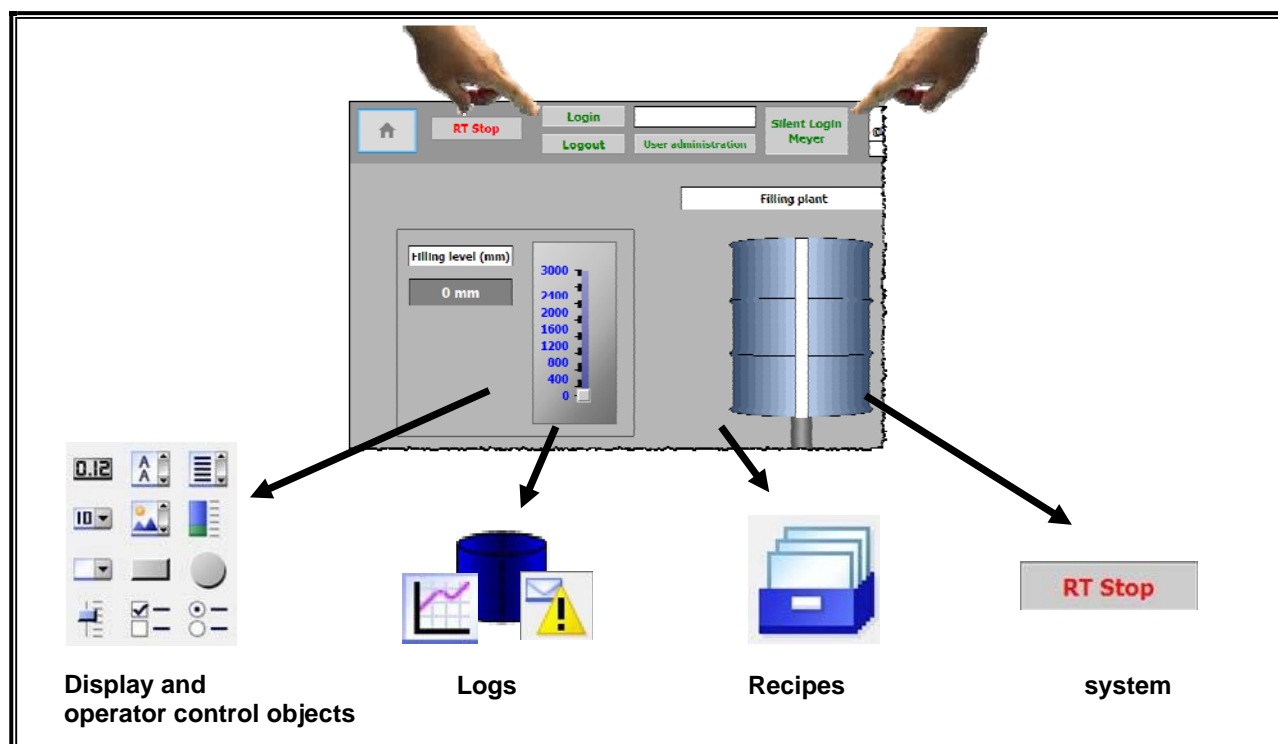




# Basics of SCADA

## User Administration

## 11. User administration



In this section participants will learn about and practice configuring the user administration.

Participants will get to know the structure of the user administration. They will have an overview of the options of access-protected operation.

### Training aims:

Participants will be able to configure authorizations, access protection for objects and user groups, set up users and manage users and the user view in runtime.

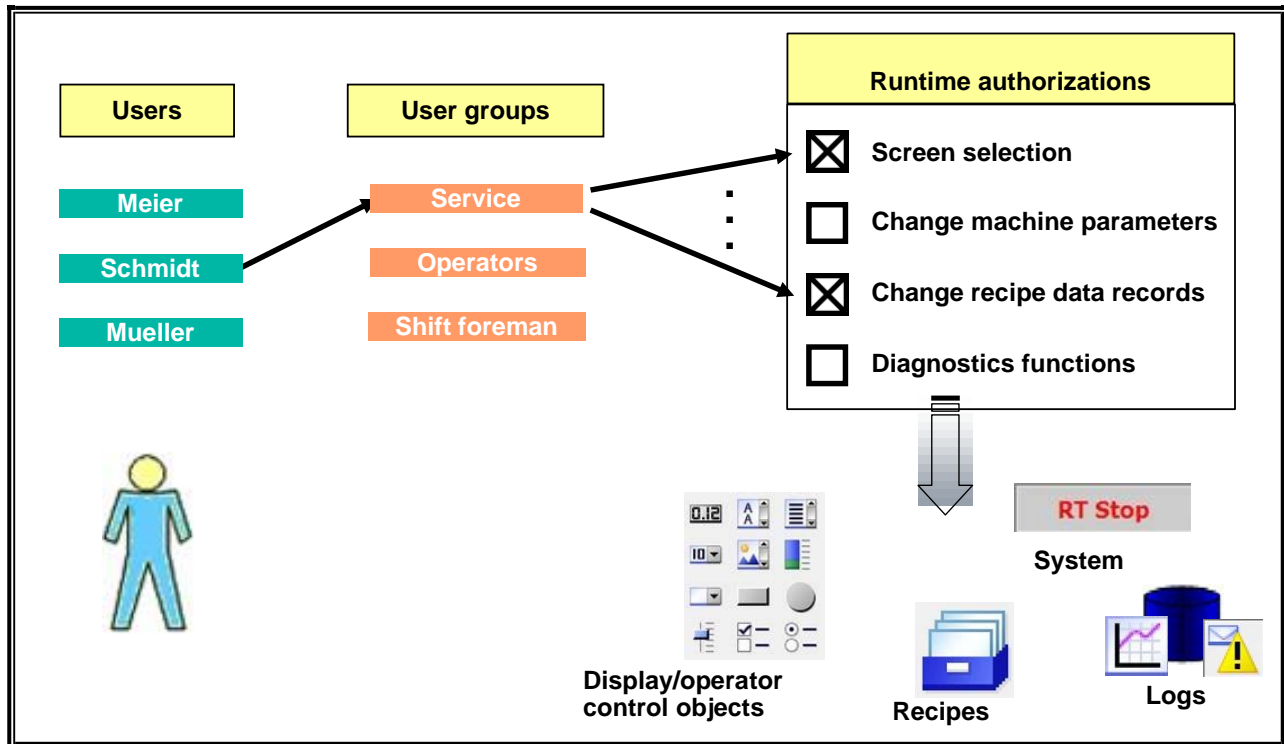
### 11.1 Overview

The user administration controls access to data and functions on the HMI device during runtime in order to protect the HMI device's data and functions from unauthorized manipulation.

The user administration function is configured in the engineering system for this purpose, and transferred to the HMI device.

When using **SIMATIC Logon**, all users of WinCC throughout the plant can be administered centrally. User administration with SIMATIC Logon integrates itself into the security system and user administration of Windows. There are numerous security mechanisms. These include: user information stored encrypted in a central database, aging of the password, automatic logoff after a certain time, lockout after entering the password incorrectly several times in a row.

## Structure of the user administration



The user administration is divided into:

- Administration of users, user groups and authorizations
- Assignment of the corresponding authorization to the individual configuration objects

## Operator authorization

Authorizations describe the rights to access an object or to carry out a specific action on the object (e.g. "Change input value", "Select screen", "Edit recipe").

An authorization can be assigned to each accessible object (IO fields, buttons etc.).

## User group

A user group combines authorizations, i.e. all users within a group have the same authorizations.

- Different operator views can be mapped in user groups, e.g.:
- Organizational view: commissioning engineers, operators, shift I, shift II
- Technological view: axis control, tool changers, Plant North, Plant South

## User

"Users" is the generic term for operators. Each operator is assigned to an associated user group and thus receives its authorizations. Operators may therefore only access objects for which they possess the authorization.

A user then logs on at the HMI device with the user name and associated password.

## Log file for logins/logouts

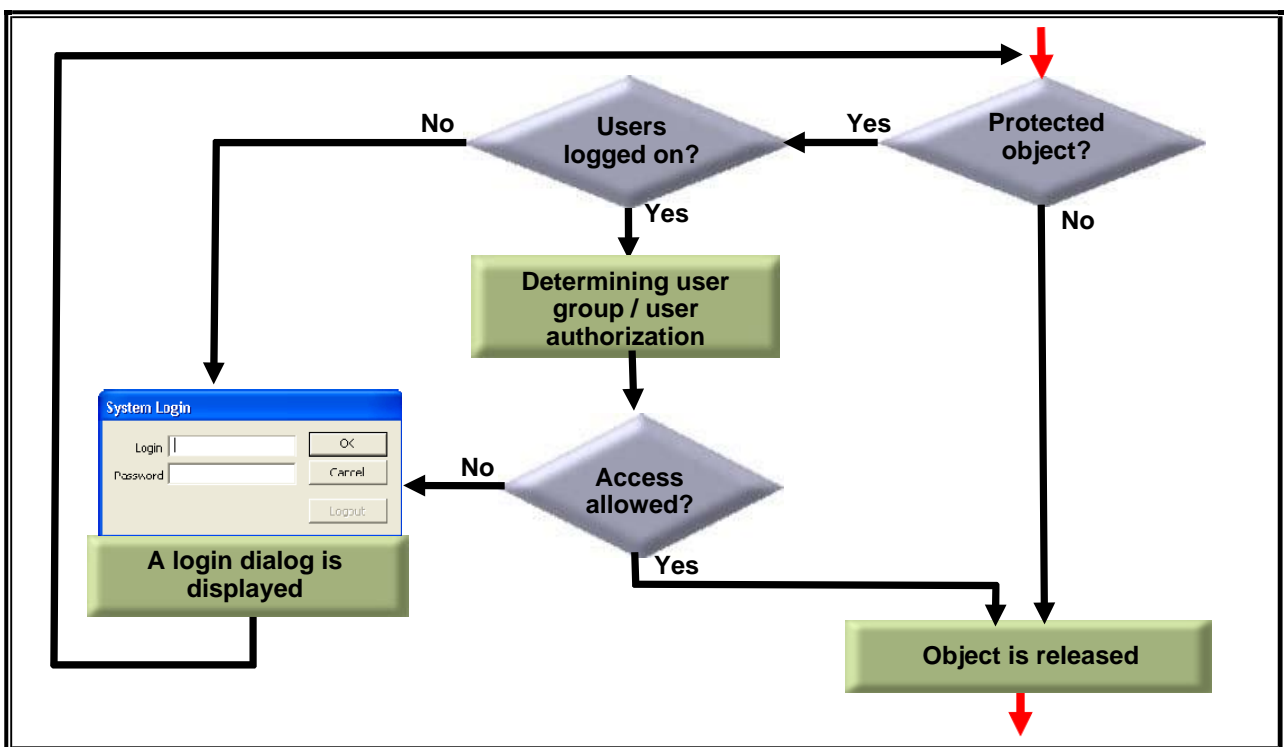
WinCC Professional stores the logon/logoff activities in the file **WinCC\_Op\_01.log**. The file contains information about the user as well as the date and time of the logon/logoff. The log file is located in the installation directory of WinCC Professional in the subdirectory "diagnose" (C:\Program Files\SIEMENS\Automation\SCADA-RT\_V11\WinCC\diagnose).

```
65535,12.01.2012,13:19:15:400,1008003,8,Meier,TIAP,PASSRT,,,0,0,0,,,
65535,12.01.2012,13:19:47:853,1008005,8,Meier,TIAP,PASSRT,,,0,0,0,,,
```

...3 -> Login

...5 -> Logout

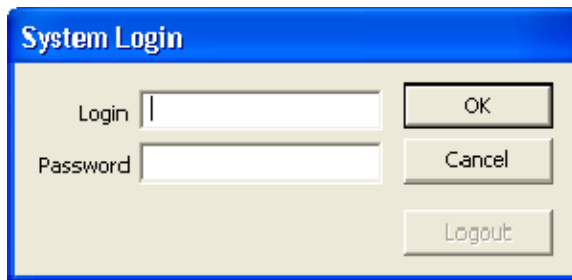
### 8.1.1. How access protection works



A user accesses an object (e.g. clicks a button). WinCC checks in runtime whether access to the object is protected.

