REGATRON

G5 Series

Regatron G5
LabVIEW Rest API Access

Getting Started

Version V 1.0

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Overview of versions	
Operating instructions / programming handbook	Version V 1.0

All information is subject to technical changes without prior notice.

Content

1. Overview

The TopCon LabVIEW API can be used to access the Regatron G5 HMI to perform a small set of operations.

It cannot substitute the G5Control PC Software, but offers some methods to automate certain operations.

The main configuration and error analysis can only be done with the TopControl software.

1.1. Content

This document provides a guideline how to access the G5 LabVIEW VI's.

1.2. Precondition / Dependencies

To be able to use the G5 LabVIEW API the G5Control software must not be installed on the system.

For more Information read the Software Manual witch you can found in the G5Control software menu -> Help.
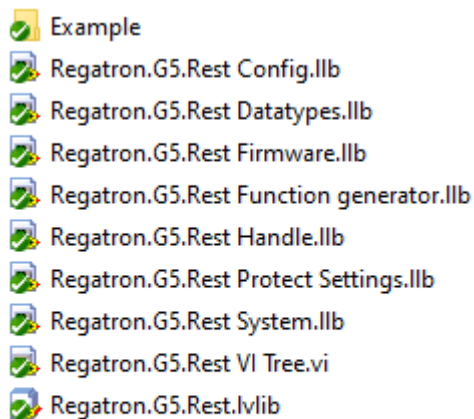
2. LabVIEW Access

There is a LabVIEW VI library to access the TC and GSS Devices.

3 Examples are delivered and can help to get your first LabVIEW program running.

You can get an overview with the VI tree "Regatron.G5.Rest VI Tree.vi" in the main directory.

2.1. VI Files

- Example
- Regatron.G5.Rest Config.llb
- Regatron.G5.Rest Datatypes.llb
- Regatron.G5.Rest Firmware.llb
- Regatron.G5.Rest Function generator.llb
- Regatron.G5.Rest Handle.llb
- Regatron.G5.Rest Protect Settings.llb
- Regatron.G5.Rest System.llb
- Regatron.G5.Rest VI Tree.vi
- Regatron.G5.Rest.lvlib

2.2. Need components

The G5 VIs are based on the free "JKI http TEST Client" library.

JKI HTTP REST Client

More info on the web   License Agreement

JKI HTTP REST Client v1.3.3.25 by **JKI**
Released On: Tue, 19 May 2020 13:17:36 -0700
Author: jimkring
Copyright: Copyright (c) 2020, JKI
License: BSD
Compatible LabVIEW Versions: >= 2013.
Compatible OS Versions: ALL.
Repository Name: VIPM Community

Please download this library via the JKI VI Package Manager.

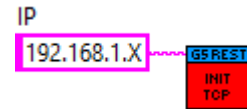## 2.3. General Recommendations

To access the API from LabVIEW, there are some points to mention.

2.3.1. Basic Init VI

G5.Rest INIT Ethernet.vi:

The connection can only be established to a HMI.

It supports the connection to multiple HMI.

TC CLOSE: Disconnect the device

2.3.2. Configuration (..\Settings)

TC Slopes: Slopes Ramp Setting (Read/Write)

TC Protect Values: Protect Setting (Read/Write)

2.3.3. References (..\Power)

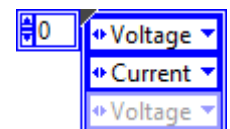TC Power ONOFF: Voltage ON/OFF Setting (Read/Write)

TC Power References: Preset and Limit Setting (Read/Write)

Datasource:

Read or Write Power Setting with Datasource

It is not necessary to write all values.

2.3.4. Output Values (..\Power)

TC Power Values: Output Values (Read)

2.3.5.   System Info (..\Info)

TC Device Info: Modul Typ, Serial Nr., Modul ID, GSS

TC Device Software Info: Firmware Versions, SW Options

TC Device Info System: Nominal Modul and Multi Modul Values

TC Device State: State of the TC (Warning, Error, Run)

2.3.6.   Utility (..\Info)

TC Clear Error: Clear TC Modul or System

TC Store Settings: Stroe Settings to Flash

TC Sense Settings: Sense Settings

2.3.7.   Func Generator (..\F-Generator)

TC FGenerator Base: Set Basic Values for the Frequency

TC FGenerator User defined: Point Frequency Values

2.3.8. Examples (..\Example)

3 LabVIEW test Examples are provided to show how to access the G5 Rest API.

The examples are for LabVIEW 2015 and LabVIEW 2021.

Example G5 Control

VI Tree: Regatron.G5.Rest VoltageSample.vi

3. Change log

This change log contains a list of changes in the previous versions of the documentation

Version	Date	Changes in documentation
1.00	2021-11-25	Initial documentation

REGATRON

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