# SIEMENS

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## SIMATIC HMI

## WinCC Unified Readme WinCC Unified

Readme

Online documentation

## Legal information

## Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

## A DANGER

indicates that death or severe personal injury will result if proper precautions are not taken.

## 🛕 WARNING

indicates that death or severe personal injury may result if proper precautions are not taken.

## 

indicates that minor personal injury can result if proper precautions are not taken.

## NOTICE

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

## **Qualified Personnel**

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

## **Proper use of Siemens products**

Note the following:

## 🛕 WARNING

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

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## **Disclaimer of Liability**

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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## Validity

## Validity

This update is valid for the following products:

- WinCC Unified V18
- WinCC Unified Runtime V18

## Note

If you modify your system after installing the update with the product DVD, you will have to perform the update again.

Validity

## Important notes

See also

SIOS image downloads (<u>https://support.industry.siemens.com/cs/ww/en/view/109746530</u>)

## Improvements in Engineering and Runtime

## 3.1 System functions and scripts

This update contains improvements for:

• System functions

## System function for opening the login dialog

The new "HMIRuntime.UI.UserManagement.SysFct.ShowLoginDialog()" system function is installed with the update. The "ShowLogOnDialog" function is available in the function list. With the system function, you open a login dialog for entering user name and password without leaving the currently displayed screen.

Only local user management supports the "ShowLogOn Dialog" system function.

## System function for external control of the system diagnostics control

The new "UI.SysDiag.ExecuteToolbarButton()" system function is installed with the update. The "ExecuteToolbarButton" function (system diagnostics control) is available in the function list. The system function is used to control the buttons of the toolbar in the system diagnostics control.

## System function for external control of the parameter set control.

The new "UI.ParameterControl.SysFct.ExecuteToolbarButton()" system function is installed with the update. The "ExecuteToolbarButton" function (parameter set control) is available in the function list. The system function is used to control the buttons of the toolbar in the parameter set control.

## System function for external control of the alarm control

The new "UI.Alarm.SysFct.ExecuteToolbarButton()" system function is installed with the update. The "ExecuteToolbarButton" function (alarm control) is available in the function list. The system function is used to control the "Single acknowledgment" and "Group acknowledgment" buttons of the toolbar in the alarm control.

## Extension of the "InsertElectronicRecord" system function

The "HMIRuntime.Audit.SysFct.InsertElectronicRecord()" system function is extended with the update. The "InsertElectronicRecord" function is available in the function list.

## 3.2 User management

The "Confirmation type" parameter, which specifies how the action must be confirmed, has been extended:

- 0 = (None): No confirmation required, an entry is created in the Audit Trail.
- 2 = (Acknowledgement): Acknowledgment, the user must acknowledge the action; an entry is created in the Audit Trail.
- 3 = (Acknowledgement + Comment): Acknowledgment, the user must acknowledge the action and enter a comment; an entry is created in the Audit Trail.
- 4 = (Digital Signature): Electronic signature; a dialog window opens in which the user must enter the electronic signature; an entry is created in the Audit Trail.
- 5 = (Digital Signature + Comment): Electronic signature; a dialog window opens in which the user must enter the electronic signature and a comment; an entry is created in the Audit Trail.

The "Required function rights (optional)" parameter has been added. If the confirmation type requires an electronic signature, the function right required for the electronic signature can be specified:

- 0 = No function right required.
- 1 = The "First electronic signature" function right is required.
- 2 = The "Second electronic signature" function right is required.
- 3 = The "First electronic signature" and "Second electronic signature" function rights are required.

## ActiveScreen property

The "ActiveScreen" property now always returns the screen that has the input focus. If the I/O field in a screen window or a faceplate has the input focus, ActiveScreen thus returns the screen that is displayed in the screen window or faceplate respectively. If you used ActiveScreen to edit the coordinates in the "OpenFaceplateInPopup" script function, for example, this may result in the popup being opened at a different location than it was in previous versions.

