

## Gocator Firmware 6.3 SR2

Firmware Version 6.3.10.1

Document Revision B

**WARNING! This release included a crash bug in Part Detection for G2 laser line profile sensors that can lead to the sensor resetting with Part Detection enabled. We recommend G2 users to upgrade to the newer 6.4.41.16 release instead.**

## Compatibility

### Web Interface

- The web interface requires Chrome, Firefox or Microsoft Edge version 79 or later.
- IE 11 and old Edge versions are only supported in a limited fashion (see known issues for details).

### Hardware

- Supported models
  - Gocator 2100C/D, 2300C/D, 2400, 2500, 2600, and 2800C series line profilers
  - Gocator 3200 and 3500 series snapshot sensors
- Older Gocator 1300, 2100A, 2300A/B, 2880A, and 3100 series sensors are *not* supported.

### SDK

- The 6.x releases are compatible with the 4.x and 5.x SDK.

### Windows 32-bit support removed

- Only 64-bit versions of Gocator Emulator, Accelerator and SDK binaries are available.

## Improvements

### General

|  |   |
|--|---|
| <i>G3520 B Version Support</i>             | The G3520 B version is now supported in this release.   |
| <i>G3210B, G3506B, and G3520A recovery</i> | Improved projector error recovery logic on G3 sensors (including G3210B, G3506B, and G3520A) to prevent the need for a power cycle if certain errors occur.                             |
| <i>G3 B Version Material Change Delay</i>  | Resolved a delay in exposure trigger (approximately 2 seconds) when switching between jobs that use Diffuse and Interreflective material settings on G3210 and G3506 B version sensors. |
| <i>FOV X Alignment (G2629)</i>             | Resolved an inconsistency where the Field of View X value of the G2629 model differed from the expected value   |

### Tool Enhancements

|                                      |  |
|--------------------------------------|--|
| <i>Surface Blob tool</i>             | A new option, "Show Precise Boundary," is available in the Surface Blob tool. This option draws boundaries with appropriate Z offset but with increased execution time.  |
| <i>Surface Bounding Box Advanced</i> | Added new rotation options to Surface Bounding Box Advanced to allow for a more accurately fitted bounding box (minimum volume). This mode requires significantly higher processing time, but provides better results. On unaccelerated sensors, it is only useful with lower resolution data. LMI recommends using this mode only on an accelerated sensor. |
| <i>Surface Align Wide/Ring</i>       | Included support for the G2618 model in both the Surface Align Wide and Surface Align tools.   |

## Bug Fixes

### General

|  |  |
|--|--|
| <i>G3210B Stability</i>                        | Resolved an intermittent issue where the G3210B sensors could hang and cease acquiring data.   |
| <i>G3210B Minimum Exposure Correction</i>      | A discrepancy between the minimum exposure values for the G3210A and 3210B sensors has been resolved.                                |
| <i>G3210B Data Quality with Multi-Exposure</i> | Implemented a fix for G3210B to address degraded data quality when using multi-exposure in interreflective mode during acceleration. |
| <i>G2600 Startup Time</i>                      | Fixed an issue where the start time for G2600 sensors could be slower than expected.   |
| <i>GoMax EtherNet/IP</i>                       | Fixed an issue where sensors accelerated through GoMax encountered instability in EtherNet/IP connections.                           |
| <i>ASCII Ethernet Output</i>                   | ASCII Ethernet output could fail to transmit a subset of data.   |



|  |   |
|--|---|
| <i>Part Detection</i>                        | Data loss of individual profiles could occur when using Part Detection with high resolution sensors such as the G2610.  |
| <i>G3 Surface Data Output in Visualizer</i>  | Fixed an issue where surface data output from a tool may not display in the Visualizer.   |
| <i>Improved Overheat Warnings (G3)</i>       | Fixed an issue where the overheat warning UI elements for accelerated G3 sensors may not display correctly, despite the underlying warning and error flags being set.   |
| <i>Network Connection Stability</i>          | The sensor connection could be lost intermittently under extremely high network traffic conditions.   |
| <i>Buddy-wide X Offset</i>                   | Measurement values and profile data could be impacted by a buddy-wide X offset in sensor transformation.  |
| <i>GoAccelerator Auto-Launch</i>             | The GoAccelerator program may not reaccelerate a sensor after a PC restart, even with auto-launch enabled.  |
| <i>Accelerated G2600 High CPU Load</i>       | Accelerated G2600 sensors with X or Z angle transform could cause high CPU load.  |
| <i>Enhanced Surface Flatness SDK control</i> | SDK calls for Enhanced Surface Flatness were not applied correctly.   |
| <i>Data Viewer Title</i>                     | The data viewer title did not match the current scan mode in all cases. The title could change to the previous scan mode instead of updating to the current one.  |
| <i>Digital Input on Master 810</i>           | Fixed an issue where changing the external digital input index on Master 810 in surface-fixed length mode may not function correctly.   |
| <i>Part Detection Digital Output</i>         | Part Detection digital output did not turn off immediately when a part was no longer detected.  |
| <i>PROFINET (sensor) Communication Loss</i>  | Addressed an issue preventing PROFINET communication from automatically resuming following a power cycle. This issue arose due to the device's IP address erroneously resetting to 0.0.0.0 upon power restoration |
| <i>SDK: UserStorageFree</i>                  | Fixed an issue where SDK GoSensor_UserStorageFree() may return an unexpectedly large value.   |
| <i>GenTL Driver</i>                          | The default acquisition mode was incorrectly SingleFrame rather than Continuous.  |
| <b>Tool Bug Fixes</b>                        |   |
| <i>Surface Blob</i>                          | The Surface Blob tool was not drawing every blob outline under all conditions.  |
| <i>Segmentation Tool</i>                     | Fixed a bug where the "Enable Z Measurements" button in the Segmentation Tool may crash the emulator.   |
| <i>Surface Align Ring</i>                    | Fixed an issue where the detected sensor count for Surface Align Ring could be incorrect.   |
| <i>Surface Transform</i>                     | Fixed an issue where the transformed surface may fail to render in the  |