- If **access is not protected**, the function configured for the object is executed.
- If **access is protected**, WinCC determines the user group to which the logged-on user belongs. The authorizations of the user are derived from this. If the logged-on user possesses the necessary authorizations for the object, the configured function is executed. Otherwise, a "login dialog" automatically appears for the user to log on.

## Login dialog



The image shows a 'System Login' dialog box with a blue title bar. It contains two input fields: 'Login' and 'Password'. To the right of the 'Login' field is an 'OK' button. To the right of the 'Password' field are 'Cancel' and 'Logout' buttons.

## Login dialog appears automatically

If a protected object has been accessed and the logged-on user does not have the required authorization or if no user is logged on, the "Login dialog" is automatically displayed. After a successful logon, WinCC once again checks whether or not the logged-on user has the necessary authorization.

- If it is, access to the object is enabled: When the user clicks the button again, the configured function is executed.
- If not, a corresponding system message is displayed indicating that the user does not have the required authorization. Although the user is logged on in runtime, the configured function is not executed.

## Configuration Steps

### 1. Structure authorizations

Find out which groups of people and authorizations are required for access protection.

### 2. Configure authorizations and assign the relevant objects

>> Project tree > HMI device > User administration > "User groups" tab  
>> Inspector window > Properties tab + Properties > Security

### 3. Create user groups and assign suitable authorizations

>> Project tree > HMI device > User administration > "User groups" tab

### 4. Create users and assign them to a user group

- in the engineering during configuration (created users are also downloaded to the HMI device with the project)  
>> Project tree > HMI device > User administration > "Users" tab
- in Runtime on the HMI device (configured screen for user administration)  
Task card >> Toolbox > Controls > User view



## 11.2 Structuring authorizations

11.3

	Authorizations	Groups / Users			
		commisioning engineer		programmer	operator
		Smith	Brown	Meyer	Miller
Predefined	Operate	X	X		X
	Monitor	X	X		X
	Administration				
Freely definable	ExitRT	X	X	X	X
	AcknowledgeMessages	X	X		X
	ModifySystemparameters	X	X		
	StartStopLogs	X	X		
	EditRecipes	X	X	X	
	EditReports	X	X		

It is first necessary to define what authorizations are required. It is advisable to draw up a table.

## 11.4 Configuring authorizations

**Project tree**

- Devices
  - HMI\_RT [WinCC RT Professional]
    - Device configuration
    - Online & diagnostics
    - Runtime settings
    - Screens
    - Screen management
    - HMI tags
    - Connections
    - HMI alarms
    - Recipes
    - Historical data
    - Scripts
    - Scheduled tasks
    - Cycles
    - Reports
    - Text and graphic lists
    - User administration**

**User administration** always assigned to the user view  
→ authorization for user view in runtime

**Monitor** as default no significance

**Operate** as default no significance

...tem [SIMATIC PC station] > HMI\_RT [WinCC RT Professional] > User administration

**Users** **User groups**

Groups	Name	Web start screen	Web language	Web access ...	Comment
Administrator group					The 'Administrator' group is initially...
Users					The 'Users' group is initially granted...

Authorizations	Active	Name	Displayname	Num...	Comment
		User administration	User administration		Authorize 'User administration' for managi...
		Monitor	Monitor		'Monitor' authorization.
		Operate	Operate		'Operate' authorization.
		Manage	Manage		
		Exit runtime	Exit runtime		
		Enable remote control	Enable remote control	000	Authorization for the use...
		Web access view only	Web access view only	002	Authorization for the...

**Predefined**

**Definable**








**Predefined**


## Operator authorization

The configured authorizations are initially only names without reference to a particular function. This changes only when an authorization is assigned to a configured object. The names can be assigned as desired (free text).

 The name should be oriented on the function to be executed.

A consecutive number is automatically assigned to each authorization. This is the unique identification feature. The authorizations in the range 1000 to 1099 are system authorizations and cannot be changed by the user.

Authorizations					
	Active	Name	Display name	Number	Comment
	<input type="checkbox"/>	User administration	User administration	1	Authorize 'User administration'
	<input type="checkbox"/>	Monitor	Monitor	2	'Monitor' authorization.
	<input checked="" type="checkbox"/>	Operate	Operate	3	'Operate' authorization.
	<input type="checkbox"/>	Manage	Manage	4	
	<input type="checkbox"/>	Exit runtime	Exit runtime	5	Exit Runtime
	<input type="checkbox"/>	Enable remote control	Enable remote control	1000	Activates remote authorization
	<input type="checkbox"/>	Web access - view only	Data Monitor - view only	1002	Web access - view only. Author
<Add new>					

 Please only define authorization names of an HMI device once to avoid assignment errors.

The authorizations "User administration", "Operate", "Monitor", "Remote control" and "Web access - view only" are predefined and are always present. In contrast to their numbers, the names of the authorizations "User administration", "Operate", "Monitor" can be changed.

The **Runtime authorization "User administration" (authorization number = 1)** is always automatically assigned to the **"User view"**. The authorizations "Operate" and "Monitor" are initially unused.

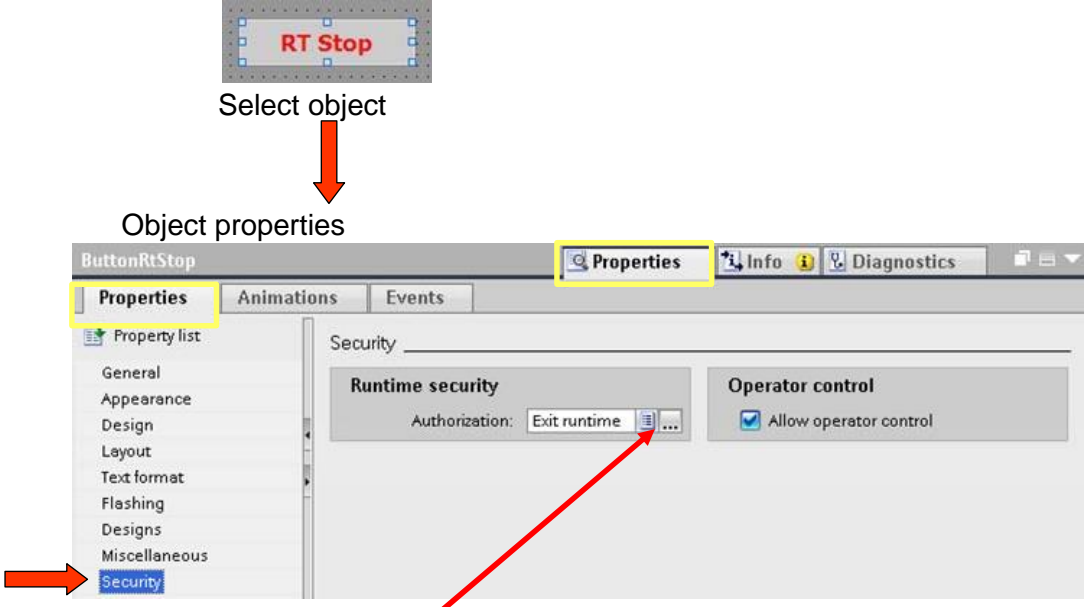
## Creating an authorization

A new authorization is created by clicking in the next empty line in the "Name" column. The name of the new authorization (e.g. "Exit RT") can then be entered.

A detailed description of the authorization can be entered under Comment.

All entries can also be made in the Inspector window.

## 11.5 Assignment of authorizations to corresponding objects



Select object

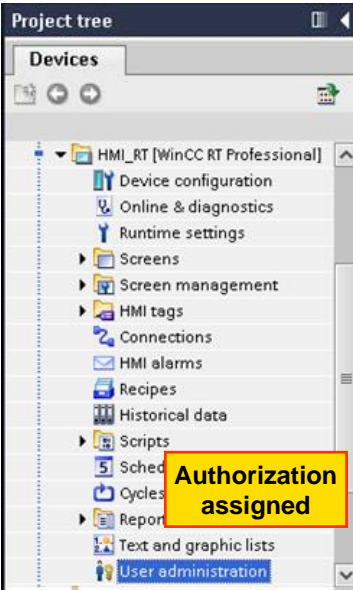
Object properties

Assign authorization and with it activate the authorization check of the object


Each accessible object has the section "Security" in the properties. If an authorization is configured and activated there, access protection is active during Runtime.



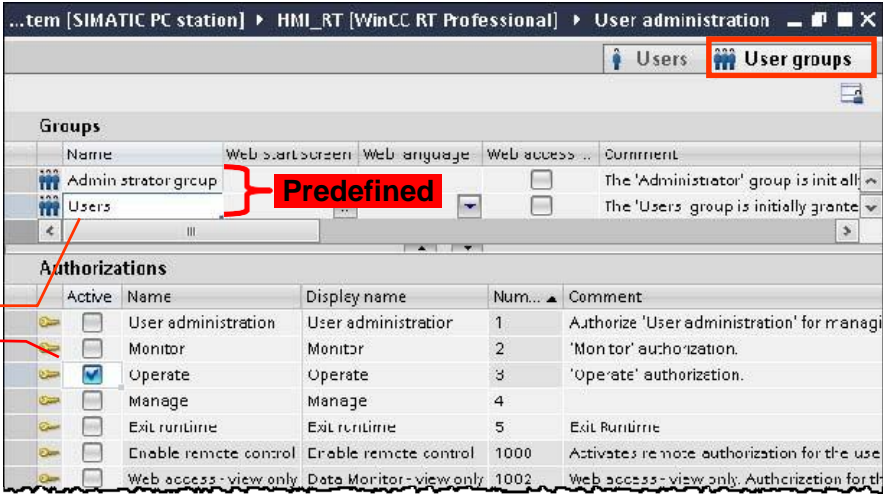
## 11.6 Configuring user groups





**Authorization assigned**

**Administrator group** should always have all authorizations  
→ Name and authorizations can be changed 

**Users** - as default the group has the "Operate" authorization  
→ Name and authorizations can be changed



**Predefined**

Groups	Name	Web startscreen	Web language	Web access ..	Comment
	Administrator group				The 'Administrator' group is initially granted all authorizations.
	Users				The 'Users' group is initially granted the 'Operate' authorization.