## **3.2** User management

This update contains improvements for:

• Incorrect login attempts

3.3 Diagnostics

## Incorrect login attempts

General	Security	
Alarms Process diagnostics	User management	
Services		
Language & font	Configuration of user management	
Collaboration	local user management (user data are stored on the device)	
Storage system	Control was a set of the stored of the device)	
Tag settings	Central user management (user data are loaded from the UNIC)	
Good Manufactu	UMC server address:	
Security		
OPC UA Server	Server ID:	
Layers	Address of identity provider:	
Reporting		
	Account deactivation at runtime	_
	Settings for account deactivation of project users at runtime	

In the runtime settings, you can specify whether and after how many failed login attempts a user is blocked.

## 3.3 Diagnostics

This update contains improvements for:

- Process diagnostics
- System diagnostics

## **Process diagnostics**

The stability of process diagnostics objects has been improved.

## **ProDiag overview**

The "ProDiag overview" object provides an overview of the current status of the configured monitoring in Runtime. When an error occurs, the type of error and the error category are determined in the ProDiag overview. You can navigate directly to the alarm control to find the error and you can jump from the corresponding alarm to the PLC code viewer control. You can display the affected program code in the PLC code viewer control.

Category	E	W	1	C4	C5	C6	
Туре	0	1	R	А	Ρ	М	

## 3.3 Diagnostics

#### Note

## Device dependency of the "ProDiag overview" object

The "ProDiag overview" object is available for PC Runtime.

In the Inspector window, you customize the position, geometry, style, color and font types of the object. You can adjust the following properties in particular:

- Displayed buttons
- Names and colors for categories
- Names and colors for supervision types

You can display a maximum of 8 categories and 6 supervision types in the "ProDiag overview" object. The following pre-defined categories and supervision types are available:

#### Categories

Name	Categories
E (Error)	Error
W (Warning)	Warning
l (Info)	Information
C4 C8	Additional categories

## Supervision types

Name	Supervision types
O (Operand)	Operand error
l (Interlock)	Interlock error
R (Reaction)	Reaction error
A (Action)	Action error
P (Position)	Position error
M (Message error)	Alarm

## "Jump to Alarm Control" button

The "Jump to Alarm Control" button in the ProDiag overview is activated by default.

Button	Name	Function
	Jump to Alarm Control	Opens the configured alarm control with the error message after the button has been assigned system functions or scripts.

## PLC code view

The "PLC code display" object is used to display the current program status of user programs that have been programmed in the graphical programming languages LAD and FBD as well as GRAPH.

3 4 Communication

## System diagnostics control

The view type for the system diagnostics control object has been extended by the "Distributed IO view".

	Status path - show		None
	<ul> <li>View type</li> </ul>	Distributed IO view 💌	None 💌
۲	Appearance	Diagnostic view	
•	Miscellaneous	Matrix view	
	<ul> <li>Connection status</li> </ul>	Distributed IO view	
	<ul> <li>Function bar</li> </ul>		

The "Distributed IO view" shows the distributed devices of the Profinet IO system.

The requirement is that only one PLC is configured with a Profinet IO system. Otherwise, Runtime switches back to the matrix view.

The "Home" button allows you to switch from the distributed IO view to the diagnostics overview. You can also jump to the diagnostics buffer from the distributed IO view.

If the Profinet IO system cannot be accessed, the diagnostics overview is displayed.

If you change the device version from 18.00.01.01 to 18.00.01.00, the matrix view is displayed and the distributed IO view is not visible in the selection field.

#### 3.4 Communication

This update contains improvements for:

- Process communication
- OPC UA communication

## SIMATIC S7-1500 Software Controller V30.0

Version V30.0 of the SIMATIC S7-1500 Software Controller is introduced with the update.

