Report operator actions with the WinCC WebNavigator

WinCC Professional V15.1

https://support.industry.siemens.com/cs/ww/en/view/109479441

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1 Task

1.1 Overview

Introduction

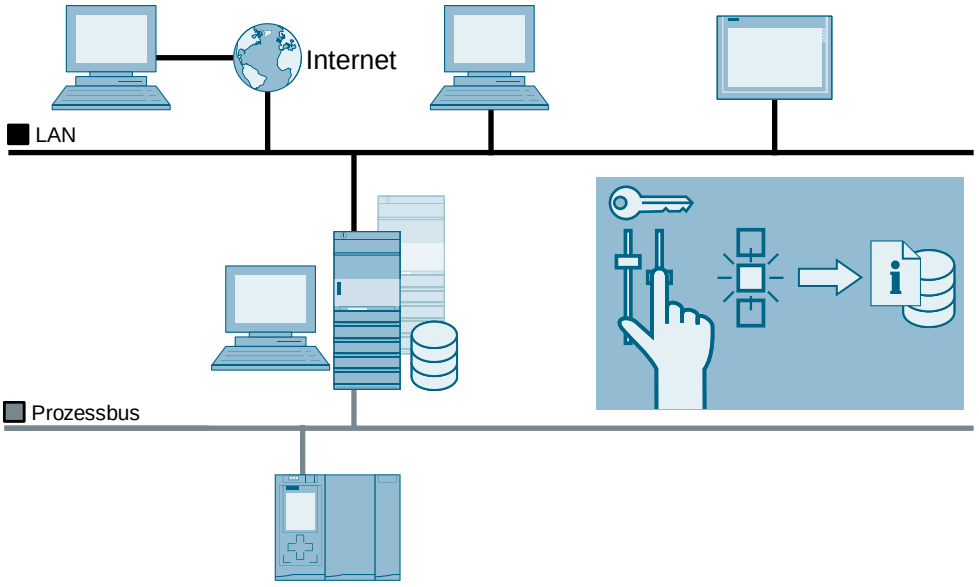
In the pharmaceutical industry, the food and beverage sector or in other industries, documentation of operator actions in terms of tracking and tracing is becoming increasingly important.
Electronic documentation of operator actions ensures that all relevant operator actions during the production process are stored and, where necessary, acknowledged by the operator by an electronic signature and a comment.

Another requirement is location-independent access to process data to allow operator control and monitoring of a running process using MS Internet Explorer or even Terminal Services.

Overview of the automation task

The figure below provides an overview of the automation task.

Figure 1-1



Description of the automation task

The task is to allow full tracking and tracing, indicating who operated what when where. At the same time, it must be ensured that the logged operator actions are tamper-proof and that they can be read at any time.

Operator actions must be recorded irrespective of whether they are performed over the Internet or on site using a web client or terminal client.

1.2 Requirements

- Operation of a process must fully document “who” operated “what” “when” “where” and, where necessary, “for what reason”.
- After a specific time without having performed an operator action, a logged-in user must be automatically logged out.
- Operation must be independent of the operating path (local/remote using WebNavigator or Terminal Services).

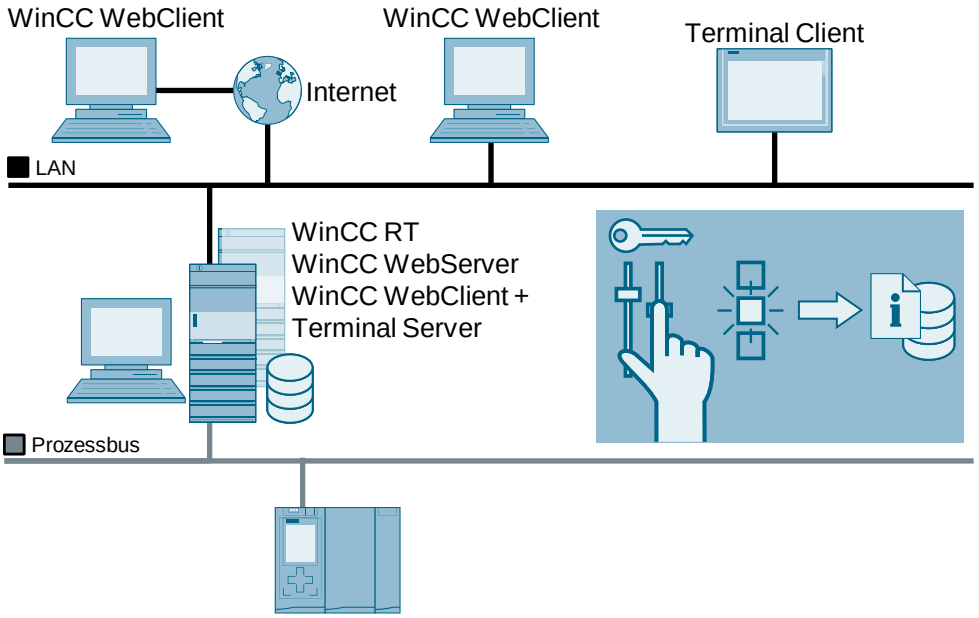
2 Solution

2.1 Overview

Schematic layout

The figure below shows a schematic overview of the most important components of the solution:

Figure 2-1



Setup

The configuration consists of

- the PC with the connection to the controller,
- one or several web clients (optional),
- one or several terminal clients (optional).

Note

When using at least one terminal client, a terminal server has to be set up on the PC; it is then mandatory to use the Windows Server 2008 R2 or Windows Server 2012 R2 operating system.

If no terminal clients are required, Windows 7 or Windows 8.1 can instead be used as an operating system.

Delimitation

This application does not include a description of

- operating system installation
- SIMATIC software installation (WinCC Professional, options).

Basic knowledge of these topics is assumed.

Assumed knowledge

Basic knowledge of the SIMATIC WinCC Professional automation software and the Microsoft Windows operating system is required.

2.2 Description of the core functionality

Using examples, this application shows the use of the SIMATIC WinCC WebNavigator option in conjunction with SIMATIC Logon to document process interventions with user-defined operator messages.

It differentiates between the VBS and C script languages that are available in SIMATIC WinCC Professional.

The application also explains the difference between logging operations on a standard operator station and operations that are performed using a SIMATIC WinCC WebNavigator Client.

It shows how to

- automatically start the WinCC WebClient when a user logs on to Windows.
- start the WinCC WebClient with a default user if it has previously been terminated by automatic logout due to inactivity.
- log on a new user during an active web session.

2.3 Hardware and software components

2.3.1 Validity

This application is valid for

- WinCC Professional V15.1 or later
- SIMATIC Logon V1.5 SP3 or later
- SIMATIC WinCC/WebNavigator V15.1 or later

2.3.2 Components used

The application was created with the following components:

Hardware components

Table 2-1

Component	Qty	Article number	Note
PC	1	E.g. SIMATIC IPCs http://www.siemens.com/ipc	Web Server
SIMATIC ITC1500	1	6AV6646-1AB22-0AX0	Terminal Client (optional)

Software components

Table 2-2

Component	Qty	Article number	Note
SIMATIC WinCC Professional V15.1	1	6ES7822-1..05-	
SIMATIC Logon V1.5 SP3	1	6ES7658-7..51-0Y.0	
SIMATIC WinCC/WebNavigator	1	6AV2107-0K.00-0B.0	
Windows Server 2008 R2 SP1 or Windows Server 2012 R2	1		Only necessary when used as a terminal server.
Windows 7 or Windows 8.1	1		Sufficient if no terminal client is used.

Example files and projects

The following list includes all files and projects that are used in this example.

Table 2-3

Component	Note
109479441_RecordOperatorActions_DOCU_v11.zip	This zip file includes the WinCC Professional project.
109479441_RecordOperatorActions_DOCU_v11_e.pdf	This document.

3 Mode of Operation

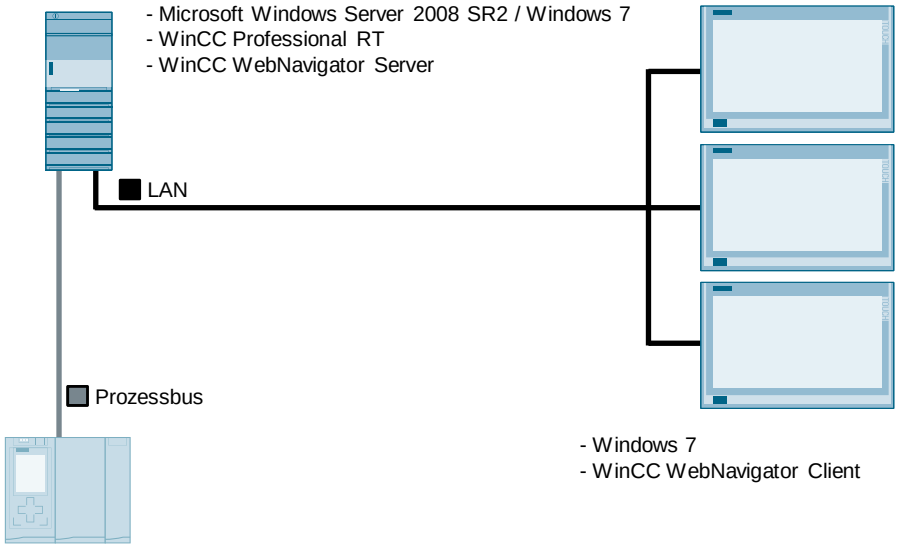
Generally, this application differentiates between two scenarios:

- The WebNavigator Server is operated on a WinCC single-/multi-user system and the clients connect directly to the WebNavigator Server via WinCCViewerRT.
- Together with a WinCC single-/multi-user system, the WebNavigator Server is operated on a terminal server. The clients connect to the WebNavigator Server within a terminal session.

3.1 Plant configuration with the SIMATIC WinCC WebNavigator Client

- The following software is installed on a workstation:
  - Microsoft Windows Server 2008 R2 or Microsoft Windows 7
  - SIMATIC WinCC Professional
  - SIMATIC WinCC WebNavigator Server
  - SIMATIC Logon
- Using the SIMATIC WinCC WebNavigator Client, the SIMATIC WinCC WebNavigator Server is accessed from remote computers.

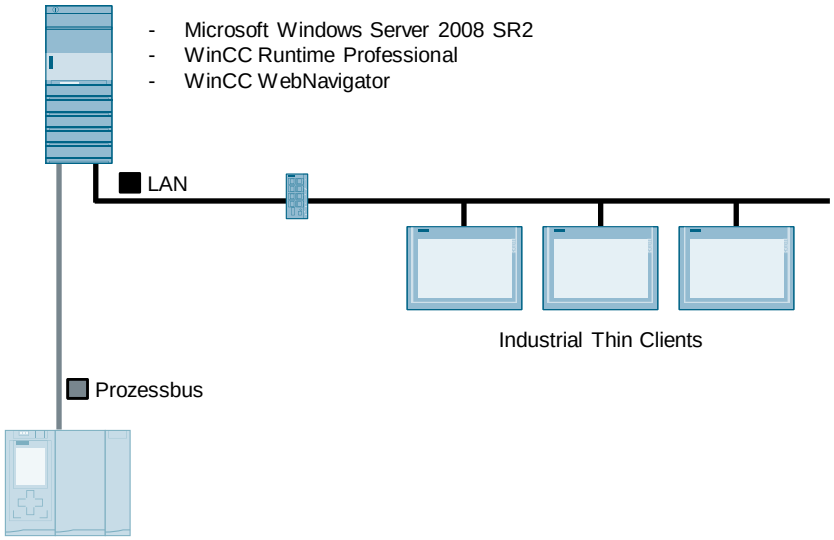
Figure 3-1



3.2 Plant configuration with a terminal server

- The following software is installed and configured on a server:
  - Microsoft Windows Server 2008 R2 with terminal functions
  - SIMATIC WinCC Professional
  - SIMATIC WinCC WebNavigator Server
  - SIMATIC Logon
- Using a switch, several SIMATIC Thin Clients can connect to the server. The SIMATIC WinCC WebNavigator Server is accessed on the local system. No separate SIMATIC WinCC WebNavigator Clients are required on the SIMATIC Thin Clients.

Figure 3-2



4 Configuring the web server

The configurations in this chapter require that the following components be installed:

- SIMATIC WinCC Professional Runtime
- SIMATIC WinCC WebNavigator
- SIMATIC Logon

4.1 Installing the web server

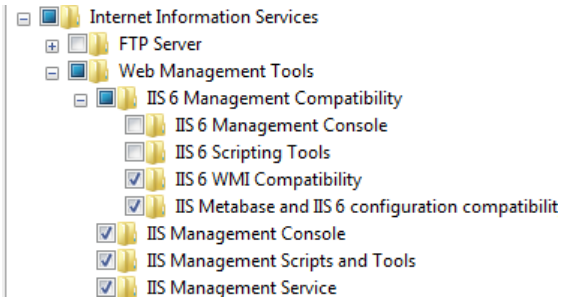
Additional Windows components need to be installed for the operation of WinCC Professional via remote access.

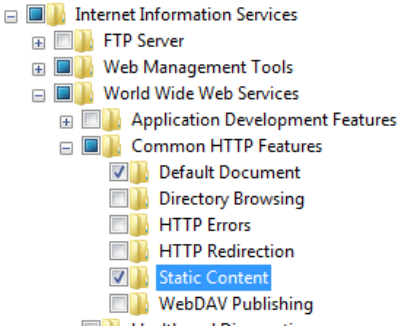
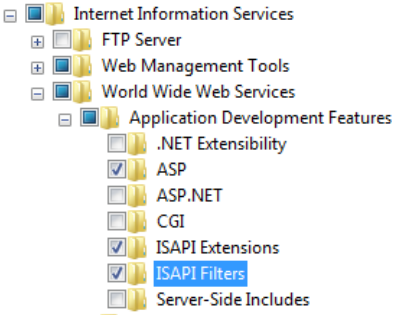
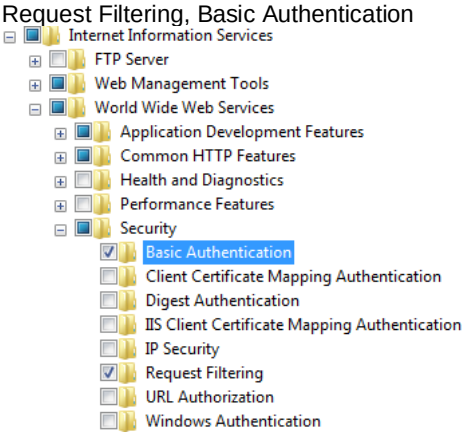
Note

When installing the WebNavigator, the required settings are usually made by the installation routine.

However, make sure to check all settings using the following table, especially when using Terminal Services.

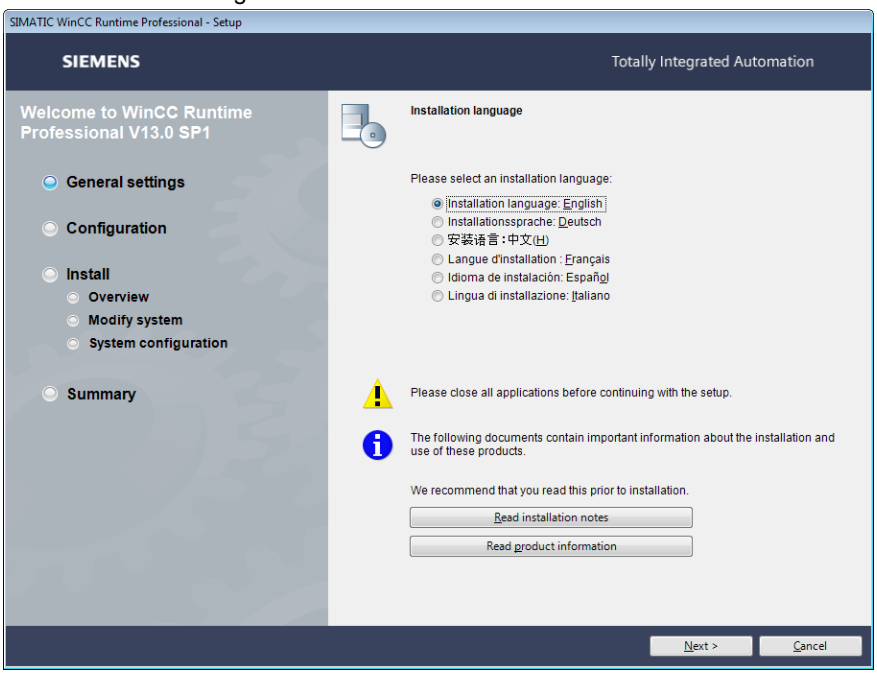
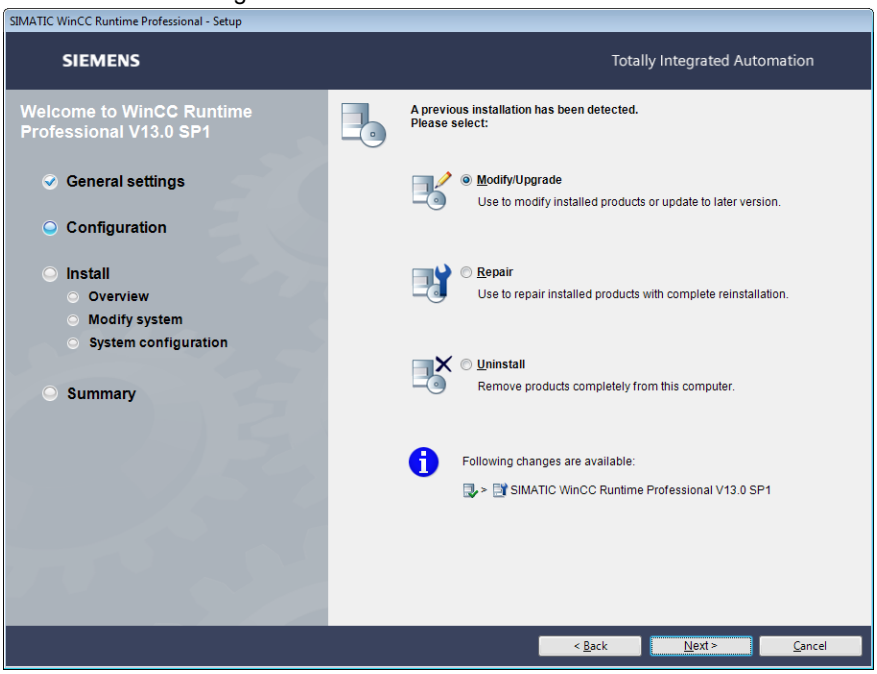
Table 4-1

