

Release Notes



WAGO Solution Builder Release 2.6.1 (2026-08-31)

© 2021-2026 WAGO GmbH & Co. KG
All rights reserved.

2026-08-28

WAGO GmbH & Co. KG

Hansastraße 27
D-32423 Minden

Phone: +49 (0) 571/8 87 – 0
Fax: +49 (0) 571/8 87 – 1 69

E-Mail: info@wago.com

Web: www.wago.com

Technical Support

Phone: +49 (0) 571/8 87 – 4 45 55
Fax: +49 (0) 571/8 87 – 84 45 55

E-Mail: support@wago.com

Every conceivable measure has been taken to ensure the accuracy and completeness of this documentation. However, as errors can never be fully excluded, we always appreciate any information or suggestions for improving the documentation.

E-Mail: documentation@wago.com

We wish to point out that the software and hardware terms as well as the trademarks of companies used and/or mentioned in the present manual are generally protected by trademark or patent.

WAGO is a registered trademark of WAGO Verwaltungsgesellschaft mbH.

Table of Contents

1	WAGO Solution Builder (WSB)	4
1.1	Preliminary Remarks	4
1.2	Supported devices	4
1.3	System requirements	4
1.4	Supported firmware versions	5
1.5	Software changes	5
1.5.1	Version 2.6.1	5
1.5.2	Version 2.5.1	8
1.5.3	Version 2.4.2	11
1.5.4	Version 2.4.1	11
1.5.5	Version 2.3.4	14
1.5.6	Version 2.3.2	14
1.5.7	Version 2.3.1	15
1.5.8	Version 2.2.1	18
1.5.9	Version 2.1.7 (Plugin only)	21
1.5.10	Version 2.1.5	21
1.5.11	Version 2.1.4	24
1.5.12	Version 2.1.3	24
1.5.13	Version 2.0.6	26
1.5.14	Version 2.0.5	27
1.5.15	Version 1.3.2	29
1.5.16	Version 1.2.6	32
1.5.17	Version 1.2.4	32
1.5.18	Version 1.2.3	32
1.5.19	Version 1.1.3	35
1.5.20	Version 1.0.3	37
1.6	Fixed bugs	37
1.6.1	Version 2.6.1	37
1.6.2	Version 2.5.1	37
1.6.3	Version 2.4.1	38
1.6.4	Version 2.0.5	38
1.6.5	Version 1.3.3	38
1.6.6	Version 1.2.6	38
1.6.7	Version 1.2.3	38
1.6.8	Version 1.1.3	38
1.7	Known restrictions	39

1 WAGO Solution Builder (WSB)

1.1 Preliminary Remarks

Important recommendations for updates from version 2.0.6 or older:

- **Export all your existing solutions** before running the setup using the context menu of the solutions table. This release (2.1 and newer) contains a major upgrade of the database system PostgreSQL. Because the data migration process might fail in very rare cases, the export allows you to directly import the saved solutions again.

1.2 Supported devices

The following device series from WAGO are supported:

Item Number	Description
0750-811x	PFC100 controllers, all derivatives
0750-821x/xxxx-xxxx	PFC200 controllers, 2nd generation, all derivatives
0750-83xx	PFC300 controllers
0762-xxxx/8000-0002	TP600 Control Panel
0752-xxxx	EDGE Controller
0751-93xx	Compact Controller 100
0751-94xx	Compact Controller 100 V2 and DALI
0762-340x	WP400 Web Panel 400

Additionally older devices with item numbers 83x, 88x and 89x are supported in a way that essential data is retrieved from the unprotected web interface of these devices.

Configuration of these devices is **not possible**.

1.3 System requirements

Component	Minimum	Recommended
Operating system	Windows 11 Windows Server 2022	Windows 11 Windows Server 2022
Memory	6 GB	16 GB
Free hard disk space	30 GB	60 GB
Processor	4 CPU cores	8 CPU cores
Screen resolution	1366 × 768 pixels	1920 × 1080 pixels

1.4 Supported firmware versions

Firmware version	Firmware index
04.09.01	31
04.08.09	30
04.07.02	29
04.06.03	28
04.06.01	28
04.05.10	27
04.04.03	26
04.03.03	25
04.02.nn	24
04.01.nn	23
03.10.nn	22

1.5 Software changes

1.5.1 Version 2.6.1

Type	Notes
Restore device in Linux version:	
[NEW]	Use OS independent technology for restore
Filter tree for device settings:	
[NEW]	Show filter tree in device settings aspect
Usability and UI improvements:	
[NEW]	System information shows details separated by local and server system
[NEW]	Validate dependent attributes when importing device models
[NEW]	Corrected tooltip for "Reset (cold)" checkbox in "Synchronize Differences"
[NEW]	Show number of assigned addresses by DHCP
[NEW]	The "viewer" role cannot export the password safe
[NEW]	An explicit license can only be added once to a controller
Efficient Engineering import, edit, and generation	
[NEW]	Instantiate application model when creating a new solution

Type	Notes
[NEW]	Show application definitions in the configuration tree
[NEW]	Let the user choose to instantiate the application model when creating a new solution or updating the addressing system
[NEW]	Update application model addressing system when updating the solution addressing system
[NEW]	Aspect: Import (EPLAN) planning data as Application Definition
[NEW]	Create initial mapping after import of planning data
[NEW]	Create Application Definition structure after import
[NEW]	Show last job messages in aspect "importPlanningData"
[NEW]	Aspect: Show data points tree in Application Definition
[NEW]	Aspect: Show I/O mapping for controllers and modules
[NEW]	WAGO Solution Builder generator can create or update entity
[NEW]	Provide logging in WAGO Solution Builder for T4 scripts
[NEW]	Aspect: Choose module type for entity type "MODULE"
[NEW]	Show "Code Generation" aspect of the created Application Definition after import has finished
[NEW]	Aspect: Choose controller type for entity type "CONTROLLER"
[NEW]	Aspect: Code generation
[NEW]	Show last job messages in aspect "codeGeneration"
[NEW]	The code generation page has a link to the generated (latest) Application Template
[NEW]	Edit I/O channel mapping (assign, replace, remove)
[NEW]	Combine common aspects into one "General" tab
[NEW]	Import (EPLAN) planning data into an existing Application Definition
[NEW]	The controller type field is disabled after the first Application Template generation
[UPD]	Open WBC from CODESYS without IO configuration
[NEW]	Language dependent application model
[NEW]	Allow modules without IO channels (passive modules)
[NEW]	Normalize WAGO item numbers in EPLAN importer
Support firewall settings for multiple BACnet networks with 2 bridges	
[NEW]	Automatic firewall configuration for configured BACnet port for bridge 2
[NEW]	System hardening settings are applied to controllers without AT
Print rich text fields in project documentation	

Type	Notes
[NEW]	Support rich text field formats in PDF documentation (as good as possible)
[NEW]	Fit oversized images to A4 page width or height in project documentation
Solution Builder Plugin 2.6.4:	
[UPD]	Updated the Efficient Engineering wizard to support new features in Solution Builder.
[UPD]	When creating a CODESYS project from Solution Builder, the compiler version is now set to a fixed version, to avoid upgrade dialogs.
[FIXED]	Issue with ASI download from Solution Builder related to authentication.
[FIXED]	Issue that would occur when started from Solution Builder, no Application Template Manager was present, and the query for upload was displayed. An error message is now displayed.
[FIXED]	Issue with certain CODESYS device descriptions that would result in the wrong device being created from Solution Builder, e.g. a 750-8212/0XX-000 instead of a 750-8212.
[FIXED]	Updated error display in the Upload dialog to be similar to the Export dialog.
[NEW]	In wizard T4 scripts, two new functions to make creating CODESYS variables easier have been added: ▪ Generate.CodesysName sanitizes a string for CODESYS identifier usage. ▪ Generate.UniqueCodesysName in addition makes sure that the name is unique (so it may only be called for once for each input). A second optional namespace parameter limits the uniqueness to that namespace.
[NEW]	When creating an Application Template from Solution Builder via Efficient Engineering, CODESYS messages (like compilation errors) are now reported to Solution Builder.
[NEW]	If "[EE]" is present in the Author field, WAGO BACnet Configurator is started without the I/O channel import/export workflow to facilitate the Efficient Engineering workflow. The "[EE]" text is now generated from Efficient Engineering.
[FIXED]	BACnet license not being selected after synchronization from WAGO BACnet Configurator.
[FIXED]	Efficient Engineering now avoids duplicate CODESYS variable names.
[UPD]	If an order number is present in an Efficient Engineering file, it is now also written to the BACnet configuration.

