

G5.HMI Release Notes

Date	Purpose of Revision	Author
09.11.2020	Initial version of the document, including V0.3.0.1019	JF
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22.12.2020	Version V0.5.0.1142	JF
29.01.2021	Version V1.0.0.1229	JF
19.02.2021	Version V1.0.1.1254	JF
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06.05.2022	Version V1.5.0.1741	JF
29.09.2022	Version V1.6.0.1938	JF
15.02.2023	Version V1.7.0.2122	JF
15.05.2023	Version V1.8.0.10045	JF
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09.07.2024	Version V1.11.1.134	JF
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29.08.2025	Version V1.21.0.220	JF

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General Information

This document lists G5 HMI SW release change information for customers.

There are some gaps between the version numbers. Those are internal releases and not listed in this document.

Details of Fault Categories

The corrected faults are classified into the following categories:

Fault Category	Remark
minor	Faults within this category have <ul style="list-style-type: none">negligible impact (e.g. typo)
moderate	Faults within this category can <ul style="list-style-type: none">limit part of the functionality
serious	Faults within this category can <ul style="list-style-type: none">lead to inconsistent dataaffect operation heavily or make operation impossible

Version History

V1.21.0.220

Release Date: 29.08.2025

General

Reason for change	Remark
Upgrade	Stability improvement
Upgrade	Support for G5.IND device types
Upgrade	Add the deprecated flag in the HTTP Response Headers (Web API) for deprecated methods
Moderate	Some AAP Curves have not been displayed in the FuncGen tab
Minor	Several small bugfixes

V1.20.0.70

Release Date: 11.09.2024

General

Reason for change	Remark
Upgrade	Several small bugfixes
Upgrade	Stability improvement

V1.11.1.134

Release Date: 09.07.2024

General

Reason for change	Remark
Minor	The Active Interface elements are not accessible anymore for G5 devices which do not support this feature
Moderate	In some cases the HMI did not connect to the G5 master device, especially with Multi-Device systems

REST API

Reason for change	Remark
Upgrade	New endpoints for active interface functionality /System/ActiveInterfaceSupported
Minor	The following Endpoints return HTTP status code 501 (not implemented) in case the active interface is not supported: /System/ActiveInterface /System/ActiveInterface/AccessMode /System/ActiveInterface/ConnectedInterfaces /System/ActiveInterface/Information /System/ActiveInterface/Request

V1.11.0.128

Release Date: 03.05.2024

General

Reason for change	Remark
Upgrade	Active Interface support
Minor	Sometimes more than one period has been shown in the FuncGen tab's preview
Minor	In the Device Info, the installed Licenses of the G5 device have not been listed
Moderate	Occasionally the firmware update via G5.Control failed

REST API

Reason for change	Remark
Upgrade	New endpoints for active interface functionality /System/ActiveInterface /System/ActiveInterface/AccessMode /System/ActiveInterface/ConnectedInterfaces /System/ActiveInterface/Information /System/ActiveInterface/Request

V1.10.0.79

Release Date: 01.12.2023

General

Reason for change	Remark
Upgrade	User level support
Upgrade	Configuration settings can be changed in <i>Advanced</i> user level
Upgrade	In the preview plot of the function generator pages, the minimal value is displayed
Upgrade	The control page visualizes when the reference signal is modulated
Upgrade	In the function generator the buttons for the manual control are better arranged