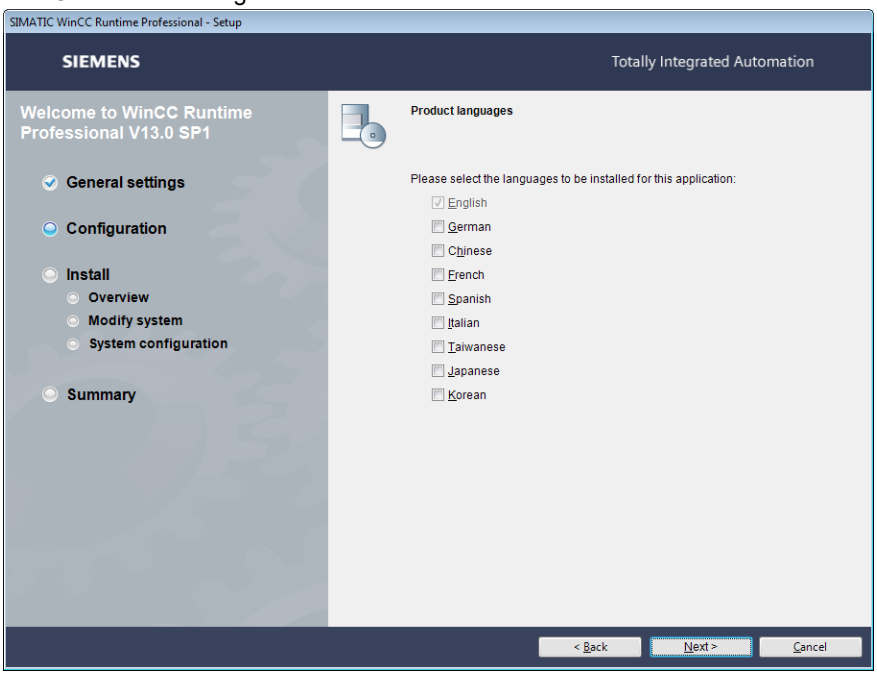
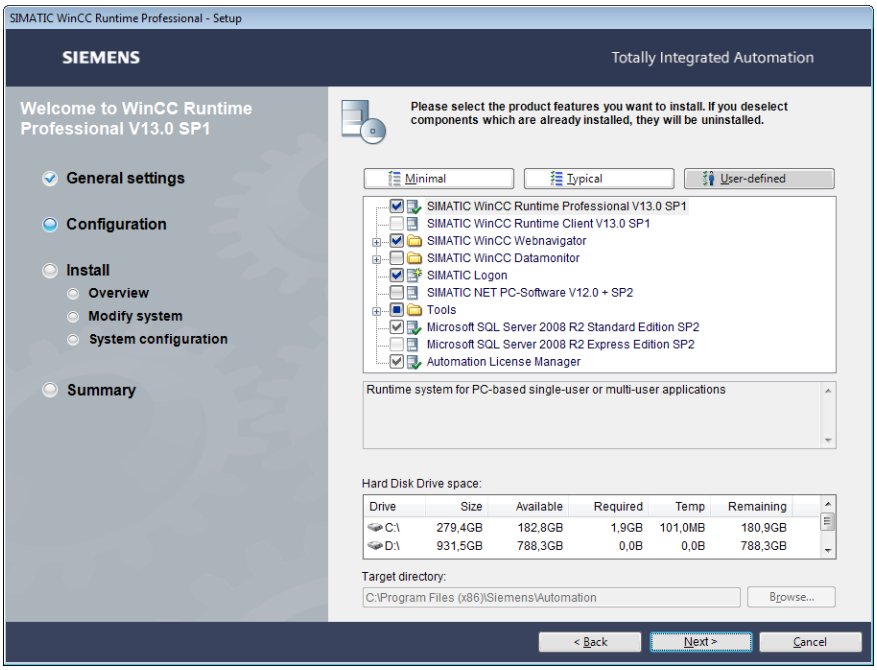
No.	Action
1.	**Windows 7** • Open the control panel via "Start > Control Panel". • Click on the "Programs" category or the "Programs and Features" setting. • Click on "Turn Windows features on or off". • Activate the components stated under 2. **Windows Server 2008** • In the Server Manager, Roles Summary, click on "Add roles". • Select the “Web server (IIS)” entry under “Server Roles”. • Select the components stated under 2. under "Role Services".
2.	• Web Management Tools: IIS Management Service, IIS Management Console, IIS Management Scripts and Tools, IIS Metabase and IIS 6 configuration compatibility, IIS 6 WMI Compatibility 

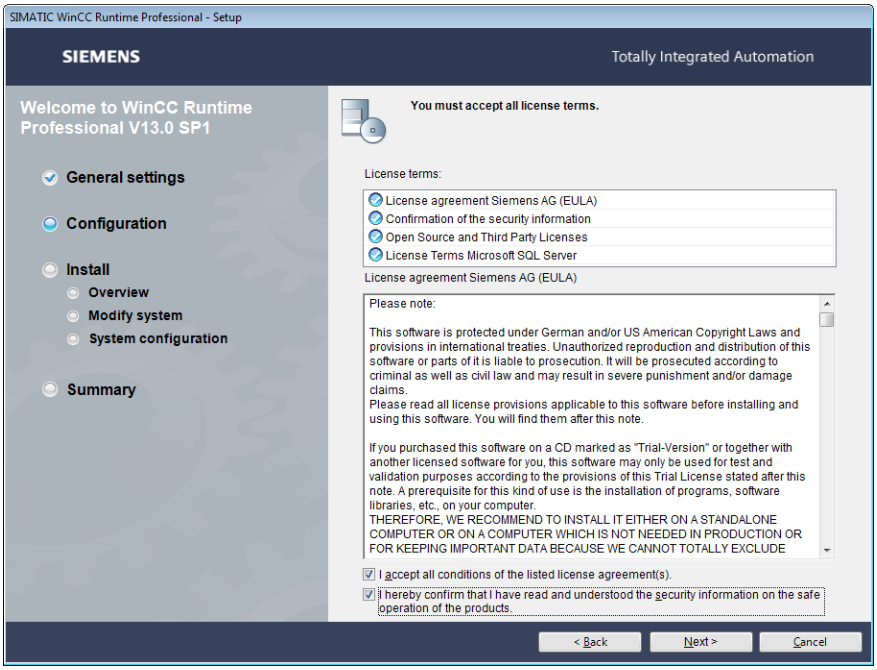
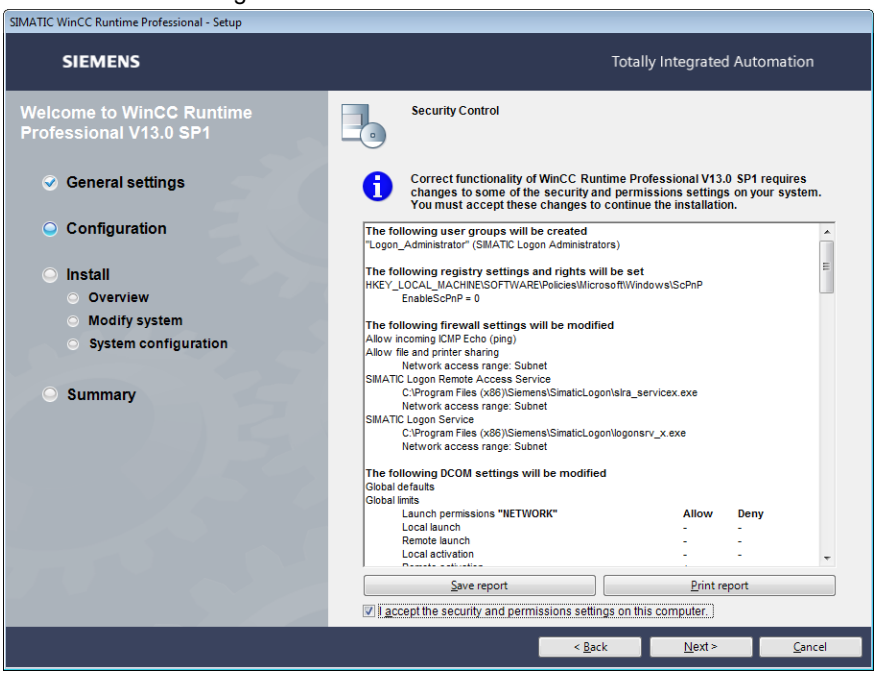
No.	Action
3.	• World Wide Web Services > Common HTTP Features: Default Document, Static Content 
4.	• World Wide Web Services > Application Development Features: ISAPI Extensions, ISAPI Filters, ASP (in this order) 
5.	• World Wide Web Services > Security: Request Filtering, Basic Authentication 

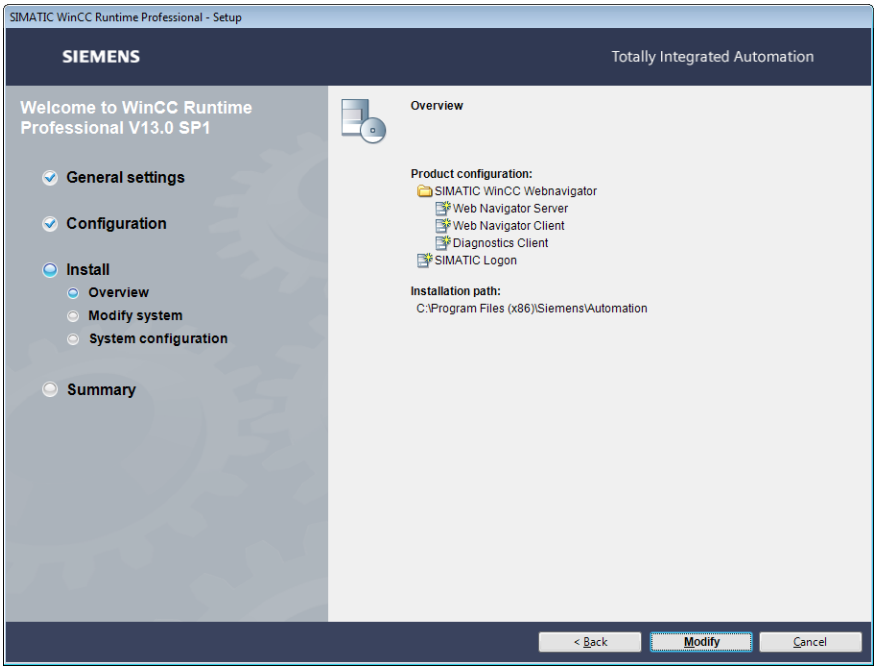
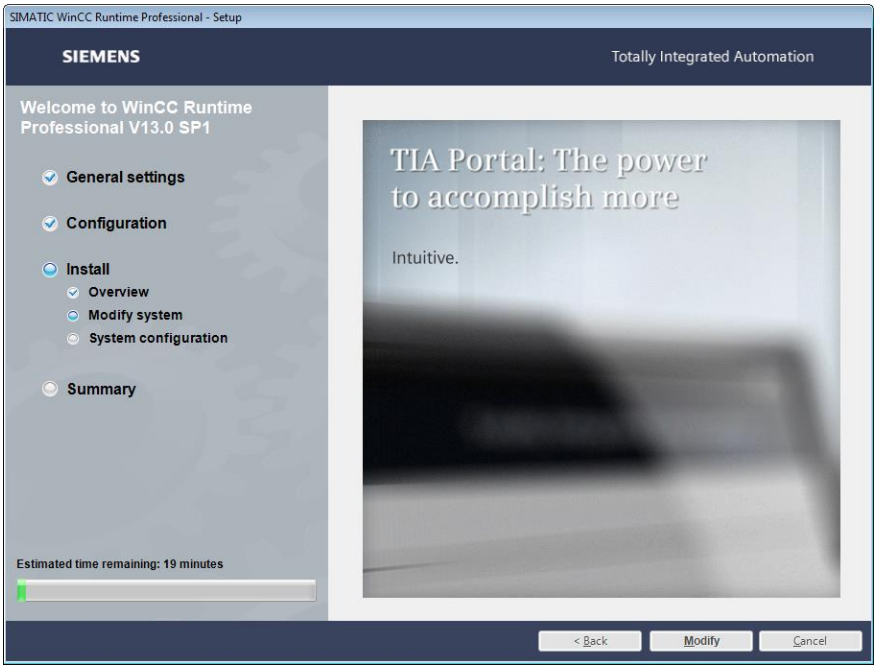
4.2 Installing the web client

Table 4-2

No.	Action
1.	• Insert the data medium of your WinCC Runtime Professional application into the drive and select the installation routine. • Confirm the dialog box with “Next”. 
2.	• Select “Modify/Upgrade”, if WinCC Professional Runtime is already installed on this computer. • Confirm the dialog box with “Next”. 

No.	Action
3.	• Select the desired product languages. • Confirm the dialog box with “Next”. 
4.	• Select the options “SIMATIC WinCC WebNavigator” and “SIMATIC Logon”. • Confirm the dialog box with “Next”. **Note** The “SIMATIC Logon” component is required in this application for user administration and is not included in the WebNavigator. 

No.	Action
5.	• Read the terms of the license agreements and the security information and confirm. • Confirm the dialog box with “Next”. 
6.	• Accept the security settings for this computer. • Confirm the dialog box with “Next”. 

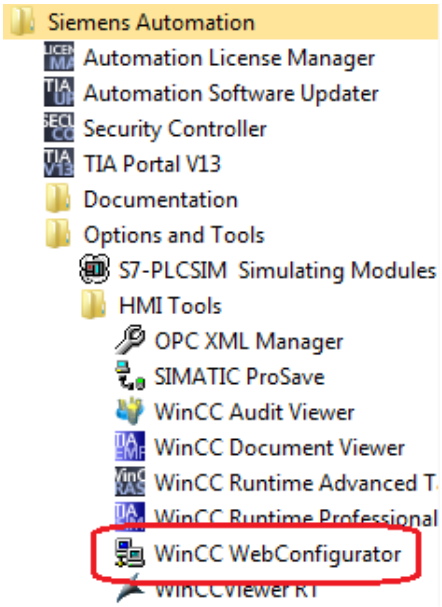
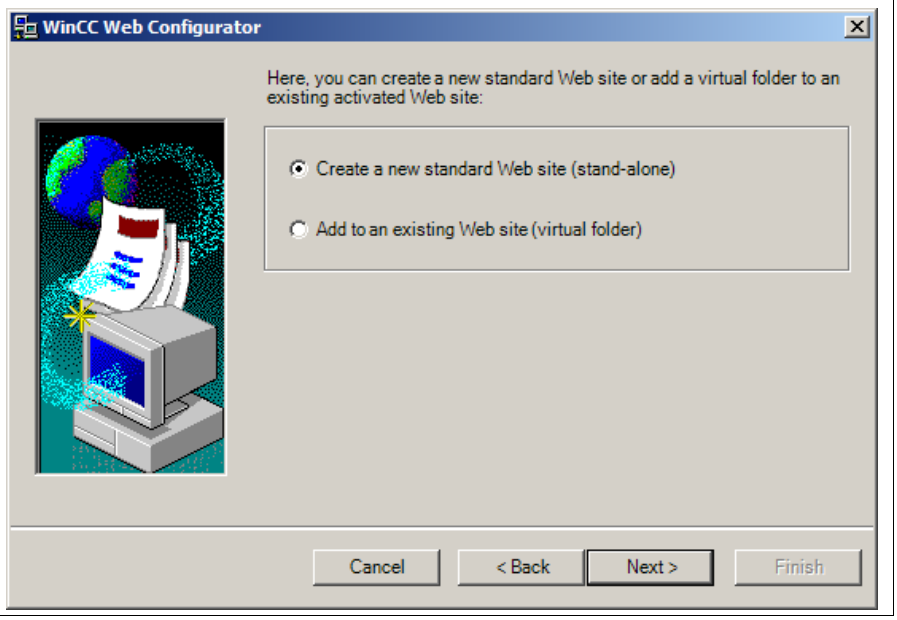
No.	Action
7.	• An overview of the components to be installed is displayed. • Confirm the dialog box with “Modify” when re-installing or “Install” in case of a first time installation. 
8.	The installation routine is started. 

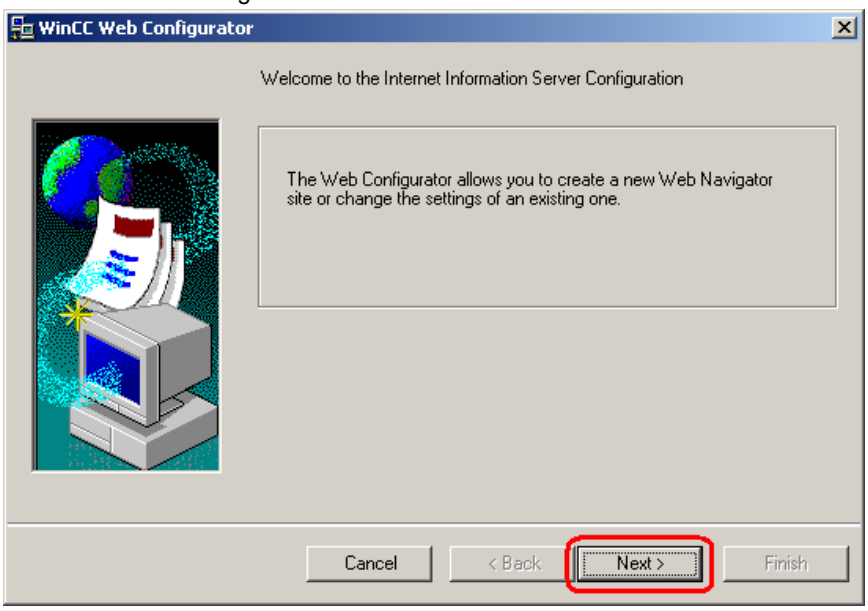
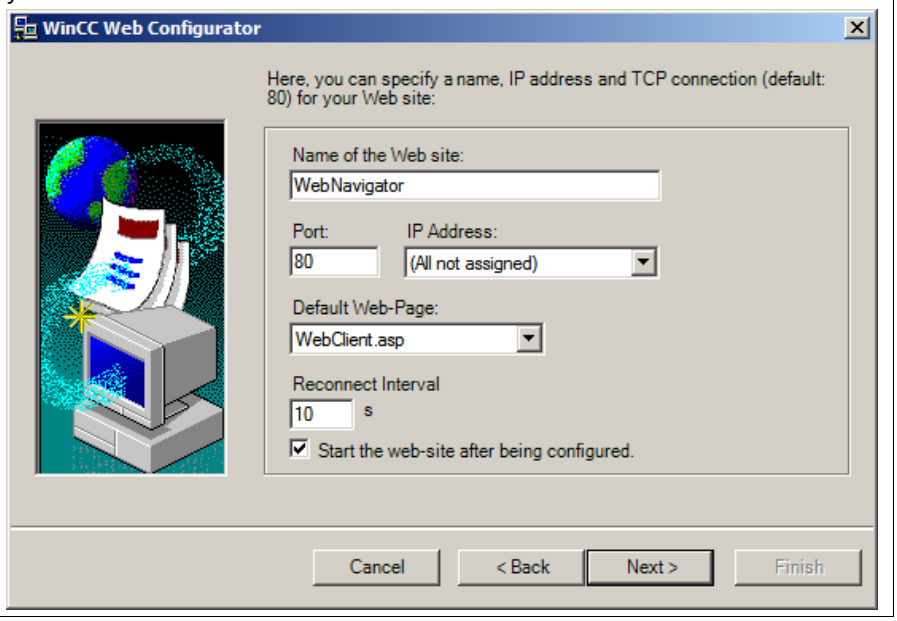
4.3 Configuring the web server

To enable the IIS (Internet Information Server) to provide the images of the web server, the web server must be configured.

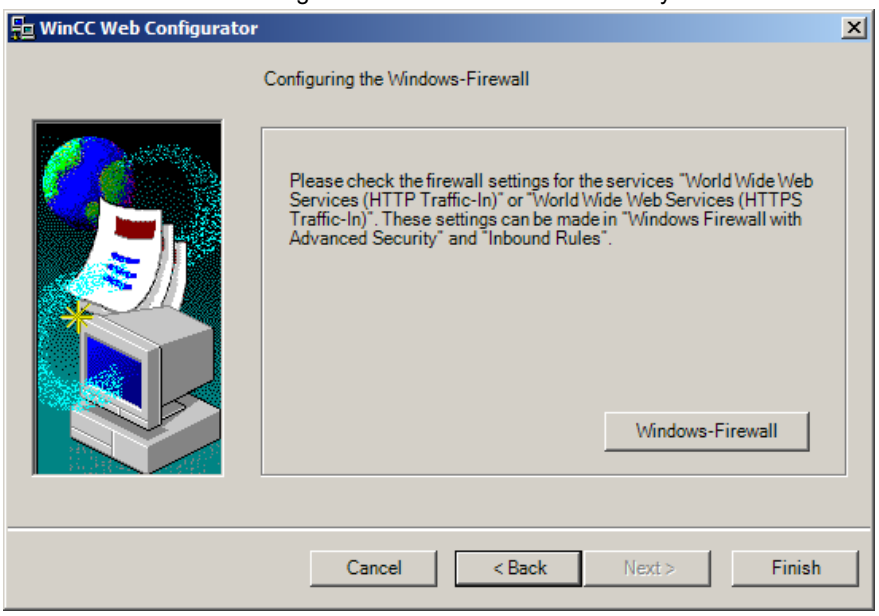
Start the web server via “Start > Siemens Automation > Options and Tools > HMI Tools > WinCC WebConfigurator”.

Table 4-3

No.	Action
9.	In the WebNavigator context menu, open “WebConfigurator”. 
10.	Select to create a new or an additional web site. 

No.	Action
11.	Confirm the next dialog box with “Next”. 
12.	As the default web page, select “WebClient.asp” and click on “Next” to confirm your selection. 

4.3 Configuring the web server

No.	Action
13.	Take over the firewall settings and click on “Finish” to confirm your selection. 
14.	Close the following dialog box using the “OK” button and restart the computer. 

4.4 Setting up the start parameters of the Web Viewer

Secure access to the WebNavigator server via the “WinCCViewerRT” component of the WinCC Web Client requires that a parameter file be created.