1.5.2 Version 2.5.1

Type	Notes
Manage node certificates for servers and clients (e.g. MQTT):	
[UPD]	Create or renew node certificates also for controllers via root entity
[NEW]	Synchronize node certificates and keys like server certificates
[NEW]	Delete node certificates from device
[NEW]	Receive node certificates and update sync state
[UPD]	Use node certificates for lighttpd Web-Server certificate, if exists, and NO BACnet certificate exists
Handle Linux-Windows differences in file and folder naming:	
[NEW]	Handle case sensitive folder and file names on Linux
[NEW]	Handle unknown '\' in file path on Linux
Use TGS to open CODESYS:	
[NEW]	Choose CODESYS version when opening project in Applications page
[NEW]	Choose CODESYS version and launch it via Tool Gateway Service (TGS) when the generator is called
[NEW]	Check if the TGS version is compatible with the WSB version
[NEW]	Store used CODESYS version when receiving a project from Solution Builder Plugin (SBP)
Support multiple BACnet (SC) networks and routing (Version 2.3.1):	
[NEW]	Provide device model for BACnet/SC 2.3.1
[UPD]	Handle old and new override parameter ID
[UPD]	Monitor parameter IDs depending on BACnet version
[NEW]	Add a "Network" (entity type) to the tree
[NEW]	Aspect: BACnet network settings
[NEW]	Aspect: networkMembers
[NEW]	Option box to select the certification authority (CA) for a network
[NEW]	Allow group class operations also for network class
[UPD]	Creating a CA creates a role "RootCA" with type "CA.CRT"
[NEW]	Recalculate and set datalink number depending on network membership
[NEW]	The certificate handling allows multiple CAs, CSRs, CRTs, KEYs per controller - one per role
[NEW]	Copying a RootCA to a device changes its role to the selected role of the create or renew dialog
[UPD]	Use extension "CA.CRT" to identify a CA

Type	Notes
[NEW]	Synchronize multiple DL certificates
[NEW]	Create or renew certificates for the network members
[NEW]	Allow to change CA role in certificate aspect
[NEW]	Automatically create a named filter when a tag starting with "Network:" is created
[UPD]	Enable WBC opening button, if a BACnet/SC certificate exists
[NEW]	Apply the BACnet network settings to all WAGO controller members
[UPD]	Secure devices: Automatic firewall configuration for BACnet/SC 2.3.1
[UPD]	Bulk import certificates to devices by matching their folder name to device connection IP address
[UPD]	BACnet/SC 2.1.3 logic is not longer supported (contradicts the new workflow supporting 2.3.1)
[NEW]	The refresh button of smart groups triggers the full text search refresh
[NEW]	Recalculate and set datalink number for members added/deleted via auto smart search refresh
[NEW]	Chapter selection to print network entities
[UPD]	Use BACnet certificates for web server CRT, if existing
[UPD]	In synchronization sign a CSR from a device with the CA of the related network
[NEW]	Apply BACnet settings also updates primary and failover hub URI of Nodes
Device backup in Linux version:	
[NEW]	Use OS independent technology for backup (config-tools instead of WAGOupload.exe)
[UPD]	Hide "Restore" option in network menu when running on Linux
Support Firmware 30:	
[NEW]	Try password change if WDA login does not work
Synchronize controllers, which were NOT commissioned by WSB:	
[NEW]	Create cookie file "device_status.json" if not exists for one-time monitoring
Usability and UI improvements:	
[NEW]	Support ethernet bridge configuration for bridge 2 (X2)
[UPD]	Execute menu "Initialize for Building Automation" is removed
[NEW]	Create /home/users/bacnet/cert folder if not exists
[NEW]	Show not synchronized licenses in the indicator for the Licensing page
[UPD]	Hide tags column by default in settings, datapoints and parameters

Type	Notes
[UPD]	Show WBM device settings as separate tab
[NEW]	Addressing system mapping error message shows related entity types of missing option IDs
[UPD]	Handle unknown new firmware versions: use latest FW settings as default
[UPD]	Do NOT trigger deployment job, if only synchronized TO solution
[UPD]	In the configuration page all BACnet related aspects are combined in a BACNET tab
[NEW]	Synchronize filter selection with local tree (Applications)
[UPD]	Entity creation omits the suffix "1" in entity name
Solution Builder Plugin:	
[BREAKING CHANGE]	Due to updated dependencies, support for CODESYS versions earlier than CODESYS 3.5 SP19 has been removed. This means that CODESYS 3.5 SP19 is the new minimum requirement to install WAGO Solution Builder Plugin.
[BREAKING CHANGE]	Support for e!COCKPIT has been removed. Note that due to these changes, when installing WAGO Solution Builder, the plugin is now copied to the Documents folder, rather than the previous subdirectory "e!COCKPIT Installation Packages".
[UPD]	The wizard function "Generate.IOMapping" now has an additional optional description parameter.
[UPD]	The wizard runtime, including the T4 code generation runtime, has been updated to unify with Solution Builder implementation. This comes with the following features: - A newer compiler and runtime are used for T4 scripts. This means that newer C# features are now available. - Wizards can now be packaged in ".wizard" archives as a single file that contain everything the wizards requires.
[NEW]	Support to edit a CODESYS application from Solution Builder, including the ability to select the CODESYS version.
[UPD]	In wizard generator scripts, CODESYS libraries that do not contain placeholders (like WAGO PlcVisu) are now supported to add.
[NEW]	Added datapoint support for I/O channels of CC100 devices.
[UPD]	The demo application wizard can now optionally add the new WAGO PlcVisu library and necessary code snippets.
[NEW]	Support PFC400 devices.
[UPD]	The wizard functions Generate.Dependency and Generate.ApplicationFile will now overwrite items, rather than duplicating them. A dependency is

Type	Notes
	identified by its type and name, an application file by its source file path and target directory.
[NEW]	Support for FW31: map CODESYS device description version 6.4.6 to firmware version "04.09.01".
[NEW]	A few special, but non-complex modules (power supply) are supported for I/O mapping, especially the 750-610 and 750-611 modules.
[UPD]	In the Application Template export dialog, the current state or result of the export process is now displayed, to make the result more easily discoverable.
[UPD]	Small updates to the Demo Template Wizard.
[FIXED]	Downloading ASI definitions from Solution Builder has been fixed.
[FIXED]	Fixed an issue with wizard values sometimes not being properly applied.
[FIXED]	Made TextList handling fail gracefully if the TextList plugin is not installed in CODESYS.
[FIXED]	Fixed a WBC-related issue that occurred if no Application Template Manager was present.

1.5.3 Version 2.4.2

Type	Notes
[UPD]	Upgrade .NET to 9.0.12 to fix Microsoft vulnerability CVE-2025-55315 .
[UPD]	Other security fixes.
[UPD]	User manual includes new features in all supported languages (DE, EN, FR).

1.5.4 Version 2.4.1

Type	Notes
Handling of 64-bit IPKs:	
[NEW]	Allow to upload IPKs with the same version number but different architectures
[NEW]	Extend package synchronization by specifying architecture
[NEW]	Download IPK with correct architecture from WDC
[NEW]	Persist device supported package architectures and show them in controller details aspect
Remove or add entity types when mapping a standard application model:	
[NEW]	Ignore entity types when mapping an application model to an individual solution structure

Type	Notes
[NEW]	Add existing entity types when mapping an application model to an individual solution structure
Generate and set individual random passwords of all controllers:	
[NEW]	Generate and set individual random passwords of all controllers
[NEW]	The two old WBM passwords "(before FW20)" are no longer supported
[NEW]	Protect selected controller passwords from being updated by global password changes using the tag "ProtectPasswords"
[NEW]	Show a result dialog after controller passwords are changed
Create server certificates and synchronize them to all controllers:	
[NEW]	Delete certificates from controller if they are deleted in Solution Builder
[NEW]	Delete server certificate file from solution when it's not in device
[NEW]	Create certificate with "Server" role
[NEW]	Distribute the server certificate to the assigned controllers
[NEW]	Allow certificate management in all standard addressing systems
[NEW]	Synchronize "Server" certificate during device synchronization
[NEW]	Renew "Server" certificates
[NEW]	Type of CA certificates (role) are changed from CA to CRT
[NEW]	Allow to change certificate role in certificate aspect
[NEW]	Interpret certificate role from uploaded certificate file name
[NEW]	Export and import server certificate as bulk
[NEW]	Synchronize the certificates in the direction in which they are selected in the UI
[NEW]	Synchronize CA with for BACnet/SC and "certificates" folder
[NEW]	Update certificate sync state to "SB changed" when the certificate is deleted from device
Log in to a solution via Active Directory (AD) or LDAP - with role definition inside the solution:	
[NEW]	Import existing users from LDAP / AD into solution
[NEW]	Show imported users from LDAP / AD in the solution user management
[NEW]	Authenticate solution login user based on LDAP / AD
[NEW]	Show a warning above the import LDAP/AD user import table, if no owner exists
Usability and UI improvements:	
[NEW]	Show and warn the user about expiring WSB license