- Create a direct, integrated connection between a Software Controller and the HMI Runtime of a WinCC Unified PC by dragging and dropping a Unified PC on to Software Controller in the "Devices & Networks" editor.
- Configure the PC/PC interface in Microsoft Windows by assigning the S7ONLINE access point to the RT-VMM virtual network adapter.
- In the "Devices & Networks" editor you create connections to other PLCs, direct or routed. You use the S7ONLINE access point to create a direct connection between the HMI Runtime and an external PLC.

You use the VMM Adapter access point to create a connection between the HMI Runtime and an external PLC via the Software Controller.

Depending on the number of interfaces on the Software Controller, you can configure several of these connections in different subnets.

Configure a connection between an HMI Runtime and a Software Controller if both devices are created on different PCs.

To do this, assign the VMM Adapter access point to the HMI Runtime.

## 3.4 Communication

## OPC UA

Unified OPC UA clients can now address OPC UA server tags with an address of up to 256 characters.

Application example: Addressing elements of a nested UDT.

## **Unified Engineering**

## 4.1 Improvements in Update 1

## 4.1.1 General improvements

This update contains the following improvements and changes:

## Stability and performance

The stability and performance have been improved based on the feedback received and other factors.

## Special characters in the installation path

Even when the installation path contains special characters, objects are always visible when inserted into a screen.

## Segment-based backup for SQLite

Segment-based backup is supported as of V18 Update 1 for all archive types of the HMI devices Unified PC and Unified Comfort Panel.

The following requirement must be met:

• The "SQLite" database type must be enabled for the HMI device.

To use segment-based backup for SQLite, follow these steps:

- 1. Under "Archives", create one of the following archives:
  - Data log
  - Alarm log
  - Audit Trail

 Under "Backup mode", select the "Path" option and specify a path for the backup. For Unified Comfort Panel, the fully qualified mountpoint path is required. Example: To use the "MyBackup" directory, specify the path "/media/simatic/data-storage-1/ MyBackup". The mountpoint name is "data-stoarge-1". A network folder can be configured using the mountpoint name specified in the Control Panel.

## Upgrading a device version in the library

The update provides you the possibility to upgrade the device version of faceplate types and script module types in the library.

To upgrade the device version, follow these steps:

- 1. Select a faceplate type, script module type, or folder in the library.
- 2. Open the shortcut menu and select "Upgrade device version". The "Upgrade device version" dialog box opens.
- 3. Select the required device version under "Lowest device version".
- 4. Select "OK".

## Faceplates

The following improvements have been made for faceplates with V18 Update 1:

- Arrays are not supported when using the HMIUDT, WString, and WChar data types on the "Tag interface" tab of faceplate types. Therefore, the "Array limits" option has been disabled for these data types.
- Faceplates opened as a pop-up that enter the visible area due to changing the display in Runtime, e.g. enlarging the window, are now displayed.

## Parameter sets and parameter set control

The following improvements have been made for parameter sets and the parameter set control with V18 Update 1:

- Parameter sets can be created in the parameter set control, even if the parameter set type elements consist of multiple levels.
- If you transfer new parameter sets into the parameter set control with the "Read from PLC" button, the parameter sets are then displayed as selected in the selection menu.

## 4.1.2 Improvements in configuring screens

This update contains the following improvements and changes:

#### Screen management

In the "Devices" area of the project tree, you can find a new "Screen management" folder.

You can create exactly one top-level screen window with screen management. For the top-level screen window, select a screen from the ones available.

You configure all properties of the top-level screen window in the Inspector window.

#### Zoom&Scroll for top-level screen window

For a top-level screen window, configure the following properties in particular:

- Zoom factor
- Position and visibility of the vertical scroll bar
- Position and visibility of the horizontal scroll bar

You configure the properties:

- In the screen editor of the top-level screen window
- In the Inspector window of the screen, with a screen window under:
  - "Properties > Properties > Format > Zoom factor".
  - "Properties > Properties > Format > Horizontal scroll bar position".
  - "Properties > Properties > Format > Vertical scroll bar position".