Note

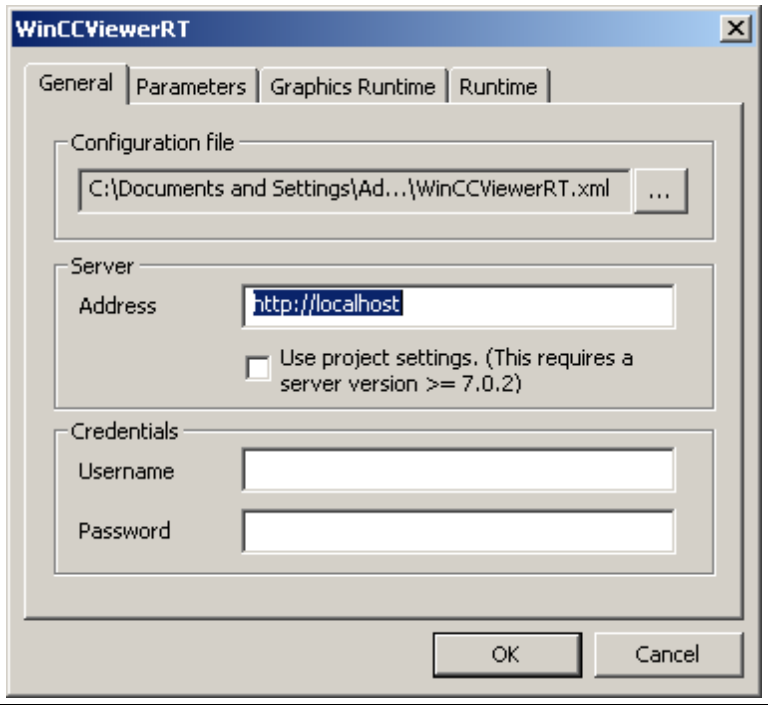
- When using the “WinCCViewerRT” Web Viewer, the settings have to be made on both the web server and a web client.
- On the web server, the settings are only necessary when using Terminal Services (access via terminal client).
- These settings are not required on the terminal client.

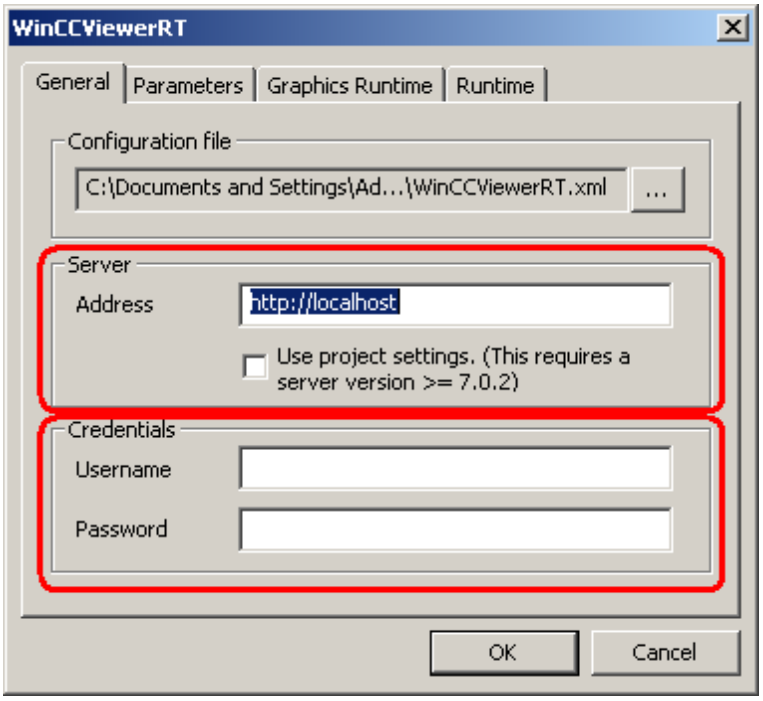
NOTICE

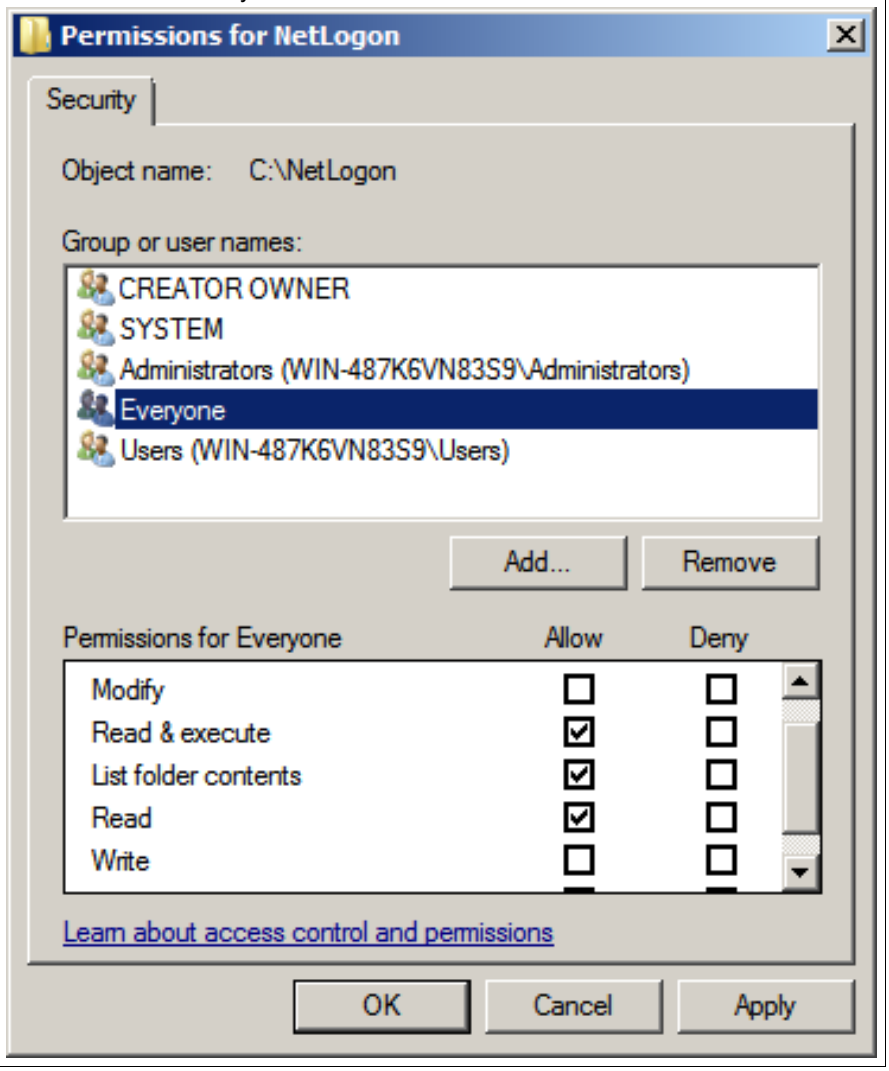
If, when accessing the WinCC Web Server, you are not using its Terminal Services – thus running the WinCC Web Client on a separate PC –, the “WinCCViewerRT” component of the WinCC Web Client must only be started via the logon script described in chapter 4.5.

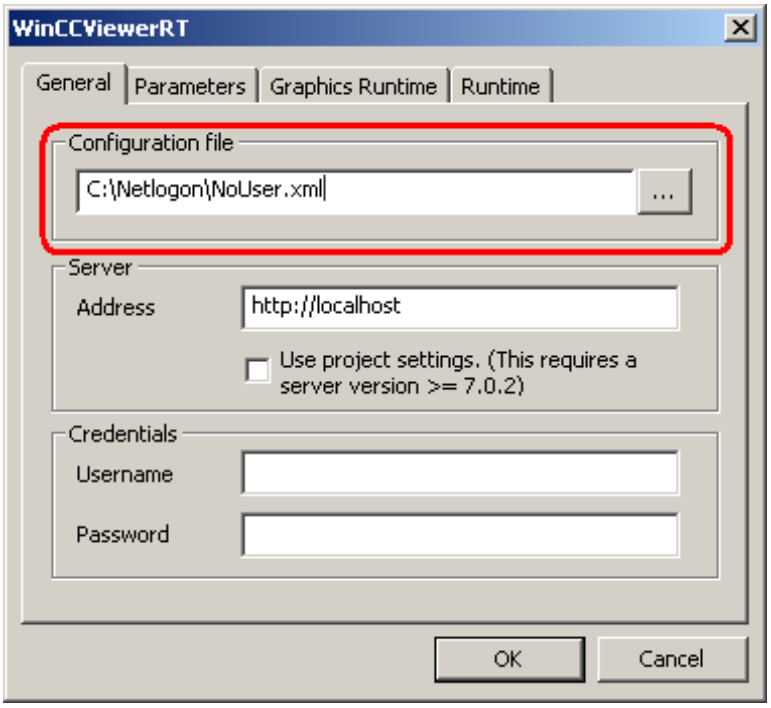
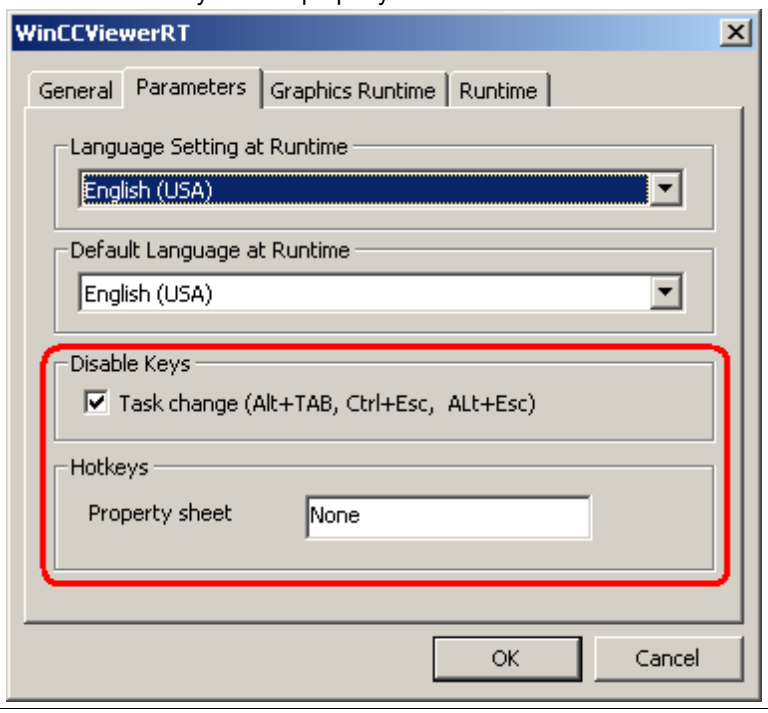
The start parameters explained in this chapter must then be set on the WinCC Web Client PC.

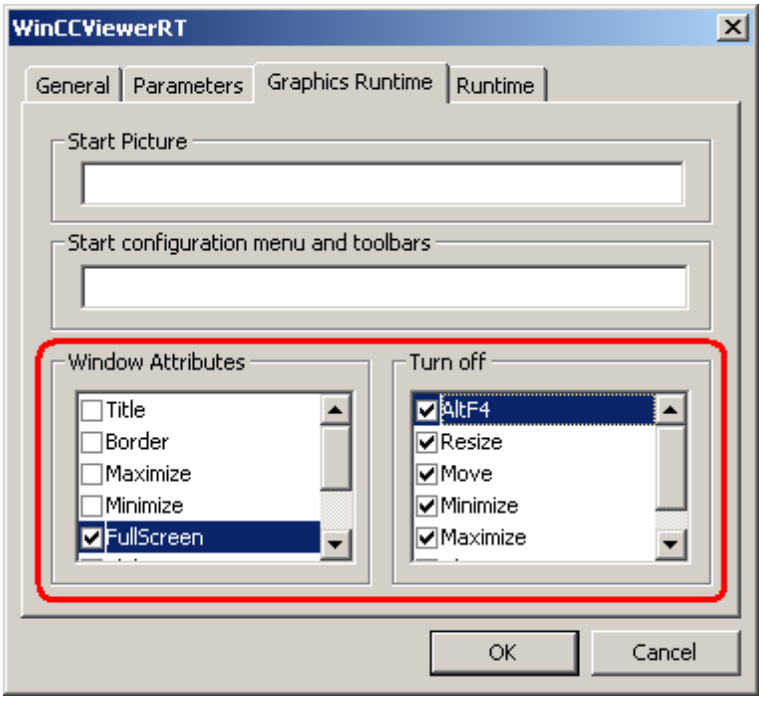
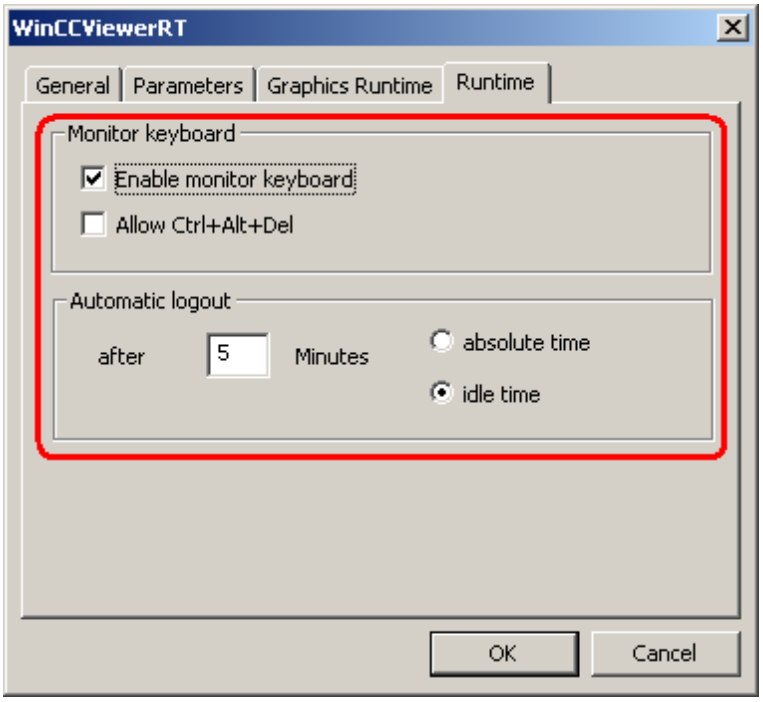
Table 4-4

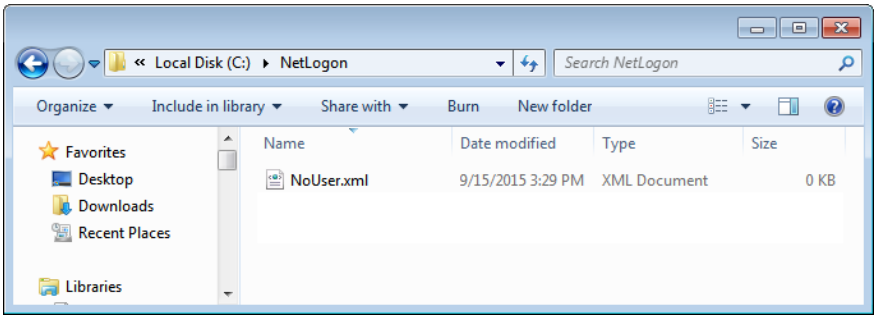
No.	Action
15.	In the start menu, select "Start > All Programs > Siemens Automation > Options and Tools > HMI Tools > WinCCViewerRT". **Configuration on the web server:** Start the “WinCCViewerRT.exe” component on the web server if the terminal server is to be used for the access. **Configuration on the web client:** Start the “WinCCViewerRT.exe” component on the web client if the IIS is to be used for the access. **Notes** • Both configuration types are independent of one another; the two access types can also be used simultaneously. • The default installation path for the Web Viewer is "C:\Program Files (x86)\Siemens\Automation\SCADA-RT_VXX\WinCC\Webnavigator\Client\bin\...“. • The pages for setting up the configuration for the WinCCViewerRT are only offered when calling the component “WinCCViewerRT.exe” for the first time. If you have already made these settings and want to configure it again, you must delete the existing configuration file “WinCCViewerRT.xml” in C:\Users\<user name>\Appdata\LocalLow\Siemens\SIMATIC.WinCC\WebNavigator\Client”. 

No.	Action
16.	**Configuration on the server:** Apply the default address “http://localhost” – the WebNavigator Client will be run locally on the server. **Configuration on the client:** Enter the WebNavigator server address, for example “http://192.168.0.1” – the WebNavigator Client will not be run on the server. **Note** The “Username” and “Password” fields are not configured. When starting, users must individually log on to the WebNavigator Server. 

No.	Action
17.	• Leave the dialog window for the configuration settings open and create the folder “C:\NetLogon” in the Windows Explorer. • In the properties dialog of the folder, in the “Security” tab, enable read rights for the user “Everyone”. 

No.	Action
18.	As a configuration file, specify the “C:\NetLogon\” path and name the configuration file “NoUser.xml”. 
19.	In the “Parameters” tab, make the following settings: • Check “Disable Keys”. • Set the hotkeys for the property sheet to “None”. 

No.	Action
20.	In the “Graphics Runtime” tab, make the settings as shown in the screen shot. **Note** Optionally, a start screen can be selected. Otherwise, the settings from WinCC User Administrator will be applied. 
21.	In the “Runtime” tab, make the following settings: • Check “Enable monitor keyboard”. • Set “Automatic logout” to “5” minutes. 

No.	Action
22.	Confirm the dialog box with “OK”. The configuration file is saved in the “C:\NetLogon” folder and WinCCViewerRT is started. **Note** In the future, “WinCCViewerRT” must be started with this configuration file. 

Note

For more information on the configuration of the “WinCCViewerRT” Web Viewer, please refer to this FAQ:

https://support.industry.siemens.com/cs/ww/en/view/46824563

4.5 Setting up the logon script of the Web Viewer

Secure access to the WebNavigator Server via the “WinCCViewerRT” component of the WinCC Web Client requires that a logon script be created.

Note

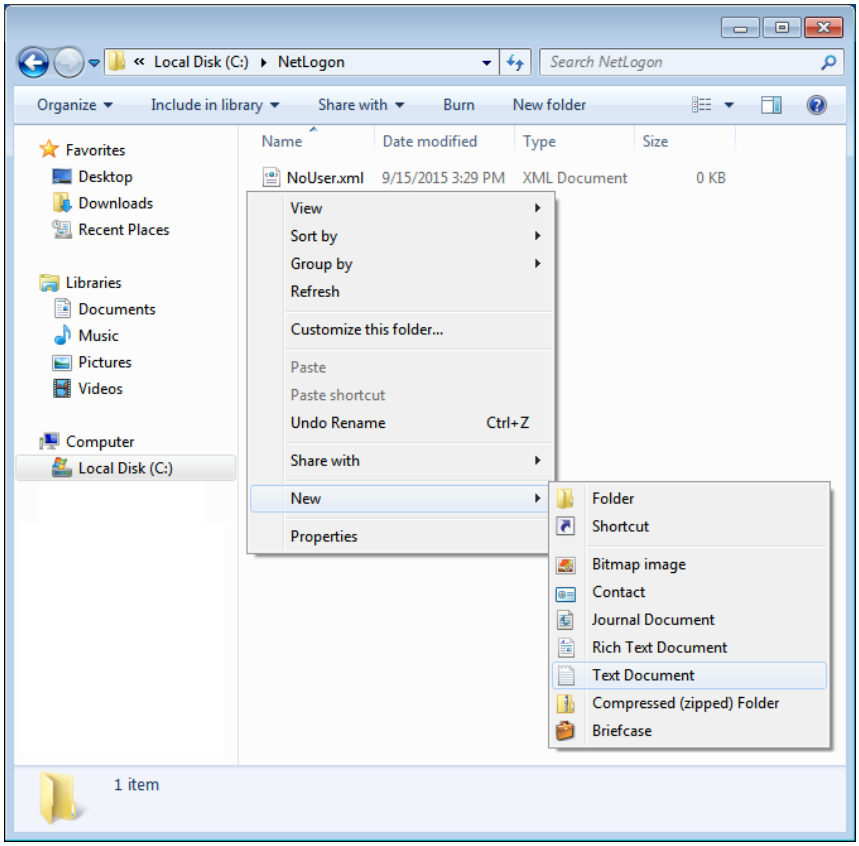
- The settings have to be made on the web client only when using the “WinCCViewerRT” Web Viewer.
- These settings are not required on the web server.
- These settings are not required on the terminal client.