Type	Notes
[NEW]	LDAP role names are configurable in appsettings
[NEW]	Filter controller table by synchronization state
[NEW]	SVG support for images, icons, and header branding
[NEW]	Update device MAC address if available via WDA
[NEW]	Link license in license repository to assigned controller
[NEW]	In case of an internet connection error Solution Builder shows which URL it tried to access
[NEW]	Call network analysis commands (tracert) for all used servers
[NEW]	Reboot controllers from network page
[NEW]	Trigger rebuild of full text search index when entering the Filter page
[NEW]	Collapse controller parameters if there is more than one recipe
Solution export allows to include job data:	
[NEW]	Solution export allows to include job data
[NEW]	The „Save as“ function includes all job data automatically
[NEW]	Solution import sets all running job states to "SysStopped"
BACnet object description generation using the addressing system (AS):	
[NEW]	Configure AS description settings in AS editor
[NEW]	AS identifier does not show AS parts marked as 'Description only'
[NEW]	Calculate and show AS description
[NEW]	Update AS description settings when update solution AS
[NEW]	Write AS description into override.xml file
Maintain technical environment R2.4:	
[NEW]	Update to .NET 9.0.8
[NEW]	Update to DevExtreme v25
[NEW]	Replace DotNetZip with ProDotNetZip
Solution Builder Plugin:	
[FIXED]	When entering the name for the atpkg file, leading and trailing spaces are now removed.
[FIXED]	Sometimes not properly storing relative paths to configurator project files after opening them.
[FIXED]	Add referenced application files to CODESYS archive.
[UPD]	The I/O configuration of the CC100 9402 device is supported for BACnet.

Type	Notes
[NEW]	Show "Solution Builder mode" similar to configurators.
[UPD]	The T4 function "Generate.IOMapping" has a new optional parameter to set the channel description.
[UPD]	The demo wizard "Solution Builder Template Creator" gained better texts, tooltips and a documentation.
[NEW]	When running a wizard, the values are now automatically stored to a file next to the CODESYS project file, with the wizard and CODESYS project in their names. You can reload that specific data from a context menu in the wizard selection.
[UPD]	Added license keys for BACnet for PFC300 devices.
[UPD]	Replaced DotNetZip with ProDotNetZip to avoid potential security issues.

1.5.5 Version 2.3.4

Type	Notes
[NEW]	Improved security: passwords are never returned in an API call and never transmitted to UI clients.
[NEW]	Improved security: API responses contain only information relevant for the current user/role.
[NEW]	Secure all REST APIs used by UI which might return sensitive information with authentication.
[NEW]	Passwords for solutions or users require at least 8 characters.
[NEW]	The network number and interface for BACnet can be configured in the device settings.
[NEW]	Built-in authentication requires at least one user and must be activated with an [Apply] button.

1.5.6 Version 2.3.2

Type	Notes
[NEW]	Calculate operation state applying user LED configuration: Set the tag "IgnoreUserLedsInOperationState" for the controllers where colored user LEDs should not lead to a red operation state.
[NEW]	The flag "BACnet/HR" for a controller activates the HotReload feature for BACnet client mappings.
[NEW]	Show warning if HotReload is true but synchronization requires restarting the runtime.
[NEW]	Filter controller table by synchronization state.

Type	Notes
Solution Builder Plugin (Version 2.3.5):	
[UPD]	Onboard I/O support for CC100 DALI.
[UPD]	Vertical scrollbars in the General tab if necessary.

1.5.7 Version 2.3.1

Type	Notes
User access control to entities	
[NEW]	Manage access control to individual entities of the solution
[NEW]	Filter the tree view according to entity access rights
[NEW]	Enable entity editing in configuration page according to access rights
[NEW]	Move entities in the tree while entity access rights are active
[NEW]	Add and delete entities while entity access rights are active
[NEW]	Drop elements on entities while entity access rights are active
[NEW]	Reduce filter results according to entity access rights
[NEW]	Copy and paste entities while entity access rights are active
[NEW]	Reduce network controller list according to entity access rights
[NEW]	Prevent deleting invisible entities
[NEW]	Reduce cross-communication page according to entity access rights
[NEW]	Reduce documentation content according to entity access rights
[NEW]	Reduce licensing page according to entity access rights
[NEW]	Reduce BACnet watchlist according to entity access rights
[NEW]	Inherit user access rights along the tree
[NEW]	Bulk editing of entity access control aspect
[NEW]	Update entity properties from Excel is only available for solution owners
[NEW]	Prohibit editing in read-only entities
[NEW]	Limit global operations by user access rights
[NEW]	Restore cross communication data when update failed due to entity access control or entity locked
[NEW]	Reduce validation results according to entity access rights
[NEW]	Reduce full text search results according to entity access rights
Entity locking	

Type	Notes
[NEW]	Show entities locked by me with green lock
[NEW]	Only the locking user can move entities to or from the locked sub-tree
[NEW]	Forbid global changes if entities are locked
[NEW]	Paste entities while an entity is locked
[NEW]	Lock entity and its children
[NEW]	Show locked entities
[NEW]	Prevent saving changes on a locked entity
[NEW]	Unlock entity and its children
[NEW]	Prevent deleting a branch with locks by other users
[NEW]	Show gray color on all entities read-only for the current user
[NEW]	Unlock all my locked entities
[NEW]	Only the locking user can add and delete entities
[NEW]	Drop elements on a locked entity
[NEW]	Disable buttons for forbidden operations
[NEW]	Forbid actions on locked controllers in Cross Communication page
[NEW]	Delete user including his active locks
Warn the user if a server certificate or root CA expires soon	
[NEW]	Show a warning when the server certificate will expire
Avoid runtime restart when changing client mappings	
[NEW]	Specify an "AllowRestart" parameter in the device settings
[NEW]	Show warning if "AllowRestart" is false but synchronization requires to restart runtime
Login via Active Directory or LDAP	
[NEW]	Configure LDAP (Lightweight Directory Access Protocol) as access control
[NEW]	Configure Active Directory as access control
[NEW]	Activate LDAP / AD authentication settings via "Apply" button
[NEW]	Restore authentication system's previous settings when changing it back
Linux deployment for native Linux environments (e.g. Edge Computers)	
[NEW]	Support BACnet IP/SC scanning in Linux
[NEW]	Use PostgreSQL's Linux based executables to export / import solution
Synchronize device parameters if a firmware update is due	

Type	Notes
[NEW]	Calculate device settings synch state based on all parameters defined in the solution
[NEW]	Write all device parameters if a firmware update is due
[NEW]	Show not existing device parameters as "N/A"
Usability and UI improvements	
[NEW]	Validate if BACnet ID is empty
[NEW]	Rename „WAGO GmbH & Co. KG“ in the footer to „WAGO“
[NEW]	Support WP400 firmware (wup file)
[NEW]	Mirror log level from the WSB settings to DCS
[NEW]	Texts in "Settings/System Information" are copyable
[NEW]	Enable save after adding a new user in access control aspect
[NEW]	Check versions and interoperability of a distributed installation
[NEW]	Check versions: Jump to DCS settings if DCS is not compatible
[NEW]	The whole name cell is clickable to open a solution in solution table
[NEW]	Remember the last collapsed and expanded state in the settings page
[NEW]	Show validation summary in solution list
[NEW]	Show error message if using wrong admin password for controller
[NEW]	Unify password labels for controller settings
[NEW]	Create device model for PFC300 with BACnet
[NEW]	Dialog before sending a support email explains where to find the log files
Technical environment	
[NEW]	Upgrade DevExpress to v24.4
[NEW]	Upgrade PostgreSQL to v16.8
[NEW]	Upgrade .NET to v9
[NEW]	Upgrade Angular to v19
Solution Builder Plugin:	
[NEW]	Python function for exporting Application Templates.
[NEW]	When pasting an Application Template Manager object, a message about the template ID is logged. In addition, a button is available to generate a new template ID.