Active	Name	Display name	Num...	Comment
<input type="checkbox"/>	User administration	User administration	1	Authorize 'User administration' for management.
<input type="checkbox"/>	Monitor	Monitor	2	'Monitor' authorization.
<input checked="" type="checkbox"/>	Operate	Operate	3	'Operate' authorization.
<input type="checkbox"/>	Manage	Manage	4	
<input type="checkbox"/>	Exit runtime	Exit runtime	5	Exit Runtime
<input type="checkbox"/>	Enable remote control	Enable remote control	1000	Activates remote authorization for the user.
<input type="checkbox"/>	Web access - view only	Data Monitor - view only	1002	Web access - view only. Authorization for the user.

The authorizations are combined in user groups. The "Groups" table shows the existing user groups.



The group names must be unique within an HMI device. A consecutive number is assigned automatically by user administration for the user group.

### User group display name

The "Display name" of the group is language-dependent (can be translated like a display text) since the users can also be administered and edited on the HMI device in runtime and each user must be assigned to a user group. The display name in the corresponding language is then shown for the user group on the HMI device in runtime.

### The "Administrator group" and "Users" groups

These are already predefined and always present.

Initially, the "Administrator group" has all predefined authorizations.



#### Caution !

Newly created customized authorizations are not assigned automatically. The assignment of authorizations can be modified as necessary. This means that users in the "Administrator group" do not automatically have unlimited access to all operator control functions on the HMI device → projectable.

Only the authorization "Operate" is assigned as standard to the "Users" group. However, the assignment of authorizations can be changed as required. A group name and user name can only be assigned once.

### Create new group

A new group can be defined by clicking in the next empty line in the "Groups" table. The name of the new group (e.g. "Service") can then be entered.

In the Comment field you can enter a detailed description of the user group.

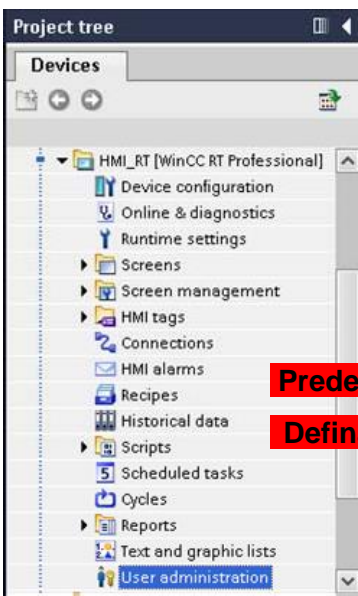
All entries can also be made in the Inspector window.

### Processing of user groups / assignment of authorizations

If a user group is selected in the "Groups" table, the "Authorizations" table shows the authorizations assigned to the selected user group. By clicking on the check box in the "Active" column of an authorization, this can be assigned to the selected group ☒ or canceled ☐.

Users can also be copied and functions can be assigned to the user group in advance that are then the defaults when setting up a new user.

## 11.7 Configuring users



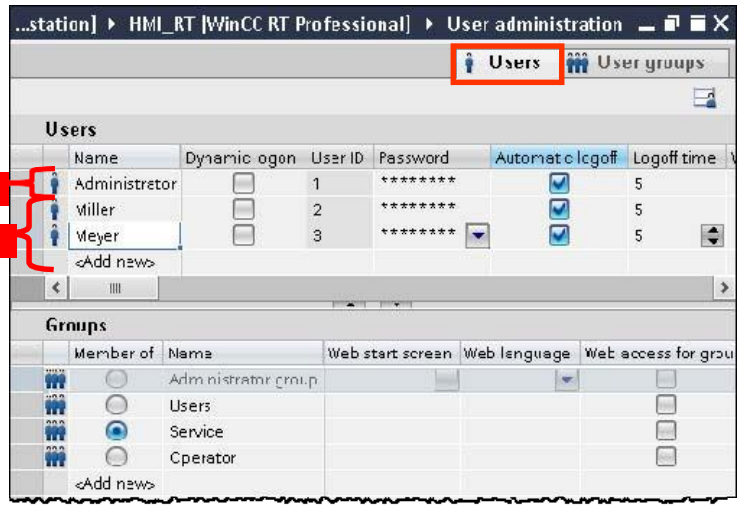
**Project tree**

- Devices
  - HMI\_RT [WinCC RT Professional]
    - Device configuration
    - Online & diagnostics
    - Runtime settings
    - Screens
    - Screen management
    - HMI tags
    - Connections
    - HMI alarms
    - Recipes
    - Historical data
    - Scripts
    - Scheduled tasks
    - Cycles
    - Reports
    - Text and graphic lists
    - User administration**

**Administrator** user belongs to the "Administrator group" as default

- Name and group assignment **can be changed**
- password **can be changed**

When downloading (Extended download to device) you specify whether the data of "User administration" already on the HMI device will be overwritten.



Name	Dynamic logon	User ID	Password	Automatic logoff	Logoff time
Administrator	<input type="checkbox"/>	1	*****	<input checked="" type="checkbox"/>	5
Miller	<input type="checkbox"/>	2	*****	<input checked="" type="checkbox"/>	5
Meyer	<input type="checkbox"/>	3	*****	<input checked="" type="checkbox"/>	5

**Groups**

Member of	Name	Web start screen	Web language	Web access for group
<input type="radio"/>	Administrator group			<input type="checkbox"/>
<input type="radio"/>	Users			<input type="checkbox"/>
<input type="radio"/>	Service			<input type="checkbox"/>
<input type="radio"/>	Operator			<input type="checkbox"/>

Users can already be created during the configuration phase and loaded on the HMI device along with the configuration.



### Caution !

Users created during the configuration phase are always transferred as a completely new user data set to the HMI device, and overwrite the users present on the HMI device.

**This means that you must take care when updating the configuration that the users are not transferred again, otherwise all modifications made by operators since the last configuration transfer will be lost!**

When downloading (Extended download to device), you specify whether the data of "User administration" already on the HMI device will be overwritten.

## User "Administrator"

The "Administrator" user is predefined and is always present. This user is assigned as default to the "Administrator group".



### Caution !

Newly created customized authorizations are not assigned automatically to the "Administrator group". The group assignment can also be modified as necessary. This means that the "Administrator" user **does not automatically** have unlimited access to all operator control functions on the HMI device.

The default password is the word "administrator".

## Password

Both the name and a password are used to identify a user.

- ⇒ Minimum length = **6** characters
- ⇒ Maximum length = **24** characters
- ⇒ Invalid special characters: " \ " and " ' "
- The password must be entered twice when configuring users.

## Logoff time

If no actions are carried out by the operator within the set logoff time, the logged-on user is automatically logged off by the HMI device, and no operator is then logged on with the HMI device. The automatic Logout can also be disabled.

⇒ Standard logoff time 5 minutes

## Create user

A new user can be set up by clicking in the next empty line in the "Users" table. The name of the new user (e.g. "Smith") can then be entered.

A user group is not automatically assigned to a newly created user.

A password is also not assigned automatically. This must always be configured!

⇒ User name: max. 24 characters

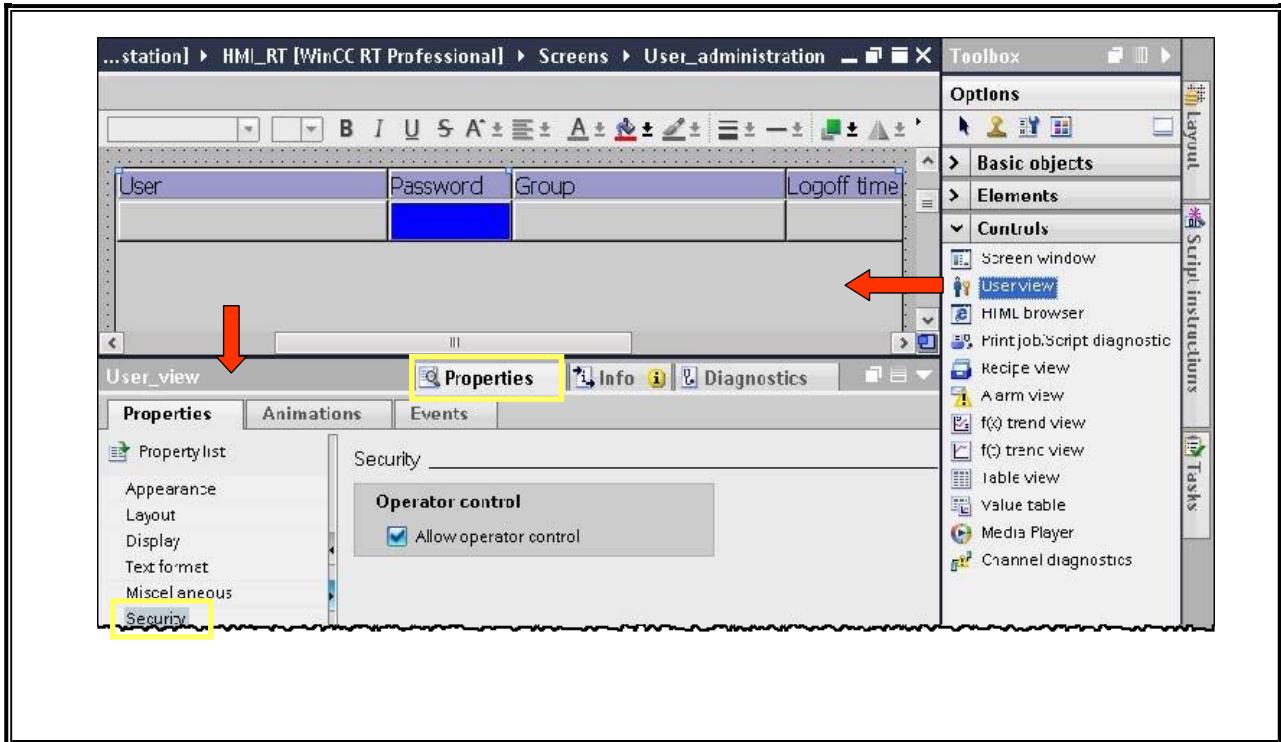
## Editing users / assignment to group

If a user is selected in the "Users" table, the "Groups" table shows the group to which the selected user has been assigned.

By clicking the radio button ☐ of a created group, the selected user ☒ can be assigned to it.

## 11.8 Administering users on the HMI device in runtime

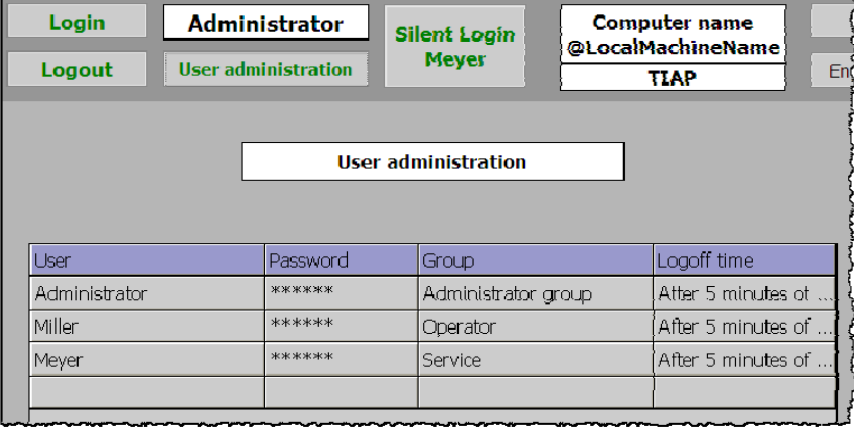
### 8.7.1. Configure user view



Users and passwords are administered using the "user view" in runtime. This is located on the "Toolbox" task card in the "Controls".