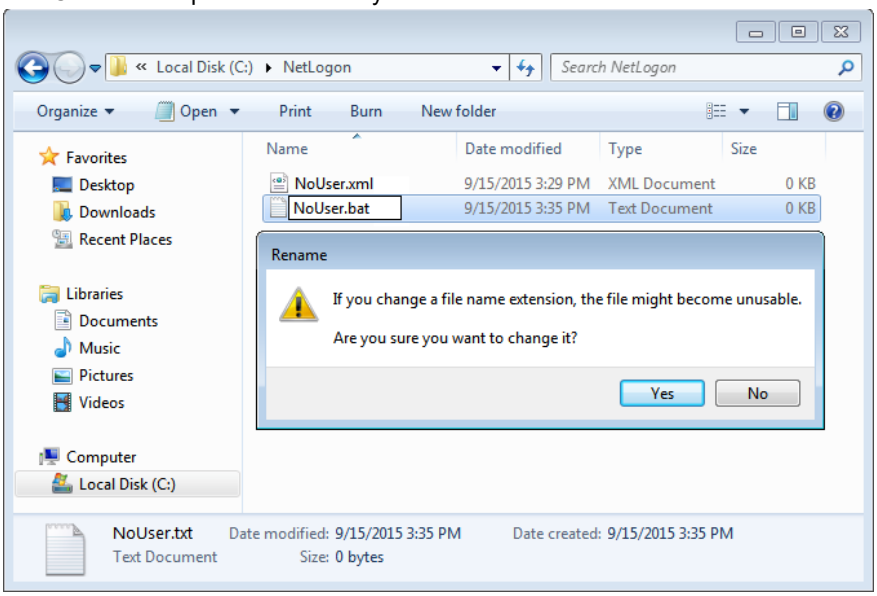
NOTICE

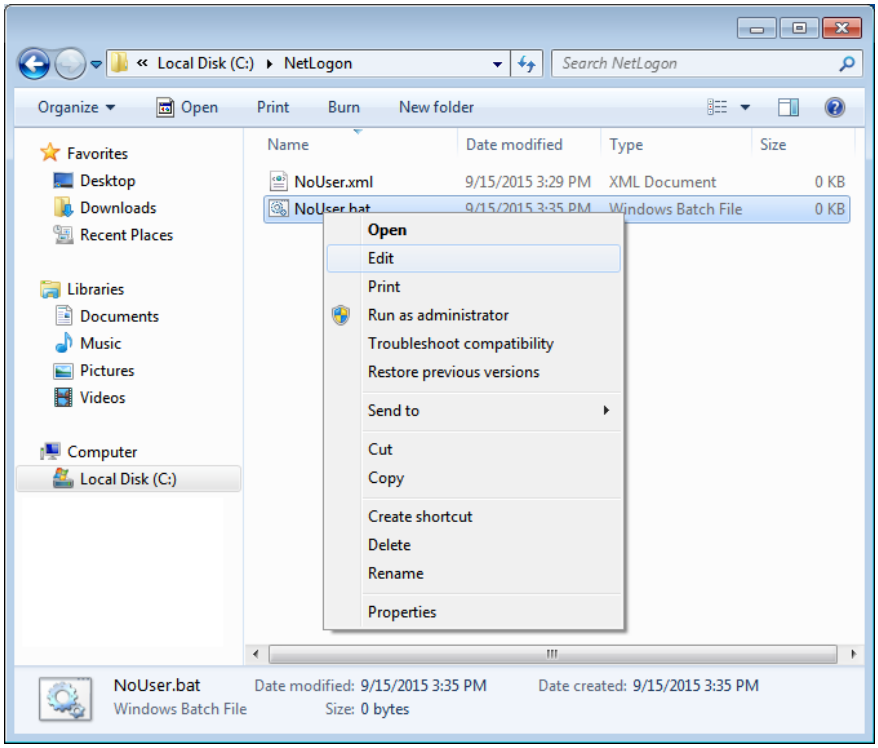
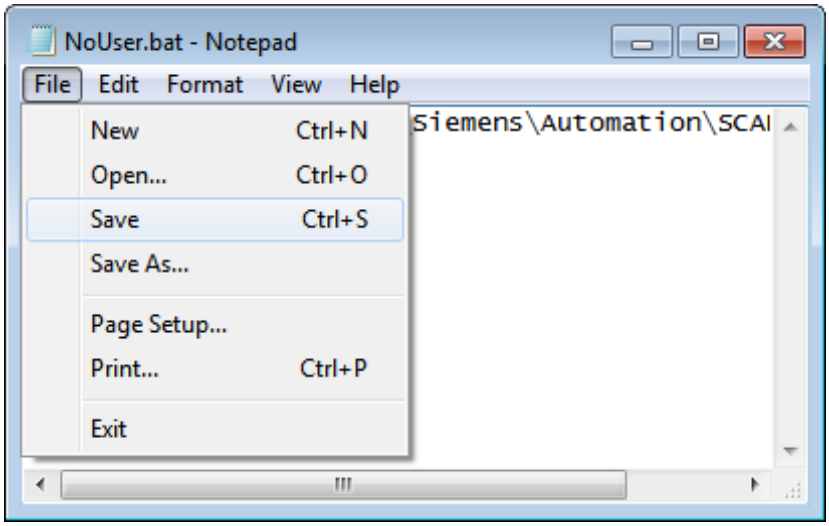
If, when accessing the WinCC Web Server, you are not using its Terminal Services – thus running the WinCC Web Client on a separate PC –, the “WinCCViewerRT” component of the WinCC Web Client must only be started via the logon script described in this chapter.

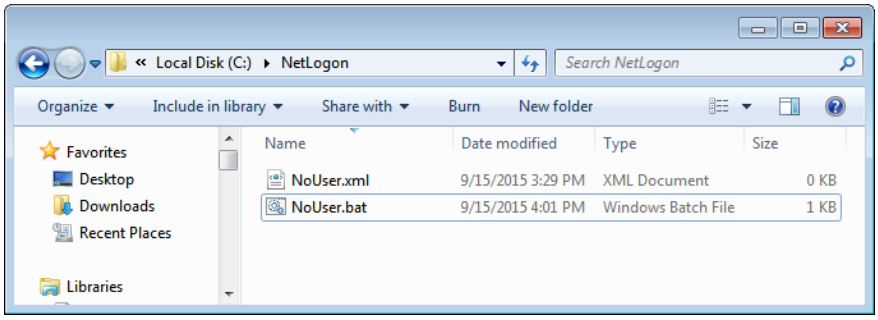
Running the logon script requires the start parameters described in chapter 4.4.

Table 4-5

No.	Action
23.	Use the Explorer context menu to create a new text file in the “C:\NetLogon\” folder. 

No.	Action
24.	• Rename the text file “New text file.txt“ in “NoUser.bat”. • Confirm the question whether you want to rename the file with “Yes”. 

No.	Action
25.	• Select the “NoUser.bat” file and in the context menu, select the “Edit” command. • Write the following text to the batch file: *"C:\Program Files (x86)\Siemens\Automation\SCADA-RT_Vxx\WinCC\Webnavigator\Client\bin\WinCCViewerRT.exe" /maximized C:\NetLogon\NoUser.xml* • Save the batch file. **Note** The path name may have to be adjusted to your environment. 
26.	Use the “File > Save” and “File > Exit” menu items to save and close the file. 

No.	Action
27.	Both the configuration file and the just created batch file are now located in the “C:\NetLogon” folder. 

4.6 Setting up a user of the Web Viewer

Secure access to the WebNavigator Server via the “WinCCViewerRT” component of the WinCC Web Client requires that a user be set up.

Note

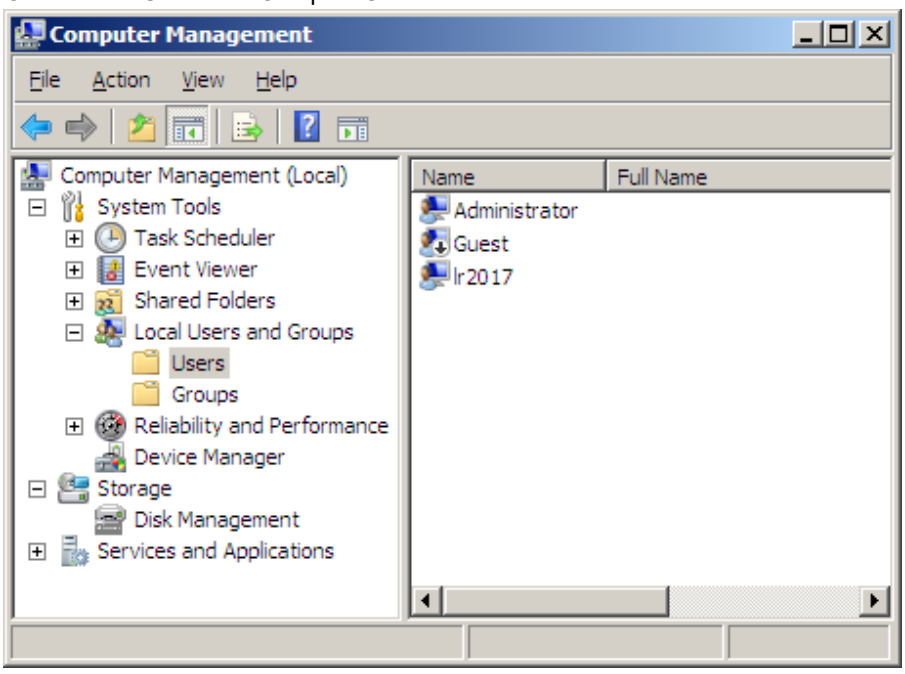
- On the web server, the settings are only necessary when using Terminal Services (access via terminal client).
- These settings are not required on the web client.
- These settings are not required on the terminal client.

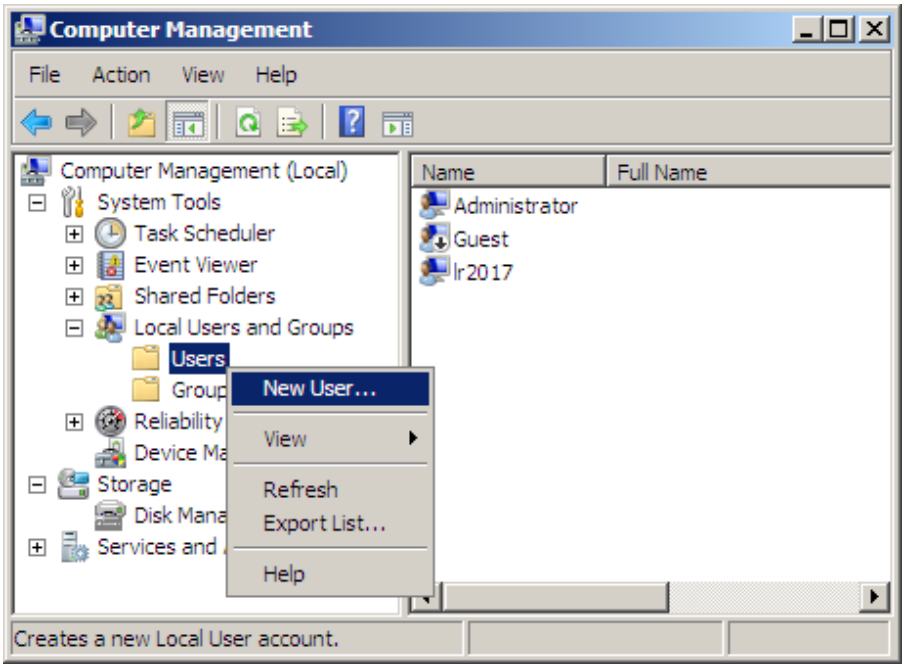
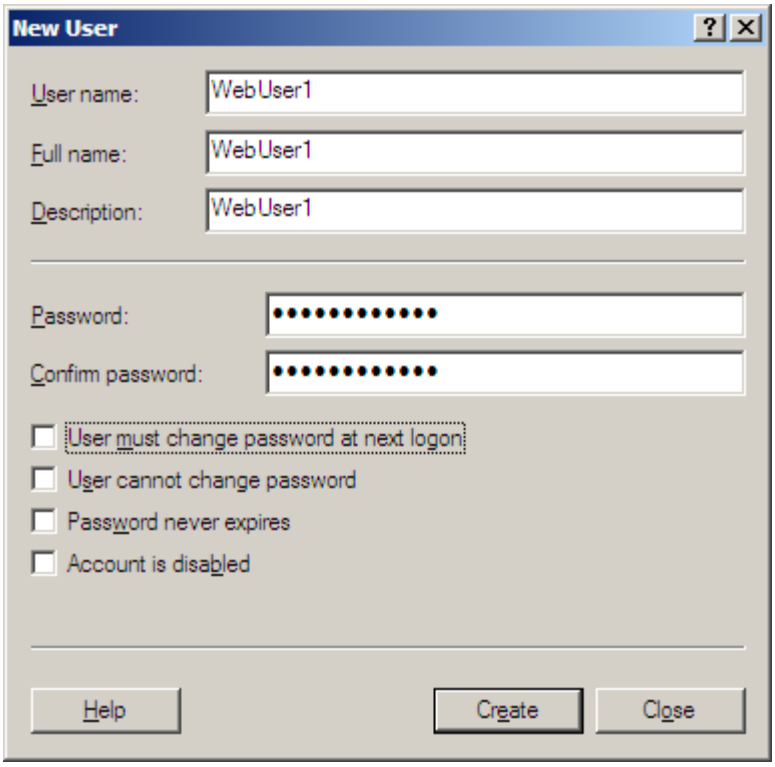
NOTICE

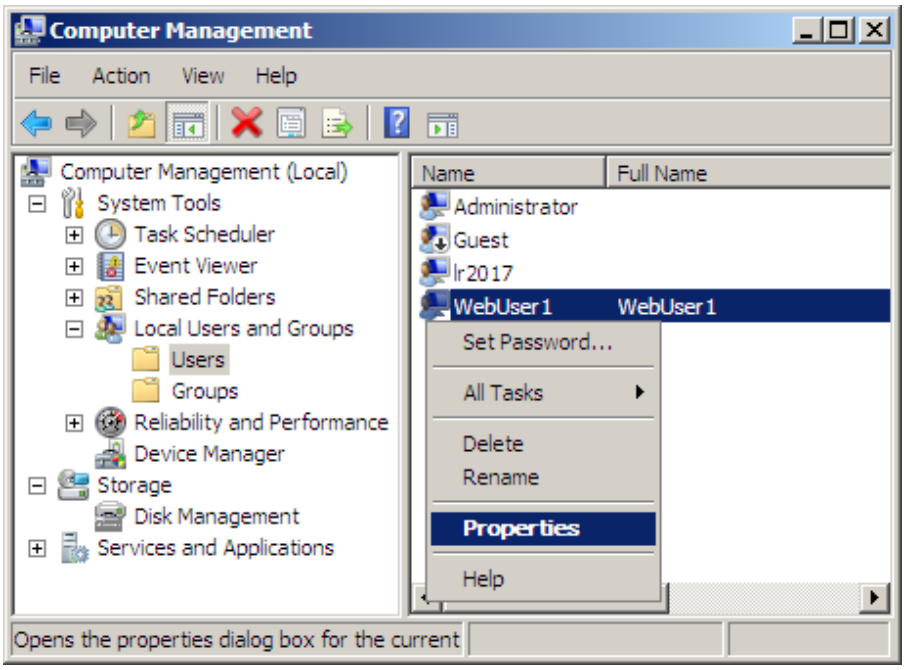
Make sure that the “WinCCViewerRT” component of the WinCC Web Client is started only via the logon script described in chapter 4.5.

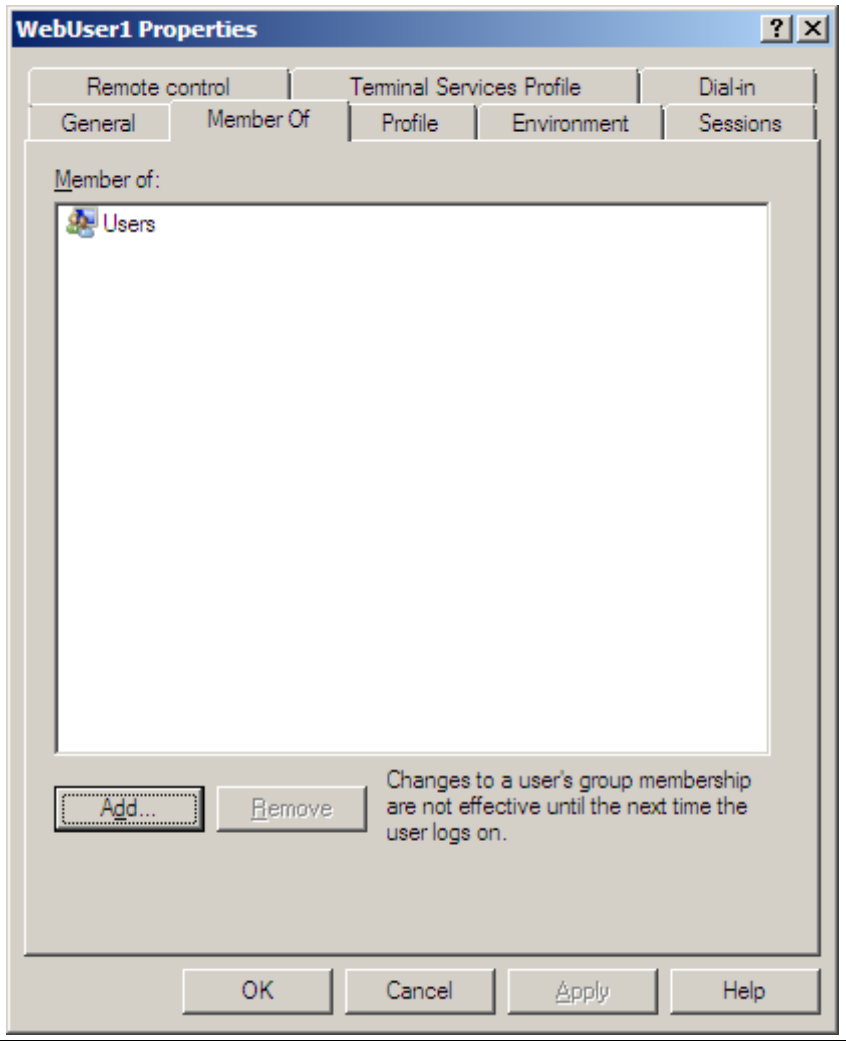
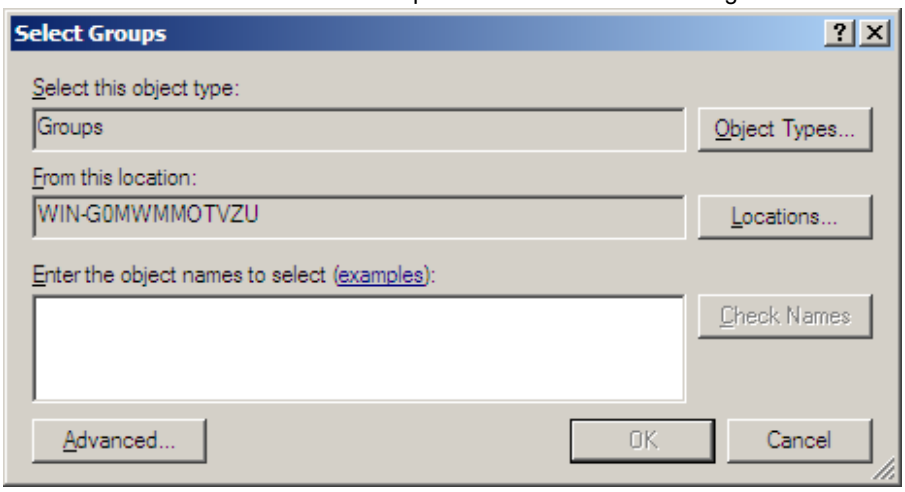
Running the logon script requires the start parameters described in chapter 4.4.