1.5.8 Version 2.2.1

Type	Notes
Authentication:	
[NEW]	Protect Solution Builder REST API with Solution Builder token.
[NEW]	Handle Solution Builder token timeout for both Solution Builder operation and Solution operation.
[NEW]	Automatically log into password protected solutions if the Solution Builder user exists in the solution users.
[NEW]	Handle Solution Builder login, when opening a solution by a direct link.
[NEW]	The HOME button closes and logs out from a solution - even if the usernames are the same.
[NEW]	All password change dialogs show the username as first field read-only
[NEW]	Use Solution Builder user instead of the global username.
[NEW]	Use Solution Builder username in the "Create Solution" dialog.
[NEW]	Log out from Solution Builder and solution in one step.
[NEW]	Log out from Solution Builder.
[NEW]	Log out from a solution (if Solution Builder and solution usernames are different).
[NEW]	Change password for any Solution Builder user (by an administrator)
[NEW]	Change my own Solution Builder password.
[NEW]	Access control to Solution Builder functions depending on roles.
[NEW]	Show and edit Solution Builder users.
[NEW]	Log in to Solution Builder.
[NEW]	Delete Solution Builder user.
[NEW]	Configure Solution Builder authentication.
[NEW]	Add new Solution Builder user.
Property Editor:	
[NEW]	Open WBC from the certificates page.
[NEW]	New aspect "bacnetsc" to configure hub URI for WBC node.
[NEW]	Use Elliptic-curve cryptography (ECC) to create the private keys.
Solution Structure:	
[NEW]	Keep tree selection after move, delete, undo, redo,
[NEW]	Show the values of the first selected entity when comparison is disabled.
[NEW]	Show spinning wheel for multi (application instance) selection.

Type	Notes
[NEW]	Option to disable the parameter value comparison in the parameter aspect.
Network:	
[NEW]	Additional device model for firmware 28 for all controllers and firmware 27 for PFC300.
[NEW]	Start monitoring the present value of BACnet objects of a device in the data points list.
[NEW]	Start and stop monitoring BACnet object properties in the watchlist.
[NEW]	Show watchlist as tab in Network page.
[NEW]	Show live value in BACnet object list and in property detail view.
[NEW]	Add and remove BACnet object properties to and from the watchlist.
[NEW]	Monitor essential data from 8xx controllers (without ssh access).
[NEW]	Restore application files for single and multiple controllers.
[NEW]	Show entity type icon in entity column of controller list.
[NEW]	Hide "Other Devices" and "Nodes" in the network view.
[NEW]	Enable firmware update and backup only for WAGO controllers.
[NEW]	Calculate BACnet sync state when changing connection settings.
[NEW]	Write the connection monitoring to the override.xml file.
[NEW]	Connection Monitoring option in Client Mapping.
[NEW]	In sync details automatically show a green arrow, if firmware update is required.
[NEW]	Disable version check for IPKs – to enforce overwriting / reinstallation.
[NEW]	Automatically install all IPKs if a firmware update is required.
[NEW]	Allow the manual selection of packages in the sync detailed dialog to enforce their installation.
[NEW]	BACnet IP/SC scan retrieves and reports device item number and firmware version.
[NEW]	Scan for BACnet/SC devices.
[NEW]	BACnet monitoring supports BACnet/SC.
[NEW]	Open WBC from Data Point BACnet object list.
[NEW]	IP scan retrieves additional data (item number and firmware version) via WDA.
[NEW]	Based on the scanned item number and firmware the WSB automatically chooses the device model.
[NEW]	Show WAGO device models in the other device settings model box additionally.

Type	Notes
Repository:	
[NEW]	Show a message that the download has started - and when finished.
[NEW]	Get latest compatible version of a firmware if the required firmware version is not available.
[NEW]	Get latest IPKs from Download Center if no version specified.
[NEW]	Show application templates with Download Center product ID and version.
Usability Improvements:	
[NEW]	Keep last tab on a page active if pages are switched.
[NEW]	Show number of new application template versions in the repository on the Application page header.
[NEW]	Hide addressing system warning when saving or opening a solution using it.
[NEW]	Collapsible application description.
[NEW]	Release notes link to the online documentation.
[NEW]	Documentation links to the online documentation.
Technical:	
[NEW]	Upgrade PostgreSQL to v16.4.
[NEW]	Upgrade DRM to v4.0 - to allow deleting of time-limited licenses.
[NEW]	Upgrade DX to v24.
[NEW]	Upgrade Angular to v18.
[NEW]	Upgrade .NET to v8.0.7.
Solution Builder Plugin:	
[NEW]	Support for PFC100 G2 devices.
[NEW]	Support for firmware 28.
[NEW]	Support for Solution Builder login.
[NEW]	New directory selection control for wizards, working like the file selection control.
[NEW]	Added UI to change the order of PSOs within the template. This order is reflected in Solution Builder UI.
[UPD]	Support for runtime scenarios NoRuntime and BACnetOnly.
[FIXED]	Fixed a bug with multiple applications in a project where sometimes a manager object would be fetched from the wrong application.

Type	Notes
[FIXED]	Fixed problems with the scrollbar and mouse selection in suggestion popups. In addition, fixes a problem with suggestion boxes staying visible when leaving their table cells.
[FIXED]	Fixed a problem with visualization frame IDs not being incremented when adding multiple frames via wizard.

1.5.9 Version 2.1.7 (Plugin only)

Type	Notes
Solution Builder Plugin:	
[NEW]	Wizards functionality to read interface and implementation text from CODESYS objects. Use ProjectTree's InterfaceText and ImplementationText properties.
[NEW]	Simple JSON parser for the wizard. Use the LoadJson function to start.
[NEW]	Wizards support for creating BACnet devices (overrides) from BACnet function templates. Use LoadBacnetDevice and LoadBacnetFunction to start.
[NEW]	New Wizard object which provides functionality to get relative and absolute paths for wizard and project files, and perform file I/O. Use these functions for reading wizard-related files.
[UPD]	All common wizard function objects, like Generate, Wizard, ProjectTree and so on, are now members of the generated class, rather than local variables. This means they can now be accessed in your own methods, rather than having to pass them through.
[UPD]	In wizard's Generate.AddModule function, an optional datawidth definition (e.g. "#24") can now be appended to the order number to add a specific version of that module.
[UPD]	Wizard's log function (Log.Info etc.) now return an empty string. This avoids unexpected behavior when used wrongly (output printed).
[NEW]	Wizard's functional structure elements got a new property "Number" that can be used to set the new number / suffix column.
[NEW]	In the functional structure editor, there is now a new column for number / suffix if the addressing system supports it.
[FIXED]	Generated Application Templates now contain a list of compatible devices, rather than a single order number. This avoids compatibility problems when downloading to devices if their device description is for multiple devices.

1.5.10 Version 2.1.5

Type	Notes
Validation:	
[NEW]	Validation rule to show an info if a certificate expires long-term (3 months)

Type	Notes
[NEW]	Validation rule to show an error if a certificate expires in short-term (3 days)
[NEW]	Validation rule to show a warning if a certificate expires medium-term (2 weeks)
[NEW]	Run validation hourly
Property Editor:	
[UPD]	Improve performance of bulk updating Application Instances
[UPD]	Improve performance of multiple Application Instance selections
[NEW]	Hide device details aspect if the entity has an Application Template assigned
[NEW]	Handle WAGO devices with neither an Application Template nor a device model
[NEW]	New aspect "bacnetsc" to configure the hub URI for a WAGO BACnet Configurator (WBC) node
[NEW]	Add or remove license demand automatically for BACnet/SC primary and failover hubs
[NEW]	Use number/suffix from Application Template for addressing system instantiation of the functional structure
Solutions:	
[NEW]	Automatically purge a solution before exporting
[NEW]	Enable full functionality of the solutions context menu if license is expired (read-only mode)
Network:	
[UPD]	Use single value comparison for recipe sync state calculation (instead of checksum)
[UPD]	Calculate recipe sync state when received from DCS
[NEW]	Scan dialog option for BACnet/SC
[NEW]	Allow to synchronize with all compatible devices
[NEW]	Show compatible item numbers additional to the controller item number
[NEW]	Show an update icon in the controller and sync list, if a firmware update is required
Repository:	
[NEW]	Download needed firmware versions from the Download Center into the Solution Builder repository. This functionality is only available if the Solution Builder server is used with "https" and one of these predefined hostnames is used: "wsb", "solutionbuilder", "localhost"
[NEW]	Download needed IPK packages from the Download Center into the Solution Builder repository