In the engineering system, you dynamize the properties using tags or scripts.

You can use the dynamic properties to control the behavior of the screen in runtime.

## **Resize to display**

In the project, you can swap one device for another device with different display size. To adjust the configured screen size to the size of the new target device, use the "Resize to display" function:

- 1. Select the screen in the project tree.
- 2. Right-click on the screen. The shortcut menu is opened.
- 3. Select "Resize to display".

The configured screen size is adapted to the size of the new target device.

## Extension of the toolbar in the screen editor

To efficiently configure the frequently used properties, the following functions have been added to the toolbar in the screen editor:



- Font:
  - Font
  - Font size
  - Format bold font
  - Format italic font
  - Underline
  - Strikethrough
  - Increase font size
  - Decrease font size
- Horizontal text alignment:
  - Left
  - Centered
  - Right

- Specify border width or line width
- Line type:
  - Solid
  - Dashed
  - Dotted
  - Dash-dot
  - Dash-dot-dot

The added functions are disabled for grouped objects when a group is selected.

The functions are enabled when a property in one or more objects can be changed.

## Highlighting and resetting properties of screens and screen objects

You can set one of the three pre-defined styles in the project tree of the project in the runtime settings.

Within the selected style, you can change some properties of screens and screen objects in the Inspector window, for example the background color.

To find the changed properties, follow these steps:

- 1. Click on the "Filter" icon.
- 2. In the "Static value" column, select "Different from Style value".

Text					
<	III				
Button_1 [Button]					
Properties Events Texts Expressions					
i2 🖻 🖿 🍸 🛠					
Name	Static value	Dynamization (0)			
🏹 <search> 💌</search>	All	All			
General	All	1			
<ul> <li>Appearance</li> </ul>	Different from Style value				
Appearance - style item	HmiButton				

All changed properties are displayed and are formatted bold in the "Static value" column.

Button_1 [Button]					
Properties	Events	Texts	Expressions		
↓2 E⊐ 🗮 🍸 🛠					
Name			Static value		Dynamization (0)
🏹 <search></search>			Different from Style value	-	All
<ul> <li>Appearance</li> </ul>	e				
<ul> <li>Backgro</li> </ul>	ound - color	[	0, 255, 255		None

To reset the changed property value to the default value of the selected style, follow these steps:

- 1. Right-click on the property. The shortcut menu is opened.
- 2. Select "Reset property value".

Text					
Button_1 [Button]					
Properties Events Texts	Properties Events Texts Expressions				
i2 EI EI Y ☆					
Name	Static value	Dynamization (0)			
<ul> <li>General</li> </ul>					
<ul> <li>Appearance</li> </ul>					
Appearance - style item	HmiButton				
Background - alternative color	128, 128, 128	None			
Background - color	0. 255. 255	<ul> <li>None</li> </ul>			
Border - alternative col A Ad	d to favorites	None			
<ul> <li>Border - color</li> <li>Rer</li> </ul>	move from favorites	None			
<ul> <li>Border - width</li> </ul>	py property name	None			
Focus - show visual	set property value	🗹 None			

The property value is reset to the default value of the selected style.

You can reset the following properties:

- Manually set properties.
- Properties that have a corresponding value in the current style.

The properties that do not have a style value are not formatted bolded or displayed in the filter, even when they are set manually.

## Optimizing the display of properties

The overview in the Inspector window under "Properties" has been improved with the update. For properties that contain a collection of objects, the following changes have been made for the expandable table:

- Cells without content are displayed in space-saving manner.
- Check boxes and numeric values are displayed centered.
- Modified sorting of the columns is saved across projects.
- Modified visibility of the columns is saved across projects.

The "Selection items" table of the "Check box" element and the "Trend areas" table of the "Trend control" control are affected.