REST API

Reason for change	Remark
Upgrade	<p>The following endpoints now report the correct <code>HttpResult</code> Code (in case when the operation with the G5 device fails)</p> <ul style="list-style-type: none"> <code>/ConfigReferenceValueSettings/VoltageSlope/Limit</code> <code>/ConfigReferenceValueSettings/CurrentSlope/Limit</code> <code>/ConfigReferenceValueSettings/PowerSlope/Limit</code> <code>/ConfigSensing/Voltage/MaxCompensation</code> <code>/ConfigSensing/Voltage/MaxDropLevel</code> <code>/ConfigSensing/Voltage/MaxDropLevelDelay</code> <code>/ConfigLoadProtectErrors/Current/LowerTripLimit</code> <code>/ConfigLoadProtectErrors/Current/UpperTripLimit</code> <code>/ConfigLoadProtectErrors/Power/LowerTripLimit</code> <code>/ConfigLoadProtectWarnings/Current/LowerLimit</code> <code>/ConfigLoadProtectWarnings/Power/LowerLimit</code> <code>/Settings/Ethernet/SubnetMask</code> <code>/Settings/Ethernet/HmiModule/IpAddress</code> <code>/System/ConnectionSettings/G5TargetIpAddress</code> <code>/System/ConnectionSettings/G5TargetPortNumber</code>
Upgrade	<p>New endpoints for the reference modulation information:</p> <ul style="list-style-type: none"> <code>/Control/Current/ReferenceCurrentControlModulationEnabled</code> <code>/Control/Power/ReferencePowerControlModulationEnabled</code> <code>/Control/Resistance/ReferenceLoadResistanceControlModulationEnabled</code> <code>/Control/Voltage/ReferenceVoltageControlModulationEnabled</code>

V1.9.0.98

Release Date: 08.09.2023

General

Reason for change	Remark
Upgrade	The control mode for the equipment under test can be set for voltage, power, current and loadresistance control mode.
Upgrade	Visualize when the function generator is programmed with peak or frequency sweeps.
Upgrade	FuncGen tab: while the preview is calculated the busy icon is displayed.
Upgrade	The user has to confirm a reset of the G5 device.
Upgrade	For the current control mode, the internal conductance value is now available.
Upgrade	While connecting the RCU to a G5 device, a dialog visualizing the busy state is shown.
Upgrade	Display the same significant digits as the control page of the G5.Control.
Upgrade	Display the information of BatSim, BatControl, CapSim, Sweep and EtherCat licenses in the Device Info tab.
Upgrade	To prevent accidental change of config values, the config pages are read only.
Minor	Fixed the issue when the resistance value overlapped the title.
Minor	Fixed some typo's for RCU modules.
Moderate	Disabling the DHCP mode on a RCU, also disabled the DHCP setting of the connected G5 device.
Moderate	The active limits on the control page have not been correctly marked in blue correct for the power and the load resistance control mode.
Moderate	Occasionally the HMI or RCU module did not wake up anymore when the screensaver was activated.

REST API

Reason for change	Remark
Upgrade	Add endpoints for internal conductance values: /Control/Conductance/InternalConductance /Control/Conductance/InternalConductance/LowerLimit /Control/Conductance/InternalConductance/UpperLimit
Upgrade	Add endpoints for the funcgen sweep functionality: /FuncGen/BlockConfiguration/Frequency/SweepEnabled /FuncGen/BlockConfiguration/Frequency/SweepParameters /FuncGen/BlockConfiguration/PeakValue/SweepEnabled /FuncGen/BlockConfiguration/PeakValue/SweepParameters /FuncGen/Preview/DurationForPeriodes
Upgrade	Add endpoints for the battery control functionality: /BatteryControl/ChargeCounter /BatteryControl/EnergyCounter /BatteryControl/ResetEnergyAndChargeCounter
Upgrade	More endpoints to query the license status under: /System/Licensing/

V1.8.0.10045

Release Date: 15.05.2023

General

Reason for change	Remark
Upgrade	Better arrangement and more information with the symbols on the ControlPage that indicate sense, source of values, etc....
Upgrade	The preview of the sequence shows an “undefined” area for the cases where another instance than the function generator is controlling the reference value (e.g. when the sequence ends and the levels from the standard input are used).
Minor	Typo in the RCU settings tab.
Moderate	Occasionally, the GUI showed a "Please Wait" after a soft reset of the G5 device because the G5.HMI could not connect to the G5 anymore.