Type	Notes
[NEW]	Show status, warning, and error messages after a firmware or IPK download
[NEW]	New entity types in the addressing system get default aspects assigned
Applications:	
[NEW]	Show all application templates available in the Download Center
[NEW]	Get an Application Template from the Download Center into the Solution Builder application list
Other:	
[NEW]	Use online documentation if available
Solution Builder Plugin:	
[NEW]	Wizards functionality to read interface and implementation text from CODESYS objects. Use ProjectTree's InterfaceText and ImplementationText properties.
[NEW]	Simple JSON parser for the wizard. Use the LoadJson function to start.
[NEW]	Wizards support for creating BACnet devices (overrides) from BACnet function templates. Use LoadBacnetDevice and LoadBacnetFunction to start.
[NEW]	New Wizard object which provides functionality to get relative and absolute paths for wizard and project files, and perform file I/O. Use these functions for reading wizard-related files.
[UPD]	All common wizard function objects, like Generate, Wizard, ProjectTree and so on, are now members of the generated class, rather than local variables. This means they can now be accessed in your own methods, rather than having to pass them through.
[UPD]	In wizard's Generate.AddModule function, an optional datawidth definition (e.g. "#24") can now be appended to the order number to add a specific version of that module.
[UPD]	Wizard's log function (Log.Info etc.) now return an empty string. This avoids unexpected behavior when used wrongly (output printed).
[NEW]	Wizard's functional structure elements got a new property "Number" that can be used to set the new number / suffix column.
[NEW]	In the functional structure editor, there is now a new column for number / suffix if the addressing system supports it.
[FIXED]	Generated Application Templates now contain a list of compatible devices, rather than a single order number. This avoids compatibility problems when downloading to devices if their device description is for multiple devices.

1.5.11 Version 2.1.4

Type	Notes
Solution Builder Plugin:	
[FIXED]	Fixed a UI issue with certain text boxes with suggestions (e.g. for dependency names).
[FIXED]	Fixed an issue with copying, exporting or saving SVN-enabled Application Template Manager objects with application file entries.
[UPD]	Updated resulting firmware version for FW26.
[FIXED]	Fixed an issue that would result in reporting the latest firmware version if in CODESYS simulation mode.
[FIXED]	Fixed an issue with application file items having a wrong type.

1.5.12 Version 2.1.3

Type	Notes
[NEW]	Run validation when going online.
[NEW]	Lock and unlock a solution.
[NEW]	Renew BACnet/SC certificates only for BACnet/SC controllers.
[NEW]	Synchronize WAGO devices without Application Template.
[NEW]	Instantiate or replace Device Settings of third-party devices (non-WAGO controllers).
[NEW]	Monitoring of the present values in the BACnet objects list.
[NEW]	Include further elements (notes, attachments, certificates, license demands) in the full text search.
[NEW]	Use tags as explicit search filter.
[NEW]	Ask for password when generating a private key for a new certificate.
[NEW]	Ask for password when generating a private key during renew.
[NEW]	Click reload button to import OtherDeviceModels again.
[NEW]	Activate the “Firmware Download” button in accordance with solution state and Download Center availability.
[NEW]	Show status, warning, and error messages after the firmware download.
[NEW]	Cancel the firmware download.
[NEW]	Changed order of tutorial help windows.
[NEW]	Tooltip for mismatching firmware version.
[NEW]	Explain inactivity of UI controls in tooltip.
[NEW]	Check if /etc/init.d/runtime is executable, and make it executable if not.

Type	Notes
[NEW]	The "Generate new certificate" function can be used for all devices - including non-WAGO controllers.
[NEW]	Renew certificates including third-party controllers.
[NEW]	Upgraded to PostgreSQL V16.
[NEW]	Import multiple CSRs for internal signing.
[NEW]	Export multiple CSRs for external signing.
[NEW]	Export multiple CRTs and the CA.
[NEW]	Import multiple external signed CRTs and one CA.
[NEW]	Hide "Raw data" column in Audit trail by default.
[NEW]	Show a warning in SB sync, if a firmware update is needed.
[NEW]	Use DRM component which supports Linux in WSB.
[UPD]	Print date and time in user selected formats to documentation and print the same time as shown in UI.
Device Communication Service:	
[UPD]	The BACnet scan functionality can be used platform independent.
[UPD]	Execute required firmware update before IPK and application deployment.
Solution Builder Plugin:	
[NEW]	Wizards function for copying files to the project: Generate.CopyToProject
[NEW]	Wizards function for deleting objects from the CODESYS project tree: Generate.DeleteObject
[NEW]	Wizards function to generate the CODESYS project documentation: Generate.Documentation
[NEW]	In the functional structure editor, the current addressing system is now displayed in a combo box and can also be changed there.
[NEW]	Wizards function to add dependencies to the Application Template Manager: Generate.AddDependency.
[NEW]	Wizards function to add application files to the Application Template manager: Generate.AddApplicationFile.
[NEW]	Wizards functionality to generate a functional structure: Generate.StructureAddressingSystem
[UPD]	Wizards' Generate.Module function gained parameters to specify the module name.

Type	Notes
[UPD]	In addition to Generate.DeleteObject, wizards' ProjectTree objects gained functions for getting one or all objects of a certain type. Use the ObjectWithType and ObjectsWithType functions for this.
[UPD]	The Generate.Atm wizard function gained a parameter for device picture.
[UPD]	When renaming a recipe definition, the Parameter Set Object is now automatically renamed as well.
[UPD]	Added support for PFC300 devices.
[UPD]	In the functional structure editor, the type icon gained a tooltip displaying the type name and ID.
[FIXED]	Fixed a problem with refreshing the Application Template Manager UI after data point sources had changed, which could result in loss of newly-created functional structure data.

1.5.13 Version 2.0.6

Type	Notes
[NEW]	If the solution is locked, then a solution cannot be deleted.
[NEW]	Export and import license demand and certificate tables in tree export.
[NEW]	Export and import device settings tables in tree export.
[NEW]	Enable certificate monitoring in DCS.
[UPD]	Synchronize device settings per parameter: The sync state and direction is calculated for each parameter separately.
[NEW]	Choose device model based on a tag of the entity.
[NEW]	Recalculate the local numbering of a moved entity and the addressing system of all children.
[NEW]	Undo recalculation of local numbering of a moved entity.
[UPD]	Only apply WSB hardening settings when explicitly triggered.
Solution Builder Plugin:	
[NEW]	The application template object displays the required firmware version.
[NEW]	Download addressing system structure definitions from WAGO Solution Builder.
[UPD]	When searching for variables in recipe definitions, the search is now case-insensitive.

1.5.14 Version 2.0.5

Type	Notes
[NEW]	Firmware 25 is supported – using WDA partially.
[NEW]	The IP address and the entity name are used as "X509v3 Subject Alternative Name"s for certificates.
[NEW]	Renew certificates dialog remembers selections (excluding the CA checkbox)
[UPD]	Activate restart indicator for certificates
[NEW]	Mark device as primary hub, failover hub or node (SC mode)
[NEW]	Upload a private key (KEY) to the entity
[NEW]	Create certificate files for WBC, and any other nodes
[NEW]	HTTPS encrypted communication between WSB and DCS
[NEW]	Enable full functionality for the repository in read-only mode
[UPD]	Support export / import for solution parts for remote database
[NEW]	Synchronize BACnet/SC certificates to devices
[NEW]	Create BACnetSC CSR via WDA and send it to Solution Builder
[NEW]	Tablet: Select an entity with ONE click in Configuration tree
[NEW]	Determine certificate role when uploading a CRT file to an entity
[NEW]	Create or renew certificates for WBC and any other nodes below the CA
[NEW]	Print node entities in the solution documentation
[UPD]	Show addressing system name from the addressing system file
[NEW]	Secure remote Postgres database access via SSL
[NEW]	HTTPS encrypted communication between Web-Browser and Solution Builder
[NEW]	Unlimited functions for server license
[NEW]	Restrict WSB to ONE solution for a site license
[NEW]	Restrict WSB access to localhost for user license
[NEW]	Allow up to 3 devices without a license
[NEW]	Change comment of a solution
[NEW]	Lock/unlock solution
[NEW]	Show lock status and comment in the solution list
[NEW]	Lock solution and comment it when exporting
[UPD]	Import creates a snapshot if the solution with the same UUID already exists
[NEW]	Tablet: Allow scrolling with a single finger move in all trees