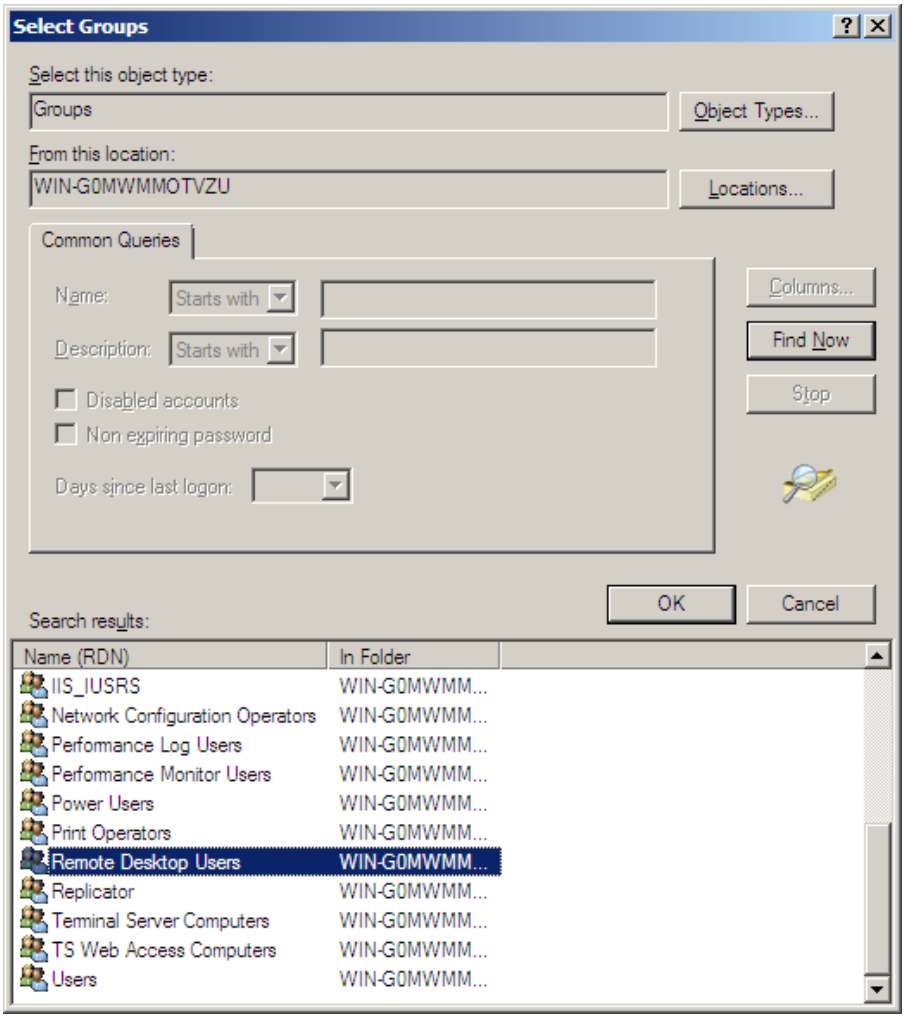
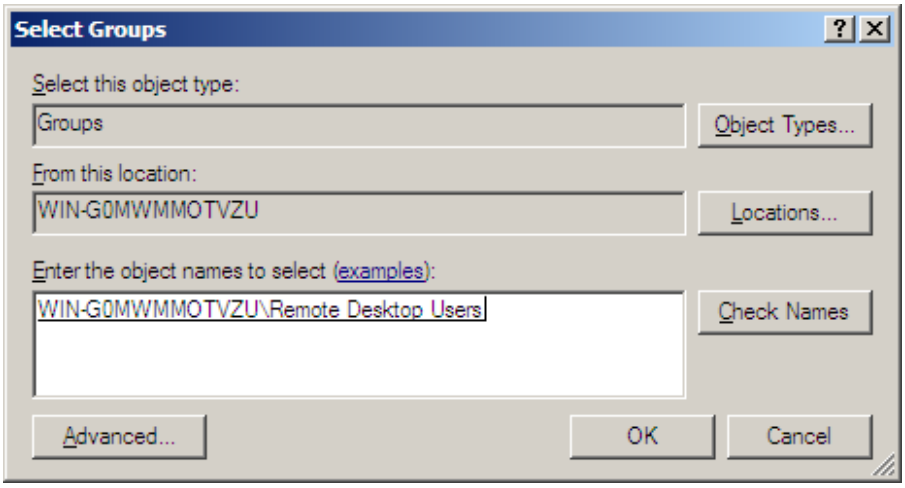
Table 4-6

No.	Action
28.	Select <Windows> + <R> „compmgmt.msc“ to call Computer Management.
29.	Go to “Local Users and Groups > Users”. 

No.	Action
30.	Use the “Users” context menu to create a new user for logon to the terminal server. 
31.	• In both “User name” and “Full name”, enter “WebUser1”. • Select the “Create” button to finish and close the dialog box. 

No.	Action
32.	Use the context menu to open the Properties dialog box of the just created user. 

No.	Action
33.	Select the “Member Of” tab and click on the “Add…” button. 
34.	Click on the “Advanced…” button to expand the “Select Users” dialog box. 

No.	Action
35.	• Click on the “Find Now” button and select the “Remote Desktop Users” item from the list. • Close the dialog box via the “OK” button. 
36.	• The system now enters the computer name and group name as an object name to be used. • Use the “OK” button to close this dialog box and the following one. 

5 Configuration of the terminal server

The installation steps described in this chapter refer exclusively to the installation of Terminal Services and their configuration.

System requirements

The following steps must already have been performed and are not discussed in this chapter:

- Installation and configuration of the “Windows Server 2008” operating system.
- Installation and configuration of SIMATIC WinCC Professional.
- Installation and configuration of WinCC WebNavigator Server.

NOTICE	**The “SIMATIC WinCC” and “WinCC WebNavigator Server” programs must not run under Terminal Services and must therefore be installed on the server before enabling Terminal Services.** **“WinCC WebNavigator Client” must be installed on the server using the “Add or Remove Programs” dialog box in the Control Panel.** **Since this dialog box uses the server’s installation mode, subsequent configuration of the applications is possible for all users and not just for the one that installed the application.**

Installation order

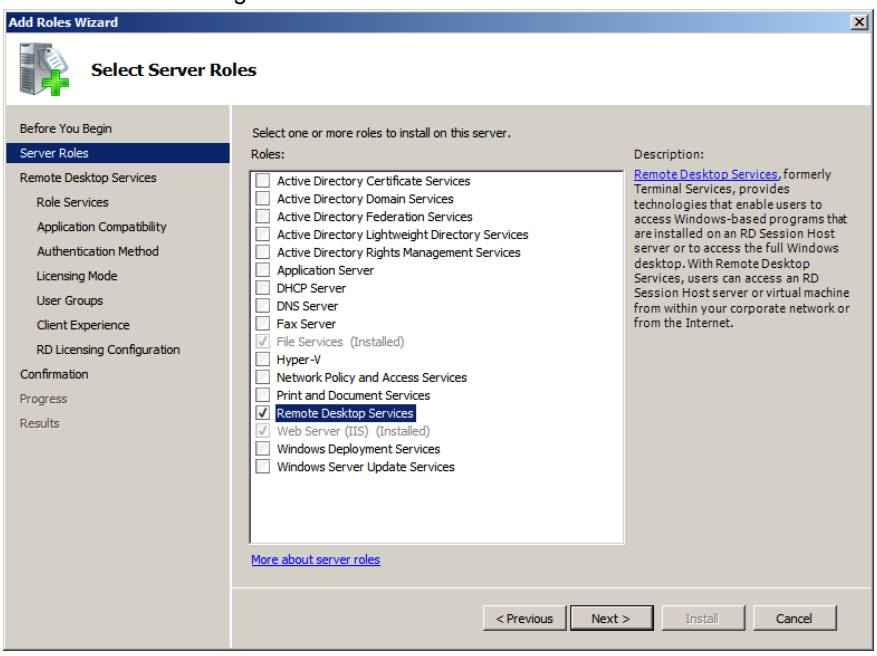
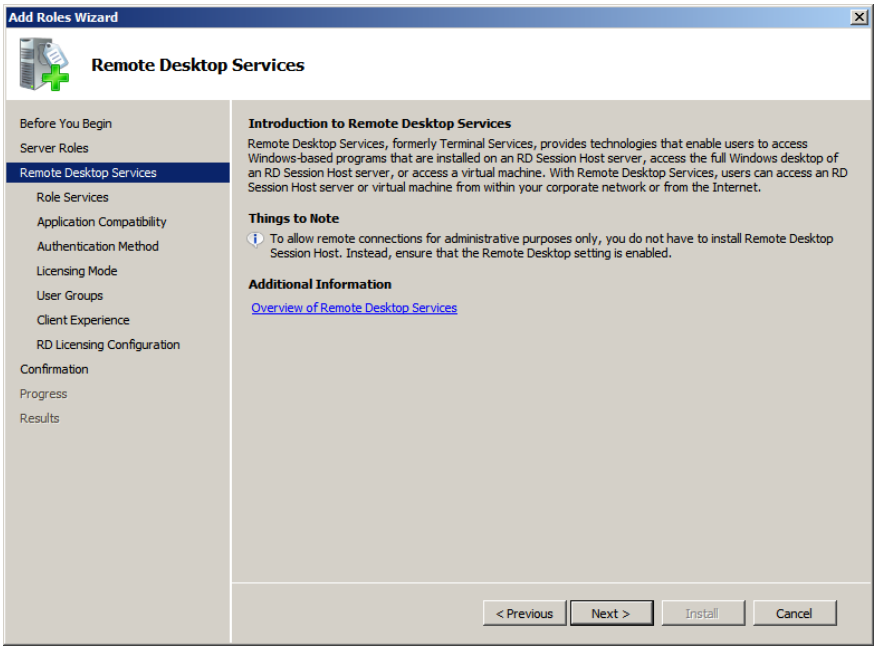
For a successful connection of the WebNavigator Client via Terminal Services of the operating system, it is mandatory to follow the installation steps listed in the table below:

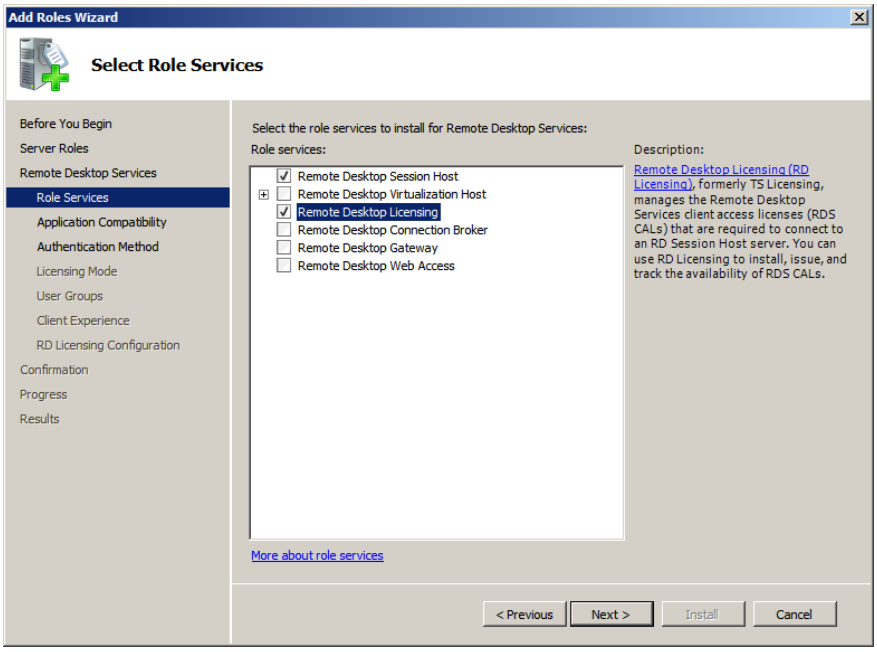
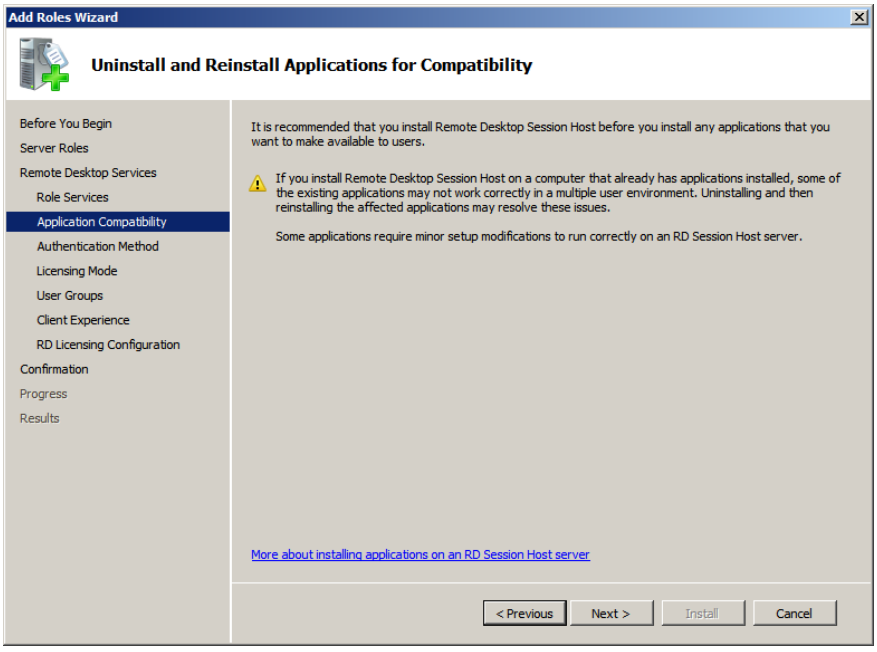
Table 5-1

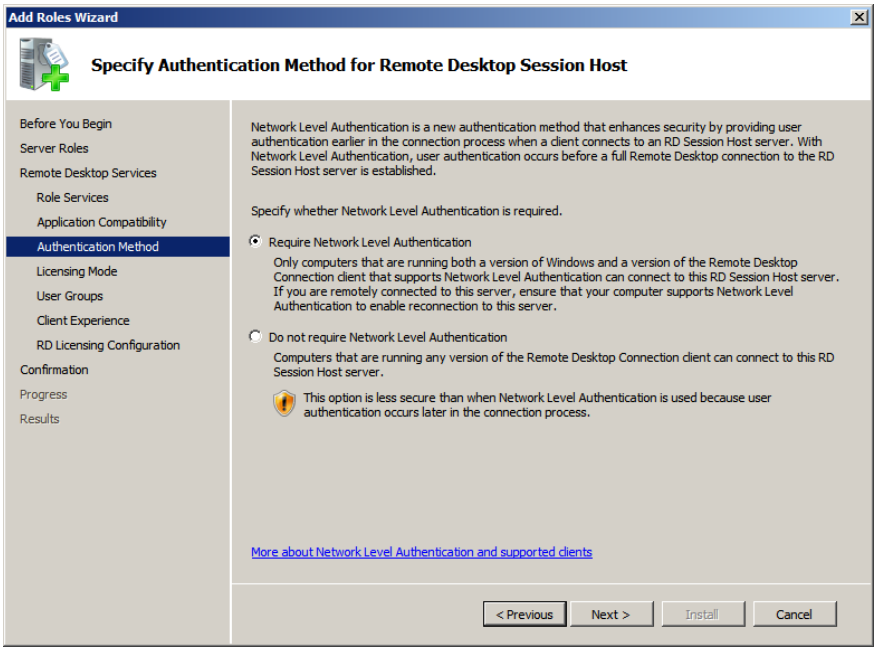
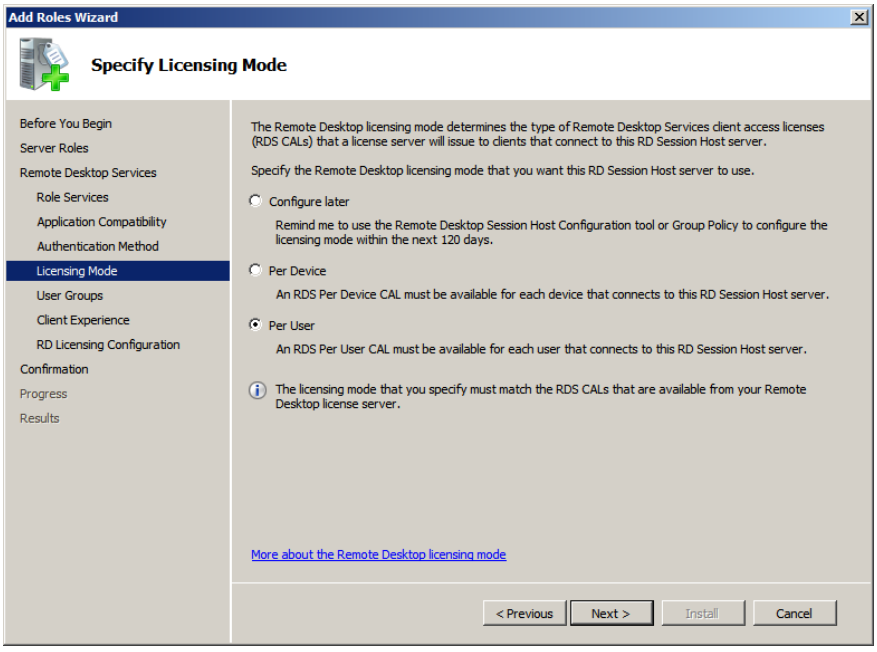
Installation procedure	Software to be installed
37.	Microsoft Windows Server 2008 operating system **without** Terminal Services
38.	Microsoft Windows Service Packs and hot fixes
39.	SIMATIC WinCC Professional
40.	WinCC WebNavigator server
41.	Terminal Services for the Windows Server 2008 operating system
42.	WinCC WebNavigator client

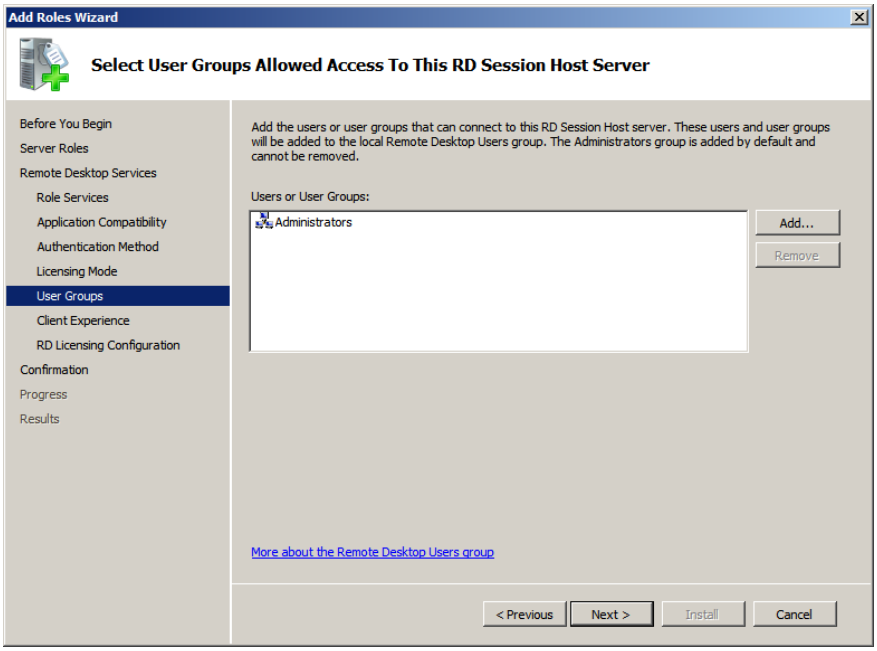
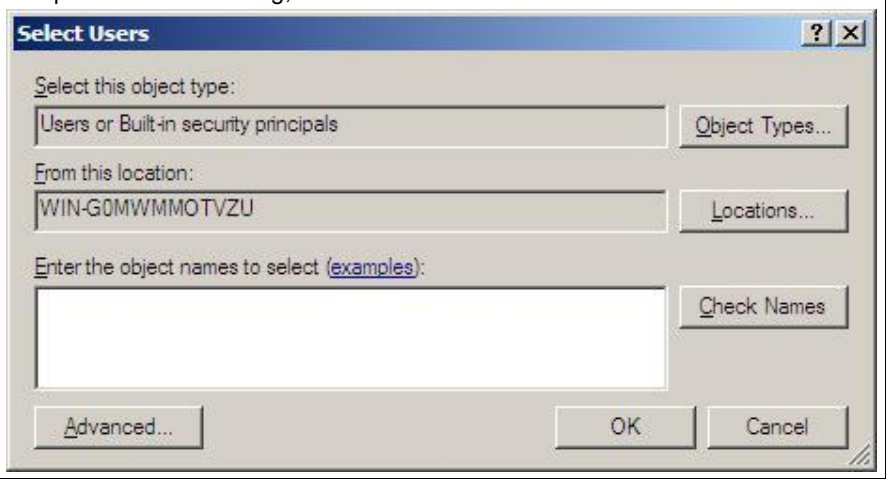
5.1 Installation of the Terminal Services