## **Unified PC**

## 5.1 Important notes

This page contains important information about product properties.

## Loading the logon page

If you experience display problems in the Web client after you install the update, completely delete the browser data (history, form entries, etc.).

## WinCC Unified Tag Simulator

The WinCC Unified Tag Simulator is not part of WinCC Unified V18 and its updates.

## **Unified Collaboration**

The time of the Collaboration devices must be synchronized.

## **Project operations**

The stability of project operations has been improved. Connection Manager now loads libraries from the correct path.

## **Microsoft Edge limitation**

If you want to start Runtime in Microsoft Edge and enter the address "https://localhost", the error message "INET\_E\_RESOURCE\_NOT\_FOUND" appears. In this case, use the address "https://localhost/WebRH".

## Activating the script debugger

To activate the script debugger in SIMATIC Runtime Manager, the logged-on user must belong to the Windows user group "SIMATIC HMI".

## 5.2 Improvements in Update 1 Service Release 1

This update contains the following improvements and changes:

## Stability and performance

The stability and performance have been improved, among others, on account of the feedback received.

5.4 GraphQL

## 5.3 Improvements in Update 1

This update contains the following improvements and changes:

## Stability and performance

The stability and performance have been improved, among others, on account of the feedback received.

## **Trend control**

The trend control for curves whose visibility is dynamized in Runtime has been improved.

## 5.4 GraphQL

## WebSocket protocol for subscriptions

Subscription of alarms and tags with GraphQL requires the WebSocket protocol.

The WebSocket protocol is not activated by WinCC Unified Setup. Activate the WebSocket protocol manually: "Enable or Disable Windows Features > Internet Information Services > WWW Services > Application Development Features > WebSocket Protocol".

## Escaping

Attribute values and object names, for example of tags or alarms, may contain special characters which are escape sequences in the Runtime system or the programming language of the GraphQL client. Escape sequences do not represent a text but start a special function during the program execution.

To ensure that a special character is interpreted as a normal character, prefix the character in the GraphQL client program code with a masking character (EN: Escaping).

## Note

## Masking character

Runtime system: \$

Apollo Studio: \

If a special character is an escape sequence in the Runtime system and the programming language, combine the masking characters.

## Example

The character " is an escape sequence in the Runtime system and Apollo Studio. To, for example, address a tag with the name MOT1" enter the following string: MOT1?\"

## Structure of the server response

The attributes delivered in the server response have the same sequence as in the selection set of the client query.

## Subscription of tags during the delta download

If a GraphQL client subscribes to two tags and their tag names are renamed in a delta download such that the tags swap their names, the subscription is now executed further.

## Security through access control

The access of GraphQL clients to Runtime can be restricted as follows:

- Linking access to function rights An operation of the GraphQL client is only executed if the user who is logged on at the client has the required rights. Reading rights are required for guerying and subscriptions, and writing rights for mutations.
- Controlling access to the object level The read access and write access of the user logged on at the GraphQL client is defined per object:
  - Read access to an object without authorization: The object is removed from the server response.
  - Write access to an object without authorization: The operation is aborted.

## Acknowledging and resetting alarms

You have the following options:

- Acknowledging or resetting all active alarms of one or more configured alarms.
- Acknowledging or resetting specific alarm instances of one or more configured alarms.

## Note

## Alarms without group acknowledgment or group reset

The configuration of a configured alarm can prevent a group acknowledgment or group reset. In this case you have to acknowledge or reset each alarm instance in an own operation call.

The execution of acknowledgeAlarms and resetAlarms aborts when the operation for two or more configured alarms is called and one of the alarms does not allow group acknowledgment or group reset.