|                              |  |
|------------------------------|--|
|                              | Visualizer.  |
| <i>Feature Create</i>        | The “Plane from three points” mode may display incorrect Z measurements and fail to accurately place the “Point” feature on the plane. |
| <i>Surface Mesh</i>          | The Mesh output data may appear dark when the intensity view is used   |
| <i>Surface Stitch</i>        | Fixed an issue where adjusting the X angle caused the surface data to disappear  |
| <i>Surface Flatness</i>      | Global Max, Min, and Flatness measurements were inaccurately marked as Invalid under specific settings.                                |
| <i>Surface Circular Edge</i> | The measurement values exhibited slight variations on identical scans.   |
| <i>Surface Merge Wide</i>    | Fixed a bug where some data may have been missing in the data output of the tool.  |
| <i>Profile Closed Area</i>   | The Profile Closed Area tool could use an incorrect center point under some circumstances.   |

## Known Issues

|   |   |
|---|---|
| <i>Part Detection crash</i>                               | A crash may occur when using Part Detection with G2 sensors when there are no points visible by the sensor when starting.   |
| <i>HDR Mode in Support File</i>                           | HDR Mode settings are not displayed in the UI when a support file is loaded into the Emulator. While the HDR functionality is fully functional, its absence in the UI may affect usability when working on a 2600 Emulator scenario.      |
| <i>Factory Restore does not delete tool-created files</i> | Factory Restore does not delete files created by tools. This includes Surface Pattern Matching and Surface Track. To ensure tool files are removed from a sensor, add the appropriate tool and perform a “Delete” operation on any files. |
| <i>Surface Track</i>                                      | The Surface Track tool is not supported on the GoMax device.  |
| <i>Surface Section</i>                                    | With a profile from the Surface Section tool, it is not possible to obtain Global X & Y measurements from the Profile Bounding Box tool.  |
| <i>Surface Blob</i>                                       | Renaming some of the measurement outputs from Surface Blob is not supported. Though the change may appear to be made, it is not persisted when saving a job file.   |
| <i>Script Tool</i>  | Memory leaks can occur when using <i>arrays</i> and <i>structs</i> within a script.<br><br>Workaround: Avoid using arrays and structs or test thoroughly to ensure stability.   |
| <i>Zoom to rectangle</i>                                  | In profile mode, when disabling 1:1 mode, zoom to rectangle does not fully zoom   |
| <i>Translations incomplete</i>                            | Not all English text is translated in every language.   |



---

*EtherNet/IP*

Due to a change in Rockwell Studio 5000 Logix Designer V34 and above, module tags for EDS AOP devices may not display correctly, or tag structures may change unexpectedly when creating or upgrading projects.

Workaround: Install the latest Add-On Profile (AOP) update for ControlLogix Analog modules (version 40.14.70).

For more information, see [https://rockwellautomation.custhelp.com/app/answers/answer\\_view/a\\_id/150229](https://rockwellautomation.custhelp.com/app/answers/answer_view/a_id/150229).

---

*Internet Explorer 11*

Several issues exist with Internet Explorer 11:

- Launching and using additional data viewers is very slow.
  - Using large data sets may not be possible due to browser memory limitations. Workaround: Refer to the Gocator user manual for IE 11 specific instructions to work around some of the issues.
- 



## SDK and Protocol changes (Protocol version 101.21)

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.

The 6.x SDK will not discover any sensors with firmware 4.2 or earlier by default. Use `GoSystem_EnableDiscoveryCompatibility()` to enable discovery of sensors with older firmware.

### SDK

#### *Enhanced Surface Flatness Control*

The GoSdk now utilizes `GoSetup_EnableEnhancedSurfaceFlatnessFilter` for managing surface flatness filtering on compatible devices. This function replaces the previously used `GoSetup_DisableEnhancedSurfaceFlatnessFilter` and offers both enabling and disabling capabilities based on developer needs.

The change also involves renaming a single enumeration value within the `GoPreFilterType` definition. Previously: `GO_PREFILTER_TYPE_DISABLED` was defined as (0). Now: The value (0) is assigned to `GO_PREFILTER_TYPE_BOX`.

#### *SetTransmitLimit and TransmitLimit*

Introduced new SDK functions `GoSetup_SetTransmitLimit` and `GoSetup_TransmitLimit` for the `GoSetup` object. These functions allow developers to programmatically manage the main sensor's transmit limit.

#### *Legacy Tool Identification*

Introduced the `GoTool_IsGoExtTool` function, which provides a convenient way to determine if a tool is a legacy tool.

### Configuration and Protocol changes

| Type     | Name                  | Description                                      |
|----------|-----------------------|--|
| Config   | Setup > TransmitLimit | Added TransmitLimit to configuration.            |
| Protocol | Health                | Added Laser Driver Error (20018) health message. |

### GDK

No significant changes were made compared to the 6.3 release.

