

Grid Automation Protection Automation Control

# Firmware/Software Release Note

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Distribution: Public

Reference: S1Agile-RN-EN-Q

# MICOM S1 AGILE RELEASE: 3.0

# **Software Version 3.0 – February 2023**

### Overview

MiCOM S1 Agile 3.0 is a new release of the Tool Suite used for all current GE Grid Solutions MiCOM P40 Agile products and other legacy MiCOM protection IED products.

All data models and files are tested to be compatible with MiCOM S1 Agile 3.0.

Previous versions settings files are likely to be compatible, but system files from S1 Agile versions 2.1.4 or older will not support the new MiCOM P40 Agile 5<sup>th</sup> generation relays. A new system will need to be created in order to support the new relays in S1 Agile 3.0

#### **New Features**

The following enhancements have been added to MiCOM S1 Agile 3.0:

- **MiCOM P40 Agile 5<sup>th</sup> generation support:** Select, connect, set and explore MiCOM's next generation, including configuration of the multiple concurrent resident communications protocols.
- Cybersecurity support for MiCOM P40 Agile 5th generation:
  - **RBAC:** RBAC supporting all the IEC 62351-8:2020 mandatory pre-defined roles.
  - **Password encryption:** Password encryption in messages between the MiCOM S1 Agile toolsuite and the relay and in messages between the RADIUS server and the relay (subject to the RADIUS server).
  - **Security settings:** S1 Agile supports security settings being restored to default when bypass is disabled or set to local by a user with the SECADM role in the relays.
  - Restore defaults and clear records: S1 Agile supports restore defaults and clear records allowing clearing of events and disturbance records. Only the Engineer and Installer role (or Bypass set to local) can perform these actions in the relays.
  - **PSL Editor RBAC:** PSL Editor includes support for RBAC. When Bypass is disabled the Engineer and Installer role are able to access PSL Editor features.
- SLD Editor create a customised single line diagram (SLD) of the protected bay for the graphical front panel display of MiCOM P40 Agile 5<sup>th</sup> generation relays for deployment as a One Box Solution.
- Language File: Updated to support the multilingual MiCOM P40 Agile 5th generation relays.



- **IED Configurator Import Support for 2007B4 Schema:** Import the 2007B4 (SCL version 2007, revision B, release 4) Schema. Note that exporting to 2007B4 is not currently supported by the modelling of the relays.
- User Notes column added to settings comparison: For greater depth of settings file comparison, a new User Note column has been added to compare changes in users' text comments.
- **Removal of Reason Tools and SCU Configurator:** The Reason Tools RPV Support Tool and DR60 Configurator and the SCU Configurator tools have been removed from S1 Agile reducing the installation/uninstallation time. All the latest versions of the Reason tools are available separately from the GE website. The SCU Configurator can be provided on request.

#### **Fixes**

- **IED Configurator:** In the ClientLN configuration, if the IP is 0.0.0.0 the IED Configurator now includes warning message IP Address Invalid.
- **IED Configurator:** A horizontal scroll bar has been added to improve visualisation of ClientLN Parameters under RCBs, previously it was only possible to scroll with arrow keys.
- **IED Configurator:** The user interface has been modified to show Ethernet port selection only when using legacy single Ethernet boards. Previously there were options for Fibre or Copper regardless of whether the board used this setting or not.
- **IED Configurator:** The warning message 'is limited to decoding the first Data Attribute only' for SPS/DPS has been removed from the IED Configurator as it is not applicable to SPS/DPS.

