	A description of the maximum frame rate was added to the Web UI.
<i>Surface buffer size</i>	The internal surface buffer size on new G2 sensor models (G2300C/D, G2400, G2500) has been increased to allow larger surfaces to be generated.
<i>Accelerator buffer size</i>	The size of some buffers in the accelerator have been increased to allow working with larger data.
<i>Render performance</i>	The performance in rendering of large surfaces has been improved.
<i>Background suppression</i>	Added ability to suppress ambient light on G2 models. Ability to enable and configure through SDK.
<i>GDK point set region</i>	GDK tools can now use point sets (connected or unconnected) as region parameters.
<i>GDK dynamic outputs</i>	GDK tools can now change the number of measurements with each parameter change.



Bug Fixes

<i>.NET SDK job switch</i>	With specific tools present in a configuration, it was not possible to switch configurations from the .NET SDK.
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Known Issues

<i>Accelerated G3 with multiple exposure</i>	Scan results may be incorrect when using accelerating a G3 sensor with multiple exposures. This issue is addressed in the upcoming 5.2 SR1 release.
<i>Video mode recording upload</i>	Uploading video mode recording may fail. As a workaround, first switch to Video mode before attempting to load the recording. With emulator, first create and load a Video mode support file. This issue is addressed in the upcoming 5.2 SR1 release.
<i>Internet Explorer</i>	Several issues exist with Internet Explorer 11 when using large data sets due to browser memory limitations. Refer to the Gocator user manual for IE 11 specific instructions to work around some of the issues.
<i>Translations incomplete</i>	New strings in 5.2 have not been translated yet. Not all English text is translated in every language.
<i>Selcom output latency</i>	Processing latency with Selcom serial output has increased. The default delay for Selcom serial output has been increased to account for the increased latency.
<i>G1 Reduced recording size limit</i>	Gocator 1300 point profile sensors can now only store approximately one half the number of frames previously in recordings.
<i>Surface Track</i>	The Surface Track tool is not supported on the GoMax device.

SDK and Protocol Changes

Protocol Version 101.13

Protocol version is specified as [Major].[Minor]. Firmware releases with the same Protocol Major version are backward compatible and users do NOT need to recompile their applications unless features in the newer version are used. Note that these are protocol and SDK changes from the most recent previous release. Refer to the Gocator 4.x SDK migration guide for details on how to port your 3.x application to Gocator 4.x or 5.x firmware.

SDK

Action Name	Description of change
<i>Added</i> GoAcceleratorMgr	Expanded implementation
<i>Added</i> GO_SENSOR_ACCEL_STATUS_*	Expanded accelerator statuses
<i>Added</i> GoSensor_AccelState()	New functions to allow obtaining



GoSensor_AccelPortInfo()	detailed information on accelerated sensors.
GoSensor_AccelOpMode()	
GoSensor_AccelSensorIpAddress()	
<i>Added</i> GoSetup_*BackgroundSuppression*	Functions for enabling and controlling background suppression.

Configuration and Protocol changes

Action	Type	Name	Description of change
<i>Added</i>	Configuration	Setup/BackgroundSuppression	Settings related to background suppression



GDK Changes

Note that with 5.2 and newer, new tools are required to perform GDK builds. Use the “Gocator GDK Prerequisites – Version 3.0.0.0” from the LMI website.

Action	Name	Description of change
<i>Added</i>	GdkExampleToolDynamicOutputs	New example
<i>Added</i>	GdkExampleToolPointSetRegion	New example for using point set regions
<i>Added</i>	GdkMeasurementCfg_SetName() GdkMeasurementCfg_SetEnabled()	Measurement configuration
<i>Added</i>	GdkFeatureCfg_SetName() GdkFeatureCfg_SetEnabled()	Geometric Feature configuration
<i>Added</i>	GdkToolDataOutputCfg_SetName() GdkToolDataOutputCfg_SetEnabled()	Configuration of tool data outputs
<i>Added</i>	GdkPointSetRegion	Point set region data structure
<i>Added</i>	GDK_PARAM_TYPE_POINT_SET_REGION*	Point set region type
<i>Added</i>	GdkParamPointSetRegion_*	Functions for controlling new point set region parameters
<i>Added</i>	GDK_POINT_SET_*	Various constants for point set regions