The "User administration" authorization (or authorization with the number =1) is always assigned automatically to the "User view" and controls the number of users displayed or managed in the user view on the HMI device in Runtime.

## 8.7.2. Administering users in runtime



User	Password	Group	Logoff time
Administrator	*****	Administrator group	After 5 minutes of ...
Miller	*****	Operator	After 5 minutes of ...
Meyer	*****	Service	After 5 minutes of ...

**Content of the table:**  
depends on the authorizations of the currently logged-on user

**Possibilities:**

1. no user logged on  
→ empty
2. user logged on without "User administration"  
→ only logged-on user
3. user logged on with "User administration"  
→ all existing users

A configured "User view" allows administration of the users on the HMI device in runtime.

The user view shows different contents depending on the authorizations of the logged-on user:

- If no user is logged on  
the user view is empty.
- The user is logged on and does not have "User administration" authorization  
the user view only shows the logged-on users.
  - Users can change their own user names and passwords as well as the settings for the logoff time.
- The user is logged on and has "User administration" authorization (e.g. "Administrator" user)

The user view shows all users of the HMI device.

This user can change all users displayed in the user view.

- Create user
- Delete user
- Modify user (user name, password, group assignment, logoff time)



## Changes made in user administration on the HMI device

User	Password	Group
Administrator	*****	Administrator group
Miller	*****	Operator
Meyer	*****	Service

Edit user

Login: Meyer

Group: Service

☐ Change password

Password: \*\*\*\*\*

Verify password: \*\*\*\*\*

☒ Automatic logout

Minutes: 5

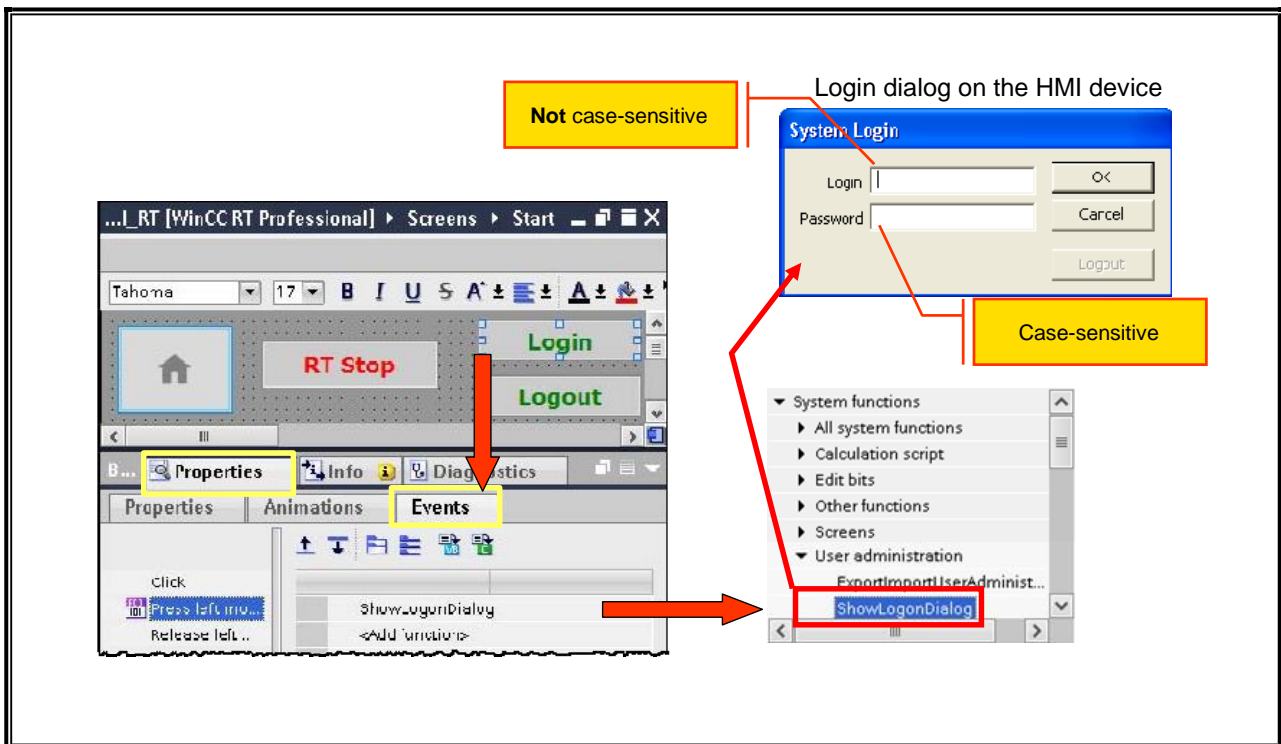
Inactive time

OK Cancel

A password is entered with hidden input and repetition.

Modifications in the user view on the HMI device take effect immediately, but are not updated in the engineering system. This must be remembered during the next configuration update (do not transfer configured users with the configuration!)

## 11.9 Configuring a login dialog



The "Logon dialog" is displayed automatically on the HMI device in Runtime when a protected object is accessed, when no user is logged on or when the logged-on user does not have the required authorization.

So that the user is not surprised unexpectedly by this, a logon button should also be configured, permitting a specific user logon.

### System function "ShowLogonDialog"

>> *Inspector window > Properties+Events tab > "ShowLogonDialog" system function*

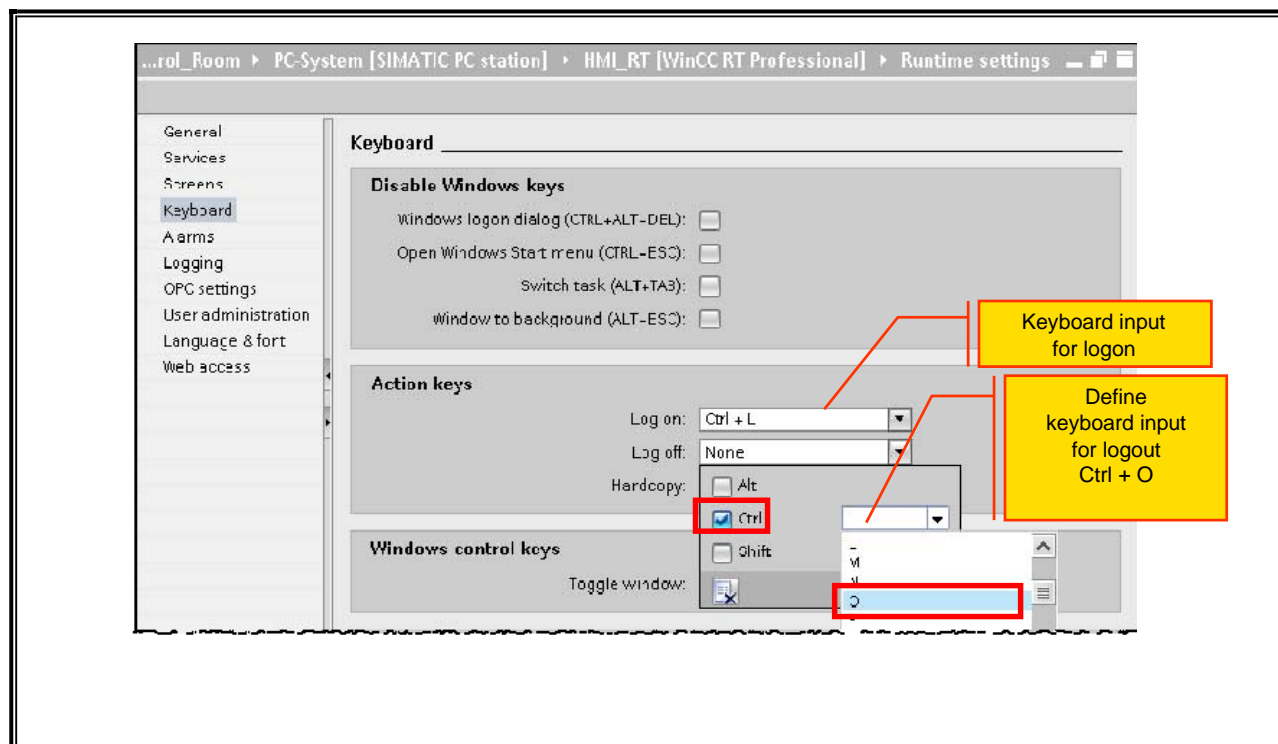
This function displays the logon dialog, and enters the user as a logged-on user following a successful logon at the HMI device. If logging on is unsuccessful (e.g. incorrect password or similar), a system alarm is output, and no user is then logged on to the HMI device.



This system function is located in the function group "User administration".

## 11.10 Configuring a logon/logoff dialog with hotkeys

11.11



Hotkeys for Logon and Logoff are defined in the "Runtime settings" in the area navigation "Keyboard" in the Action keys section (refer to the example in the figure above).

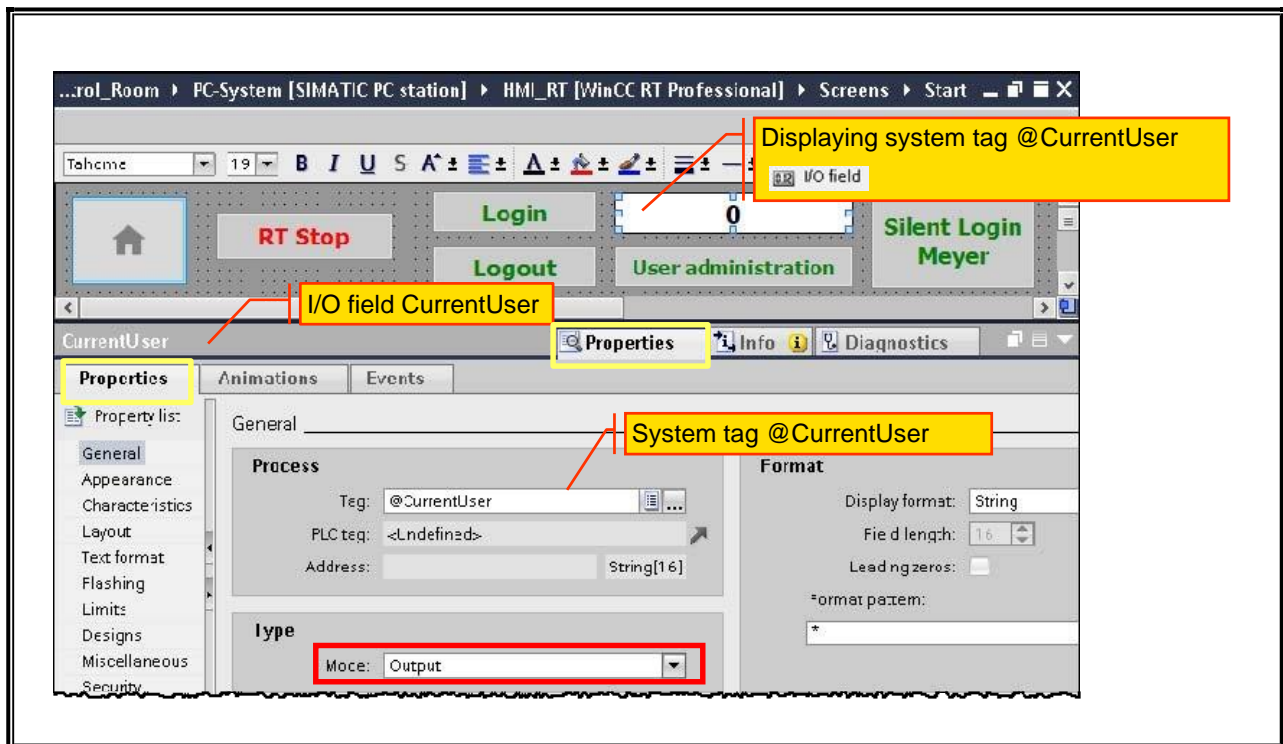
The Login dialog is called in Runtime mode using Ctrl + L,  
Ctrl-O initiates the logout.