REST API

Reason for change	Remark
Upgrade	Removed deprecated REST endpoints: <code>/FuncGen/SequenceManagement/SequenceInfoList/MaxEntries</code>
Upgrade	Added endpoints for output measurement (see swagger documentation for details) <code>/System/OutputMeasurement/</code>
Upgrade	Added endpoints for the SAS API (see swagger documentation for details) <code>/SolarArraySimulation/</code>

V1.7.0.2122

Release Date: 15.02.2023

General

Reason for change	Remark
Upgrade	Control Page: the sense limit is shown for voltage and power section
Upgrade	Control Page: show “I/O” symbol when a value is controlled by an Analog/Digital I/O
Upgrade	The min and max limit values for the Load Resistance are now read-only
Minor	In some cases, it was possible to set a very high resistance value in the HMI (higher than physical limits)
Moderate	Config Page – Additional Settings: the wrong entity was shown for the slope values
Moderate	The HMI did not show actual system values when connected to a slave G5 device

REST API

Reason for change	Remark
Upgrade	Removed deprecated PUT paths: /api/ConfigLoadProtectWarnings/Voltage/LimitsActive /api/ConfigLoadProtectWarnings/Current/LimitsActive /api/ConfigLoadProtectWarnings/Power/LimitsActive
Upgrade	Added new paths to query the source that controls the value of the min. and max. value for voltage, current and power.
Upgrade	Add path to query the source that controls the value of the control mode for the EUT
Upgrade	Mark the /FuncGen/SequenceManagement/SequenceInfoList/MaxEntries as deprecated
Upgrade	Mark the PUT path for /Control/Resistance/LoadResistance/LowerLimit and /Control/Resistance/LoadResistance/UpperLimit as deprecated

V1.6.0.1938

Release Date: 29.09.2022

General

Reason for change	Remark
Upgrade	RCU (Remote Control Unit) support. Possibility to manage and establish a connection to a detached G5 device.
Upgrade	G5 IPV6 address is also shown in the device info page.
Upgrade	The network settings of the G5 device and the HMI/RCU have been unified into one dialog.
Upgrade	In the device info page, information about the HMI module type is shown (HMI, RCU.I, RCU)
Upgrade	Possibility to reboot the G5 device has been added.
Minor	Occasionally the HMI showed "Please Wait..." and did not connect with the G5 device.
Minor	The FuncGen Preview's envelope view was wrong when a long preview time was displayed in combination with a User defined curve type.

REST API

Reason for change	Remark
Upgrade	Added methods to connect to a specific G5 device in case the module is configured as an RCU
Upgrade	Deprecated API <code>/api/FuncGen/Preview</code> has been removed
Minor	SSL connection did not work anymore.
Minor	Corrected typos and wrong links in the swagger documentation

V1.5.0.1741

Release Date: 06.05.2022

General

Reason for change	Remark
Upgrade	FuncGen preview: the behaviour "voltage off" or "hold level" when sequence finished is now represented in the sequence preview.
Upgrade	FuncGen preview: improved axis description.
Upgrade	FuncGen preview: the delay time between sweeps is better visualized for sequences with lots of block repetitions.
Upgrade	The name of HMI firmware file for the updates is now human readable (G5_HMI_FW_V1.5.0.1741.raucb).
Upgrade	Added support to update the HMI firmware via G5.Control.
Minor	FuncGen preview: the sequence preview is now also refreshed when the setting "exponential envelope" is changed in G5.Control.
Minor	During startup and changes of the views, it occasionally happened that only artefacts of the GUI have been shown for a short time.
Minor	Control page: changing the reference value with the slider very fast, caused a visual jitter of the slider.

REST API

Reason for change	Remark
Upgrade	<code>/api/Maintenance/FirmwareUpdateProgress</code> returned an error.

V1.4.0.1671

Release Date: 08.02.2022

General

Reason for change	Remark
Upgrade	Improved the preview of the function generator: <ul style="list-style-type: none"> - support for low frequencies - improved calculation speed - if the sequence is not displayed entirely (e.g. if it's endless), it is indicated by a dashed line - if a sequence has too many function repetitions, an envelope of the amplitude is shown - many more...
Upgrade	All pop-up dialogs to enter a new value have the SI entity selected by default.
Serious	In some cases, the HMI lost the connection to the device. In these cases, no values are displayed and the REST API calls returned an error (bad gateway)

REST API

Reason for change	Remark
Upgrade	New paths to query the function generator preview points (envelope and optimized).
Upgrade	Old path / api/FuncGen/Preview is deprecated.
Upgrade	The methods in the swagger documentation are now alphabetically sorted.