## Requirement

- The user who is logged in to Runtime for the GraphQL client has the "GraphQL read/write access" right in Runtime.
- The state machine of the alarms specified in the input parameter requires acknowledgement or acknowledgement and confirmation of the alarms.

```
Unified PC
```

5.4 GraphQL

## Description "acknowledgeAlarms" and "resetAlarms"

Operation name	acknowledgeAlarms	resetAlarms			
Operation type	mutation				
Function	Acknowledges the active alarms specified in the input parameter input.	Resets the alarms specified in the input parame- ter input .			
Input parameters	<ul><li>input:</li><li>Mandatory parameters</li></ul>				
	• Data type: [AlarmIdentifierInput]				
	Specifies the alarms to be acknowledged or reset				
Selection set	Mandatory specification				
	Specify which attributes the server returns for the queried alarms. You can request the attributes defined in the ActiveAlarm type.				
Server response	Supplies the attributes requested in the selection set for the alarms as key-value pairs of a JSON data record.				
Error messages (code	• 0: Success				
and description)	• 2: Cannot resolve provided name				
• 304: Invalid object state					
	• 305: The alarm cannot be read / ac	knowledged / reset in current state			
	• x: Alarm instance does not exist				

## Data type "AlarmIdentifierInput"

The data type has the following attributes:

- name
  - Mandatory specification
  - The fully qualified name of a configured alarm Alarm of a tag: <System name>::<Tag name>:<Alarm name> Alarm of an element of a structure tag or array: <System name>::<Tag name>.<Element path>:<Alarm name> Delimiter for the components of the element path: "."
  - Data type: String
- instanceID
  - Optional
  - The ID of an alarm instance of the configured alarm
  - If "O" is transferred as the instanceID or if no instanceID is transferred, all active alarms of the configured alarm are acknowledged.

## Enabling and disabling alarms

You have the following options:

- Disabling one or more configured alarms The alarm condition of these alarms is no longer checked. No new alarm instances occur.
- Enabling one or more disabled configured alarms The alarm condition of these alarms is checked again. New alarm instances occur again.

## Requirement

• The user who is logged in to Runtime for the GraphQL client has the "GraphQL - read/write access" right in Runtime.

## Description "disableAlarms" and "enableAlarms"

```
disableAlarms(
    names: [String]
): [AlarmMutationResult]
enableAlarms(
    names: [String]
): [AlarmMutationResult]
```

Operation name	disableAlarms	enableAlarms	
Operation type	mutation		
Function	Disables the alarms specified in the input param-	Enables the alarms specified in the input parame-	
	eter names.	ter names.	
Input parameters	names:		
	Mandatory parameters		
	• Data type: [String]		
	<ul> <li>The fully qualified name of one or more configured alarms. The alarms are disabled or enabled. Detailed information on how to specify the fully qualified name of a configured alarm, is available further up in the section on acknowledging and resetting of alarms &gt; Data type "AlarmIdentifier- Input".</li> </ul>		
Selection set	Mandatory specification		
	Specify which attributes the server returns for the defined in the AlarmMutationResult type.	queried alarms. You can request the attributes	
Server response	Supplies the attributes requested in the selection set for the alarms as key-value pairs of a JSON data record.		
Error messages (code	• 0: Success		
and description)	• 2: Cannot resolve provided name		

5.4 GraphQL

## Data type "AlarmMutationResult"

The data type has the following attributes:

- alarmName
  - The fully qualified name of the configured alarm
     Detailed information on how to specify the fully qualified name of a configured alarm, is available further up in the section on acknowledging and resetting of alarms > Data type "AlarmIdentifierInput".
  - Data type: String
- error
  - Feedback on the success of the operation
  - Data type: Error

## Shelving alarms and canceling the shelving

## **Description "shelveAlarms"**

```
names: [String]
```

```
): [AlarmMutationResult]
```

Operation name	shelveAlarms	unshelveAlarms
Operation type	mutation	·
Function	Shelves the alarms. The attribute suppressionState of the alarms is set to 0x2 Shelved.	Cancels the shelving of the alarms again. This cre- ates a log entry.
	If the GraphQL client has subscribed to one of the shelved alarms, the client receives a notification on the shelving.	
	The shelved alarms are still available and logged in the system. If the Graph QL client has subscribed a shelved alarm, it keeps receiving notifications on changes at the alarm from the Runtime system.	
	The implementation of the GraphQL client con- trols how the client:	
	• Deals with notifications about subscribed shelved alarms, for example. whether to suppress them.	
	• Deals with operation calls that include shelved alarms, for example whether to disallow read access to these alarms.	