Note: Ctrl+P must not be used as a hotkey.

The logon/logoff functions can also be implemented with a C script (ODK functions: PWRTLogin, PWRTLogout) on a button.

If the HMI device is configured with access protection, all users should only work with their own user logons. The logoff is carried out automatically by the system following the set logoff time. If users want to leave the HMI device and guarantee that no other users work under their logon, a user logoff should always be configured, otherwise users would have to wait until the logoff time has expired.

## 11.12 Display logged-on users on the HMI device



To display the currently logged-on user, the system tag **@CurrentUser** is available. This tag is generated as an internal tag (string tag) when a project is created.

### System tag @CurrentUser

WinCC Professional provides various system tags. The system tag **@CurrentUser** can be found in the System tags tab of the standard tags table:

>> Project tree > HMI device > HMI tags > Default tag table > System tags tab

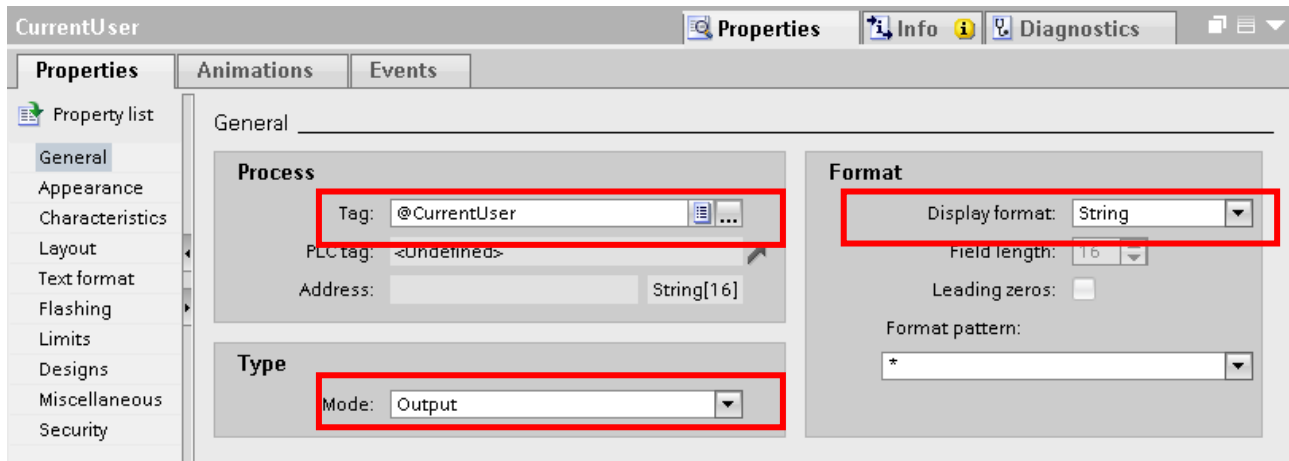
System tags	
Name	HMI data type
@ConnectedRTClients	UInt
@CurrentUser	String
@CurrentUserName	WString
@DataSourceNameRT	WString

## Displaying system tag @CurrentUser

The system tag "CurrentUser" of the type "String" is displayed via an I/O field in output mode in a screen (it makes sense to display this in the permanently visible area of the start screen if a screen window is used in the start screen).

Task card >> Toolbox > Elements > I/O field

>> Inspector window > Properties tab+Properties > General




The type/mode of the I/O field should be set to "Output" since entries relating to the display of the user name are pointless.

## Dynamization overview

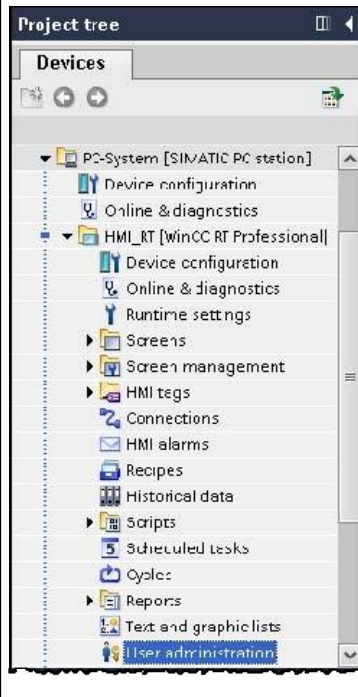
Dynamization overview				
Screen:	Start	Cycle:	1 s	
Object name	Property name	Dynamization type	Trigger	Cycle
SB_NavigateHome_85x64	Press left mouse button	Event		
LocalMachineName	Process value	Tag connection	@LocalMachineName	UponChange
CurrentUser	Process value	Tag connection	@CurrentUser	UponChange
ButtonUserAdmin	Press left mouse button	Event		
ButtonUserAdmin	Press left mouse button	Event		

## Setting the cycle (update cycle) for the CurrentUser I/O field

The cycle (update cycle) for the CurrentUser I/O field is selected in the "Dynamization overview" dialog. Since the tag @CurrentUser used for the I/O field CurrentUser is an internal system tag, the "UponChange" cycle is used.

>> Project tree > HMI device > Screens > Screen name e.g. Start > right mouse click on Screen name > in shortcut menu left click on Dynamization overview


## 11.13 Exercise 1: Configure user administration



**Project tree**

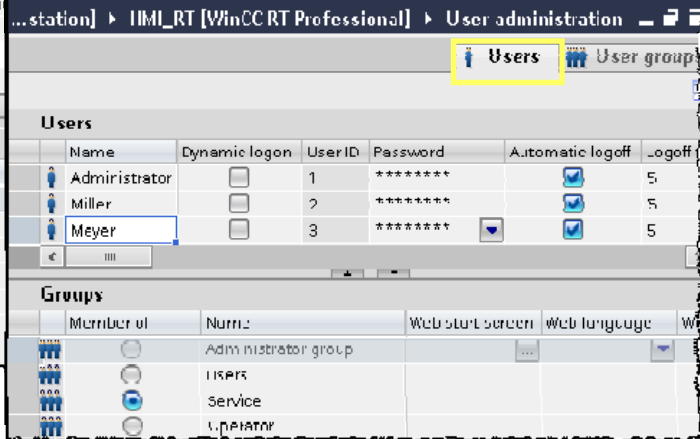
- Devices
  - PC-System [SIMATIC PC station]
    - Device configuration
    - Online & diagnostics
    - HMI\_RT [WinCC RT Professional]
      - Device configuration
      - Online & diagnostics
      - Runtime settings
      - Screens
      - Screen management
      - HMI tags
      - Connections
      - HMI alarms
      - Recipes
      - Historical data
      - Scripts
      - Scheduled tasks
      - Cycles
      - Reports
      - Text and graphic lists
      - User administration**

- Create two users → different authorizations
- Create new authorizations and assign to objects



**Groups**

NAME	Web start screen	Web language	Web access	Assignment
Administrator group				
Users				
Service				
Operator				



**Users**

Name	Dynamic logon	User ID	Password	Automatic logoff	Logoff
Administrator	<input type="checkbox"/>	1	*****	<input checked="" type="checkbox"/>	5
Miller	<input type="checkbox"/>	2	*****	<input checked="" type="checkbox"/>	5
Meyer	<input type="checkbox"/>	3	*****	<input checked="" type="checkbox"/>	5

**Groups**

Member of	Name	Web start screen	Web language	Web access
	Administrator group			
	Users			
	Service			
	Operator			

### Task description

- 11.13.1 Two users will work in the system with different authorizations
- 11.13.2 The user groups and runtime authorizations need to be configured
- 11.13.3 The users need to be created and the user group assignment must be made
- 11.13.4 Various objects need to be given access protection



## Procedure

### 1. Create runtime authorizations and user groups

- Exit runtime      → Administrator
- Service

### 2. Create users and assign user group

- Mueller = Operator
- Meier = Service

### 3. Assign authorization

### 4. Save the configuration

### 1. Create authorizations and user groups

>> Project tree > HMI device > User administration > User groups tab

User group	Operator authorization	
User	Operation	Predefined group with predefined authorization
Operators	Monitor, operate	Predefined authorization
Service	User administration Monitor Operate Manage Exit runtime	Predefined authorization Create new authorizations

### 2. Create user and assign to user group

>> Project tree > HMI device > User administration > Users tab

User name	Password	User group
Mueller	123456	Operators
Smith	123456	Service

### 3. Assign authorization

The "RT Stop" button in the "Start" screen needs to be protected with the newly created authorization "Exit runtime", i.e. only the user named Meier and administrators will be able to execute this function.

The "Filling Plant" button in the "Start" screen needs to be protected with the "Manage" authorization; in other words, only the user and the administrator should be able to select the Filling Plant screen.

The I/O field for entering the setpoint should be protected with the "Operate" authorization in the Motor screen. This I/O field can be operated by the users administrator, Meier and Mueller. The runtime authorization is specified using the "Security" property for the objects in the Inspector window.