#### How to Install

Installation requirements:

- **Operating System**: Verified on Microsoft Windows 10 Professional/Enterprise 64 bits and Windows 11 Enterprise 64 bits.
- **Pre-Installation**: It is mandatory to uninstall existing "ALSTOM" MiCOM S1 Agile, version 1.3.1 or older, and make sure the files are totally removed from the Installation Folder (...\Alstom Grid\Micom S1 Agile), if any. It is recommended that newer versions are also uninstalled before installing this version.
- **Post Installation**: Manual restart is necessary to complete the installation. Please install "nmap-7.92-setup.exe" manually to support the Redundant Ethernet Configurator

This installation:

- Is to be downloaded to your hard disk for later installation by running the .exe file.
- Will prompt the user to uninstall previous versions of S1 Agile manually. This is applicable only for S1 Agile v1.3.1 or older.
- Provides the most convenient means of upgrading from the legacy S1 Studio Tool Suite.
- Retains all existing MiCOM S1 Studio and MiCOM S1 Agile systems, or projects. Those systems can't add MiCOM P40 Agile 5<sup>th</sup> generation relays but are otherwise compatible.



- Has two modes:
  - Custom Mode: Installs the features and transfers all installed MiCOM S1 Studio and MiCOM S1 Agile data models with the custom installation to new GE folder structure (unless the user selects to remove these when prompted during the uninstallation of previous S1 Agile).
  - Express Mode: Installs all the features with default configuration and retains data models in ALSTOM folder structure, if S1 Agile v1.3.1 or older version is previously installed. The installation programme can be run again after the express installation to modify data models which will enable a user to transfer existing data models to the new GE folder structure.
- Does not require any conversion of existing files.
- Can be run multiple times.
- Supports silent mode installation.
- Installation needs to be run by a user with administrator privileges.
- The installation will create files in two main folders, the installation folder which is by default C:\Program Files (x86)\GE\MiCOM S1 Agile and can only be changed in Custom Mode and the database files which are hard coded into C:\ProgramData\GE\MiCOM S1 Agile. If the installation is done in a Virtual Machine the VM will need access to that folder in the main machine or have a virtual equivalent to it.
- Once installed, for the program to operate correctly the Windows user needs to have administrator privileges.

If any of the following standalone tools are on the target computer, it is recommended that they are uninstalled first to avoid potential software conflicts:

- MiCOM ALSTOM Selector
- MiCOM P746 Remote HMI
- MiCOM Topology Dynamic Synoptic
- P740 File Merger
- User Programmable Curve Tool

It is recommended that the name of Off Page Connectors in PSL files created in previous versions of S1 Agile are changed to 16 characters or less before upgrading.

## **Other Notes**

#### Windows Compatibility:

- MiCOM S1 Agile 3.0 is compatible with and verified on Windows 10 Professional and Enterprise and 11 Enterprise (64 bit versions).
- Windows 10/11 compatibility is not verified for WinAEDR2, which is an application used for the automatic retrieval of fault records.
- To ensure that S1 Agile displays correctly using Windows 10/11 it is recommended that a "smaller" (100%) DPI screen size and high resolution is used. This setting can be found in the Control Panel under Appearance and Personalization>Display.
- For correct operation, S1 Agile 3.0 requires that the Microsoft .NET Framework 3.5 and 4.0 are both installed and enabled on the target machine.



- If S1 Agile is planned to be used on a Virtual Machine environment it is recommended to set the Ethernet interface of the Virtual Machine as Bridged, otherwise communications to the relays via Ethernet may fail.
- If S1 Agile is planned to be used on a Virtual Machine environment it is recommended to allow full access to the C:\Program data folder

#### **Computer Security Settings:**

• MiCOM S1 Agile uses UDP port 111 for Ethernet communication to devices using Portmap service. For the application to connect via Ethernet correctly this port must not be blocked. The connection between S1 and the relays use dynamically allocated ports typically in the range of 1002-1007 for UDP and 49152–65535 for TCP.

To ensure correct operation the following security settings are recommended:

 Firewall file exceptions for inbound connections: [Program Files] \GE\MiCOM S1 Agile\Agile\Agile.exe [Program Files]\GE\MiCOM S1 Agile\Phasor Terminal\Phasor.exe [Program Files]\GE\MiCOM S1 Agile\User Programmable Curve Tool\UPCT.exe

### For Further Assistance

For questions or further product support, please contact the GE support team using:

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