Input parameters	names:	
	Mandatory parameters	
	• Data type: [String]	
	<ul> <li>The fully qualified name of one or more configured alarms. The active alarm instances of these alarms are shelved or their shelving is canceled. Detailed information on how to specify the fully qualified name of a configured alarm, is available further up in the section on acknowledging and resetting of alarms &gt; Data type "AlarmIdentifier- Input".</li> </ul>	
	shelveTimeout: -	
	Optional	
	<ul> <li>Time interval after which the shelving of the alarms is automatically canceled. Must not be greater than the timeout configured in Runtime. If no value is transferred, the timeout configured for Runtime is used.</li> </ul>	
	Data type: Timespan	
Selection set	Mandatory specification Specify which attributes the server returns for the queried alarms. You can request the attributes defined in the AlarmMutationResult type. Information on the type can be found further above.	
Server response	Supplies the attributes requested in the selection set for the alarms as key-value pairs of a JSON data record.	
Error messages (code and description)	• 0: Success	
	• 2: Cannot resolve provided name	

## Subscribing to the redundancy status of the host

## Requirement

• The user who is logged in to Runtime for the GraphQL client has "GraphQL - read access" rights or "GraphQL - read/write access" rights in Runtime.

## Description "reduState"

Operation name	reduState
Operation type	subscription
Function	Subscribes to the redundancy status of the host to which the connected GraphQL server belongs, in a redundant system.
	Subscribes to the redundancy status of the host connected with the GraphQL client in a redundant system.
Input parameters	-
Selection set	Mandatory specification Specify which attributes the server returns for the queried alarms. You can request the attributes defined in the ReduStateNotification type.
Server response	Supplies the attributes requested in the selection as key-value pairs of a JSON data record.

#### Note

#### Passive redundancy status

If the GraphQL client receives a notification that the status is passive, log off the client from the connected GraphQL server. Connect the client with the GraphQL server of the active host.

## Type "ReduStateNotification" and "ReduStateValue"

The ReduStateNotification type has the following attributes:

value

• Data type: ReduStateValue

notificationReason

• Data type: String

The ReduStateValue type has the following attributes:

- value: The redundancy status as defined in the enumeration ReduState:
- ACTIVE
   The host of the GraphQL server currently connected with the GraphQL client is active.
- PASSIVE
   The host of the GraphQL server currently connected with the GraphQL client is passive.
- timestamp:
  - Data type: Timestamp

## 5.5 Improvements in SR1

This update contains the following improvements and changes:

## Stability and performance

The stability and performance have been improved based, among other things, on the feedback received.

## Assigning text lists and graphics lists for reports

In a report template, when you map a text list or graphics list to the column of a data source item, the list values are now read correctly both in the add-in and when the report is generated.

For more information on this, refer to the user help on the Excel add-in under the keyword "Assigning text lists and graphic lists".

## Symbolic I/O field in the "Output" mode

If a symbolic I/O field is linked to a resource list in "Output" mode, the applicable list entry is displayed.

## Loading from WinCC Unified Online Engineering

Stability of loading from WinCC Unified Online Engineering has been improved.

## System tag "@CurrentLanguage"

The value of the system variable ""@CurrentLanguage is changed correctly even after a delta load when changing the Runtime language.

## Contexts in the PI Option "Performance Insight"

Stability of archiving of PFI contexts has been improved:

- A memory leak has been corrected.
- Stability of context archiving after loading has been improved:

## **Error output**

Crash in error output when accessing non-existent variables of a faceplate has been corrected.