>> *Inspector window > Properties tab+Properties > Security*

>> <i>Inspector window &gt; Properties+Properties tab &gt; Security</i>	
Start screen: RT Stop button	Exit runtime
Start screen: Filling Plant button	Manage
Motor screen: IO field Setpoint	Operation

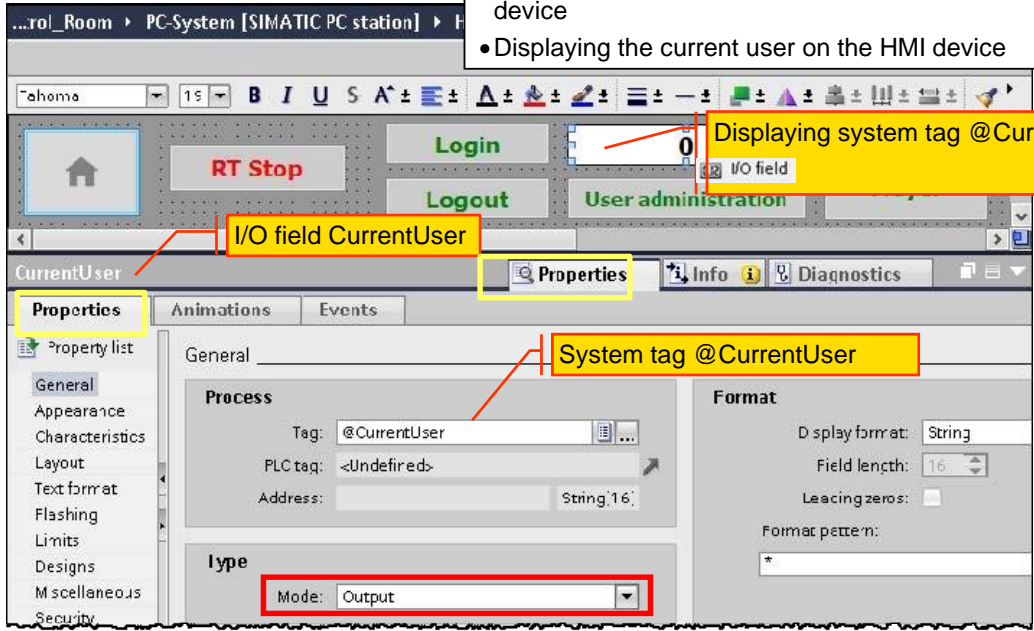
### 4. Saving the configuration

Save your project.



## 11.14 Exercise 2: Displaying the login/logoff of logged-on users

- Logging on and off by the user via buttons on the HMI device
- Displaying the current user on the HMI device



Displaying system tag @CurrentUser

I/O field CurrentUser

System tag @CurrentUser

Mode: Output

### Task description

11.14.1 Logging on and off of user by means of buttons on the HMI device

11.14.2 The currently logged-on user will be displayed in the permanently visible area of the "Start" screen.

### Procedure

1. **Configure button for Login**  
→ "Show Logon Dialog" function
2. **Configure button for Logout**  
→ solution using C script
3. **Configure the button for logging on with "Silent Login"**  
→ solution using C script
4. **Display currently logged-on user**  
→ I/O field with system tag
5. **Test the configuration**



## 1. Configure Login button

Task card >> Toolbox > Elements > Button

To allow a central logon, create the following configuration in the "Start" screen:

- Insert a button in the "Start" screen and (as shown in the figure) position and label it.
- Select the system function "**ShowLogonDialog**" for the "Press left mouse button" event on the button as shown in the figure.

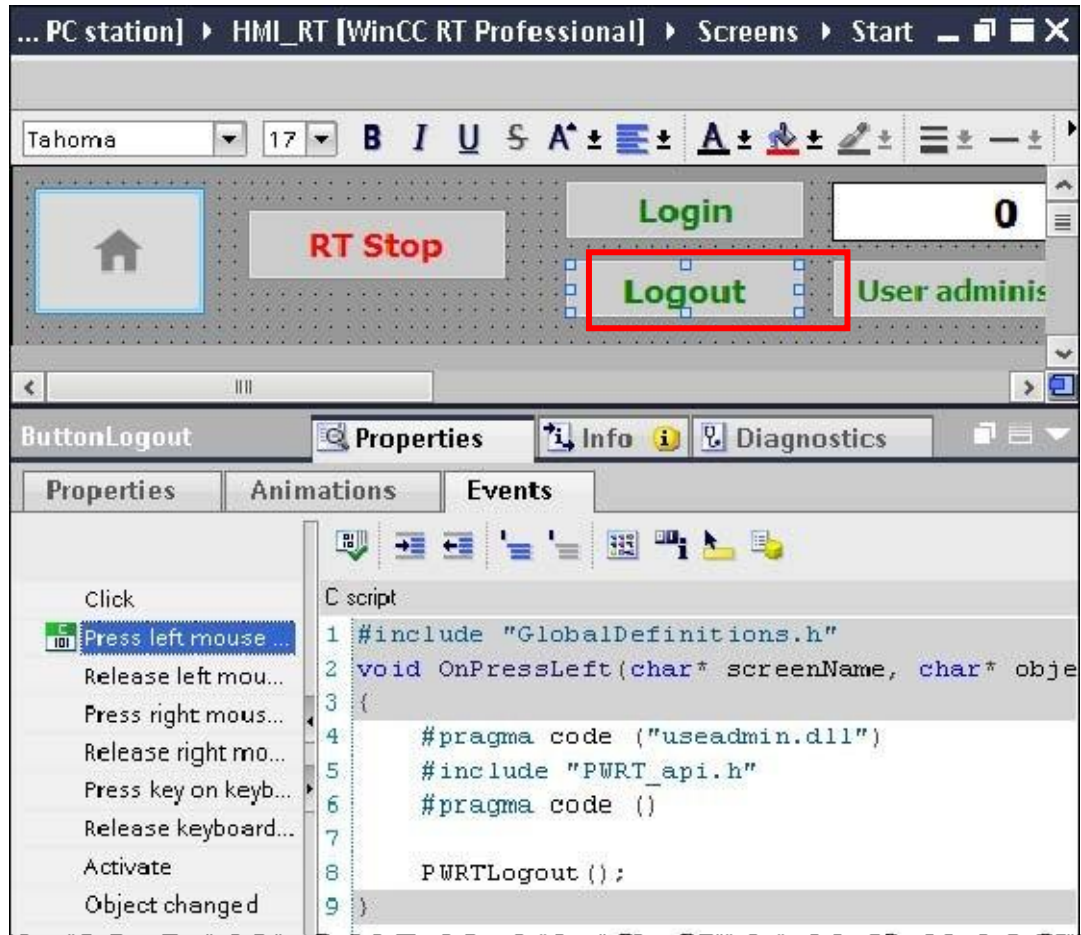


## 2. Configure Logoff button

Task card >> Toolbox > Elements > Button

To allow a central logoff, create the following configuration in the "Start" screen:

- Insert a button in the "Start" screen and as shown in the figure position and label it.
- Enter C script for the "Press left mouse button" event on the button (as shown in the figure).

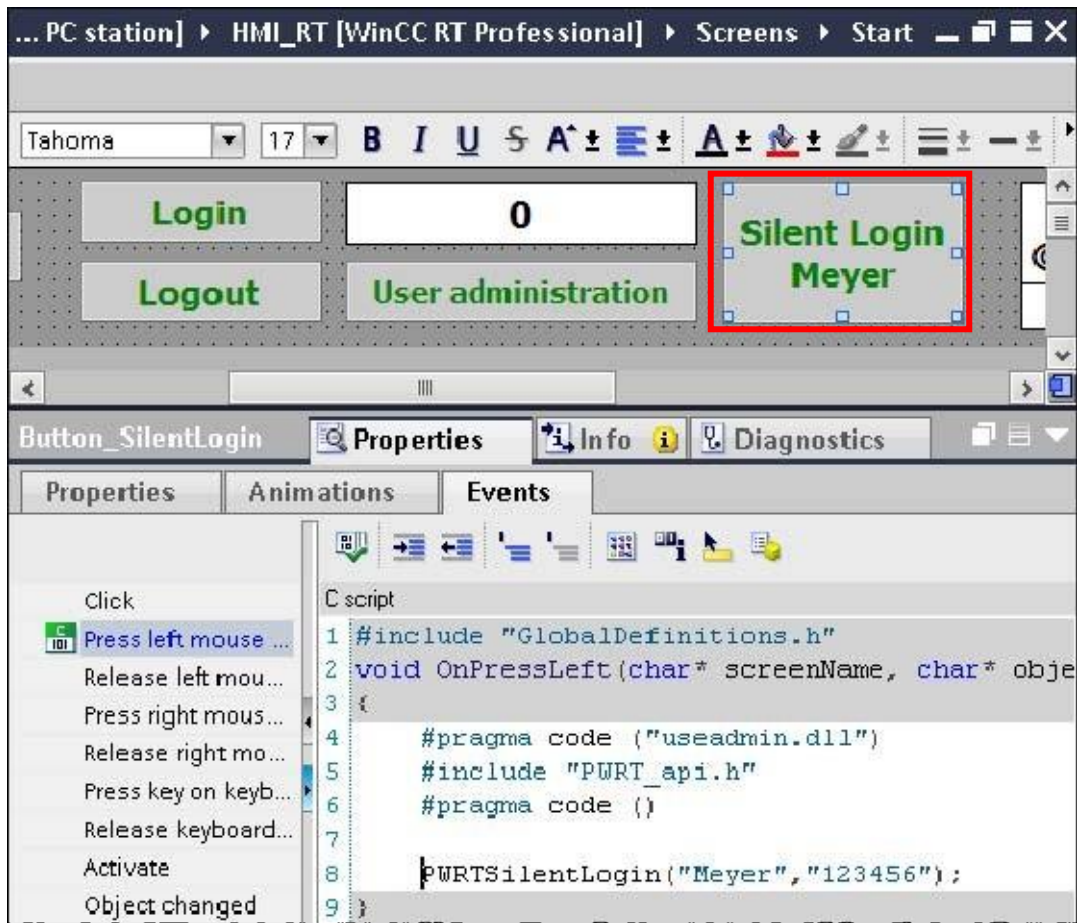


### 3. Configure the button for logging on with "Silent Login"

Task card >> Toolbox > Elements > Button

The "Silent Login" provides the user with the option of logging in without entering a user or password (e.g. as user "Meier" with the password "123456"). For security reasons, this function should only be used during commissioning or for testing. To do this, create the following configuration in the "Start" screen:

- Insert a button in the "Start" screen and as shown in the figure position and label it.
- Enter C script for the "Press left mouse button" event on the button (as shown in the figure).





## 4. Display currently logged-on users

Task card >> Toolbox > Elements > I/O field

Insert an I/O field in the Start screen (as shown in the figure) and use the system tag "@CurrentUser" to display the currently logged-on user.