Type	Notes
[NEW]	Tablet: Enable scrolling in all tables with one finger - like in the solutions table
[NEW]	Export a certificate file
[NEW]	Create or renew BACnet certificates for all devices below the CA
[NEW]	Export tasks to Excel
[NEW]	Sign a single CSR (to create a new CRT)
[NEW]	Sync all CRTs with different version/serialNumber to controllers
[NEW]	Use addressing system mapping file when importing an AT
[NEW]	Secure all controllers (hardening) uses AT file marked as "device settings" to overwrite system and solution defaults
Device Communication Service:	
[NEW]	Install files to a TargetPath on a device including parent folder creation, respecting the overwrite setting
[NEW]	Monitoring reads existing CRTs (files) from controllers and sends them to SB if changed
[NEW]	Read WDA parameters from Device
[NEW]	Use WDA to write parameters NOT starting with "SB:"
[NEW]	Use SSH workaround for parameters starting with "SB:" (postDeployment.sh)
[NEW]	Upload existing licenses from devices via WDA
[NEW]	Download and activate licenses on controllers via WDA
[NEW]	Deactivate licenses from controllers via WDA
[NEW]	Stop the runtime before deployment, if the restart flag of the AI is set TRUE
Solution Builder Plugin:	
[UPD]	When determining the firmware version for an application template package, the latest version is now used if the version cannot be determined.
[NEW]	Wizards gained more functions to manipulate visualization elements. Use Generate.SetVisuElementText to set an element's text.
[NEW]	Wizards gained functions to manipulate visualization elements. Use the functions Generate.SetVisuElementPosition, Generate.SetVisuElementVisible and Generate.DeleteVisuElement.
[NEW]	The wizard function Generate.XmlImport has been extended to support CODESYS' standard export format, in addition to the existing PLCopenXML support. In either case, the XML can be supplied inline or as a second parameter (relative path to the file).
[NEW]	Added FW25 and FW26 to the list of supported firmware versions.

Type	Notes
[NEW]	Added support for additional CC100 variants.
[NEW]	For application files, the action (overwrite behaviour and settings file) can now be configured.
[NEW]	An application template can now have multiple files with the same name (in different directories). The target path is now the target directory (the original file name is used on the device).
[UPD]	When exporting an application template with application files without a name, an error is now issued.
[UPD]	In CODESYS, when starting a configurator, it will now be started in CODESYS mode so it will display CODESYS' name instead of e!COCKPIT's.
[NEW]	Added HVAC wizard

1.5.15 Version 1.3.2

Type	Notes
[NEW]	Added addressing systems for AMEV and KBOB.
[NEW]	Firmware 24 is supported.
[NEW]	Validation rule: Check if all BACnet client mappings are set (property name)
[NEW]	Configure a custom SSH port for controller connections
[NEW]	Ignore automatic IP address changes done for NATed controllers
[NEW]	Parameter rule "MinMaxValue" for numbers in the parameter editor
[NEW]	Parameter rule "MaxLength" for strings in the parameter editor
[NEW]	Parameter rule "ValidationIPv4CIDR"
[NEW]	Mark note as "task"
[NEW]	Show a tasks list as page
[NEW]	Edit tasks in the tasks list
[NEW]	A click on the breadcrumb of a task in the tasks page opens the related entity in the configuration page
[NEW]	Choose short addressing system identifier for breadcrumb
[NEW]	Select controller linked from a functional datapoint and show the datapoint tab
[NEW]	Recalculate sync state of connection partners when group membership changes
[NEW]	Recalculate BACnet configuration checksum when changed in Solution Builder
[NEW]	Ignore sync components reported by DCS, but not defined in Solution Builder

Type	Notes
[NEW]	Recalculate device sync state when assigning or replacing an Application Template
[NEW]	Use "SB changed" state for new controllers without Application Template
[NEW]	Hide components in sync differences, which are not defined in Solution Builder
[NEW]	Re-initialize device components state when assigning, replacing, or deleting an Application Template (consider undo / redo)
[NEW]	Support undo of ModifiedAt after changing a connection (or other changes)
[NEW]	Remember old search terms
[NEW]	Generic progress dialog for creating a synchronization job
[NEW]	Refresh button in audit trail
[NEW]	Show the number of controllers per solution in the solutions list
[NEW]	Continuous database connection retry if it fails on startup
[NEW]	Show hierarchical validation results in the tree
[NEW]	Validation rule: Unfinished tasks (open todo) - using validation level "task"
[NEW]	Update the sync state of all controllers in a group, if the Modbus connection port or unitID is changed
[NEW]	Recalculate sync state of connection partners when group membership changes
[NEW]	Schedule jobs for synchronizing, backup, and firmware update
[NEW]	Show schedule icon in job list: with scheduled time
[NEW]	Edit job schedule - and recurrence for backup jobs
[NEW]	Show recurrence icon in the job list
[NEW]	Specify recurrence for a backup job
[NEW]	Start next scheduled job if a recurrent job is finished
[NEW]	Check if all scheduled jobs are still running in DCS
[NEW]	When a solution is opened after Solution Builder restart, get job state of all running jobs from DCS
[NEW]	Display tags column and filter by tags in network list
[NEW]	Show groups in network tree
[NEW]	Bulk edit packages
[NEW]	Include assigned project licenses into the export file (and remove them from the DRM repository)
[NEW]	Import project licenses from the export file into the DRM repository
[NEW]	Get state once for all selected controllers

Type	Notes
[NEW]	Start/Stop monitoring job with selected devices
[NEW]	Assign scanned device to existing device in the tree
[NEW]	Derive firmware system from supported devices when importing wup files
[NEW]	Allow lowercase in option IDs of an addressing system
[NEW]	Configure DHCP DNS server address
[NEW]	Do NOT go online with controllers when changing the IP address (controller is offline)
[NEW]	Define hardening ports by attaching a mapping file to a solution
[NEW]	In the connection aspect a device address can be an IP address or a hostname
[NEW]	Show license state
[UPD]	Improved performance for instantiating Application Templates
[NEW]	Parameter rule "Hidden" - also for nodes
Device Communication Service:	
[NEW]	Send application specific files with each monitoring if changed.
[NEW]	Patch a schedule job with a new start time
[NEW]	DHCP service assigns DNS server to DHCP clients
Solution Builder Plugin:	
[UPD]	Added French software licence agreement document to the CODESYS package
[UPD]	A French building structure (VDI) has been added.
[NEW]	Added addressing systems AMEV and KBOB.
[UPD]	In functional structure, element names different from the selected option's name (i.e., manually renamed) are now displayed in bold. In addition, when changing the functional structure definition, these items are not automatically renamed.
[UPD]	Tags in a PSO are now displayed in alphabetical order.
[NEW]	Firmware 24 is supported.
[NEW]	Wizards gained functions to generate method and property objects. Use the functions Generate.Method, Generate.Property, Generate.PropertyGet and Generate.PropertySet.
[BREAKING CHANGE]	Starting with this version, wizard and functional structure files are now installed to %ProgramData%\WAGO Software\WAGO Solution Builder\SBP\, rather than %ProgramData%\WAGO Software\COCKPIT\SolutionBuilder\.

Type	Notes
	This means that any custom files you have in the old folder must be moved to the new folder to be recognized.
[UPD]	CODESYS project templates have been updated to use the correct BACnet library version.
[NEW]	DALI Manager: Separate generation for project dependent code - use names from DALI project

1.5.16 Version 1.2.6

Type	Notes
[NEW]	Solution Builder Plugin for CODESYS.

1.5.17 Version 1.2.4

Type	Notes
[UPD]	Updated English user manual: PDF and HTML online help.
[DEL]	Removed Solution Builder Plugin for CODESYS.