## Updating the browser

Stability on updating the browser has been improved.

Unified PC

5.5 Improvements in SR1

## **Unified Panel**

## 6.1 Important Information (Unified Comfort Panels)

This section contains important information about product properties.

## **Configuring connections**

For the Unified Comfort Panel in the engineering system, only configure control connections that are also available and used in plant operation.

## **IP** addresses

The IP subnet 172.x.x.x is reserved for SIMATIC Edge communication and must not be used for general network communication.

## Notes on the "Edit user" dialog

## **Cancel RFID assignment process**

If you edit the RFID assignment of a user via the "Edit user" dialog and cancel the subsequent assignment process via the "Cancel" button in one of the dialogs, the entries in the user list may not be displayed correctly.

To update the list, select another entry in the navigation area of the Control Panel and then again "Security" > "User management".

## RFID activation or PIN change logs the user in

In the following cases, the selected user is logged in to the "Edit user" dialog immediately after the change operation:

- You have switched the "Enable authentication via RFID card" option from "disabled" to "enabled".
- You have switched the "PIN required for authentication with RFID card" option.

#### PIN dialog

In the following cases, the PIN dialog is displayed again after editing a user via the "Edit user" dialog.

- You have switched the "Enable authentication via RFID card" option from "enabled" to "disabled".
- You have switched the "PIN required for authentication with RFID card" option.

In this case, close the PIN dialog via the "Cancel" button.

6.1 Important Information (Unified Comfort Panels)

## **Starting Runtime**

You can start Runtime directly after loading a project or via the "Start Runtime" button in the Control Panel.

If background processes are running on the HMI device and Runtime is started at the same time, the dialog "Runtime Start" is displayed with the error message "An error occured while starting project".

Acknowledge the dialog and restart Runtime after some time.

## Browser download directory

On a Unified Comfort Panel, the browser download directory is: "/home/industrial/download"

## Using the central user management

The following sections contain important information on parameters of the "TIA User Management Component (UMC)".

## Auto logoff time

The UMC parameter "Account Policy > Auto logoff time (minutes)" is not supported by Unified Comfort Panels. A user logged on to the Unified Comfort Panel must log off manually.

#### Must change Password

The UMC parameter "Status > Must change Password" is not supported by Unified Comfort Panels. Make sure that this option is disabled for all users of a Unified Comfort Panel.

## Password duration (days)

An expired password cannot be changed on a Unified Comfort Panel. To log on a user whose password has expired, change the password directly in the "TIA User Management Component".

## "Plant overview" control for Unified Comfort Panel not supported

With version V18, the "Plant overview" control is supported only for Unified PC. If you use the control under Unified Comfort Panel, an error message is output during compilation. The control must be cleared before compiling.

## Alarm view

## Flashing on range violation

Flashing on range violation is not supported for the alarm view.

#### Scroll bars

Scroll bars are not available in the alarm view. Use the touchscreen to move the contents of the alarm view horizontally or vertically.

## "Show recent" button

The "Show recent" function is only supported in conjunction with ascending sort order.

## 6.1 Important Information (Unified Comfort Panels)

## **Moving columns**

Moving columns within the alarm view is not supported.

## Status bar

If a text was configured for the first element in the status line and an image for the second element, the image may not be displayed immediately after loading. In this case, perform a screen change.

## **Filter alarms**

Multiple selection of filter criteria is not supported in the filter dialog of the alarm view.

## Dynamize visibility of columns

The dynamization of the visibility of columns via a script or a system function is not supported.

## Parameter set control

If a parameter set control view was maximized and again reduced, it may happen that the view is not properly displayed. Elements such as parameter set type number or parameter set number may not be visible. Resize the width of the view once to properly display its contents again.

6.1 Important Information (Unified Comfort Panels)