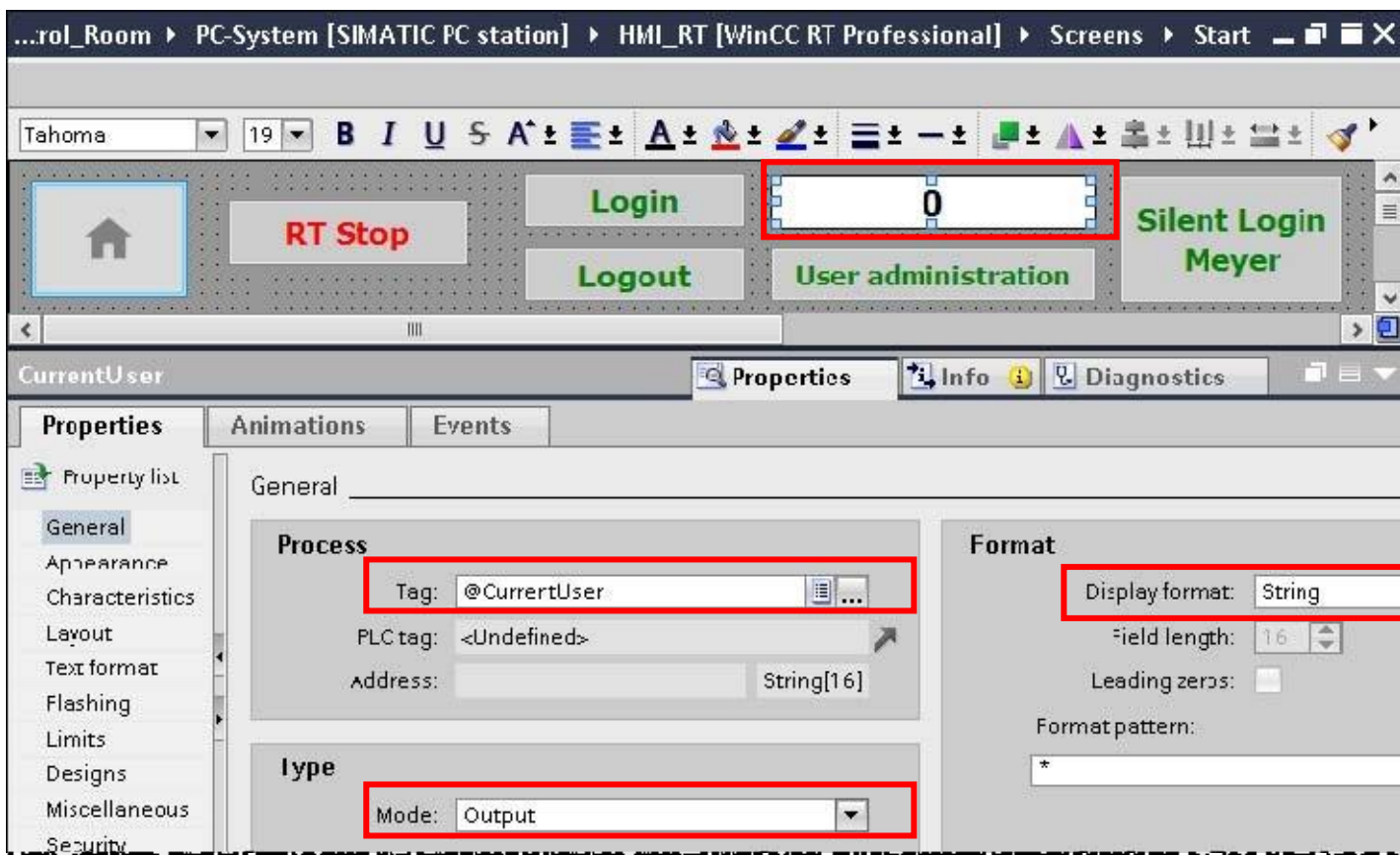
>> Inspector window > Properties tab+Properties > General

- "Output" mode
- "String" format type
- Tag "@CurrentUser"

Change the name of the I/O field to "CurrentUser"

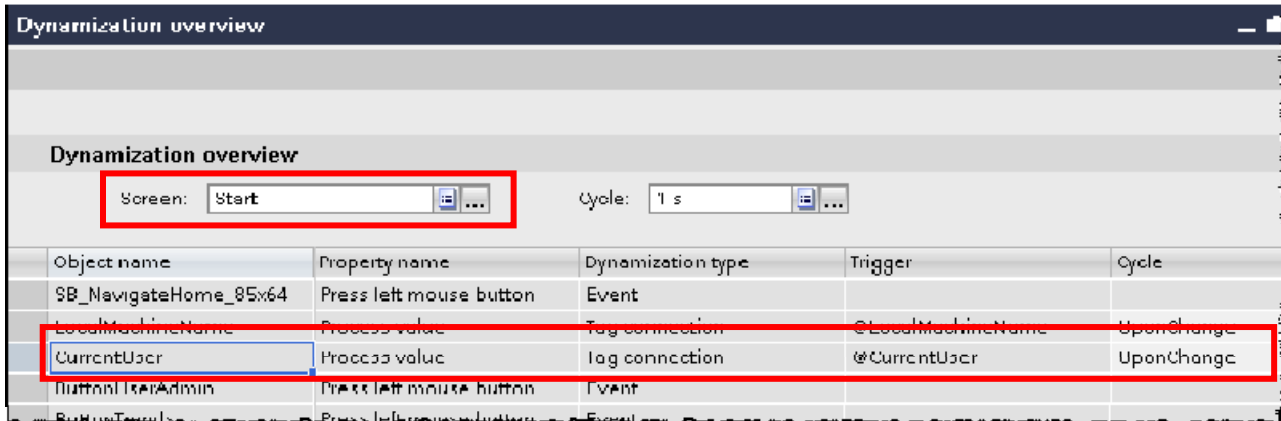
>> Inspector window > Properties+Properties tab > Settings > Miscellaneous > Object/Name

- Name "CurrentUser"



After you have configured the "CurrentUser" I/O field with the "@CurrentUser" system tag, you still need to specify the cycle (update cycle) for this I/O field (as shown in the figure).

>> Project tree > HMI device > Screens > Screen name e.g. Start > right mouse click on Screen name > in shortcut menu left click on Dynamization overview



The cycle (update cycle) for the CurrentUser I/O field is selected in the "Dynamization overview" dialog. Since the tag @CurrentUser used for the I/O field CurrentUser is an internal system tag, the "UponChange" cycle is used.

Don't forget to save your project.

## 5. Testing the configuration

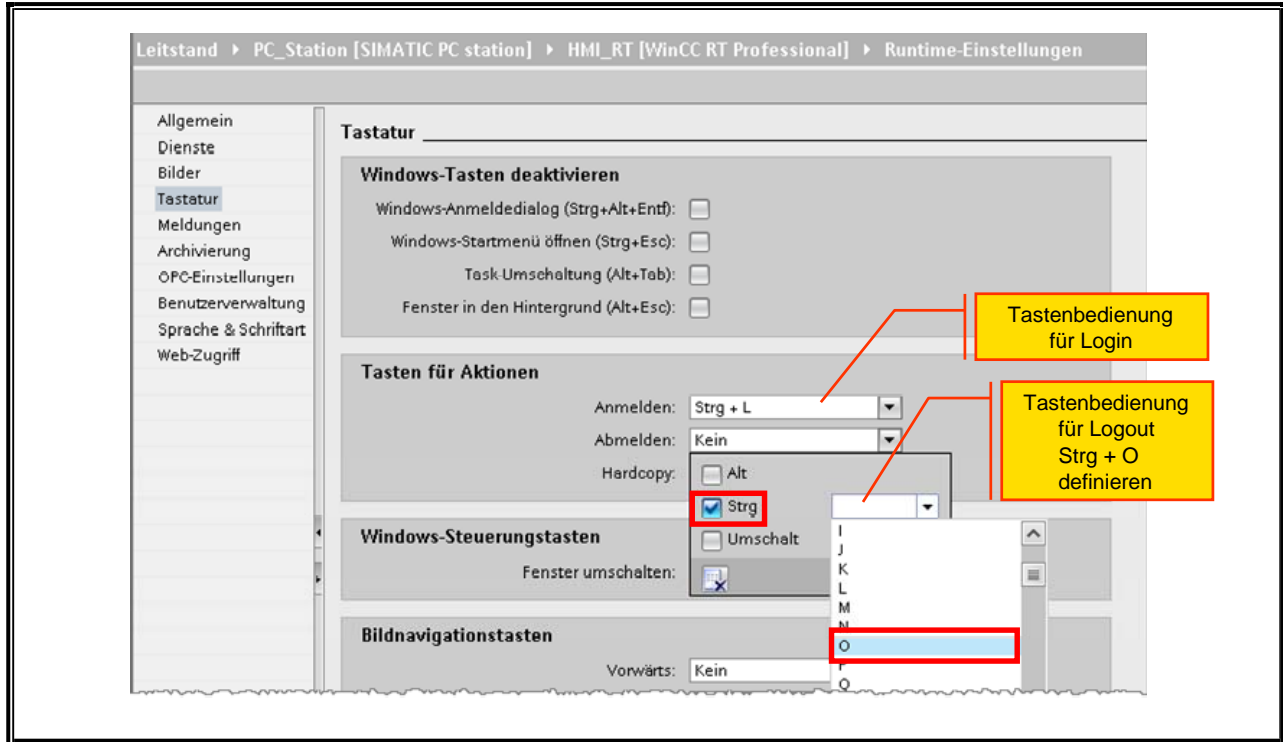
Test your project in Runtime mode. Use the various logon/logoff buttons (Login, Logout, Silent Login). Note the display of the currently logged-on user.



## 6. Additional exercise

In the Runtime settings, define two hotkeys for logging on and off (Logon / Logoff) of a user using Ctrl + L and Ctrl + O (as shown in the figure below).

>> Project tree > HMI device > Runtime settings >



Hotkeys for Logon and Logoff are defined in the "Runtime settings" in the area navigation "Keyboard" in the Action keys section.

The Login dialog is called in Runtime mode using Ctrl + L,  
Ctrl-O initiates the logout.

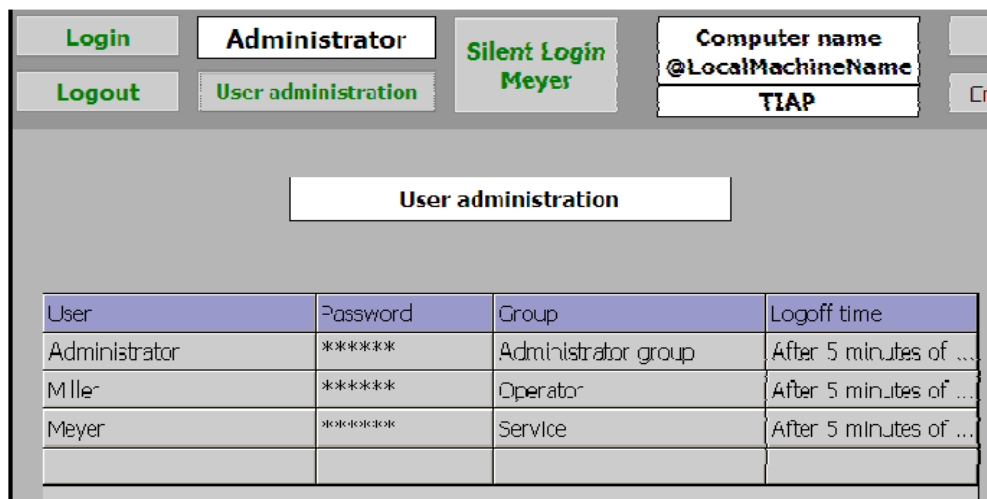
Note: Ctrl + P must not be used as a hotkey.

Following this change, the project needs to be saved again and compiled. Test the hotkeys in Runtime mode.



## 11.15 Exercise 3: User administration in Runtime Mode



- Create the "User view" screen
- Create button for screen selection
- Insert user view in the screen
- Test user view in Runtime mode



### Task description

- 11.15.1 Displaying the user view in an additional screen
- 11.15.2 It should also be possible to edit users on the HMI device (password, group, automatic logoff)

### Procedure

- 1. Configure the "User administration" screen**
  - Select screen size 1280x840 pixels
  - Insert static text "User administration"
- 2. Configure button for screen selection in the "Start" screen**
  - system function "ActivateScreenInScreenWindow"
- 3. Insert "User view" in the "User administration" screen** 
- 4. Test "User view" object in Runtime mode** 

## 1. Creating the "User view" screen

Insert a new screen in your project.

