

Gocator Firmware 6.5

Firmware Version 6.5.2.5

Document Revision B

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, 6500, and 2800C series line profilers
 - Gocator 3200A/B and 3500A/B series snapshot sensors
 - GoMax NX, ORIN, ORIN+
- No longer supported:
 - Original GoMax
 - Gocator 1300, 2100A, 2300A/B, 2880A, and 3100 series sensors

SDK

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

Integration

- The Universal Robot CB series is no longer supported through the UR cap plugin with this release

Windows 32-bit support removed

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

New Features

General

Surface Generation Diagnostics

You can now troubleshoot Surface Generation issues more easily! We've added a new 'Status' section on the Scan page for Surface Generation. This includes details like the number of surfaces started, completed, or discarded.

Archive tool

Added the Archive tool to allow exporting recordings to an FTP server based on defined conditions. Useful for replaying failure frames to identify and analyze problems.

Improvements

General

<i>G25xx x-subsampling frame rate increase</i>	Achieved up to 2x improvement in frame rate when X subsampling is set to ½ and the X field of view is reduced.
<i>G6 translucent support</i>	G6 sensors now support translucent spot selection mode with the separate translucent firmware .dat package.
<i>G6 default parameters</i>	Default parameters for the 6310 and 6320 models have been updated.

Bug Fixes

General

<i>GoMax crash</i>	Fixed a crash that affected GoMax accelerated sensors. The crash and automatic restart of acceleration could occur after days of running at the point where internal log files reach a maximum size and a new log file is created.
<i>Part Detection memory leak</i>	Resolved an issue where sensors could experience an "Out of Memory" error during continuous scanning. This was caused by a memory leak tied to specific Part Detection configurations..
<i>Part Detection data viewer rendering issues</i>	Fixed an issue in part detection and surface generation where enabling the 'keep interior' option sometimes caused rendering issues in the data viewer.
<i>High idle CPU usage</i>	Corrected an issue that caused persistent moderate idle CPU usage when a new tool was added.
<i>Crash with SDK connection</i>	A crash could occur after multiple days of running with a connection to the Gocator SDK.
<i>EtherNet/IP connection close crash</i>	A crash could occur under specific timing when closing EtherNet/IP communication.
<i>Data processing error</i>	A data processing error could occur when using the emulator to load a support file with Y smoothing enabled.
<i>GoMax memory leak</i>	A memory leak could occur on GoMax NX when a connected browser process is paused.
<i>ASCII output formatting</i>	ASCII output formatting of a measurement value with %08d could result in an all-zero string rather than a correctly zero-prefixed value.
<i>Z subsampling in buddy system</i>	In a buddy system, the Z subsampling setting was only being updated for the main sensor and not the buddied one.



<i>G3 projector error</i>	On a G3 sensor where the projector encountered an error, the error recovery could result in incorrect intensity values.
<i>GoMax "accelerated" state</i>	On a GoMax, an accelerated sensor still showed an "Accelerated" state after it is disconnected or power is removed.
<i>G6 missing points in profile mode</i>	Corrected missing profile data for exposures 1 and 2 in G6 when using multi-exposure and translucent mode with Z spacing at 1/4 in profile mode
<i>G6 Artifacts with small X FOV</i>	On G6 sensors with a small X field of view, some artifacts were present in the profile data.
<i>Unresponsive main after buddy removal</i>	Removing power from a buddied sensor could cause the main sensor to become unresponsive.
<i>SDK SetLaserState()</i>	SDK: SetLaserState() did not affect buddy sensors.
<i>G2618 emulator scenario</i>	The Gocator 2618 emulator scenario did not correctly calculate maximum frame rates.
<i>Large surface data</i>	The web UI was not showing large surface data (>1GB) correctly in the Chrome browser.