1.5.18 Version 1.2.3

Type	Notes
[NEW]	Show "requires restart" warning if BACnet settings are different and use controller modification time
[NEW]	Small UI improvements in validation, addressing system editor, full text search, remember "synchronized"-checkbox, hide equal values in parameter list
[NEW]	Restore last selection in solution tree
[NEW]	Allow bulk editing of array elements (mainly for functional model entities)
[NEW]	Rule value "__ref:ModbusPortsFromConnection" to read all Modbus ports used by the current controller as space separated list
[NEW]	Use the reference value "__ref:ModbusPortsFromConnection" in the hardening function
[NEW]	Rule "TransmitAlways" to always send "helper" parameters to the device
[NEW]	Show user friendly parameter merge dialog by showing option names and checkboxes
[NEW]	Generic progress dialog for "Import Application Template"
[NEW]	Add new packages to the package list of the Application Instance when instantiating an Application Template

Type	Notes
[NEW]	Update package list when updating or replacing an Application Template
[NEW]	Calculate sync state of device settings after receiving the device settings
[NEW]	Synchronize only different device setting values from Solution Builder to a controller
[NEW]	Save column settings in named search
[NEW]	Show errors related to the respective license key when adding licenses
[NEW]	Check if a suitable firmware update package is available before starting a deployment
[NEW]	Check if all required packages are available before starting a deployment
[NEW]	Configurable device model file selection based on item number and firmware version
[NEW]	Validation rule: Manual Address System Identifier
[NEW]	Validation rule: Check if all needed packages (dependencies) are available
[NEW]	Show parameters aspect for a selected functional model entity
[NEW]	Synchronize packages (IPK) with controller: detailed merge and package merge dialog
[NEW]	Synchronize packages (IPK) with controller: based on Application Template
[NEW]	Validate that controller and application item numbers are equal
[NEW]	Check if all required packages are available before starting a deployment
[NEW]	Calculate sync state of IPK packages after receiving the package monitoring report
[NEW]	Aspect to manage controller packages (IPK)
[NEW]	Send new devices and connection changes to DCS
[NEW]	Merge device settings with solution values (resolve configuration conflicts)
[NEW]	Configure database connection in Solution Builder UI
[NEW]	Paste addressing system tags from the clipboard
[NEW]	Copy all addressing systems tags to the clipboard
[NEW]	Import addressing system tags from a text file
[NEW]	Export and download all addressing system tags as text file
[NEW]	Import addressing system after validation
[NEW]	Export addressing system
[NEW]	Import tags of functional structure entities
[NEW]	Copy addressing system options table to clipboard

Type	Notes
[NEW]	Paste addressing system options table from clipboard
[NEW]	Download / export a set of icons
[NEW]	Upload / import a set of icons
[NEW]	Create new addressing system
[NEW]	Set fix expiration date of Solution Builder to 2023-05-31
[NEW]	Manage package repository (IPK): add, remove
Device Communication Service:	
[NEW]	Retrieve and send device settings as part of the monitoring
[NEW]	In case of an update failure the controller firmware update state is reset, and log file is sent to Solution Builder
[NEW]	Install packages (IPK) before application template deployment
[NEW]	Monitoring reports all IPK packages and versions (name, version)
[NEW]	Install or remove IPK packages on a controller which are defined in an AI
Solution Builder Plugin:	
[UPD]	Added French software licence agreement document to the CODESYS package
[UPD]	Improved performance when opening a Parameter Set Object editor. In addition, in both the Parameter Set Object editor and the Template Manager editor, an information bar is now displayed while CODESYS is loading data in the background, and after having finished that, the usual reload bar is being displayed. This makes it easier for the user to know when and how to get complete data.
[UPD]	Menu buttons for opening a configurator are always enabled for an open project. If the corresponding manager object (BACnet, DALI, SMI) does not exist, the user will be asked whether they want to add the object.
[NEW]	Functional structure tags and dependencies are printed in the CODESYS project documentation.
[NEW]	When building a package, dependency packages with missing names trigger an error message.
[NEW]	In CODESYS with WAGO Licensing plugin 1.0.0.100 or later, license demands are written into the exported package.
[NEW]	A CODESYS project template for creating an application template has been added.
[NEW]	The mapping from CODESYS device description to firmware version compares the first three components, rather than all four.

Type	Notes
[UPD]	The firmware mapping list for CODESYS has been updated to support version 6.0.0 (FW23).
[NEW]	On the dependencies tab, information about available packages can be queried from the Solution Builder. This will add suggestions to the name and version fields to make specifying packages easier.
[BREAKING CHANGE]	To make the plug-in future-proof and backwards-compatible, the structure has been changed. This will break compatibility with interims versions (1.1.8x), but not with release versions (1.1.2/1.1.3). If you have an interims version installed, it is suggested to revert to a release version, then manually replace the interface assembly (Wago.SolutionBuilderObject.dll) in the Common directory with the release version or the new version. Starting with this version, the interface assembly will be compatible with released versions, so a downgrade will be possible.

1.5.19 Version 1.1.3

Type	Notes
[NEW]	Separate sub-bus device handling (DALI, SMI and Sub-bus IOs) from datapoint handling
[NEW]	Manage DALI groups in Solution Builder and Solution Builder Plugin
[NEW]	Additional UI language "French"
[UPD]	Project documentation improvements
[NEW]	Licensing of applications on controllers: Validation, Auto-assign, sync with changed hardware ID, create license order list, reset license
[UPD]	Refresh DHCP assignment table automatically
[UPD]	Support Firmware 20 (03.08.08) and 21 (03.09.05) for these controllers (Item number Description): • 0750-821* PFC200 G2 • 0762-*/8000-0002 TP600 • 0752-* Edge Controller • 750-8210 • 750-8210/025-000 (erw. Temperatur) • 750-8210/040-000 (XTR) • 750-8212 • 750-8212/000-100 (BACnet) • 750-8212/025-001 (Fernwirk, erw. Temperatur) • 750-8212/025-002 (Fernwirk, erw. Temperatur Eco) • 750-8212/040-010 (XTR, M12) • 750-8212/040-001 (Fernwirk, XTR) • 750-8212/025-000 (erw. Temperatur) • 750-8212/040-000 (XTR) • 750-8217 (EU) • 750-8217/025-000 (EU, erw. Temperatur) • 750-8217/625-000 (global, erw. Temperatur)

Type	Notes
	• 750-8217/600-000 (global) • 762-5303/8000-002 (Advanced, 7,0") • 762-5304/8000-002 (Advanced, 10,1") • 762-5305/8000-002 (Advanced, 15,6") • 762-5306/8000-002 (Advanced, 21,5") • 762-4301/8000-002 (Standard, 4,3") • 762-4304/8000-002 (Standard, 5,7") • 762-4303/8000-002 (Standard, 7,0") • 762-4304/8000-002 (Standard, 10,1") • 762-4305/8000-002 (Standard, 15,6") • 762-4306/8000-002 (Standard, 21,5") • 0752-8303/8000-002
[UPD]	Device Communication Service improvements: • Check controller connectivity • Keep specific sub-folders of "codesys/PlcLogic"
[UPD]	Solution Builder Plugin improvements: • Increment enum keys automatically • Copy&paste PSO parameter table to clipboard for editing in Excel
[UPD]	Audit trail enhancements
[NEW]	Application Wizard improvements: • Generate visu frame • Generator logs • Combo box search • File selector • Wizard versions, release notes and documentation • Wizard filter • Expand / hide fields • Selection boxes with graphics or icons • Generate CFC program • Generate and read I/O-mapping • Generate BACnet project file
[NEW]	Reset DALI configuration to default
[UPD]	Updated third-party components to fix PSIRT vulnerabilities in npm-packets
[NEW]	Solution Structure Definition (addressing system) editor: • Manage solution structure definitions • Define solution structure in a UI • Define addressing system parts in a UI • Manage custom icons • Define property editor tabs in a UI

Type	Notes
	Define tags of an addressing system in a UI
[NEW]	Synchronize option to overwrite everything from Solution Builder
[UPD]	Extend Application: Project Preparation Assistance wizard
[NEW]	Usability improvements for Solution Builder

1.5.20 Version 1.0.3

Type	Notes
[NEW]	This is the first release of the new software WAGO Solution Builder for the efficient project engineering of building automation with WAGO products.