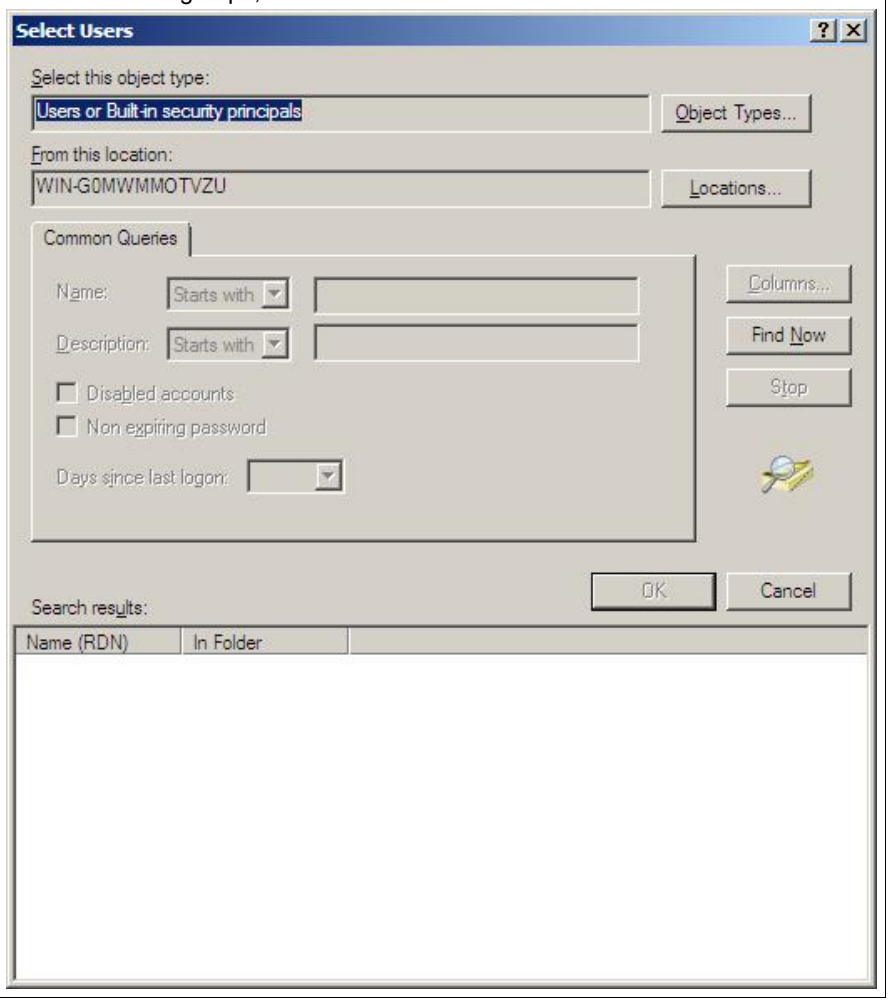
Table 5-2

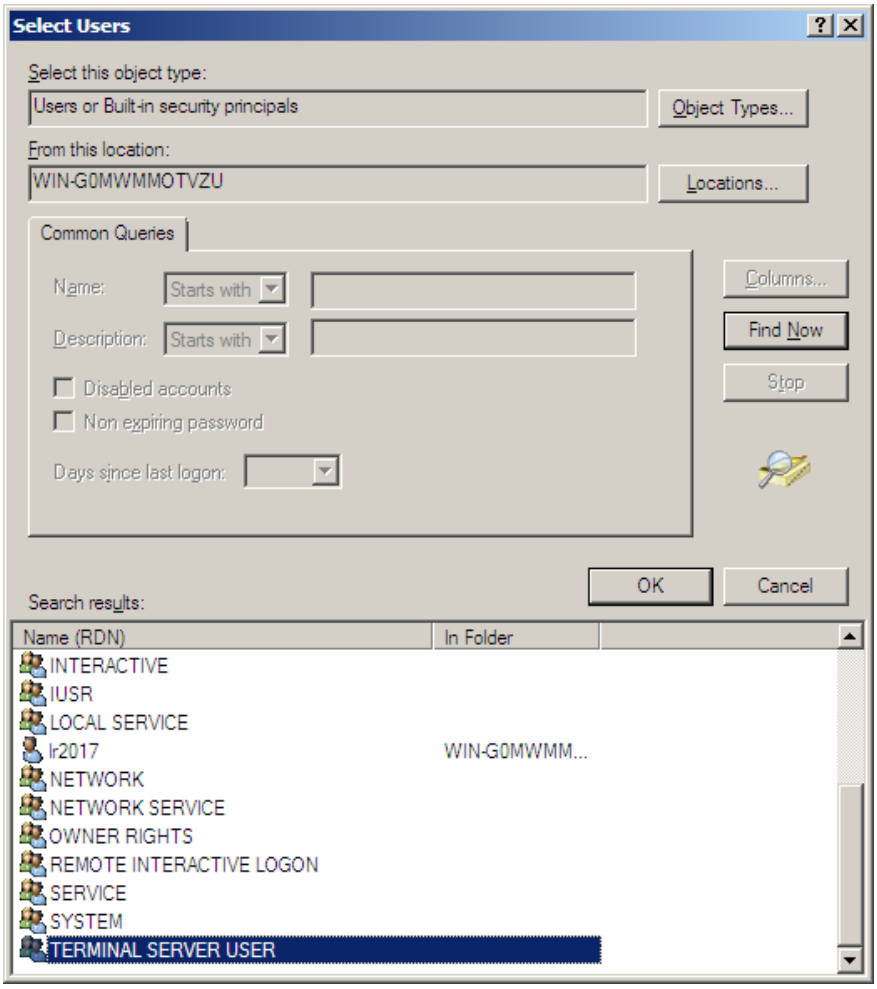
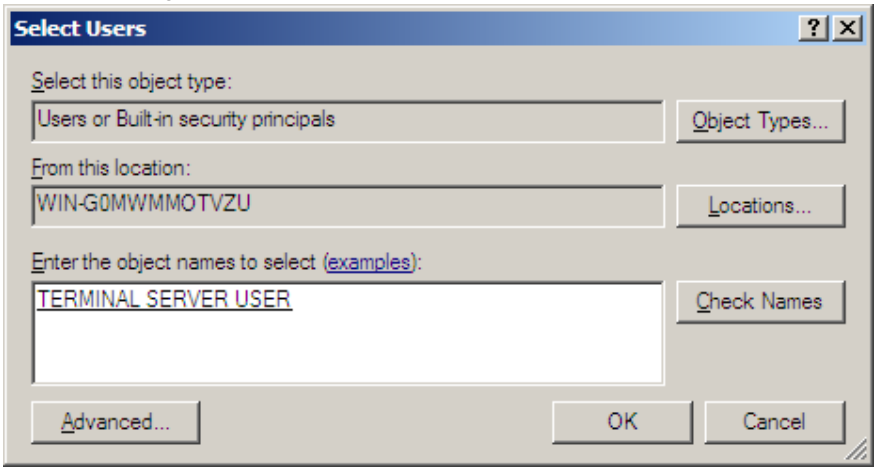
No.	Action
43.	• In the Server Manager, Roles Summary, click on "Add roles". • Select the “Remote desktop services” entry under “Server Roles”. • Confirm the dialog box with “Next”. 
44.	Confirm the selection with the “Next” button. 

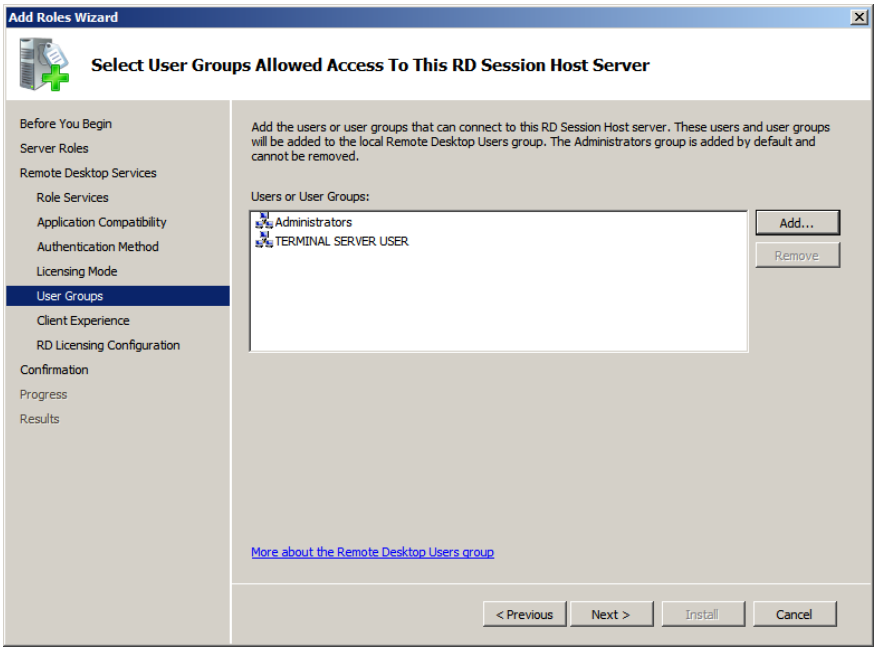
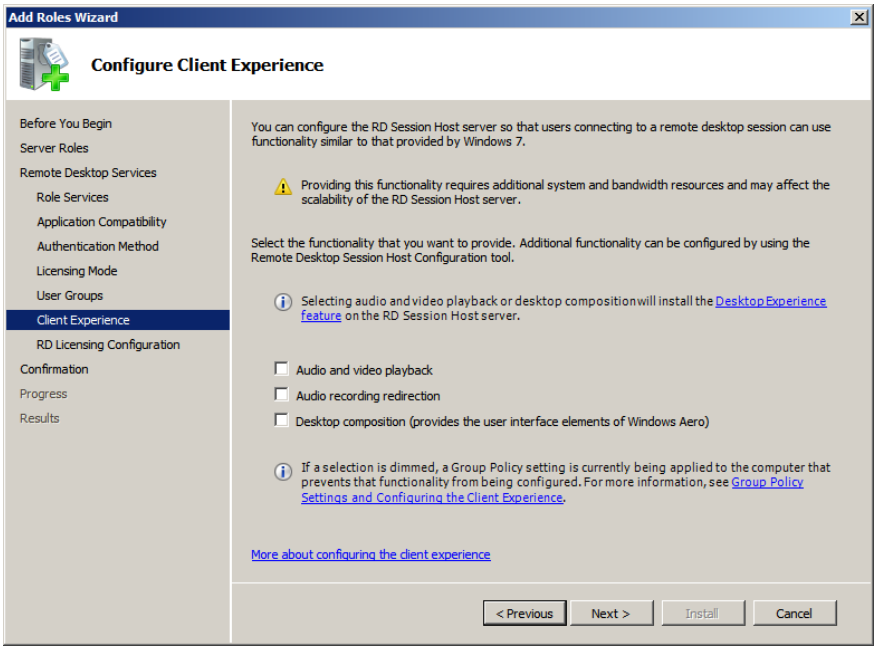
No.	Action
45.	• Activate the items “Remote Desktop Session Host” and “Remote Desktop Licensing”. • Confirm the dialog box with “Next”. 
46.	Confirm the next dialog box with “Next”. 

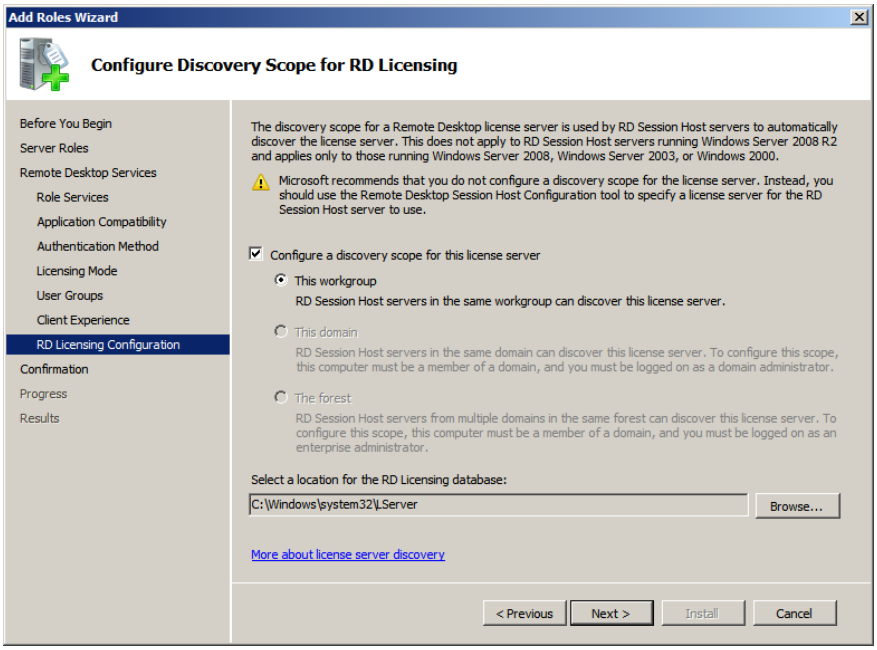
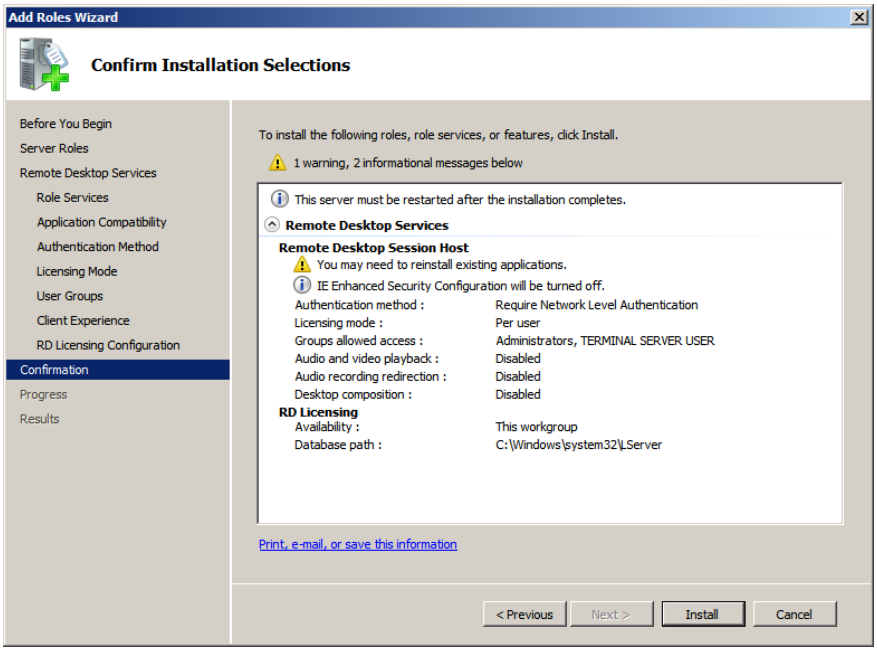
No.	Action
47.	• Under “Authentication Method”, select “Require Network Level Authentication". • Confirm the dialog box with “Next”. 
48.	• Select “Per User” licensing mode. • Confirm the dialog box with “Next”. 

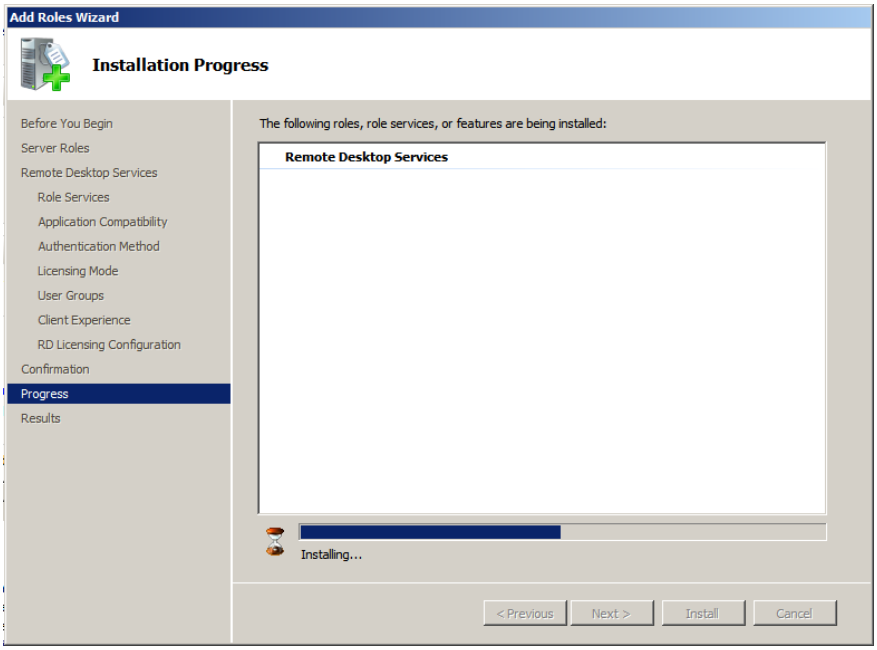
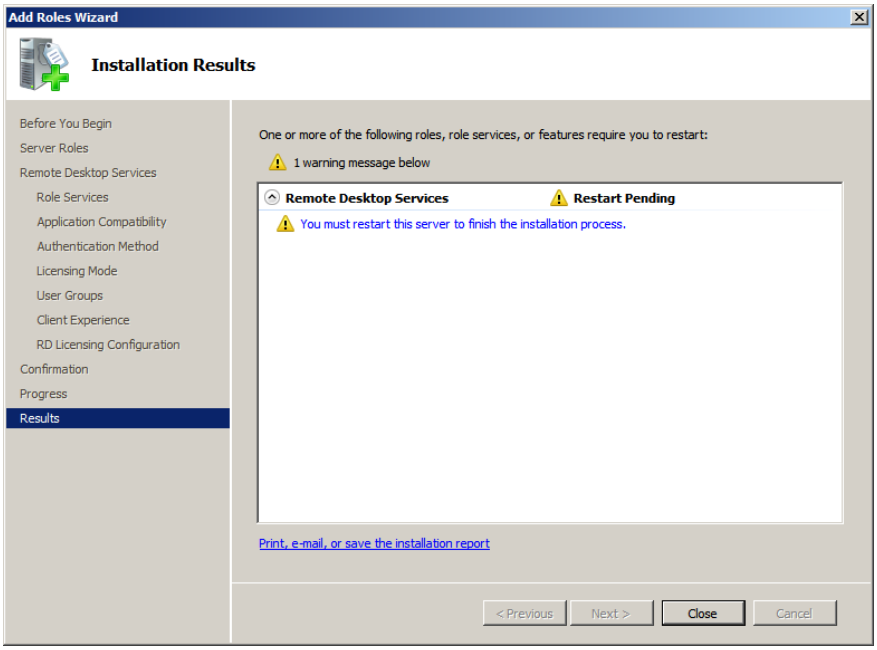
No.	Action
49.	To add groups or users, click on “Add...”. 
50.	To open the search dialog, click on “Advanced…”. 

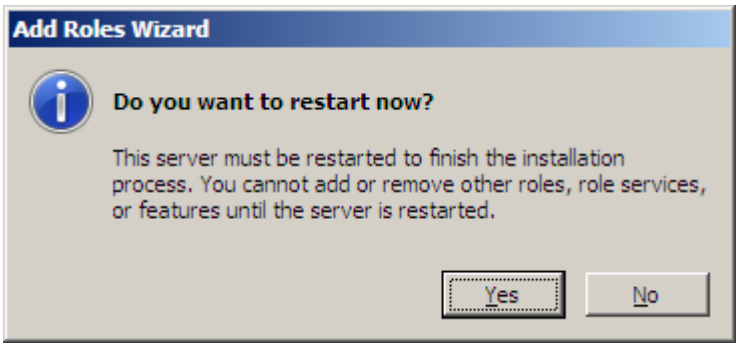
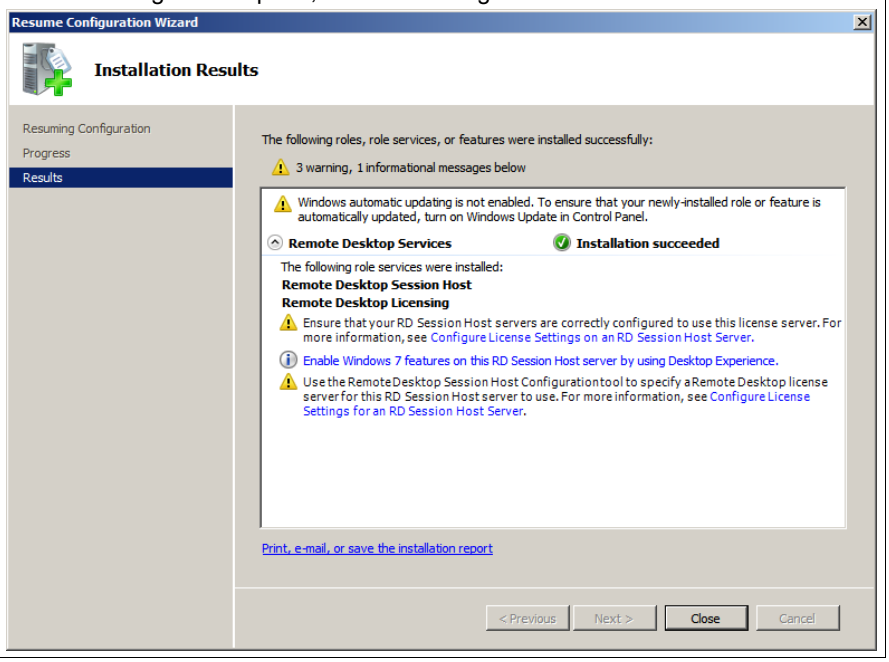
No.	Action
51.	To find users or groups, click on “Find Now”. 

No.	Action
52.	• Under the displayed search results, either select the already existing user “WebUser1” (see chapter 4.6) or the group “TERMINAL SERVER USER”. • Confirm the selection with the “OK” button. 
53.	Close the dialog box with “OK”. 

No.	Action
54.	Confirm the dialog box with “Next”. 
55.	Confirm the dialog box with “Next”. 

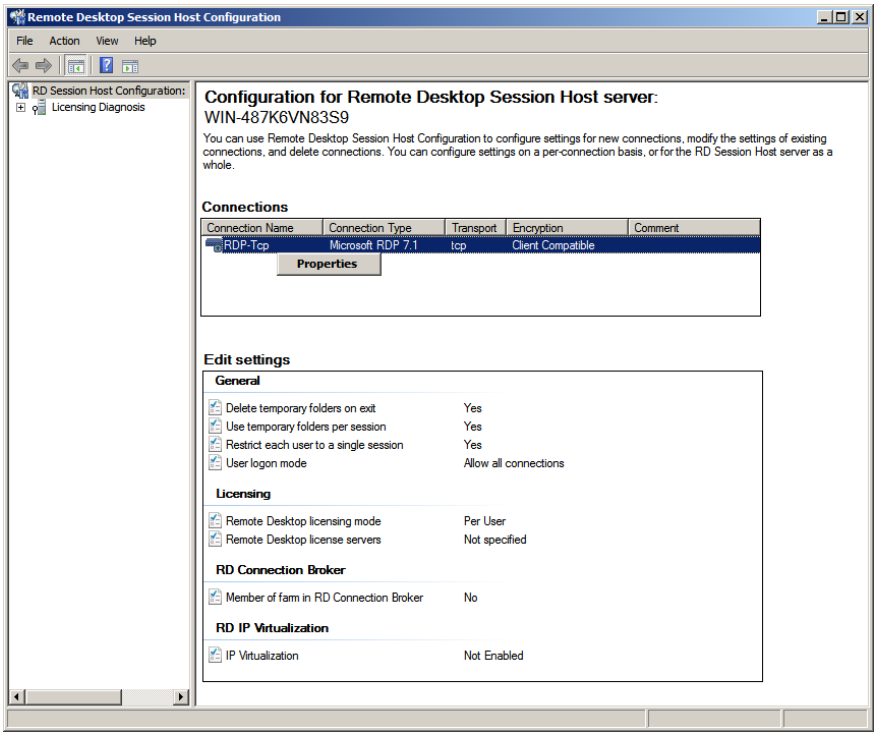
No.	Action
56.	• Set the checkmark at “Configure a discovery scope for this license server”. • Select the installation location of the license data base with “Browse...”. • Confirm the selection with “Next”. 
57.	Confirm the selection with the “Install” button. 

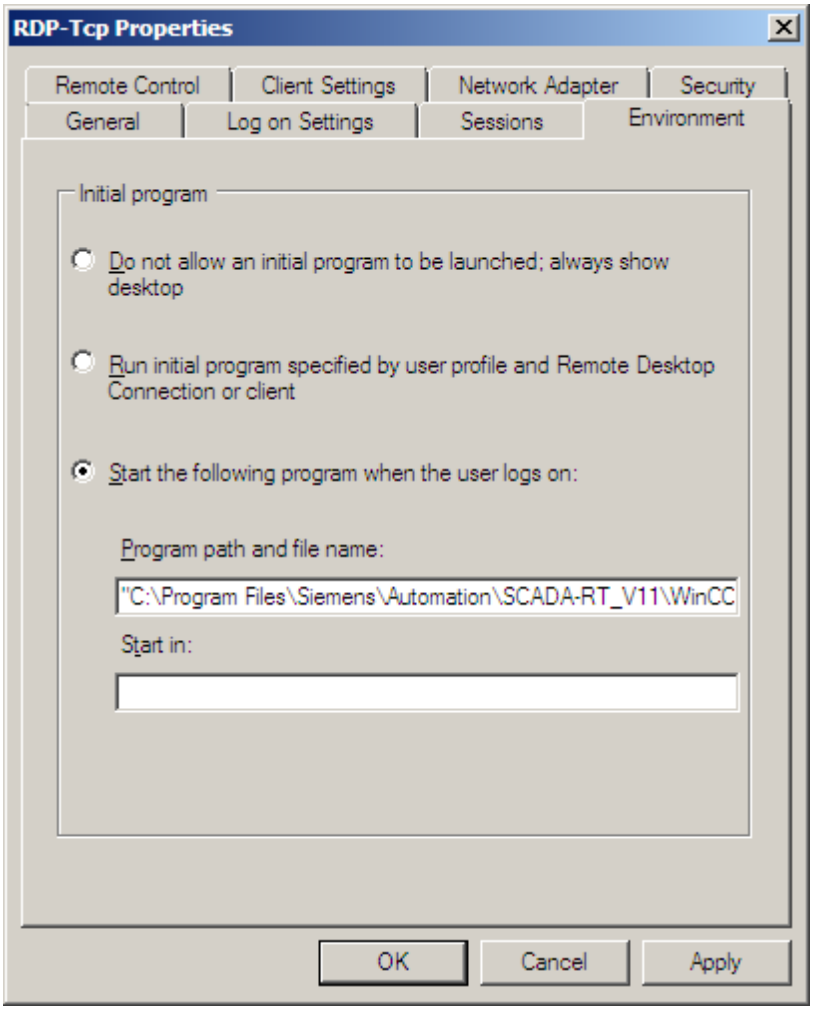
No.	Action
58.	The installation status gives you an overview of the progress of the installation. 
59.	Then click the “Close” button to close the dialog window. 

No.	Action
60.	Select “Yes” to restart the computer. 
61.	After restarting the computer, close the dialog with the “Close" button. 

5.2 Configuration of the terminal server

Table 5-3

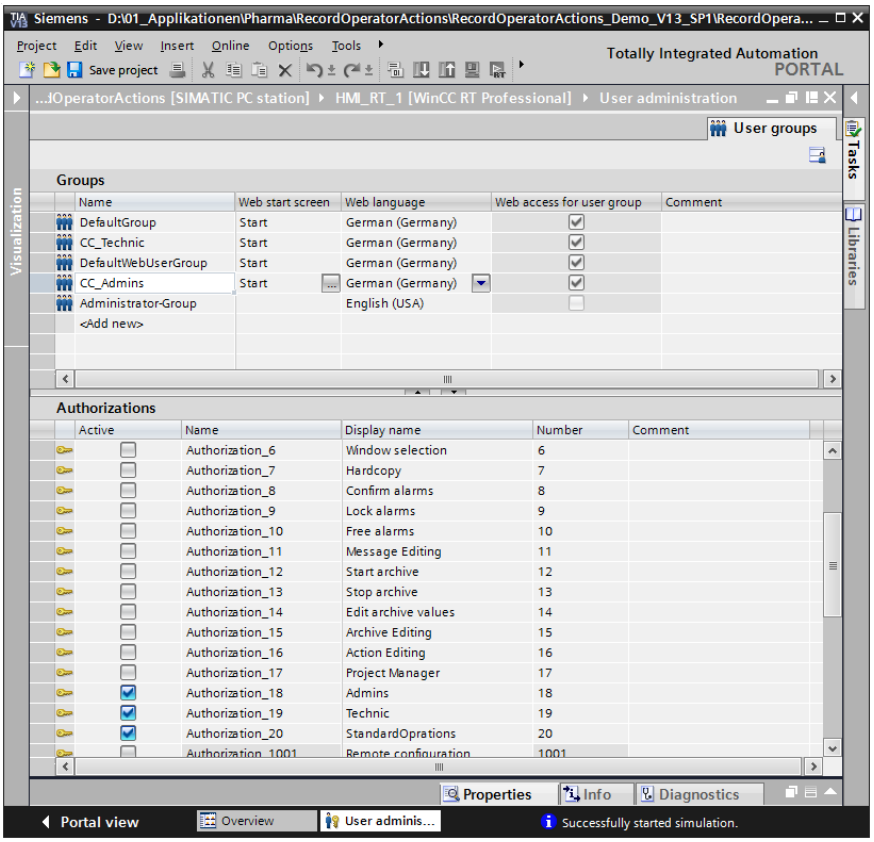
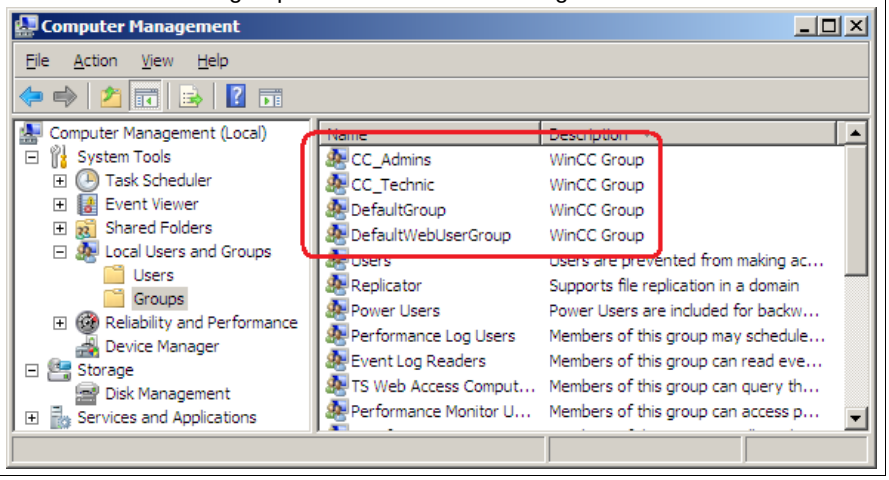
No.	Action
62.	Call the Terminal Services Configuration with <Windows> + <R> “tsconfig.msc”.
63.	Select the “RDP-Tcp” connection and use the context menu to open the Properties dialog box of the connection. 

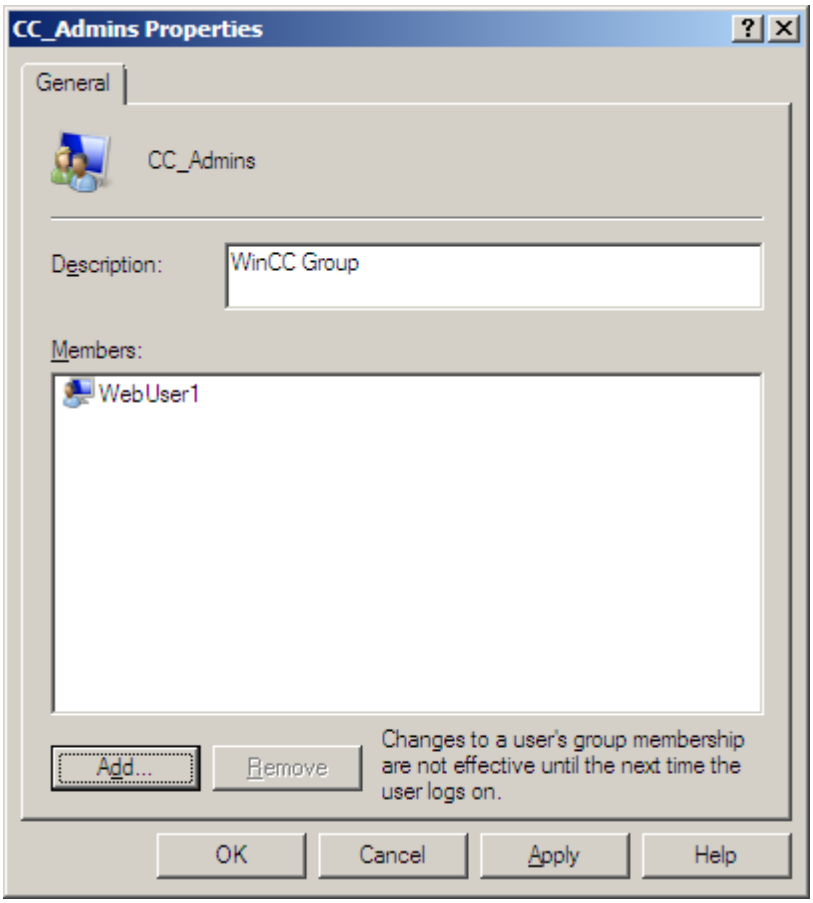
No.	Action
64.	• In the “Environment” tab, check the “Start the following program when the user logs on:” option. • In the “Program path and file name:” field, enter the following string: *"C:\Program Files (x86)\Siemens\Automation\SCADA-RT_Vxx\WinCC\Webnavigator\Client\bin\WinCCViewerRT.exe" /maximized C:\NetLogon\NoUser.xml* **Note** Adjust the path to the respective installation directory of your operating system and observe the two spaces in the string. • Use the “OK” button to close the Properties dialog box. • Close the “Terminal Services Configuration” window. 

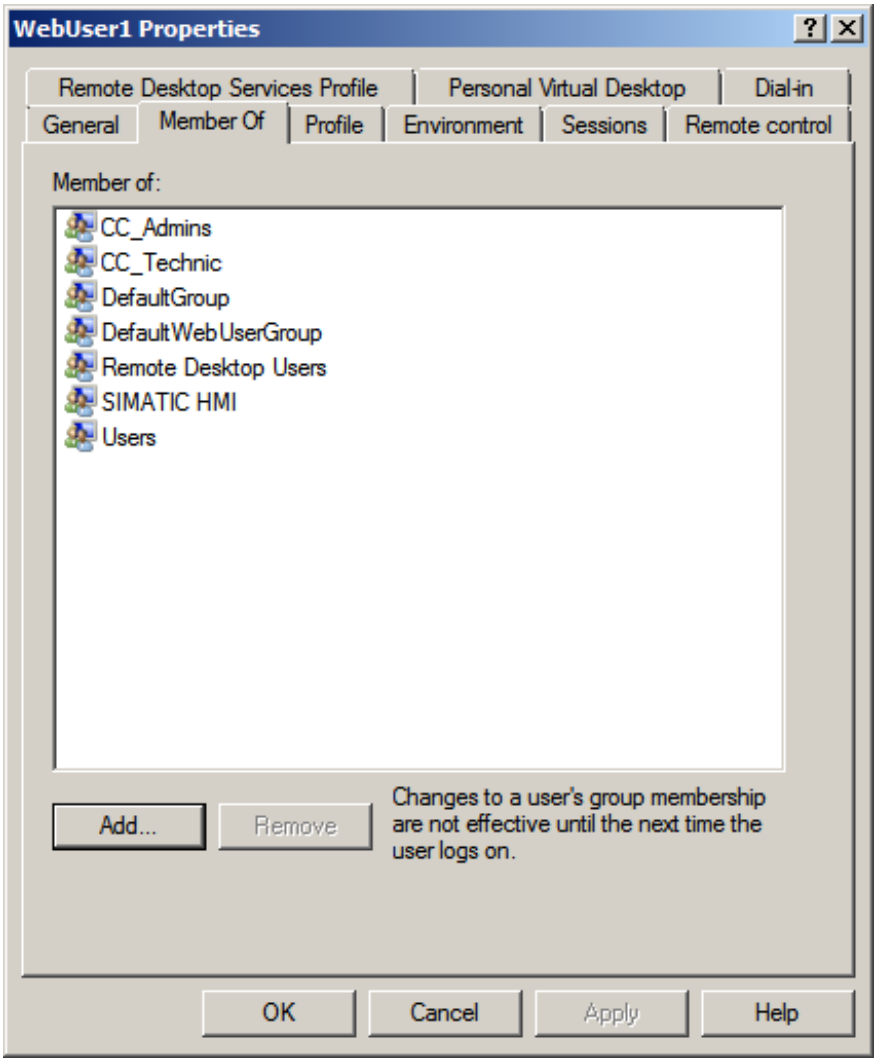
6 Commissioning the Application

Basic settings to start up the demo project.

Table 6-1

No.	Action
65.	The “CC_Admins”, “CC_Technic”, “DefaultGroup” and “DefaultWebUserGroup” groups are created in the WinCC Professional demo project. 
66.	• Select <Windows> + <R> „compmgmt.msc“ to call the Computer Management of the server. • Create identical groups in Windows User Management. 

No.	Action
67.	In the relevant groups, create the users with which the WinCC project will later be operated (see chapter 4.6). **Note** The “SIMATIC Logon” option package is used for this application. Therefore, the users are not created in WinCC “User Administrator” but directly in the Windows operating system. 

No.	Action
68.	Ensure that the users are a member of both the group “SIMATIC HMI” and the group “Remote Desktop Users”. 

7 Operating the Application

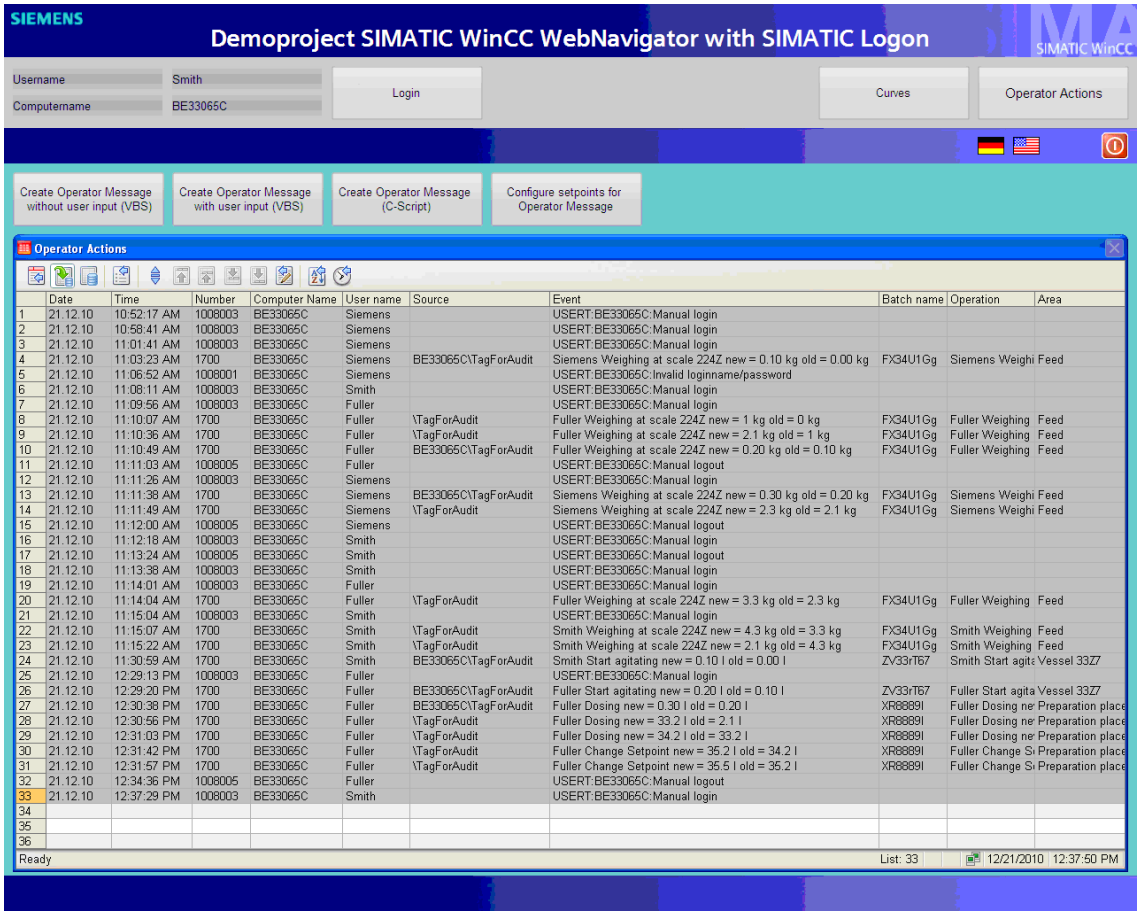
7.1 Overview

The demo project consists of two different screens. One screen shows an example of the acquisition and display of different process value archive data.

The second screen includes the WinCC Alarmcontrol. It provides the option to generate operator messages using different methods.

Using two buttons in the top right corner, you can switch between the screens.

The Alarm screen is described in greater detail in the following section. In this screen, an operator message can be generated in three different ways. These ways are displayed in the WinCC Alarmcontrol. The Alarmcontrol indicates origin, source, event, batch name and operator action. Individual adjustments can be made in the Alarm Logging Editor or in the Alarmcontrol settings.



7.2 Operator message structure

To document operations during runtime, a user-defined operator message with message number 1700 was created in the WinCC Alarm Logging Editor. The following tables show the used user and process value blocks, including their contents.

Note The following FAQ shows an example of the generation of user-defined operator messages in WinCC:

https://support.industry.siemens.com/cs/ww/en/view/24325381

User text blocks

Table 7-1

User text block	Name	Structure
Text_Block1	Source	@2%s@\@10%s@
Text_Block2	Area	@9%s@
Text_Block3	Event	@7%s@ @6%s@ new = @5%s@ @8%s@ old = @4%s@ @8%s@
Text_Block4	Batch name	@1%s@
Text_Block5	Operation	@7%s@ @6%s@ new = @5%s@ @8%s@ old = @4%s@ @8%s@

Note The user text blocks can be designed as desired.

Process value blocks

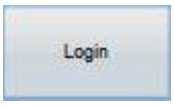
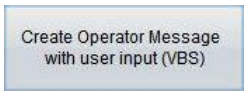
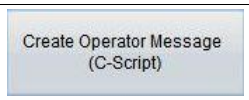
Table 7-2

Process value block	Name	Content
Processvalue_Block1	Process value: 1	Batch name
Processvalue_Block2	Process value: 2	Computer Name
Processvalue_Block3	Process value: 3	
Processvalue_Block4	Process value: 4	Old value
Processvalue_Block5	Process value: 5	New value
Processvalue_Block6	Process value: 6	Operator control text
Processvalue_Block7	Process value: 7	users
Processvalue_Block8	Process value: 8	Unit
Processvalue_Block9	Process value: 9	Area
Processvalue_Block10	Process value: 10	Source

NOTICE **If you are using a process value block allocation that differs from the one shown in the table, the "ISALG_OperationLogForWeb" (C Script) or "CreateOperatorInputMessage" (VB Script) scripts must be adapted accordingly.**

7.3 Description of the buttons

Table 7-3

No.	Button	Explanation
1		Visible only on the standard client. Calls the dialog box for login via SIMATIC Logon.
2		Visible only on the WebNavigator Client. Closes the current WinCCViewerRT component and starts it with a “NoUser” configuration. A Login dialog box is displayed, where you can log in individually.
3		An operator message is created using VB Script. The “TagForAudit” WinCC tag is incremented by one to simulate different contents in the operator messages.
4		An operator message is created using VB Script. The user is prompted to enter a new value for the “TagForAudit” WinCC tag.
5		Creates an operator message using C-Script. During this process, an internal C tag is incremented by 0.1.
6		Opens a picture window where you can configure the operator message data (area, source, etc.).
7		Operator-controllable only on the standard client. Exits Runtime.
8		Change between German and English

7.4 Description of the scripts

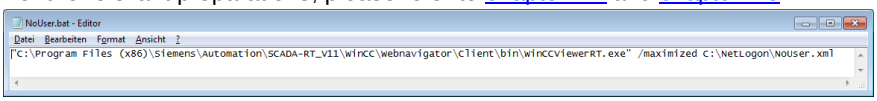
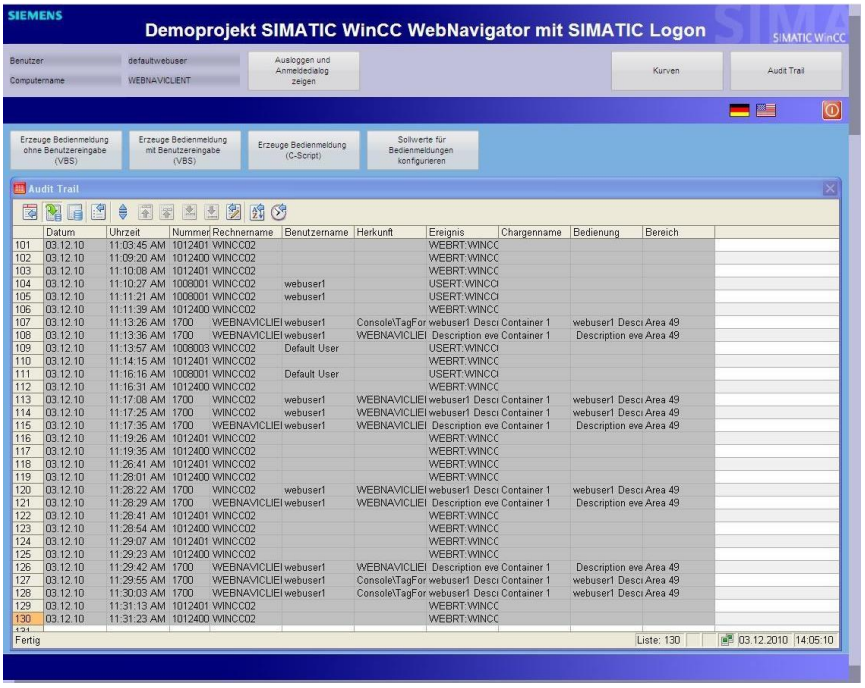
Table 7-4

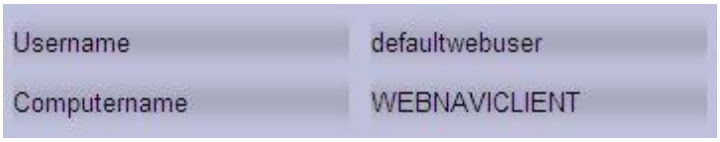
No.	Action	Remarks
1	WebNavigator.pdl / OpenPicture	C-Script that sets the “Visible” property for the “Login”, “Logout and show login dialog” and “Deactivate” buttons.
2	Start.pdl / object „ScriptField“ / background color	C-Script that detects automatic logout of a user and subsequently terminates WinCCViewerRT. WinCCViewerRT is then automatically started with a DefaultUser. In this script, it may be necessary to adjust the path to the WinCCViewerRT.exe and DefaultUser.xml files, depending on where the files are located.
3	WebNavigator.pdl / object „Logout_and_show_logindialog“ / Press Left	C-Script that terminates the current WinCCViewerRT component and restarts it with a “NoUser” configuration. In this script, it may be necessary to adjust the path to the WinCCViewerRT.exe and NoUser.xml files, depending on where the files are located.
4	Creating an alarm using VB script WebNavigator.pdl / object „Button2“ and „Button3“ / mouse click	A detailed description is stored in the respective script.
5	Creating an alarm using C-Script WebNavigator.pdl / object „Button1“ / mouse click	A detailed description is stored in the respective script.

7.5 Direct remote access without Terminal Services

This plant configuration does not include a terminal server. Each client that accesses the WebNavigator Server requires a separate installation of the WebNavigator Client.

Table 7-5

No.	Action
69.	Start the “WinCCViewerRT” component of the WinCC Web Client using the logon script and the respective start parameters of the configuration file. **Note:** For the relevant preparations, please refer to chapter 4.4 and chapter 4.5. 
70.	WinCCViewerRT starts according to the configuration file. 

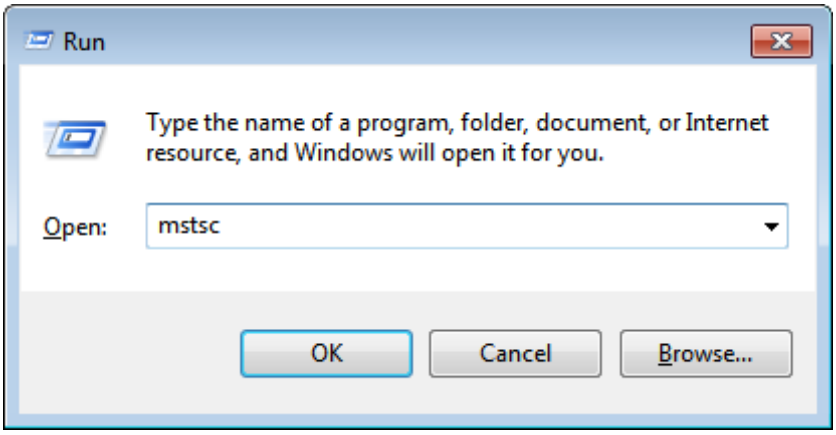
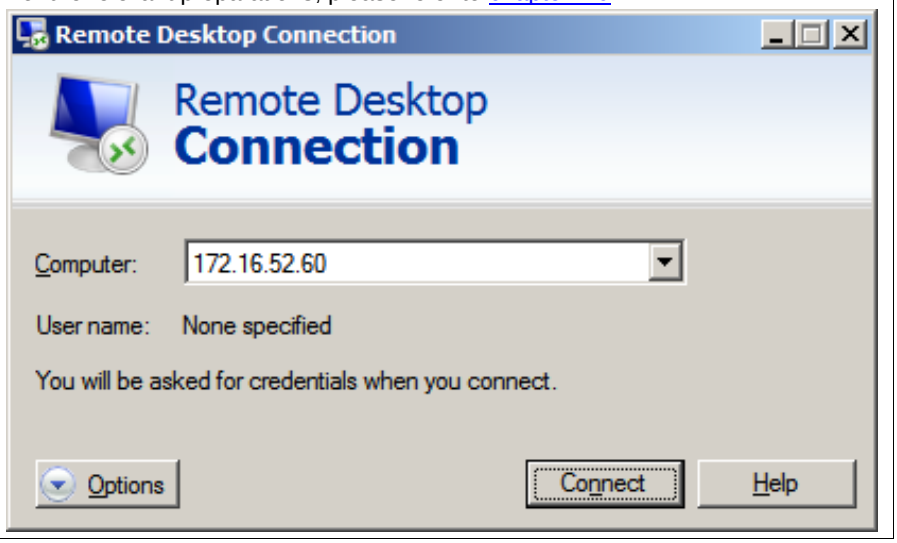
No.	Action
71.	After the configured logout time, the user is automatically logged out. **Note** This dialog box is not visible or visible only for a short time since a WinCC script queries this dialog box and closes it once it appears. 
72.	The currently open WinCCViewerRT component is automatically closed and a new instance is started with the “DefaultUser” user. 
73.	Use the “Logout and show login dialog” button to close the currently open WinCCViewerRT component and open a new instance with a configuration file without login information. **Note** Since no login information is stored, a login dialog box opens, where you can log in individually. 

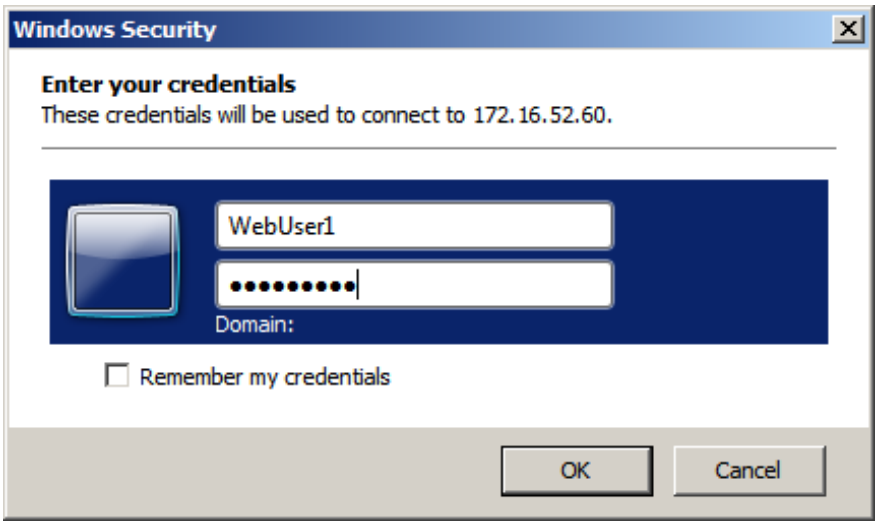
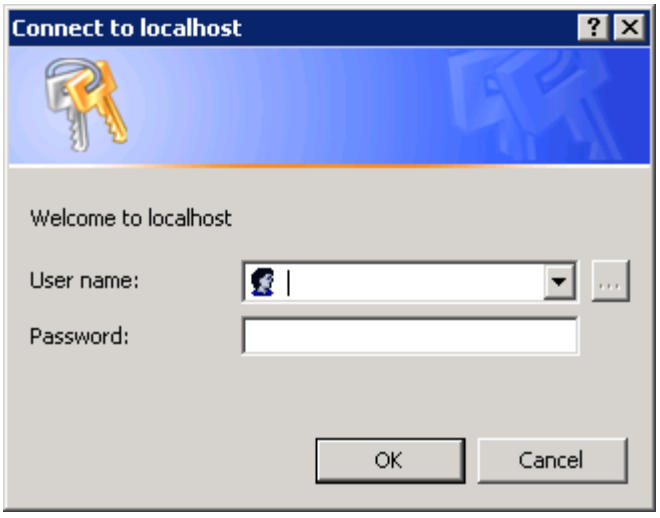
Note When clicking on Cancel in the login dialog box, an info picture will be displayed. Press the F5 key to reopen the login dialog box.

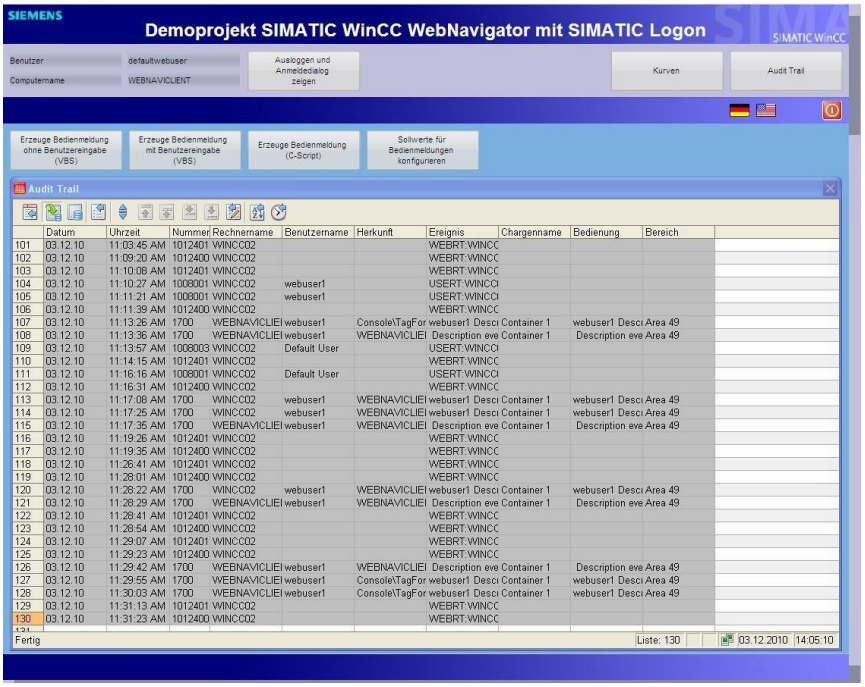
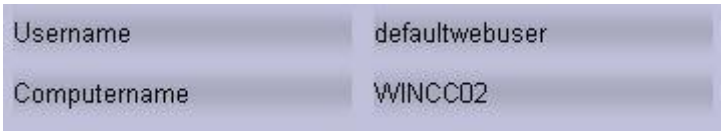
7.6 Indirect remote access via Terminal Services

In this plant configuration, any client (e.g., thin client) logs on via the terminal server. An automatic logon script is then started, which opens the WebNavigator Client to access the WebNavigator Server.

Table 7-6

No.	Action
74.	On the web client, select <Windows> + <R> “mstsc” to call the Remote Desktop connection. 
75.	• In the “Computer” field, enter the IP address of the web server. • Select the “Connect” button to establish the connection. • Log on with user “WebUser1”. **Note** For the relevant preparations, please refer to chapter 4.6. 

No.	Action
76.	Log on with user “WebUser1”. **Note** For the relevant preparations, please refer to chapter 4.5. 
77.	Once a user has successfully logged on, the stored script starts WinCCViewerRT. The user is prompted to enter his/her logon data. **Note** “Welcome to localhost” is always displayed since, due to logon to the terminal server, the web server operates on the local system. 

No.	Action
78.	After successful logon, the project is loaded. 
79.	After the configured time, the user is automatically logged out. **Note** This dialog box is not visible or visible only for a short time since a WinCC script queries this dialog box and closes it once it appears. 
80.	The currently open WinCCViewerRT component is automatically closed and a new instance is started with the “DefaultWebUser” user. 

No.	Action
81.	Use the “Logout and show login dialog” button to close the currently open WinCCViewerRT component and open a new instance with a configuration file without login information. **Note** Since no login information is stored, a login dialog box opens, where you can log in individually. 

Note When clicking on Cancel in the login dialog box, an info picture will be displayed. Press the F5 key to reopen the login dialog box.

NOTICE

If you prefer to use Terminal Services also for service purposes, always use “Logout” to log out of the server operating system. Otherwise, re-logon is not possible if the respective user is not automatically logged out after a preconfigured time.

Direct access to WinCC via the Terminal Services (without web or terminal client) is not released and is your responsibility.

8 Further Notes

8.1 Completing access protection

For system-related reasons, brief access to operating system level may be possible during the automatic restart of the WinCC Web Client.

To allow as few access points as possible, it is recommended that the security policies in Windows be very restrictive.

8.2 Changing passwords

Windows passwords can only be changed from the SIMATIC WebNavigator Server. This is not possible from the WebNavigator Client. For more information, please refer to the SIMATIC WebNavigator documentation.

8.3 Differences when generating operator messages

VB script

In VBS, the HMIRuntime object for alarms supports only read access to the “Computername” property. As a result, when a connection has been established via a terminal server, the message displays the computer name of the terminal server and not the one of the connected remote client.

The name of the connected client is also read out and written to process value block 2 and user text block 1 – however, the “Computername” column of the server displays the name of the terminal server.

C-Script

C-Script enables you to transfer also the computer name to the alarm object. Here, too, the client name is read out on the terminal server and written to the “Computername” column – this is displayed accordingly in the Alarmcontrol.

In addition, the computer name is also written to process value block 2 and user text block 1.

9 Links & Literature

Table 9-1

	Topic
\1\	Siemens Industry Online Support https://support.industry.siemens.com
\2\	Download page of the entry https://support.industry.siemens.com/cs/ww/en/view/109479441
\3\	Starting Web Viewer https://support.industry.siemens.com/cs/ww/en/view/46824563
\4\	WebNavigator – Record Operator Actions for WinCC V7 https://support.industry.siemens.com/cs/ww/en/view/49516052
\5\	SIMATIC STEP 7 Basic/Professional V15.1 and SIMATIC WinCC V15.1 https://support.industry.siemens.com/cs/ww/en/view/109755202
\6\	Thin Client manual https://support.industry.siemens.com/cs/ww/en/view/61187980
\7\	Thin Client Remote Configuration Center https://support.industry.siemens.com/cs/ww/en/view/42793847
\8\	Thin Client configuration file https://support.industry.siemens.com/cs/ww/en/view/35105485

10 History

Table 10-1

Version	Date	Modifications
V1.0	02/2016	First version
V1.1	09/2019	Update TIA Portal V15.1