Tool Bug Fixes

<i>Surface Merge Wide</i>	Fixed an issue with the Surface Merge Wide tool where setting Output Width to a large value caused data loss along the Y axis.
<i>Surface Merge Wide</i>	Fixed an issue where using the 'Enable Processing' parameter in the Surface Merge Wide tool broke job compatibility between versions 6.3 and 6.4.
<i>Surface Merge Wide</i>	Fixed an issue where the info message 'Input data are empty ...' was incorrectly displayed in replay mode.
<i>Surface Merge Wide</i>	Fixed an issue that occurred when Output Width was set to a high value.
<i>Surface Align Wide</i>	Fixed an issue where Surface Align Wide was unable to align resampled data correctly.
<i>Surface Align Wide and Surface Align Ring</i>	Some parameters do not load correctly when an older XML file is imported.
<i>Mesh Projection</i>	Resolved a crash that occurred when adding a Mesh Projection tool in the emulator.
<i>Profile Position and Profile Dimension</i>	Achieved better performance by enabling averaging or median in Feature Selection.
<i>Pattern editor</i>	Fixed an issue where patterns saved with custom file names were inaccessible on the sensor,



Known Issues

<i>GoMax support.cgi</i>	<p>Downloading a GoMax support file with /support.cgi results in the UI needing to be refreshed.</p> <p>Workaround: Manually refresh the UI</p>
<i>Factory Restore does not delete tool-created files</i>	<p>Factory Restore does not delete files created by tools. This includes Surface Pattern Matching and Surface Track.</p> <p>To ensure tool files are removed from a sensor, add the appropriate tool and perform a “Delete” operation on any files.</p>
<i>Surface Track</i>	<p>The Surface Track tool is not supported on the GoMax device.</p>
<i>Surface Section</i>	<p>With a profile from the Surface Section tool, it is not possible to obtain Global X & Y measurements from the Profile Bounding Box tool.</p>
<i>Surface Blob</i>	<p>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.</p>
<i>Script Tool</i>	<p>Memory leaks can occur when using <i>arrays</i> and <i>structs</i> within a script.</p> <p>Workaround: Avoid using arrays and structs or test thoroughly to ensure stability.</p>
<i>Accelerated recording</i>	<p>With a sensor accelerated by a Windows PC, recording for hours could eventually exhaust system memory and cause a browser crash.</p>
<i>Archive Tool on GoMax</i>	<p>GoMax will restart when stopping acceleration of a sensor if an Archive tool was added.</p> <p>Workaround: Ensure the 'FTP enable' button in the Archive tool is disabled before stopping acceleration of the sensor on the 'Manage -> Sensor System' page.</p>
<i>G2 trigger drops</i>	<p>When a trigger drop occurs in surface mode scanning, the last profile's data is duplicated rather than leaving a missing profile where the drop occurred.</p> <p>Always avoid trigger drops by adjusting scan settings such that triggering does not occur during the previous trigger's exposure time.</p>
<i>G2600 HDR option in Emulator</i>	<p>The HDR parameter for G2600 sensors is not visible in the Emulator. This is due to sensor hardware needing to be present to show the available options.</p>
<i>Zoom to rectangle</i>	<p>In profile mode, when disabling 1:1 mode, zoom to rectangle does not fully zoom</p>
<i>Translations incomplete</i>	<p>Not all English text is translated in every language.</p>



EtherNet/IP in Rockwell Studio 5000 v34-v37

Due to a change in Rockwell Studio 5000 Logix Designer v34-v37, module tags for EDS AOP devices may not display correctly, or tag structures may change unexpectedly when creating or upgrading projects.

Workaround: Upgrade to v38 or 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/1150229.

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 101.23)

The 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

<i>Surface generation diagnostics</i>	Added health indicator defines for surface generation diagnostics GO_PROFILE_SURFACE_MESSAGE_START GO_PROFILE_SURFACE_MESSAGE_START_COUNT GO_PROFILE_SURFACE_MESSAGE_COMPLETED_COUNT GO_PROFILE_SURFACE_NUMBER_OF_PROFILE_PER_ACTIVE_SURFACE GO_PROFILE_SURFACE_NUMBER_OF_DISCARDED_SURFACE GO_PROFILE_SURFACE_DIGITAL_INPUT_TRANSITIONS
<i>Added G6 product family definition</i>	GO_FAMILY_6000

Configuration and Protocol changes

Type	Name	Description
Protocol	Health	Added Surface Generation indicators State (22021), Start count (22022), Completed Count (22023), Profile Count (22024), Discarded Count (22025), and Digital Input Transitions (22026) health messages..

GDK

No changes