>> Project tree > HMI device > Screens > Add new screen

Change the screen name of the new screen to "User administration"

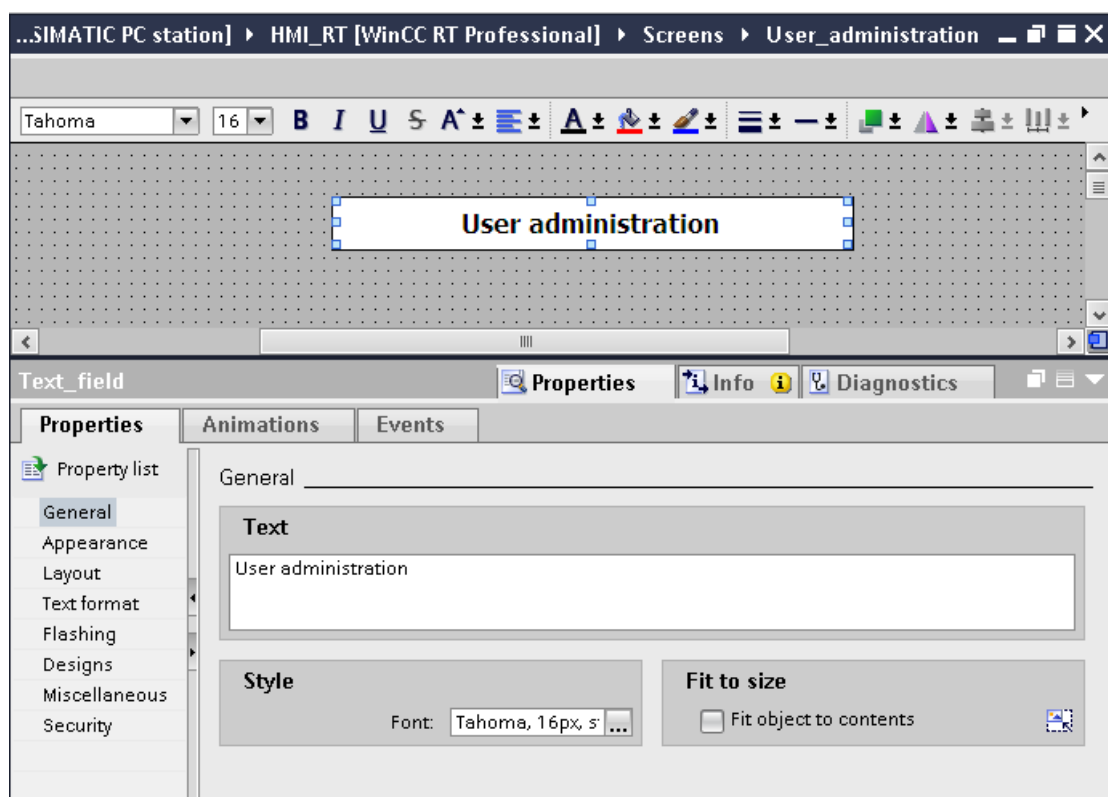
Select the following values for the screen size:

- width: 1280
- height: 840

>> Inspector window > Properties tab + Properties > Layout > Size

Insert a text field in the "User administration" screen (as shown in the screen below). The text field will display the text "User administration".

Task card >> Toolbox > Basic objects > Text field



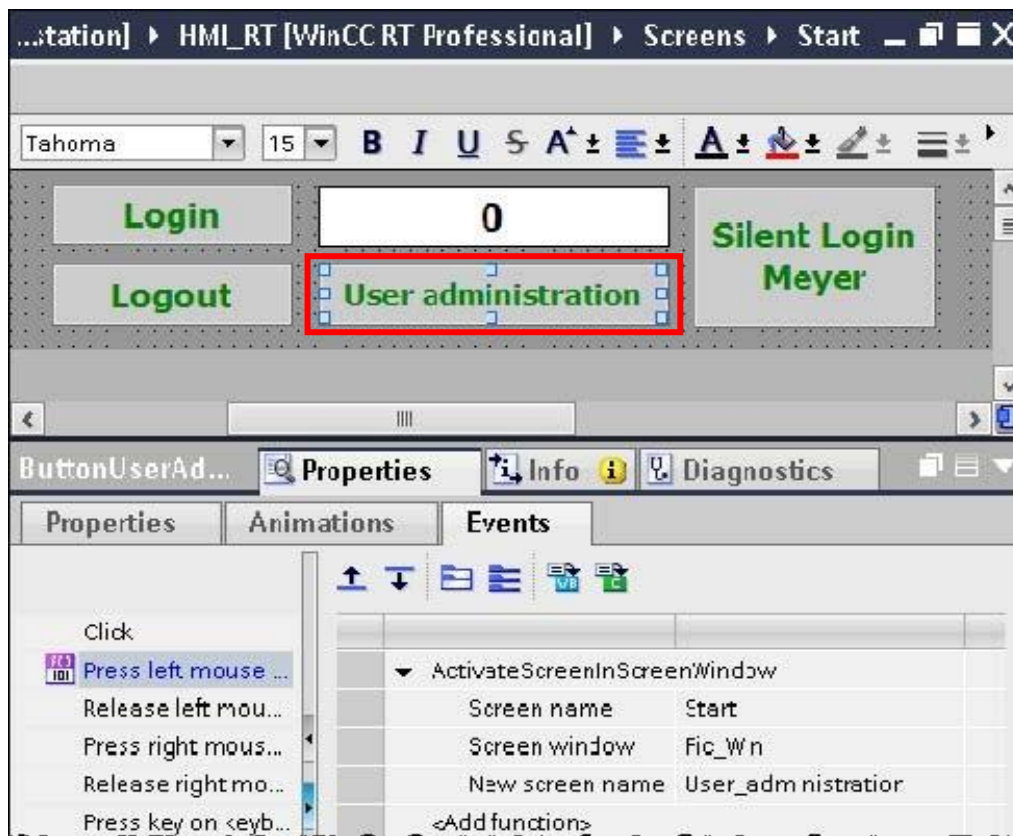
## 2. Button for selecting the "User administration" screen

Add a button in the "Start" screen.

Task card >> Toolbox > Elements > Button

Create the following configuration in the "Start" screen:

- Insert a button in the "Start" screen and as shown in the figure position and label it.
- Select the system function **"ActivateScreenInScreenWindow"** for the "Press left mouse button" event on the button as shown in the figure.





## 3. Configure the User view control

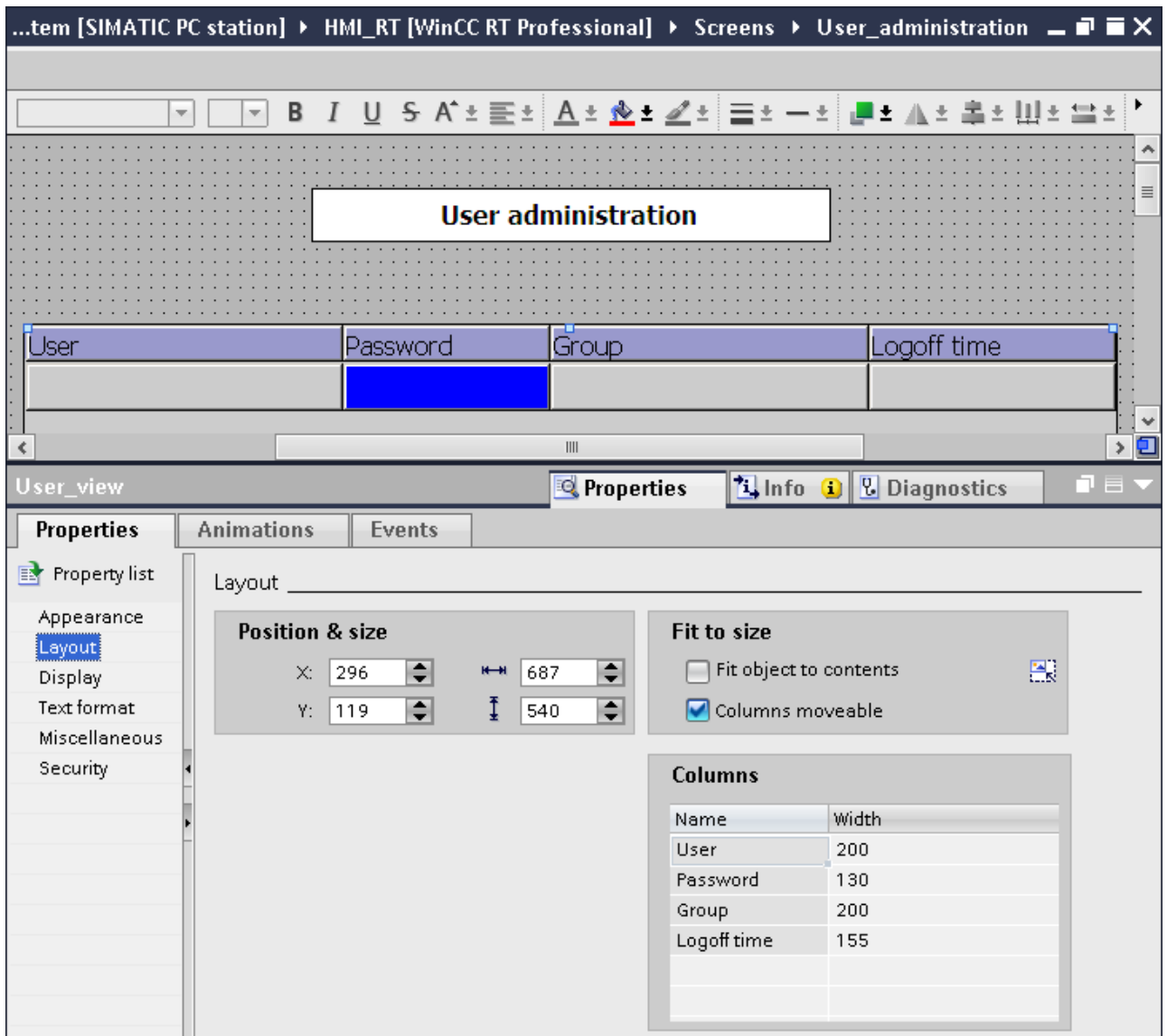
Open the "User administration" screen

>> Project tree > HMI device > Screens > "User administration" screen

Add the "User view" control in the "User administration" screen.

Task card >> Toolbox > Controls > User view

Use the values shown in the figure below to display the "User view" control in the screen



The screenshot shows the SIMATIC Manager interface with the 'User administration' screen open. Below the screen, the 'User\_view' control is selected, and its properties are displayed in the 'Properties' window.

**Properties Window - Layout Tab**

**Position & size**

X:	296	Y:	119
Width:	687	Height:	540

**Fit to size**

- ☐ Fit object to contents
- ☒ Columns moveable

**Columns**

Name	Width
User	200
Password	130
Group	200
Logoff time	155