V1.3.0.1512

Release Date: 13.07.2021

General

Reason for change	Remark
Upgrade	Various small bugfixes and stability improvements.
Upgrade	The MAC address of the G5 device and the HMI module is shown in the device info tab.
Upgrade	Show more information about the G5 device firmware versions

V1.2.0.1483

Release Date: 21.05.2021

General

Reason for change	Remark
Upgrade	Improved the function generator GUI to reduce wrong button presses.
Minor	The HMI adjusts the min / max load resistance when a new reference is set via G5.Control or an API based program.
Minor	Occasionally a touch event was repeated unintentionally.
Minor	In case the connection between the HMI and CTR was lost, the HMI still showed the old errors.

REST API

Reason for change	Remark
Upgrade	Improved the error description in case some operation failed.
Upgrade	Added a possibility to download a zip file containing logfiles and settings for support purposes.
Minor	Various improvements in the description of the API in the swagger document.

V1.1.0.1378

Release Date: 01.04.2021

General

Reason for change	Remark
Upgrade	A sine symbol is shown on the control page when the reference value is controlled by another source (for example the function generator) than the control page.
Upgrade	If a controller hits a limit, it is marked orange on the control page.
Upgrade	The actual values on the control page are depending of the usage of a sense probe. An "S" indicates the usage of a sense.
Upgrade	If the device is programmed with a SAS curve, the HMI correctly shows this curve type.
Upgrade	The store settings functionality is now quickly accessible via the Menu tab.
Upgrade	A risk indicator (flash) symbol is shown while the device is discharging, when there is residual voltage on the output.
Upgrade	Possibility to enable/disable the exponential envelope time.
Upgrade	Possibility to enable/disable the AAP input filter.
Moderate	In some cases, the peak value was wrong after loading a function generator sequence.
Moderate	Various bugfixes in the preview of the function generator.
Minor	The preview of an AAP curve had a wrong scaling.

REST API

Reason for change	Remark
Upgrade	The source that is controlling the reference value can be queried.
Upgrade	Safety interface is added to query information about the residual voltage on the output.
Upgrade	Possibility to enable/disable the exponential envelope time.
Upgrade	Possibility to enable/disable the AAP input filter.
Upgrade	Support for the SAS curve type in the function generator.
Moderate	In some cases, the peak value was wrong after loading a function generator sequence.
Minor	Various improvements in the description of the API in the swagger document.

V1.0.1.1254

Release Date: 19.02.2021

General

Reason for change	Remark
Minor	Under some circumstances the IPV6 address was not shown in the Device Info
Minor	After a long runtime the interaction was laggy.

REST API

Reason for change	Remark
serious	Response time was very high after a long uptime.

V1.0.0.1229

Release Date: 29.01.2021

General

Reason for change	Remark
Upgrade	A yellow border is displayed when warnings are pending (similar to the red border for errors)
Minor	The device state is reported more detailed
Moderate	Various Bugfixes in the FuncGen Page

REST API

Reason for change	Remark
Upgrade	Function Generator part is added to the REST API.
Upgrade	Possibility to query device values by its object Index/Subindex like in the parameter page of the G5.Control
Upgrade	Function to reset the G5 device

V0.5.0.1142

Release Date: 22.12.2020

General

Reason for change	Remark
Minor	The static IP address will be preserved after a FW update (starting with this version)
Upgrade	Support for the external trigger
Moderate	The trigger mode in the FuncGen page did not always display the correct value
Moderate	Various small bugfixes

REST API

Reason for change	Remark
Upgrade	REST WebAPI to control the TopCon device.

V0.4.0.1070

Release Date: 24.11.2020

General

Reason for change	Remark
Minor	The Daylight zone has not been applied correctly to the Error/Details view
Moderate	A wrong error message was shown when pressing Voltage On and the device had no TFE option installed
Moderate	Various Bugfixes in the IP Settings of the WebAPI and the Device Ethernet tab
Upgrade	The visualization of a slave device has been added
Upgrade	The error state is now shown with a red border
Upgrade	The message box size is increased

V0.3.0.1019

Release Date: 09.11.2020

General

Reason for change	Remark
Creation	Initial Version