1.6 Fixed bugs

1.6.1 Version 2.6.1

Type	Notes
Internal	WAT-38623 - DHCP und DCS beenden bei mehr als 40 Geräten im Netzwerk
Customer	WAT-39268 - Passwort-Safe kann auch von Viewer und Deployer exportiert werden
Customer	WAT-38901 - Backup & Restore auf Linux funktioniert nicht
Customer	WAT-39311 - Application Template flexROOM zeigt ständig Sync-Bedarf an
Customer	WAT-39095 - Nicht dokumentierte Verbindung
Internal	WAT-39022 - System Informationen zeigen falsches Betriebssystem an

1.6.2 Version 2.5.1

Type	Notes
Customer	WAT-39056 - Herunterladen-Button im Dialog Adressierungssystem verschwunden.
Customer	WAT-39003 - Einspeisemodule erzeugt keine Binary Objekte
Internal	WAT-39023 - Unter Filter gesuchte Geräte werden nicht in Applikationen angezeigt

1.6.3 Version 2.4.1

Type	Notes
Customer	WAT-37307 - Button [Verbindung prüfen] erweitern
Customer	WAT-38418 - Keine Verbindung zum Lizenz Server
Customer	WAT-38049 - DHCP funktioniert auf Linux/EdgePC nicht
Customer	WAT-37907 - Fehler beim Installieren mit bestehendem Root-CA
Customer	WAT-37859 - Nicht synchronisierbares Gerät verhindert Synchronisieren

1.6.4 Version 2.0.5

Type	Notes
Customer	Plus-Button im Struktureditor weg

1.6.5 Version 1.3.3

Type	Notes
Customer	Fixed a problem related to BACnet demand for some new devices.
Customer	Change all passwords is not treated as SB change and thus does not synchronize password changes
Customer	BACnet manager does not recognize objects of the wbc file

1.6.6 Version 1.2.6

Type	Notes
Customer	Attachments not exported to documentation download package (zip-file).

1.6.7 Version 1.2.3

Type	Notes
Security	PSIRT: Vulnerability in SSH.NET
Customer	NullReferenceException in ApplicationBuilder Plugin when opening an editor.
Customer	Starting WBC with model 0752-8303/8000-0002 from e!Cockpit is not supported.
Customer	BACnet template has wrong XML file.

1.6.8 Version 1.1.3

Type	Notes
Security	PSIRT: Critical Vulnerability in npm packet "eventsource"

Security	PSIRT: Vulnerability in npm-packet url-paser bis Version 1.5.8
Internal	WSB überträgt falsche Parameter und verändert in der Lösung konfigurierte Parameter bei Verwendung von Rezepten
Internal	Solution Builder hängt ungewollt Sekunden+Millisekunden an TOD-Datentypen an
Internal	Application Builder Addon: Fehler beim Importieren des Application Template Managers
Customer	Problem using Enumeration in Array for App Params

1.7 Known restrictions

Type	Notes
Feature 1	To prevent losing remanent data (retain and persistent values) of a running application during a firmware update (a firmware update may automatically be caused by an application update) a “Backup including remanent data” of the controller should be created previously by the user. As a feature for the future, it should be possible to manually and/or automatically save the remanent data. At least in case of an application update that requires a firmware update, the live remanent data should be backed up before and restored after the firmware update automatically.
Feature 2	To prevent losing BACnet online data in case of maintenance of a BACnet system the user needs to open the WAGO BACnet Configurator directly from the WAGO Solution Builder network view and request a “Store to database (online values)” after scanning the network to import the BACnet online data into the solution database. In the future, a solution approach for the integration into the synchronization is planned.
Feature 3	For the distributed server setup please make sure that the ingoing ports for the respective servers are opened in the firewall of the server computer. Do not forget to adjust the database server address and DCS server address in the Solution Builder settings page. The common name of the Solution Builder server (hostname) must be configured in the pg_ident.conf of the postgres settings (see the Security chapter below).
Feature 4	To get the help for the Solution Builder Add-on in CODESYS, the checkbox “Use Online Help if available” in the menu Options>Help has to be unchecked.
Feature 5	In the User Manual chapter 9.16 the file name “AdressingSystemMap.xml” is wrong. It must be “ AddressingSystemMap.xml ”.
Restriction 1	The DHCP service of WAGO Solution Builder does not work, if the DHCP ports UDP 67 or 68 are in use by another Windows DHCP server, e.g. when Hyper-V is active

Type	Notes
Restriction 2	The Solution Builder allows you to change the DB connection password in the settings page. If the password of the database itself shall be changed, the tools of PostgreSQL must be used. This is not supported from within the Solution Builder.
Restriction 3	With Firmware 23 there is a specific problem when setting BACnet or Modbus firewall ports. If one of these settings is used, then the device synchronization shows an error which contains: <i>"The post deploymentService script exited with code 2. ... /etc/config-tools/firewall iptables --add-filter on br0 udp - - - - 47808 accept --apply ... Failed with 2!"</i> This problem does not appear with Firmware 24. Therefore, we suggest upgrading the controller to this version or newer, if this error occurs.
Restriction 4	The CA password entered during a secure installation using HTTPS must not contain the Euro sign "€".
Restriction 5	Sometimes the service startup is too slow and shows a message that the service did not start in time. In this case the setup is still finished. The "WAGO Solution Builder" or the "WAGO Device Communication Service" can be started manually in the Services manager. Alternatively, the system can be rebooted.
Restriction 6	The IP address setting cannot be set from "Static IP" to "DHCP" , if the DHCP server assigns a different IP address to the controller. In this case the Solution Builder loses the connection and cannot finish the synchronization process, because the new IP address is not known to the Solution Builder.
Restriction 7	The static default gateway must be set to the correct router or switch, if the addressing is set to "Static IP" and the Device Communication Service (DCS) is not in the same network as the devices.
Restriction 8	Sometimes the installer cannot delete files (DLLs). In this case click "Try again" in the popup dialog. The 2 nd attempt should work and the installer continues.
Restriction 9	For security reasons the login to the WAGO Download Center from within the Solution Builder is only allowed if the Solution Builder server is used with "https" and one of these predefined hostnames is used: "wsb", "solutionbuilder", "localhost". Thus, the functionality to download firmware, IPKs or applications is only enabled for these configurations.
Restriction 10	Solutions exported from a Windows version currently cannot be imported into a Linux version. This will be enhanced in one of the next versions.
Defect 1	If "Resource not found" message appears in the browser after updating from R1.0 and if the old version still is shown in the footer, then refresh the browser to fix it.
Defect 2	If a firmware update fails with the message "Update failed: Accounts restore failed (return code 0) (Settings restore failed)" then run a "Synchronize overwriting" from the Solution Builder. This is relevant for firmware 20 and 21.
Defect 3	In the Properties view of the Solution Builder Plugin PSO editor sometimes an error <i>"System.ArgumentException: The node is not</i>

Type	Notes
	<i>associated with a view.</i> ” occurs if you click very fast between an option box and a text field. In CODESYS you can just click “Continue” to continue with the work. If this error occurs in e!COCKPIT, the application closes completely.
Defect 4	The upgrade process from PostgreSQL 13 to PostgreSQL 16 in certain unspecified environmental conditions (file access rights). The result is an empty database, but the software is running. To allow a restore of the old database, the installer creates a backup of the PostgreSQL data in the folder “%programdata%\WAGO Software\WAGO Solution Builder\Backup”. Please contact WAGO support in this emergency case. It is strongly recommended to export your existing solutions before running the setup.
Defect 5	Importing a solution, which was exported while BACnet monitoring was active does not work. The solution import fails with <i>ERROR: insert or update on table "Watchlist" violates foreign key constraint "FK_Watchlist_Job"</i> <u>Workaround:</u> stop BACnet monitoring before exporting a solution.
Defect 6	When updating an application , it might happen, that this fails with an error message like “ <i>System.ArgumentException: An item with the same key has already been added. Key:{kkkkkk}</i> ”. The root cause is that older versions of the CODESYS Add-on “CODESYS Recipes” might corrupt the recipe files with duplicate entries. Use version 4.6.0.0 or newer. To fix the problem in the Solution Builder go to the devices folder of your solution and delete the recipe files matching the key “{kkkkkk}” reported in the error – or delete all, if unsure. Then the application update will work again.

These notes represent the current state of development and were compiled according to the best knowledge. However, as errors can never be fully excluded, we always appreciate any information or suggestions for improving the documentation.

The right to make changes to the software or the accompanying documentation is reserved. We wish to point out that the software and hardware terms, as well as the trademarks of companies used and/or mentioned in the present manual are generally protected by trademark or patent.

© 2021-2026 WAGO GmbH & Co. KG
All rights reserved.

WAGO GmbH & Co. KG
Postfach 2880 • D - 32385 Minden
Hansastraße 27 • D - 32423 Minden
Phone: +49 571 887 – 0
Fax: +49 571 887 – 84 41 69
E-Mail: info@wago.com
Internet: www.wago.com