Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition

Administrator's Guide

APPLICATION VERSION: 8.0 SERVICE PACK 2

Dear User,

Thank you for choosing our product. We hope that this documentation will help you in your work and answer your questions about this software product.

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http://www.kaspersky.com
http://support.kaspersky.com

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ABOUT THIS DOCUMENT

The Administrator's Guide of Kaspersky Anti-Virus 8.0 for Windows Servers® Enterprise Edition (hereinafter also referred to as "Kaspersky Anti-Virus") is intended for those who install and administer Kaspersky Anti-Virus, as well as for those who provide technical support to organizations that use Kaspersky Anti-Virus.

In this Guide you can find information about configuring and using Kaspersky Anti-Virus.

This Guide will also help you to learn about sources of information about the application and ways to receive technical support.

IN THIS SECTION

IN THIS DOCUMENT

The Administrator's Guide for Kaspersky Anti-Virus contains the following sections:

Sources of information about Kaspersky Anti-Virus

This section lists the sources of information about the application.

Kaspersky Anti-Virus

This section describes the functions, components, and distribution kit of Kaspersky Anti-Virus, and provides a list of hardware and software requirements of Kaspersky Anti-Virus.

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This section provides information about the main concepts related to licensing of the application.

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This section provides information about how to define the general settings of the application in Kaspersky Anti-Virus Console.

Managing Kaspersky Anti-Virus tasks

This section provides information about Kaspersky Anti-Virus tasks, how to create them, define their settings, start and stop tasks, and set up a schedule for automatic startup and automatic stop of those tasks.

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This section provides information about databases and application modules update tasks of Kaspersky Anti-Virus, copying updates and rolling back databases updates of Kaspersky Anti-Virus, as well as instructions on how to configure databases and application modules update tasks.

Real-time protection

This section provides information about real-time protection tasks: **Real-time protection of files** task and **Script scanning** task. This section also provides instructions on how to configure real-time protection tasks and manage the security settings of a protected server.

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This section provides information about on-demand scan tasks and instructions on how to configure on-demand scan tasks and manage security settings of on-demand scan tasks.

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This section describes how to add a key to the application, delete a key, and view information about keys that have been added.

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This section provides information about ways in which users and administrators of Kaspersky Anti-Virus can be notified about application events and the server protection status, as well as instructions on how to configure notifications.

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This section provides information about how to perform anti-virus scans of files located in hierarchical storage areas and backup systems.

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This section provides information about how to export the settings of Kaspersky Anti-Virus or the settings of specific application components to a configuration file in XML format, and how to import those settings from that configuration file to the application.

Managing Kaspersky Anti-Virus from the command line

This section provides information and instructions on how to manage Kaspersky Anti-Virus at the command prompt.

Managing Kaspersky Anti-Virus from Kaspersky Security Center

This section provides information and instructions on how to manage Kaspersky Anti-Virus and configure it through Kaspersky Security Center Administration Console.

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This section describes the ways to receive technical support and the conditions on which it is available.

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This section contains a list of terms, which are mentioned in the document, as well as their respective definitions.

Kaspersky Lab ZAO

This section provides information about Kaspersky Lab ZAO.

Information about third-party code

This section provides information about third-party code used in the application.

Trademark notices

This section lists trademarks reserved to third-party owners and mentioned in the document.

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This section allows you to quickly find required information through the document.

DOCUMENT CONVENTIONS

This document uses the following conventions (see table below).

Table 1. Document conventions

SAMPLE TEXT	DESCRIPTION OF DOCUMENT CONVENTION
Note that...	Warnings are highlighted in red and set off in a box. Warnings contain information about actions that my have undesirable consequences.
We recommend that you use...	Notes are set off in a box. Notes contain supplementary and reference information.
Example: ...	Examples are given in blocks against a yellow background under the heading "Example".

SAMPLE TEXT	DESCRIPTION OF DOCUMENT CONVENTION
Update means... The *Databases are out of date* event occurs.	The following elements are italicized in the text: • New terms • Names of application statuses and events
Press **ENTER**. Press **ALT**+**F4**.	Names of keyboard keys appear in bold and are capitalized. Names of keys that are connected by a + (plus) sign indicate the use of a key combination. These keys must be pressed simultaneously.
Click the **Enable** button.	Names of application interface elements, such as text boxes, menu items, and buttons, are set off in bold.
➧ *To configure a task schedule:*	Introductory phrases of instructions are italicized and accompanied by an arrow.
In the command line, type `help` The following message then appears: `Specify the date in dd:mm:yy format.`	The following types of text content are set off with a special font: • Text in the command line • Text of messages displayed on the screen by the application • Data that must be entered from the keyboard
<User name>	Variables are enclosed in angle brackets. Instead of a variable, the corresponding value should be inserted, omitting the angle brackets.

SOURCES OF INFORMATION ABOUT KASPERSKY ANTI-VIRUS

This section lists the sources of information about the application. You can select the most suitable information source, depending on the level of importance and urgency of the issue.

IN THIS SECTION

SOURCES FOR UNASSISTED SEARCH OF INFORMATION

You can use the following sources to find information about Kaspersky Anti-Virus:

- Kaspersky Anti-Virus page on the Kaspersky Lab website
- Kaspersky Anti-Virus page on the Technical Support website (Knowledge Base)
- Online help
- Manuals

If you cannot find a solution for your issue on your own, we recommend contacting Kaspersky Lab Technical Support.

An Internet connection is required to use online information sources.

Kaspersky Anti-Virus page on the Kaspersky Lab website

On the Kaspersky Anti-Virus page (http://www.kaspersky.com/business-security/windows-server-antivirus-enterprise-edition), you can view general information about the application, its functions and features.

The Kaspersky Anti-Virus page contains a link to eStore. There you can purchase the application or renew your license.

Kaspersky Anti-Virus page in the Knowledge Base

Knowledge Base is a section on the Technical Support website.

The Kaspersky Anti-Virus page in the Knowledge Base (http://support.kaspersky.com/wsee8) features articles that provide useful information, recommendations, and answers to frequently asked questions about how to purchase, install, and use the application.

Knowledge Base articles can answer questions relating to not only Kaspersky Anti-Virus but also to other Kaspersky Lab applications. Knowledge Base articles can also include Technical Support news.

The deployment guide describes common ways to deploy Kaspersky Anti-Virus on a corporate network.

The installation guide describes how you can perform the following tasks:

- Prepare Kaspersky Anti-Virus for installation, install and activate the application
- Prepare Kaspersky Anti-Virus for operation
- Restore or remove Kaspersky Anti-Virus

The administrator's guide provides information about how to configure and use Kaspersky Anti-Virus.

In the Implementation Guide for Network Storage Protection, you can find information about how to configure and use Kaspersky Anti-Virus for protection of network storage systems.

DISCUSSING KASPERSKY LAB APPLICATIONS ON THE FORUM

If your question does not require an immediate answer, you can discuss it with Kaspersky Lab experts and other users on our forum (http://forum.kaspersky.com).

On this forum you can view existing threads, leave your comments, and create new discussion threads.

KASPERSKY ANTI-VIRUS

Kaspersky Anti-Virus protects servers running on Microsoft® Windows® operating systems and network storages against viruses and other computer security threats to which servers are exposed through file exchange. Kaspersky Anti-Virus is designed for use on local area networks of medium to large organizations. Kaspersky Anti-Virus users are corporate network administrators and specialists responsible for anti-virus protection of the corporate network.

Kaspersky Anti-Virus can be installed on servers in the following roles:

- Terminal servers
- Print servers
- Application servers
- Domain controllers
- Network storage servers
- File servers – these servers are more likely to get infected because they exchange files with user workstations.

Kaspersky Anti-Virus can be managed in the following ways:

- Via Kaspersky Anti-Virus Console installed on the same server with Kaspersky Anti-Virus or on a different computer
- Using commands in the command line
- Via Administration Console of Kaspersky Security Center.

The Kaspersky Security Center application can also be used for centralized administration of multiple servers running Kaspersky Anti-Virus.

It is possible to review Kaspersky Anti-Virus performance counters for the "System Monitor" application, as well as SNMP counters and traps.

Kaspersky Anti-Virus components and features

The application includes the following components:

- Real-time protection of files

  Kaspersky Anti-Virus scans objects when they are accessed. Kaspersky Anti-Virus scans the following objects:

  - files;
  - alternate file system threads (NTFS threads);
  - master boot record and boot sectors on the local hard drives and removable media.

- Script scanning

  Kaspersky Anti-Virus controls the execution of scripts created using Microsoft Windows Script Technologies (or Active Scripting), for example, VBScript or JScript®. Kaspersky Anti-Virus allows script execution only if this script has been found to be safe. Kaspersky Anti-Virus blocks the execution of a script that has been found to be dangerous. If Kaspersky Anti-Virus finds a script to be potentially dangerous, it performs the action you have specified: blocks or allows script execution.

- Network storage protection

  Kaspersky Anti-Virus installed on a server under a Microsoft Windows operating system protects network storage systems against viruses and other security threats that infiltrate the server through the exchange of files.

- On-demand scan

  Kaspersky Anti-Virus runs a single scan of the specified area for viruses and other computer security threats. Kaspersky Anti-Virus scans server files and RAM and also startup objects.

The following functions are implemented in the application:

- Updating databases and application software modules

  Kaspersky Anti-Virus downloads updates of application databases and modules from FTP or HTTP update servers of Kaspersky Lab, Kaspersky Security Center Administration Server, or other update sources.

- Quarantine

  Kaspersky Anti-Virus quarantines probably infected objects by moving such objects from their original location to the *Quarantine storage*. Objects are stored in the Quarantine storage in encrypted form for security considerations.

- Backup

  Kaspersky Anti-Virus stores encrypted copies of objects classified as *Infected* or *Probably infected* in *Backup* before disinfecting or deleting them.

- Administrator and user notifications

  You can configure the application to notify the administrator and users who access the protected server about events in Kaspersky Anti-Virus operation and the status of Anti-Virus protection on the server.

- Importing and exporting settings

  You can export Kaspersky Anti-Virus settings to an XML configuration file and import settings into Kaspersky Anti-Virus from the configuration file. All Kaspersky Anti-Virus settings or settings for individual Kaspersky Anti-Virus components can be saved in the configuration file.

IN THIS SECTION

WHAT'S NEW

Kaspersky Anti-Virus now includes the following features:

- The feature of network storage protection over RPC and ICAP.
- The following Microsoft Windows server operating systems are supported:
  - Microsoft Windows Server® 2012 Datacenter
  - Microsoft Windows Server 2012 Essentials
  - Microsoft Windows Server 2012 Foundation
  - Microsoft Windows Server 2012 Standard
  - Microsoft Windows Server 2012 R2 Datacenter
  - Microsoft Windows Server 2012 R2 Essentials
  - Microsoft Windows Server 2012 R2 Foundation
  - Microsoft Windows Server 2012 R2 Standard.
- The following Microsoft Windows desktop operating systems are supported:
  - Microsoft Windows 8;
  - Microsoft Windows 8 Enterprise
  - Microsoft Windows 8 Professional
  - Microsoft Windows 8.1
  - Microsoft Windows 8.1 Enterprise
  - Microsoft Windows 8.1 Professional.

DISTRIBUTION KIT

The distribution kit includes a welcome application that allows you to do the following:

- Start the Kaspersky Anti-Virus Installation Wizard
- Start the Kaspersky Anti-Virus Console Installation Wizard
- Start the Installation Wizard that will install a plug-in for managing Kaspersky Anti-Virus via the Kaspersky Security Center

- Read the Installation Guide, Administrator's Guide, and Deployment Guide
- Visit the Kaspersky Anti-Virus page on the Kaspersky Lab website
- Visit the Technical Support website

The \x86 folder includes files for installing Kaspersky Anti-Virus, the Kaspersky Anti-Virus console, and the Kaspersky Anti-virus management plug-in via Kaspersky Security Center on a server running a 32-bit Microsoft Windows operating system; the \x64 folder includes files for installing Kaspersky Anti-Virus, the Kaspersky Anti-Virus console, and the Kaspersky Anti-virus management plug-in via Kaspersky Security Center on a server running a 64-bit Microsoft Windows operating system.

The folders \x86 and \x64 include nested folders:

- The \server folder contains files for installing the Kaspersky Anti-Virus protection components;
- The \client folder contains files for installation of Kaspersky Anti-Virus Console ("Administration tools" set of components).
- The \plugin folder contains a file for installation of the management plug-in for Kaspersky Anti-Virus via Kaspersky Security Center.

The purpose of the files contained in the Kaspersky Anti-Virus distribution kit is described in the table below:

Table 2. Kaspersky Anti-Virus Distribution Kit files

FILE	PURPOSE
setup.exe	Greeting program launch file.
\setup	This folder is used to store the greeting application files
kav8.0_wsee_install_guide_ru.pdf	Installation Guide.
kav8.0_wsee_admin_guide_ru.pdf	Administrator's Guide.
kav8.0_wsee_deploy_guide_ru.pdf	Deployment Guide describing standard schemes for deployment of the protection system.
autorun.inf	Greeting program autorun file.
release_notes.txt	The file contains release information.
x86(x64)\server\setup.exe	The wizard for installing Kaspersky Anti-Virus on the protected server; runs the installer package file kavws.msi with the installation settings specified in the wizard.
x86(x64)\server\kavws.msi	Microsoft Windows Installer package; installs Kaspersky Anti-Virus on the protected server.
x86(x64)\server\kavws.kpd	File containing the description of the Installer package for remote installation of Kaspersky Anti-Virus via Kaspersky Security Center; this file has .kpd extension (Kaspersky Package Definition). This file contains the name of the installation package, general information about the Kaspersky Anti-Virus (version number and release date) and a description of the return codes of the installer. This file may also contain command line keys that configure the installation settings via the Kaspersky Security Center.
x86(x64)\server\kavws.kud	File containing description of the Installer package for remote Kaspersky Anti-Virus installation via the Kaspersky Security Center; this is the Kaspersky Unicode Definition file. Used by kavws.kpd.
x86(x64)\client\setup.exe	Setup wizard for the "Administration tools" set of components (including Kaspersky Anti-Virus Console); this starts the kavwstools.msi installation package file using the settings specified in the setup wizard.
x86(x64) \client\kavwstools.msi	Microsoft Windows Installer package; installs Kaspersky Anti-Virus Console on the computer.
x86(x64) \plugin\klcfginst.exe	The Installation Wizard that installs a plug-in for managing Kaspersky Anti-Virus via the Kaspersky Security Center. Install the plug-in on each computer where the Administration Console of Kaspersky Security Center is installed if you plan to use it to manage Kaspersky Anti-Virus.

You can run files of the distribution kit from the Installation CD. If you have copied the distribution package files onto the local drive beforehand, make sure that the structure of the distribution kit files has been preserved.

HARDWARE AND SOFTWARE REQUIREMENTS

This section lists the hardware and software requirements of Kaspersky Anti-Virus.

IN THIS SECTION

REQUIREMENTS FOR THE SERVER ON WHICH KASPERSKY ANTI-VIRUS IS DEPLOYED

Before installing Kaspersky Anti-Virus, you must uninstall other anti-virus applications from the server.

Kaspersky Anti-Virus can be installed without prior removal of Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition or Kaspersky Anti-Virus 6.0 / 8.0 for Windows Servers.

Hardware requirements for the server

General requirements:

- x86-compatible uniprocessor or multiprocessor systems; x86-64-compatible uniprocessor or multiprocessor systems
- disk space requirements:
  - for installing all application components: 70 MB
  - for downloading and storing anti-virus databases of the application: 2 GB (recommended)
  - for storing objects in Quarantine and in Backup: 400 MB (recommended)
  - for storing logs: 1 GB (recommended).
  - for storing databases: 2 GB (recommended)

Minimum configuration:

- processor – 1 Intel® Core™ 1.4 GHz
- RAM: 1 GB
- drive subsystem – 4 GB of free space

Recommended configuration:

- CPU: 4 Intel Core 2.4 GHz
- RAM: 2 GB
- drive subsystem – 4 GB of free space

Software requirements for the server

You can install Kaspersky Anti-Virus on a server under a 32-bit or 64-bit Microsoft® Windows® operating system.

For installation and operation of Kaspersky Anti-Virus, Microsoft Windows Installer 3.1 must be installed on the server.

You can install Kaspersky Anti-Virus on a server under one of the following 32-bit Microsoft Windows operating systems:

- Windows Server 2003 Standard / Enterprise SP2
- Windows Server 2003 R2 Standard / Enterprise SP2
- Windows Server 2008 Standard / Enterprise / Datacenter SP1 or later
- Windows Server 2008 Core Standard / Enterprise / Datacenter SP1 or later.

You can install Kaspersky Anti-Virus on a server under one of the following 64-bit Microsoft Windows operating systems:

- Windows Server 2003 Standard / Enterprise SP2
- Windows Server 2003 R2 Standard / Enterprise SP2
- Windows Server 2008 Standard / Enterprise / Datacenter SP1 or later
- Windows Server 2008 Core Standard / Enterprise / Datacenter SP1 or later
- Windows Server 2008 R2 Standard / Enterprise / Datacenter SP1 or later
- Windows Server 2008 R2 Core Standard / Enterprise / Datacenter SP1 or later
- Windows Hyper-V® Server 2008 R2 SP1 or later
- Windows Server 2012 Essentials / Standard / Foundation / Datacenter
- Windows Server 2012 R2 Essentials / Standard / Foundation / Datacenter.
- Windows Hyper-V Server 2012
- Windows Hyper-V Server 2012 R2

You can install Kaspersky Anti-Virus on the following terminal servers:

- Microsoft Terminal Services based on Windows 2003 Server;
- Microsoft Remote Desktop Services based on Windows 2008 Server
- Microsoft Remote Desktop Services based on Windows 2012 Server
- Microsoft Remote Desktop Services based on Windows 2012 Server R2
- Citrix Presentation Server™ 4.0, 4.5
- Citrix® XenApp® 4.5, 5.0, 6.0, 6.5
- Citrix XenDesktop® 7.0, 7.1, 7.5.

REQUIREMENTS FOR THE PROTECTED NETWORK STORAGE

Kaspersky Anti-Virus can be used to protect the following network storages:

- NetApp with one of the following operating systems:
  - Data ONTAP 7.x and Data ONTAP 8.x in 7-mode
  - Data ONTAP 8.2.1 or higher in cluster-mode
- EMC™ Celerra™ / VNX™ with the following software:
  - operating system EMC DART 6.0.36 or higher;
  - Celerra Anti-Virus Agent (CAVA) 4.5.2.3 or higher.
- EMC Isilon™ with the operating system OneFS™ 7.0 or later.
- Hitachi NAS on one of the following platforms:
  - HNAS 4100
  - HNAS 4080
  - HNAS 4060
  - HNAS 4040
  - HNAS 3090
  - HNAS 3080.
- IBM® NAS series IBM System Storage® N series.

REQUIREMENTS FOR THE COMPUTER ON WHICH KASPERSKY ANTI-VIRUS IS DEPLOYED

Hardware requirements for the computer

Recommended RAM amount: at least 128 MB.

Free disk space: 30 MB.

Software requirements for the computer

You can install Kaspersky Anti-Virus Console on a computer running a 32-bit or 64-bit Microsoft Windows operating system.

The computer should have Microsoft Windows Installer 3.1 in order to support installation and operation of Kaspersky Anti-Virus Console.

You can install Kaspersky Anti-Virus Console on a computer running one of the following 32-bit Microsoft Windows operating systems:

- Windows Server 2003 Standard / Enterprise SP2
- Windows Server 2003 R2 Standard / Enterprise SP2
- Windows Server 2008 Standard / Enterprise / Datacenter SP1 or later
- Microsoft Windows XP Professional with Service Pack 2 or later;
- Microsoft Windows Vista® Editions
- Microsoft Windows 7 Editions
- Microsoft Windows 8;
- Microsoft Windows 8 Enterprise / Professional
- Microsoft Windows 8.1
- Microsoft Windows 8.1 Enterprise / Professional.

You can install Kaspersky Anti-Virus Console on a computer running one of the following 64-bit Microsoft Windows operating systems:

- Windows Server 2003 Standard / Enterprise SP2
- Windows Server 2003 R2 Standard / Enterprise SP2
- Windows Server 2008 Standard / Enterprise / Datacenter SP1 or later
- Windows Server 2008 R2 Standard / Enterprise / Datacenter SP1 or later
- Windows Hyper-V Server 2008 R2 SP1 or later
- Windows Server 2012 Essentials / Standard / Foundation / