



SoftControl

Service Center 5.0.18

Administrator guide

Dear user!

Safe'N'Sec Corporation thanks you for choosing SoftControl Service Center. Specialists of the company do their best to make sure our software both meets the highest requirements in a field of information protection and is easy use. We hope you find SoftControl Service Center helpful.

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1. Introduction

1.1 Purpose

SoftControl Service Center is the set of administrative tools for managing information security system that provides integrity of software environment of the network endpoints, protection against unauthorized data access by maintenance staff or violators, as well as monitors user activity. SoftControl Service Center consists of the following components.

- SoftControl Server is the server component;
- SoftControl Admin Console is the management console.

SoftControl Service Center supports operations with the following client components.

- SoftControl ATM Client / Endpoint Client / SClient (hereafter referred to as SoftControl SysWatch) are the client components of proactive protection of self-service devices, corporate network workstations and servers, respectively;
- SoftControl DLP Client is the client component for monitoring and data collection;
- SoftControl DeCrypt, the client component designed to encrypt the hard disks of self-service devices, corporate network workstations and servers.

1.2 Notational conventions and terms

1.2.1 Notational conventions

Table 1 lists notational conventions used in this document.

Table 1. Notational conventions

Notation example	Description
	Important information.
<u>Condition</u>	An execution condition, a note, or an example.
Update	– headers and acronyms; – names of buttons, links, menu items, and other program interface elements.
<i>Control policy</i>	– terms (definitions); – names of files and other objects; – messages displayed to user.
C:\Program Files\SoftControl	Paths to directories, files, or registry keys.
%windir%\system32\msiexec.exe /i	Source code, command and configuration file fragments.
<SoftControl Service Center installation directory>	Fields with specific names to be replaced with actual values.

Notation example	Description
Appendix ⁵	Links to internal resources (document sections) with the page numbers, or links to external resources (URL).

1.2.2 List of acronyms

This documents uses the following acronyms:

- ❖ **CPU** – central processing unit;
- ❖ **DBMS** – database management system;
- ❖ **GUI** – graphical user interface;
- ❖ **HDD** – hard disk drive;
- ❖ **ISS** – information security system;
- ❖ **LAN** – local area network;
- ❖ **OS** – operating system;
- ❖ **RAM** – random access memory.

1.2.3 Glossary

Table 2. Glossary

Term	Description
Proactive protection	A series of prevention techniques-based measures designed to prevent harmful effects.
Prevention techniques	The advanced data protection technologies that are based on the analysis of the activity on the user's computer. This can be the operation of any applications, OS services, user actions, external activity, etc. Unlike reactive techniques which are the basis of protections such as antivirus and personal firewalls, prevention techniques do not analyze an object code, but track the potentially dangerous actions the object performs. Therefore, the tools of proactive protection do not require the bases of malicious code and their updates that are necessary for traditional protections.
Reactive (signature) techniques	A mode of operation of antivirus software and intrusion detection systems. In this method, the program refers to the database of known viruses and checks whether some part of the code of the object being scanned corresponds to the known virus code (signature) in the database.
Control policy	A complete set of activity control rules .
Activity control rule	A set of conditions that determine an application's activity and how SoftControl SysWatch reacts to this activity.
System profile	A database that is stored locally on the client host and contains the checksums of the executable modules . The profile is the result of the SoftControl SysWatch automatic setup (profile gathering).

Term	Description
Application in the profile	An application with its checksum in the system profile .
Tracked application	An application that has run on the client host and that SoftControl SysWatch has detected during its operation, after the installation.
Trusted application	Tracked application from the trusted execution zone .
Restricted application	Tracked application from the restricted execution zone .
Blocked application	Tracked application from the blocked execution zone . SoftControl SysWatch blocks such applications on the client host.
Execution zone (trusted, restricted, blocked)	Separate control policy that applies to the subset of tracked applications . There are three execution zones on each client host : trusted, restricted, and blocked zones. Any tracked application belongs to one of these zones.
Installer	The application that SoftControl SysWatch has heuristically detected as software designed to install other software; otherwise, it is the application that the user has marked as an installer. The installer gives certain privileges for a process to run (see below 'Software update mode').
Software update mode	An application launch mode that places the application and all PE files it has created or modified, to the system profile. The child processes of the application inherit the software update mode.
V.I.P.O. (Valid Inside Permitted Operations)	User account with restricted rights (a limited set of system privileges and no access to system objects). The account is used to arrange the 'sandbox' when running the applications and provides additional protection from possible harmful actions of the applications that are not entirely trustworthy. Only restricted applications can run under the V.I.P.O. account.
Role	An aggregate of user rights to use certain SoftControl Admin Console features.
PE file	An executable file of the PE format (Portable Executable). The format is used in Microsoft® Windows® operating systems for executable files (EXE), dynamic link libraries (DLL) and some other types of files.
Client host	A computer (a workstation, a server, a self-service terminal) with the installed SoftControl SysWatch.

2. Hardware and software requirements

2.1 SoftControl Server system requirements

Table 3. Minimal system requirements

OS	CPU frequency	RAM size	HDD free space
<ul style="list-style-type: none"> ▪ Microsoft® Windows® 7 (SP1) (32-bit/64-bit) ▪ Microsoft® Windows® 8 (32-bit/64-bit) ▪ Microsoft® Windows® 8.1 (32-bit/64-bit) ▪ Microsoft® Windows® Server 2008 (SP2) (32-bit/64-bit) ▪ Microsoft® Windows® Server 2008 R2 ▪ Microsoft® Windows® Server 2012 ▪ Microsoft® Windows® Server 2012 R2 ▪ Microsoft® Windows® 10 ▪ Microsoft® Windows® Server 2016 	3GHz	4GB	100MB + extra 4GB (for embedded DBMS installa- tion)

Additional software:

- Microsoft® .NET Framework 4.5;
- Microsoft® SQL Server® 2008 / SQL Server® 2012 / SQL Server® 2014 SP1;
- For SQL Server® 2014 SP1 or SQL Server® 2012 installation on Windows Server 2008 R2, Service Pack 1 (SP1) should be installed in the system.

2.2 SoftControl Admin Console system requirements

Table 4. Minimal system requirements

OS	CPU frequency	RAM size	HDD free space
<ul style="list-style-type: none"> ▪ Microsoft® Windows® 7 (SP1) (32-bit/64-bit) ▪ Microsoft® Windows® 8 (32-bit/64-bit) ▪ Microsoft® Windows® 8.1 (32-bit/64-bit) ▪ Microsoft® Windows® Server 2008 (SP2) x86/x64 (32-bit/64-bit) ▪ Microsoft® Windows® Server 2008 R2 ▪ Microsoft® Windows® Server 2012 ▪ Microsoft® Windows® Server 2012 R2 ▪ Microsoft® Windows® 10 ▪ Microsoft® Windows® Server 2016 	3GHz	4GB	100MB

Additional software:

- Microsoft® .NET Framework 4.5.

3. Installing and setting up SoftControl Service Center components

This section describes how to [install](#)⁽⁹⁾ the SoftControl Server ('the server') and the SoftControl Admin Console components, [set up](#)⁽¹⁹⁾ SoftControl Server when [running](#)⁽²⁴⁾ SoftControl Admin Console for the first time, and also gives instructions on how to [register client applications](#)⁽²³⁾.

3.1 Installing SoftControl Server and SoftControl Admin Console

There are the following ways to deploy SoftControl Service Center.

- [typical](#)⁽⁹⁾: install product components without the embedded DBMS;
- [complete](#)⁽¹²⁾: install product components including the embedded DBMS;
- [custom](#)⁽¹⁶⁾: install the components chosen by user.

Select typical installation if a configured DBMS is available on the network, or if it is to be installed separately. Information about separate DBMS installation is given in the [appendix](#)⁽¹⁷²⁾.

Complete installation is the fastest way to deploy and configure. This way, all the essential operations including DBMS installation are performed by the SoftControl Service Center installer automatically. The SoftControl Service Center installer includes free Microsoft® SQL Server® 2014 Express SP1 DBMS that has all the functionality required for the server to work.

If you prefer to install the server component, DBMS, and the management console onto the different computers, select custom installation.

3.1.1 Typical installation

- 1) Run the *Service.Center.msi* installation package.
- 2) Click **Next** in the **SoftControl Service Center Setup** window (fig. [Running the installation program](#)⁽⁹⁾).



Figure 1. Running the installation program

- 3) If you accept the terms, select **I accept the terms in the License Agreement** and click **Next** (fig. [License agreement](#)⁽¹⁰⁾).

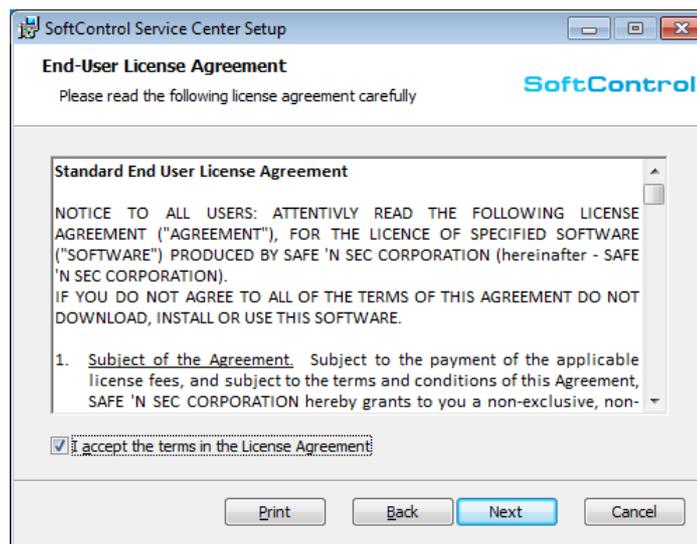


Figure 2. License agreement

- 4) Click **Typical** to select standard installation type (fig. [Installation types](#)⁽¹⁰⁾).

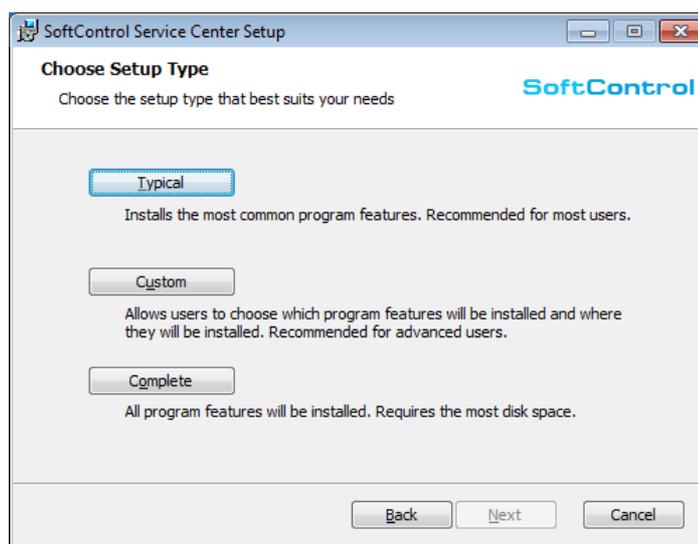


Figure 3. Installation types

5) Click **Install** (fig. [Ready to install](#)⁽¹¹⁾).

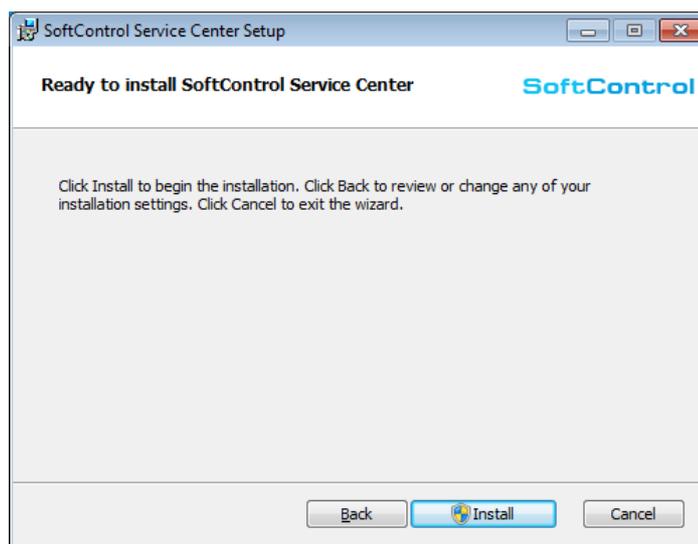


Figure 4. Ready to install

6) Wait until installation is complete (fig. [Installation progress](#)⁽¹¹⁾).

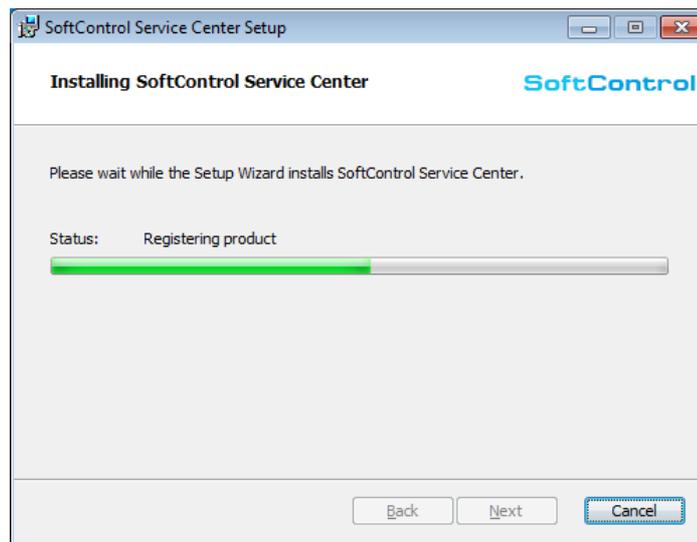


Figure 5. Installation progress

7) After the *Completed the SoftControl Service Center Setup Wizard* message is displayed, click **Finish** (fig. [Installation is complete](#)⁽¹²⁾).

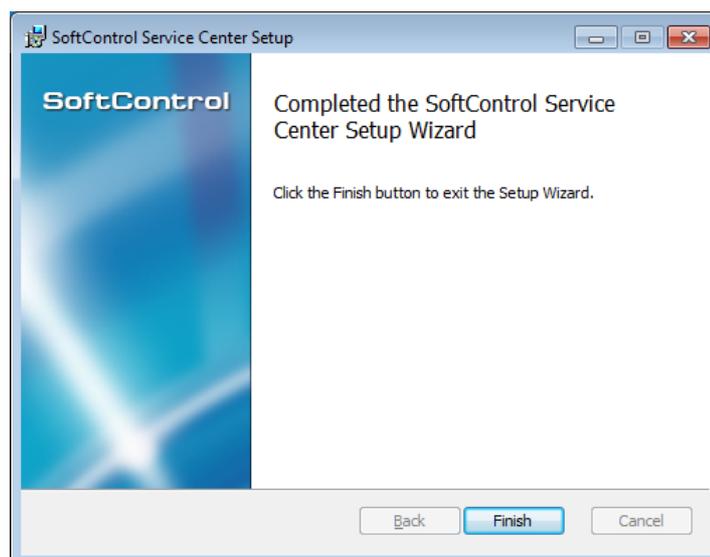


Figure 6. Installation is complete

3.1.2 Complete installation

- 1) Run the *Service.Center.msi* installation package.
- 2) Click **Next** in the **SoftControl Service Center Setup** window (fig. [Running the installation program](#)⁽¹²⁾).



Figure 7. Running the installation program

3) If you accept the terms, select **I accept the terms in the License Agreement** and click **Next** (fig. [License agreement](#)⁽¹³⁾).

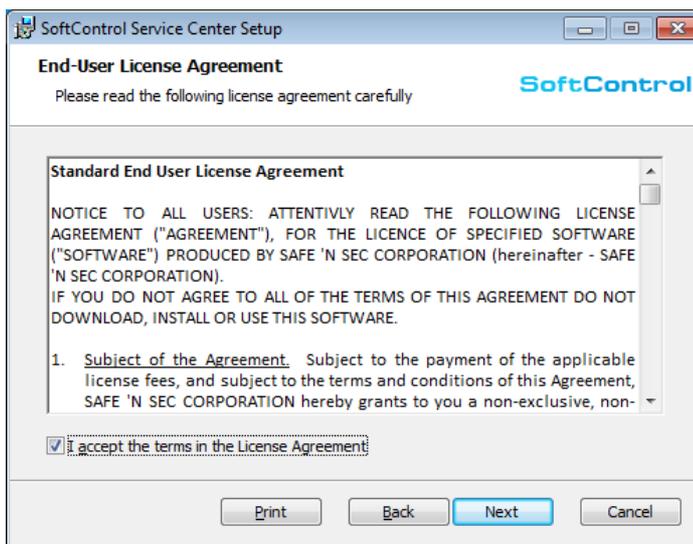


Figure 8. License agreement

4) Click **Complete** to select full installation type (fig. [Installation types](#)⁽¹³⁾).

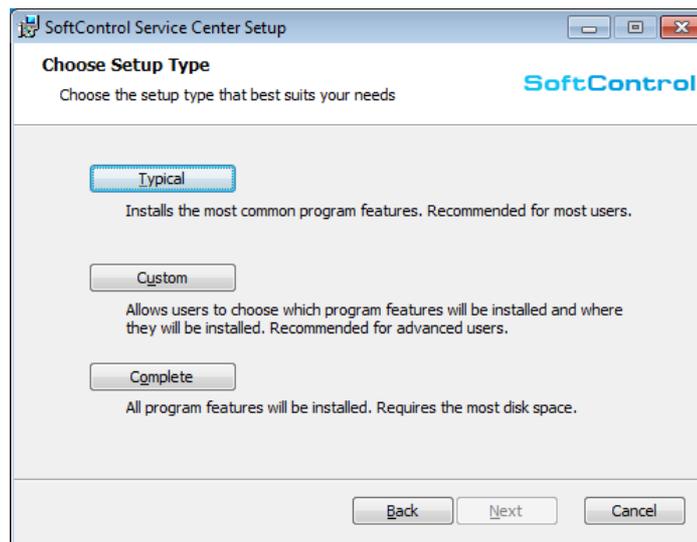


Figure 9. Installation types

5) Click **Install** (fig. [Ready to install](#)⁽¹⁴⁾).

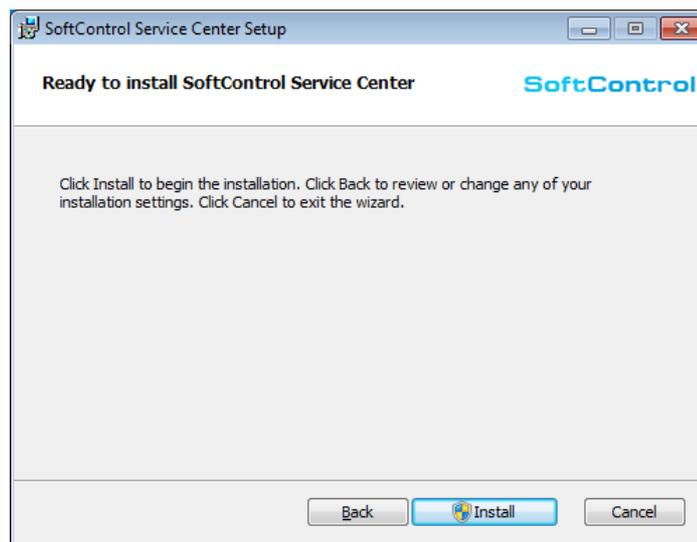


Figure 10. Ready to install

6) Wait until installation is complete (fig. [Installation progress](#)⁽¹⁴⁾).

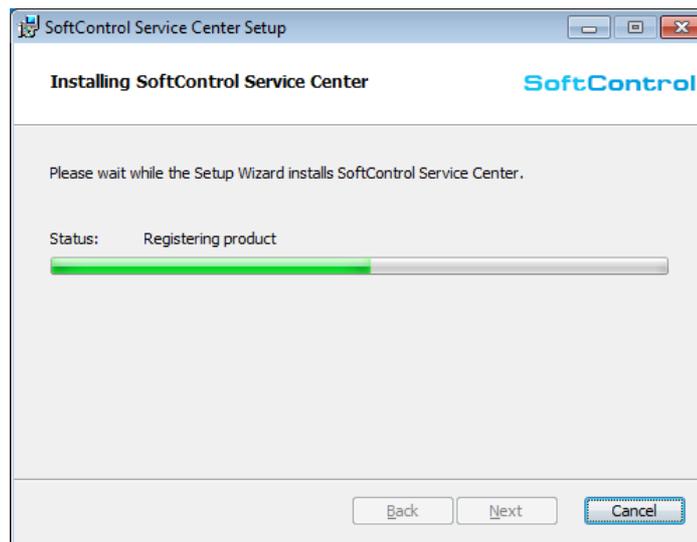


Figure 11. Installation progress

7) After the *Completed the SoftControl Service Center Setup Wizard* message is displayed, click **Finish** to start Microsoft® SQL Server® 2014 Express SP1 installation (fig. [SoftControl Service Center installation is complete](#)⁽¹⁵⁾).



Figure 12. SoftControl Service Center installation is complete

8) Wait until Microsoft® SQL Server® 2014 Express SP1 installation is complete and then click **OK** (fig. [Installation is complete](#)⁽¹⁵⁾).

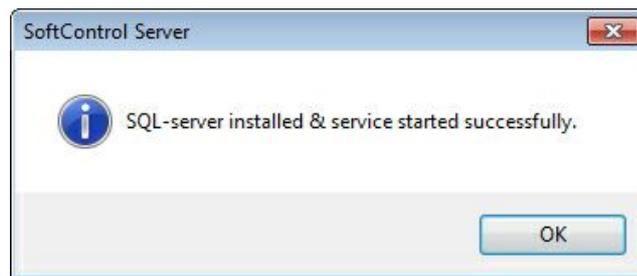


Figure 13. Installation is complete

3.1.3 Custom installation

- 1) Run the *Service.Center.msi* installation package.
- 2) Click **Next** in the **SoftControl Service Center Setup** window (fig. [Running the installation program](#)⁽¹⁶⁾).



Figure 14. Running the installation program

- 3) If you accept the terms, select **I accept the terms in the License Agreement** and click **Next** (fig. [License agreement](#)⁽¹⁶⁾).

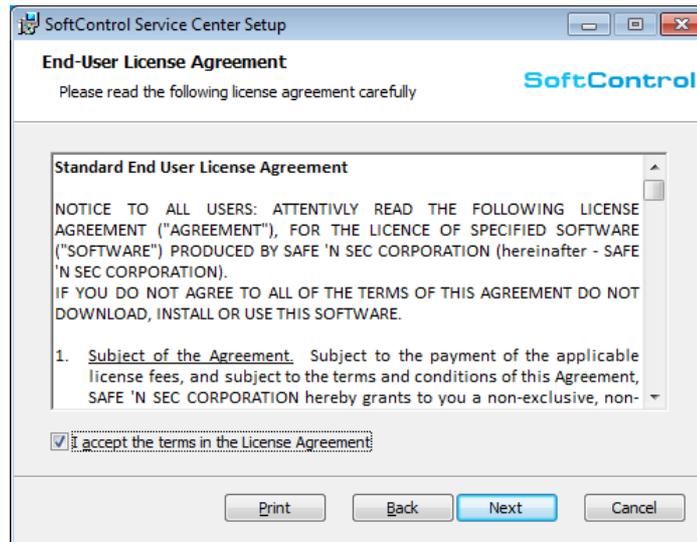


Figure 15. License agreement

4) Click **Complete** to select complete installation type (fig. [Installation types](#)⁽¹⁷⁾).

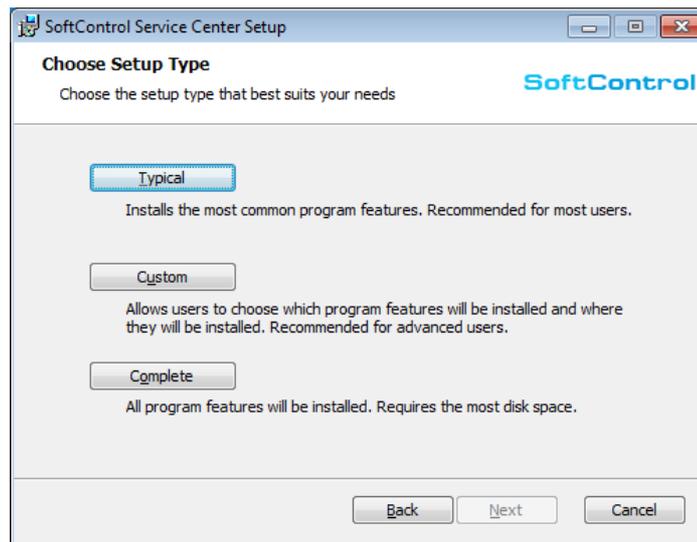


Figure 16. Installation types

5) Configure the component installation (fig. [Component installation configuration](#)⁽¹⁷⁾). Click the icon of the component that should not be installed and select the **Entire feature will be unavailable** option from the drop-down menu (fig. [Component installation options](#)⁽¹⁸⁾). The **Will be installed on local hard drive** option should be selected for the component to install (fig. [Component installation options](#)⁽¹⁸⁾). Click **Browse** to change installation path if necessary. By clicking **Disk usage** you can view total size of the components being installed and available disk space. Click **Next** when all settings are specified.

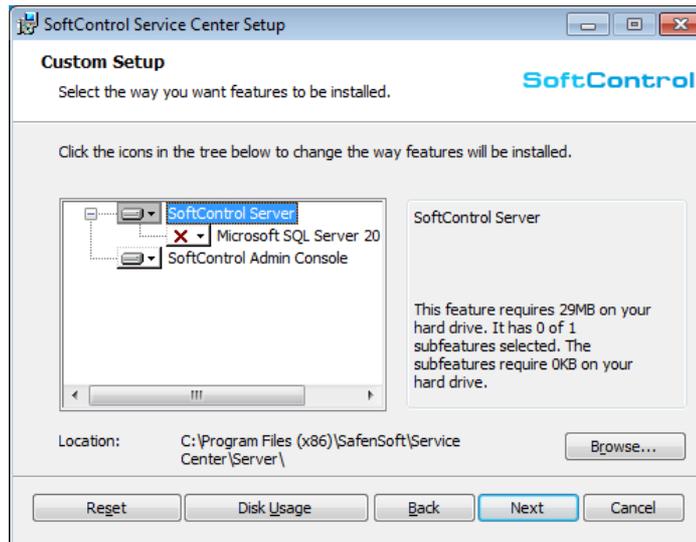


Figure 17. Component installation configuration

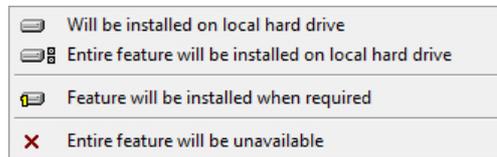


Figure 18. Component installation options

6) Select the **Add the required ports to Windows Firewall** option to add the port of connection between SoftControl Admin Console and SoftControl Server to the firewall exceptions automatically (fig. ['Adding a port to the firewall exceptions' option](#)¹⁸). Otherwise, you should perform this operation manually (by default, port 8080 is used). To continue installation, click **Next**.

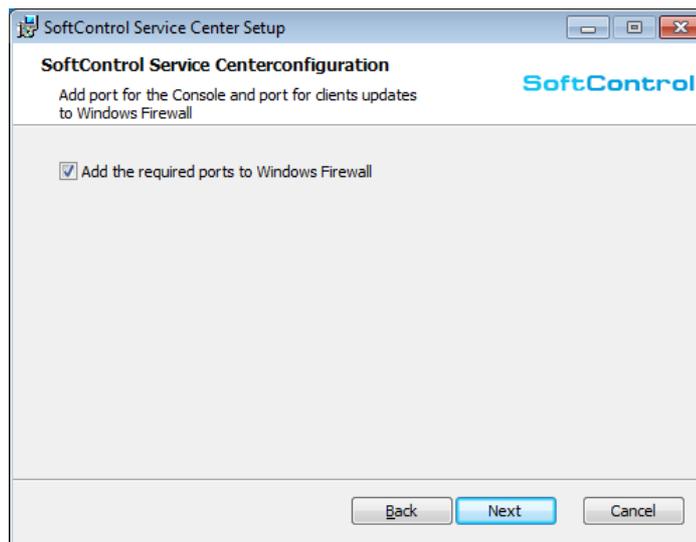


Figure 19. 'Adding a port to the firewall exceptions' option

7) If you have chosen SoftControl Admin Console and/or SoftControl Server without embedded DBMS installation, repeat actions 5-7 for [typical installation](#)⁽¹¹⁾. If you have chosen SoftControl Server with the *Microsoft® SQL Server® 2014 Express SP1* component, repeat actions 5-8 for [complete installation](#)⁽¹⁴⁾.

3.2 Setting up the server

To run SoftControl Admin Console, double-click the program desktop icon. If the server is not configured yet, enter the IP address of the computer with the installed SoftControl Server in the **Server address** field (you can use the *localhost* reserved name if SoftControl Server and SoftControl Admin Console are installed on the same computer), and click **Apply** (fig. [Running SoftControl Admin Console for the first time](#)⁽¹⁹⁾).

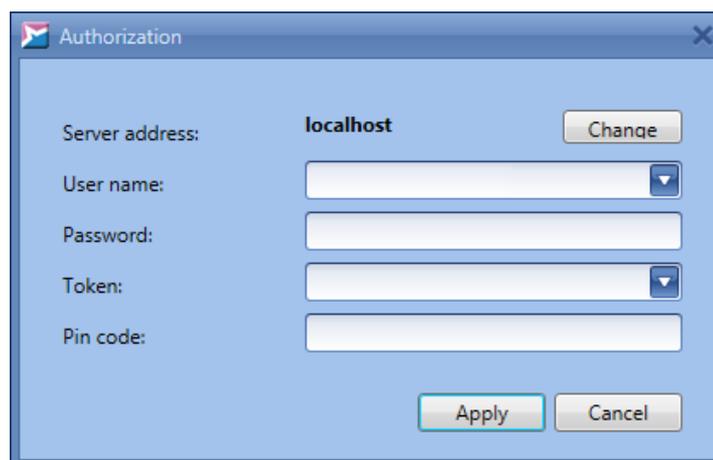


Figure 20. Running SoftControl Admin Console for the first time

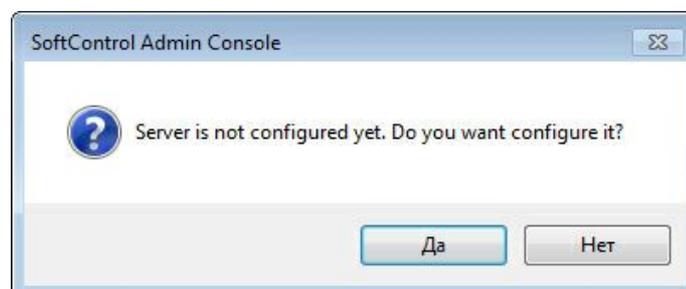


Figure 21. Suggestion to run server configuration wizard

Click **Yes** in the dialog box with the suggestion to create initial server configuration (fig. [Suggestion to run server configuration wizard](#)⁽¹⁹⁾).

In the **Database configuration** section of the server configuration wizard window, you can specify the DBMS connection options and the name of the database that the SoftControl Server component will use. If SoftControl Service Center was installed along with the embedded DBMS, the fields are filled in with the default values. In other cases, or when you need to change typical values, enter the following parameters (the default values are in parentheses) (fig. [Setting up the connection to the DBMS](#)⁽²⁰⁾):

- **DBMS** is the network address (name) of the DBMS server (*localhost\SQLTPS*);
- **Database name** is the database name on the DBMS server (*safensoft.tpsecure*);
- **Authorization type** is the type of the account to log in to the DBMS server (*SQL Server Authorization*);
- **User** is the user name on the DBMS server (*sa*);
- **Password** is the user password on the DBMS server (*SafenSoft2007*).

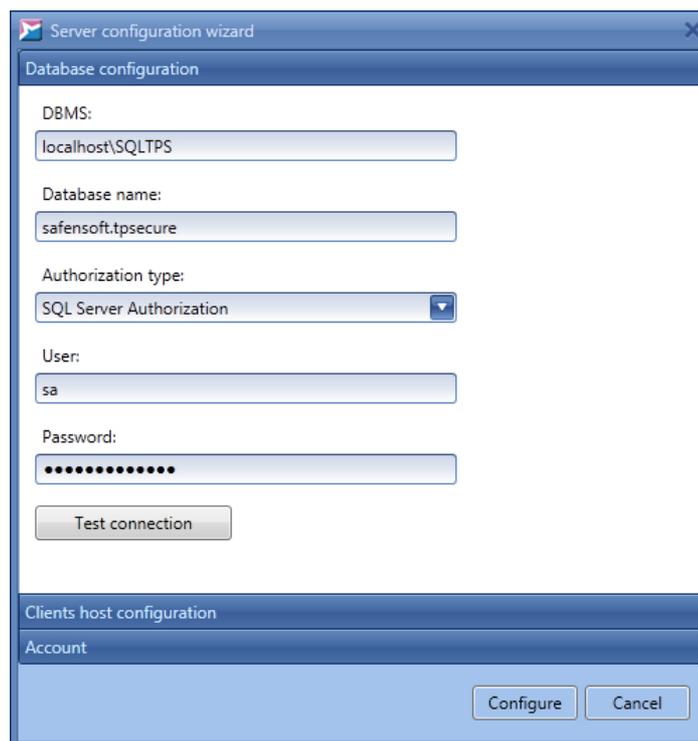


Figure 22. Setting up the connection to the DBMS

To check the connection to the DBMS and to check whether the SQL Server account is valid, click **Test connection**. If database with the specified name doesn't exist, it is created on the DBMS server when the configuration wizard completes its operation.

In the **Clients host configuration** section, you can specify the parameters of connection between client applications and the server (fig. [Setting up connection between client components and the](#)

[server](#)⁽²¹⁾). By default, current server IP address and TCP port 8000 are used to connect to the server. Communication between the client applications and the server can also be performed through several standby channels. You can implement the option by specifying all IP addresses or names (DNS or NetBIOS) by which the server is accessible for the client applications. In this case, a client component connects to each of the addresses in turn until the request is successfully processed. Connection to the server is then established at this address. If there are no successful connections at any address, the client component searches through the list of addresses again after the heartbeat period expires. To add an address to the list, enter a new value to the corresponding field and click **Add to list**. To remove an address from the list, select it and click **Delete from list**. Specify the port of connection between client applications and the server in the **Server port** field (if SoftControl Server and SoftControl Admin Console are installed on the same computer, this port should not coincide with the [connection port between SoftControl Server and SoftControl Admin Console](#)⁽²⁴⁾). Tick off the **Add port to firewall** checkbox, if the exception for the specified port is not added to the firewall.



We strongly recommend that you specify the server name in the address list, so that the client applications do not lose connection with the server even when its IP address changes automatically. If the connection is lost nevertheless, use the [instructions on how to recover connection](#)⁽¹⁶³⁾.

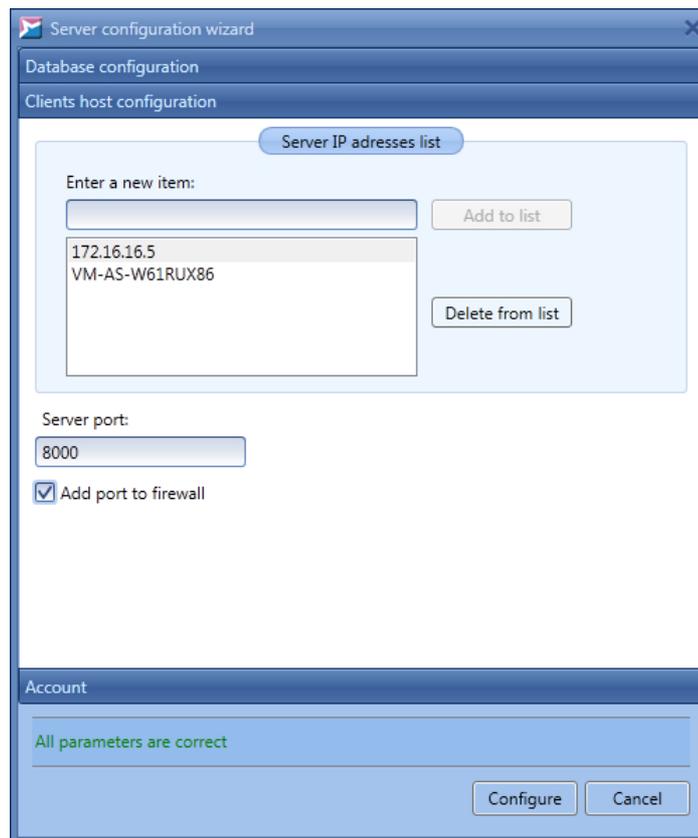


Figure 23. Setting up connection between client components and the server

Create the first user account by specifying **Account name**, **Password** and **Confirm password** in the **Account** section (fig. [Creating a user](#)⁽²²⁾). This user will have administrator privileges.

Note. You can change the user's password later by clicking **Change password** in the lower right corner of SoftControl Admin Console on any tab (see section [Accounts](#)⁽³⁴⁾).

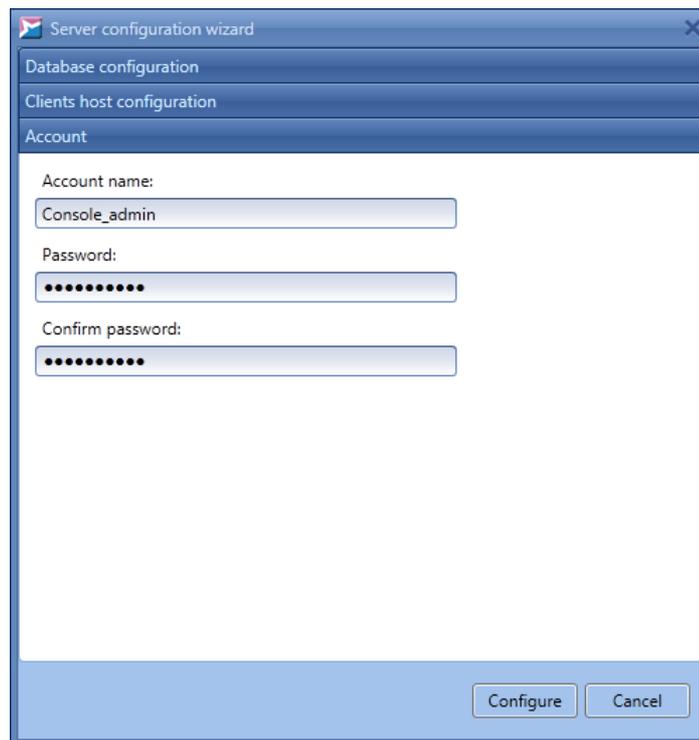


Figure 24. Creating a user

When all settings are specified, click **Configure**. If the configuration is created successfully, the corresponding message is displayed (fig. [Configuration is created successfully](#)⁽²³⁾).

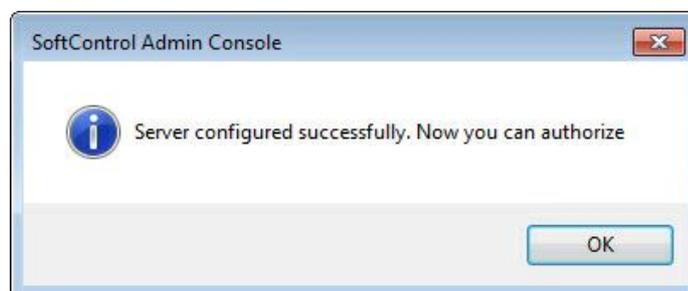


Figure 25. Configuration is created successfully

Use the created account to connect to SoftControl Server in the [authorization window](#)⁽²⁴⁾.

3.3 Registering client applications

After the [initial setup](#)⁽¹⁹⁾ of the server, the encrypted configuration file is generated in the following path on the computer with the installed SoftControl Server:

C:\ProgramData\SafenSoft\ClientSettings.xmlc

The file contains server connection parameters for the client applications, as well as [common client certificate](#)⁽¹⁶²⁾ that is used to establish secure connection by default. To register with SoftControl Service Center, apply the above-mentioned file on the remote LAN nodes with the client applications installed previously according to the documentation.

i Connection to the server in the registration standby mode is performed with the help of common client certificate, and in this case, the client doesn't send data to the server. Interaction is performed in regular mode after the client component switches to the **Active status** ⁽³⁹⁾.

For detailed description of how to apply the file, see 'SoftControl ATM Client / Endpoint Client / SClient user's guide' and 'SoftControl DLP Client installation guide' for the corresponding components.

3.4 Connecting to the server from the management console

To run SoftControl Admin Console, double click the program desktop icon. Enter **Server address**, **User name** and **Password**, select **Token** and enter its **PIN** in the **Authorization** window (fig. [User authorization in SoftControl Admin Console](#) ⁽²⁴⁾).

Figure 26. User authorization in SoftControl Admin Console

Click **Apply** to connect to the SoftControl Server component.

During user authentication, a session with unique ID is created on the server. All user operations with the management console are performed within current session, and connection between the server and management console is checked regularly. If the server cannot access management console for more than 2 minutes, current session is terminated.

i By default TCP port 8080 is used for connection between SoftControl Admin Console and SoftControl Server. If the port cannot be used for some reason, change its value in the server component and management console configuration files.

The path of the server configuration file is as follows:

C:\ProgramData\SafenSoft\Server.Config.xml

The port value is specified in the *Port* attribute of the *WebApiHost* element.

The path of the management console configuration file is as follows:

C:\ProgramData\SafenSoft\SafenSoft.Enterprise.Console.exe.Config

Port value is specified in the following part of the file:

```
<Databases>
  <Elements>
    <add name="<port value>" lastconnection="" />
  </Elements>
</Databases>
```

When you connect to SoftControl Service Center for the first time with the use of a token, SoftControl Admin Console displays a message that you should bind the account to the token (see fig. [below](#)⁽²⁵⁾). Click **Yes** to log in to the system and start the [centralized ISS management](#)⁽²⁶⁾.

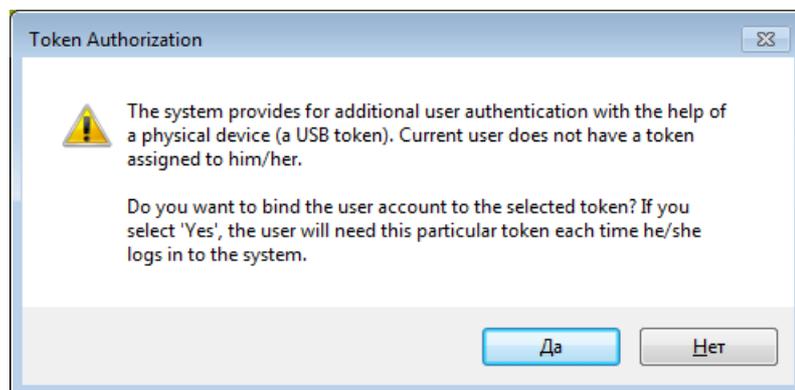


Figure 27. Binding an account to a token

You can change the token the account is bound to, in the authorization window (see [above](#)⁽²⁴⁾) or on any tab in SoftControl Admin Console, by clicking **Change token** in the lower right corner.

i If the number of log-in attempts exceeds the specified value (5 by default), the user account is blocked. You can set the value in the server configuration file with the help of the *PasswordAttempts* parameter. You can specify the period (in seconds) when the account remains blocked, with the help of the *LockForSeconds* parameter. Only the administrator can unblock the account.

Besides, the account is blocked if it has not been used for 45 days (except for **System Administrators**).

i The user session is blocked if the user is idle for 5 minutes. To continue working with SoftControl Server, the user needs to log in again.

4. Centralized ISS management

The SoftControl Admin Console management console enables remote centralized management of the SoftControl SysWatch and SoftControl DLP Client applications, on the basis of the SoftControl Server component's service functions.

This section describes how to work with SoftControl Admin Console and is designed for the administrators of the information security system (hereafter referred to as ISS) on the basis of SoftControl Service Center.

4.1 SoftControl Admin Console interface

The SoftControl Admin Console interface consists of the program's main window which has the following tabs.

- [Log](#)⁽¹¹⁶⁾;
- [Security events](#)⁽³⁶⁾;
- [Clients](#)⁽³⁹⁾;
- [Client settings](#)⁽⁵¹⁾;
- [Security profiles](#)⁽¹⁰⁵⁾;
- [Organization units](#)⁽⁴⁶⁾;
- [Tasks](#)⁽¹⁰⁸⁾;
- [Accounts](#)⁽³²⁾;
- [Roles](#)⁽³⁰⁾;
- [Contacts](#)⁽¹³⁴⁾;
- [Notifications](#)⁽¹³⁶⁾;
- [Updates](#)⁽¹⁴⁸⁾;
- [Configuration snapshots](#)⁽¹⁴²⁾;
- [Scanner](#)⁽¹²⁰⁾;
- [Changed settings](#)⁽¹²³⁾.

The upper part of the SoftControl Admin Console main window contains a row of graphical buttons under the program main menu. The buttons are used to perform basic operations in SoftControl Admin Console. Besides, the [Clients](#)⁽³⁹⁾, [Organization units](#)⁽⁴⁶⁾, [Client settings](#)⁽⁵¹⁾, [Tasks](#)⁽¹⁰⁸⁾, [Notifications](#)⁽¹³⁶⁾ and [Contacts](#)⁽¹³⁴⁾ tabs have their own graphical buttons which apply only for these tabs. The general purpose buttons are described in table 5.

Table 5. The SoftControl Admin Console general purpose widgets

Button	Name	Description	Hot keys
	Events log	Open the Log tab for the all devices.	
	Security events	Open the Security events tab.	
	Clients	Open the Clients tab.	F4
	Client settings	Open the Client settings tab.	
	Security profiles	Open the Security profiles tab.	
	Organization units	Open the Organization units tab.	
	Tasks	Open the Tasks tab.	
	Accounts	Open the Accounts tab.	
	Roles	Open the Roles tab.	
	Contacts	Open the Contacts tab.	
	Notifications	Open the Notifications tab.	
	Refresh	Refresh data in the current tab.	F5
	Choose columns	Modify how the fields in the table are arranged on the current tab.	F6
	Save view settings	Save the selected set of columns as a user filter. Applies only to the Log tab.	F2
	Print	Print out the list of current devices or the selection of events.	Ctrl + P
	Export to Excel	Export the list of current devices or the selection of events to an XLSX (Microsoft® Excel®) file.	Ctrl + E
	Configuration snapshots	Opens the Configuration snapshots tab.	
	Updates	Open the Updates tab.	
	Server	Open the server connection settings.	

Some of the functions that are called by the general purpose buttons can also be accessed from the main program menu.

The lower part of the main window displays a string with the current user name and his/her roles.

You can perform the following additional operations in the main SoftControl Admin Console win-

dow.

▼ Setting up the connection to the DBMS server

To view or modify the settings of connection between DBMS server and SoftControl Admin Console while the latter is working, click **Database**.

The connection settings window is similar to the [authorization](#)⁽²⁴⁾ window that is displayed when SoftControl Admin Console runs.

▼ Setting up the interface

To modify the SoftControl Admin Console interface settings, select **View** → **Settings** in the main menu.

By default, the SoftControl Admin Console interface language is selected on the basis of the OS regional settings, when the program runs for the first time. To change the language, select it from the drop-down list in the **Settings** window (fig. [Interface settings](#)⁽²⁸⁾):

- **ru-RU** – Russian;
- **en-US** – English (USA).

Restart the program to apply the changes.

Tick off **Run one instance only** if several instances of SoftControl Admin Console should not be allowed to run at the same time.

Specify the maximum number of events that should be displayed per page on the [Log](#)⁽¹²⁸⁾ tab, in the **Events page size** field.

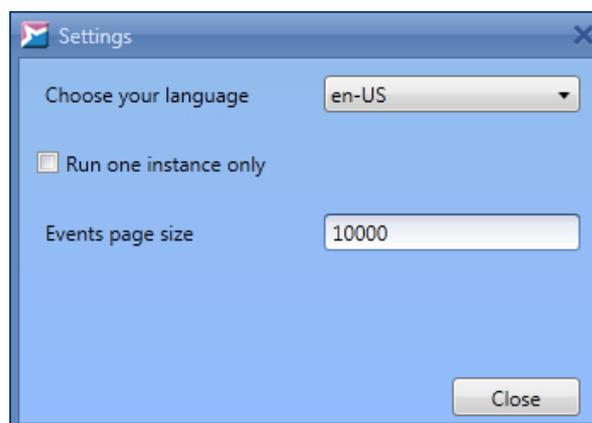


Figure 28. Interface settings

▼ Viewing information about the program

Select **About** in the main menu.

4.2 The procedure

When you manage a SoftControl Service Center-based ISS from SoftControl Admin Console, we recommend that you follow the procedure as described below, in order to decrease the time spent and to increase the efficiency.

- 1) Run SoftControl Admin Console and [connect to SoftControl Server](#)⁽²⁴⁾.
- 2) On the **Roles** tab, create additional [roles](#)⁽³⁰⁾ if necessary and assign the [roles](#)⁽³⁰⁾ with the specified permissions to the user [accounts](#)⁽³²⁾. [Supervise user actions](#)⁽³⁶⁾ via management console with the help of the **Security events** tab.
- 3) [Approve](#)⁽⁴³⁾ or [reject](#)⁽⁴³⁾ registration requests from the client components which are installed on LAN endpoints, on the **Client settings** tab.
- 4) After you finish creating the workspace of the required devices, switch to the **Client settings** tab and [add configurations](#)⁽⁵³⁾ that should apply to the client applications.
- 5) After you configure the client settings, switch to the **Organization units** tab and [create organization units](#)⁽⁴⁸⁾ (groups) by any principle to distribute the registered components on the client hosts. When you create units, [bind them to certain configurations](#)⁽⁴⁸⁾.
- 6) Switch to the **Clients** tab and [move client components](#)⁽⁴⁴⁾ to the created organizational units.
- 7) Create the required [tasks](#)⁽¹⁰⁸⁾ for client applications on the **Tasks** tab.
- 8) Switch to the **Log** tab and start [viewing the reports from the client components](#)⁽¹¹⁶⁾.
- 9) Additionally, you can [set up notifications](#)⁽¹³⁶⁾ about the incidents. The notifications will be sent to the [specified e-mails](#)⁽¹³⁴⁾. You also can [export and print out](#)⁽¹³²⁾ the required data.

4.3 Role-based access control

SoftControl Service Center features the role-based access control (RBAC) subsystem. The subsystem allows you to regulate the [users](#)⁽³²⁾ access to different functions of SoftControl Server and SoftControl Admin Console on the basis of their [roles](#)⁽³⁰⁾.

User actions are monitored through SoftControl Admin Console that registers the [server security](#)

[events](#) ⁽³⁶⁾

4.3.1 Roles

The **Roles** tab allows you to manage the roles and set up the permissions for them (fig. [The 'Roles' tab](#) ⁽³⁰⁾).

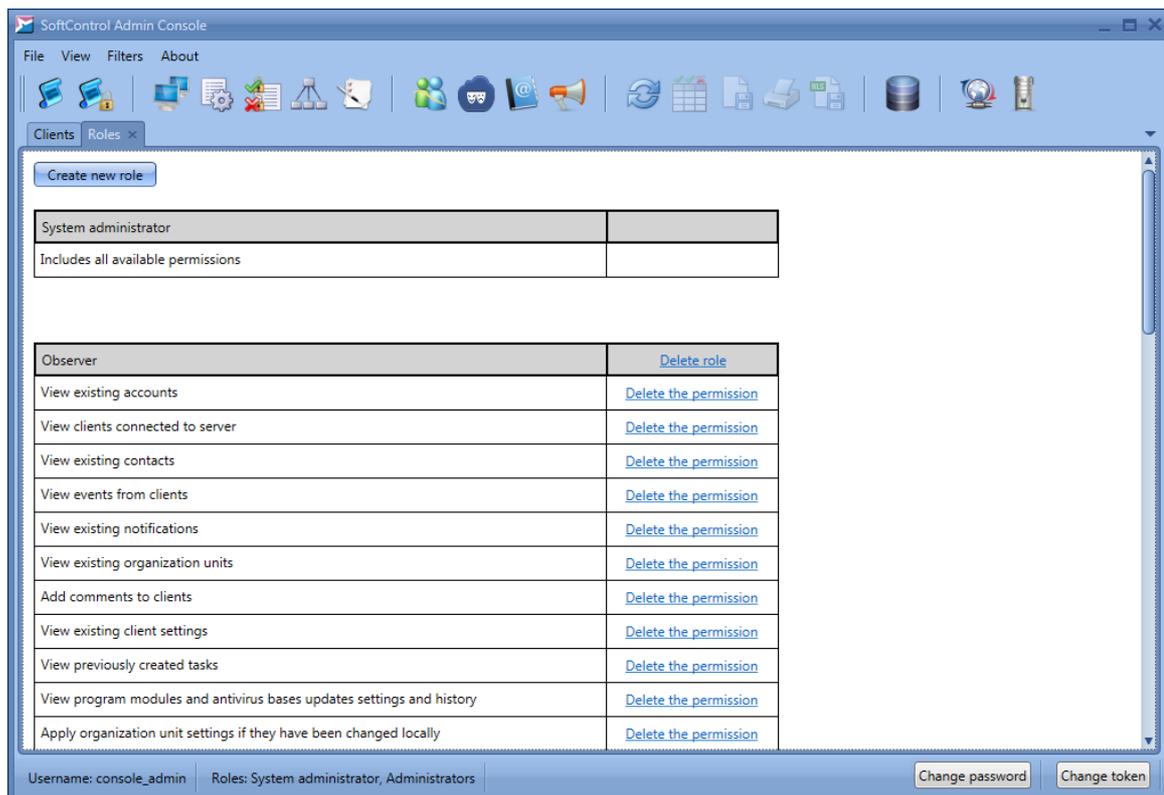


Figure 29. The 'Roles' tab

The roles on the tab are displayed as tables, where the role name is specified in the first row, and the rights to perform certain operations in management console (permissions) are in the next rows.

SoftControl Service Center includes two predefined roles:

- **System administrator** can access all the functionality of management console (recommended for advanced users and security officers).
- **Observer** can view most of information including all data on working with client applications (recommended for operators who monitor security incidents on the client hosts).

Besides, you can create new roles with their own sets of permissions. Operations with the roles on this tab are described below.

▼ Creating a role

To add a role, click **Create new role** (fig. [The 'Roles' tab](#)⁽³⁰⁾). Specify the **Role name** in the displayed window and click **OK** (fig. [Creating a new role](#)⁽³¹⁾).

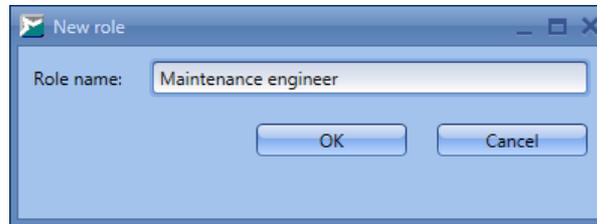


Figure 30. Creating a new role

The new role is added to the end of the role list. Set the [permissions](#)⁽³¹⁾ for the role.

▼ Modifying permissions

To add permissions to a role, click the **Add permission** button below the table with the role. Tick off the required permissions in the displayed window and click **OK** (fig. [Adding permissions](#)⁽³¹⁾).

To delete a permission, click the **Delete permission** link in the corresponding row of the table with a role (fig. [The 'Roles' tab](#)⁽³⁰⁾).

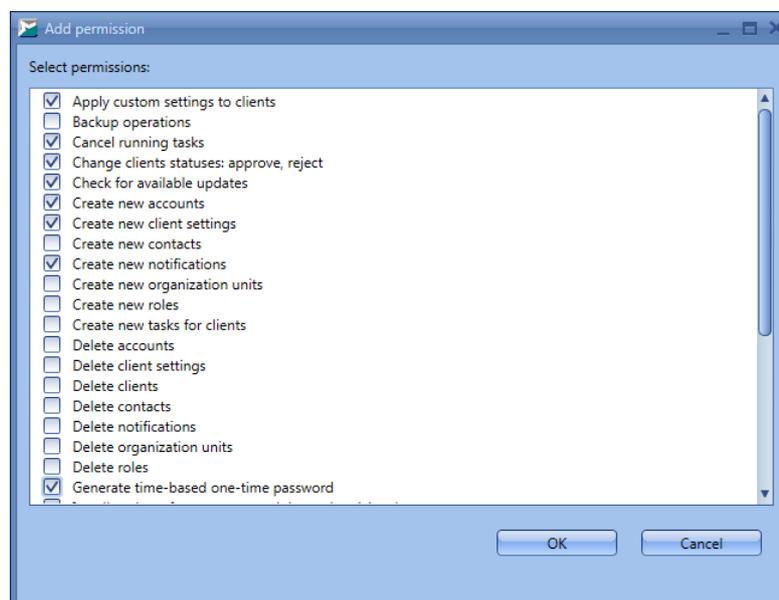


Figure 31. Adding permissions

▼ Removing a role

To remove a role, click the **Delete role** link in the table row with the role name (fig. [The 'Roles' tab](#)⁽³⁰⁾) and confirm the removal in the dialog box.

 You cannot remove roles that are assigned to current users (see section [below](#)⁽³²⁾).

4.3.2 Accounts

You can manage user accounts and assign the roles for them on the **Accounts** tab (fig. [The 'Accounts' tab](#)⁽³²⁾).

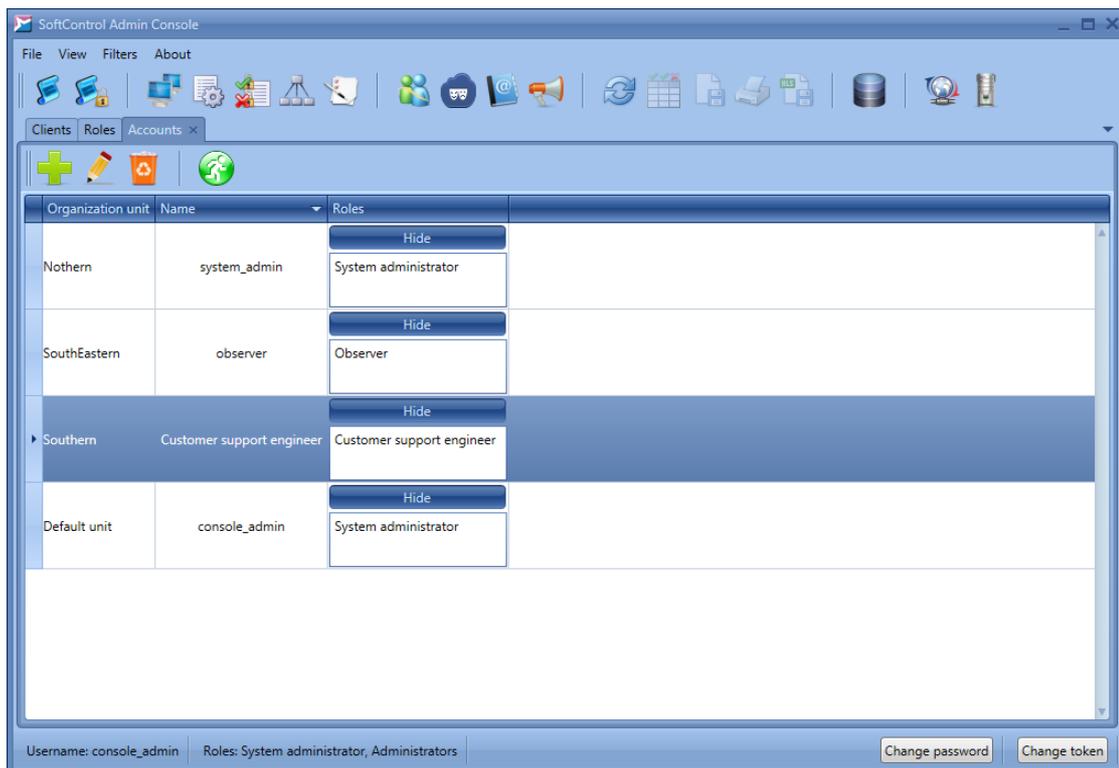


Figure 32. The 'Accounts' tab

Basic operations with user accounts are performed with the help of the tab's graphical buttons which are described in table 6.

Table 6. The 'Accounts' tab widgets

Button	Name	Description
	New	Create a new account.
	Edit	Modify the selected account properties.
	Delete	Remove the selected accounts.
	Move	Move the selected user to another organization unit.

The list of the tab fields is given in table 7.

Table 7. The 'Accounts' tab fields

Field	Description
Organization unit	The organization unit that the current user is assigned to.
Name	User name.
Roles	User roles.

Basic operations on this tab are:

▼ **Creating user account**

To create a new user account, click **New** (fig. [The 'Accounts' tab](#)⁽³²⁾). Specify the user **Name**, enter **Password** and **Confirm** it (the password should be at least 7 characters long) in the displayed window. Select the required **Roles** for the user and then click **Apply** (fig. [Creating an account](#)⁽³³⁾).

Figure 33. Creating an account

All new user accounts are automatically added to the **Default** organization unit. You can [move](#)⁽³⁵⁾ the selected account to another unit.

Depending on his/her [role](#)⁽³⁰⁾, the user can access data in the current unit and all its subsidiary units, but cannot access any data in the parent units.

You can make a temporary account by selecting **Temporary user** and specifying the date when the account should be blocked.

▼ Modifying user account

To modify user account, click **Edit** (fig. [The 'Accounts' tab](#)⁽³²⁾).

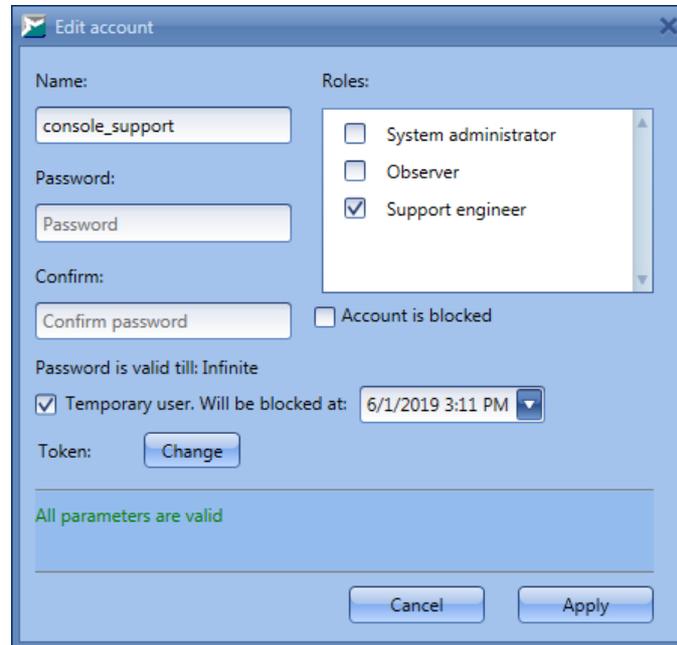


Figure 34. Modifying an account

Modify the user **Name** and/or change the **Roles** in the corresponding area in the displayed window, and then click **Apply** (fig. [Modifying an account](#)⁽³⁴⁾). The password does not change in this case. If you need to change the password, enter a new **Password** in the corresponding field and **Confirm** it (the password should be at least 7 characters long).

Besides, any user can change his or her password in the window that is displayed when the user clicks **Change password** in the lower right corner of SoftControl Admin Console (see fig. [The 'Accounts' tab](#)⁽³²⁾). The button is available on any tab.

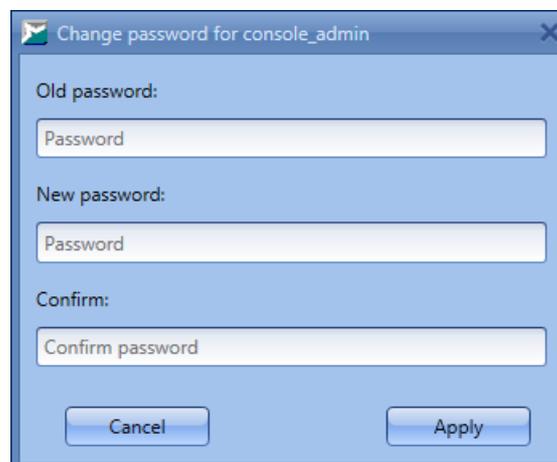


Figure 35. Changing user password

In this window, enter the old **Password**, the **New Password**, **Confirm** it (the password should be at least 8 characters long), and click **Apply**.

When changing the password, the administrator can set its lifetime. To do so, the administrator specifies the required value (the number of days) for the *PasswordValidDays* parameter in the server configuration file (C:\ProgramData\SafenSoft\Server.Config.xml). It is 60 days by default; '0' means the lifetime is unlimited. You can specify the minimum time the password is valid for with the help of the *MinPasswordPeriodDays* parameter. This value cannot be greater than the value set for the *PasswordValidDays* parameter. You can also prevent the users from using a certain number of old passwords (from 1 to 10; with the *ForbidOldPasswordCount* parameter).

If you need to block the account, tick off **Account is blocked** (fig. [Modifying an account](#)⁽³⁴⁾).

▼ **Removing an account**

To remove a user account, select it, press **Delete** (fig. [The 'Accounts' tab](#)⁽³²⁾) and confirm the removal in the dialog box.

Note. After you delete an account, you cannot create a new one with the same name in the next three years.

▼ **Moving an account**

To move an account, select it, click **Move** and select the unit you need to move the user to, in the displayed window (fig. [Moving an account](#)⁽³⁵⁾).

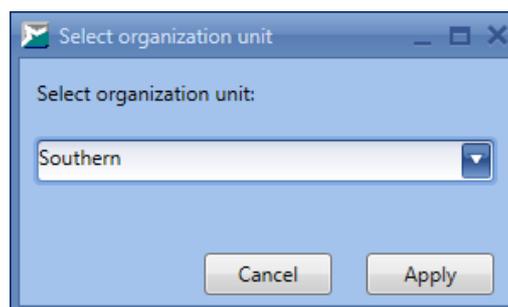


Figure 36. Moving an account

4.3.3 Server security events

Management console allows you to register user operations, so as to analyze them on the **Security events** tab (fig. [The 'Security events' tab](#) ⁽³⁶⁾).

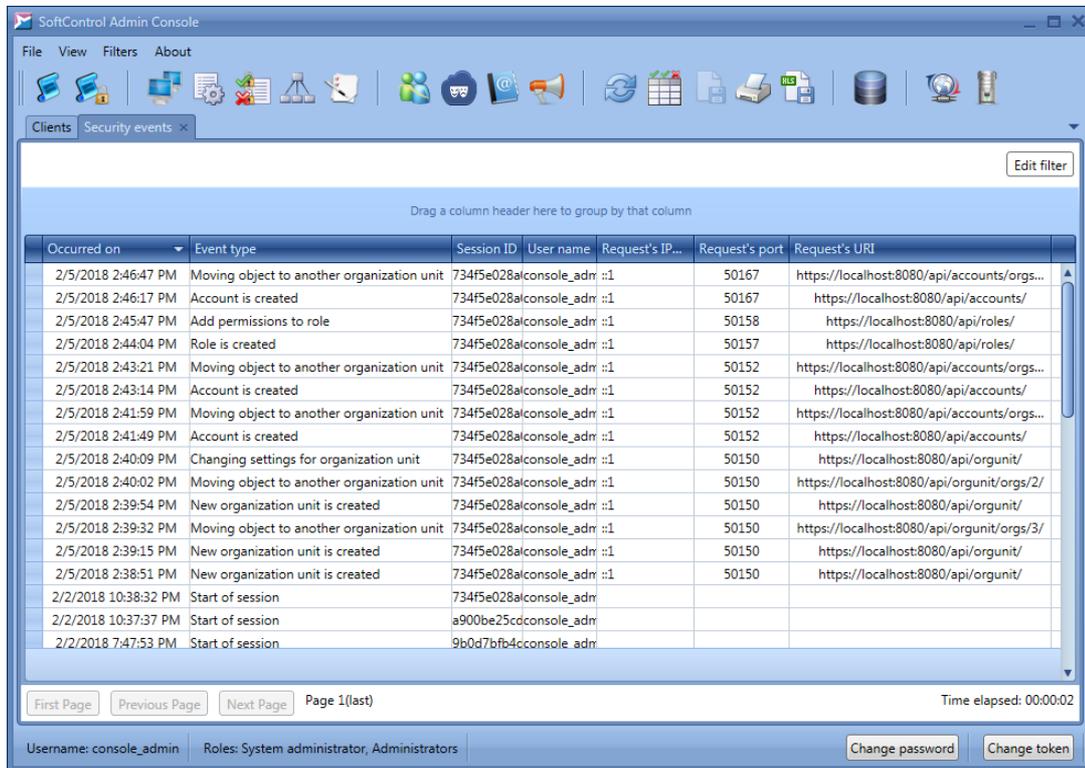


Figure 37. The 'Security events' tab

The full list of the tab fields is given in table 8.

Table 8. The 'Security events' tab

Field	Description
Occurred on	Date and time when the event occurred.
Event type	Type of the registered event: <ul style="list-style-type: none"> • Start of session; • End of session; • Role is created; • Role is deleted; • Adding permissions to role; • Role's permissions are removed; • Account is created; • Account is changed; • Account is deleted; • Approval of client; • Rejection of client; • Deletion of client; • Request to change a client certificate; • New certificate is assigned for client;

Field	Description
	<ul style="list-style-type: none"> • Moving object to another organization unit; • New organization unit is created; • Organization unit is deleted; • Creating new settings; • Changing settings for organization unit; • Assigning custom settings; • Settings are deleted; • Assigning organization unit settings; • Task is created; • Task is canceled; • Contact is created; • Contact is changed; • Contact is deleted; • Notification is created; • Notification is changed; • Notification is deleted; • Unauthorized request; • Insufficient permissions for request; • Error while processing request.
Session ID	Checksum of the ID of the session that the event is associated with.
Account	User account associated with the event.
Request IP address	IP address of the computer with the installed SoftControl Admin Console from which a request to the server is received.
Request port	Port of the computer with the installed SoftControl Admin Console from which a request to the server is received.
Request Uri	Full URI of the SoftControl Admin Console request which is sent to the server.
Role name	Role name (only for the Role is created , Role is deleted , Add permissions to role , and Role's permissions are removed event types).
Role permissions	The list of added (only for the Add permissions to role event type) or deleted (only for the Role's permissions are removed event type) role permissions.
Account name	User account name (only for the Account is created , Account is changed , and Account is deleted event types).
Client's Guid	Unique ID of the client application (only for the Approval of client , Rejection of client , Deletion of client , and Moving client to other organization unit event types).
Client's name	The name of a client host (only for the Approval of client , Rejection of client , Deletion of client , Request to change a client certificate , New certificate is assigned for client , and Moving object to another organization unit event types).
Organization unit	Organization unit which the installed client component is moved to (only for the Moving object to another organization unit , New organization unit is created , and Organization unit is deleted event types).
Settings	The name of the client application configuration (only for the Creating new settings , Changing settings for organization unit , and Settings are deleted event types).
Settings creation time	Time when the client application configuration is created on the server (only for the Creating new settings event type).
Task ID	Task sequence number (only for the Task is created and Task is canceled event types).
Task type	Task type (only for the Task is created and Task is canceled event types).
Contact name	The name of the notification recipient (only for the Contact is created , Contact is

Field	Description
	changed , and Contact is deleted event types).
Notification name	Notification name (only for the Notification is created , Notification is changed , and Notification is deleted event types).
Request's error message	Message about the error during request processing.
Unauthorized request reason	The reason why authorization on the server is impossible (only for the Unauthorized request event type).

Additional operations on this tab are described below:

▼ Changing the displayed columns

If the required column is not in the table header, to add a new field to the current tab table, click **Choose columns** and drag the required field from the **Column chooser** window (fig. [Selecting columns](#)³⁸) to the required place in the table header.

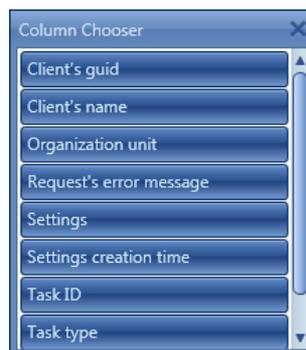


Figure 38. Selecting columns

To remove an existing field, drag it to the **Column chooser** window or out of the table header.

▼ Data grouping

For the convenience, information on the tab can be grouped by any field (category) except for **Occurrence time**. To do so, drag the column header to the panel between the table header and group of the tab buttons (fig. [Selecting columns](#)³⁸). If you group by several fields, category priority (nesting) decreases from left to right depending on the location on the panel.

4.4 Clients

The **Client** tab allows you to register client applications, move them to the organization units, check the status and receive information about the hosts that the client components are installed on (fig. [The 'Clients' tab](#)⁽³⁹⁾).

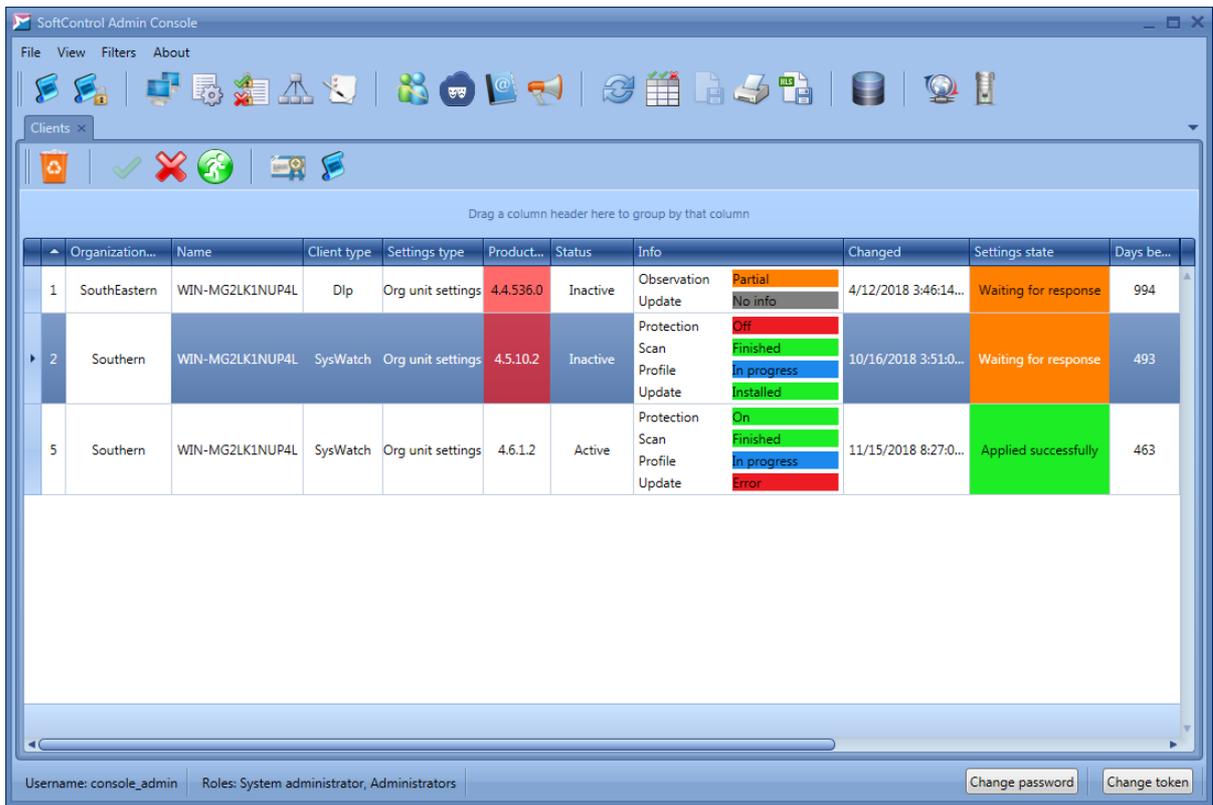


Figure 39. The 'Clients' tab

Basic operations with the devices are performed with the help of the tab's graphical buttons which are described in table 9.

Table 9. The 'Clients' widgets

Button	Name	Description	Hot keys
	Approve	Approve the registration of a client component on the server.	
	Reject	Reject the registration of a client component on the server.	
	Refresh	Refresh the certificate of a client component's specific certificate.	
	Delete	Delete the selected client component(s) from the database.	Delete
	Move	Move the selected client components to other organization units.	
	Event log	Open the Log tab for the selected components.	

The full list of the tab fields is given in table 10.

Table 10. The 'Clients' tab fields

Field	Description
Organization unit	The organization unit which the client component belongs to.
Name	The name of a client host.
Client type	Type of the installed client component on the client host: <ul style="list-style-type: none"> • SysWatch – proactive protection component (SoftControl ATM Client / Endpoint Client / SClient); • DLP – data acquisition component (SoftControl DLP Client).
Settings type	Client component configuration type: <ul style="list-style-type: none"> • Org unit settings – settings that are common for the organization unit which the client component belongs to; • Custom settings – settings that are individual for a client component, regardless of the organization unit; • Local settings – settings that have been changed locally for a SysWatch component.
Product version	Version of the installed client component. If the component version is lower than the SoftControl Admin Console version, this cell is highlighted in red. If the component version is higher than the SoftControl Admin Console version, the cell is highlighted in orange.
Status	Possible statuses that display the client component state are described below: <ul style="list-style-type: none"> • Pending: the client component has sent the registration request, and the administrator's decision is pending. • Approved: the client component registration request is approved by the administrator. • Rejected: the client component registration request is rejected by the administrator. • Active: a registered client component has sent a connection request to the server for the period of time that is equal to double heartbeat period⁽⁵⁵⁾. • Inactive: a registered client component has not sent a connection request to the server for the double heartbeat period⁽⁵⁵⁾.
Info	Additional information on a client component state. A SysWatch component has the following indicators: <ul style="list-style-type: none"> • Protection – proactive protection status. <ul style="list-style-type: none"> – On: protection of all the control scopes is enabled; – Off: protection of all control scopes is disabled; – Partial: protection of some of the control scopes is enabled. • Scan – the status of the last antivirus scanning task. • Profile – the status of the last profile gathering (automatic setup) task. <ul style="list-style-type: none"> – In progress: the task is in progress; – Stopped: the task is stopped by the user; – Finished: the task has completed successfully; – Error: an error occurred during the task start or completion. • Update – the status of the last component update. <ul style="list-style-type: none"> – Installed: the update is installed successfully; – Not found: the component updates are not found; – Needs reboot: the client host reboot is required to complete the update. <p>The No info status for the Scan, Profile and Update operations means that these actions have not been performed since the client application registration on the server.</p>

Field	Description
	<p>A DLP component has the following indicators:</p> <ul style="list-style-type: none"> • Observation – the monitoring activity status. <ul style="list-style-type: none"> – On: the monitoring of all the data collection scopes is enabled (this does not include the subcategory of removable devices); – Off: the monitoring of all the data collection scopes is disabled; – Partial: the monitoring of some of the data collection scopes is enabled.
Changed	Time when the latest event has been registered by the client component.
IP address	IP address of the client host.
DNS	Network name of the client host in a workgroup or the domain.
Days before license expiration	The number of days left before the current license key of a client component expires.
Settings state	<p>The status of the client component settings that have been received from the server. This field updates dynamically each time the settings are changed from the SoftControl Admin Console. Possible field states are:</p> <ul style="list-style-type: none"> • applied successfully; • waiting for response; • failed to apply; • local settings; • no info.
Certificate expiration date	Expiration date of the client component's specific certificate.
User comments	The field to enter comments for the select client component.
Unique ID	Unique client component's identifier that is assigned automatically after the client component sends the first request to the SoftControl Server.
Permanent connection status	<p>Possible statuses that display whether the Hold permanent connection to Service Center option is enabled (see section Common settings ⁽⁵⁶⁾):</p> <ul style="list-style-type: none"> • Active: permanent connection to SoftControl Service Center is enabled; • Inactive: permanent connection to SoftControl Service Center is turned off.
Disable local settings management	<p>The flag that determines how the client host settings are managed. If this option is enabled, you can only change the settings from SoftControl Service Center. You can enable or disable this option in the client component settings (see section SoftControl SysWatch settings ⁽⁵⁸⁾).</p>

Basic operations on this tab are:

- [managing the registration process](#) ⁽⁴³⁾;
- [moving to the organization units](#) ⁽⁴⁴⁾;
- [managing the list of files that can run](#) ⁽⁴⁵⁾.

Additional operations on this tab are described below:

▼ Working with several components

The tab allows you to work with a single component as well as with several client components.

To apply the operations to several components, select them with one of the selection methods and perform the required operations:

- selecting several random components: hold down the **Ctrl** key on the keyboard and select the required components;
- selecting a range of components: select the first component of the range, hold down the **Shift** key on the keyboard and select the last component of the range.

▼ Data grouping

For the convenience, information on the tab can be grouped by specified fields. You can group data by the **Organization unit**, **Client Type**, **Product version**, **Status**, **IP address**, **DNS**, **Days before license expiration**, **Settings state** and **User comments** fields (categories). To do so, drag the column header to the panel between the table header and group of the tab buttons (fig. [The 'Clients' tab](#)⁽³⁹⁾). If you group by several fields, category priority (nesting) decreases from left to right depending on the location on the panel.

▼ Viewing logs

To open the [Log](#)⁽¹¹⁶⁾ tab with the events list, select the required components and perform one of the following operations:

- click **Events log** in the group of buttons on the tab (fig. [The 'Clients' tab](#)⁽³⁹⁾);
- invoke the context menu by right-clicking on the list of components and select the **Show Log** command.

When you open the list of events, the header of the [Log](#)⁽¹¹⁶⁾ tab displays the number of the selected components (fig. [The 'Clients' tab](#)⁽³⁹⁾).

▼ Viewing extended profile

Select a profile and invoke the context menu by clicking the right mouse button. Select the **Show extended profile info** command. The **Profile information** tab will open. You will see the list of checksums included in the selected profile. You can filter the displayed items. At the bottom of the window you will find the **Export items to file** hyperlink. Click on it to create an XML file with items on the screen. You can also remove items or copy checksums by right-clicking on an entry.

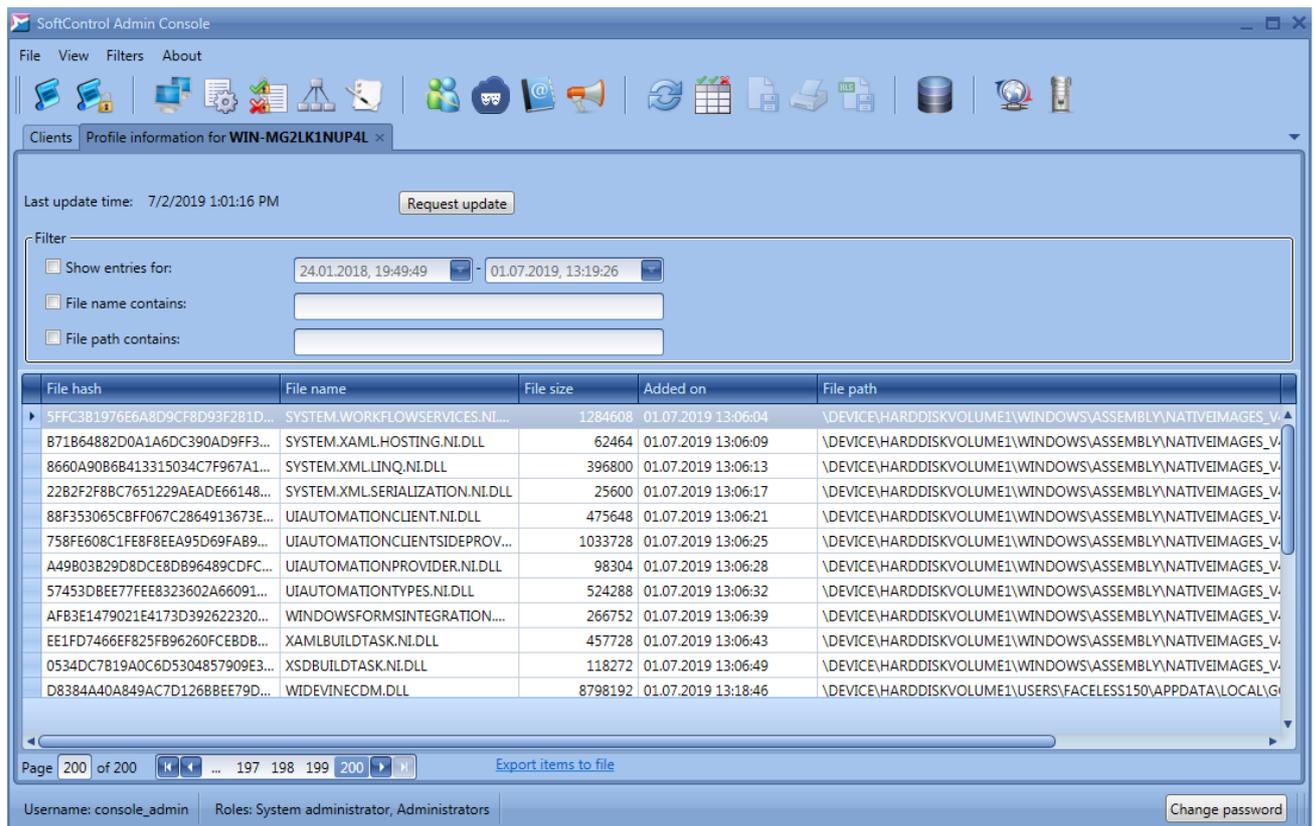


Figure 40. 'Profile information' tab

4.4.1 Managing the registration process

Managing the registration process includes the following operations.

▼ Approving the registration

Select the required client components that are in the **Pending** state and click **Approve** (fig. [The 'Clients' tab](#)⁽³⁹⁾).

The **Status** field switches to the **Approved** state as soon as the registration is approved.

When the client component request is received next time, the component's [certificate](#)⁽¹⁶²⁾ is checked. If the certificate is common then the SoftControl Server component issues a specific (unique) certificate to authorize on the server. When the client component (with the specific certificate) sends a request next time, its status changes to **Active**. The client component is placed into operation since this moment: a secure encrypted communication channel is established between the server and the client.

▼ Rejecting the registration

Select the required client components that are in the **Pending** state and click **Reject** (fig. [The 'Clients' tab](#)⁽³⁹⁾).

Once the registration of selected clients are rejected, the **Status** field switches to the **Rejected** state. Interaction of the rejected clients with the server stops.

Once registration is rejected, you can only retry registration in the following way:

- 1) Remove the client components from the database with the help of the **Delete** button.
- 2) Retry registration on the server with the [common certificate](#)⁽¹⁶²⁾.

▼ Updating client's certificate

Select the required client components that are in the **Active** or the **Inactive** state and click **Refresh** (fig. [The 'Clients' tab](#)⁽³⁹⁾).

The **Certificate expiration date** field updates when the client component with the new [specific certificate](#)⁽¹⁶²⁾ sends a request next time. The client component cannot use the previous certificate anymore because the certificate is added to the black list of the certificates.

▼ Removing the client component from the database

Select the required client components and click **Delete** (fig. [The 'Clients' tab](#)⁽³⁹⁾). The [specific certificate](#)⁽¹⁶²⁾ is not withdrawn in this case, and after the heartbeat period the deleted components are displayed in SoftControl Admin Console again with the **Pending** status. To take the client components out of service completely, perform the following operations:

- 1) Place the [specific certificate](#)⁽¹⁶²⁾ of a client component to the black list with the help of the **Reject** button.
- 2) Remove the client components from the database with the help of the **Delete** button.

4.4.2 Moving to the organization units

To move the selected client components to another organization unit, click **Move** and select the required unit from the drop-down list in the displayed window (fig. [Selecting an organization unit to move the component to](#)⁽⁴⁴⁾).



When moving client components to another organization unit, their settings automatically change to the configuration of the selected organization unit.

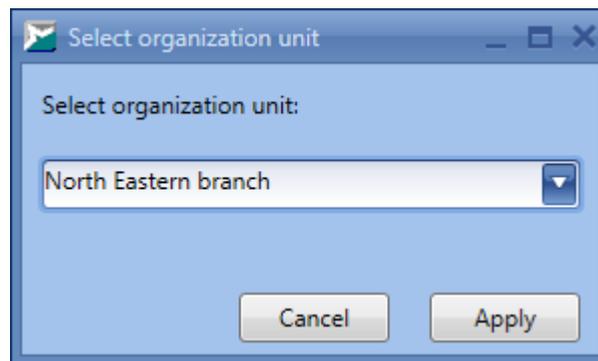


Figure 41. Selecting an organization unit to move the component to

4.4.3 Managing the list of allowed files

In SoftControl Admin Console, you can obtain the list of files that can run on a client host with installed SoftControl SysWatch, and revoke the permissions for the selected files.

To obtain the list of files, right-click the required SoftControl SysWatch application and select **Show extended profile info** in the context menu. This opens the **Profile information for <client_name>** tab (fig. [The 'Profile information for...' tab](#)⁴⁵). To start collecting data about the profile, click **Request update**. SoftControl Admin Console displays the remaining time (approximately) while it collects the information. The list of files contains additional information such as the name of the file when it was added to the list, the check sum of the file, the full path, the date when the file was added, the size of the file, as well as the flag that indicates whether the file was added to the profile by the installer (**I**) or during profile gathering (**P**).

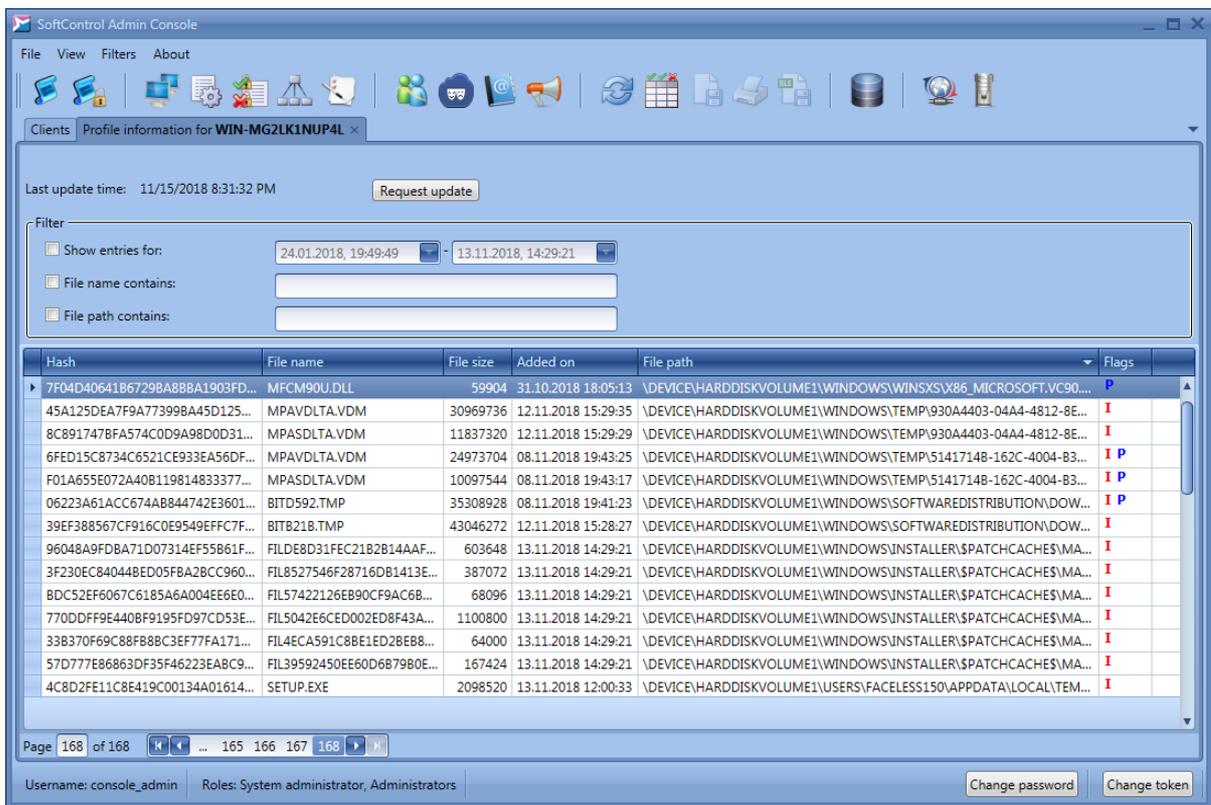


Figure42. The 'Profile information for...' tab

To view the list of files for a specified period, select the required dates in the **Filter** field. In the filter, you can specify a part of the file name and a part of the path to the file. To revoke permissions for certain files, select the files using **Shift** or **Ctrl** and click **Remove selected** in the context menu.

4.5 Organization units

The **Organization units** tab allows you to group client components by territorial, administrative or other attributes (fig. [The 'Organization units' tab](#)⁽⁴⁶⁾). Besides, you can bind organization units to the configurations and generate one-time passwords on this tab.

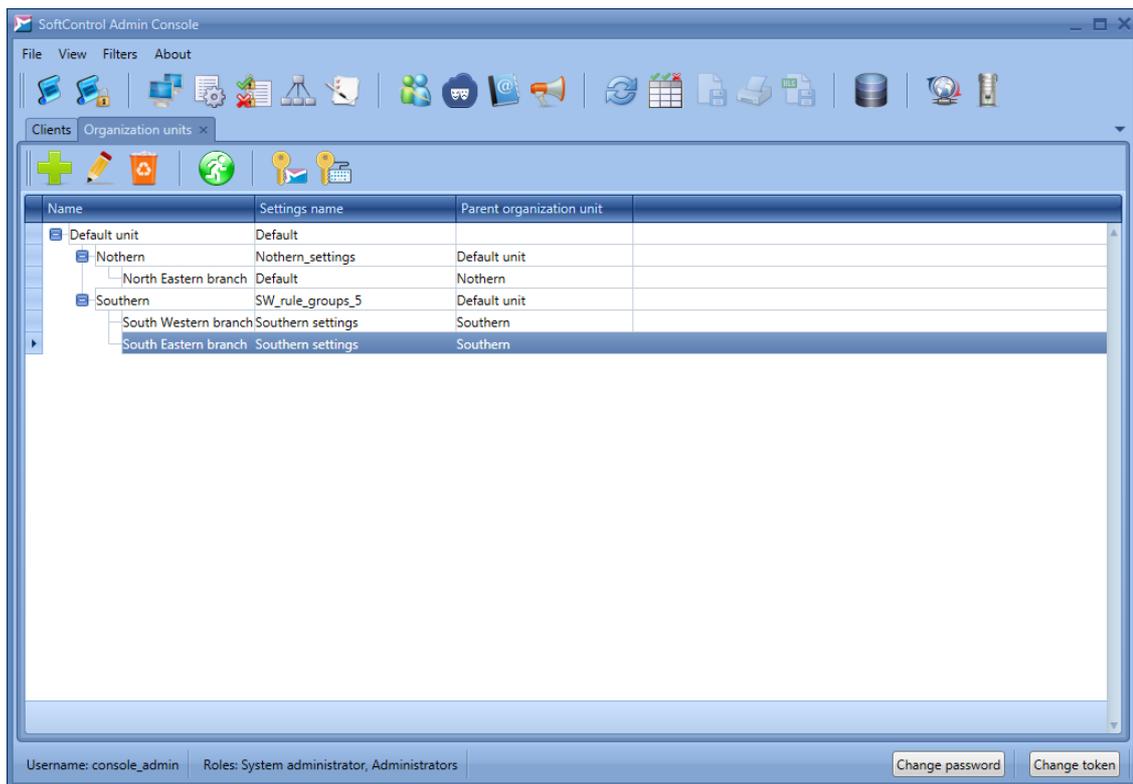


Figure 43. The 'Organization units' tab

There is always at least one organization unit in the program, the **Default unit**, and you cannot delete it. All the new client components are moved to this organization unit automatically. The administrator can then create the required hierarchical structure of organization units (with any level of nesting), with the help of the **Move** button. When a unit is created, it is assigned a set of client settings. Basic operations with the organization units are performed via the tab's graphical buttons which are described in table 11.

Table 11. The 'Organization units' tab widgets

Button	Name	Description
	New	Create a new organization unit.
	Edit	Modify the properties of the selected organization unit.
	Delete	Remove the selected organization unit(s).
	Move	Move the selected organization unit to another unit. You cannot move the Default unit . You cannot move a parent organization unit to a subsidiary unit.
	One-time password for SysWatch	Open the one-time password generator window.
	One-time password for keyboard	Open the window to generate passwords that unlock the keyboard on a client host.

List of the tab fields is given in table 12.

Table 12. The 'Organization units' tab fields

Field	Description
Name	Organization unit name.
Parent organization unit	The name of the parent organization unit.
Settings name	Client component configuration that applies to the organization unit.

Basic operations on this tab are:

- [managing the organization units](#)⁽⁴⁸⁾;
- [generating one-time passwords](#)⁽⁵⁰⁾.

4.5.1 Managing the organization units

Managing the organization units includes the following operations.

▼ Creating an organization unit

To add a new organization unit, click **New** (fig. [The 'Organization units' tab](#)⁽⁴⁶⁾).

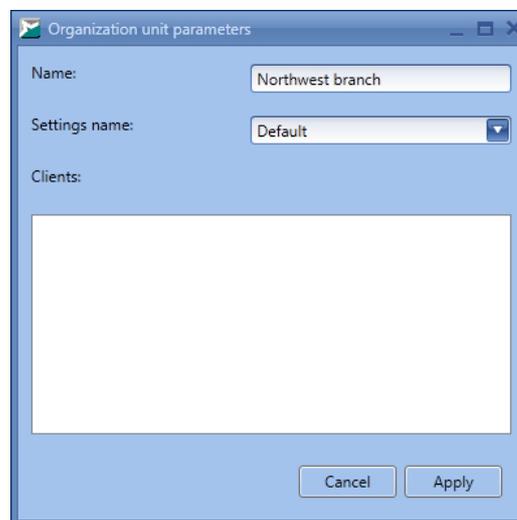


Figure 44. Creating an organization unit

Specify the **Name** of the organization unit in the displayed window and select **Settings name** in the drop-down list; then click **Apply** (fig. [Creating an organization unit](#)⁽⁴⁸⁾).

▼ Modifying an organization unit properties

To modify an organization unit properties, click **Edit** (fig. [The 'Organization units' tab](#)⁽⁴⁶⁾).

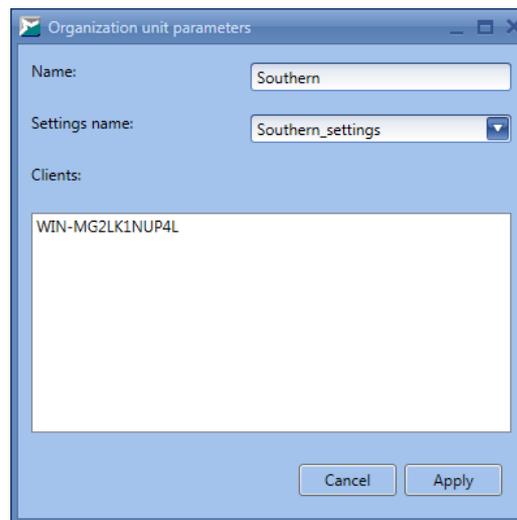


Figure 45. Organization unit properties

Modify the **Name** of the organization unit and/or select another **Settings name** in the drop-down list; then click **Apply** (fig. [Organization unit properties](#)⁽⁴⁸⁾). If the organization unit contains components, they are displayed in the **Clients** list.

▼ Removing an organization unit

To remove an organization unit, select it, press **Delete** (fig. [The 'Organization units' tab](#)⁽⁴⁶⁾) and confirm the removal in the dialog box. All the components from this organization unit are moved to its parent unit.



You cannot remove the **Default** organization unit.

▼ Moving an organization unit

To move an organization unit, select it and click **Move**. In the displayed window, select the organization unit you want to move the current unit to (fig. [Moving an organization unit](#)⁽⁴⁹⁾).

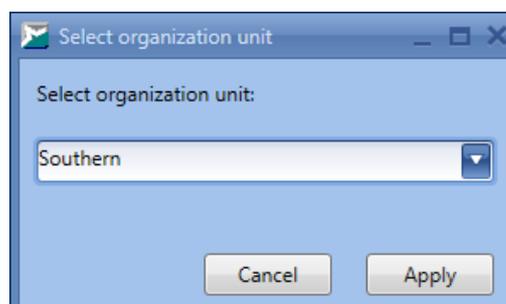


Figure 46. Moving an organization unit



You cannot move the **Default** organization unit. You cannot move a parent organization

unit to a subsidiary unit.

4.5.2 Generating one-time passwords

SoftControl Service Center features the secure authentication subsystem based on the one-time password algorithm (TOTP). This algorithm has the high cryptographic strength and allows you to generate passwords that are valid only for a certain period of time. One-time passwords can be used to access the SoftControl SysWatch GUI/uninstaller when necessary (for example, if you need to give a one-time access to SoftControl SysWatch without disclosing the main password), as well as to unlock the keyboard on the client hosts.

You should enable and set up the [corresponding option](#)⁽⁷⁰⁾ in the organization unit configuration to start working with the one-time password generator.

One-time password generation is performed within an organization unit: the generated password applies to all the SoftControl SysWatch applications in the organization unit. To open the generator window, select the organization unit and click  (**One-time password for SysWatch**) or  (**One-time password for keyboard**) (fig. [The 'Organization units' tab](#)⁽⁴⁶⁾). In the displayed window, select **Time interval** for the password and click  (**Generate password**). The **One-time password for SysWatch (One-time password for keyboard)** field contains the generated password. The **Time left** counter displays the password's lifetime in the *dd:hh:mm:ss* format (fig. [The generator window](#)⁽⁵⁰⁾). After the lifetime expires, click  again to generate a new password.



- I) One-time passwords for SysWatch are designed for combined use with the main password. To access SoftControl SysWatch on a client host through the one-time passwords, [main password protection](#)⁽⁶²⁾ should be enabled. When SoftControl SysWatch GUI requests a password, tick off **Use TOTP password**.
 - II) As TOTP algorithm uses time as a parameter, you should synchronize the UTC time (i.e. regardless of time zone) on the computer with the installed SoftControl Admin Console and the host with the installed SoftControl SysWatch, so that the error is much less than the password lifetime.
-

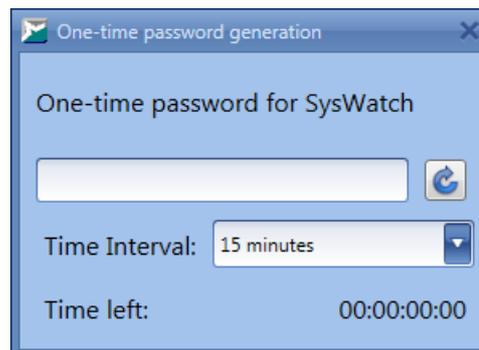


Figure 47. The generator window for SysWatch

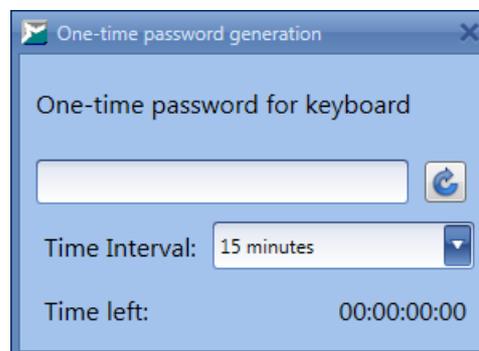


Figure 48. The generator window for keyboard

4.6 Setting up client components

The **Client settings** tab contains the list of the client application configurations (settings) (fig. [The 'Client settings' tab](#)⁽⁵¹⁾).

SoftControl Admin Console has the following types of configurations:

- organization unit settings;
- custom settings;
- local settings (only for SoftControl SysWatch).

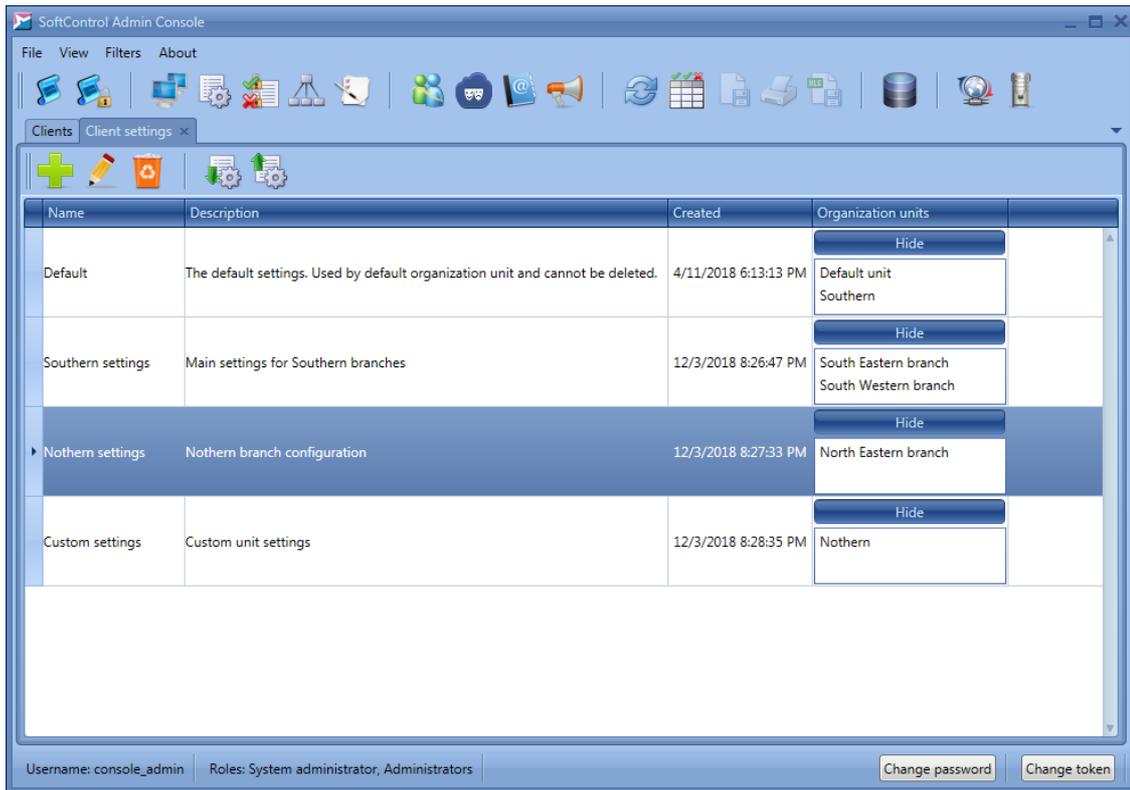


Figure 49. The 'Client settings' tab

By default, all client components receive the organization unit settings after registration on the server. Custom settings are intended for cases when you need to set a configuration that differs from the organization unit configuration, for a certain client component. The tab contains the list of all configurations including custom configurations. Information about how to work with custom settings is given [below](#) ⁵⁴.

Basic operations with the configurations are performed via the tab's graphical buttons that are described in table 13.

Table 13. The 'Client settings' tab widgets

Button	Name	Description
	New	Create a new client component configuration.
	Edit	Modify the selected configuration.
	Delete	Remove the selected configuration(s).
	Import	Import a configuration from an XML file.
	Export	Export the select configuration to an XML file.

The list of the tab fields is given in table 14.

Table 14. The 'Client settings' tab fields

Field	Description
Name	Client component configuration name.
Description	Client component configuration description.
Created	Date and time when the configuration was created.
Organization units	The list of the organization units which the configuration applies to.

SoftControl Admin Console has the following categories of the centrally managed settings of client components:

- [common settings](#) ⁽⁵⁵⁾;
- [SoftControl SysWatch settings](#) ⁽⁵⁸⁾;
- [SoftControl DLP Client settings](#) ⁽⁹⁶⁾.

Basic operations on this tab are:

▼ Creating a configuration

To add a new configuration, click **New** (fig. [The 'Client settings' tab](#) ⁽⁵¹⁾). Specify the configuration parameters in the **Client settings editor** window (see figures from [The 'Name' section](#) ⁽⁵⁵⁾ to [Update schedule settings](#) ⁽¹⁰⁵⁾). If the **All parameters are correct** status is displayed in the lower part of the window, click **Apply** to add the created configuration; otherwise, modify invalid parameters.

▼ Creating the configuration based on the current one

To add a new configuration that is based on the current one, select it and perform one of the following operations:

- click **Edit** in the tab's button group (fig. [The 'Client settings' tab](#) ⁽⁵¹⁾);
- double-click the configuration.

In the the **Client settings editor** window, modify the configuration name (mandatory) and parameters (if necessary) as you do with a new configuration (see figures from [The 'Name' section](#) ⁽⁵⁵⁾ to [Update schedule settings](#) ⁽¹⁰⁵⁾). If the **All parameters are valid** status is displayed in the lower part of the window, click **Apply** to add the created configuration; otherwise, modify invalid parameters.

▼ Changing settings type

To change the type of the client component settings, go to the [Clients](#)⁽³⁹⁾ tab, invoke the context menu by right-clicking the required component and select one of the commands:

- **Use orgunit settings:**
assign the settings of the organization unit that client component belongs to.
- **Use custom settings:**
assign custom settings to the client component.
- **Resubmit client's settings:**
assign the latest configuration from SoftControl Server to a SoftControl SysWatch client component with the locally changed settings.

▼ Using custom configurations

To add a new custom configuration and assign it to a client component, go to the [Clients](#)⁽³⁹⁾ tab, invoke the context menu by right-clicking the required component and select **Use custom settings**. Click **Add** in the **Select custom settings** window to create a new custom configuration (fig. [Managing custom settings](#)⁽⁵⁴⁾).

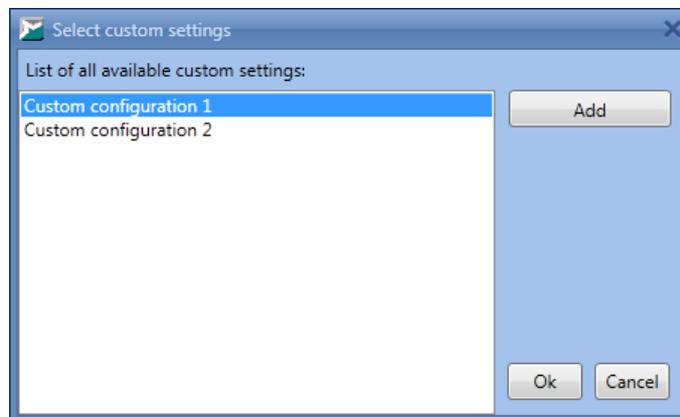


Figure 50. Managing custom settings

Specify the configuration parameters in the **Client settings editor** window (see figures from [The 'Name' section](#)⁽⁵⁵⁾ to [Update schedule settings](#)⁽¹⁰⁵⁾). If the **All parameters are valid** status is displayed in the lower part of the window, click **Apply** to add the created configuration; otherwise, modify invalid parameters. The created configuration is added to the custom configuration list. Select it from the list (or select a configuration that was created earlier) and click **OK** to apply the configuration to the client component.

▼ Removing a configuration

To remove a configuration, select it, press **Delete** (fig. [The 'Client settings' tab](#)⁽⁵¹⁾) and confirm the removal in the dialog box.

4.6.1 Common settings

This category of settings includes common configuration parameters and the settings of interaction between the client applications and the server.

▼ Name

The name of the client component configuration is required to identify a certain settings kit, while the configuration description provides brief information about the settings kit.

To specify the name and the description, enter them to the corresponding fields in the **Name** section of the **Common settings** category (fig. [The 'Name' section](#)⁽⁵⁵⁾).

 The configuration name should be unique and should not coincide with the existing names.

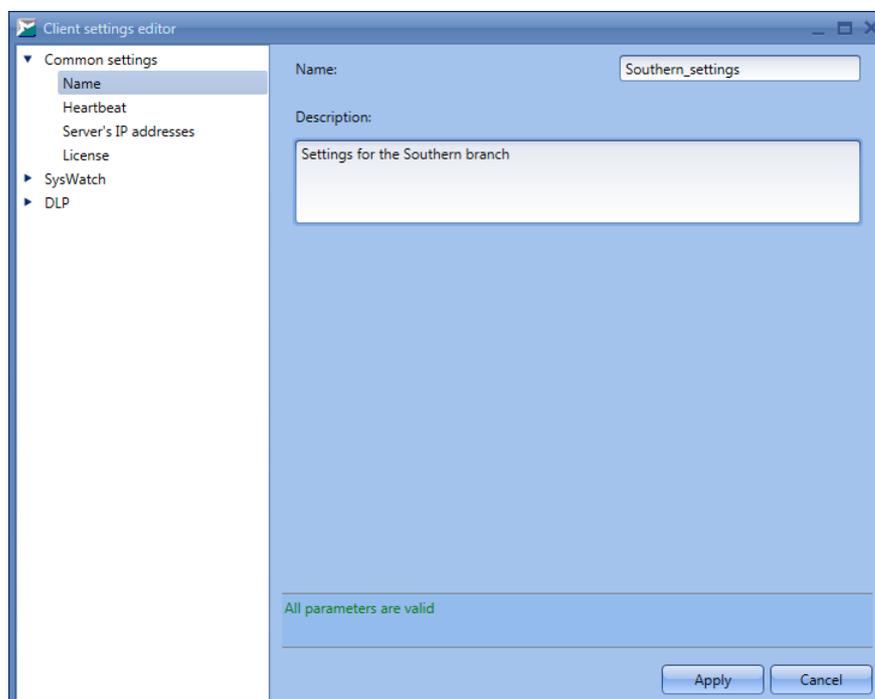


Figure 51. The 'Name' section

▼ Heartbeat

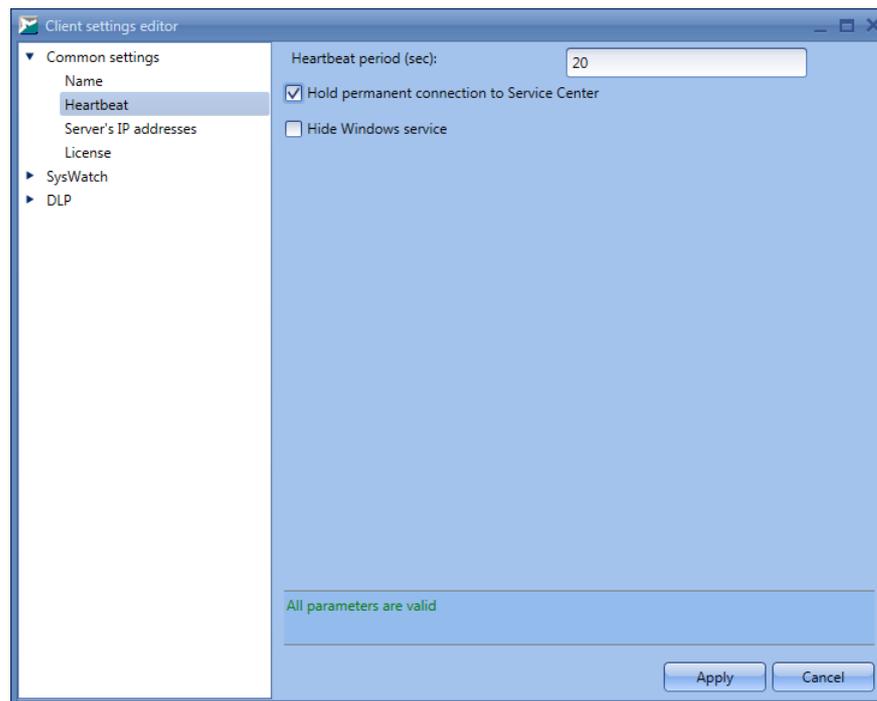


Figure 52. The 'Heartbeat' section

Heartbeat is the client component parameter that specifies the period when a client component connects to the SoftControl Server component. The default value is 60 seconds (1 minute).

To modify the parameter, switch to the **Heartbeat** section of the **Common settings** category and enter the value (in seconds) in the **Heartbeat period (sec)** field (fig. [The 'Heartbeat' section](#)⁽⁵⁶⁾).

Tick off **Hold permanent connection to Service Center** if you need to maintain connection to SoftControl Service Center in real time.

Besides, you need to tick off **Hold permanent connection to Service Center** if you need to enable video recording on request for SoftControl DLP Client. For video recording settings, see section [SoftControl DLP Client settings](#)⁽¹⁰⁴⁾.

Tick off **Hide Windows service** if the SoftControl SysWatch and SoftControl DLP Client system services (*safensec.exe* and *eventsvc.exe*, respectively) should be hidden from the Windows **Services** snap-in.

Note: hiding system services does not work on Windows XP.

Note: if system services are hidden, you cannot manage them with any OS tools.

▼ Specifying the server IP addresses

You can specify the server addresses that the client components can access, in the [server configuration wizard](#)⁽²⁰⁾.

To change the list of the addresses, switch to the **Server's IP addresses** section of the **Common settings** category and modify the list (fig. [The 'Server's IP addresses' section](#)⁵⁷).

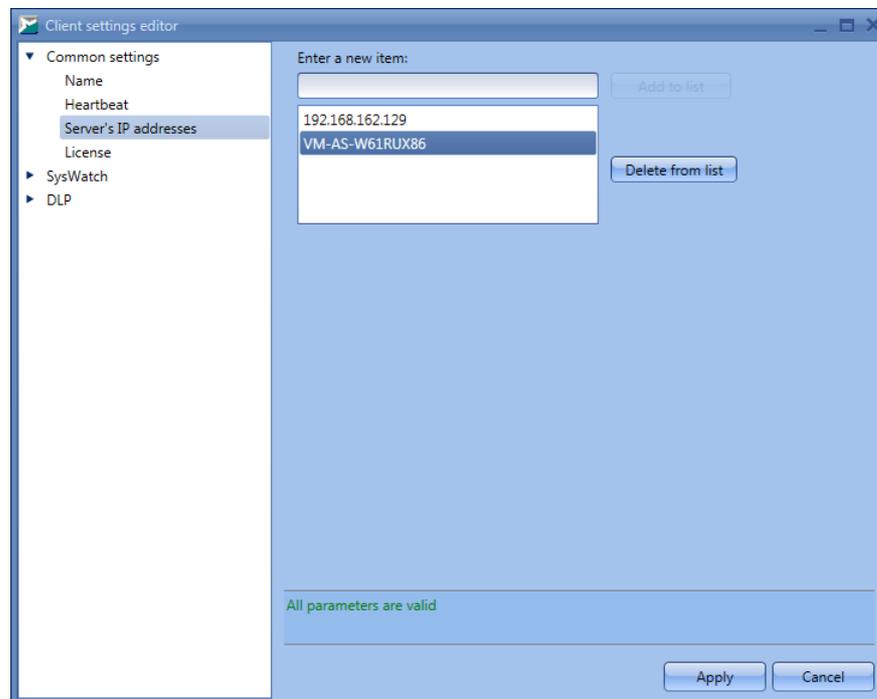


Figure 53. The 'Server's IP addresses' section

To add an address to the list, enter a new value of an IP address or a name to the corresponding field and click **Add to list**. To remove an address from the list, select it and click **Delete from list**.

▼ License

The license key determines the functionality of the client components. The trial license is installed by default; it is valid for 30 days.

To specify the key, switch to the **License** section of the **Common settings** category, select the type of the client component in the drop-down list (**SysWatch**, **DLP**), enter the key to the text field and click **Verify** to validate the license and display its parameters if the key is valid (fig. [The 'License' section](#)⁵⁷).

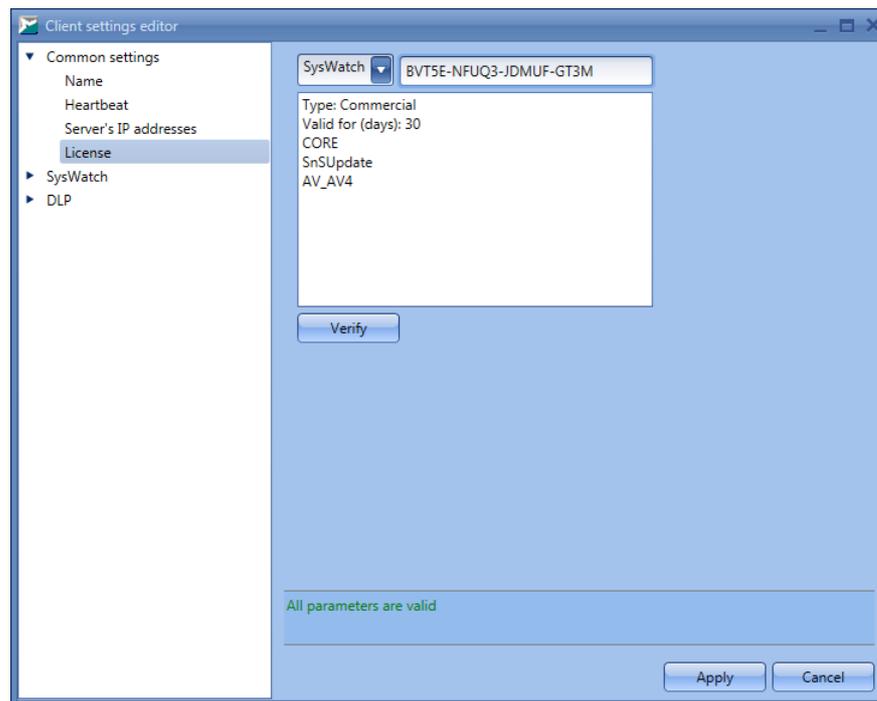


Figure 54. The 'License' section

4.6.2 SoftControl SysWatch settings

This category of settings includes the SoftControl SysWatch component configuration that is similar to the configuration specified with the help of SoftControl SysWatch GUI, and the control policies.

▼ Activity control

Tick off the checkboxes at the required control scopes in the **Activity control** section of the **SysWatch** category (fig. [Activity control settings](#)⁽⁶⁰⁾):

- Activity control:**
 - Applications;**
 - Network;**
 - File system;**
 - Registry.**

Select the required additional options of the activity control below:

- Disable system profile:**
 - Turn off the monitoring of PE files on the client host.
- Disable the external control of system service:**
 - Do not allow unloading the SoftControl SysWatch system service from a client host RAM.
- Global software update mode:**

Execute all applications in installation mode.

When this mode is active, all applications run as installers and are added to the profile (education mode). All modifications of the PE files are added to the profile as well. We recommend that you only use this mode on 'clean' systems, where all software has been installed from a master image. To enable or disable the mode, you need to restart the client host.

❑ Save activity history for untracked applications and installers:

Automatically enable the activity history saving option when an application that is not in the profile or an unsigned installer runs for the first time.

❑ Disable script engine:

Do not allow the interpreters to run untrusted scripts (except for the scripts that are signed with a digital signature from the whitelist of certificates). The following processes are blocked:

- wscript.exe (Microsoft® Windows Based Script Host);
- cscript.exe (Microsoft® Console Based Script Host);
- java.exe (Java™ Platform SE binary);
- javaw.exe (Java™ Platform SE binary);
- javaws.exe (Java™ Web Start Launcher).

In order to block specific processes, we recommend that you create the appropriate [Control policy rules](#)⁷⁷.

❑ Enable dll module control (client reboot is required):

Activate the integrity control of the dynamic link libraries (DLL) that are used by the executable components.

Dll module control works as follows. When an exe file tries to load a dll library, SoftControl SysWatch checks whether the library has a digital signature. If the library is signed and the digital signature certificate is considered trusted by Windows, SoftControl SysWatch allows the library to load, even if the library is not in the profile. If the library has no digital signature, SoftControl SysWatch checks whether it is in the profile. If the library is in the profile, SoftControl SysWatch allows it to load; otherwise, SoftControl SysWatch blocks it.

Note: libraries that do not have an entry point (resource-only libraries without executable code) cannot be blocked.

❑ Disable modification of portable executable files (except for installers):

Block modification of the executable files (exe, dll, etc.) by all applications except for the

applications that work in the software update mode.

❑ Remove information on programs that have not run for more than (days):

Delete entries about inactive applications that meet the specified condition (the number of days without activity), from the SoftControl SysWatch database.

❑ Delay system service start for (min):

Specify the delay of the SoftControl SysWatch system service start.

❑ Log similar event of control policy violation after (sec.):

Specify the period of time after which SoftControl SysWatch starts logging similar events (60 seconds by default). Control policy violation events are considered *similar* and are not logged if the following conditions are met at the same time.

- the following parameters coincide for the events:
 - actions;
 - binary paths;
 - command lines;
 - process identifiers (PIDs);
- period of time after the previous event has been added is less than the specified value.

The text log on the client host with SoftControl SysWatch contains information about how many similar events have been skipped.

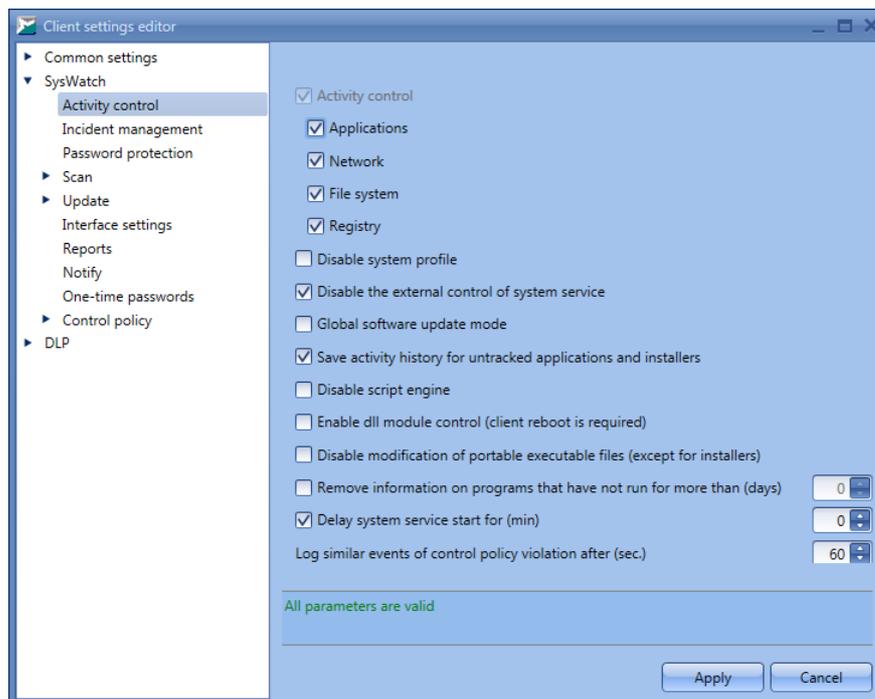


Figure 55. Activity control settings

▼ Incident management

Tick off the **Enable automatic incident processing** checkbox in the **Incident Management** section of the **SysWatch** category and specify the reaction to the incidents from the **Incident list** in the **Decision** drop-down list, according to table 15 (fig. [Incident processing settings](#)⁶¹).

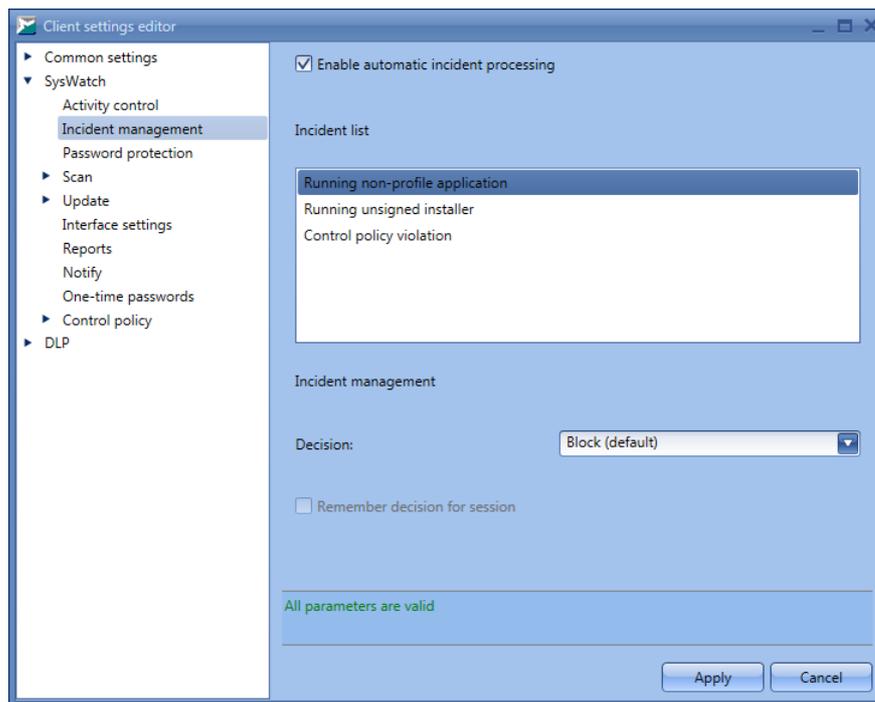


Figure 56. Incident processing settings

Table 15. Possible actions on incidents

Incident	Actions
Running non-profile application	<ul style="list-style-type: none"> • Execute in the restricted mode The application runs in the isolated environment ('sandbox') under the V.I.P.O. user account with limited permissions. The application is not added to the system profile but is moved to the restricted zone instead. The application can download child modules that are not added to the system profile either. Even if this application is harmful and it installs some extra components, SoftControl SysWatch prevents them from loading. • Scan and execute in the restricted mode The application runs in the restricted mode, if no malicious code has been found during the antivirus scanning. Otherwise, the application is blocked. • Execute in the software update mode The application runs under current user account without restrictions. The application and all its child modules are moved to the system profile and to the trusted execution zone. • Scan and execute in the software update mode The application runs in the software update mode, if no malicious code has been found during the antivirus scanning. Otherwise, the application is blocked. • Block (default) The application is blocked.
Running unsigned installer	<ul style="list-style-type: none"> • Install The installer runs under current user account without restrictions. The application and all its

Incident	Actions
	<p>child modules are moved to the system profile and to the trusted zone after installation.</p> <ul style="list-style-type: none"> • Scan and install The installer runs in the software update mode, if no malicious code has been found during the antivirus scanning. Otherwise, the installer is blocked. • Install in the restricted mode The installer runs in the isolated environment ('sandbox') under the V.I.P.O. user account with limited permissions. The installer is not added to the system profile. • Scan and install in the restricted mode The installer runs in the restricted mode, if no malicious code has been found during the antivirus scanning. Otherwise, the installer is blocked. • Block (default) The installer is blocked.
Control policy violation	<ul style="list-style-type: none"> • Allow Allow a process to perform an action that meets the conditions of the specified control policy rule, once or for a session. • Scan and allow Allow a process to perform an action that meets the conditions of the specified control policy rule once or for a session, if no malicious code has been found during the antivirus scanning. Otherwise, the action is blocked. • Block Do not allow the process to perform an action that meets the conditions of the specified control policy rule. • Block and kill application Do not allow the process to perform an action that meets the conditions of the specified control policy rule, and then kill the process. <p>When Remember decision for session checkbox is ticked off, the above-mentioned actions are repeated during the session; otherwise, the actions are only performed once.</p>

To delegate the authorities to handle the incidents to a local SoftControl SysWatch user, deselect the **Enable automatic incident processing** checkbox.

▼ Password protection

To enable common password protection of the SoftControl SysWatch interface and/or uninstaller on a client host, switch to the **Password protection** section of the **SysWatch** category and tick off the **Enable password protection** checkbox (fig. [Password protection settings](#)⁽⁶²⁾).

Enter a **Password** and its **Confirmation**, and select the **Scope**:

Changing the settings:

Request the password when accessing SoftControl SysWatch GUI.

Uninstalling the program:

Request the password when uninstalling SoftControl SysWatch.

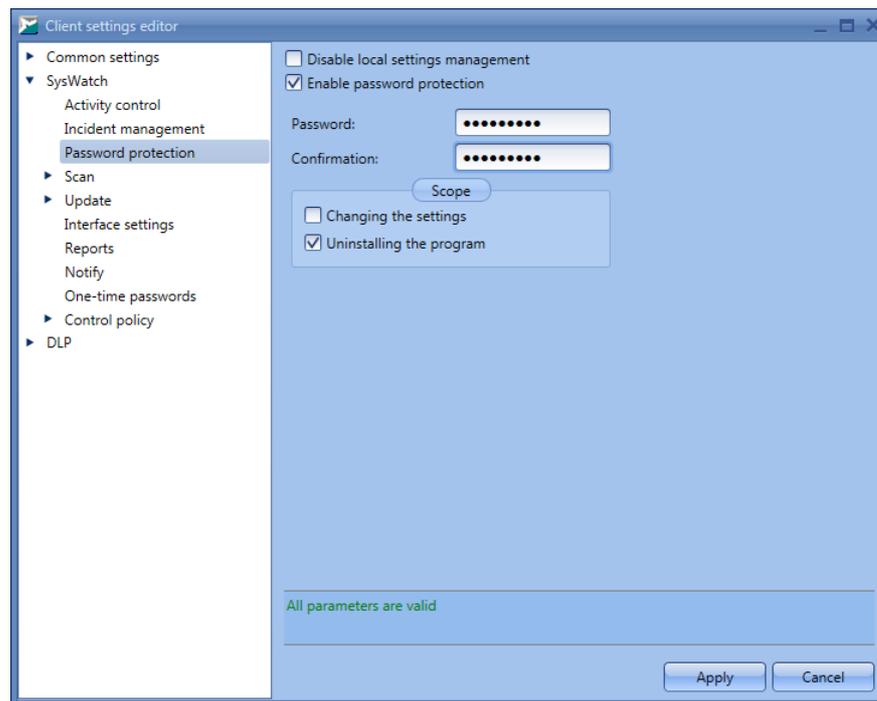


Figure 57. Password protection settings

Select **Disable local settings management** if you need to prevent the modification of SoftControl SysWatch settings from the client host. This flag is also displayed on the [Clients](#)⁽³⁹⁾ tab.

▼ Scan settings

Specify the antivirus check parameters in the **Scan** → **Scan common settings** section of the **SysWatch** category (fig. [Common scan settings](#)⁽⁶³⁾).

Select an action when threats are detected during the antivirus scanning, in the **Reaction to the threat** area:

- **Select action automatically:**
 - Neutralize the infected object or delete it if it cannot be treated.
- **Select action at the end of scan:**
 - After the check completes, SoftControl SysWatch prompts the local user to select actions for all the detected threats.
- **Prompt for action:**
 - SoftControl SysWatch prompts the local user to select an action when a threat is detected.

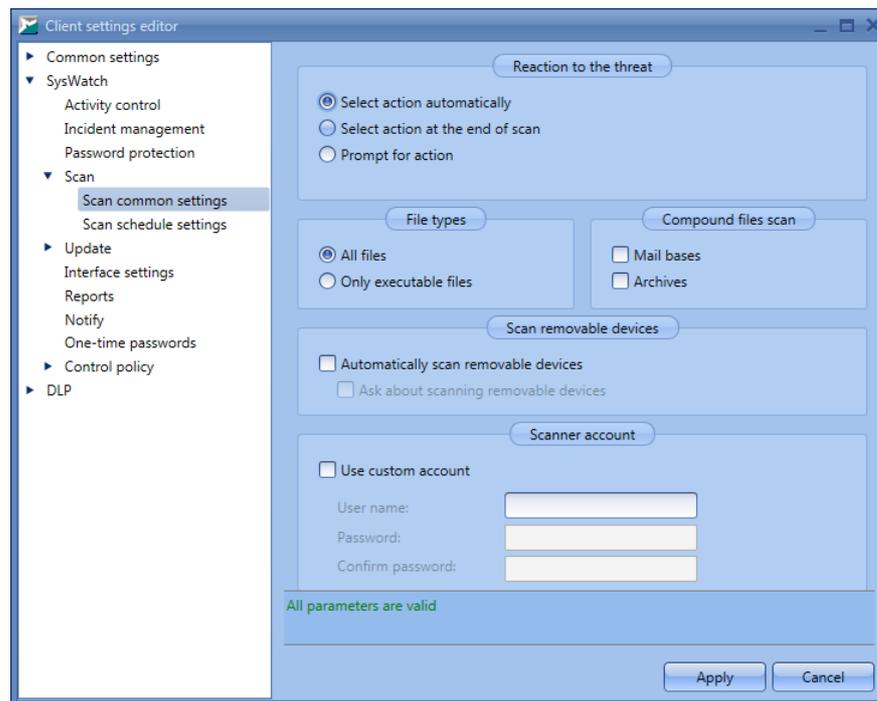


Figure 58. Common scan settings

Select file types to scan in the **File types** area:

- **All files:**

Scan all types of files except for files not ticked off in the **Compound files scan** area (the **Mail bases** and **Archives** checkboxes).

- **Only executable files:**

Scan only PE files.

Tick off the **Automatically scan removable devices** checkbox in the **Scan removable devices** area, if you need to start the antivirus scanning of the USB devices automatically when they connect to a client host. Tick off **Ask about scanning removable devices** to show the dialog box with the scan suggestion on a client host.

Tick off **Use custom account** in the **Scanner account** area and specify the credentials, if it is required to specify an account other than the system account, to perform the scanning.

You can set the schedule of the antivirus check in the **Scan** → **Scan schedule settings** section of the **SysWatch** category. To do so, tick off the **Set schedule** checkbox and specify the parameters (fig. [Scan schedule settings](#)⁶⁴). Specify frequency of the scanning task in the **Frequency (days)** counter, and the time of the task start in *hh:mm:ss* format in the **Invoke time** field.

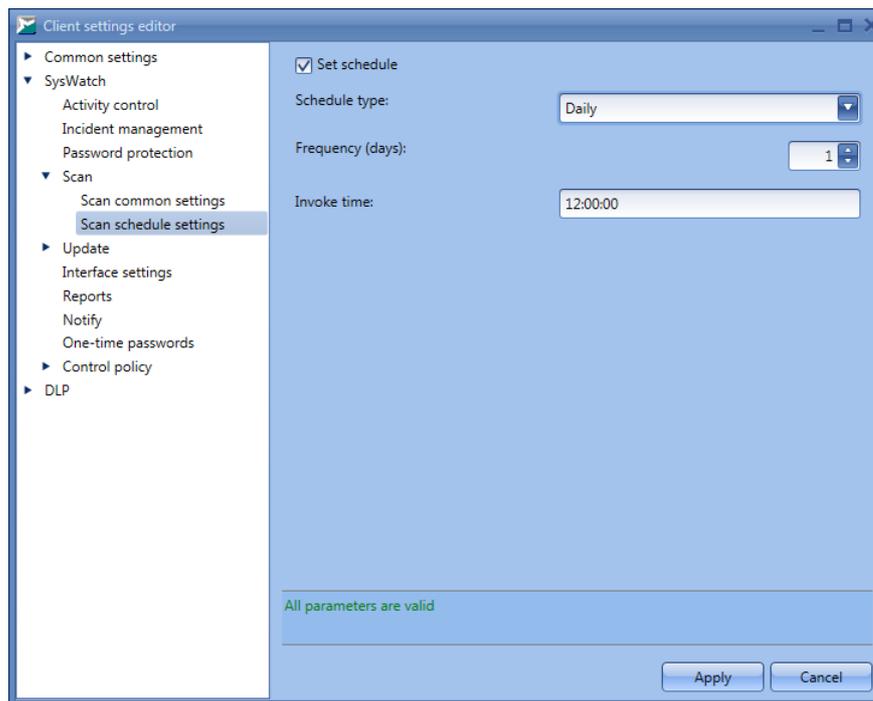


Figure 59. Scan schedule settings

▼ Update settings

Specify the update parameters in the **Update** → **Update settings** section of the **SysWatch** category (fig. [Common update settings](#)⁽⁶⁵⁾).

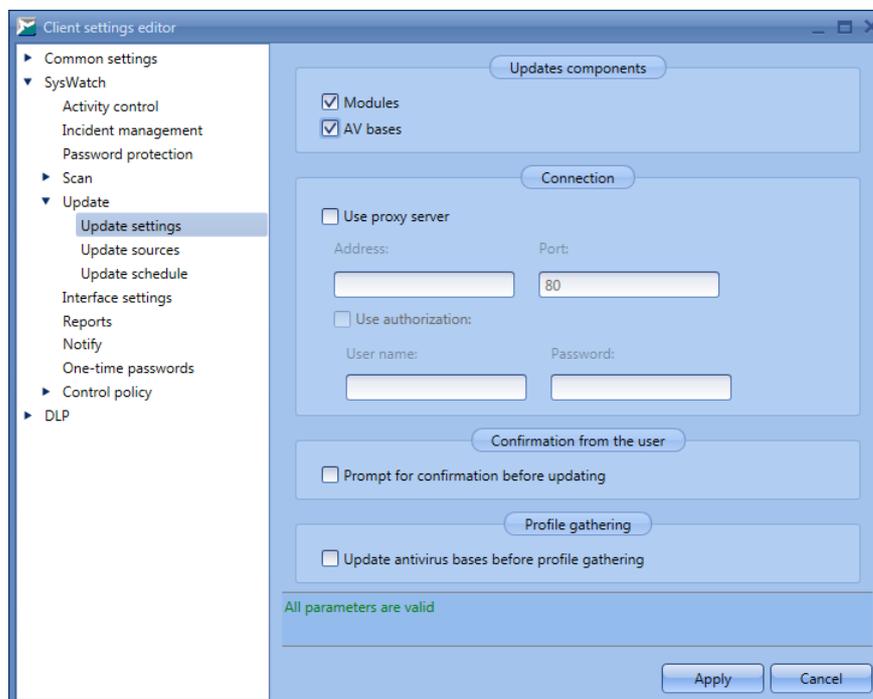


Figure 60. Common update settings

Select the required SoftControl SysWatch components to update in the **Update components**

area:

- Modules;**
- AV bases.**

If a proxy server is used to connect to the update server, tick off **Use proxy server** and specify the required settings in the **Connection** area.

Tick off **Prompt for confirmation before updating** in the **Confirmation from the user** area to display the dialog box with the confirmation of the operation on a client host.

Tick off **Update antivirus bases before profile gathering** in the **Profile gathering** area if you need to update the antivirus bases on the client host before SoftControl SysWatch gathers the system profile.

You can select the update source in the **Update** → **Update sources** section of the **SysWatch** category:

- **Update through Service Center:** update via the intranet update server;
- **Update through Internet:** update via Safe’N’Sec Corporation server available via the Internet.

In the **Source of updates** area, you can specify the addresses to update the proactive protection core and antivirus bases.

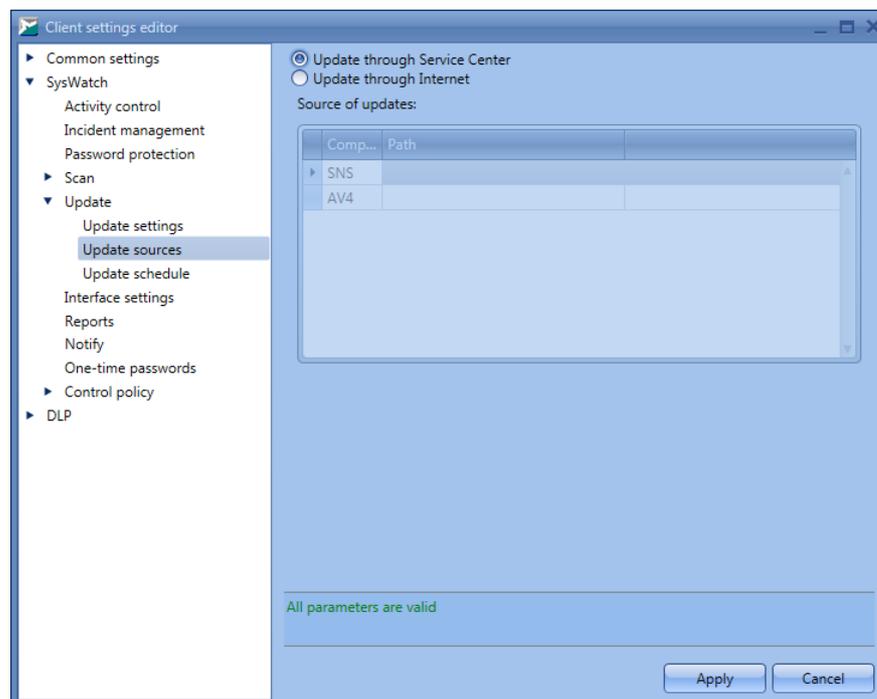


Figure 61. Update source settings

You can set the update schedule in the **Update** → **Update schedule** section of the **SysWatch** category. To do so, tick off the **Set schedule** checkbox and specify the parameters (fig. [Update schedule settings](#)⁽⁶⁷⁾). Specify the the frequency of the task in the **Days frequency** counter, and the start time in *hh:mm:ss* format in the **Invoke time** field.

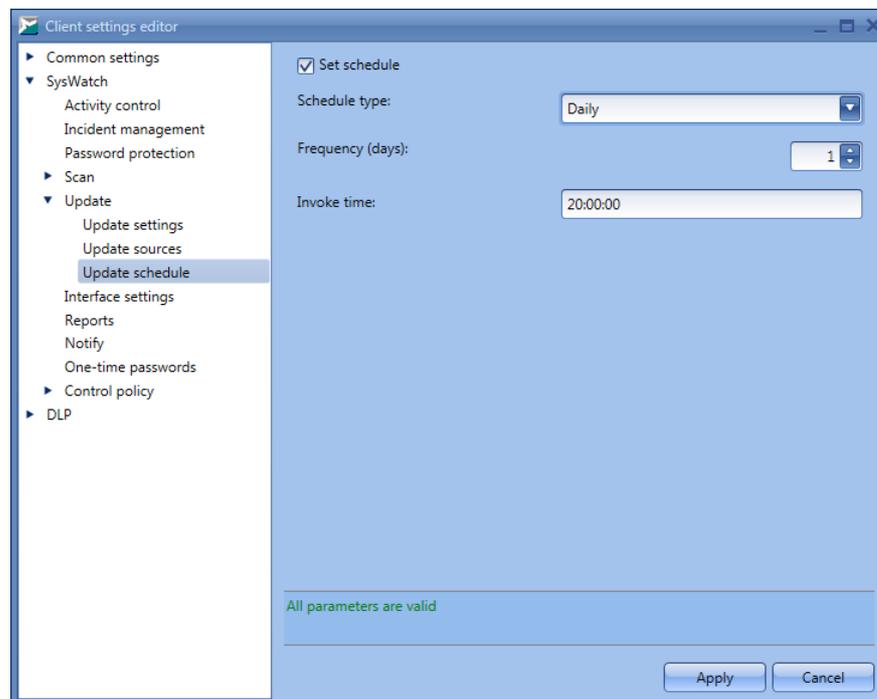


Figure 62. Update schedule settings

▼ Interface settings

Select the required SoftControl SysWatch interface options on the client hosts, in the **Interface settings** section of the **SysWatch** category (fig. [Interface settings](#)⁽⁶⁷⁾):

Show icon in tray:

show the SoftControl SysWatch icon in the Windows taskbar notification area.

Enable sounds:

enable sound notifications about the incidents.

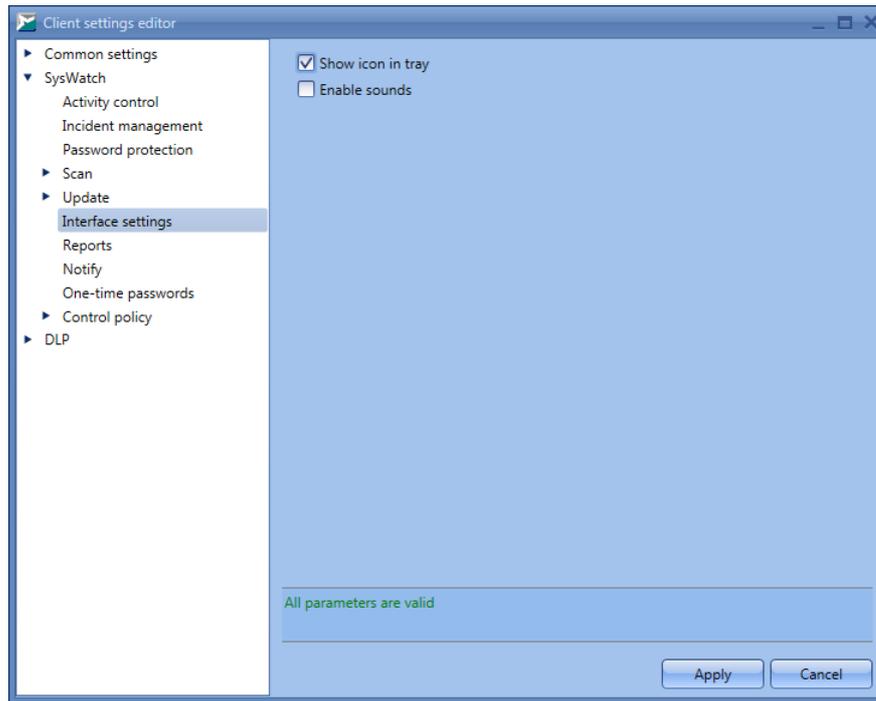


Figure 63. Interface settings

▼ Reports

In the **Reports** section of the **SysWatch** category, specify the SoftControl SysWatch parameters of logging to text files and registering events in WMI (fig. [Report settings](#)⁶⁸).

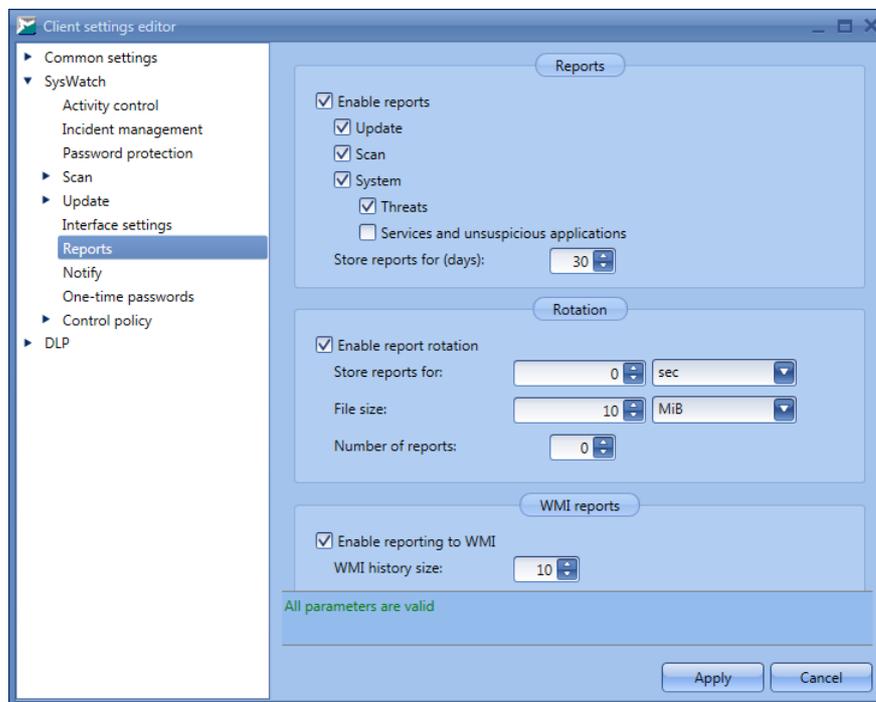


Figure 64. Report settings

Tick off the **Enable reports** checkbox in the **Reports** area to enable report generation and se-

lect the types of the events to be logged:

- Update;**
- Scan;**
- System:**
 - Threats;**
 - Services and unsuspecting applications.**

Tick off **Services and unsuspecting applications** to enable the recording of events when the services start and stop. The services that have started before the *safensec.exe* system service are marked as *was started before* in the reports.

Specify the number of days when the event history is stored, in the **Store reports for (days)** counter.

Tick off the **Enable report rotation** checkbox in the **Rotation** area if necessary and specify the rotation options (one or several) that limit the quantitative data of the reports:

- **Store report for:**
 - specify the time limit of a report file and select a unit from the drop-down list (seconds, minutes, hours, or days).
- **File size:**
 - specify the size limit of a report file and select a unit from the drop-down list (bytes, KiB or MiB).
- **Number of reports:**
 - specify the maximum number of the log file parts to be stored.

Tick off **Enable reporting to WMI** in the **WMI reports** area to enable the corresponding function and specify **WMI history size** in the corresponding field.

 To prevent increased consumption of the system resources, we recommend that you do not set the history size to more than 100 events; 10-50 events is the optimal value.

▼ **Notify**

To display SoftControl SysWatch local notifications on the client hosts, tick off the **Show notifications** checkbox in the **Notify** section of the **SysWatch** category and select the required types of messages (fig. [Local notification settings](#)⁽⁷⁰⁾):

- Protection status;**
- Update;**

- Scan for malware;
- Reports;
- Licensing;
- Installing (uninstalling) applications;
- Blocking program modules;
- Restricting applications.

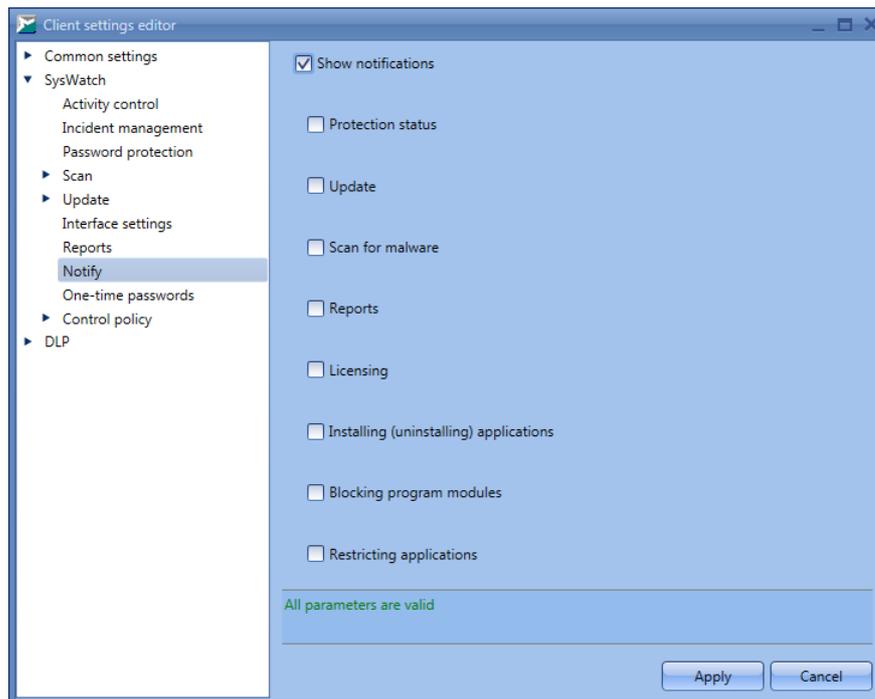


Figure 65. Local notification settings

▼ One-time passwords

Tick off **Enable one-time passwords** in the **One-time passwords** section of the **SysWatch** category and click  (**Generate key**) to generate a 256-bit key that is used to calculate one-time passwords (fig. [One-time password settings](#)⁷⁰).

 Generating a new key makes all the previous passwords invalid.

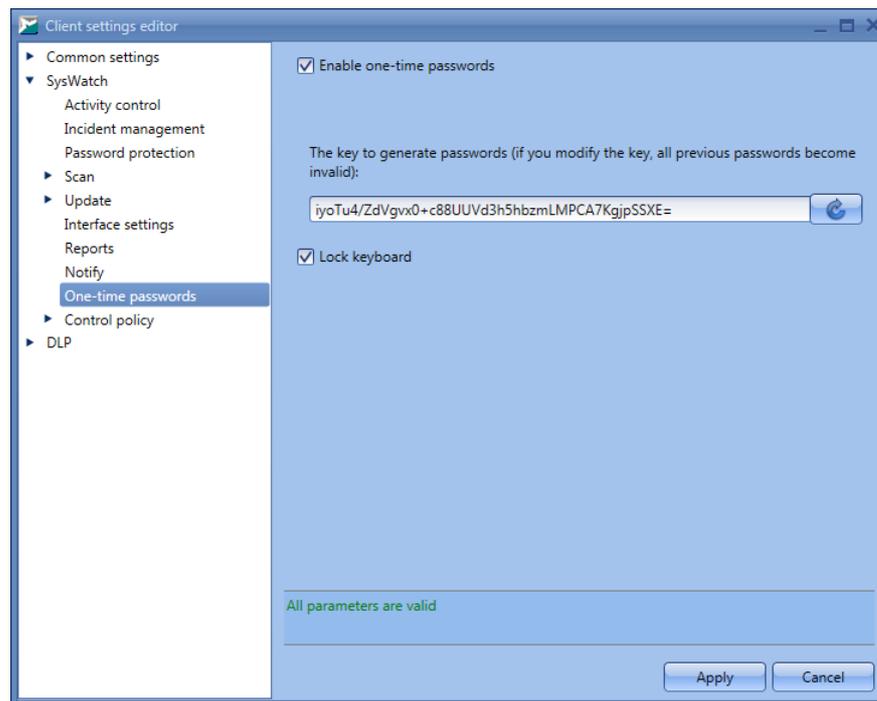


Figure 66. One-time password settings

To lock the keyboard on the client host, tick off **Lock keyboard**. After SoftControl SysWatch receives the settings, the keyboard on the client host is locked. To unlock it, the user should enter a password. SoftControl SysWatch checks all sets of characters that the user enters. As soon as SoftControl SysWatch detects the password among the characters, it unlocks the keyboard. Besides, the keyboard unlocks when turning off and restarting the *safensec.exe* system service. If the user does not use the keyboard for 15 minutes, SoftControl SysWatch locks the keyboard again.

You can generate one-time passwords on the [Organization units](#)⁽⁵⁰⁾ tab.

▼ Control policy: Devices

Specify the rules that control access to the following external system devices and ports on the client hosts, in the **Control policy** → **Devices** section of the **SysWatch** category (fig. [Device control policy](#)⁽⁷¹⁾):

- USB devices;
- CD/DVD devices;
- LPT ports;
- COM ports.

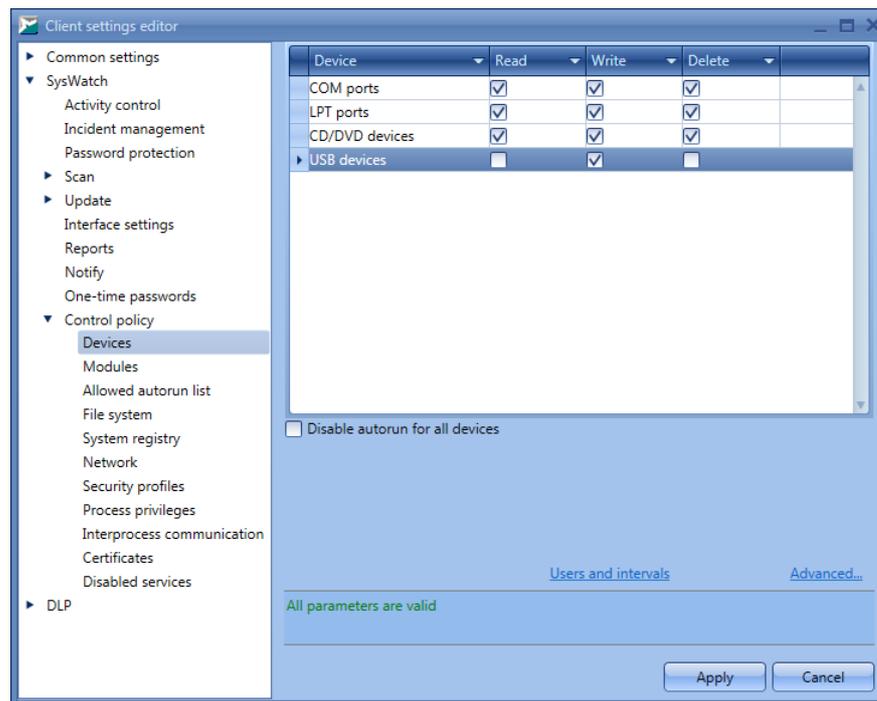


Figure 67. Device control policy

To configure the permissions to access USB devices, specify them by ticking the corresponding checkboxes in the **Read**, **Write**, and **Delete** columns for the **USB devices** type.

Additionally, you can specify the exceptions for USB storage devices, i.e. select the devices that the rule does not apply to ('USB whitelist'). To do so, click **Advanced** and click **+** (**Add**) in the displayed window (fig. [Exceptions for USB storage devices](#)⁽⁷²⁾).

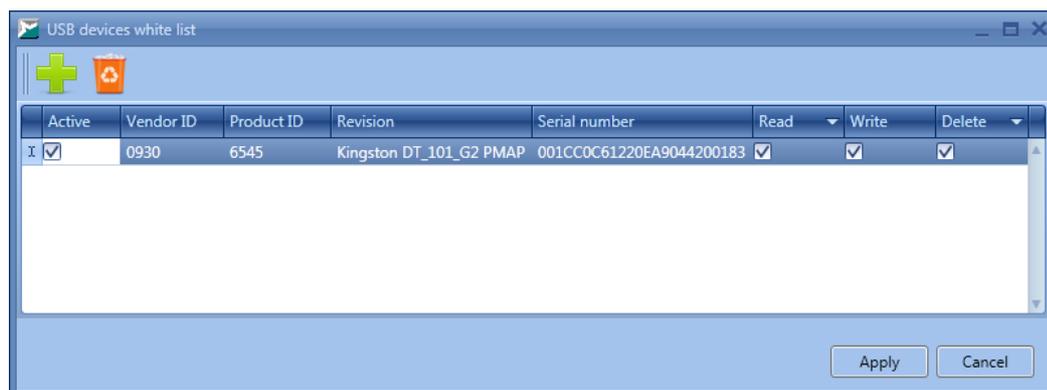


Figure 68. Exceptions for USB storage devices

Enter the USB storage device parameters in the corresponding fields. You can get the parameters of the USB device in the following way.

- 1) Insert the drive into the USB port of the computer.
- 2) Open the **Device Manager** tool of the Windows Control Panel.
- 3) Expand the **Disk drives** category and double-click the name of the required USB storage

device.

- 4) Switch to the **Details** tab of the displayed window.
- 5) Select the **Parent** property from the drop-down menu. The **Value** field displays the string of the following type:
USB\VID_<Vendor ID>&PID_<Product ID>\<Serial number>,
 where the corresponding numeric values of the **Vendor ID**, **Product ID**, and **Serial number** parameters are specified (shown in the angle brackets).
- 6) Select the **Hardware Ids** property from the drop-down menu. The **Value** field then displays the list of the hardware identifiers; use the first of the identifiers as the **Revision** parameter.

After you enter the parameters, select the access permissions for this device in the corresponding columns (**Read**, **Write** and **Delete**).

To remove a device from the list, click  (**Delete**).

To save the rules, click **Apply**.

For USB devices, you can specify the time intervals and the users (or groups) the selected access rights apply to. To do so, click **Users and intervals** link. In the displayed window, set the time intervals and add users with the help of the **Add** button (fig. [Adding users and intervals for the rule](#)⁽⁷³⁾). To confirm changes, click **Apply**.

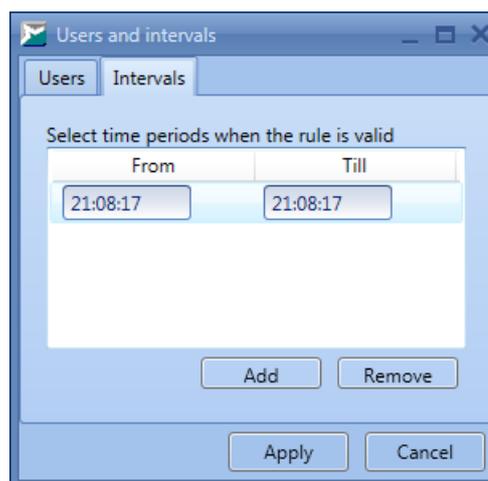


Figure 69. Adding users and intervals for the rule

To block access to the CD/DVD devices, LPT ports and COM ports, deselect any box in the **Write**, **Read**, or **Delete** columns for the corresponding device types (all the boxes are then deselected for this type).

i You should additionally reboot the system on the client hosts to change the access rights to the ports (COM, LPT).

Select the **Disable autorun for all devices** option, if you need to block autorun for the USB and CD/DVD devices.

▼ Control policy: Modules

In the **Control policy** → **Modules** section of the **SysWatch** category, you can set the rules for certain applications installed on the client hosts (fig. [Modules control policy](#)⁽⁷⁴⁾). The feature is disabled by default. To enable it, select **Use custom module settings**.

i If you tick off **Use custom module settings** and apply the settings on the client hosts, all local settings are deleted and cannot be restored.

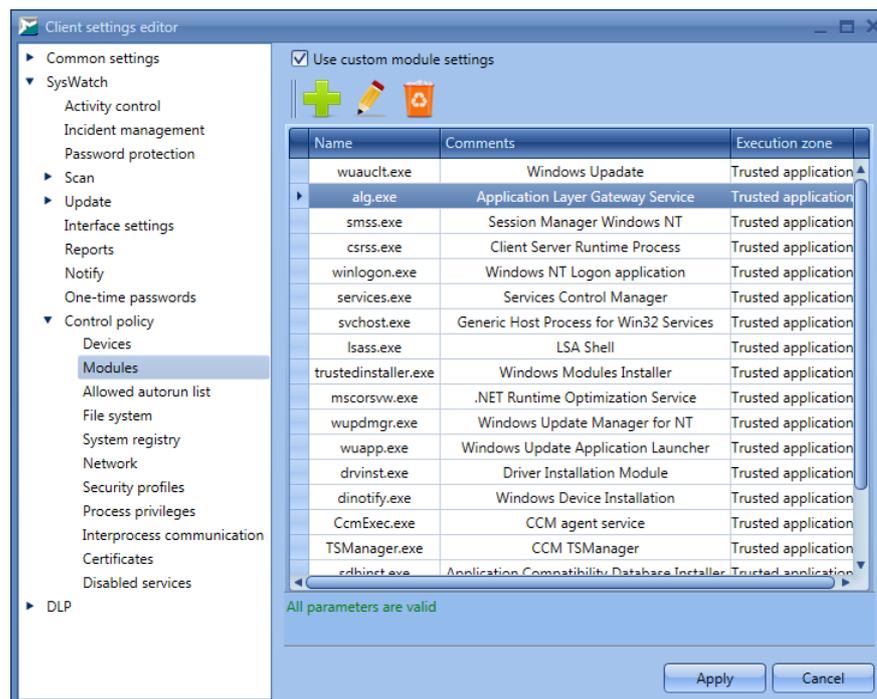


Figure 70. Modules control policy

The window contains a number of Windows OS modules by default. To add a new module to the list, click **+** (**Add**). The displayed window (fig. [Creating rules for the module](#)⁽⁷⁴⁾) contains several tabs where you can add information about the module and specify rules for it.

Figure 71. Creating rules for the module

You can add general information about the module on the **Identification data of the module** tab:

- **Module name** is the mandatory parameter.
- **File paths** are a set of possible paths to the file (the field can be empty).
- **Comments** is a short description of the module.

You can use masks in the **File paths** field to create rules for the objects you add. For example, you can specify part of the file path, with the help of masks. Below is the mask syntax:

- **###** – mask replaces any number of characters except the '\' symbol;
- *****#** – mask replaces any number of characters;
- **#?#** – mask replaces exactly one character (any character).

In the **Details** area, you can specify the following additional information for the module (the fields can be empty):

- **Company name**;
- **Internal file name**;
- **Description**;
- **Legal copyright**;
- **Version**.

You can also select a module by clicking the **Add data from file** link (fig. [Creating rules for the](#)

[module](#)⁽⁷⁴⁾) and specifying the required file in the displayed window. The data on the **Identification data of the module** tab are filled in automatically in this case.

When you apply the settings on a client host, SoftControl Service Center compares the data of the executable modules on the client host and the identification data in the settings as follows. An executable module matches a description if all fields specified on the identification data tab coincide with the corresponding module data. The following should be considered as well:

- if several paths are specified for a module, any one of them should coincide with the module data;
- if information about the module version is in different languages, version description on any language should coincide completely with the module data.

You can specify module execution conditions on the **General settings** tab.

In the **Execution zone** area, select a zone to run the module:

- **Restricted applications;**
- **Blocked applications;**
- **Trusted applications.**

Tick off **Enable software update mode** if the module should run in this mode (for Trusted applications only). Tick off **Save launch history** to enable the activity history saving option for the module.

In the **Set execution account** area, select an account to run the application (for Restricted applications only):

- **Isolated user V.I.P.O.**
- **Run under current account.**

Select **In allowed autorun list** if you need to allow the module to start automatically on the client hosts. You can view the list of such modules in the **Control policy** → **Allowed autorun list** section (see [below](#)⁽⁷⁷⁾).

On the **File system rules** tab, you can specify the application permissions to access the file system objects (similar to rules in section [Control policy: File system](#)⁽⁷⁷⁾).

On the **Registry rules** tab, you can specify the application permissions to access the system registry objects (similar to rules in section [Control policy: System registry](#)⁽⁸⁰⁾).

On the **Network rules** tab, you can specify the rules that control the application network activity

(similar to rules in section [Control policy: Network](#)⁽⁸³⁾).

To modify information about a module, click  (**Change**) or double-click the module and change the parameters, as you did when you added the module.

To delete a module from the list, click  (**Delete**).

To confirm changes, click **Apply**.

▼ Control policy: Allowed autorun list

The **Control policy** → **Allowed autorun list** section of the **SysWatch** category displays the list of modules that can start automatically on the client hosts (fig. [Allowed autorun list](#)⁽⁷⁷⁾). You can add modules to the list in the **Control policy** → **Modules** section (see [above](#)⁽⁷⁶⁾).

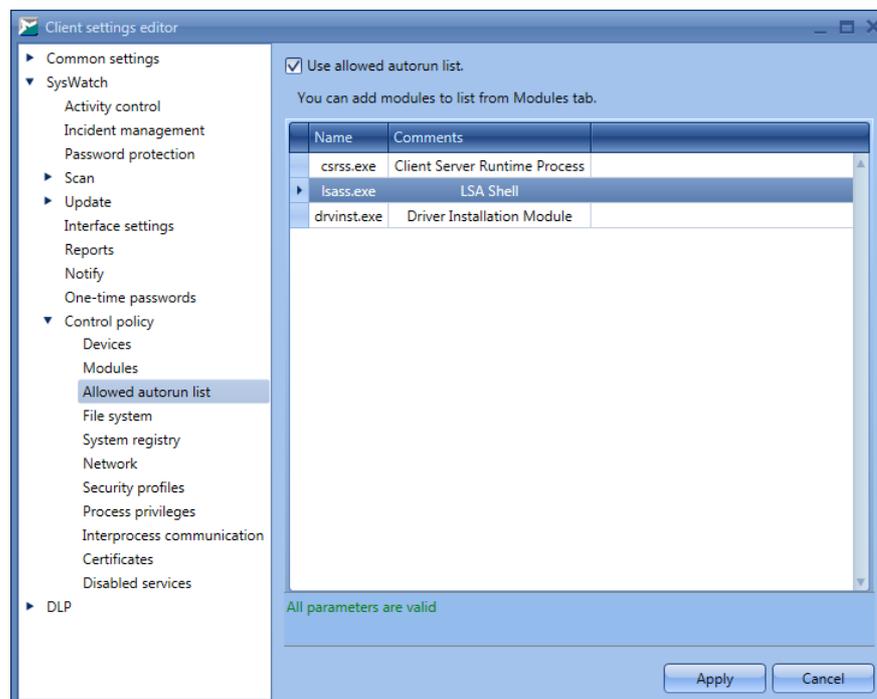


Figure 72. Allowed autorun list

▼ Control policy: File system

Specify the application permissions to access the file system objects on the client hosts, in the **Control policy** → **File system** section of the **SysWatch** category (fig. [File system control policy](#)⁽⁷⁸⁾):

- Reading a file or a folder;
- Writing to a file or to a folder (creating/changing a file or a folder);

- Deleting a file or a folder.

Rules are divided into lists for applications from the following execution zones:

- **Trusted applications;**
- **Restricted applications.**

To switch between the lists, select the required category from the **Rule Zone** drop-down list. If you need to move a rule to the list for applications from another execution zone, invoke the rule's context menu and select one of the options:

- **All** – create a rule for both execution zones, if the rule is only in one list;
- **Restricted** – move a rule to the list for the restricted applications;
- **Trusted** – move a rule to the list for trusted applications.

Each rule is an entry in the flat list and has its unique **ID**. The objects the rule applies to are specified in the **Resource** column, while their permissions are specified in the **Read**, **Write**, and **Delete** columns. The **Active** checkbox indicates whether the rule is active.

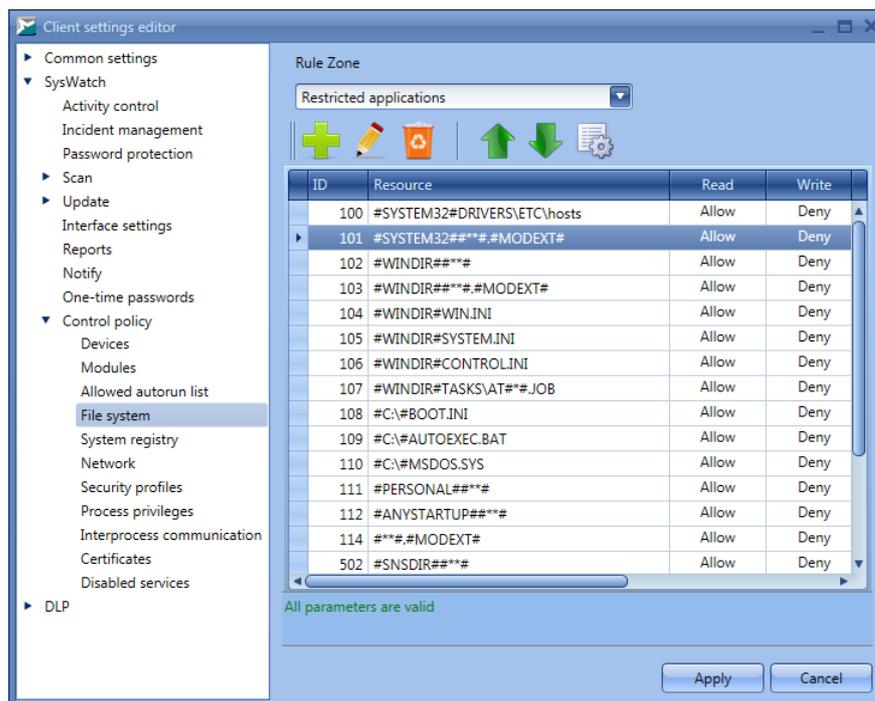


Figure 73. File system control policy

If several rules have overlapping scopes, then the lowest rule in the list has the highest priority of execution. Rule position in the list can be changed by the **Up** and **Down** arrows.

A string in the **Resource** column is a path to the object or objects the rule applies to. In this string, you can use masks to create rules for the group of file system objects. For example, you can create a rule for a folder and all the objects inside it, or a rule for certain file types (exten-

sions).

Below is the mask syntax:

- **###** – mask replaces any number of characters except the '\' symbol (if the mask is placed at the end of the string, the rule affects only root directory files);
- **###** – mask replaces any number of characters (if the mask is placed at the end of the string, the rule affects root directory files, subdirectories and subdirectories files);
- **#?#** – mask replaces exactly one character (any character).

To create a rule, click **+** (**Add**).

Type the full path to an object, or a mask in the **File or directory** field of the displayed window (fig. [Creating a rule for the file system object](#)⁽⁷⁹⁾).

You can specify local folders as well as network folders. When you create a rule for network folders, the path is specified as follows: \\<server_name>\<folder_name>. You can use the **###** mask instead of '\'. In this case, SoftControl SysWatch checks both network and local folders. Besides, you can specify IP address of the computer with the network folder.

i If you specify the computer's IP address in the rule, the rule is only valid when the user enters IP address to access the folder. It is not valid when the user enters the network path. Therefore, if you need to monitor the folders that the users access by both IP address and network path, create separate rules for each of the notations.

Select the [security profile for the rule](#)⁽⁸⁸⁾ in the corresponding drop-down list.

Note. You can only tick off or deselect the **Active** field if you select the default profile (**No group**). If you select any other profile you created yourself, the field is disabled. The value of the field is the same as the value of the corresponding field in the **Control policy** → **Security profiles** section.

Select the corresponding permissions to access the object, in the **Read**, **Write** and **Delete** areas:

- **Allow** – allow the application to perform an operation with the object;
- **Deny** – do not allow the application to perform an operation with the object;
- **Confirm** – display the request when the operation with the object meets the rule condition.

To add the created rule to the list and make it active, tick off the **Active** checkbox and click **OK**.

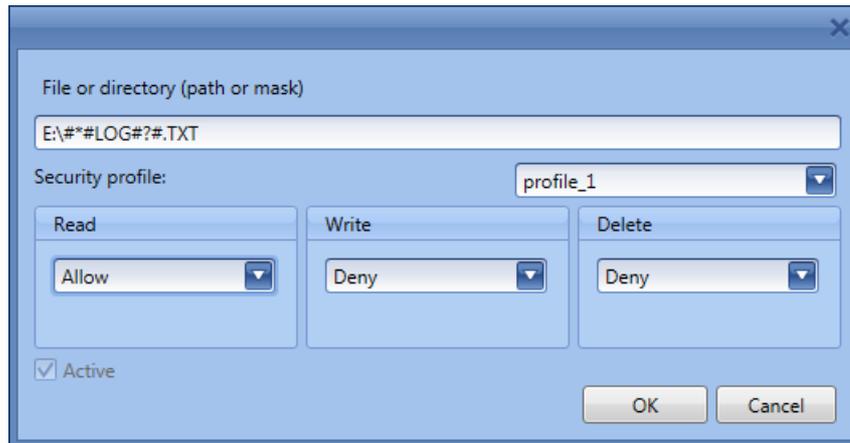


Figure 74. Creating a rule for the file system object

To edit a rule, click (**Change**) and set up the rule parameters, as with the creation of the rule. To specify when the rule is valid and the users (or groups) it applies to, click (**Advanced**). In the displayed window, set the time intervals and add users with the help of the **Add** button (fig. [Adding users and intervals for the rule](#)⁸⁰). To confirm changes, click **Apply**.

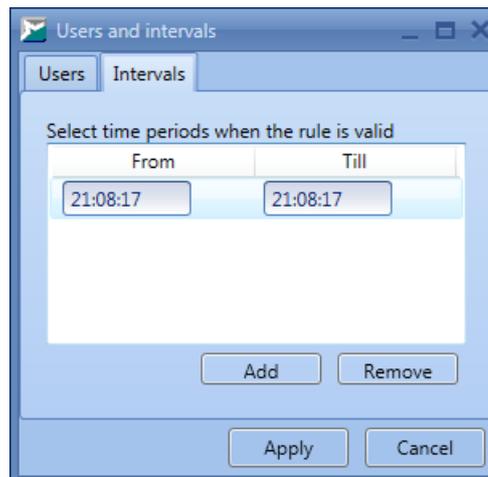


Figure 75. Adding users and intervals for the rule

To delete a rule, click (**Delete**).

SoftControl SysWatch contains preset rules that apply to the system folders and the objects in the folders of the product components. Changing or deleting preset rules may cause violation of the system integrity protection.

▼ Control policy: System registry

Specify the application permissions to access the system registry objects on the client hosts, in the **Control policy** → **System registry** section of the **SysWatch** category (fig. [System registry](#)

[policy](#)⁽⁸¹⁾):

- Writing to a registry key or to a value (creating/changing a key or a value);
- Deleting a registry key or a value.

The rules are divided into lists for applications from the following execution zones.

- **Trusted applications;**
- **Restricted applications.**

To switch between the lists, select the corresponding category from the **Rule Zone** drop-down list. If you need to move a rule to the list for applications from another execution zone, invoke the rule's context menu and select one of the options:

- **All** – create a rule for both execution zones, if the rule is only in one list;
- **Restricted** – move a rule to the list for the restricted applications;
- **Trusted** – move a rule to the list for the trusted applications.

Each rule is an entry in the flat list and has its unique **ID**. The objects the rule applies to are specified in the **Resource** column, while their permissions are specified in the **Write** and **Delete** columns. The **Active** checkbox indicates whether the rule is active.

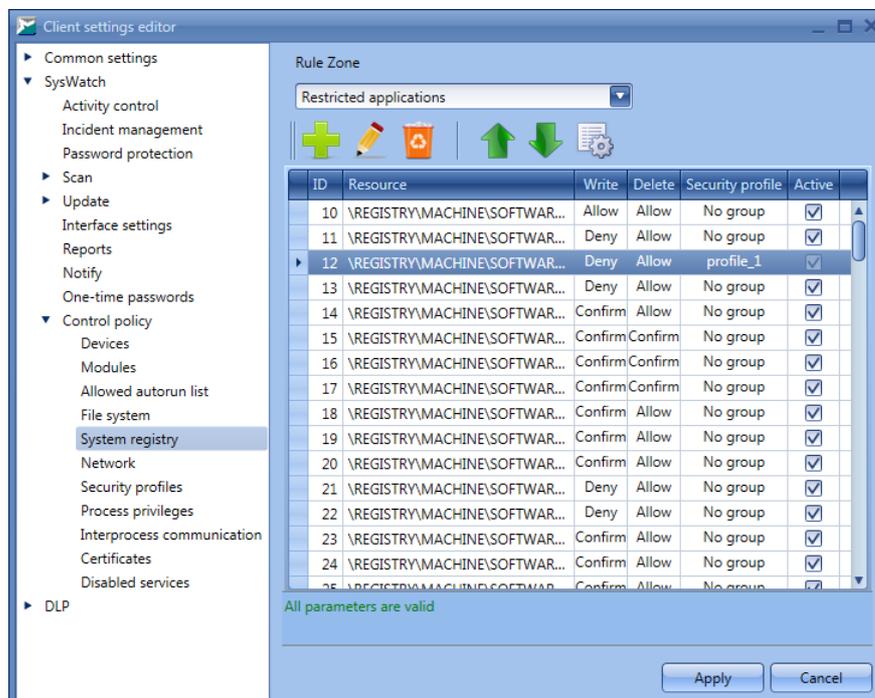


Figure 76. System registry policy

If several rules have overlapping scopes, then the lowest rule in the list has the highest priority of execution. The rule position in the list can be changed by the **Up** and **Down** icons.

A string in the **Resource** column is a path to the object or objects the rule applies to. In this

string, you can use masks to create rules for the group of system registry objects. For example, you can create a rule for a registry key and all objects inside it.

Below is the mask syntax:

- **###** – the mask replaces any number of characters except for the '\' symbol (if the mask is placed at the end of the string, the rule affects only the key values);
- *****#** – the mask replaces any number of characters (if the mask is placed at the end of the string, the rule affects the key values, subkeys and subkey values);
- **#?#** – the mask replaces exactly one character (any character).

To create a rule, click **+** (**Add**).

Type the full path to an object, or a mask in the **Registry key or parameter** field of the displayed window (fig. [Creating a rule for the system registry object](#)⁽⁸²⁾). The registry root keys in the specified path should be assigned as follows:

- `\REGISTRY\MACHINE\SOFTWARE\CLASSES\`, the HKEY_CLASSES_ROOT key;
- `\REGISTRY\MACHINE\`, the HKEY_LOCAL_MACHINE key;
- `\REGISTRY\USER\\`, the HKEY_CURRENT_USER key for the user with the specified security identifier (<SID>);
- `\REGISTRY\USER\`, the HKEY_USERS key.

Select the [security profile for the rule](#)⁽⁸⁸⁾ in the corresponding drop-down list.

Note. You can only tick off or deselect the **Active** field if you select the default profile (**No group**). If you select any other profile you created yourself, the field is disabled. The value of the field is the same as the value of the corresponding field in the **Control policy** → **Security profile** section.

Select the corresponding permissions to access the object, in the **Write** and **Delete** areas:

- **Allow** – allow the application to perform an operation with the object;
- **Deny** – do not allow the application to perform an operation with the object;
- **Confirm** – display the request when the operation with the object meets the rule condition.



Figure 77. Creating a rule for the system registry object

To add the created rule to the list and make it active, tick off the **Active** checkbox and click **OK**. To edit a rule, click  (**Change**) and set up the rule parameters, as with the creation of the rule. To specify when the rule is valid and the users (or groups) it applies to, click  (**Advanced**). In the displayed window, set the time intervals and add users with the help of the **Add** button (fig. [Adding users and intervals for the rule](#)⁽⁸³⁾). To confirm changes, click **Apply**.

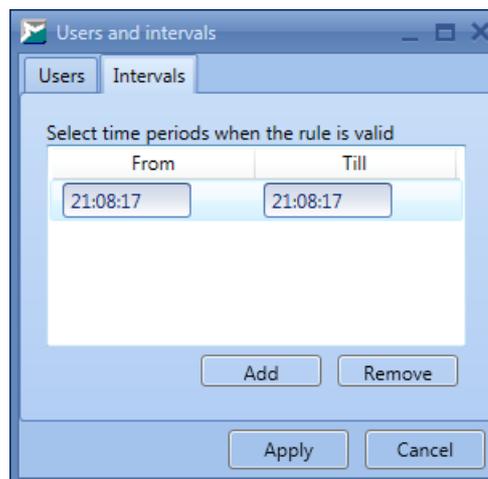


Figure 78. Adding users and intervals for the rule

To delete a rule, click  (**Delete**).

 SoftControl SysWatch contains preset rules that apply to the system registry keys and values that affect the operation of the system and the product components. Changing or deleting preset rules may cause violation of the system integrity protection.

▼ Control policy: Network

Specify the rules that control the application network activity on the client hosts, in the **Control**

policy → **Network** section of the **SysWatch** category (fig. [Network activity control policy](#)⁽⁸⁴⁾):

- Data receiving;
- Data sending.

The rules are divided into lists for applications from the following execution zones:

- **Trusted applications;**
- **Restricted applications.**

To switch between the lists, select the corresponding category from the **Rule Zone** drop-down list. If you need to move a rule to the list for applications from another execution zone, invoke the rule's context menu and select one of the options:

- **All** – create a rule for both execution zones, if the rule is only in one list;
- **Restricted** – move a rule to the list for the restricted applications;
- **Trusted** – move a rule to the list for the trusted applications.

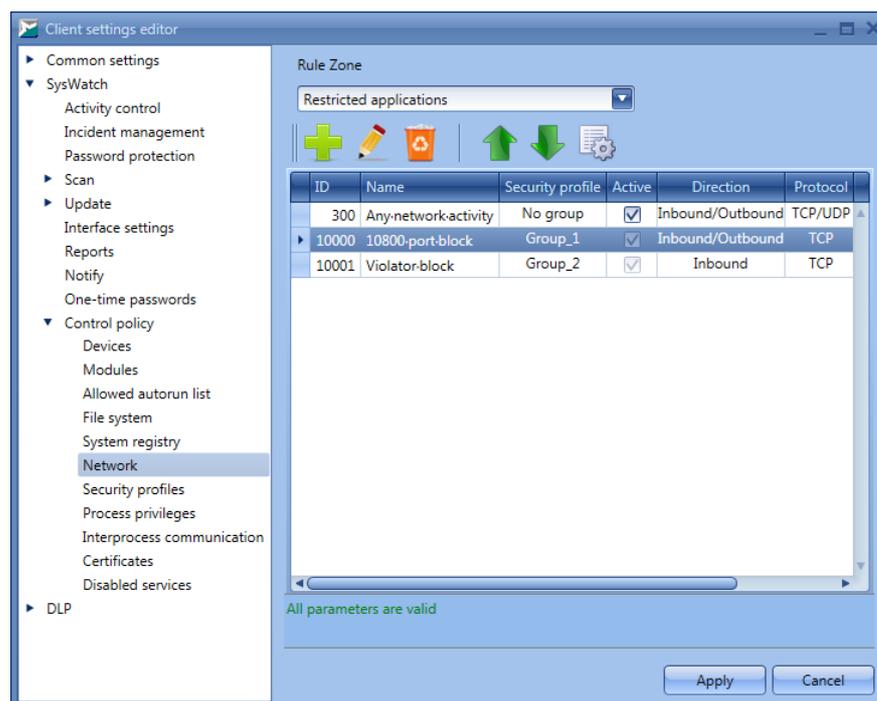


Figure 79. Network activity control policy

Each rule is an entry in the flat list and has its unique **ID**. The rule parameters are specified in the **Name**, **Direction**, and **Protocol** columns. Allowing or blocking network connection is indicated by the checkbox in the **Allow** column. If the event (when it occurs) should be processed by the local user, the checkbox in the **Allow** column is selected. The **Active** checkbox indicates whether this rule is active.

If several rules have overlapping scopes, then the lowest rule in the list has the highest priority of

execution. The rule position in the list can be changed by the **↑ (Up)** and **↓ (Down)**.

To create a rule, click **+ (Add)**.

Specify the rule parameters in the displayed window (fig. [Creating a network activity rule](#)⁽⁸⁵⁾):

- **Name** is the rule name.
- **Direction** is the direction of the network activity from the point of view of the connection initiator:
 - **Inbound** is network connection initiated by the remote host;
 - **Outbound** is network connection initiated by the local host;
 - **Inbound/Outbound** is any direction.
- **Protocol** is the data transfer protocol:
 - **TCP**;
 - **UDP**;
 - **TCP/UDP** is either of these two.

Endpoints of data transfer on a client and remote hosts are specified on the **Source address** and **Remote address** tabs correspondingly. Select which network addresses and ports the rule applies to on both tabs and type values in the corresponding fields in a case of need:

- **Address** is the IP address of a host:
 - **Any address**;
 - **Specific address**;
 - **Address range**.
- **Port** is the network port:
 - **Any port**;
 - **Specific port**;
 - **Port range**.

Figure 80. Creating a network activity rule

To enable network connection with the specified parameters, tick off the **Allow** checkbox; to deny the connection, deselect the checkbox. If it is assumed that the local user on a client host processes the application network activity incidents, tick off the **Confirm** checkbox ([automatic processing of incidents](#)⁶¹ should be disabled).

Select the [security profile for the rule](#)⁸⁸ in the corresponding drop-down list.

Note. You can only tick off or deselect the **Active** field if you select the default profile (**No group**). If you select any other profile you created yourself, the field is disabled. The value of the field is the same as the value of the corresponding field in the **Control policy** → **Security profile** section.

To add the created rule to the list and make it active, tick off the **Active** checkbox and click **OK**.

To edit a rule, click  (**Change**) and set up the rule parameters, as with the rule creation.

To specify when the rule is valid and the users (or groups) it applies to, click  (**Advanced**). In the displayed window, set the time intervals and add users with the help of the **Add** button (fig. [Adding users and intervals for the rule](#)⁸⁶). To confirm changes, click **Apply**.

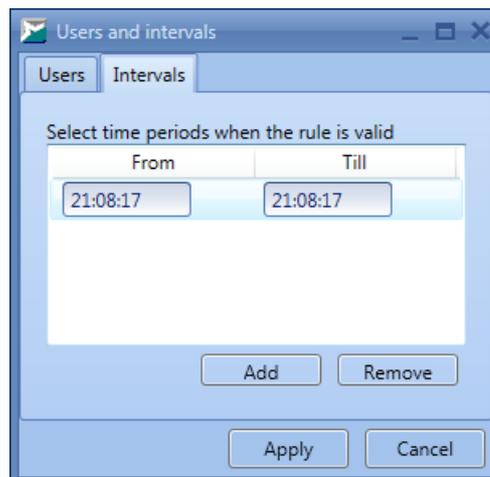


Figure 81. Adding users and intervals for the rule

To delete a rule, click  (**Delete**).

Control policy: File hashes

In the **Control policy** → **File hashes** section, you can create a list of file hashes that need to be included in the profile, as well as a list of hashes that need to be excluded from the profile. These checksums are applied to the profile once, but the settings may be modified later, e.g., if you launch an installer.

You can add file checksums by using either the **Add** button or the **Import** button (to upload an XML file). You can copy file hashes from [Profile information](#)⁽⁴³⁾ and [Profile comparison](#)⁽¹⁴⁷⁾ tabs.

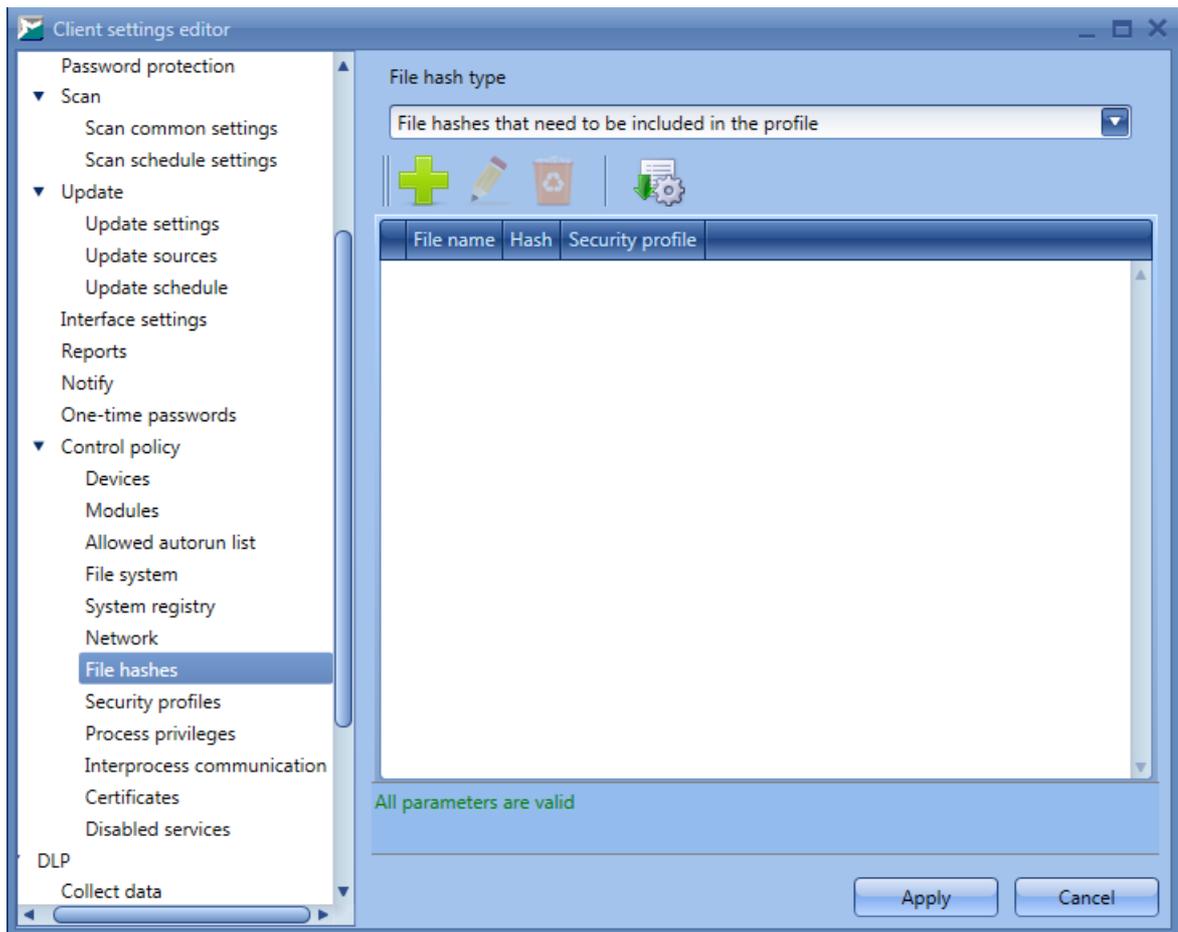


Figure 82. File hashes

▼ **Control policy: Security profiles**

In the **Control policy** → **Security profiles** section of the **SysWatch** category, you can load the security profiles from the SoftControl Service Center database. The security profiles group the activity control rules from different categories (fig. [Security profiles](#)⁽⁸⁸⁾). You can create the profiles on the [Security profiles](#)⁽¹⁰⁵⁾ tab.

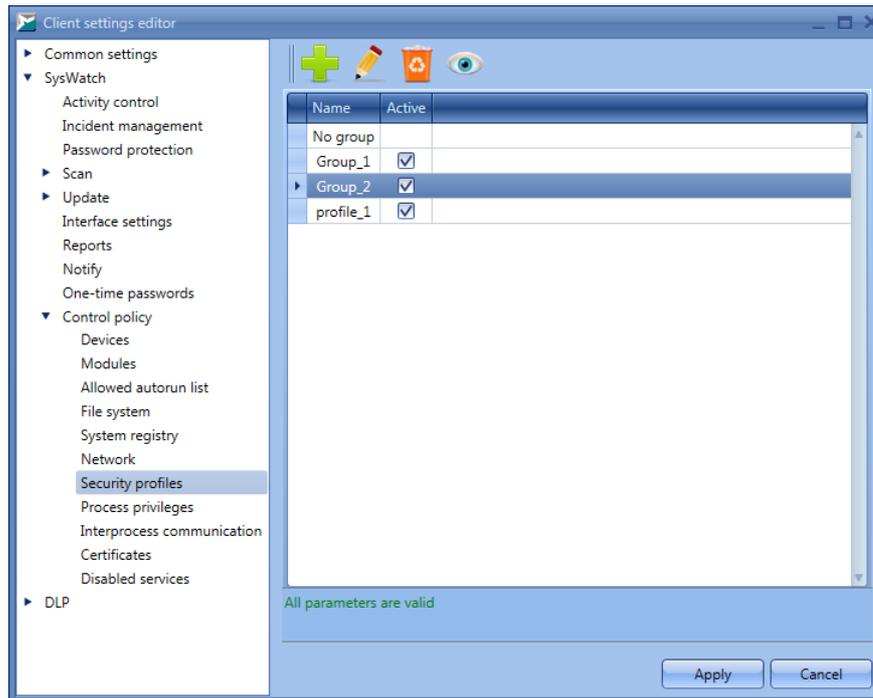


Figure 83. Security profiles

The window contains a read-only profile by default (**No group**). The profile includes all file system, system registry, network and modules rules that are available in the corresponding sections of the settings windows (see figures [File system control policy](#)⁽⁷⁸⁾, [System registry control policy](#)⁽⁸¹⁾, [Network activity control policy](#)⁽⁸⁴⁾ and [Modules control policy](#)⁽⁷⁴⁾). You can neither edit nor remove the rules from this profile. To view profile details, double click on it or click (**View**).

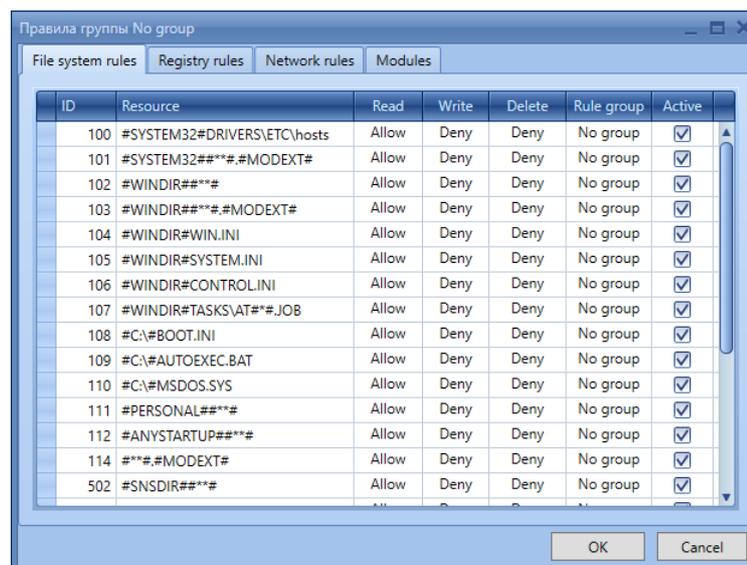


Figure 84. Default security profile

To load a profile from the database, click (**Load**). Select the required profile in the displayed window (fig. [Loading a security profile](#)⁽⁸⁹⁾).

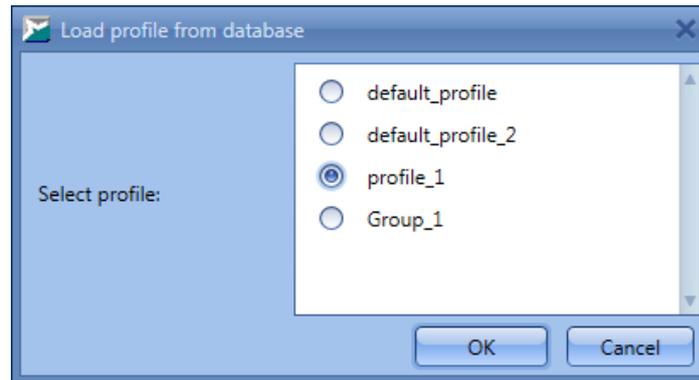


Figure 85. Loading a security profile

If a profile with the select name already exists in the current settings, an error message is displayed and the process terminates.

To add a rule of a certain category to a profile, perform the following operations.

1. Go to the corresponding section of the SoftControl SysWatch settings.
2. Create a new rule or edit an existing one.
3. In the **Creating a new rule** window, select the required profile from the drop-down list (see figures [Creating a rule for the file system object](#)⁽⁷⁹⁾, [Creating a rule for the system registry object](#)⁽⁸²⁾, [Creating a network activity rule](#)⁽⁸⁵⁾).
4. Click **OK**.

To remove a rule of a certain category from the profile, go to the corresponding section of the SoftControl SysWatch settings and delete the rule in that section.

To rename a profile, click (**Rename**) and specify the new profile name in the displayed window.

To view profile details, select the profile and click (**View**). The displayed window contains detailed profile information divided into rule categories (see fig. [Default security profile](#)⁽⁸⁹⁾).

To delete a security profile, click (**Delete**). If you need to save the rules from the profile, select a profile to move the rules to in the displayed window and click **Yes** (fig. [Deleting a profile](#)⁽⁹⁰⁾). Otherwise, click **No**; all the rules are deleted in this case.



Figure 86. Deleting a profile

▼ Control policy: Process privileges

In the **Control policy** → **Process privileges** section of the **SysWatch** category, specify the restrictions on the use of the following Windows privileges by processes on client hosts (fig. [Process privileges control policy](#)⁹¹):

- Back up files and directories;
- Bypass traverse checking;
- Create global objects;
- Create page file;
- Debug programs;
- Impersonate a client after authentication;
- Increase scheduling priority;
- Adjust memory quotas for a process;
- Load and unload device drivers;
- Perform volume maintenance tasks;
- Profile single process;
- Force shutdown from a remote computer;
- Restore files and directories;
- Manage auditing and security log;
- Shut down the system;
- Modify firmware environment values;
- Profile system performance;
- Change the system time;
- Take ownership of files or other objects;
- Remove computer from docking station.

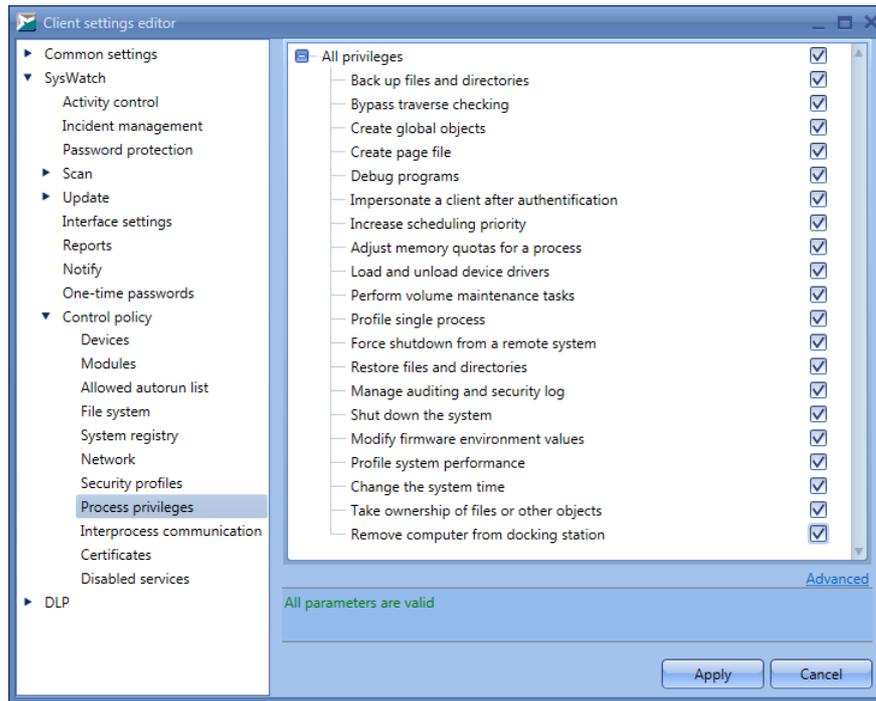


Figure 87. Process privileges control policy

Condition: the rules apply to all applications from the restricted execution zone.

By default, the applications (processes) have all the above-mentioned privileges; however, they can be limited by the OS. To restrict privileges manually, deselect checkboxes at the required privileges.

For description of the privileges and how they are applied, see section [Supplemental information](#)¹⁶⁶.

To specify when the rule is valid and the users (or groups) it applies to, click (**Advanced**). In the displayed window, set the time intervals and add users with the help of the **Add** button (fig. [Adding users and intervals for the rule](#)⁸⁶). To confirm changes, click **Apply**.

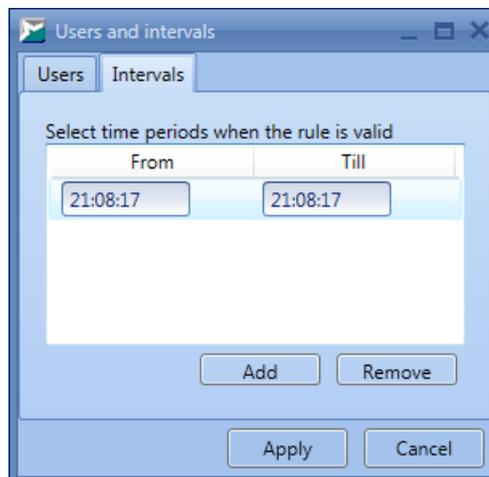


Figure 88. Adding users and intervals for the rule

▼ Control policy: Interprocess communication

In the **Control policy** → **Interprocess communication** section of the **SysWatch** category, specify the following permissions for interprocess communication (fig. [Process interaction control policy](#)⁹³):

- Accessing the clipboard;
- Setting the hooks by an application;
- Accessing the process and its threads from the outside.

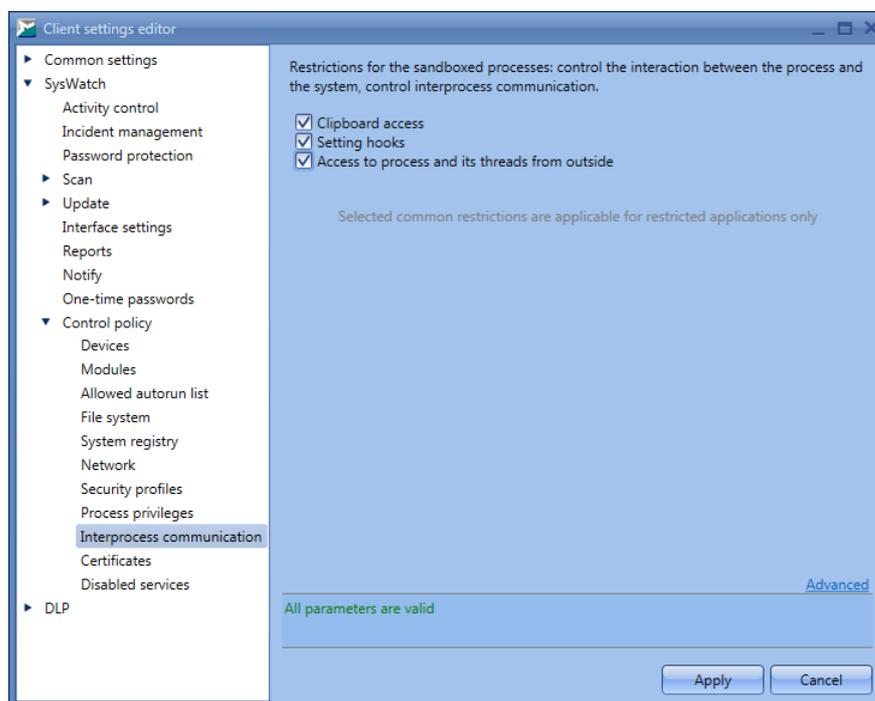


Figure 89. Process interaction control policy

Condition: the rules apply to the applications from the restricted zone that run under the V.I.P.O. user account.

To specify when the rule is valid and the users (or groups) it applies to, click **Advanced**. In the displayed window, set the time intervals and add users with the help of the **Add** button (fig. [Adding users and intervals for the rule](#)⁹³). To confirm changes, click **Apply**.

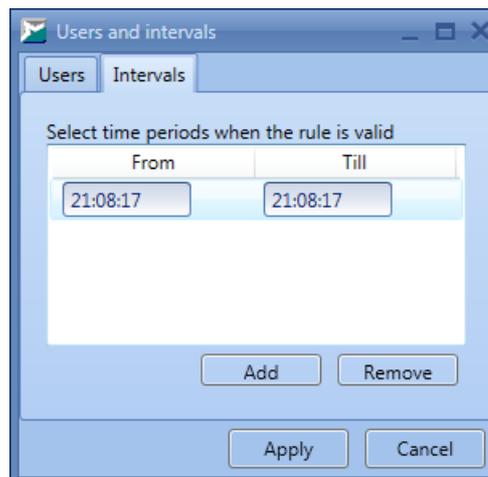


Figure 90. Adding users and intervals for the rule

▼ Control policy: Certificates

Specify the whitelist of certificates for additional process activity control on client hosts, in the **Control policy** → **Certificates** section of the **SysWatch** category (fig. [The whitelist of certificates](#)⁽⁹⁴⁾).

When an application runs, SoftControl SysWatch heuristically determines whether it is an installer or a script. By default, the installer runs in software update mode if it has a valid digital signature. Besides, it is possible to check whether a digital signature certificate is in the whitelist. To do so, tick off the **Enable whitelist of certificates** and create the list.

Initially, SoftControl SysWatch contains the basic list of the certificates by trusted vendors, including three certificates by Protection Technology, Ltd. To add a new certificate to the list, click **Add** and specify an application, an installer or a script with the digital signature with the certificate to be included in the list, and then click **Open**. Tick off the boxes for the required certificates of the selected file in the **Add** column of the displayed window and click **OK** (fig. [Selecting certificates to add](#)⁽⁹⁵⁾). Tick off the box in the **Trust** column for the added certificates (fig. [The whitelist of certificates](#)⁽⁹⁴⁾).

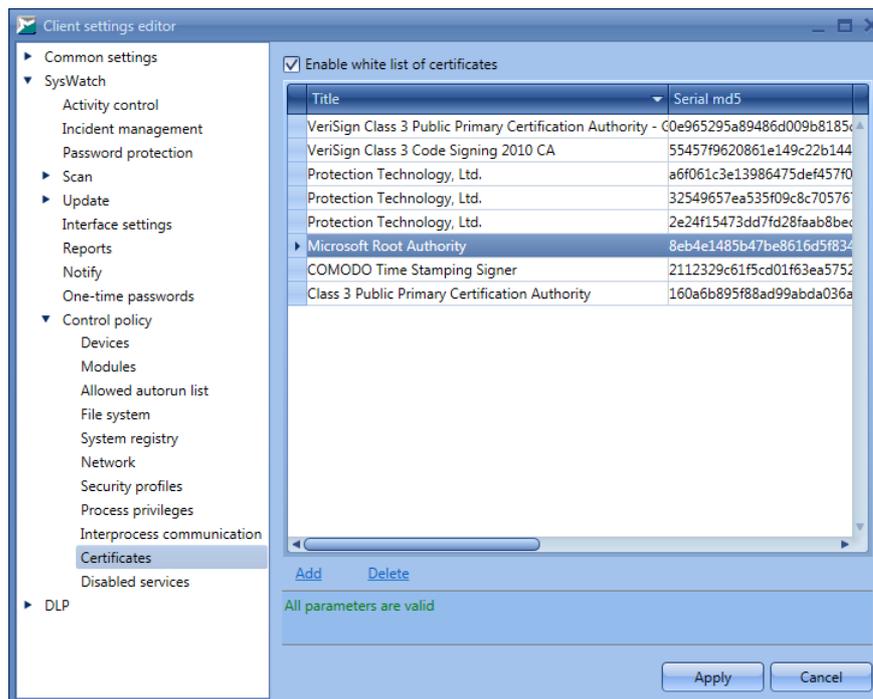


Figure 91. The white list of certificates

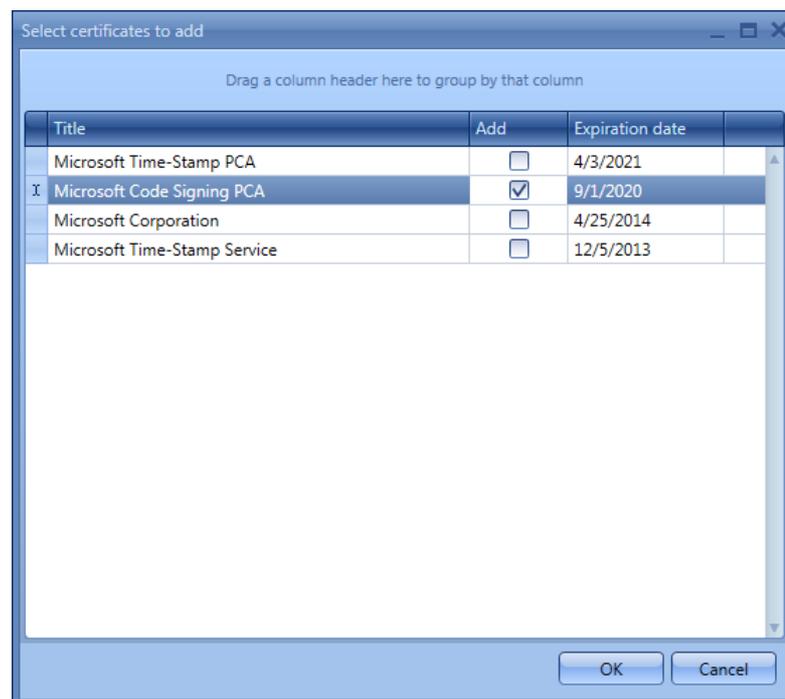


Figure 92. Selecting certificates to add

If you want to remove a certificate from the list of trusted certificates without deleting it, deselect the checkbox in the **Trust** column. To delete the certificate from the list completely, select it and click the **Delete** link (fig. [The whitelist of certificates](#)⁹⁴).

▼ **Control policy: Disabled services**

You can select services that should be blocked on the client hosts, in the **Control policy** → **Disabled services** section of the **SysWatch** category.

The following services are disabled by default: *RemoteRegistry*, *TermService*, *SSDPSRV*, *RDSessMgr*, and *Seclogon* (fig. [Disabled services](#)⁹⁶). To add more services to the list, tick off **Disable following services execution**, enter the name of a service in the displayed cell and press **Enter**.

After you apply the settings on the client host, the status of the services from the list becomes *Disabled*. If a services has been running when the settings were applied, it continues to run.

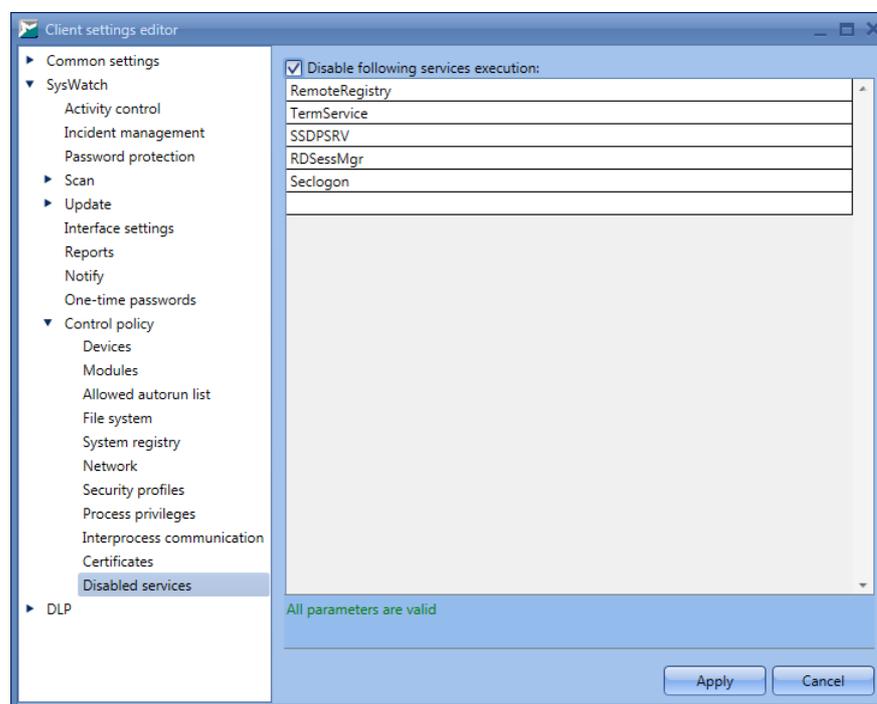


Figure 93. Disabled services

i You can only enable the services from the list manually.

4.6.3 SoftControl DLP Client settings

This category of settings includes the configuration of the SoftControl DLP Client component.

▼ Collect data

Tick off **Collect data** in the **Collect data** section of the **DLP** category and select the required scopes of information (fig. [Data collection settings](#)⁹⁷):

- Application work time;
- Using USB devices;
- Printing documents;
- Sending documents by email;
- Enable keylogger.

i Observation over [file system](#)⁽⁹⁸⁾, [system registry](#)⁽¹⁰⁰⁾ and [network traffic](#)⁽¹⁰²⁾ is active if **Collect data** is checked and the rules are added to the corresponding subsections in the **Observation** section.

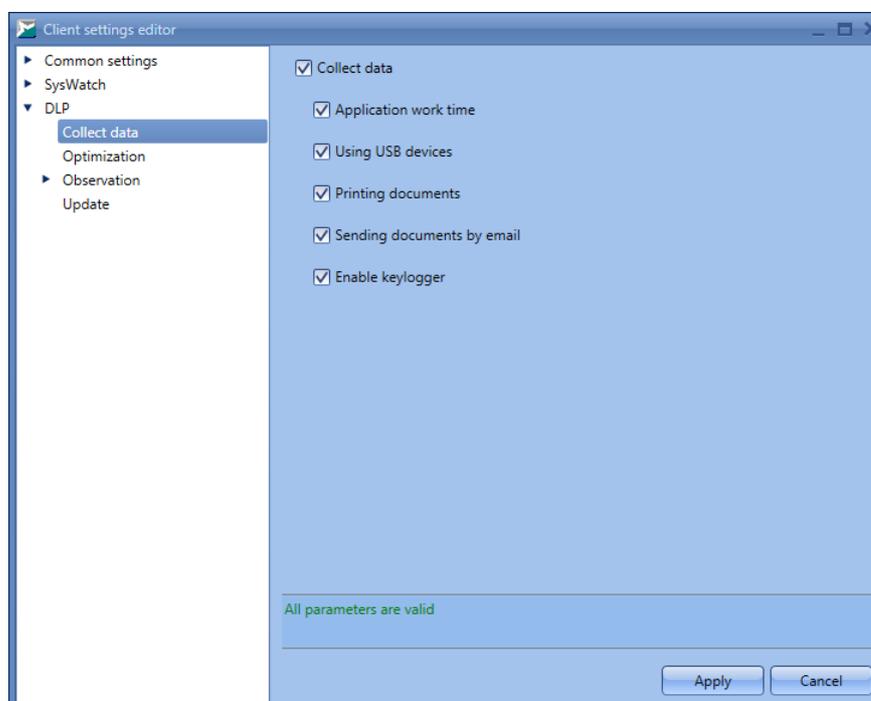


Figure 94. Data collection settings

▼ Optimization

Time parameters of the event registration are specified in the **Optimization** section of the **DLP** category (fig. [Optimization settings](#)⁽⁹⁷⁾).

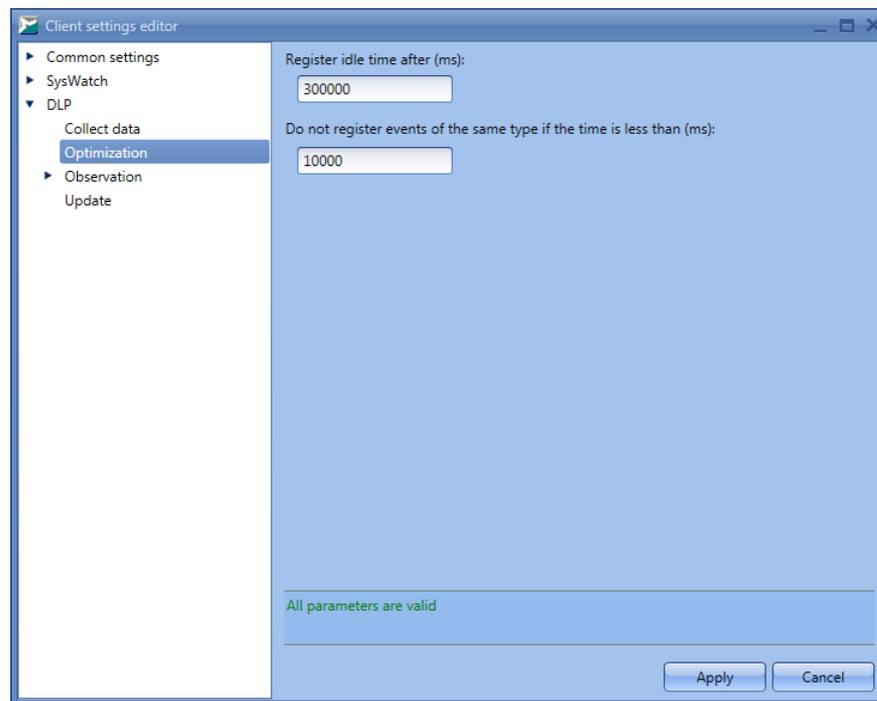


Figure 95. Optimization settings

Enter the **Register idle time after (ms)** and **Do not register events of the same type if the time is less than (ms)** time intervals in the corresponding fields (in milliseconds).

Note: the **Do not register events of the same type if the time (ms) is less than** option only applies when monitoring the file system resources. The **Register idle time after (ms)** option works when the **Application work time** option is enabled (see fig. [Data collection settings](#)⁽⁹⁷⁾) and measures the time when an application is idle, i.e. when the user does not click any buttons or moves the mouse for the specified period.

▼ **Observation: File system**

You can select the file system objects to monitor, in the **Observation** → **File system** section of the **DLP** category (fig. [File system monitoring settings](#)⁽⁹⁸⁾).

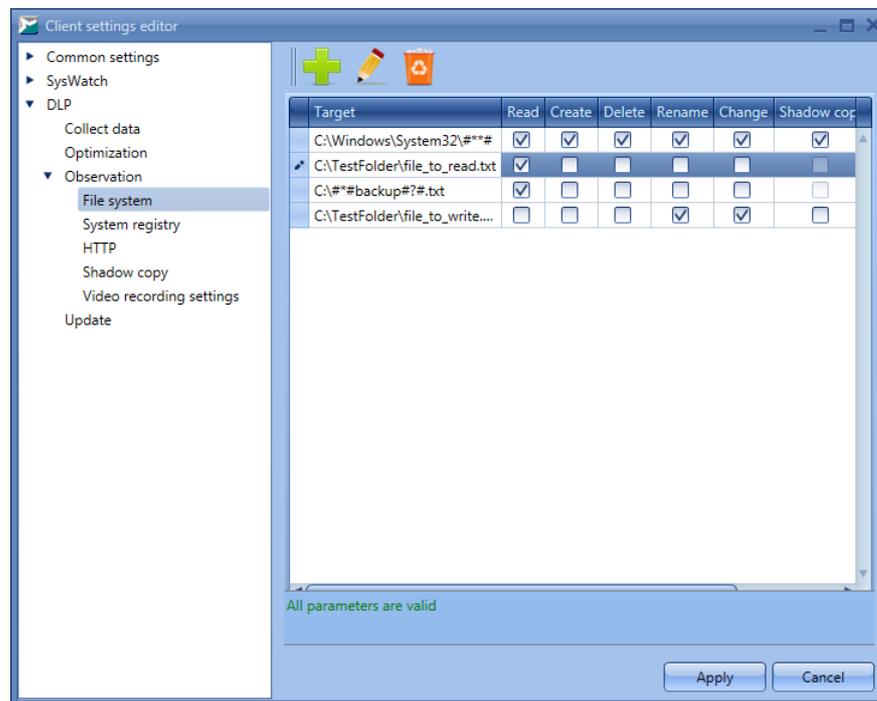


Figure 96. File system monitoring settings

To add an object to monitor, click **+** (**Add**) and enter the full path to it in the displayed window (fig. [Object under observation](#)⁽¹⁰⁰⁾).

You can use masks to create rules for the group of file system objects. For example, you can create a rule for a folder and all the objects inside it, or a rule for certain file types (extensions).

Below is the mask syntax:

- **###** – mask replaces any number of characters except the '\ ' symbol (if the mask is placed at the end of the string, the rule affects only root directory files);
- **###** – mask replaces any number of characters (if the mask is placed at the end of the string, the rule affects root directory files, subdirectories and subdirectories files);
- **#?#** – mask replaces exactly one character (any character).

For example, to enable observation of a folder and all included objects, add the **###** characters at the end of the string. Click **OK** to add the specified object to the list.

You can specify local folders as well as network folders. When you create a rule for network folders, the path is specified as follows: \\<server_name>\<folder_name>. You can use the **###** mask instead of '\\'. In this case, SoftControl SysWatch checks both network and local folders. Besides, you can specify IP address of the computer with the network folder.

i If you specify the computer's IP address in the rule, the rule is only valid when the user enters IP address to access the folder. It is not valid when the user enters the

network path. Therefore, if you need to monitor the folders that the users access by both IP address and network path, create separate rules for each of the notations.

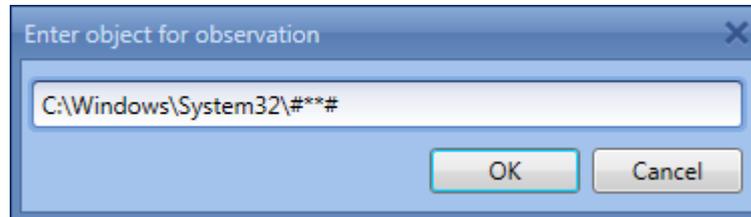


Figure 97. Object for observation

To change the path to the object, select it from the list and click (**Change**). To delete an object from observation, select it and click (**Delete**).

For each of the objects, you can select the following operations that should be registered in reports:

- Read;**
- Create;**
- Delete;**
- Rename;**
- Change.**



If an object is renamed on a client host, it is not monitored anymore.

When the **Shadow copy** option is selected, a backup copy of the object under observation is saved before the object is modified, if the [shadow copying](#)¹⁰³ global option is enabled and **Delete** or **Create** fields are ticked off. If the **Video recording** option is selected, the screen shots of the client host are saved with the [specified parameters](#)¹⁰⁴ when an incident occurs.

▼ **Observation: System registry**

You can select the system registry objects to monitor, in the **Observation** → **Registry** section of the **DLP** category (fig. [System registry monitoring settings](#)¹⁰¹).

To add an object to monitor, click (**Add**) and enter the full path to it in the displayed window (fig. [Object under observation](#)¹⁰¹). The registry root keys in the specified path should be assigned as follows:

- \REGISTRY\MACHINE\SOFTWARE\CLASSES\ – the HKEY_CLASSES_ROOT key;
- \REGISTRY\MACHINE\ – the HKEY_LOCAL_MACHINE key;

- `\REGISTRY\USER\<SID>\` – the HKEY_CURRENT_USER key for the user with the specified security identifier (<SID>);
- `\REGISTRY\USER\` – the HKEY_USERS key.

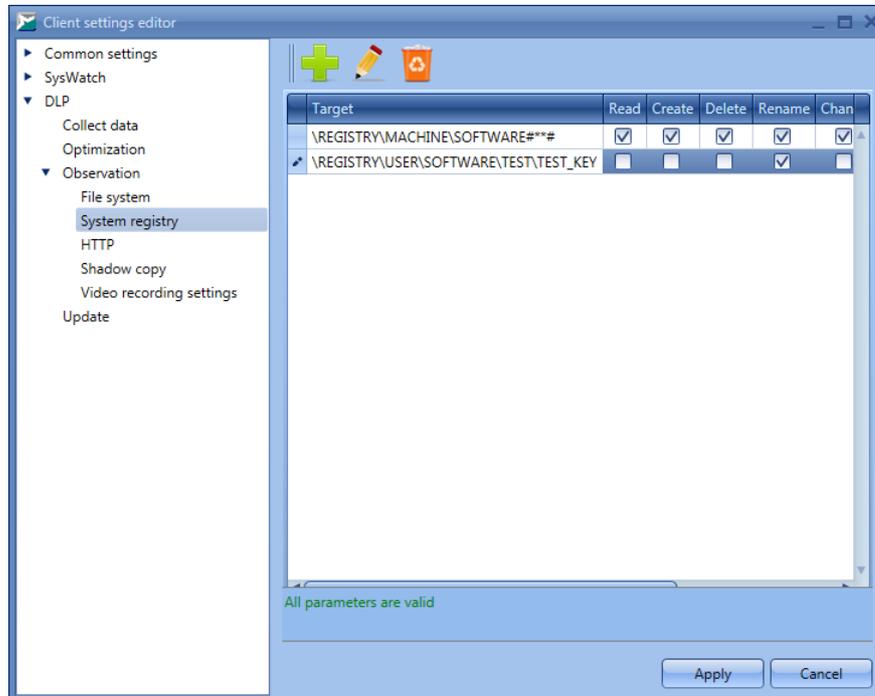


Figure 98. System registry monitoring settings

You can use masks to create rules for the group of system registry objects. For example, you can create a rule for a registry key and all objects inside it. Below is the mask syntax:

- `###` – the mask replaces any number of characters except for the '\ ' symbol (if the mask is placed at the end of the string, the rule affects only the key values);
- `***#` – the mask replaces any number of characters (if the mask is placed at the end of the string, the rule affects the key values, subkeys and subkeys values);
- `#?#` – the mask replaces exactly one character (any character).

For example, to enable observation of the registry key and all included objects, add the `***#` characters at the end of the string. Click **OK** to add the specified object to the list.

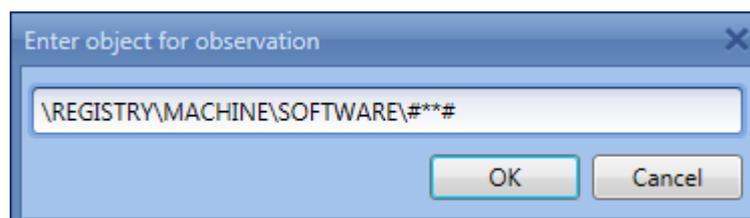


Figure 99. Object for observation

To change the path to the object, select it from the list and click  (**Change**). To delete an ob-

ject from observation, select it and click  (**Delete**).

For each of the objects, you can select the following operations that should be registered in reports:

- Read**;
- Create**;
- Delete**;
- Rename**;
- Change**.

 If an object is renamed on a client host, it is not monitored anymore.

When the **Shadow copy** option is selected, a backup copy of the object under observation is saved before the object is modified, if the [shadow copying](#)⁽¹⁰³⁾ global option is enabled and **Delete** or **Create** fields are ticked off. If the **Video recording** option is selected, the screen shots of the client host are saved with the [specified parameters](#)⁽¹⁰⁴⁾ when an incident occurs.

▼ **Observation: HTTP traffic**

You can specify the network traffic data to be monitored, in the **Observation** → **HTTP** section of the **DLP** category (fig. [Network traffic monitoring settings](#)⁽¹⁰²⁾).

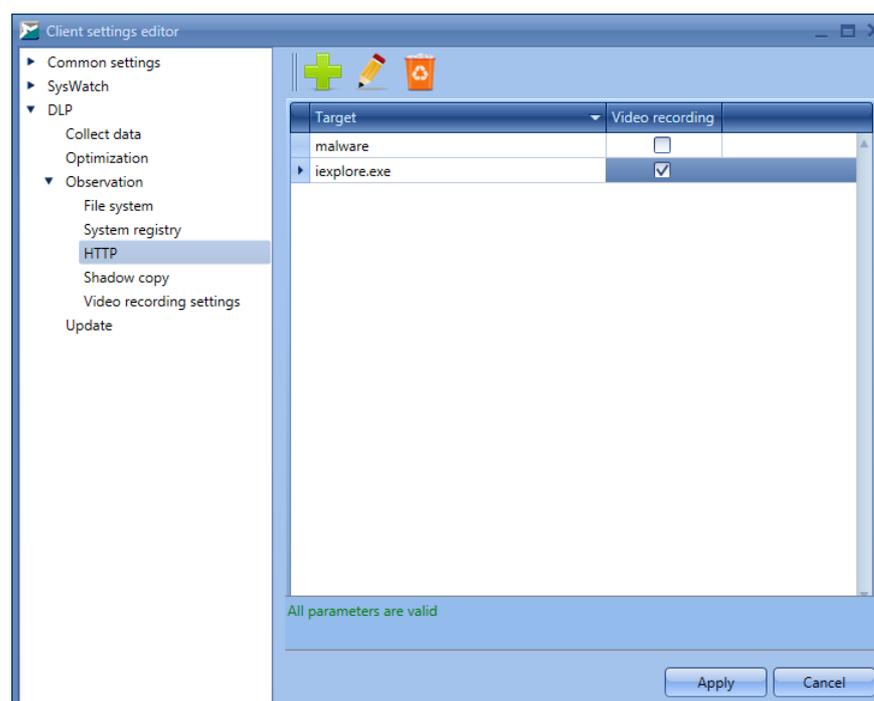


Figure 100. Network traffic monitoring settings

To add data to monitor, click **+** (**Add**) and enter a string in the displayed window (fig. [Object under observation](#)¹⁰³). The presence of the specified text is traced during data transfer over the HTTP protocol. For example, it can be user's requests in search engines via an internet browser, or the name of the file transferred via the network. Click **OK** to add the string to the list.

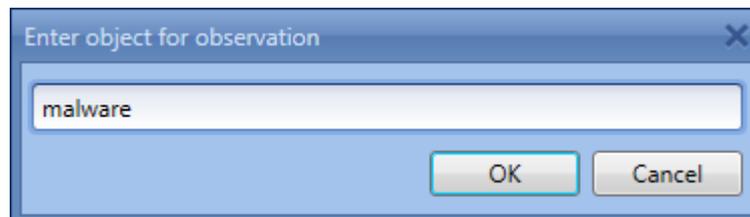


Figure 101. Object for observation

To change the traced text, select a string from the list and click **✎** (**Change**). To delete a text from observation, select a string and click **✖** (**Delete**).

If the **Video recording** option is selected, the screen shots of the client host are saved with the [specified parameters](#)¹⁰⁴ when an incident occurs.

▼ **Observation: Shadow copy**

In the **Observation** → **Shadow copy** section of the **DLP** category, you can set up the saving of the shadow copies of the objects under observation (fig. [Shadow copying settings](#)¹⁰³).

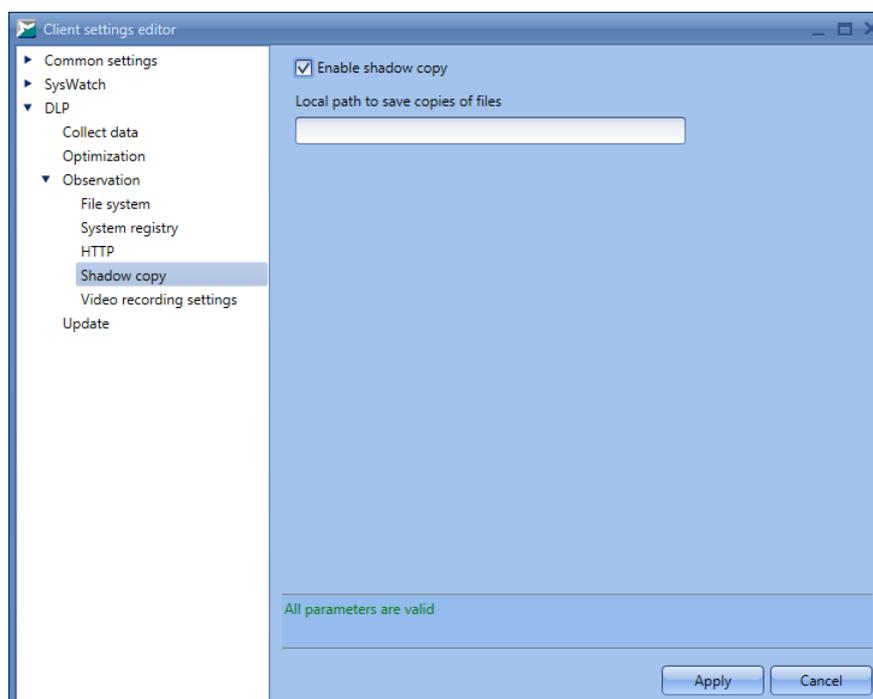


Figure 102. Shadow copying settings

Tick off the **Enable shadow copy** checkbox to enable the backups of the [file system](#)⁹⁸ and

[system registry](#)⁽¹⁰⁰⁾ objects under observation, when the objects are modified (fig. [Shadow copying settings](#)⁽¹⁰³⁾). You can enable the option for certain objects in the observation properties. Shadow copies of the objects are sent to the server and are available in the management console. They are also saved locally on the client hosts with the installed SoftControl DLP Client, by the path specified in the **Local path to save copies of files** field, or to the following default folder if no path is specified:

```
<SoftControl DLP Client installation folder>\Backups
```

▼ Observation: Video recording settings

In the **Observation** → **DLP video settings** section of the **DLP** category, you can set up the screen shots when the events under observation occur (fig. [Video recording settings](#)⁽¹⁰⁴⁾).

Specify the following record parameters:

- **Recording duration** – duration of screen capturing, starting from the moment the event occurs (value range: 5 - 60 s);
- **Frame rate delay** – time interval between the screen captures (value range: 50 - 500 ms);
- **Video frame width** – screen shot width in pixels (value range: 0 - 1920).

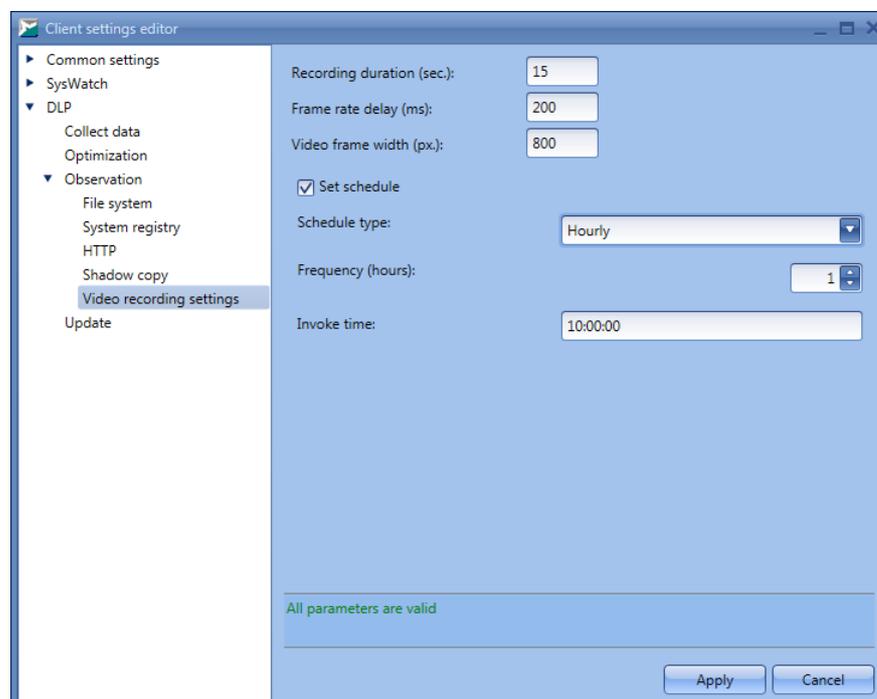


Figure 103. Video recording settings

To start recording the video in real time, right-click the required SoftControl DLP Client component on the [Clients](#)⁽³⁹⁾ tab and select **Start video recording** in the context menu.

You can enable video recording on schedule by ticking off **Set schedule**. Specify the following

recording options:

- **Schedule type** – daily or hourly;
- **Frequency (days/hours)** – how often the task should run;
- **Invoke time** – time when the task should start (as *hh:mm:ss*).

▼ Update settings

You can set the update schedule in the **Update** section of the **DLP** category. To do so, tick off the **Set schedule** checkbox and specify the parameters (fig. [Update schedule settings](#)¹⁰⁵).

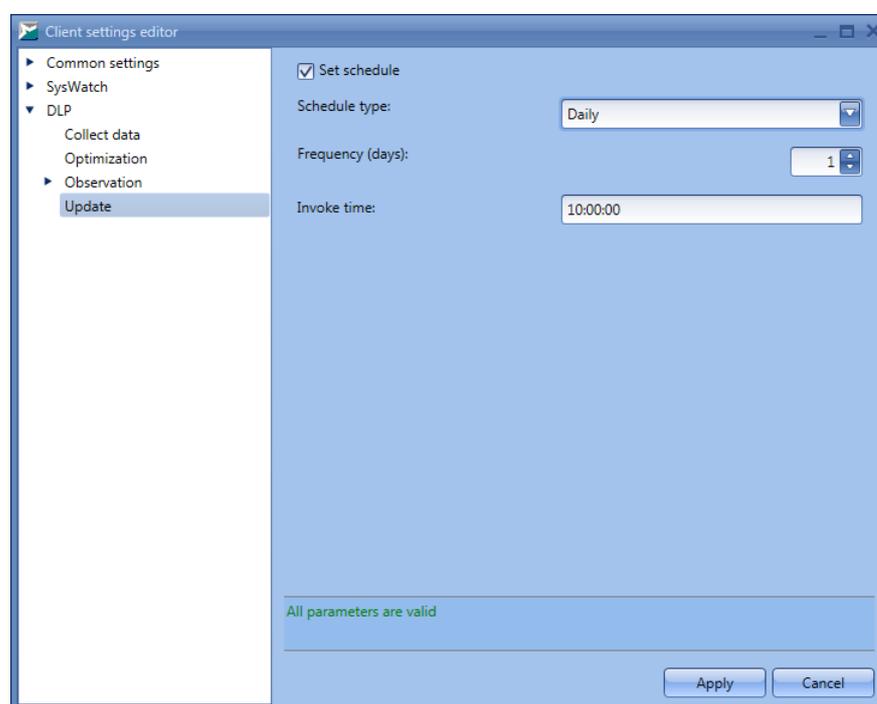


Figure 104. Update schedule settings

Select the **Schedule type** (daily or hourly), specify the frequency of the task in the **Frequency (days/hours)** counter, and the start time in *hh:mm:ss* format in the **Invoke time** field.

4.7 Security profiles

The **Security profile** tab allows you to work with the sets of security options (profiles) that include the rules for file system, system registry, network, and modules. The profiles combine activity control rules from different categories. The profiles you create are saved to the SoftControl Service Center database; you can use them in the [client application settings](#)⁸⁸.

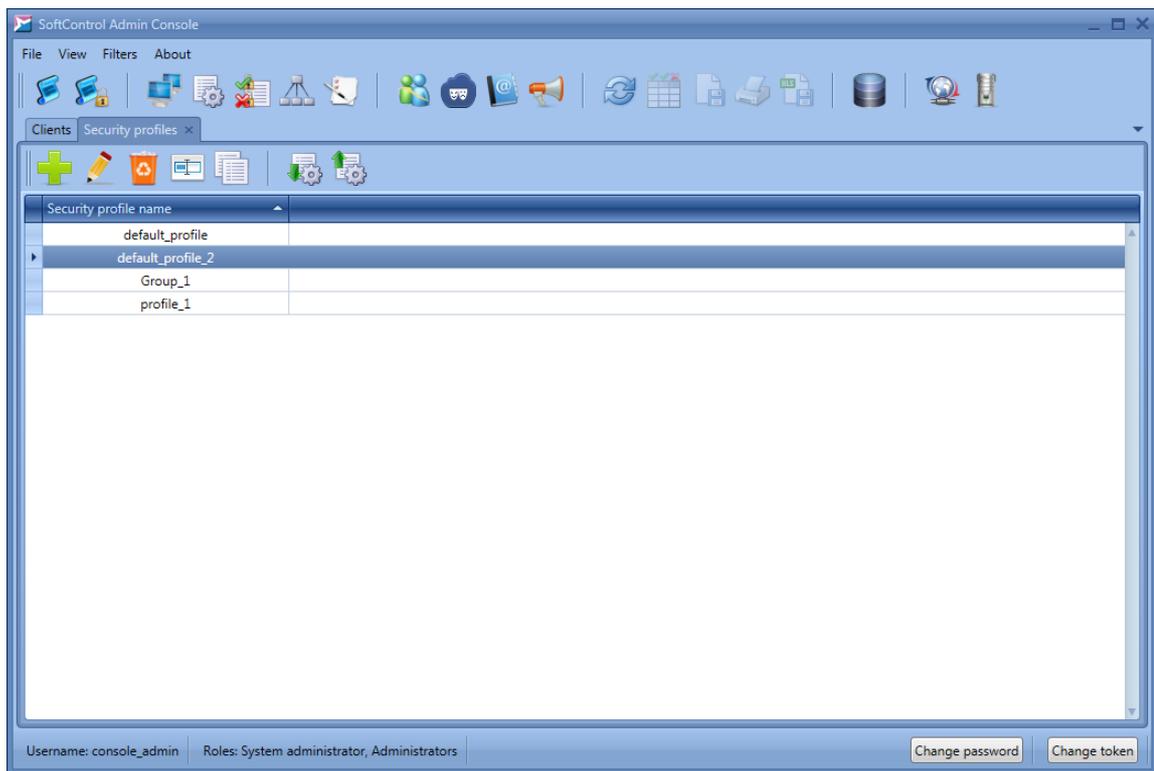


Figure 105. 'Security profiles' tab

Basic operations with the profiles are performed via the tab's graphical buttons that are described in table 16.

Table 16. The 'Security profiles' tab widgets

Button	Name	Description
	Add	Create a new security profile.
	Change	Modify the selected profile.
	Delete	Remove the selected profile.
	Rename	Rename the selected profile.
	Copy	Save the selected profile with a different name.
	Import	Import a profile from an XML file.
	Export	Export the select profile to an XML file.

Basic operations on this tab are:

- ▼ **Creating a profile**

To create a security profile, click **+** (**Add**) and specify the name of the profile. In the displayed **Security profile data: <profile_name>** window, set the rules for file system, system registry, network, and modules.

For details on how to add activity control rules, see the corresponding parts of the **SoftControl SysWatch settings** section ([Control policy: File system](#)⁽⁷⁷⁾, [Control policy: System registry](#)⁽⁸⁰⁾, [Control policy: Network activity](#)⁽⁸³⁾ and [Control policy: Modules](#)⁽⁷⁴⁾).

▼ **Editing a profile**

To modify a security profile, select it and click **✎** (**Change**) (fig. ['Security profiles' tab](#)⁽¹⁰⁵⁾). Edit the required data in the displayed **Security profile data: <profile_name>** window.

▼ **Deleting a profile**

To delete a profile, select it, click **✖** (**Delete**) (fig. ['Security profiles' tab](#)⁽¹⁰⁵⁾) and confirm the removal in the dialog box.

▼ **Renaming a profile**

To rename a profile, select it, click **🏷️** (**Rename**) (fig. ['Security profiles' tab](#)⁽¹⁰⁵⁾) and specify the new name in the displayed window.

▼ **Copying a profile**

To create a copy of a profile, select it, click **📄** (**Copy**) (fig. ['Security profiles' tab](#)⁽¹⁰⁵⁾) and specify the name of the new profile in the displayed window.

▼ **Importing a profile**

To load a security profile from an XML file, click **📄** (**Import**) (fig. ['Security profiles' tab](#)⁽¹⁰⁵⁾). Specify the name of the XML file in the dialog box and click **OK**.

▼ **Exporting a profile**

To save a security profile to an XML file, click **📄** (**Export**). Specify the name and path of the XML file in the dialog box.

4.8 Tasks

The **Tasks** tab allows you to create tasks for client applications and watch the details of their execution (fig. [The 'Tasks' tab](#)¹⁰⁸).

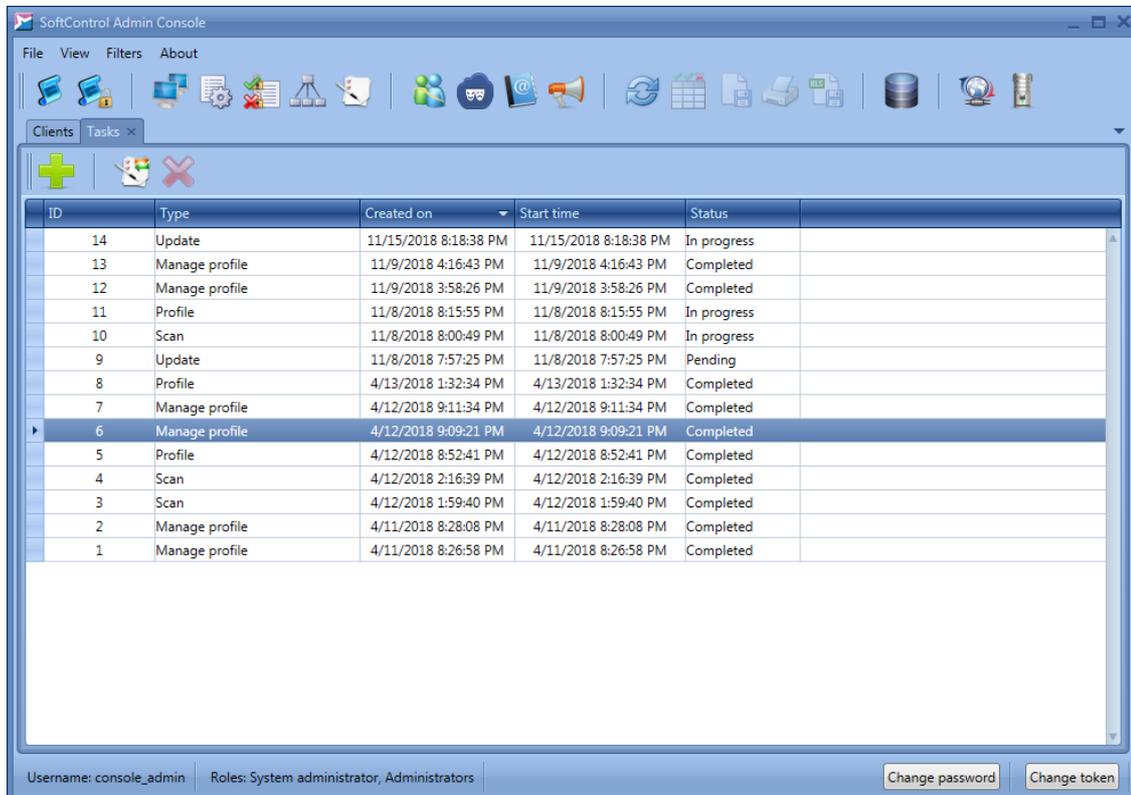


Figure 106. The 'Tasks' tab

The tab contains the list of all tasks and their parameters.

Basic operations with the tasks are performed via the tab's graphical buttons that are described in table 17.

Table 17. The 'Tasks' tab widgets

Button	Name	Description
	New	Create a new task for the client components.
	Task status	View the report on the execution of the selected task.
	Cancel	Cancel a task in the Pending status.

The list of the tab fields is given in table 18.

Table 18. The 'Tasks' tab fields

Field	Description
ID	Task order number.
Type	Task type: <ul style="list-style-type: none"> • profile; • scan; • update.
Created	Data and time of the task creation.
Start time	Date and time of the task start.
Status	Task completion status: <ul style="list-style-type: none"> • pending – none of the client component has started task execution; • canceled – task has been canceled before its execution. • in process – task execution has been started by at least one client component; • completed – task has been completed by all the client components.

Basic operations on this tab are:

▼ Creating a task

To add a new task, click **New** (fig. [The 'Tasks' tab](#)⁽¹⁰⁸⁾). Specify the task parameters depending on its type, in the **New task** window (see figures from [The 'Task type' section](#)⁽¹¹¹⁾ to [The 'Clients' section](#)⁽¹¹⁵⁾ in section [Updating](#)⁽¹¹⁴⁾).

- [profile gathering](#)⁽¹¹¹⁾;
- [antivirus scanning](#)⁽¹¹²⁾;
- [updating](#)⁽¹¹⁴⁾.

▼ Viewing task execution details

To view the details of task execution, select it and perform the one of the following operations:

- click **Task status** in the tab buttons group (fig. [The 'Tasks' tab](#)⁽¹⁰⁸⁾);
- double-click the task.

The displayed **Task: details** tab contains the detailed information about the task and the status of its execution for each of the client components (fig. [Task execution details](#)⁽¹¹⁰⁾).

Besides the main information (table 18) and the task parameters, the tab displays the **Status of task on clients** table. Description of its fields is given in table 19.

Table 19. The 'Status of task on clients' table fields

Field	Description
Organization unit	The organization unit which the client component belongs to.
Client name	The name of the client host which client component installed on.
Status	Task completion status: <ul style="list-style-type: none"> • pending – task execution has not started; • starting – the task start command has been sent to the client component successfully; • start error – the client component could not run the task; • in process – the client component is processing the task; • process error – an error occurred during task execution; • canceled – the task has been canceled; • completed – task execution has been finished; • completion error – an error occurred during task completion.
End time	The time of task completion on the client host.

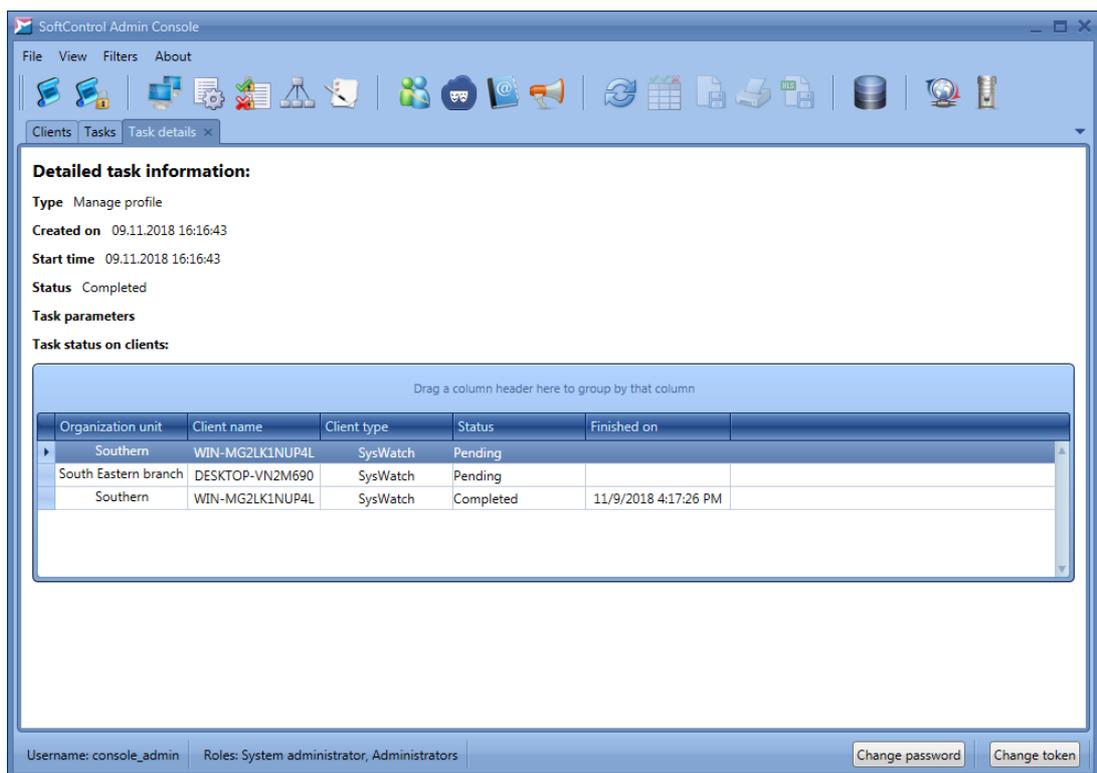


Figure 107. Task execution details

To view the report on the completed operations, go to the **Log** tab and apply [filters](#)¹²⁹ to the required types of operations.

4.8.1 Profile gathering

- 1) Select **Profile** from the drop-down list in the **Task type** section and click **Next** (fig. [The 'Task type' section](#)⁽¹¹¹⁾).

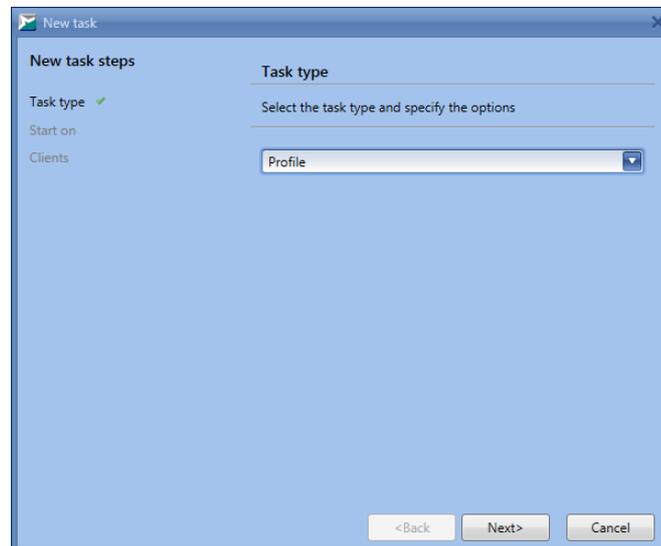


Figure 108. The 'Task type' section

- 2) Select the **Immediately** option in the **Start on** section to run the task right after you add it, or select **Choose a date to start** and specify the date and time of the start (fig. [The 'Start date' section](#)⁽¹¹¹⁾). Click **Next** to continue.

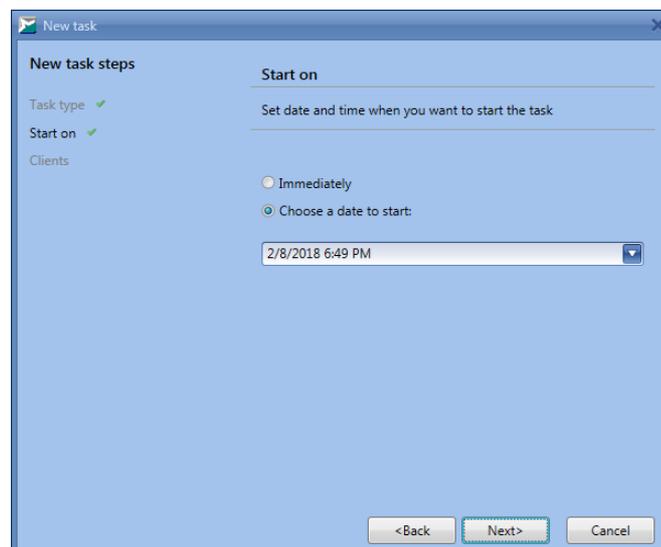


Figure 109. The 'Start on' section

- 3) In the **Clients** section, tick off the client components which you want to create the task for (fig. [The 'Clients' section](#)⁽¹¹²⁾). If you select the **SysWatch** client type, the task is assigned to all client components. If you select an organization unit, the task is assigned to all client compon-

ents of the organization unit. Click **Done** to create the task, or **Back** to change the task parameters.

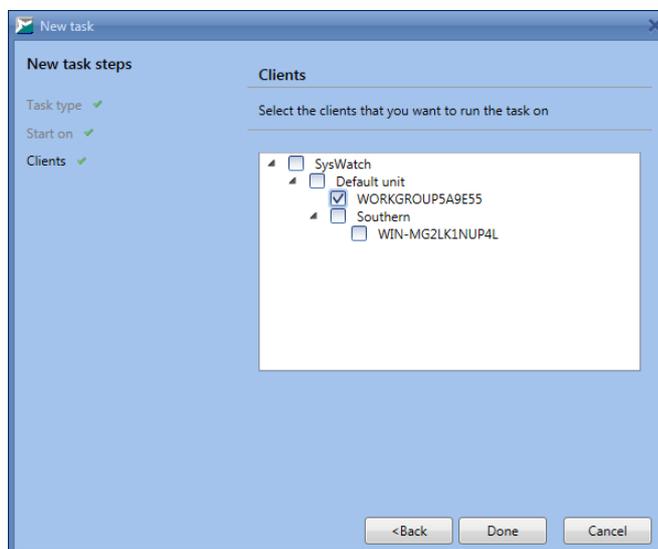


Figure 110. The 'Clients' section

4.8.2 Antivirus scanning

1) Select **Scan** from the drop-down list in the **Task type** section and tick off the client host's areas to be scanned (fig. [The 'Task type' section](#)⁽¹¹²⁾):

- Scan memory;
- Scan boot sectors;
- Scan all hard drives;
- Scan all removable devices.

Click **Next** to continue.

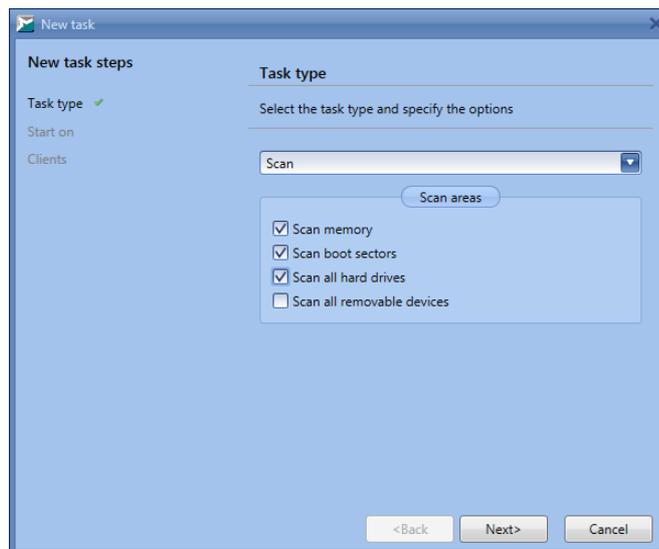


Figure 111. The 'Task type' section

2) Select the **Immediately** option in the **Start on** section to run the task right after you add it, or select **Choose a date to start** and specify the date and time of the start (fig. [The 'Start date' section](#)⁽¹¹³⁾). Click **Next** to continue.

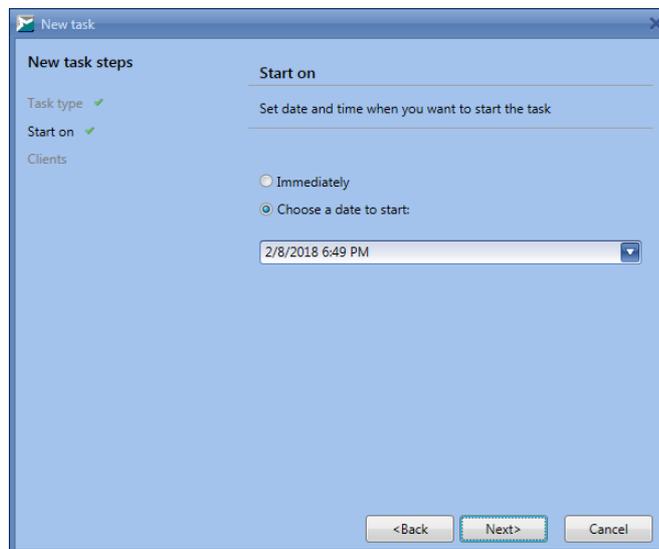


Figure 112. The 'Start on' section

3) In the **Clients** section, tick off the client components which you want to create a task for (fig. [The 'Clients' section](#)⁽¹¹³⁾).

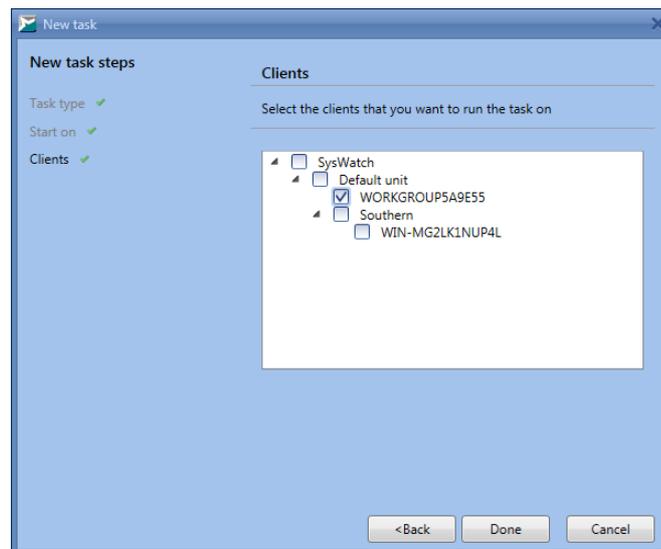


Figure 113. The 'Clients' section

If you select the **SysWatch** client type, the task is assigned to all client components. If you select an organization unit, the task is assigned to all the client components of the organization unit. Click **Done** to create the task, or **Back** to change the task parameters.

4.8.3 Updating

1) Select **Update** from the drop-down list in the **Task type** section, tick off the required components to update and the task options (fig. [The 'Task type' section](#)¹¹⁴):

- Program updates**: update SysWatch and DLP program modules.
- AV bases**: update the antivirus bases of the SysWatch components.
- Reboot clients**: reboot the client hosts when the update completes. If this option is not selected, you should reboot the client host locally to complete the program module updates. The corresponding message is displayed in the component's status in the [Clients](#)³⁹ tab and in the update events in [logs](#)¹¹⁶.

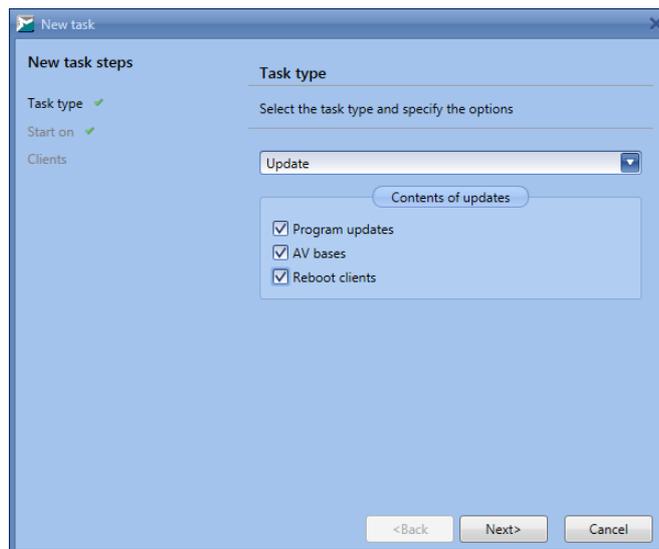


Figure 114. The 'Task type' section

Click **Next** to continue.

- 2) Select the **Immediately** option in the **Start on** section to run the task right after you add it, or select **Choose a date to start** and specify the date and time of the start (fig. [The 'Start date' section](#)⁽¹¹⁵⁾). Click **Next** to continue.

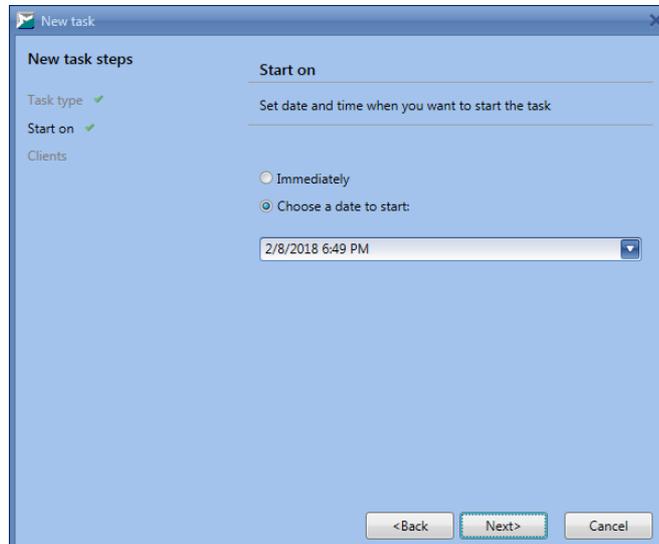


Figure 115. The 'Start on' section

- 3) In the **Clients** section, tick off the client components which you want to create the task for (fig. [The 'Clients' section](#)⁽¹¹⁵⁾).

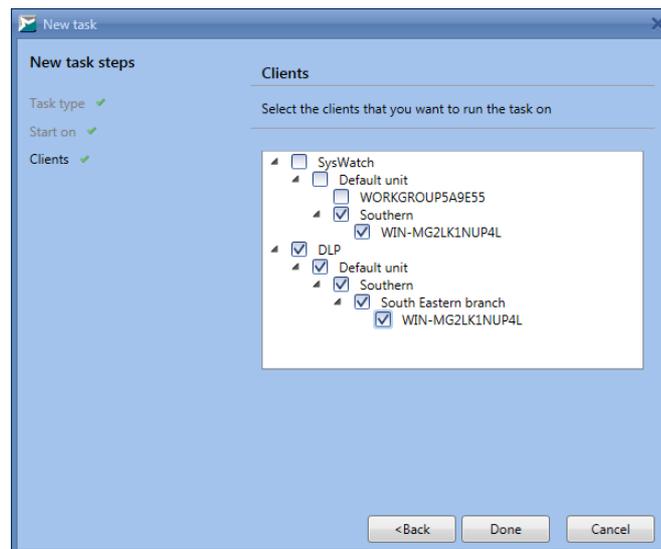


Figure 116. The 'Clients' section

If you select a client type, the task is assigned to all client components of the same type. If you select an organization unit, the task is assigned to all the client components of the organization unit. Click **Done** to create the task, or **Back** to change the task parameters.

4.9 Viewing reports

The **Log** tab is designed to view the consolidated reports from the client applications in SoftControl Admin Console. The tab allows tracing the events on several client hosts simultaneously in real time, and sampling the required data with the help of flexible [filtering](#)¹²⁸. On the tab, the administrator can access the following data in a convenient format.

- [SoftControl SysWatch logs](#)¹¹⁷;
- [SoftControl DLP Client logs](#)¹²⁴.

The obtained reports can be [printed or exported to a file](#)¹³².

4.9.1 SoftControl SysWatch logs

The **Log** tab provides the detailed monitoring of the security events that are registered by SoftControl SysWatch on the client hosts (fig. [The 'Log' tab for the SoftControl SysWatch component](#)¹¹⁷).

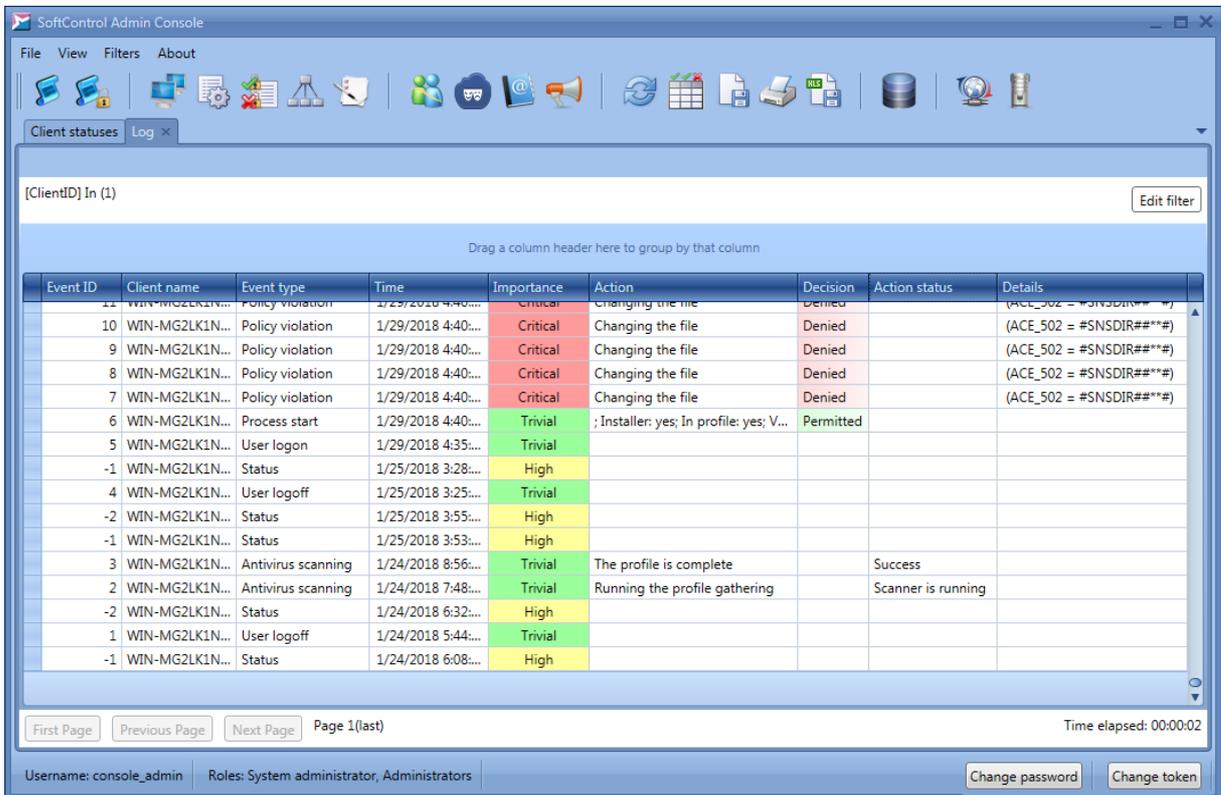


Figure 117. The 'Log' tab for the SoftControl SysWatch component

The full list of the tab fields for the SoftControl SysWatch component is given in table 20.

Table 20. The 'Log' tab fields for SoftControl SysWatch

Field	Description
Client name	The name of a client host.
Event ID	Unique event identifier. If SoftControl Admin Console receives an event with the duplicated identifier, the duplicated string is highlighted in red. If there is a break in the order of the identifiers (i.e. gaps in the sequence exist), the corresponding warning is added to the server component report in the Windows event log ¹⁶⁹ . The exception is the events of the Status type. The Event ID parameter can be either -1 or -2 for them.
Unique client ID	Unique identifier of a client host. The identifier is assigned automatically after SoftControl SysWatch sends a request to SoftControl Server for the first time.
Event type	Type of the security event (incident): <ul style="list-style-type: none"> • policy violation; • activity control; • client update; • process start; • antivirus scanning; • settings modification;

Field	Description
	<ul style="list-style-type: none"> • status; • user logon; • user logoff.
Time	Date and time when the event occurred.
Importance	<p>The event importance (priority) from the viewpoint of a threat to a client host's information security:</p> <ul style="list-style-type: none"> • trivial; • high; • critical. <p>Each priority level has the corresponding cell color.</p>
Action	<p>Action when a policy violation event occurs:</p> <ul style="list-style-type: none"> • reading the file; • changing the file; • renaming the file; • deleting the file; • opening the directory; • deleting the directory; • opening the registry key; • creating the registry key; • deleting the registry key; • changing the registry value; • deleting the registry value; • loading DLL module; • invalid password entered. <p>Action when a process start event occurs (the data are displayed in a single string):</p> <ul style="list-style-type: none"> • Installer: yes/no; • In profile: yes/no (not available if the system profile is disabled on the client host, or the Applications checkbox in the Activity control section of the settings ⁽⁶⁰⁾ is deselected); • Valid certificate: yes/no (for installers only); • Whitelist is on: yes/no (for installers only); • Certificate is in whitelist: yes/no (for installers only and when the whitelist is enabled); • Global software update mode on: yes/no (for installers only); • Was tracked: yes/no; • Execute in software update mode: yes/no. <p>Action when an antivirus scanning event occurs:</p> <ul style="list-style-type: none"> • running the scanner; • running the profile gathering; • finishing the scan; • profile gathering completed; • scanning the object. <p>Action when a client update event occurs:</p> <ul style="list-style-type: none"> • starting the updates; • update completed. <p>Action when a settings modification event occurs:</p> <ul style="list-style-type: none"> • settings changed by user; • settings changed by server. <p>Action when the DeCrypt events occur:</p>

Field	Description
	<ul style="list-style-type: none"> • NOTIFY-DEV0;Boot with all devices present; • NOTIFY-PRETEST;Boot with unencrypted container; • NOTIFY-ERROR;Error at boot; • NOTIFY-PW;Boot with password; • NOTIFY-DEV1;Boot with 1 device missing; • NOTIFY-DEV2;Boot with 2 devices missing (CRITICAL); • NOTIFY-ACTION: DEV-GET;Request list of found devices; • NOTIFY-ACTION: DEV-CHANGE;Update device list; • NOTIFY-ACTION: PW-CHANGE;Change password; • NOTIFY-ACTION: DISK-ENC STARTED;Disk encryption started; • NOTIFY-ACTION: DISK-ENC FINISHED;Disk encryption finished; • NOTIFY-ACTION: DISK-DEC STARTED;Disk decryption started; • NOTIFY-ACTION: DISK-DEC FINISHED;Disk decryption finished; • NOTIFY-ACTION: BOOT-PREPARE;Install boot loader; • NOTIFY-ACTION: BOOT-CLEAR;Uninstall boot loader.
Action status	<p>Action status when an antivirus scanning event occurs:</p> <ul style="list-style-type: none"> • scanner is running; • error when running the scanner; • scanner is stopped; • success; • failure. <p>Action status when a client update event occurs:</p> <ul style="list-style-type: none"> • update is running; • error when running the update; • no updates found; • update interrupted by user; • updates installed successfully; • system reboot is required; • update completed with errors. <p>Action status when the DeCrypt events occur:</p> <ul style="list-style-type: none"> • SUCCESS; • FAIL.
Client status	<p>The status of a registered client component:</p> <ul style="list-style-type: none"> • active; • inactive; • service was interrupted; • status error. invalid status.
Binary path	The application or the installer that triggers the events of the policy violation or the process start types.
Command line	<ul style="list-style-type: none"> – Command that triggers the process start type event. – File system or registry object involved in the event of the policy violation type, or the name of the DLL module loaded by the process that caused the event of the policy violation type. – Invalid password.
User	User account under which the events of the process start or the changing settings types has occurred.
Zone	<p>Application execution zone:</p> <ul style="list-style-type: none"> • trusted;

Field	Description
	<ul style="list-style-type: none"> • default (restricted); • blocked.
PID	Unique process identifier in the OS for the event of the process start type.
Parent PID	Unique parent process identifier in the OS for the event of the process start type.
Parent process	The name of the parent process for the event of the process start type.
Decision	Decision for the application launch: <ul style="list-style-type: none"> • permitted; • denied. Each decision has the corresponding cell color.
Checked objects	The number of objects that have been checked during the antivirus scanning.
Threats found	The number of threats that have been detected during the antivirus scanning.
Threats neutralized	The number of threats that have been neutralized during the antivirus scanning.
Embedded certificates	The number of embedded certificates that have been detected during the automatic setup (profile gathering).
Catalog certificates	The number of catalog certificates that have been detected during the automatic setup (profile gathering).
Applications	Application activity control status: <ul style="list-style-type: none"> • active; • inactive.
File system	File system control status: <ul style="list-style-type: none"> • active; • inactive.
System registry	System registry control status: <ul style="list-style-type: none"> • active; • inactive.
Network control	Network activity control status: <ul style="list-style-type: none"> • active; • inactive.
Logon user name	The account that has been used to log on to a client host OS.
Logoff user name	The account that has been used to log out of a client host OS.
Error	Error code in the database on the server.
Client type	The type of the client the report is displayed for. The field is empty for common events (SysWatch and DLP).
Details	UID of the rule where the control policy has been violated.
Service name	System name of the service that has been started or stopped.
Display name	The name of the service in the Windows Services snap-in.
Service event	The service status: <ul style="list-style-type: none"> • ServiceStarted; • ServiceFoundRunning; • ServiceStopped.

The following events contain the extended information about an incident:

▼ Antivirus scanner event

An antivirus scanner event allows you to view the detailed report about the results of the [anti-virus scanning](#)⁽¹¹²⁾ of the client hosts.

Open the event list on the [Log](#)⁽¹¹⁶⁾ tab for the SoftControl SysWatch component and select an event of the **Antivirus scanning** type with the **Finishing the scan** action. To open a report with additional information, perform one of the following operations for the selected event:

- double-click the event;
- invoke the context menu by right-clicking the event and select the **Show additional info for antivirus scanning event** command.

 A report with the additional information only opens if threats are detected during the antivirus scanning (nonzero counter in the **Threats found** field), or if some threats have not been neutralized during previous check.

The displayed **Scanner** tab contains the list of all objects that contain the threats detected during the check (fig. [Antivirus check results on the 'Scanner' tab](#)⁽¹²²⁾).

The full list of the tab fields is given in table 21.

Table 21. The 'Scanner' tab fields

Field	Description
ScanEvent	Date and time when the antivirus scanning has finished.
Path	The path to the object in the client host's file system.
Name	Object name.
Virus	Malicious code name.
Scan result	Profile gathering/antivirus scanning result: <ul style="list-style-type: none"> • Clean; • Infected; • Suspicious; • Error; • Treatment error; • Error when moving; • Error when deleting.
Scan action	Action that is performed for the object during the antivirus scanning: <ul style="list-style-type: none"> • Treated; • Moved; • Skipped; • Deleted; • No action.

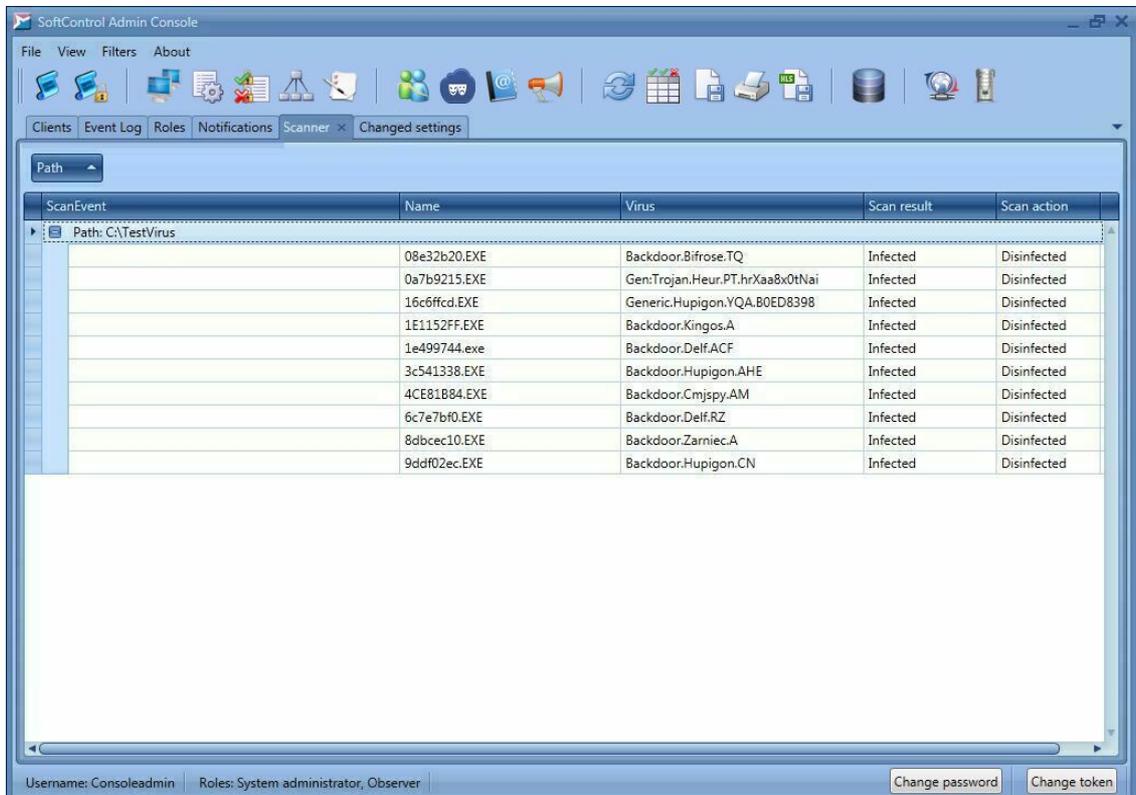


Figure 118. Antivirus check results on the 'Scanner' tab

▼ Settings modification event

Settings modification event allows you to view the full list of the SoftControl SysWatch configuration changes. The SoftControl SysWatch settings can be changed as follows:

- [by the administrator via SoftControl Admin Console](#)⁽⁵⁸⁾;
- by the local user with the help of:
 - the program GUI;
 - the configuration file.

Open the list of events on the [Log](#)⁽¹¹⁶⁾ tab for the SoftControl SysWatch component and select an event of the **Settings modification** type. To open the report with the additional information, perform one of the following operations with the selected object:

- double-click the event;
- invoke the context menu by right-clicking the event and select the **Show additional info for settings modification event** command.

The displayed **Settings modification** tab contains the list of the SoftControl SysWatch settings and their new status (fig. [The 'Changed settings' tab](#)⁽¹²³⁾).

Setting name	Setting value
Skip old password check	On
Sns/AclLastUID	10002
Enable one-time passwords	Disabled
Time period (sec)	100
Key	
Save activity history for untracked applications and installers	On
AV bases	On
Prompt for confirmation before updating	Disabled
Modules	On
Address	
Port	80
Use proxy server	On
Use proxy authorization	Disabled
User name	
Password	
Update/Set schedule	On
Update/Frequency (days)	1
Update/Invoke time	20:00:00
Update/Schedule type	Daily
Enable white list of certificates	On
Use personal modules settings	1
Enable reporting to WMI	On
WMI history size	10

Figure 119. The 'Changed settings' tab

The full list of the tab fields is given in table 22.

Table 22. The 'Changed settings' tab fields

Field	Description
Setting name	The name of the settings.
Setting value	The new value of the settings that has been applied as a result of the event.

4.9.2 SoftControl DLP Client logs

The **Log** tab allows viewing the reports with the data that SoftControl DLP Client collects on the client hosts (fig. [The 'Log' tab for the SoftControl DLP Client component](#)⁽¹²⁴⁾).

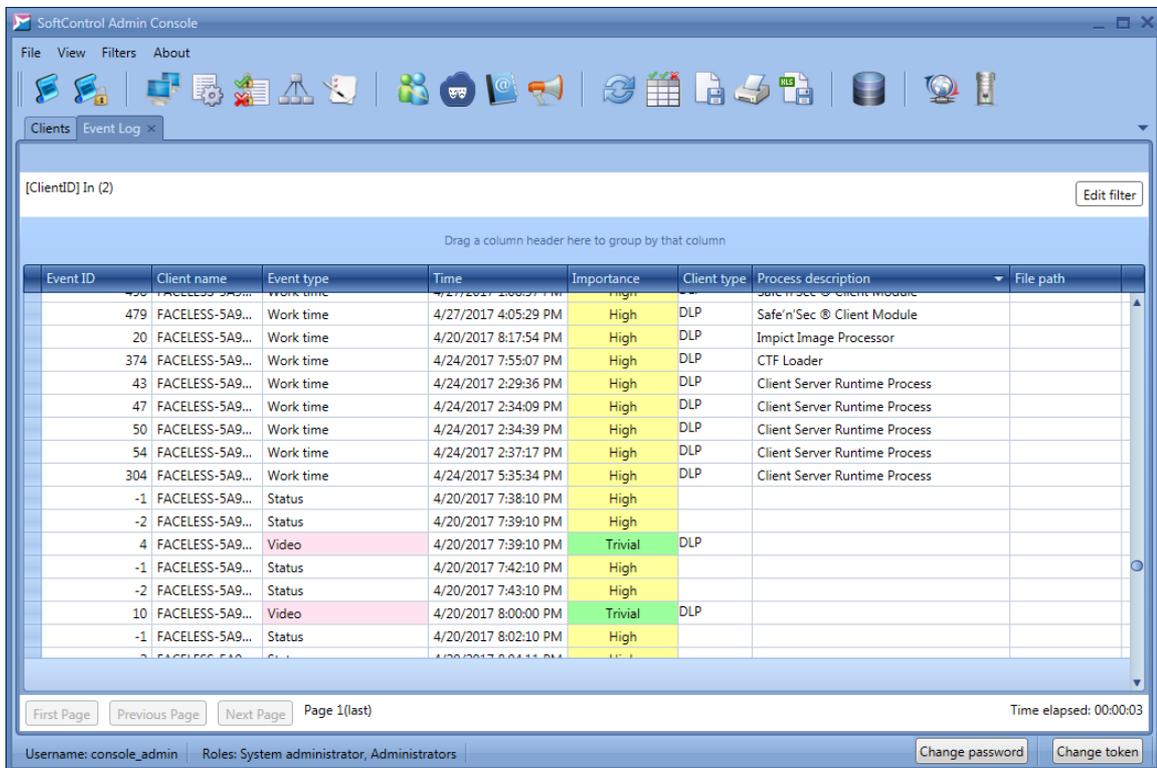


Figure 120. The 'Log' tab for the SoftControl DLP Client component

The full list of the tab fields for the SoftControl DLP Client component is given in table 23.

Table 23. The 'Log' tab fields for SoftControl DLP Client

Field	Description
Client name	The name of the client host.
Event ID	Unique event identifier. If SoftControl Admin Console receives an event with the duplicated identifier, the duplicated string is highlighted in red. If there is a break in the order of the identifiers (i.e. gaps in the sequence exist), the corresponding warning is added to the server component report in the Windows event log ⁽¹⁶⁹⁾ . The exception is the events of the Status type. The Event ID parameter can be either -1 or -2 for them.
Unique client ID	Unique identifier of a client host. The identifier is assigned automatically after SoftControl

Field	Description
	SysWatch sends a request to SoftControl Server for the first time.
Event type	Type of the data collection event: <ul style="list-style-type: none"> • hardware added; • attachment; • file; • HTTP; • keylogger; • printer; • registry; • hardware removed; • work time.
Time	Date and time when the event occurred.
Importance	The event importance (priority) from the viewpoint of a threat to a client host's information security: <ul style="list-style-type: none"> • trivial; • high; • critical. Each priority level has the corresponding cell color.
Client status	The status of the registered client component: <ul style="list-style-type: none"> • active; • inactive; • service was interrupted; • status error. invalid status.
Process path	The path to the process that triggers the event of the file , registry , HTTP , keylogger , work time , printer , and attachment types.
Process description	Description of the process that triggers the event of the file , registry , HTTP , keylogger , work time , printer , and attachment types.
User name	User account that is used to run the process that triggers the event of the file , registry , HTTP , keylogger , work time , printer , and attachment types.
IP	Destination IP address of the HTTP request for the event of the HTTP type.
Url	Destination URL of the HTTP request for the event of the HTTP type.
Header	HTTP header for the event of the HTTP type.
Access mask	The type of the operation with the monitored object, for the events of the file and registry types: <ul style="list-style-type: none"> • read; • write; • delete; • rename; • change.
Backup file name	The local path to the shadow copy of the monitored object with the name of the <i><Full name of the original object>_<N>.bkp</i> , where <i>N</i> is the order number of the locally saved backup, for the events of the file , registry , and HTTP types.
Attachment path	The path to the attached file in the Microsoft® Outlook® 2003 mail client, for the event of the attachment type.
File path	The path to the monitored folder or file, for the event of the file type.
Drive type	The type of the drive with the monitored folder of file, for the event of the file type: <ul style="list-style-type: none"> • fixed storage;

Field	Description
	• removable storage .
Registry path	The path to the monitored registry key or registry key value, for the event of the registry type.
Keylogger time	The date when the keyboard input has been recorded, for the event of the keylogger type.
Keylogger data	Text entered by the user from the keyboard, for the event of the keylogger type.
Details	Description of the print source for the event of the printer type.
Device ID	Peripheral ID for the events of the hardware added and hardware removed types.
Device class	Peripheral class for the events of the hardware added and hardware removed types.
Device description	Peripheral description for the events of the hardware added and hardware removed types.
Start time	Time when the user started working with the application, for the events of the work time type.
End time	Time when the user finished working with the application, for the events of the work time type.
Duration	Duration of work with the application, for the events of the work time type.
File index	Index of the file for the event of the HTTP type.
Client type	The type of the client the report is displayed for. The field is empty for common events (SysWatch and DLP).
Printer name	The name of the printer the print job is sent to.

Events of the **file**, **registry** and **HTTP** types are highlighted in different colours, if they contain additional data (video records, shadow copies) (fig. [Context menu of the event with additional data](#)⁽¹²⁶⁾).

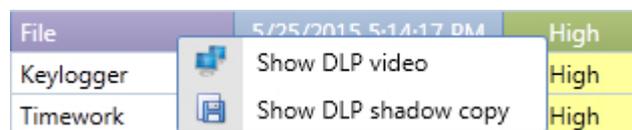


Figure 121. Context menu of the event with additional data

▼ Viewing video records

SoftControl DLP Client saves the sequence of the client host's captured screen shots that can be played back as a video in the management console. Viewing video records is available for events of the **file**, **registry** and **HTTP** types, if **Video recording** option is selected in the monitored object settings. Invoke the context menu by right-clicking the event and select **Show DLP video** to open video record (fig. [Context menu of the event with additional data](#)⁽¹²⁶⁾).

Click **Load** in the displayed video player window and manage the playback with the help buttons (fig. [SoftControl DLP Client video player](#)⁽¹²⁷⁾) that are described in table 24.

i To enable correct record processing by the SoftControl Server component on Microsoft® Windows® Server 2008 R2 and Microsoft® Windows® Server 2012 /

2012 R2, you should have the additional *Desktop Experience* component installed beforehand. Installation instructions are given in [appendix](#)¹⁸⁵.

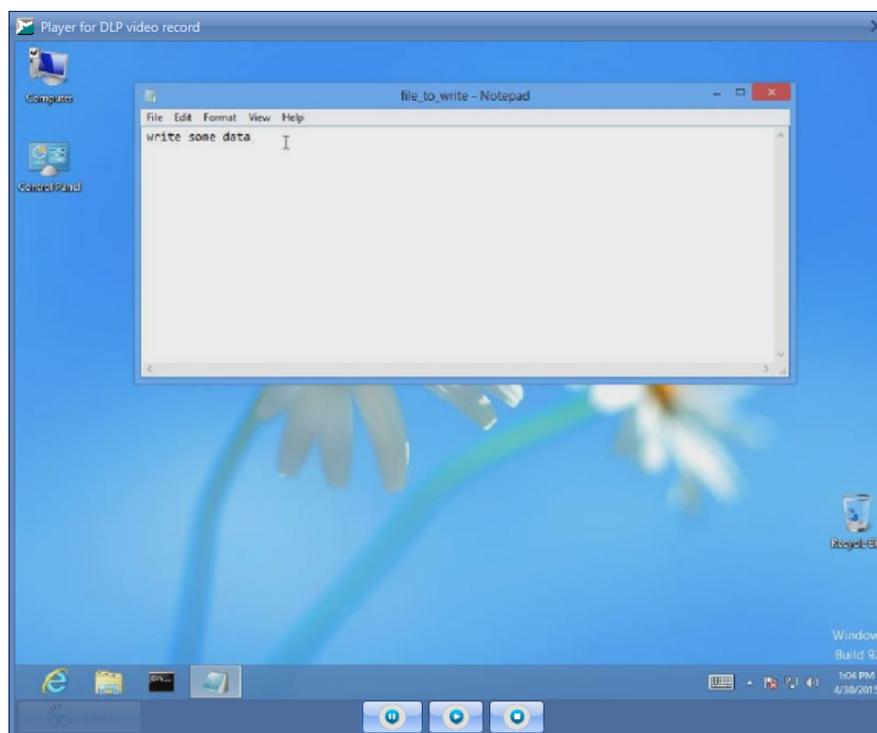


Figure 122. SoftControl DLP Client video player

Table 24. Video player widgets

Button	Name	Description
	Play	Play the record.
	Pause	Pause playback.
	Stop	Stop playback.

▼ Viewing shadow copies

Viewing shadow copy of objects is available for events of the **file** and **registry** types, if **Shadow copy** option is selected in the monitoring settings for these objects. Invoke the context menu by right-clicking the event, select **Show DLP shadow copy** (fig. [Context menu of the event with additional data](#)¹²⁶) and click **Open** in the displayed **Preview DLP shadow copy** window to view the saved copy of the specified object under observation (fig. [Shadow copy of the monitored object](#)¹²⁷).

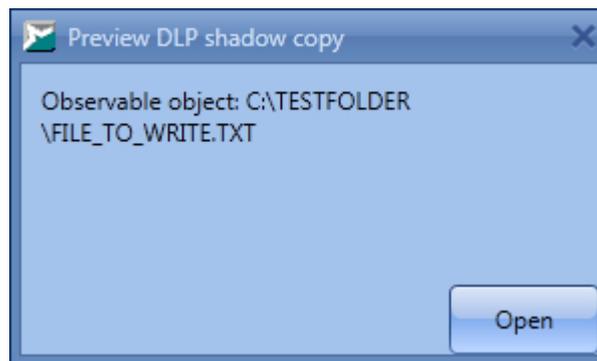


Figure 123. Shadow copy of the monitored object

4.9.3 Filtering the events

▼ Page representation

Information on the **Log** tab is displayed page by page. The maximum number of events per page is specified in the [SoftControl Admin Console interface settings](#)⁽²⁸⁾ (it is 10 000 events by default).

 We do not recommend that you set the **Events page size** parameter to more than 100 000 to prevent loss of performance.

Entries in the table are displayed on pages in chronological order, i.e. the page with the largest number corresponds to the last chunk of events. When you open the **Log** tab, the first page loads. To navigate between pages, use the corresponding buttons in the lower part of the tab (fig. [Page navigation](#)⁽¹²⁸⁾). You can only switch to the previous/next page.



Figure 124. Page navigation

▼ Data grouping

For the convenience, information on the **Log** tab can be grouped by any field (category). On the additional **Scanner** tab, you can group data by the **Path** (by default), **Virus**, **Scan result** and **Scan action** fields (categories). To do so, drag the column header to the panel between the table header and the group of buttons on the tab (see figures from [The 'Log' tab for the SoftControl DLP Client component](#)⁽¹²⁴⁾ to [Shadow copy of the monitored object](#)⁽¹²⁷⁾ in section [above](#)⁽¹²⁴⁾). If you group by several categories, the priority (category nesting) decreases from left to right depending on the location on the panel.

▼ Filtering by the preset filters

SoftControl Admin Console has the preset filters to make a sample of events.

To apply common built-in filters, open the **Filters** menu and select one of the options:

- **Default view** – display all types of events on fields that contain the main information (the filter applies by default when the tab opens).
- **Full view** – display all types of events on all fields.
- **Status** – display the events of changing the client application status.
- **Client updating** – display the events of updating the client applications.

To apply built in filters that correspond to the SoftControl SysWatch events, open the **Filters** → **SysWatch Events Filters** menu and select one of the options:

- **All;**
- **Policy violation;**
- **Activity control;**
- **Process start;**
- **Antivirus scanning;**
- **Settings modification;**
- **User logon;**
- **User logoff;**
- **Service event.**

To apply built-in filters that correspond to the SoftControl DLP Client events, open the **Filters** → **DLP Events Filters** menu and select one of the options:

- **All;**
- **Hardware added;**
- **Attachment;**
- **File;**
- **HTTP;**
- **Keylogger;**
- **Printer;**
- **Registry;**
- **Hardware removed;**
- **Work time.**

 Filtering applies to the entries of the current page only.

If there is a large number of events, progress bar is displayed while applying the filter. You can stop the process if necessary.

▼ Filtering by user filters

You can set up the selection options and save them as a custom filter that is invoked from the **Filters** → **User filters** menu.

To add a new field to the current tab's table, click **Choose columns** and drag the required field from the **Column chooser** window (fig. [Choosing the columns](#)⁽¹³⁰⁾) to the required place in the table header. To remove an existing field, drag it to the **Column chooser** window, or out of the table header.

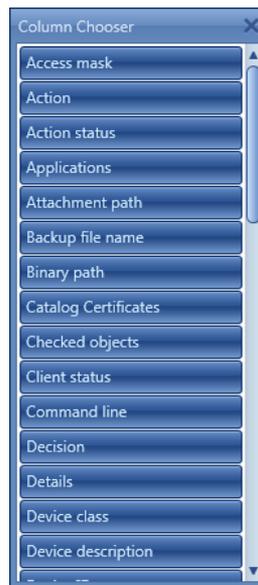


Figure 125. Choosing the columns

To filter the selection by field values, move the cursor to the field name, left-click the displayed key icon and specify the selection criteria in the drop-down list (fig. [Filter by field](#)⁽¹³⁰⁾).

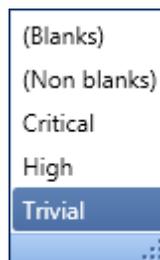


Figure 126. Filter by field

You can filter the selection by several fields simultaneously. The key icon is displayed permanently in the filtered field headers.

SoftControl Admin Console enables fine tuning the selection parameters via the **Filter Editor** tool. If a filter by some field is applied on the **Log** tab, a string with the filter parameters is displayed in the lower part of the tab.

To open the editor, click **Edit Filter** on the right-hand part of the string with the parameters. The editor window is shown in fig. [Filter editor](#)¹³¹.

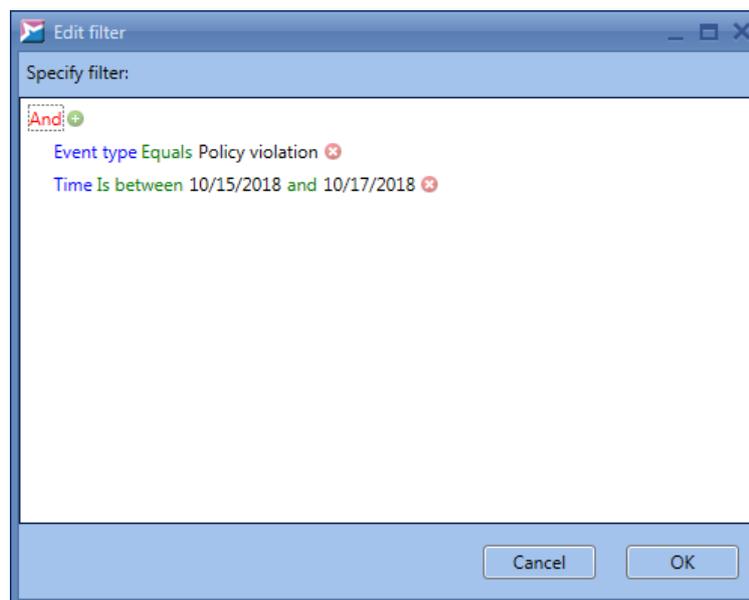


Figure 127. Filter editor

The first string of the editor contains logical operation (highlighted in red) that applies to the filter parameters. To change it, left-click it and select one of the following logical operators from the drop-down menu:

- And;
- Or;
- NotAnd;
- NotOr.

To add a new filter parameter, select the **Add Condition** menu item or click the plus icon near the logical operation. To add a filter parameter that contains several parameters with the same logical operator, select the **Add Group** menu item. Working with group elements is similar to working with the elements of the common list. You can create nested groups. To clear the filter, select the **Clear All** menu item. Click **OK** to save filter parameters.

The string syntax for a filter parameter is as follows: *<filtered field> <condition> <value>*. Each element in the parameter string can be changed by clicking it. The conditions are detected automatically depending on the field type.

To sort the data in the tab tables by certain fields, left-click the required field and specify the direction of the sorting by clicking. The direction of the sorting is indicated by an arrow on the right-hand side of the field header.

To save the selection with the user-specified parameters for later use, click **Save view settings**, enter the filter name in the displayed window and click **OK** (fig. [Saving the filter](#)¹³²).

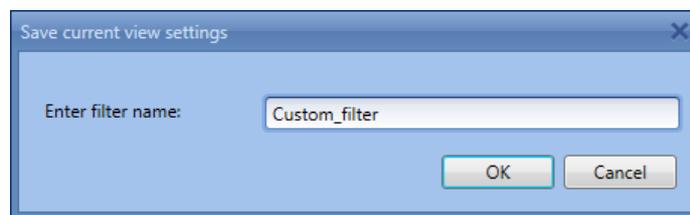


Figure 128. Saving the filter

i Filtering applies to the entries of the current page only.

If there is a large number of events, progress bar is displayed while applying the filter. You can stop the process if necessary.

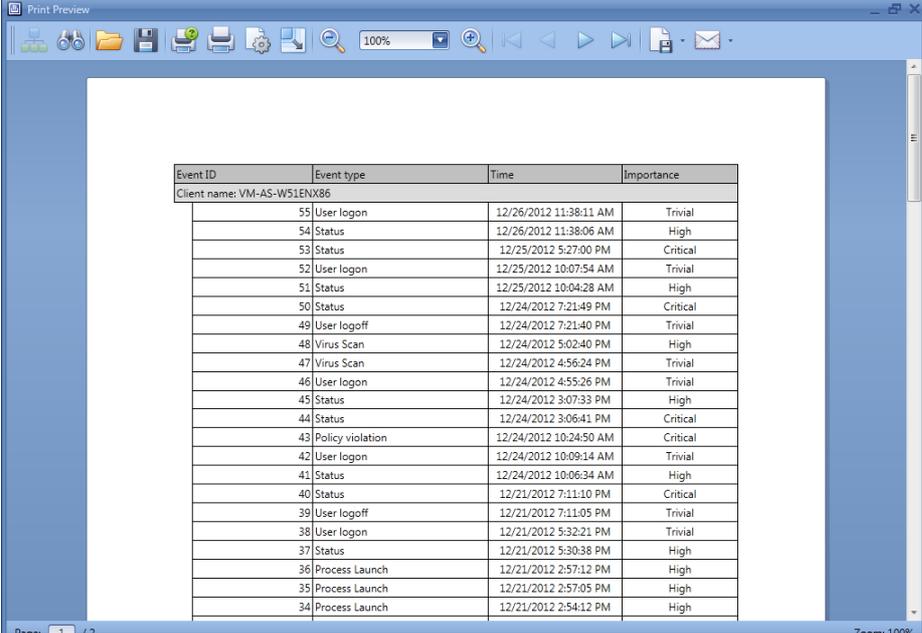
4.9.4 Printing out and exporting

SoftControl Admin Console allows you to export the information accumulated in the client application reports.

To print out a report, make a selection with the use of the required [filters](#)¹²⁸ and click **Print**. In the displayed print preview window, you can specify **Page setup** and **Scale** with the help of the corresponding buttons (fig. [Print preview](#)¹³²).

Click **Print** to open standard printer settings window, or click **Quick Print** to print out the report instantly with the default printer settings.

To save a report to Excel, make a selection with the use of the required [filters](#)¹²⁸ and click **Export to Excel**. Specify the path to save the report and the report name in the dialog box and click **Save**.



Event ID	Event type	Time	Importance
Client name: VM-AS-W51ENX86			
55	User logon	12/26/2012 11:38:11 AM	Trivial
54	Status	12/26/2012 11:38:06 AM	High
53	Status	12/25/2012 5:27:00 PM	Critical
52	User logon	12/25/2012 10:07:54 AM	Trivial
51	Status	12/25/2012 10:04:28 AM	High
50	Status	12/24/2012 7:21:49 PM	Critical
49	User logoff	12/24/2012 7:21:40 PM	Trivial
48	Virus Scan	12/24/2012 5:02:40 PM	High
47	Virus Scan	12/24/2012 4:56:24 PM	Trivial
46	User logon	12/24/2012 4:55:26 PM	Trivial
45	Status	12/24/2012 3:07:33 PM	High
44	Status	12/24/2012 3:06:41 PM	Critical
43	Policy violation	12/24/2012 10:24:50 AM	Critical
42	User logon	12/24/2012 10:09:14 AM	Trivial
41	Status	12/24/2012 10:06:34 AM	High
40	Status	12/21/2012 7:11:10 PM	Critical
39	User logoff	12/21/2012 7:11:05 PM	Trivial
38	User logon	12/21/2012 5:32:21 PM	Trivial
37	Status	12/21/2012 5:30:38 PM	High
36	Process Launch	12/21/2012 2:57:12 PM	High
35	Process Launch	12/21/2012 2:57:05 PM	High
34	Process Launch	12/21/2012 2:54:12 PM	High

Figure 129. Print preview

4.9.5 Backing up the reports

SoftControl Admin Console allows you to back up the tables with the event log and the security events. To set the backup options, select **Server settings** in the **File** menu in SoftControl Admin Console. In the displayed window (fig. [Backing up the events](#)¹³³), switch to the **Events table** tab or to the **Security events table** tab depending on what events you need to back up. On either tab, select **Perform backup** and specify **Backup path** on the server to save the tables to, **Period** (in days), and **Backup time**.

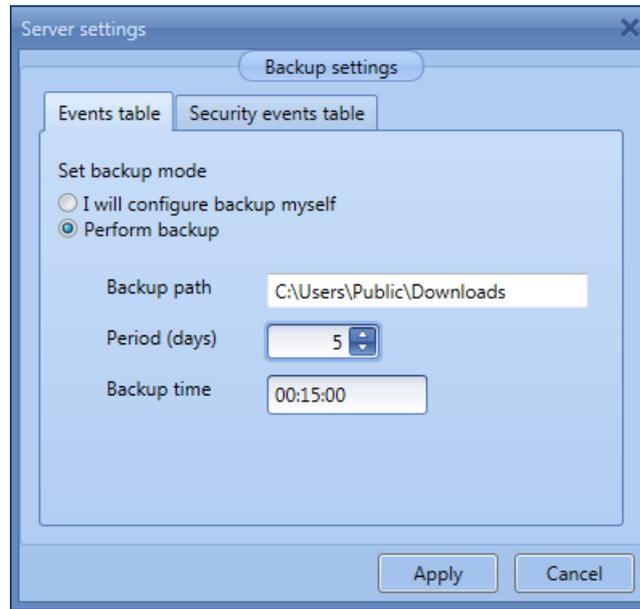


Figure 130. Backing up the events

You can also back up the reports with the help of third-party software, without the use of SoftControl Service Center tools. Select **I will configure backup myself** in the **Server settings** window (see [above](#)¹³³) in this case.

4.10 Events notifications

Notifications (warnings) about the events that are registered in SoftControl Service Center allow a security administrator to promptly react to the appearing threats, even if he/she does not have access to the workstation with the installed SoftControl Admin Console at the moment.

First of all, you need to specify the [contacts](#)¹³⁴ of the notification recipients; then you should set up [notification sending parameters](#)¹³⁶.

4.10.1 Contacts

You can specify the recipients of notifications on the **Contacts** tab (fig. [The 'Contacts' tab](#)¹³⁵).

Basic operations with the contacts are performed via the tab's graphical buttons that are described in table 25.

Table 25. The 'Contacts' tab widgets

Button	Name	Description
	New	Create a new contact.
	Edit	Modify the properties of the selected contact.

Button	Name	Description
	Delete	Remove the selected contact(s).
	Move	Move the selected contact to another organization unit.

The list of the tab fields is given in table 26.

Table 26. The 'Contacts' tab fields

Field	Description
Organization unit	The organization unit that the contact is assigned to.
Name	The recipient's name.
Email	The recipient's e-mail address.

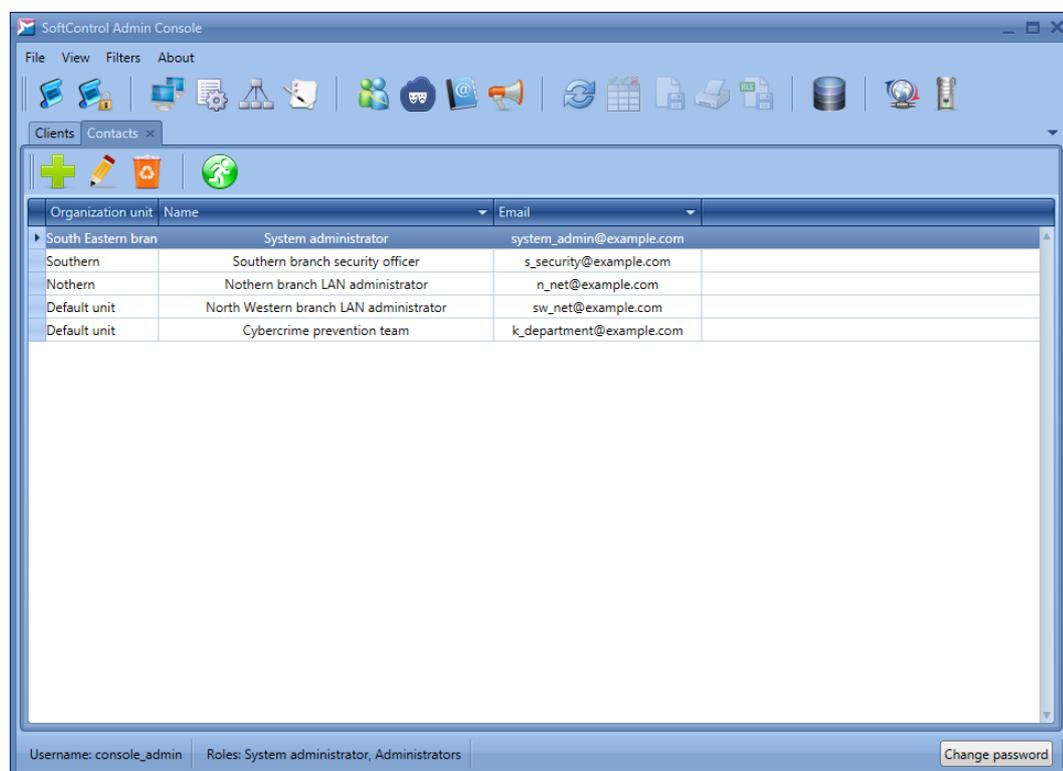


Figure 131. The 'Contacts' tab

To add a new recipient, click **New** (fig. [The 'Contacts' tab](#)⁽¹³⁵⁾). Specify the recipient data in the **Contact Name** and **Email** fields and then click **Apply** (fig. [Adding a contact](#)⁽¹³⁵⁾).

To modify and remove contacts, use the corresponding buttons.

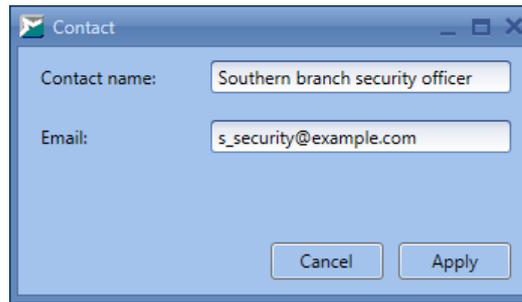


Figure 132. Adding a contact

4.10.2 Setting up notifications

The **Notifications** tab is designed to set up the options of sending event notifications via email (fig. [The 'Notifications' tab](#)¹³⁶).

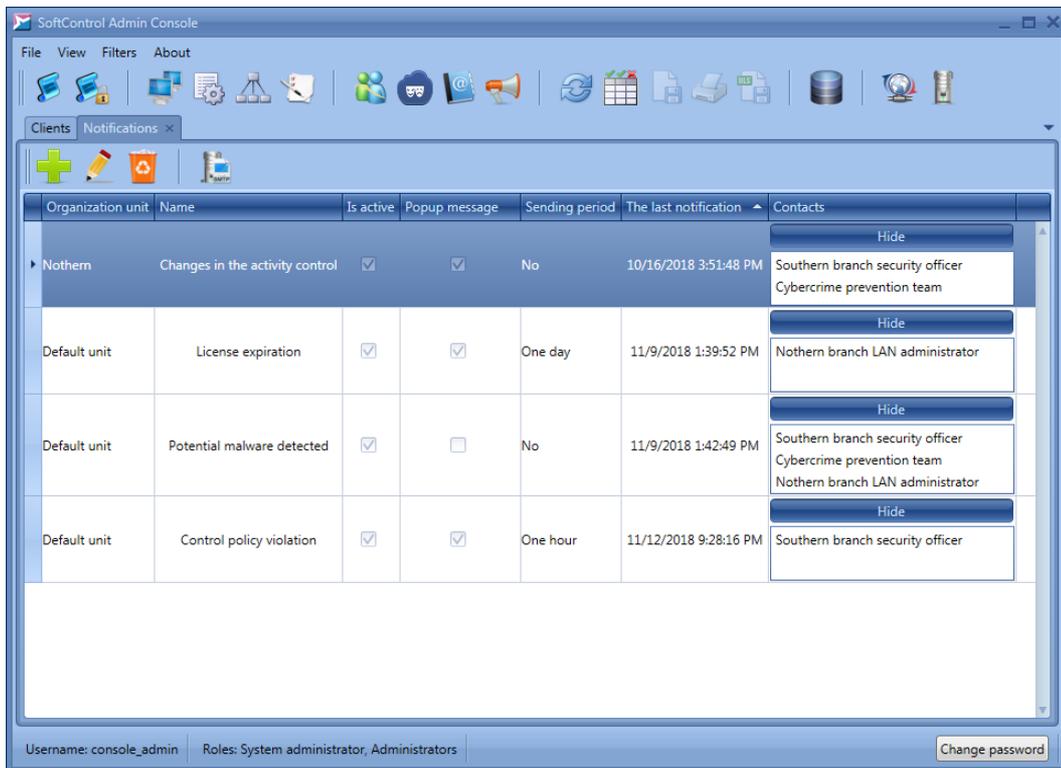


Figure 133. The 'Notifications' tab

Basic operations with the notifications are performed via the tab's graphical buttons that are described in table 27.

Table 27. The 'Notifications' tab widgets

Button	Name	Description
	New	Create a new notification.

Button	Name	Description
	Edit	Modify the properties of the selected notification.
	Delete	Remove the selected notification(s).
	SMTP	Set up the SMTP server.

The list of the tab fields is given in table 28.

Table 28. The 'Notifications' tab fields

Field	Description
Organization unit	The organization unit that the notification belongs to. You cannot move a notification to another organization unit. The organization unit of a notification is the same as the organization unit of the user who created the notification.
Name	Notification name.
Is active	Notification activity status flag.
Popup message	The flag that indicates whether a popup message is displayed when sending the notification.
Sending period	Minimum time interval after the previous notification has been sent. A new notification can be sent after this period expires.
The last notification	Time when the last modification has been sent.
Rule	The condition that triggers the notification.
Contacts	The list of the notification recipients.

Basic operations on this tab are as follows.

▼ Setting up the SMTP server

To enable notifications, you need to configure the outgoing mail server (SMTP). To do so, click **SMTP** (fig. [The 'Notifications' tab](#)¹³⁶).

Specify the address of the mail server to send notifications in the **Mail server** field of the **Mail server settings** window, and **Port number** in the corresponding field (fig. [Mail server settings](#)¹³⁷). Specify the account data in the **Login** and **Password** fields and **Email address** to send the notifications from. Tick off the **Use SSL** checkbox to secure enable data transfer.

To verify the specified settings, click **Send test message**.

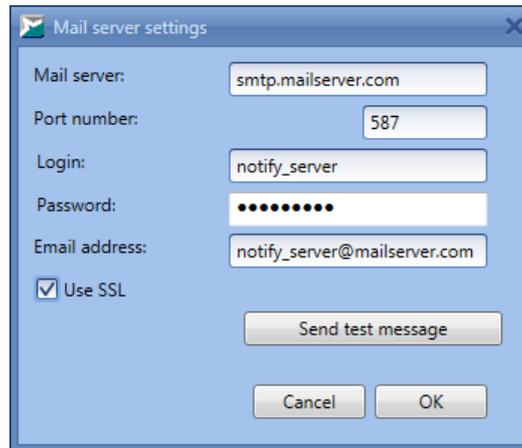


Figure 134. Mail server settings

Click **OK** to apply settings.

▼ Creating a notification

To add a new notification, click **New** (fig. [The 'Notifications' tab](#)⁽¹³⁶⁾).

Specify the notification **Name** on the **General** tab of the displayed window, select the minimum **Time between notifications** in the drop-down list, enter the **Subject** of the message and tick off the **Is active** checkbox (fig. [General notification parameters](#)⁽¹³⁸⁾).

To **Show popup message** when the notification is sent, tick off the corresponding checkbox. In this case, a pop-up message with the notification header is displayed after the notification is sent (fig. [Pop-up message](#)⁽¹³⁸⁾).

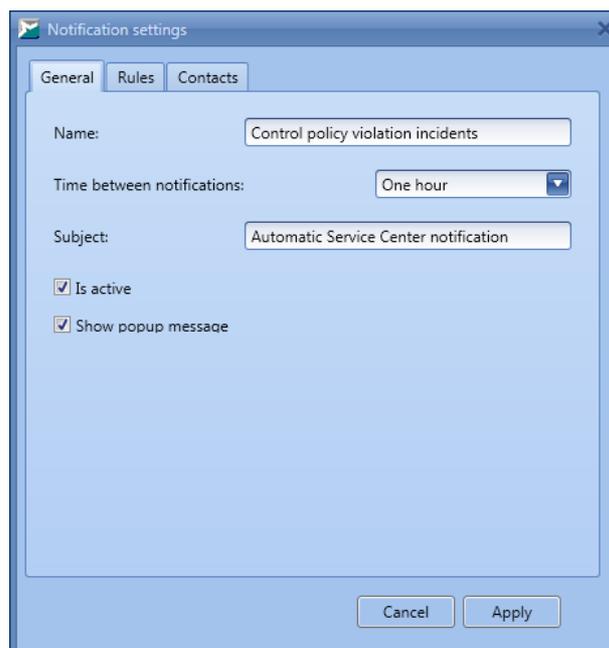


Figure 135. General notification parameters

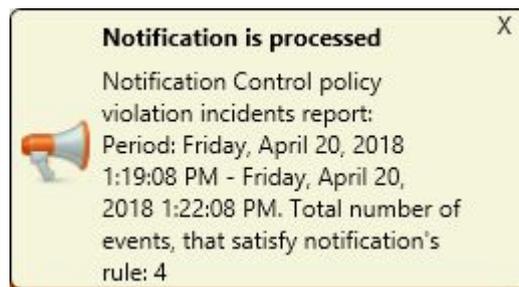


Figure 136. Pop-up message

On the **Rule** tab, select the condition that triggers the notification (fig. [Conditions that trigger notification](#)¹³⁹):

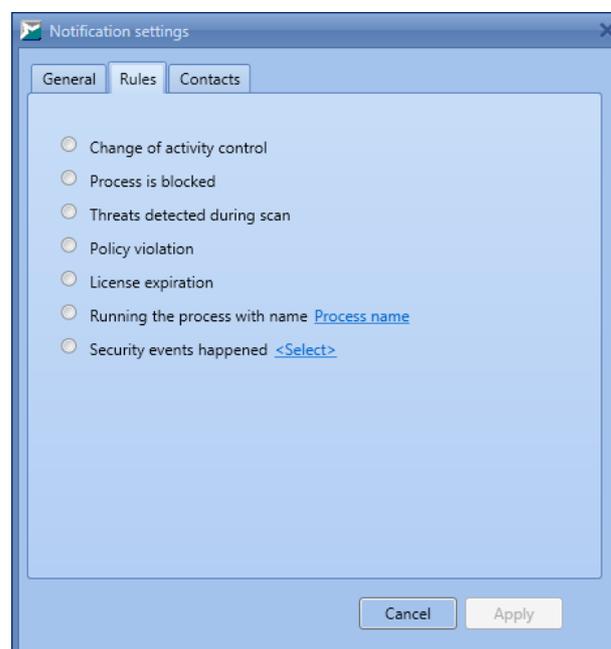


Figure 137. Conditions that trigger notification

- **Change of activity control:**

the SoftControl SysWatch activity control status for any area has changed.

- **Process is blocked:**

SoftControl SysWatch has registered the event of the **process start** type with the 'denied' decision.

- **Threats detected during scan:**

SoftControl SysWatch has detected malicious code during antivirus check.

- **Policy violation:**

SoftControl SysWatch has detected the event of the **policy violation** type.

- **License expiration:**

a client component's license key expires in less than 10 days.

i We strongly recommend that you set the **Time between notifications** parameter for this notification to at least 4 hours.

o **Running the process with name:**

SoftControl SysWatch has registered the event of the **process start** type, with the specified **Process name**.

o **Security events happened:**

SoftControl SysWatch has detected a security event (or several events) that you can select by clicking **<Select>** (fig. [Selecting security events to send the notifications for](#)⁽¹⁴⁰⁾).

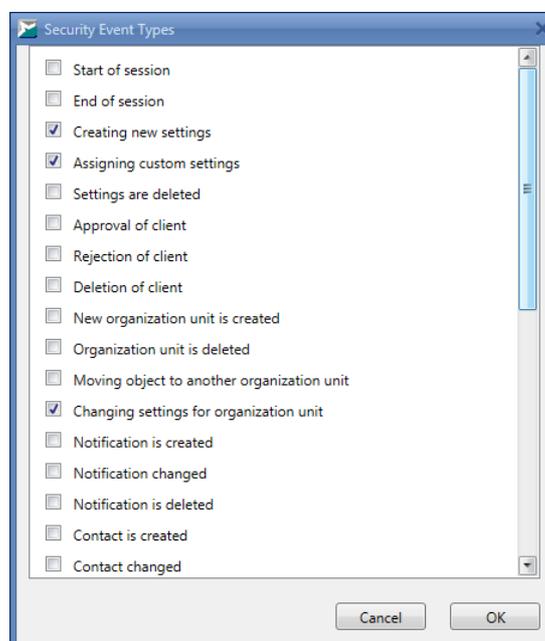


Figure 138. Selecting security events to send the notifications for

Switch to the **Contacts** tab and select the notification recipients (fig. [Selecting notification recipients](#)⁽¹⁴⁰⁾).

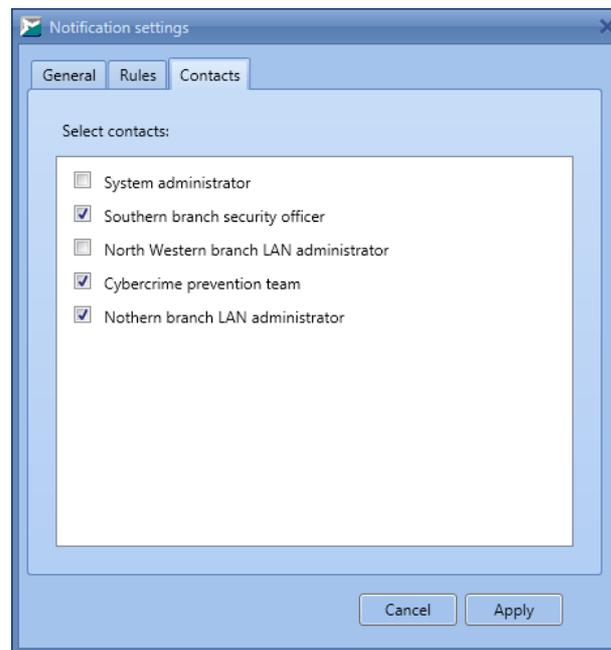


Figure 139. Selecting notification recipients

Click **Apply** to create the notification with the specified options.

▼ Modifying notification properties

To change the notification properties, select the notification and perform one of the following operations:

- click **Edit** in the tab buttons group (fig. [The 'Notifications' tab](#)¹³⁶);
- double-click the notification.

In the the displayed window, modify the required parameters, as you do with a new configuration (fig. [General notification parameters](#)¹³⁸, [Conditions that trigger notification](#)¹³⁹, [Selecting notification recipients](#)¹⁴⁰).

Click **Apply** to confirm changes.

▼ Disabling and removing notification

If you need to disable a notification without removing it from the list, open the notification settings window, deselect the **Is active** checkbox on the **General** tab and click **OK** (fig. [General notification parameters](#)¹³⁸).

To remove a notification, select it, press **Delete** (fig. [The 'Notifications' tab](#)¹³⁶) and confirm the removal in the dialog box.

4.11 Configuration snapshots

The **Configuration snapshots** tab is designed to create snapshots of the configuration of any connected client host. A configuration snapshot is the profile of the computer with the installed SoftControl SysWatch client application. SoftControl Admin Console allows you to compare snapshots with the current states of the selected client hosts.

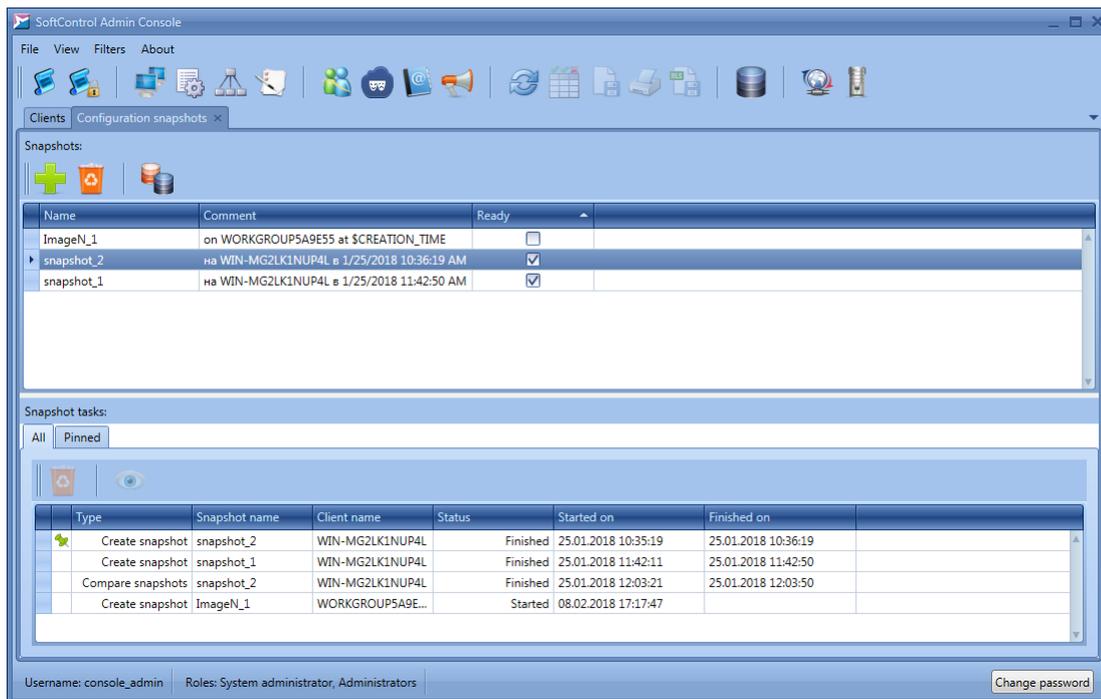


Figure 140. 'Configuration snapshots' tab

i The **Configuration snapshots** button is only available to users who have all of the following permissions: **View clients connected to server**, **Create new tasks for clients**, **View existing organization units**.

The tab consists of two sections:

- [snapshots](#) ⁽¹⁴³⁾;
- [snapshot tasks](#) ⁽¹⁴⁵⁾.

4.11.1 Snapshots

Basic operations with the snapshots in the **Configuration snapshots** section are performed via the tab graphical buttons which are described in table 29.

Table 29. The 'Snapshots' section widgets

Button	Name	Description
	Add new	Create a new configuration snapshot.
	Delete	Remove the selected snapshot.
	Compare	Compare the created snapshot with a client host's profile.

List of the section fields is given in table 30.

Table 30. The 'Snapshots' section fields

Field	Description
Name	The name of the task.
Comments	Text comments. The name of the client host and the snapshot creation time are specified by default.
Ready	The indication that the task is finished. This checkbox is ticked off after the client host responds.

Operations on this tab are described below.

▼ Creating a snapshot

To create a configuration snapshot, click **+** (**Add new**) (fig. ['Configuration snapshots' tab](#)⁽¹⁴²⁾). In the displayed window, specify the name of the snapshot, select a client host to snapshot and click **Apply** (fig. [Creating a snapshot](#)⁽¹⁴³⁾). The snapshot creation task is then generated, and the corresponding entry appears in the [table](#)⁽¹⁴⁶⁾ in the **Snapshot tasks** section.

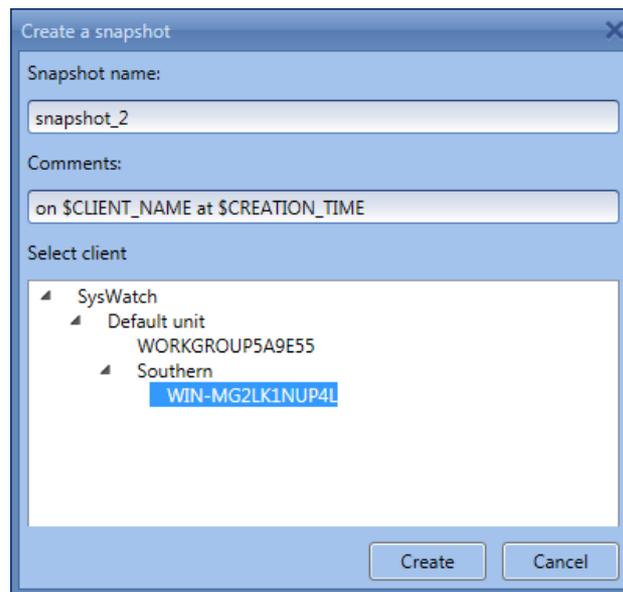


Figure 141. Creating a snapshot

The comments contain the following macros by default: \$CLIENT_NAME and \$CREATION_TIME. When a task is created, the macros are automatically replaced with the client host name and the task creation time, respectively.

Until the client host responds, the task status in the **Snapshot tasks** section (see [below](#)⁽¹⁴⁶⁾) is **Started**. After the client host responds, the snapshot is marked as **Ready** (the corresponding column in the [table](#)⁽¹⁴³⁾ is ticked off). This completes the snapshot creation task, and the task status in the table changes to **Finished**.

▼ Comparing configuration snapshots

To compare a configuration snapshot with the current state of the selected client host, select the snapshot and click  (**Compare**) (fig. ['Configuration snapshots' tab](#)⁽¹⁴²⁾). In the displayed window, select the client host (or several client hosts) and click **Apply** (fig. [Selecting client hosts to compare](#)⁽¹⁴⁴⁾). If you select several client hosts to compare, a comparison task is created for each of them.

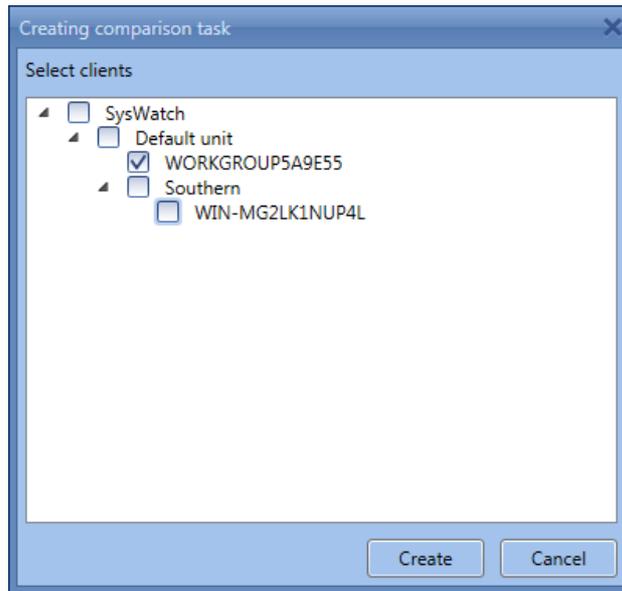


Figure 142. Selecting client hosts to compare

 You can only use snapshots that are **Ready** for comparison.

▼ **Deleting a snapshot**

To delete a snapshot, select it, click  (**Delete**) (fig. '[Configuration snapshots' tab](#)⁽¹⁴²⁾) and confirm the removal in the dialog box.

 You can only remove snapshots that do not have any associated tasks. If a snapshot has tasks associated with it, you should delete these tasks first in order to remove the snapshot.

4.11.2 Snapshot tasks

The **Snapshot tasks** section contains the list of tasks performed on the **Configuration snapshots** tab (creating and comparing snapshots) and consists of two tabs, **All** and **Pinned**.

Basic operations with the tasks are performed via the tab's graphical buttons which are described in table 31.

Table 31. The 'Snapshot tasks' section widgets; 'All' tab

Button	Name	Description
	Delete	Delete the selected snapshot.
	Show results	View how the configuration snapshot differs from the client host's profile.

List of the tab fields is given in table 32.

Table 32. The 'Snapshot tasks' section fields; 'All' tab

Field	Description
Type	The type of the task: Create snapshot or Compare snapshot .
Snapshot name	Task name as specified in section Snapshots .
Client name	The name of the client host.
Status	Task status: Started , Finished .
Started on	Date and time when the task was started.
Finished on	Date and time when the task was finished.

To pin the required task, select it in the table and click the left (empty) cell in the table. The cell is then marked as . The task becomes **Pinned** and appears in the table on the **Pinned** tab (fig. [Pinned tasks](#)⁽¹⁴⁶⁾). SoftControl Admin Console deletes the tasks that are not pinned 180 days after they are completed.

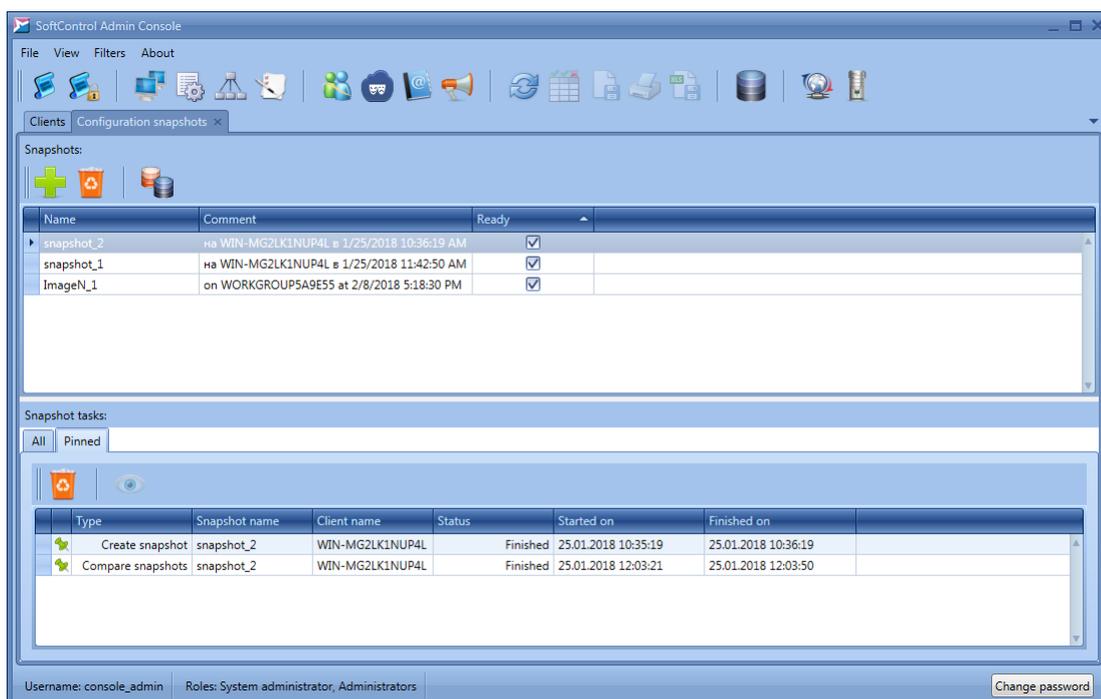


Figure 143. Pinned tasks

To view how a snapshot differs from the current configuration of a client host, select the required task and click  (**Show results**). This opens the **<Client_name> vs <snapshot_name>** tab that contains two fields, **Gone items** and **New items** (fig. [Comparing snapshots](#)⁽¹⁴⁶⁾).

You can invoke the context menu by right-clicking on an entry if you want to copy the checksum.

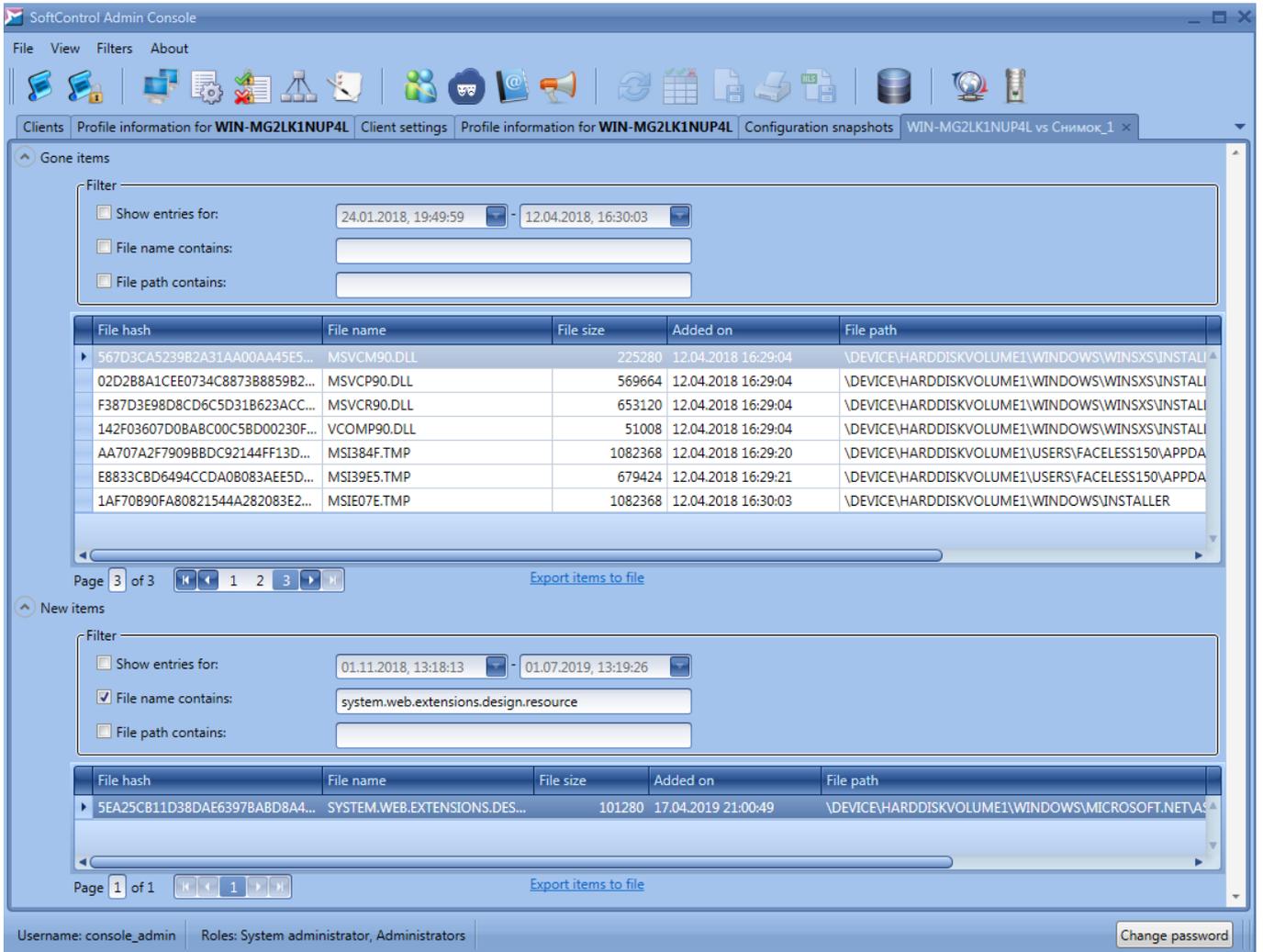


Figure 144. Comparing snapshots

To view the changes for a specified period, select the required dates in the **Filter** field. In the filter, you can specify a part of the file name and a part of the path to the file.

At the bottom of both sections you will find the **Export items to file** hyperlink. Click on it to create an XML file with entries on the screen.

5. Updating ISS components

SoftControl Service Center allows centralized updates for all the system components from an update server. This can be either the SoftControl server or an enterprise server. The **Updates** tab allows setting up and viewing the update history (fig. [The 'Updates' tab for program modules](#)⁽¹⁴⁸⁾, [The 'Updates' tab for antivirus bases](#)⁽¹⁵²⁾). You can change the update settings and view update history on the **Updates** tab (fig. [The 'Updates' tab for program modules](#)⁽¹⁴⁸⁾, [The 'Updates' tab for antivirus bases](#)⁽¹⁵²⁾).

The upper part of the tab contains two categories of settings to update the corresponding components:

- [Program modules](#)⁽¹⁴⁸⁾,
- [Antivirus bases](#)⁽¹⁵²⁾.

The lower part of the tab displays the update history that contains the list of the performed operations. The list of the fields is given in table 33.

Table 33. Fields of the update history list

Field	Description
Last check date	Date and time of the last check for updates.
Last update date	Date and time when the last updates have been installed.
Component	Name of the updated component.
Update status	Update state: <ul style="list-style-type: none"> • Up to date; • Updates available; • Update downloaded; • Update installed; • Update process error.
Update size	Update size in bytes.
Actual version	Current version of the installed component.
New version	The version of the component available for update.
Details	Additional information.

5.1 Setting up updates for program modules

This category of settings allows you to set up and manage the updates of the SoftControl Service Center components' modules as well as to manage the forwarding of the SoftControl SysWatch and SoftControl DLP Client client components' modules, from the external (Internet) servers (fig. [The 'Updates' tab for program modules](#)⁽¹⁴⁸⁾).

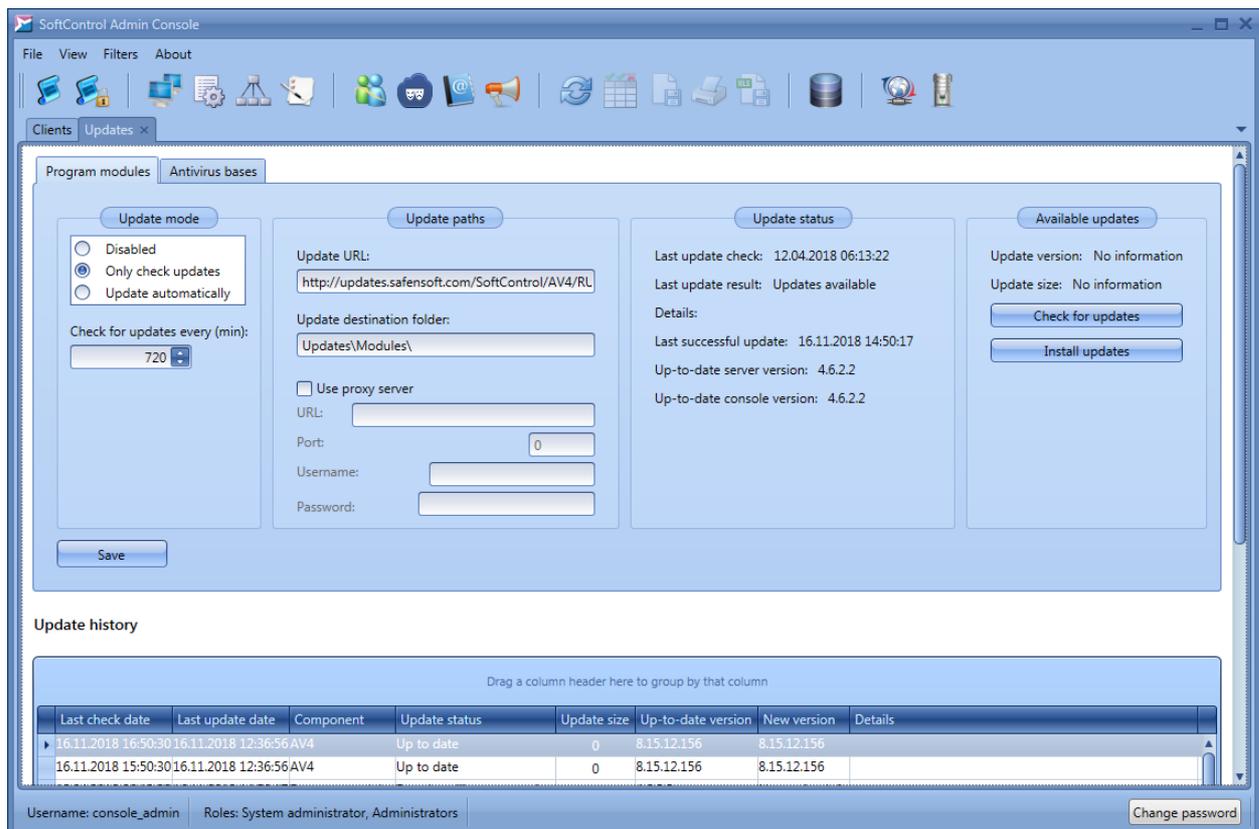


Figure 145. The 'Updates' tab for program modules

▼ Setting up the update mode

You can select three working modes in the **Update mode** section:

- **Disabled:**

Update in automatic mode is disabled.

- **Only check updates:**

SoftControl Service Center automatically checks for updates on the external servers with the frequency specified in the **Check for updates every (min)** counter, but neither downloads nor installs them.

- **Update automatically:**

SoftControl Service Center automatically checks for updates on the external servers with the frequency specified in the **Check for updates every (min)** counter and forwards the update packages to the server, if versions newer than the installed ones are found. If a new SoftControl Service Center version is found, automatic update of the SoftControl Server and SoftControl Admin Console components is performed in the background mode on the server, after the installation packages are downloaded.

[Client components are updated](#)¹⁵⁶ from the created local 'mirror'.

 If there is no Internet access or problems occurred during automatic update, you can [update SoftControl Service Center in manual mode](#)⁽¹⁵⁴⁾ if you have the required version of the installation package.

▼ **Setting up the update paths and proxy server parameters**

The following parameters are specified in the **Update paths** section:

- **Update url:**

Link to the external server. SoftControl Service Center uses the link to check for updates. You should specify your license number in the update url.

- **Update destination folder:**

The path to save the update packages from the external servers, relative to the following directory: C : \ProgramData\SoftControl.

Tick off the **Use proxy server** checkbox if it is required to connect to the external servers through a proxy server. In this case, specify the parameters of the proxy server:

- **URL:**

IP address or name of the proxy server host.

- **Port:**

Port number to connect to the proxy server (if not specified, port 80 is used by default).

- **Username:**

Login for authentication on the proxy server.

- **Password:**

Password for authentication on the proxy server.

 Basic authorization type is supported. If authentication on the proxy server is not required, you should leave the **Username** and **Password** fields empty.

▼ **Checking and updating on demand**

Operations on demand can be performed in the **Available updates** section with the help of the following buttons:

- **Check for updates:**

Check for updates for the program modules. If any updates are found, **Update version** and **Update size** (in bytes) are displayed.

- **Install updates** (when SoftControl Server and SoftControl Admin Console are installed on the same computer):

Check for updates for the program modules. If any updates are found, forward the installation package from the external servers and install the updates for SoftControl Server and SoftControl Admin Console.

- **Update server** (when SoftControl Server and SoftControl Admin Console are installed on different computers):

Check for updates for the program modules. If any updates are found, forward the installation package from the external servers and install the updates for the server component (SoftControl Server).

- **Update Admin Console** (when SoftControl Server and SoftControl Admin Console are installed on different computers):

Check for updates for the management console (SoftControl Admin Console) and install them, if any are found.

 SoftControl Server and SoftControl Admin Console settings and SoftControl Admin Console user filters are saved after the software modules are updated. The accumulated events are stored in the database and are therefore not affected during the update.

The **Update status** section displays information about the current version and the last update check and installation.

To apply the modified settings, click **Save**.

5.2 Setting up updates for antivirus bases

This category of settings allows you to set up and manage the forwarding of SoftControl SysWatch antivirus bases from the external (Internet) servers (fig. [The 'Updates' tab for antivirus bases](#)⁽¹⁵²⁾).

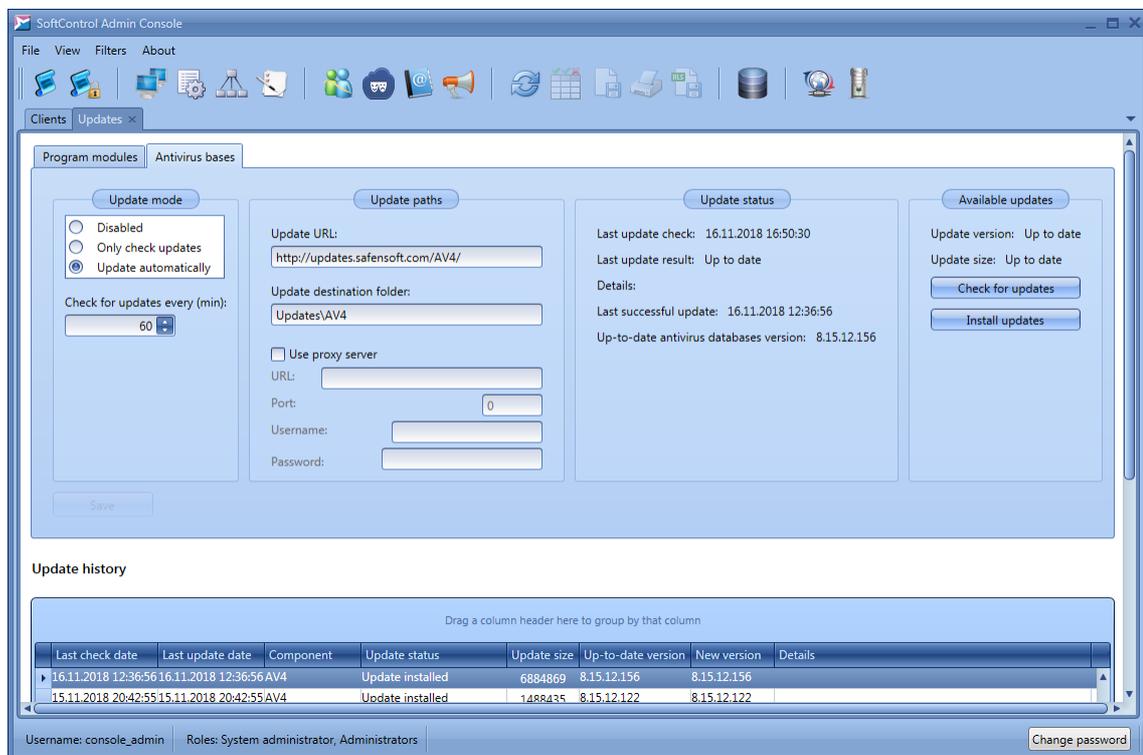


Figure 146. The 'Updates' tab for antivirus bases

▼ Setting up the update mode

You can select three working modes in the **Update mode** section:

- **Disabled:**
Update in automatic mode is disabled.
- **Only check updates:**
SoftControl Service Center automatically checks for updates on the external servers with the frequency specified in the **Check for updates every (min)** counter but does not download them.
- **Update automatically:**
SoftControl Service Center automatically checks for updates on the external servers with the frequency specified in the **Check for updates every (min)** counter and forwards the update bases to the server if versions newer than the installed ones are found. Antivirus bases are updated as a part of the [SoftControl SysWatch component update](#)⁽¹⁵⁶⁾, from the created local 'mirror'.

▼ Setting up the update paths and proxy server parameters

The following parameters are specified in the **Update paths** section:

- **Update url:**

Link to the external server. SoftControl Service Center uses the link to check for updates. Links for different antivirus bases are given in table 34.

Table 34. URLs to update the antivirus bases

Name	URL	Destination folder
Avira antivirus bases	http://updates.safensoft.com/<license_number>/av4/	Updates\AV4

Note. You should specify your license number manually.

- **Update destination folder:**

The path to save the update packages from the external servers, relative to the following directory: C:\ProgramData\SoftControl1. Folders for different antivirus bases are given in table 34.

Tick off the **Use proxy server** checkbox if it is required to connect to the external servers through a proxy server. In this case, specify the parameters of the proxy server:

- **URL:**

IP address or name of the proxy server host.

- **Port:**

Port number to connect to the proxy server (if not specified, port 80 is used by default).

- **Username:**

Login for authentication on the proxy server.

- **Password:**

Password for authentication on the proxy server.



Basic authorization type is supported. If authentication on the proxy server is not required, you should leave the **Username** and **Password** fields empty.

▼ Checking and updating on demand

Operations on demand can be performed in the **Available updates** section with the help of the following buttons:

- **Check for updates:**

Check for updates for the antivirus bases. If any updates are found, **Update version** and **Update size** (in bytes) are displayed.

▪ **Install updates:**

Check for updates for the antivirus bases. If any updates are found, forward the anti-virus bases from the external servers.

The **Update status** section displays information about the current version and the last update check and installation.

To apply the modified settings, click **Save**.

5.3 Updating SoftControl Server and SoftControl Admin Console manually

- 1) Run the *Service.Center.msi* installation package of the version you want to update to.
- 2) Click **Next** in the **SoftControl Service Center Setup** window (fig. [Running the update](#)¹⁵⁴).



Figure 147. Running the update

- 3) If you accept the terms, select **I accept the terms in the License Agreement** and click **Next** (fig. [License agreement](#)¹⁵⁴).

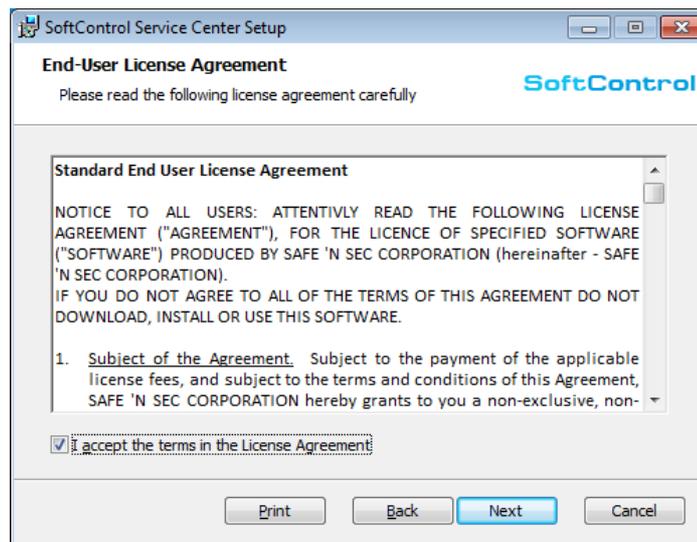


Figure 148. License agreement

4) Click **Update** (fig. [Ready to update](#)⁽¹⁵⁵⁾).

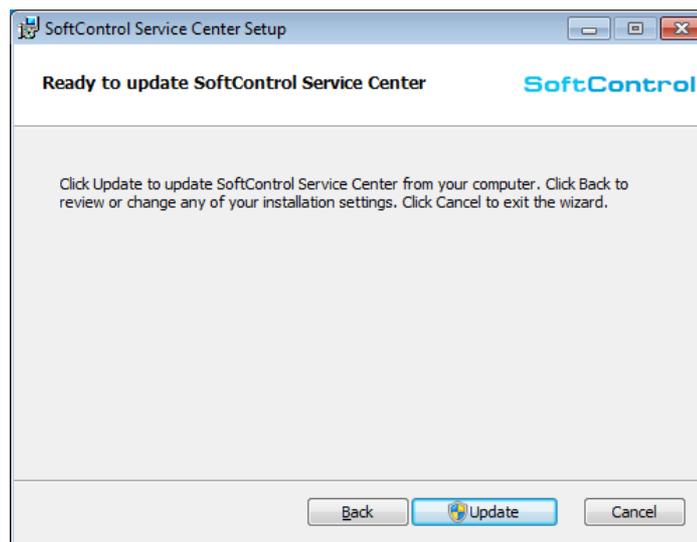


Figure 149. Ready to update

5) Wait until the update completes (fig. [Updating progress](#)⁽¹⁵⁵⁾).

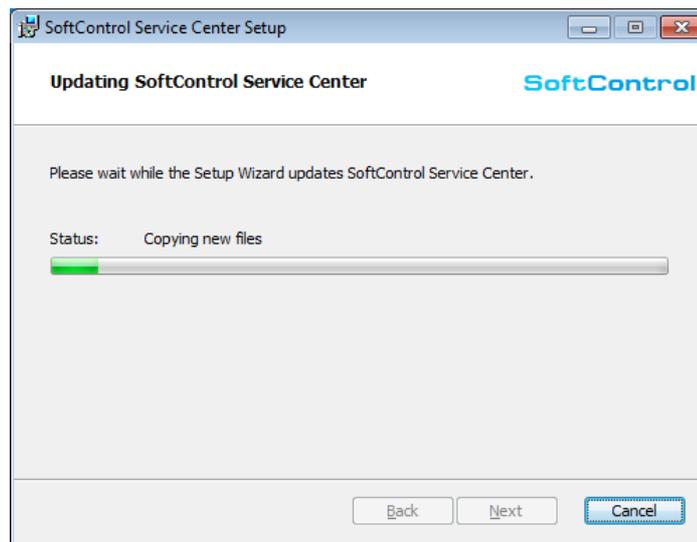


Figure 150. Updating progress

6) After the *Completed the SoftControl Service Center Setup Wizard* message is displayed, click **Finish** (fig. [Finishing the update](#)⁽¹⁵⁶⁾).

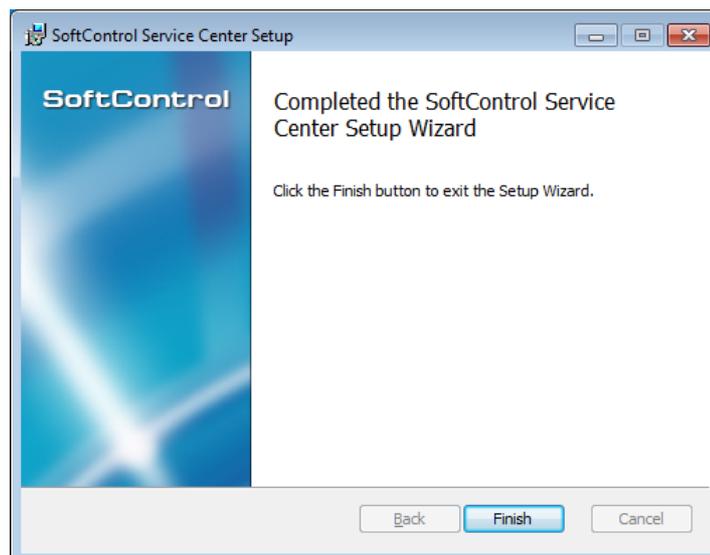


Figure 151. Finishing the update

5.4 Updating client components

After forwarding the updates from the external servers, the client components can be updated from SoftControl Service Center in the following ways.

- ❑ When connected to SoftControl Service Center, SoftControl SysWatch and SoftControl DLP Client automatically switch to the updates through the Service Center. The components are updated on demand by creating the corresponding [task](#)⁽¹¹⁴⁾, or on schedule if the latter is set up for [SoftControl SysWatch](#)⁽⁶⁵⁾ / [SoftControl DLP Client](#)⁽¹⁰⁵⁾.

- When offline, %SW%> can also be updated from SoftControl Service Center. To do so, replace the predefined addresses in the SoftControl SysWatch internet update settings with the local addresses for the required components, as specified in table 35. Server connection port is 8088 by default. After the above-mentioned settings are applied, you can run the update on demand through GUI.

Table 35. Addresses for update from SoftControl Service Center

Component	Description	Address
Core	Program modules	http://<server IP address>:<server connection port>/api/updates/SNS
AV-AV4	Avira Antivirus bases	http://<server IP address>:<server connection port>/api/updates/AV4

6. Removing SoftControl Service Center components

Removing SoftControl Server and SoftControl Admin Console: go to Windows Control Panel → **Programs** → **Programs and Features**, select *SoftControl Service Center* and click **Uninstall**.

Removing one of the components:

- 1) Go to Windows Control Panel → **Programs** → **Programs and Features**, select *SoftControl Service Center* and click **Change**.
- 2) Click **Next** in the **SoftControl Service Center Setup** window (fig. [Running uninstallation](#)⁽¹⁵⁸⁾).



Figure 152. Running uninstallation

- 3) Click **Change** (fig. [Types of operations](#)⁽¹⁵⁸⁾).
- 4) Select the component to remove (fig. [Selecting components to remove](#)⁽¹⁵⁹⁾): click the icon of the component and select the **Entire feature will be unavailable** option from the drop-down menu (fig. [Component installation options](#)⁽¹⁵⁹⁾). Click **Next** when all settings are specified.

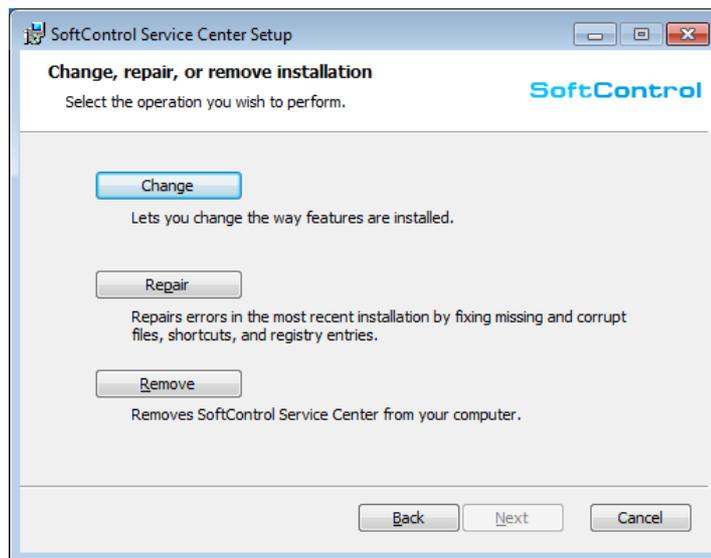


Figure 153. Types of operations

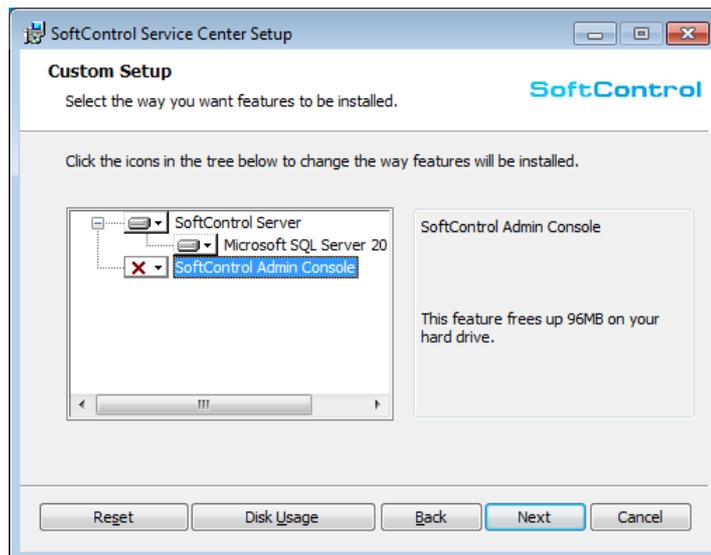


Figure 154. Selecting components to remove

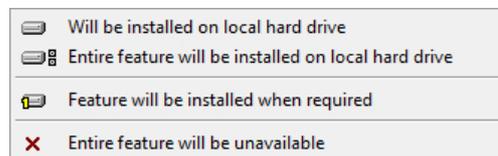


Figure 155. Component installation options

5) Click **Change** (fig. [Ready to uninstall](#)¹⁵⁹).

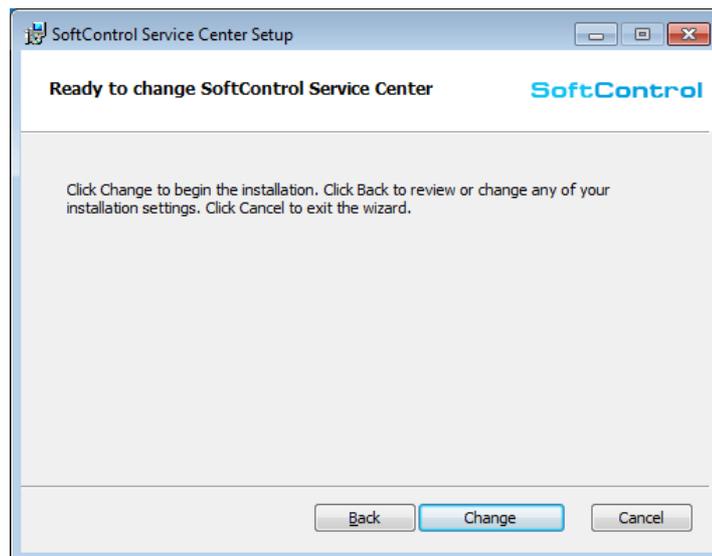


Figure 156. Ready to uninstall

6) Wait until uninstallation completes (fig. [Uninstallation progress](#)¹⁶⁰).

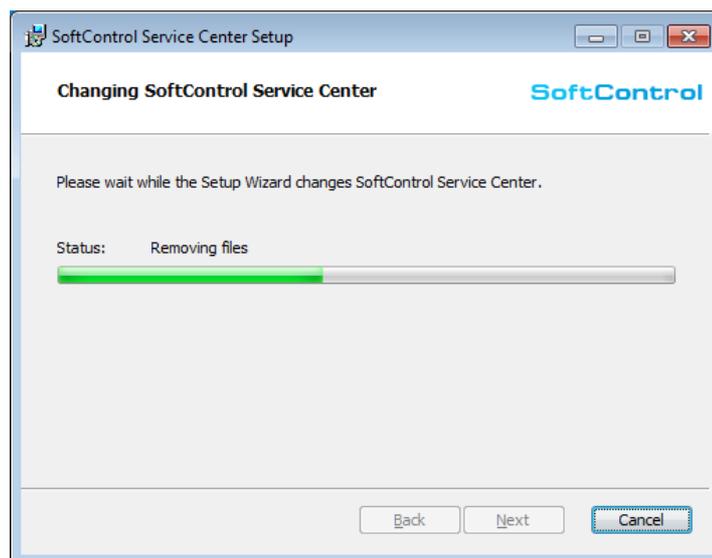


Figure 157. Uninstallation progress

7) After the *Completed the SoftControl Service Center Setup Wizard* message is displayed, click **Finish** (fig. [Finishing uninstallation](#)¹⁶⁰).

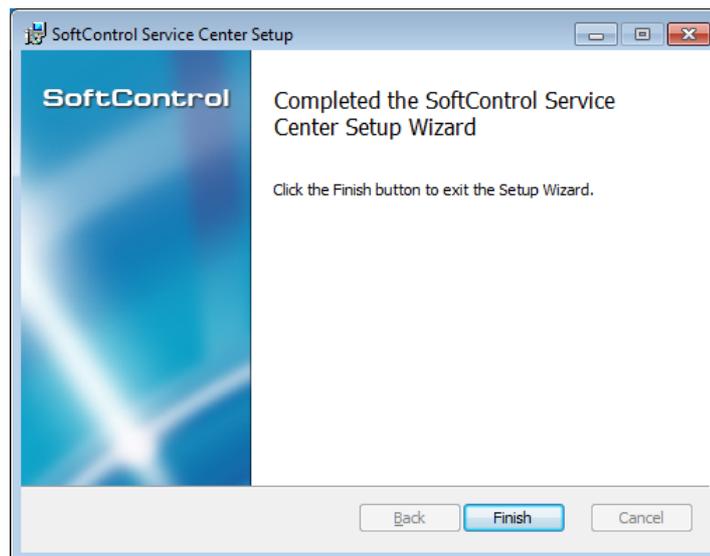


Figure 158. Finishing uninstallation

i If SoftControl Server has been installed with the embedded DBMS (for example, [Complete installation](#)¹² has been performed), you should remove Microsoft® SQL Server® 2014 Express SP1 DBMS manually. To do so, delete the following components by using standard Windows tools:

- *Microsoft SQL Server 2014;*
- *Microsoft SQL Server 2012 Native Client;*
- *Microsoft SQL Server 2014 Setup (English);*
- *Microsoft SQL Server 2008 Setup Support Files;*
- *Microsoft SQL Server 2014 Transact-SQL ScriptDom.*

7. Supplemental information

7.1 About server's certificates

This section describes the most important aspects of cryptographic protection of the communication channel between SoftControl Service Center and the SoftControl SysWatch client applications (hereafter referred to as 'clients').

The HTTPS communication protocol is used in SoftControl Service Center for interaction between the SoftControl Server component and the clients. All data between the server and an endpoint are sent in an encrypted form through a secure channel. X.509 standard certificates are used for client authorization.

SoftControl Server generates the following kinds of certificates during its operation:

- **Root** – this certificate is a certificate of a certification authority in the context of a SoftControl Service Center-based ISS, and it is located in the Windows storage. All other kinds of product certificates are signed with the root certificate, which is one of the indications that they are valid.
- **Server** – the certificate of the server part that is used for interaction with the clients and is located in the Windows storage.
- **Common client** – the certificate of the client part; it is used to register the clients on the server. This certificate is common for all the new clients and is only designed to send the first request to the server. The certificate is integrated into the encrypted [client configuration file](#)⁽²³⁾ that is applied to the client at an endpoint. It can also be exported to a file by the following path:
C:\ProgramData\SafenSoft\Client.pem
- **Specific client** – the certificate of the client part; it is issued by the server component after [re-registration confirmation](#)⁽⁴³⁾ by the administrator via SoftControl Admin Console. This certificate is unique for each client, which makes unauthorized access to the communication channel impossible even if violators have a stolen specific certificate of another client or a common certificate. If a specific certificate is considered invalid for some reason or is expired, it is possible to revoke it ([rejecting the registration](#)⁽⁴³⁾) or issue another certificate ([updating](#)⁽⁴⁴⁾).

7.2 Recovering connection with the server

In the system of the client-server interaction (in the context of an ISS on the basis of SoftControl Service Center), IP address of the server can change automatically, for example, when entering the network after a reboot. In this case, client applications with configurations that only contain IP addresses of the computer with the installed SoftControl Server, but not the computer's network name, lose connection with the server. In order not to edit IP addresses manually and locally in the settings of each client component, rescue recovery server is provided. To activate it, take the following steps:

- 1) Open the server configuration file that is located by the following path:

```
C:\ProgramData\SafenSoft\Server.Config.xml
```

- 2) Set the *Active* flag value to *True* in the *RescueSettings* element.

- 3) Add subitems of the following type to the *RescueSettings* element:

```
<Address Uri="<server new IP address or name>" Port="<connection port>" />
```

- 4) Save changes in the configuration file.
- 5) Change the name of the computer with the installed SoftControl Server to *screstore*.
- 6) Reboot the computer with the installed SoftControl Server to apply new settings and change the host's network name.
- 7) The 8888 port for rescue connection is added to the Windows firewall automatically after the SoftControl Server system service runs.
- 8) After 10 failed attempts to connect the addresses specified in the settings, client components attempt to connect to the rescue server with the name *screstore* on port 8888 (by default). After successful connection to this address, a new list of server addresses specified in the settings is transferred to the clients, and the old list of addresses is replaced with the new one in the settings. After connection with all clients connected to SoftControl Service Center is recovered, the server's network name can be changed to the original one.

7.3 SoftControl Service Center backup

In some cases, you might need to [create a backup copy](#)¹⁶⁴ of the SoftControl Service Center components, so as to [restore](#)¹⁶⁵ a fully functional configuration without losing connection with the client applications on the remote hosts. The cases that these operations apply to are as follows.

- you need to reinstall the OS on the computer with the SoftControl Service Center compon-

ents;

- you need to transfer SoftControl Service Center to another computer.

7.3.1 Creating the backup copy

A backup copy of the SoftControl Service Center files includes the SoftControl Server configuration files and [certificates](#)⁽¹⁶²⁾ that are necessary for restoring. SoftControl Admin Console [user filters](#)⁽¹³⁰⁾ can also be saved (optional). To create a backup copy, perform the following operations.

- 1) Select **View** → **Backup copying** in the SoftControl Admin Console main menu.
- 2) Select **Create mode** in the **Server files** area in the displayed window (fig. [Creating a backup copy](#)⁽¹⁶⁴⁾).

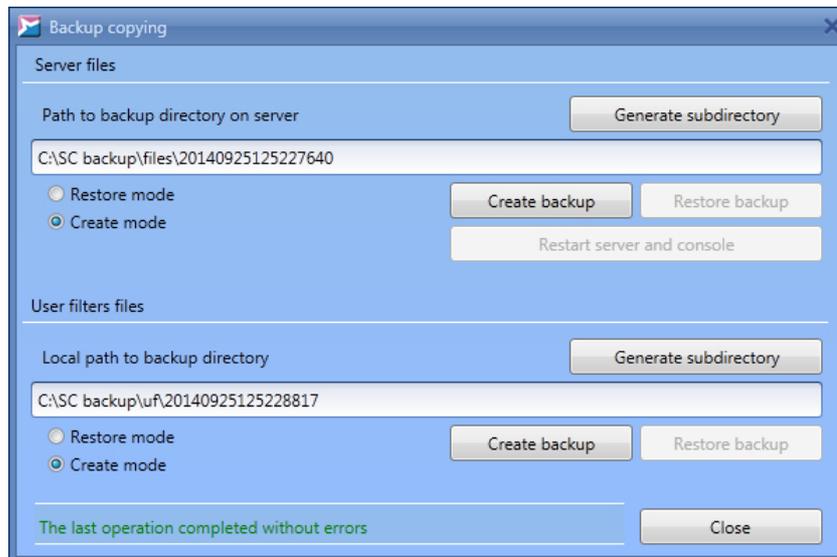


Figure 159. Creating a backup copy

Enter the path to the folder to save backup files in the corresponding field. If you need to create a subfolder with the unique identifier by the specified path, click **Generate subdirectory**. If you click the button when the input field is empty, the subfolder is placed to the following directory by default:

C:\Windows\System32

Click **Create backup** to create backup files by the specified path. Action status is displayed in the lower part of the window.

- 3) To save user filters, repeat operations in the previous item for the **User filter files** area in the **Backup copying** window (fig. [Creating a backup copy](#)⁽¹⁶⁴⁾).

If you click **Generate subdirectory** when the input field is empty, the subfolder is placed

to the SoftControl Admin Console installation directory by default.

- 4) If SoftControl Service Center database is located on an external server (that differs from the computer with the installed SoftControl Service Center components), you do not need to save its copy. Otherwise, create a backup copy of the current database with the help of Microsoft® SQL Server® tools.

7.3.2 Restoring from the backup copy

To restore SoftControl Service Center from a backup copy, perform the following operations.

- 1) Make sure the time settings on the computer are valid.
- 2) [Install](#)⁹ SoftControl Service Center of the same version as on the computer that the backup copy has been created on.
- 3) Restore the previously saved database. Skip this step if the database has been on another computer and has not been deleted.
- 4) [Set up](#)¹⁹ SoftControl Service Center. Specify a new **Database name** that differs from the name of the old database, so as not to damage the settings of the old database. After restoring SoftControl Service Center from a backup copy, the server switches to the old database automatically.
- 5) Select **View** → **Backup copying** in the SoftControl Admin Console main menu.
- 6) Select **Restore mode** in the **Server files** area in the displayed window (fig. [Restoring from a backup copy](#)¹⁶⁵).

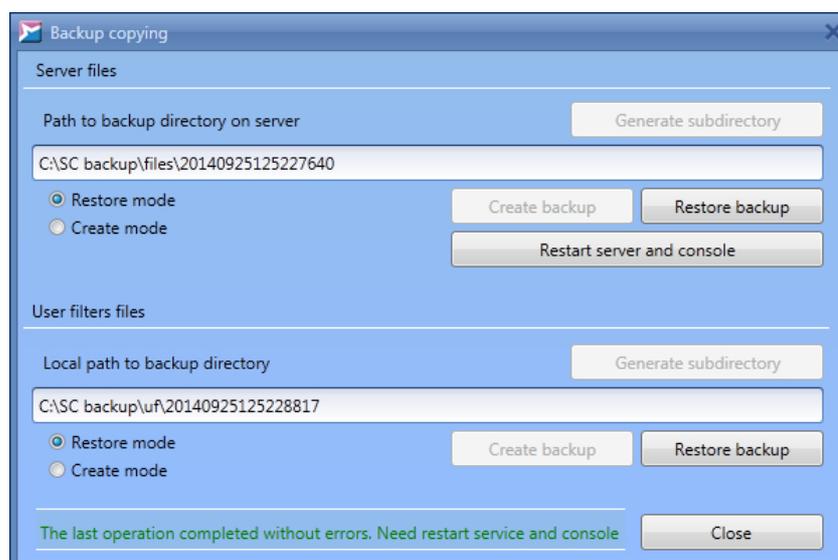


Figure 160. Restoring from a backup copy

Enter the path to the folder with the previously saved backup files in the corresponding field and click **Restore backup**. Action status is displayed in the lower part of the window.

- 7) If you need to restore user filters, repeat the operations of step 6¹⁶⁵ for the **User filter files** area in the **Backup copying** window (fig. [Restoring from a backup copy](#)¹⁶⁵).
- 8) Click **Restart server and console** to restart the SoftControl Server system service and apply the restored configuration.
Note: you may need to restart the computer for some OS.
- 9) Remove the temporary database you created during step 4¹⁶⁵.
- 10) [Log in](#)²⁴ to SoftControl Admin Console. Make sure all the components work.

7.4 Process privileges

Table 36 describes Windows privileges that the processes use (see also [https://msdn.microsoft.com/ru-ru/library/windows/desktop/bb530716\(v=vs.85\).aspx](https://msdn.microsoft.com/ru-ru/library/windows/desktop/bb530716(v=vs.85).aspx) and <https://docs.microsoft.com/en-us/windows/device-security/auditing/event-4704>).

Table 36. Process privileges

Privilege	Description
Manage auditing and security log	Required to generate audit-log entries. With this privilege, the user can add entries to the security log.
Back up files and directories	Required to perform backup operations. This privilege causes the system to grant all read access control to any file, regardless of the access control list (ACL) specified for the file. Any access request other than read is still evaluated with the ACL. With this privilege, the user can bypass file and directory, registry, and other persistent object permissions for the purposes of backing up the system.
Restore files and directories	Required to perform restore operations. This privilege causes the system to grant all write access control to any file, regardless of the ACL specified for the file. Any access request other than write is still evaluated with the ACL. With this privilege, the user can bypass file, directory, registry, and other persistent objects permissions when restoring backed up files and directories. Additionally, this privilege enables you to set any valid user or group SID as the owner of a file.
Change the system time	Required to modify the system time. With this privilege, the user can change the time and date on the internal clock of the computer. Users that are assigned this user right can affect the appearance of event logs. If the system time is changed, events that are logged will reflect this new time, not the actual time that the events occurred.
Shut down the system	Required to shut down a local system.
Force shutdown from a re-	Required to shut down a system using a network request.

Privilege	Description
mote computer	
Take ownership of files or other objects	Required to take ownership of an object without being granted discretionary access. With this privilege, the user can take ownership of any securable object in the system, including Active Directory objects, files and folders, printers, registry keys, processes, and threads.
Debug programs	Required to debug and adjust the memory of a process owned by another account. With this privilege, the user can attach a debugger to any process or to the kernel. Developers who are debugging their own applications do not need this user right. Developers who are debugging new system components need this user right. This user right provides complete access to sensitive and critical operating system components.
Modify firmware environment values	Required to modify the nonvolatile RAM of systems that use this type of memory to store configuration information.
Profile the system performance	Required to gather profiling information for the entire system. With this privilege, the user can use performance monitoring tools to monitor the performance of system processes.
Profile single process	Required to gather profiling information for a single process. With this privilege, the user can use performance monitoring tools to monitor the performance of non-system processes.
Increase scheduling priority	Required to increase the base priority of a process. With this privilege, the user can use a process with Write property access to another process to increase the execution priority assigned to the other process. A user with this privilege can change the scheduling priority of a process through the Task Manager user interface.
Load and unload device drivers	Required to load or unload a device driver. With this privilege, the user can dynamically load and unload device drivers or other code in to kernel mode. This user right does not apply to Plug and Play device drivers.
Create a pagefile	Required to create a paging file. With this privilege, the user can create and change the size of a pagefile.
Adjust memory quotas for a process	Required to increase the quota assigned to a process.
Bypass traverse checking	Required to receive notifications of changes to files or directories. This privilege also causes the system to skip all traversal access checks. It is enabled by default for all users.
Remove a computer from the docking station	Required to undock a laptop. With this privilege, the user can undock a portable computer from its docking station without logging on.
Perform volume maintenance tasks	Enables volume management privileges. Required to run maintenance tasks on a volume, such as remote defragmentation.
Impersonate a client after authentication	Required to impersonate. With this privilege, the user can impersonate other accounts.
Create global objects	Required to create named file mapping objects in the global namespace during Terminal Services sessions. This privilege is enabled by default for administrators, services, and the LocalSystem account.

7.5 Sources

Sources of supplemental information are presented in table 37.

Table 37. Supporting documentation

Name	Description
SoftControl ATM Client user's guide	Installing, setting up and working with the SoftControl ATM Client component.
SoftControl Endpoint Client user's guide	Installing, setting up and working with the SoftControl Endpoint Client component.
SoftControl SClient user's guide	Installing, setting up and working with the SoftControl SClient component.
SoftControl DLP Client installation guide	Installing and setting up the SoftControl DLP Client component.

8. Troubleshooting

If problems occur when deploying and operating SoftControl Service Center, please check the **SafenSoft** log in the Windows® Event Viewer first. To do so, go to Windows® Control Panel → **System and Security** → **Administrative Tools** → **Event Viewer**. Expand the **Applications and Services Logs** category in the displayed window and select the **SafenSoft** log in it. When you analyze the errors, warnings and messages in the report, you can find out what caused a failure during the component installation, launch and connection. If you cannot find the reason by yourself, contact [customer support](#)⁽¹⁷¹⁾ and attach the text logs of the components to the message. Table 38 lists the required files.

Table 38. SoftControl Service Center components text logs

Component log type	Path
SoftControl Admin Console work log	<SoftControl Admin Console installation directory>\logs\ConsoleDetailedLog.txt
SoftControl Server work log	<SoftControl Server installation directory>\logs\ServerDetailedLog.txt
SoftControl SysWatch system log	Microsoft® Windows® XP, Microsoft® Windows® Server 2003: C:\Documents and Settings\All Users\Application Data\S.N.Safe&Software\Safe'n'Sec\Reports\system_<dd.mm.yy>_<hh.mm.ss.mmm>.txt Microsoft® Windows® 7, Microsoft® Windows® Server 2008, Microsoft® Windows® 8, Microsoft® Windows® Server 2012: C:\ProgramData\S.N.Safe&Software\Safe'n'Sec\Reports\system_<dd.mm.yy>_<hh.mm.ss.mmm>.txt

Note. The server component event log supports log rotation, which allows managing the size of the log files. Rotation allows the logs to be automatically divided into parts of the following type (all parts have identical parameters):

Log.000, ..., Log.N,

where the latest log has the maximum index. A new file is created each time the size of the main log file (*ServerDetailedLog.txt*) exceeds 200 MB.

8.1 Interpreting messages in the event log

The table below describes the messages that are displayed in the SoftControl Server event log (*ServerDetailedLog.txt*) and provides information about possible error reasons and recommendations for troubleshooting.

Table 39. Server events

Message	Possible reason	Recommendations for troubleshooting
<i>Events with duplicate ID: received events minimal ID 7383, last ID: 8674", SafenSoft.Enterprise.Server.Event-sIDConsistenceHandler.Check Duplicates, Warn</i>	The client host has been restored from an image.	Connect the client host to SoftControl Service Center once more.
<i>SqlException: A network-related or instance-specific error occurred while establishing a connection to SQL Server. The server was not found or was not accessible</i>	The SQL server is not available; otherwise, there is a problem with the connection.	Connect the server.

9. Customer support

If you have any questions concerning the installation, setting up and operation of SoftControl Service Center, please contact our customer support by e-mail support@safensoft.com.

10. Appendix

10.1 Installing and setting up Microsoft® SQL Server® 2008

The SoftControl Service Center product can work with several versions of SQL servers. This section describes how to install and set up the Microsoft® SQL Server® 2008 DBMS to use it along with SoftControl Service Center.

▼ Preparing to install Microsoft® SQL Server® 2008

Before installation, make sure that the system meets the [minimal hardware and software requirements for installing Microsoft® SQL Server® 2008](#). Take the appropriate actions if the system does not meet the requirements.

▼ Installing Microsoft® SQL Server® 2008

- 1) Run Microsoft® SQL Server® 2008 installation package.
- 2) Open the **Installation** section and select **New SQL Server stand-alone installation or add features to an existing installation** in the **SQL Server Installation Server** window (fig. [The 'Installation' section](#)⁽¹⁷²⁾).



Figure 161. The 'Installation' section

- 3) The **Setup Support Rules** section checks for problems that might occur when installing

auxiliary Microsoft® SQL Server® 2008 files (fig. [Setup support rules check](#)⁽¹⁷³⁾). You should fix errors before continuing. If there are no problems, click **OK**.

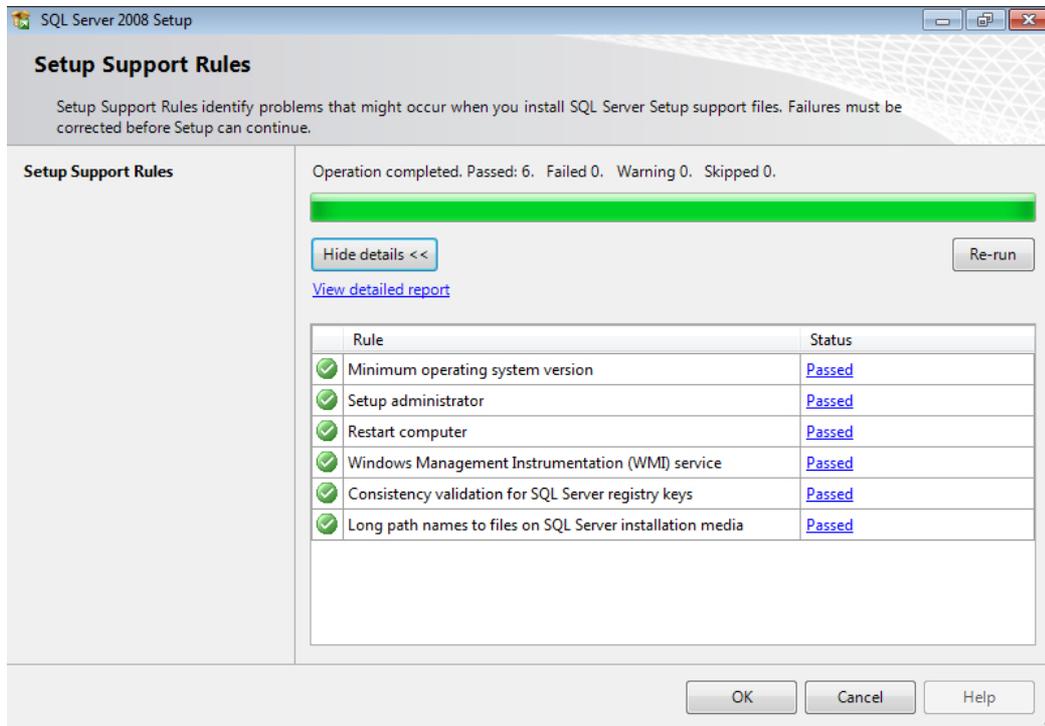


Figure 162. Setup support rules check

- 4) In the **Product Key** section, select **Enter the product key**, enter the license key for Microsoft SQL Server 2008 and click **Next** (fig. [The 'Product Key' section](#)⁽¹⁷³⁾).

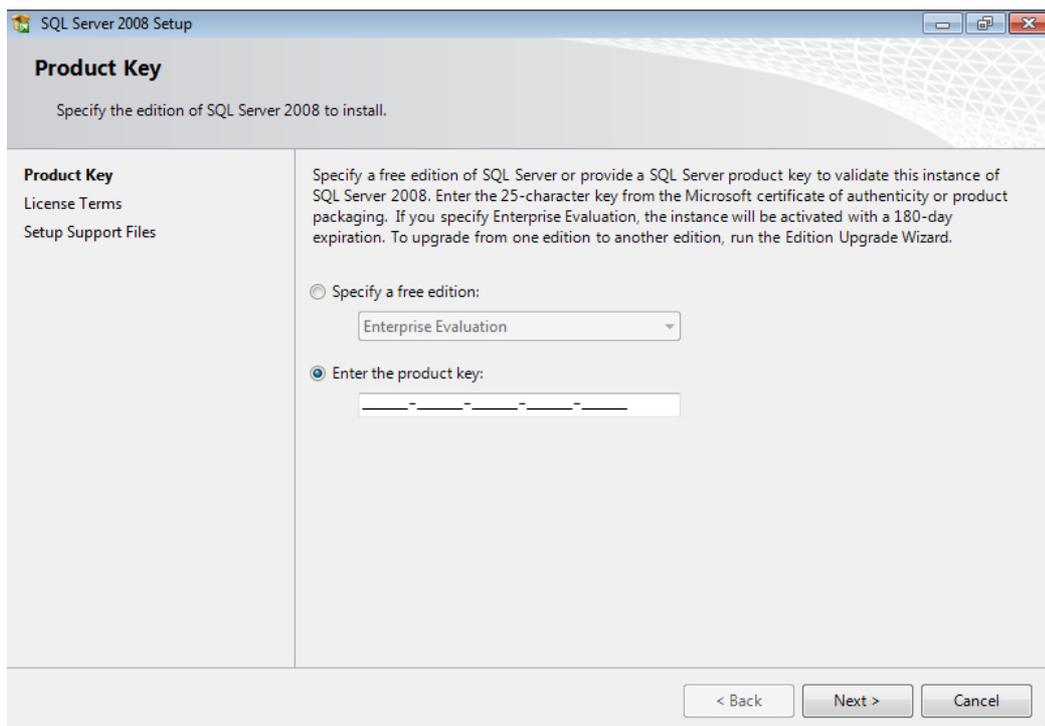


Figure 163. The 'Product Key' section

- 5) Read the **License Terms**. If you accept the terms, select **I Accept the license terms** and click **Next** (fig. [The 'License Terms'](#)¹⁷⁴).

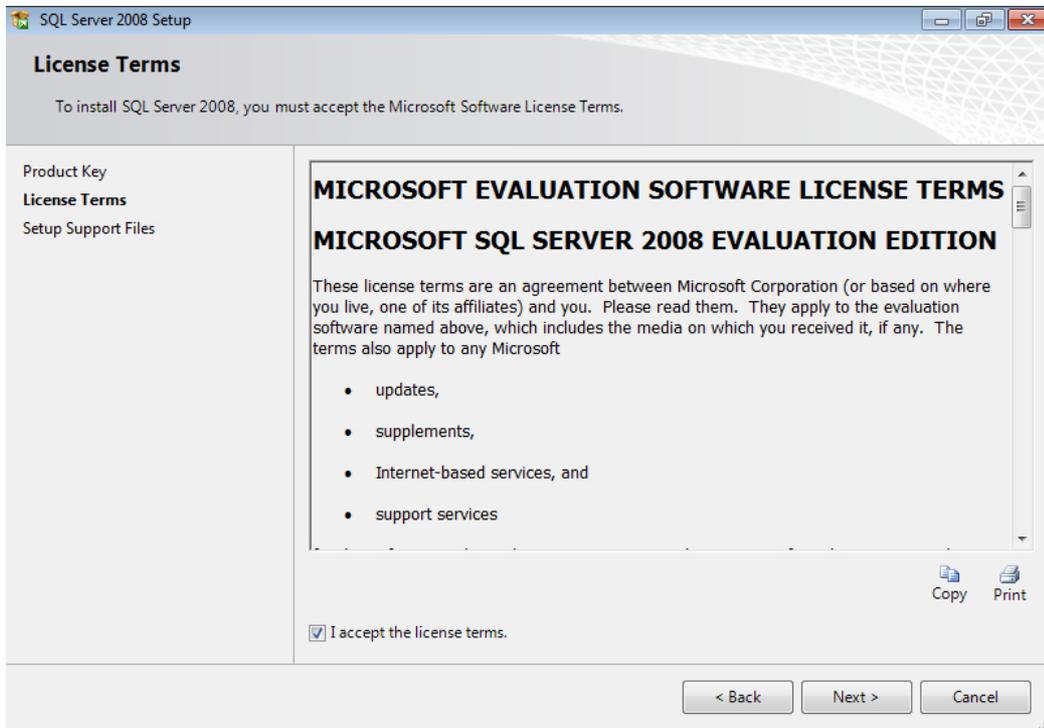


Figure 164. The 'License Terms'

- 6) Click **Install** in section **Setup Support Files** (fig. [The 'Setup Support Files' section](#)¹⁷⁴).

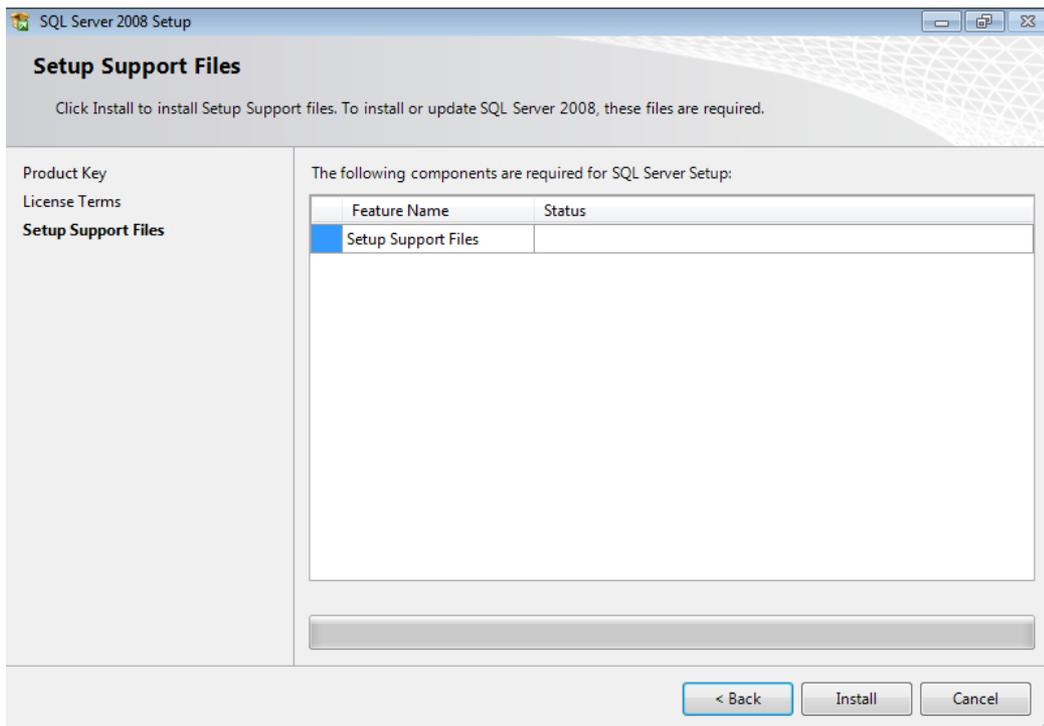


Figure 165. The 'Setup Support Files' section

- 7) The **Setup Support Rules** section checks for problems that might occur when installing auxiliary Microsoft® SQL Server® 2008 files (fig. [The 'Setup Support Rules' section. Details](#)⁽¹⁷⁵⁾). You should fix errors before continuing. If there are no problems, click **Next**.

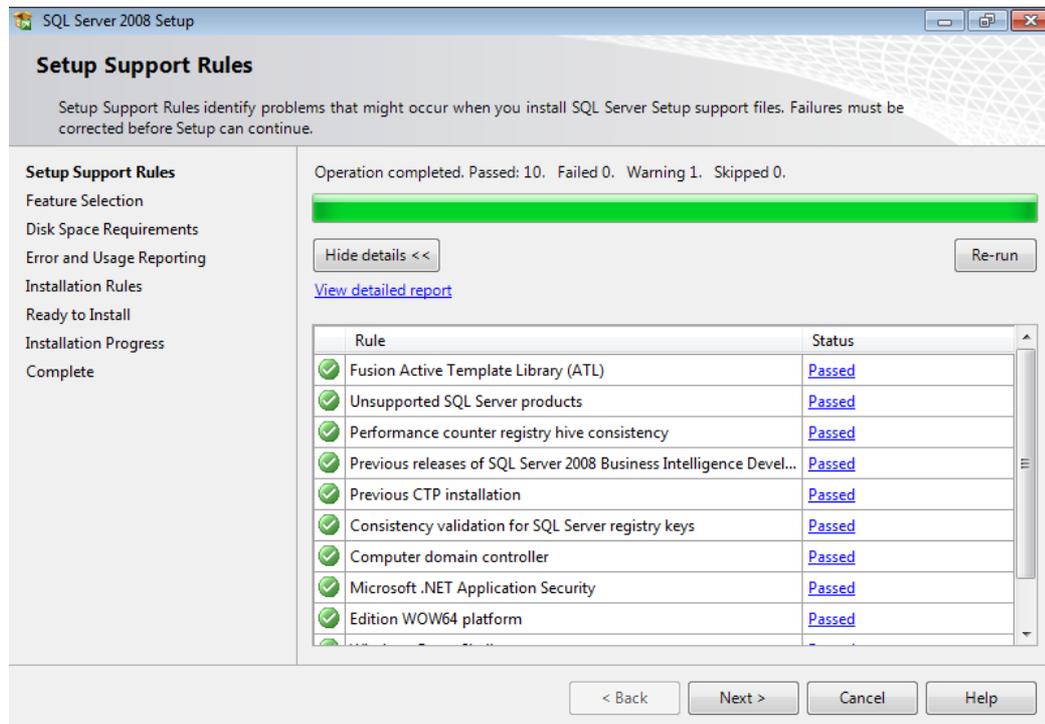


Figure 166. The 'Setup Support Rules' section. Details

- 8) In the **Feature Selection** section, click **Select All**, specify the installation path in the **Shared feature directory** field and click **Next** (fig. [The 'Feature Selection' section](#)⁽¹⁷⁵⁾).

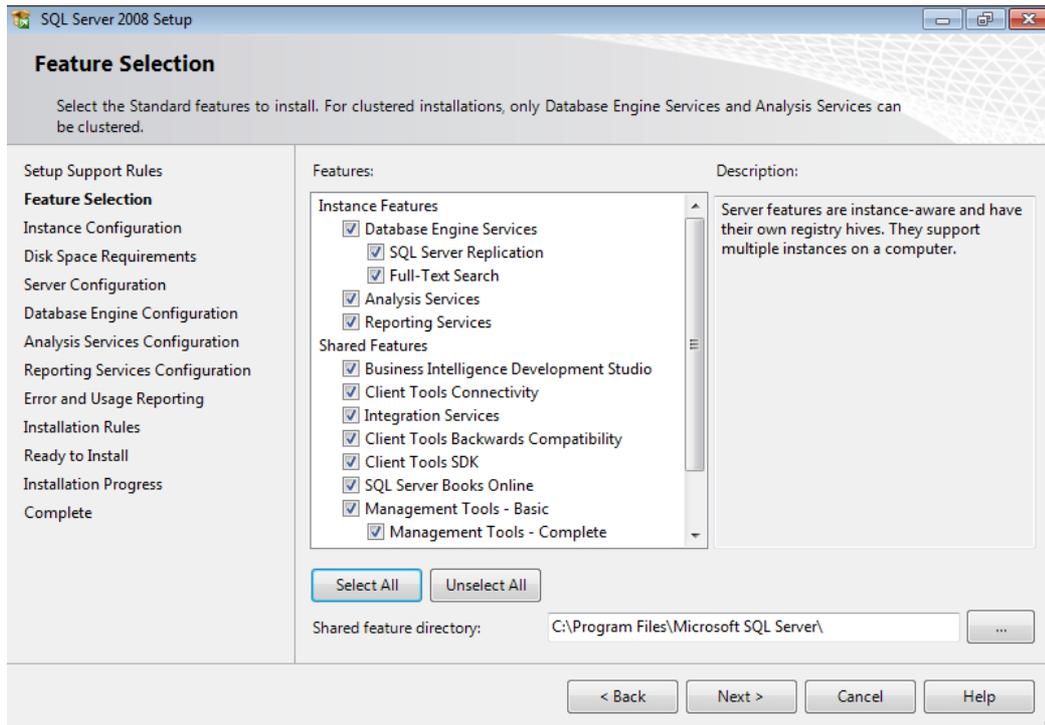


Figure 167. The 'Feature Selection' section

- 9) Select **Default Instance** and click **Next** in the **Instant Configuration** section (fig. [The 'Instance Configuration' section](#)⁽¹⁷⁶⁾).

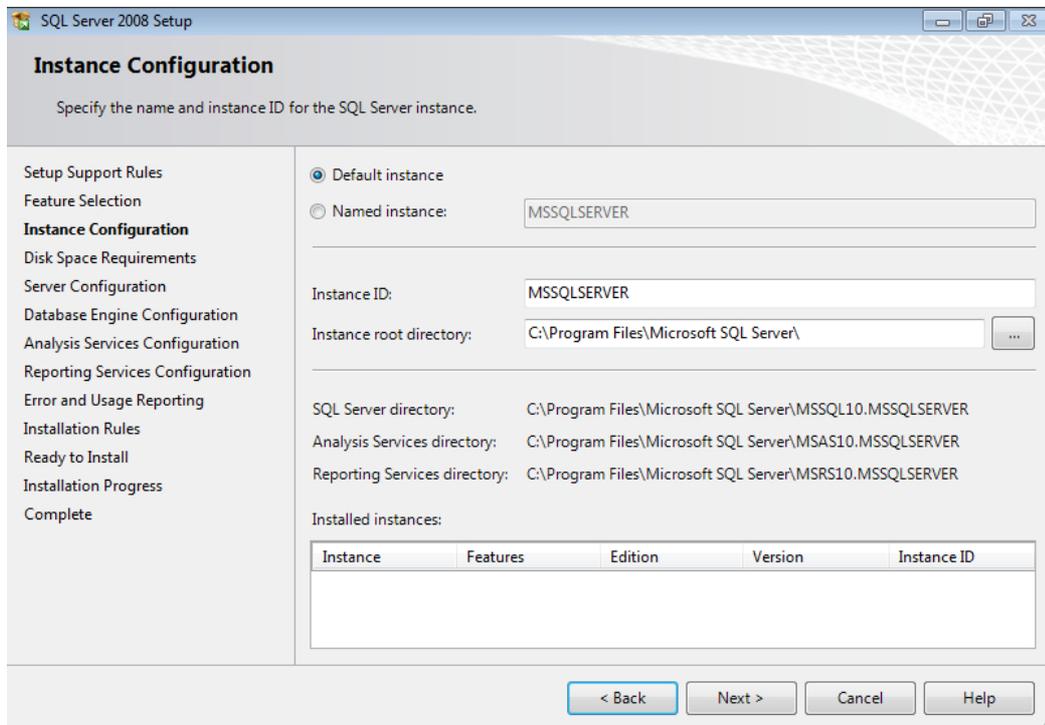


Figure 168. The 'Instance Configuration' section

- 10) Click **Next** in the **Disc Space Requirements** section (fig. [The 'Disc Space Requirements'](#)

[section](#)⁽¹⁷⁷⁾.

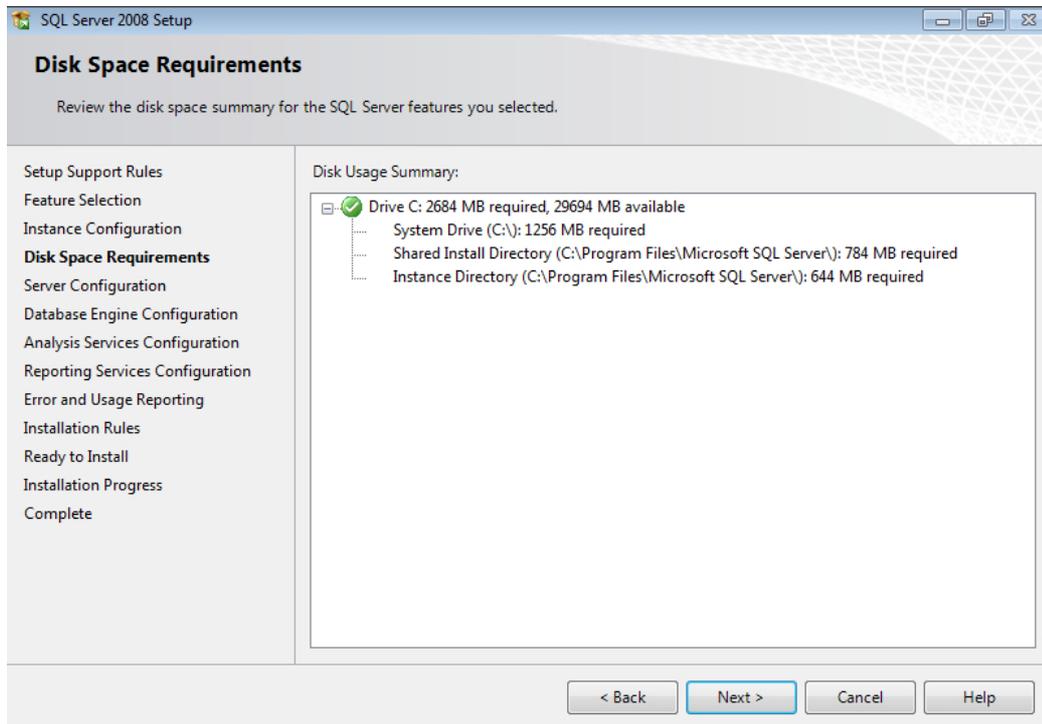


Figure 169. The 'Disc Space Requirements' section

- 11) Click **Use the same account for all SQL Server services** in the **Service Accounts** tab of the **Server Configuration** section (fig. [The 'Service Accounts' tab of the 'Server Configuration' section](#)⁽¹⁷⁷⁾).

Select the **NETWORK SERVICE** account in the displayed window and click **OK** (fig. [Account](#)⁽¹⁷⁸⁾).

Specify the **SQL_Latin1_General_CP1_CI_AS** parameter for the **Database Engine** component and the **Latin1_General_CI_AS** parameter for the **Analysis Services** component, in the **Collation** tab of the **Server Configuration** section (fig. [The 'Collation' tab of the 'Server Configuration' section](#)⁽¹⁷⁸⁾).

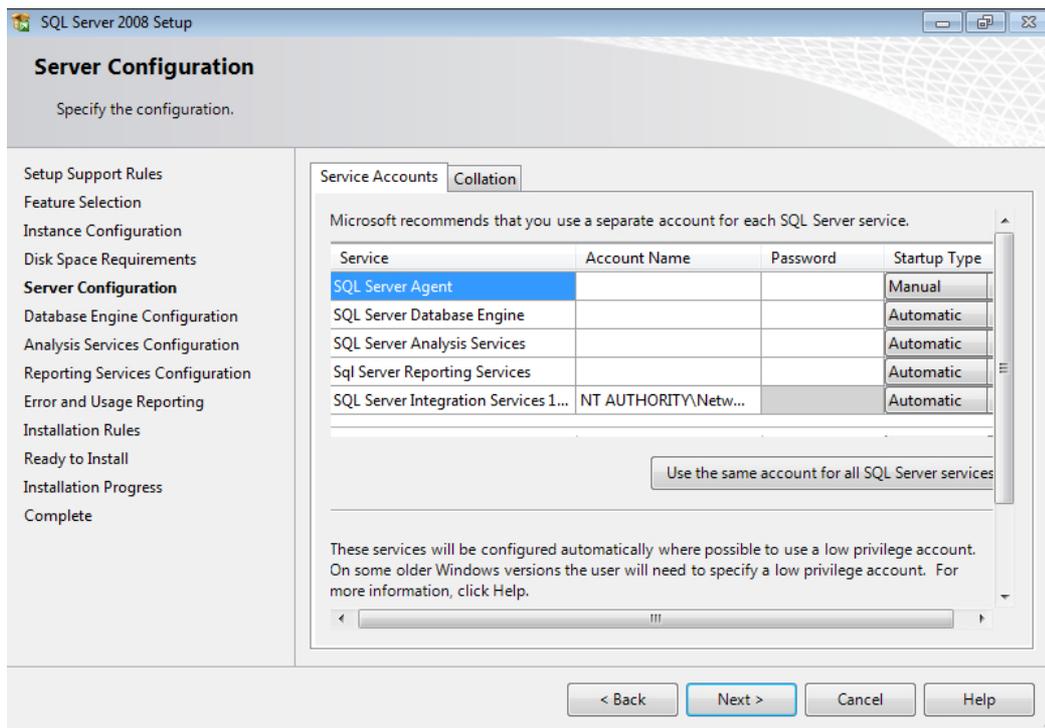


Figure 170. The 'Service Accounts' tab of the 'Server Configuration' section

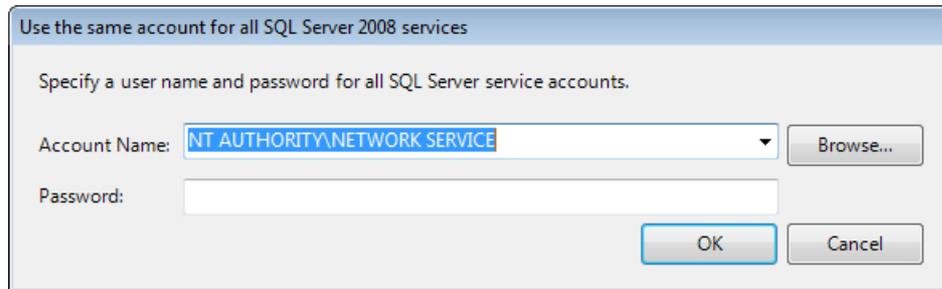


Figure 171. Account

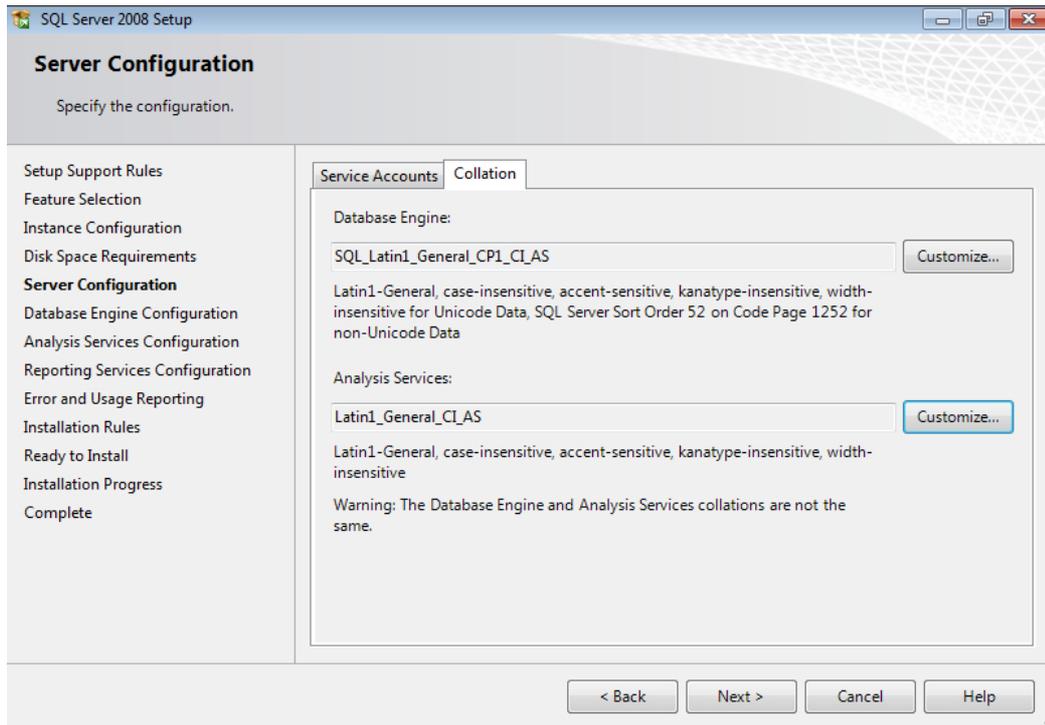


Figure 172. The 'Collation' tab of the 'Server Configuration' section

To do so, click **Customize** for the **Database Engine** component, select **SQL collation, used for backwards compatibility**, select **SQL_Latin1_General_CP1_CI_AS** from the list and click **OK** (fig. [Specifying the collation parameters for the Database Engine component](#)⁽¹⁷⁹⁾).

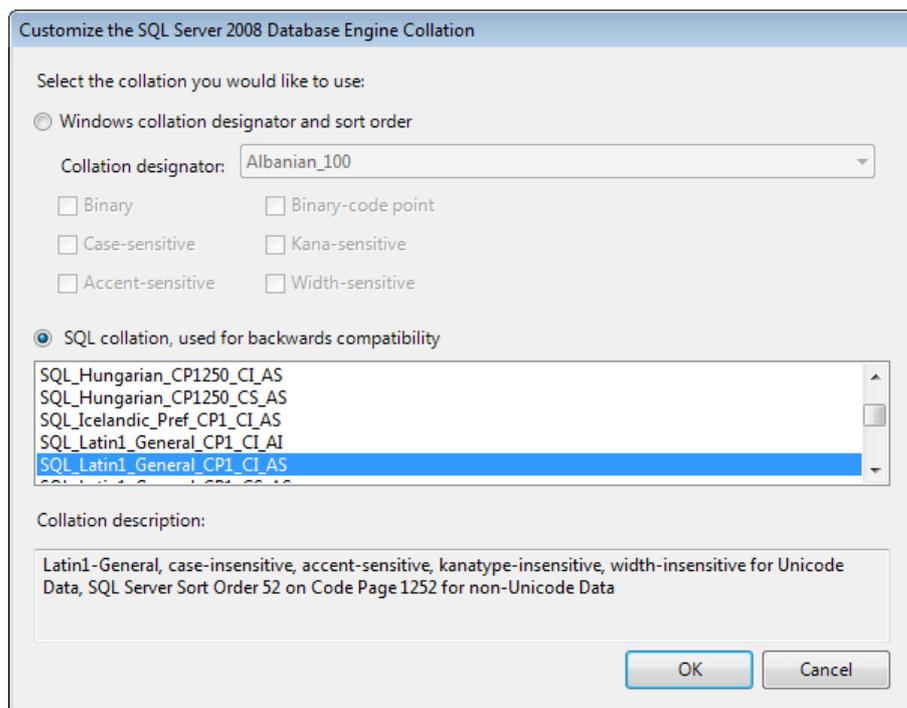


Figure 173. Specifying the collation parameters for the Database Engine component

Click **Customize** for the **Analysis Services** component, select **Latin1_General** in the **Collation designator** drop-down list, tick off the **Accent-sensitive** checkbox and click **OK** (fig. [Specifying the collation parameters for the Analysis Services component](#)⁽¹⁸⁰⁾).

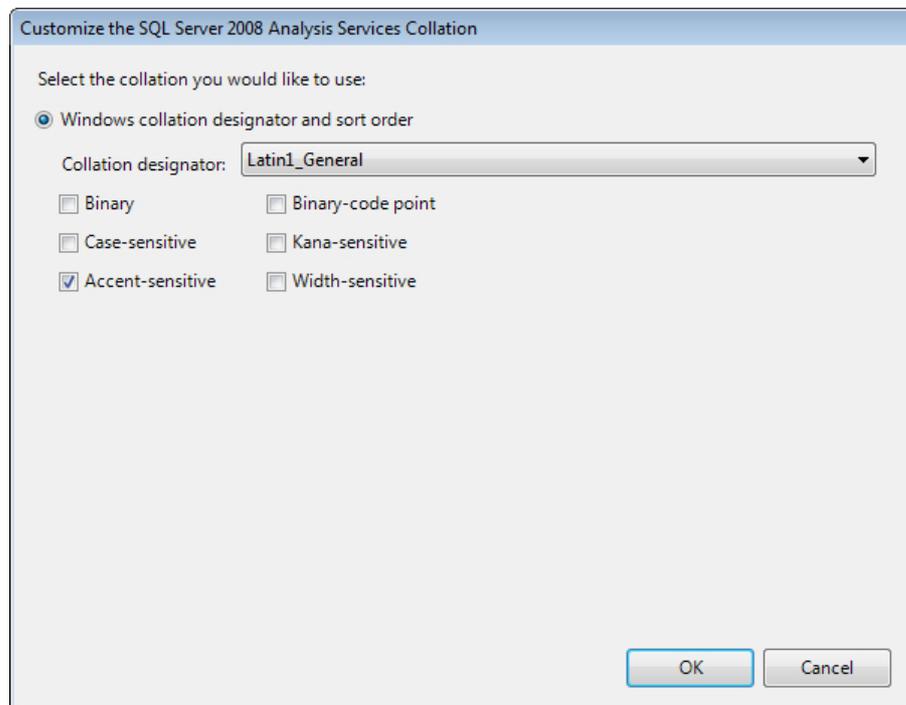


Figure 174. Specifying the collation parameters for the Analysis Services component

Click **Next** in the **Server Configuration** section to continue installation.

- 12) Select **Mixed Mode** in the **Database Engine Configuration** section, specify the **Built-in SQL Server system administrator account** password in the **Enter password** field and confirm it in the **Confirm password** field (fig. [The 'Database Engine Configuration' section](#)⁽¹⁸⁰⁾). Click **Add Current User** and make sure that the current system account is displayed in the **Specify SQL Server administrators** list; then click **Next**.

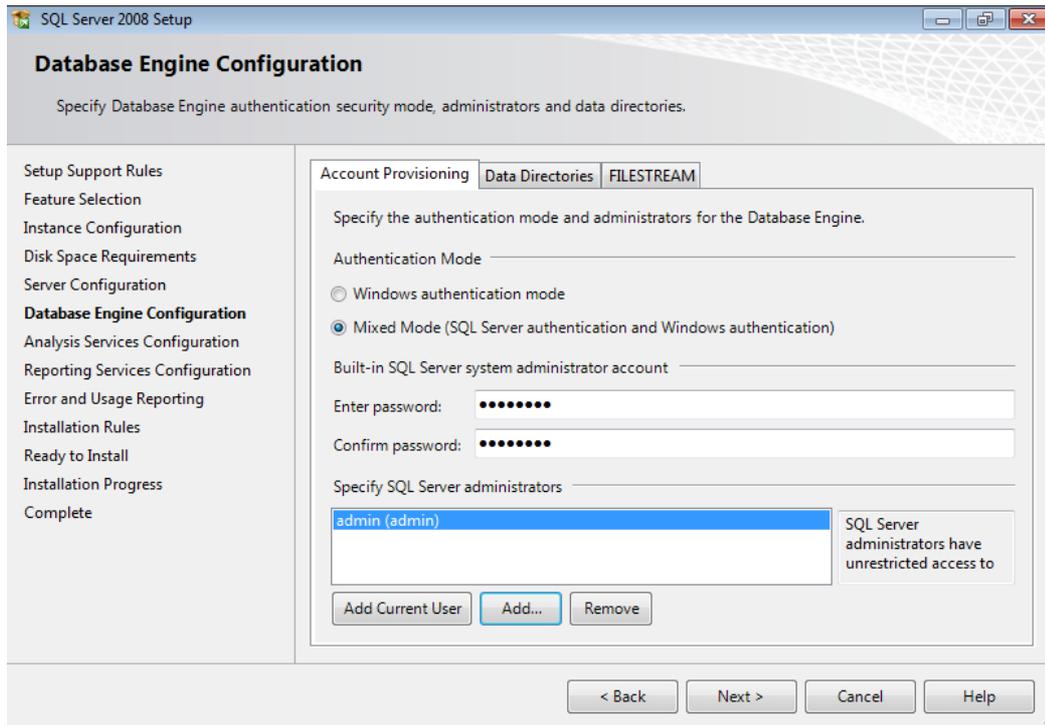


Figure 175. The 'Database Engine Configuration' section

- 13) Click **Add Current User** and make sure that the current system account is displayed in the **Specify which users have administrative permissions for Analysis Services** list on the **Account Provisioning** tab of the **Analysis Services Configuration** section; then click **Next** (fig. [The 'Analysis Services Configuration' section](#)¹⁸¹).

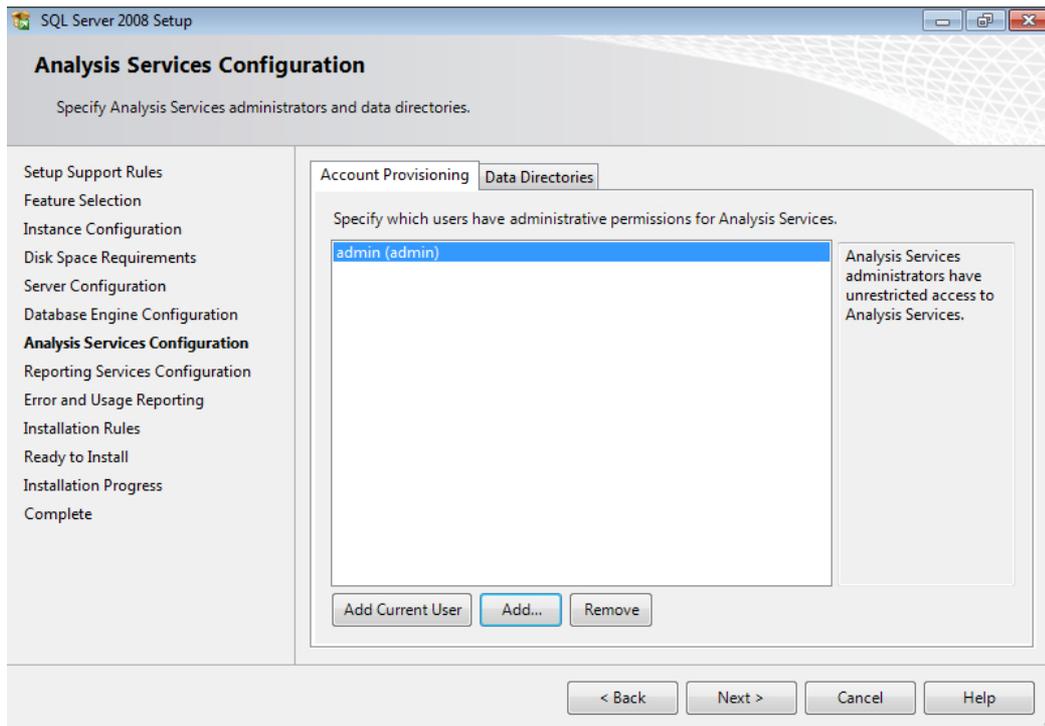


Figure 176. The 'Analysis Services Configuration' section

- 14) Select **Install the native mode default configuration** and click **Next** in the **Reporting Services Configuration** section (fig. [The 'Reporting Services Configuration' section](#)¹⁸²).

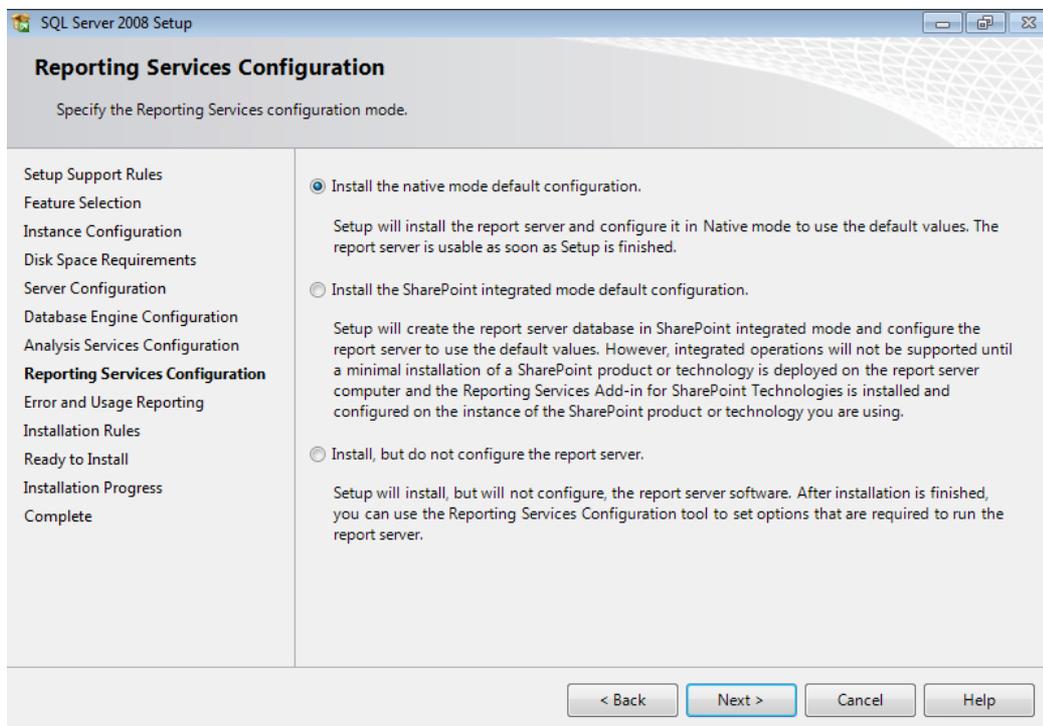


Figure 177. The 'Reporting Services Configuration' section

- 15) Click **Next** in the **Error and Usage Reporting** section (fig. [The 'Error and Usage Reporting' section](#)¹⁸²).

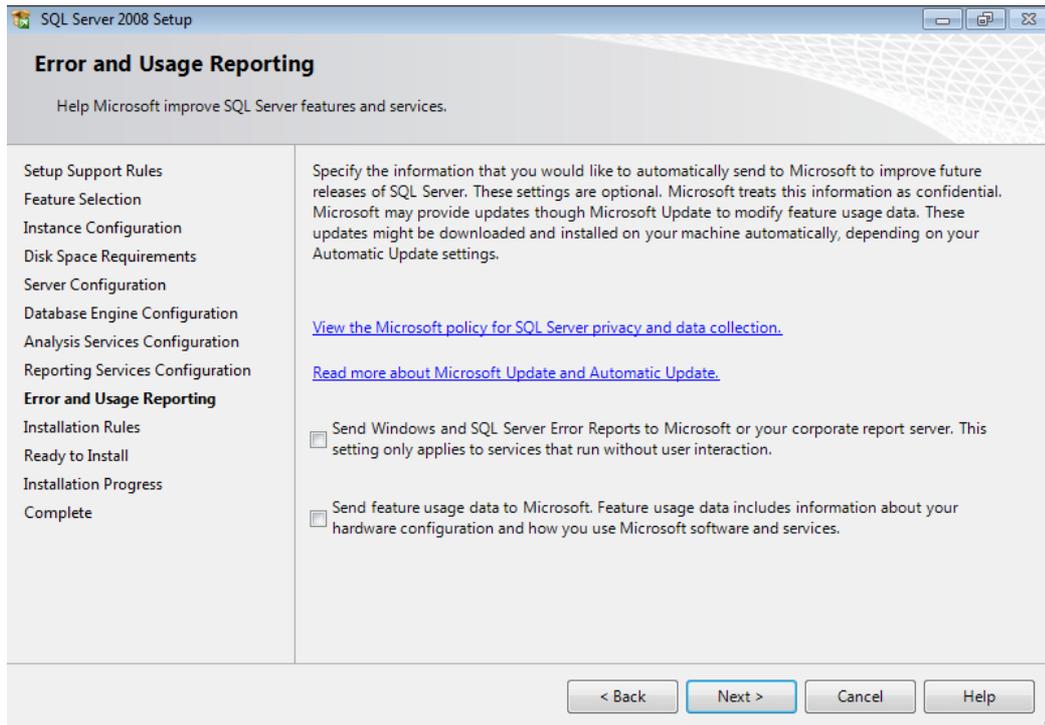


Figure 178. The 'Error and Usage Reporting' section

16) The **Installation Rules** section checks for problems that might occur when installing Microsoft® SQL Server® 2008 (fig. [The 'Installation Rules' section](#)⁽¹⁸³⁾). If there are no problems, click **Next**.

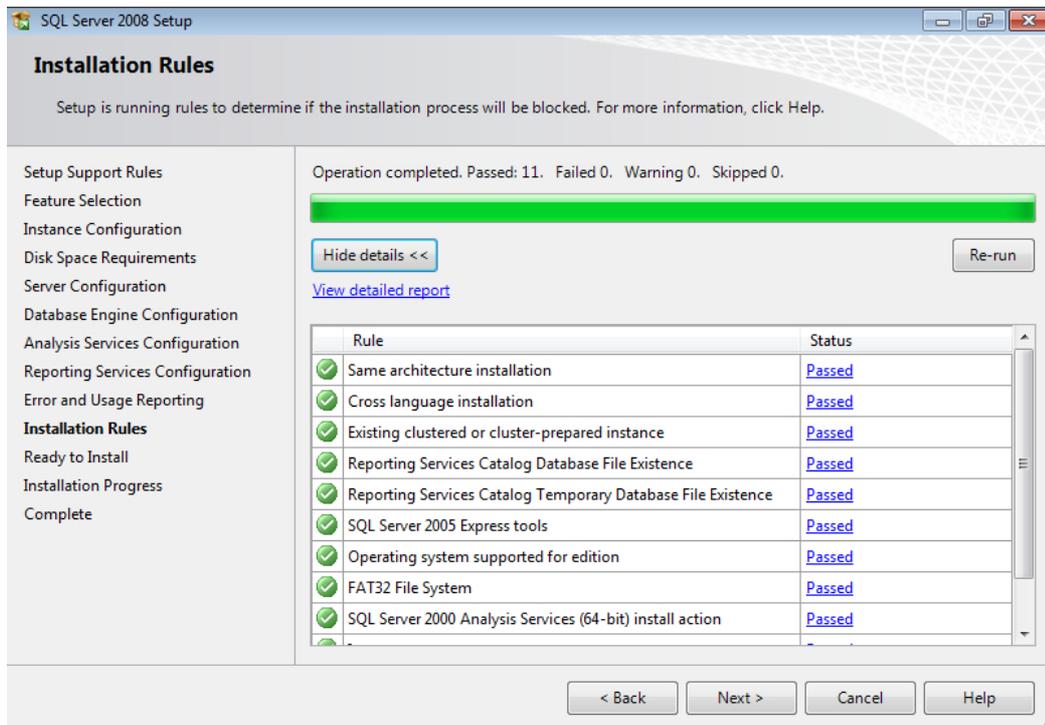


Figure 179. The 'Installation Rules' section

17) Check the list of the components to be installed and click **Install** in the **Ready to Install** section (fig. [The 'Ready to Install' section](#)⁽¹⁸⁴⁾).

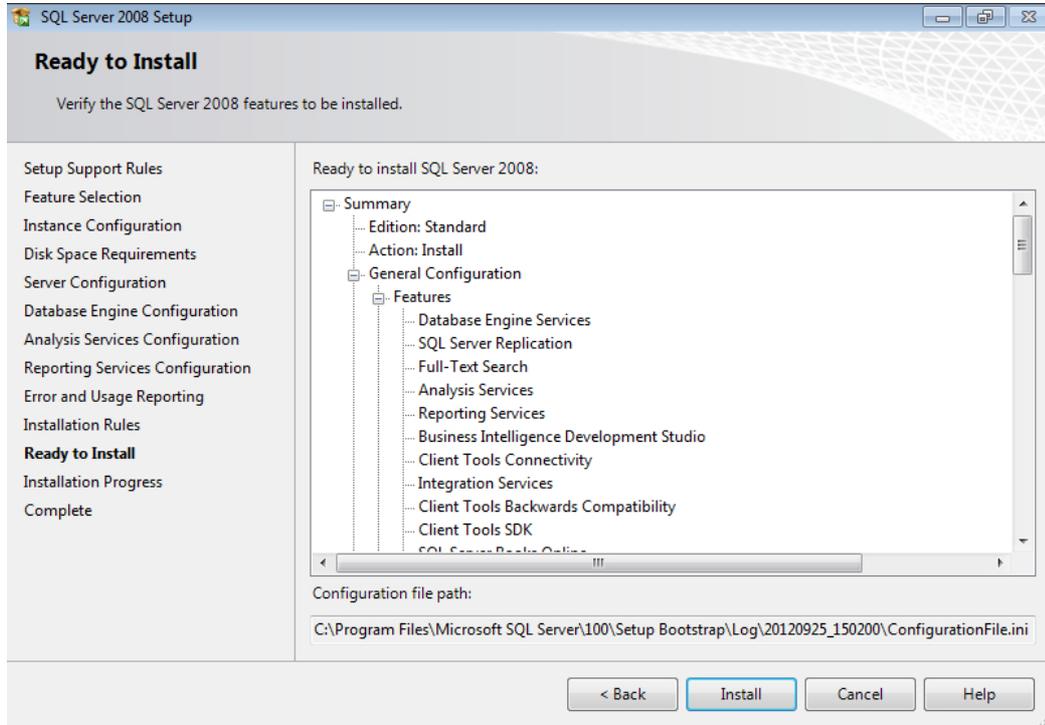


Figure 180. The 'Ready to Install' section

18) The **Installation Progress** section displays the progress of installing the Microsoft SQL Server 2008 components (fig. [The 'Installation Progress' section](#)⁽¹⁸⁴⁾).

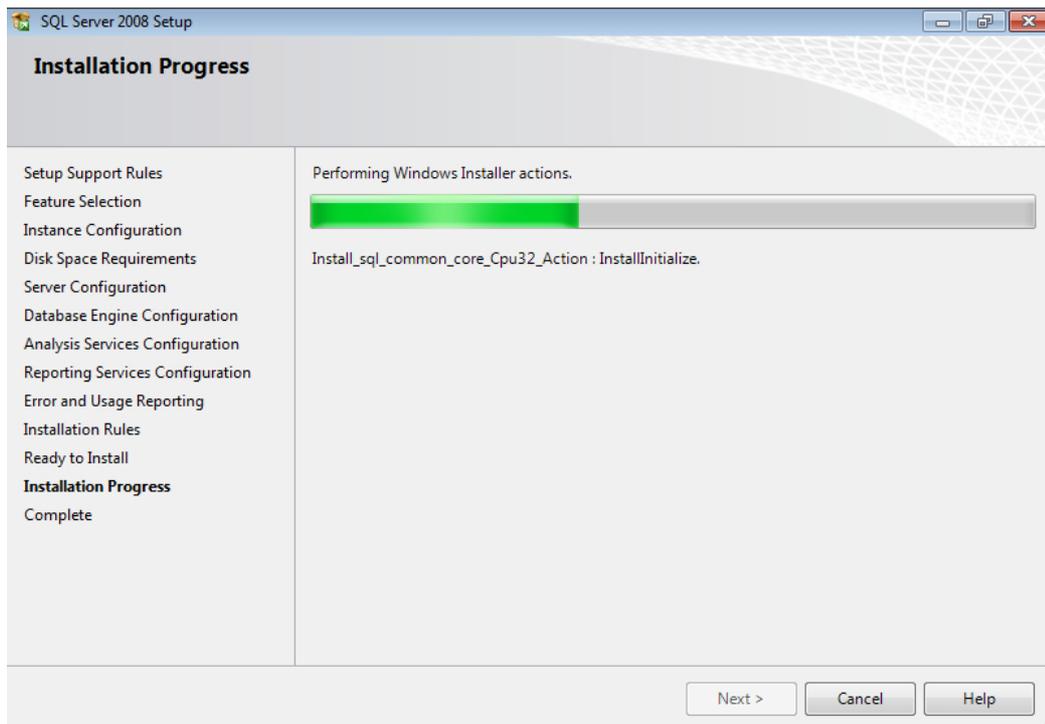


Figure 181. The 'Installation Progress' section

Click **Next** when the installation completes.

Click **Close** in the **Complete** section to complete the installation (fig. [The 'Complete' section](#)¹⁸⁵).

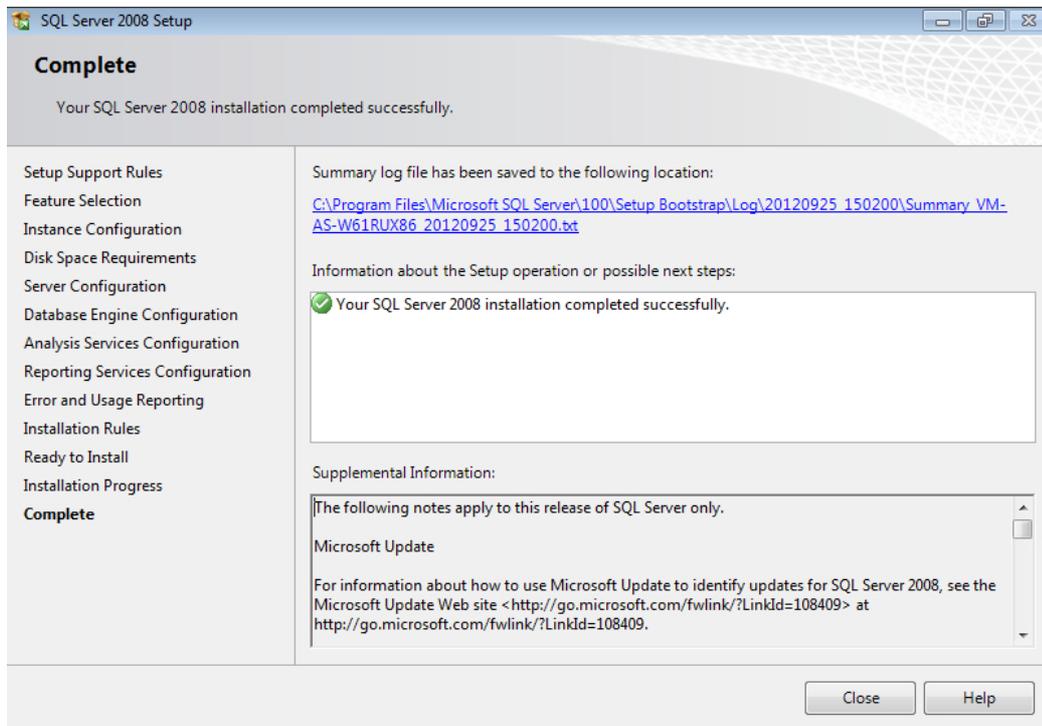


Figure 182. The 'Complete' section

10.2 Adding the Desktop Experience component

Note: The example below uses Microsoft® Windows® Server 2008 R2.

- 1) Open the **Server Manager** snap-in from the **Administrative Tools** section of the **Start** menu. Go to the **Features** section and click **Add Features** in the **Features Summary** area (fig. [The Server Manager snap-in](#)¹⁸⁵).

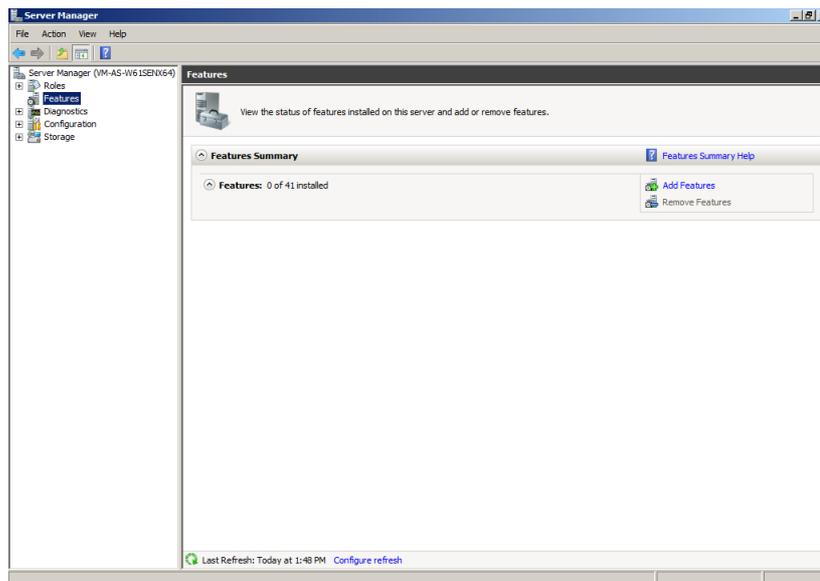


Figure 183. The Server Manager snap-in

2) Tick off **Desktop Experience** in the displayed **Add Features Wizard** window (fig. [Selecting components to add](#)¹⁸⁶) (for Microsoft® Windows® Server 2012 / 2012 R2: **User Interfaces and Infrastructure** → **Desktop Experience**).

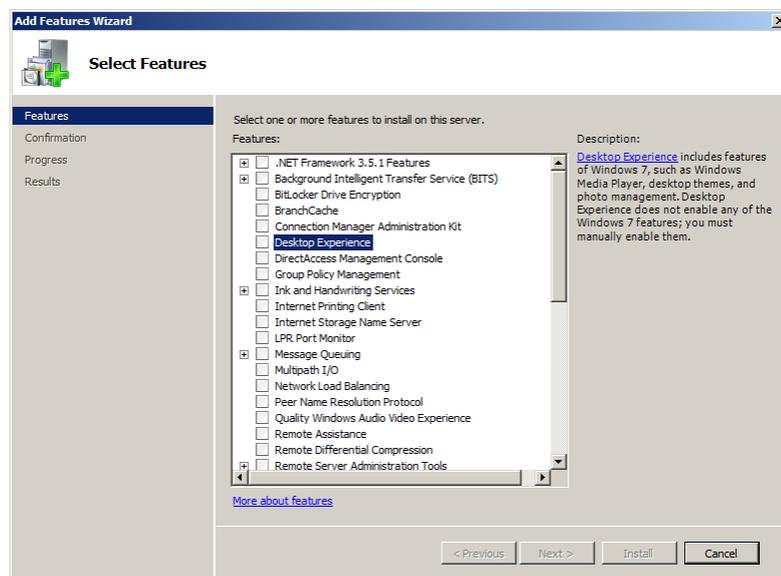


Figure 184. Selecting components to add

3) When the dialog box with information about required components appears, click **Add Required Features** (fig. [Requesting to add the required components](#)¹⁸⁶).

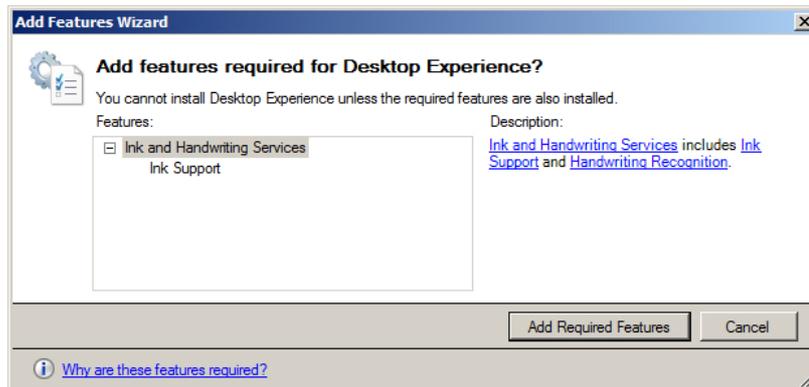


Figure 185. Requesting to add the required components

4) Make sure that the **Desktop Experience** component is selected and click **Next** (fig. [Selecting components to add](#)⁽¹⁸⁷⁾).

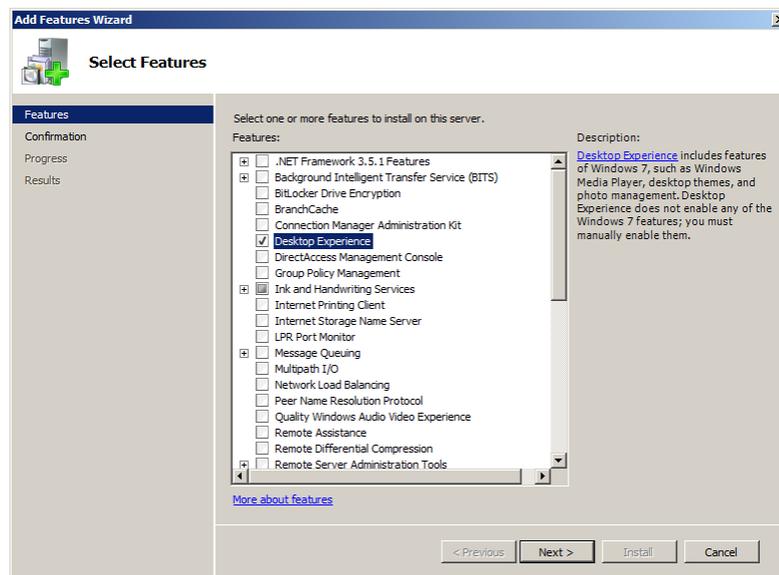


Figure 186. Selecting components to add

5) Click **Next** in the **Confirmation** step (fig. [Confirming installation selection](#)⁽¹⁸⁷⁾).

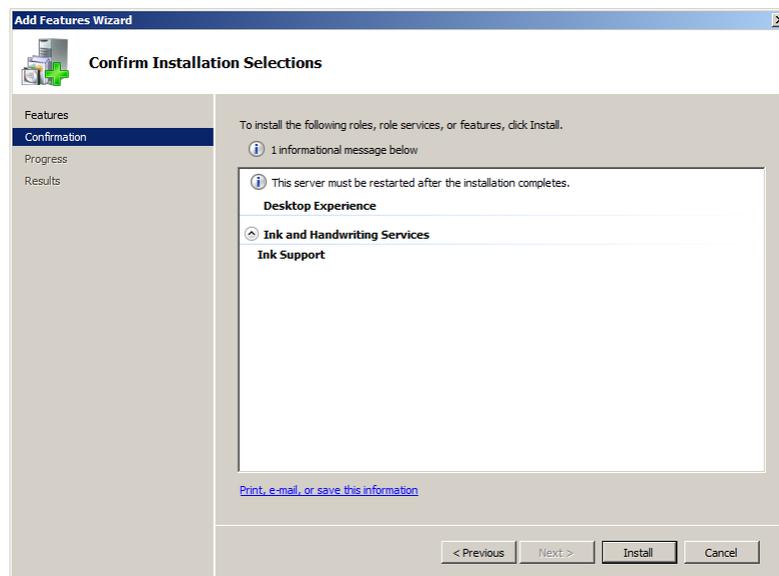


Figure 187. Confirming installation selection

6) Wait until the installation completes (fig. [Installation progress](#)⁽¹⁸⁸⁾).

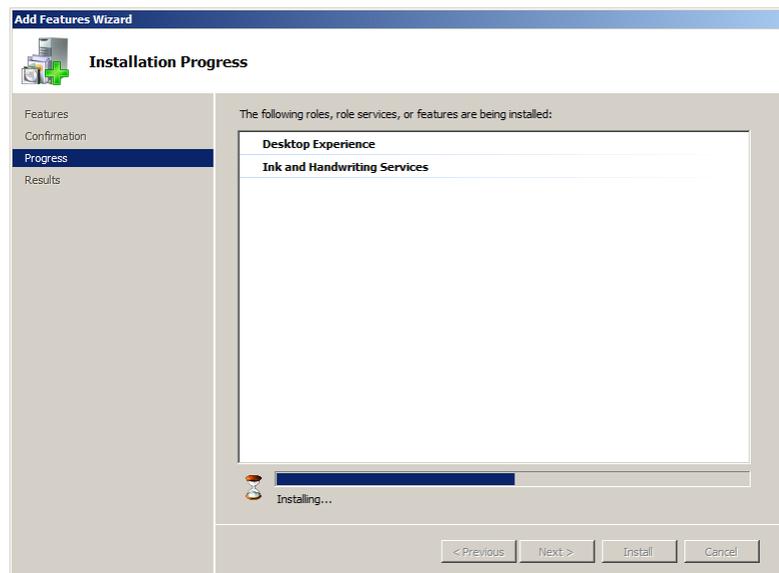


Figure 188. Installation progress

7) Click **Close** in the **Results** step (fig. [Finished adding the components](#)⁽¹⁸⁸⁾).

8) Select **Yes** in the dialog box that suggests system restart. The system is then restarted to complete the installation (fig. [Requesting system restart](#)⁽¹⁸⁹⁾).

9) After the system reboots, make sure that all the required components are installed successfully (**Installation succeeded**), in the displayed **Resume Configuration Wizard** displayed window.

Click **Close** (fig. [The result of adding the components](#)⁽¹⁸⁹⁾).

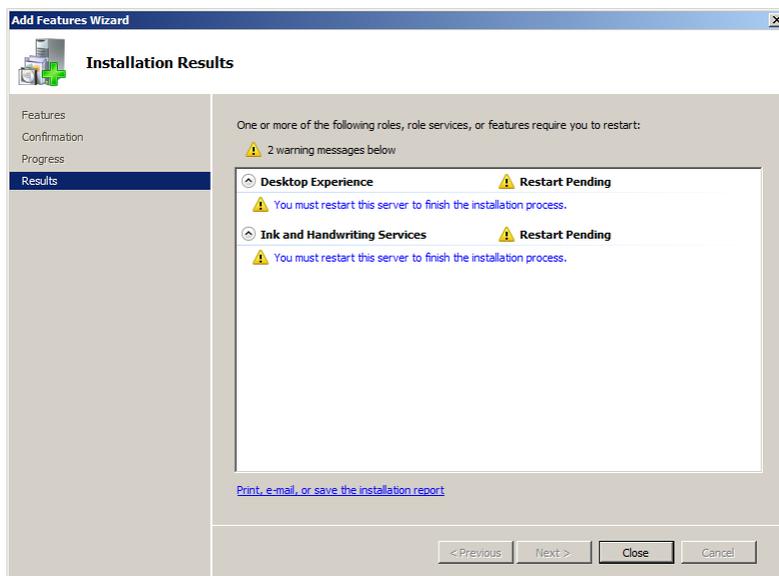


Figure 189. Finished adding the components

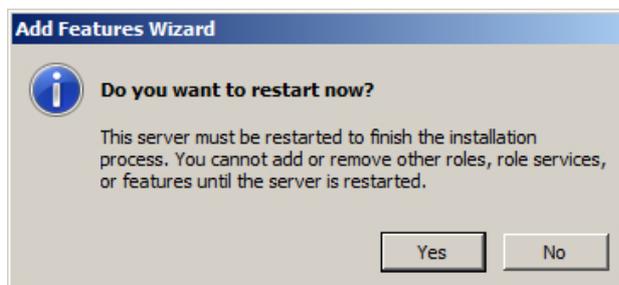


Figure 190. Requesting system restart

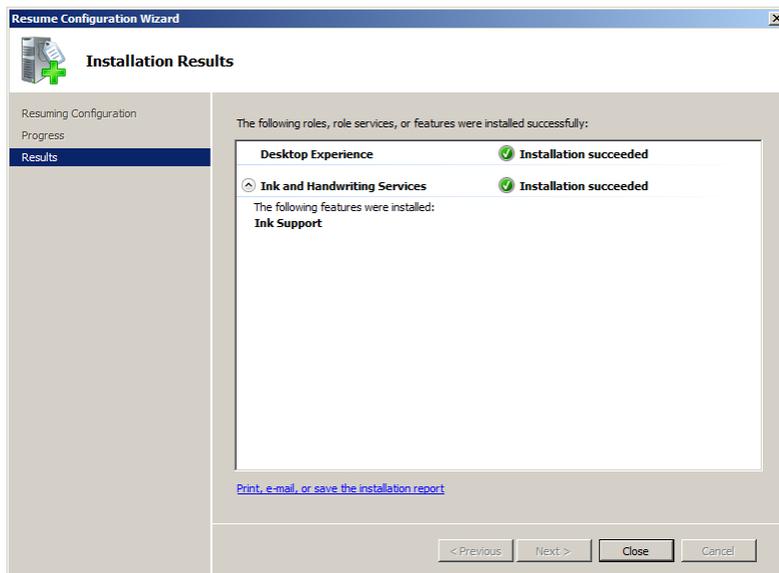


Figure 191. The result of adding the components