

Grid Automation Protection Automation Control

Firmware/Software Release Note

Date: Apr 2023

Distribution: Public

Reference: DSAGILE-RN-EN-7.7.4



DS Agile system V7.7.4 - Apr 2023

DS Agile System

Key feature

- **Control with bypass:** thanks to the validation steps made in DS Agile, the IEC61850 control model functions are now validated for the following bypass use cases:
 - ILK bypass with or without SC bypass with IEC61850 Ed2 BCU
 - ILK bypass with or without SC bypass with IEC61850 Ed1 BCU as "Generic IED" module
 - ILK bypass with or without SC bypass with IEC61850 Ed1 BCPU as "Generic IED" module (legacy BCPUs with specific SC/ILK flags).

DS Agile v7 is now compliant in term of bypass functions with the DS Agile installed base. Note: SC=Synchrocheck function, ILK=bay-wise interlocking functions

DS Agile HMI : aView

Key features

- Login/logout workflow optimization: To minimize the time spent to log into a user' session, a new fast-switching process between two authenticated users is introduced in aView. The "public mode" can be configured with limited permissions, to be launched at user session logout. The HMI main mimic is always displayed on screen, whatever a user is connected or not.
- **Possibility to limit the control permissions as per user and substation areas:** user rights inherited by user' role(s) are now replaced by user' permissions and control access as per substation areas. Thanks to this improvement, a user' role can have control access on a part of the substation (MV side, bus coupler by instance) and monitoring access only on other areas. The individual control access are:
 - forcing, suppression or substitution of datapoint states
 - setpoints
 - command



- bay-wise interlocking bypass
- synchrocheck bypass
- reset counters (monitoring, maintenance)
- alarms acknowledgement and clearing

The role and responsibilities of utility operators can now be fined-tuned in aView.

Note: in case of project migration, the permission and access control for RBAC and/or local user' roles must be reconfigured according to customer specifications.

- Zooming on Single Line Diagram independently than the navigation banner: The engineer in charge of project configuration is now able to configure a "navigation banner" template, independent than SLD mimics during opening, closing, zooming... user' actions. The advantage of this new optional feature is engineering efficiency, performance enhancement and HMI workspace optimization.
- An optimized HMI server redundancy: a design change was made to reinforce the security, improve server redundancy mechanism, and optimize the SCADA/HMI architecture. Project configuration, software installation, and system maintainability are greatly simplified.
- The user' preferences set into an aView session are saved: the modification made by an end user (font size, font type, columns width...) can be saved as "user preferences" during aView session. These settings are restored when the same user logs in a new session.
- **Time filter is now available for all viewer lists:** An absolute time filter, previously only present into the "Historian events" and "Custom events" filters, is now added in the "Alarm" and "Real time event" filters. Time filter can be configured with start date and end date time pickers and combined with other type of advanced filters.
- New columns added into the viewer lists: for a better knowledge on substation process real time status, information visibility and filtering capability, 8 new columns are added into the events, alarms and variables lists. Thanks to the customizable configuration of these lists, the new columns (Substation name, Voltage level, Bay name, Module name, Validity, Detailed quality, Event type, IEC61850 address) can be added to the existing ones (origin, full DP name...).
- **Customizable menu item and action bar buttons:** an important improvement to customize the aView User Interface (UI) according to specific customer specification:
 - Menu items present in aView can be replaced by custom animations
 - Action rights can be customized as per user' role
 - Optional buttons are added at action bars configuration level (text size, clear all events and stop/resume events)
 - Custom buttons can be configured into the alarm, events, and variables action bars
 - Tab viewers action bars can be hidden by configuration
 - The "historical list of alarm" viewer can be hidden by configuration
 - An explicit name and tooltip are added on "index" column

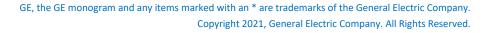


Other features

- A simpler manner to change a local password: according to end user' feedback, two modifications were introduced into the local "change password" popup:
 - a "reveal password" icon is added on each password field
 - the "password complexity hint" is linked as a tooltip to a clearly identified icon
- New properties attributes for GUI variables: to improve the vector graphic interface quality, the General User Interface component have now 4 additional properties' attributes, to set the font family, the font size, the font style, and the foreground color.
- **Report header & footer adaptation to content:** The reports printed by the function "Print", "XL reports", or generated by IMS application contains custom header and footer, with no cropping nor overlap with information contained in the report. A "vendor logo" and a dedicated title name are added in report' header.
- A new management of tab viewers: To improve the end User experience in term of tab viewer closing, a FIFO mechanism is added in aView. When the user opens more tabs than the limit defined, a new tab is opened, and the oldest tab is closed consequently. New functions "close", "close all" and "close all others" are now accessible by right click to simplify the tab closing action. If a main mimic tab is defined (always visible), it will not be considered in the closing mechanism.
- HMI login page background can be customized: It will be possible to customize the application login background according Customer specification, thanks to a dedicated setting at configuration level.
- Extended time synchronisation of workstation clients: in case of time changes on HMI servers (synchronized at station bus level by the grandmaster clock), the HMI workstation time is automatically updated, regardless of the time difference between HMI servers and workstations.
- The curve viewer component proposes 2 new refresh rates: to be compliant with analytics made by others SCADA solutions, the curve viewer tool proposes 2 new refresh rates (2s and 10mn) in addition to the 8 already available.
- **Historian engineering tool improvement:** To support engineers during FAT test crisis, the IP addresses of primary and secondary HMI servers will be set into a combo box. The "output directory" folder is by default the "shared folder" path, to make accessible the tool reports whatever the system security level.

Vulnerabilities

- Java: vulnerabilities were fixed by removing Java component in aView. This fix occurs an attack surface reduction and improves engineering efficiency in case of standalone architecture.
- **Central authentication:** ICMP protocol usage removed in aView central authentication management.
- **SSL encryption**: vulnerabilities fixed in TLS 1.2 cypher suites configuration.
- Windows® Remote Service(s): add quotes on executable paths in aView service configuration.
- FTP Unencrypted Cleartext login: FTP service configuration enforced.



- Fluent FTP Client: FTP replaced by secure FTPS solution.
- SharpZipLib: upgrade to recent library versions

DS Agile BCU : C264

Key features

• **TMU220**: C264 is now compatible with both hardware TMU 220 A01 & TMU 220 A03. Option is settable in CORTEC 14th digit. Both variants have no impact on accuracy & performances, they are used to manage lead time & availability due to component market availability.

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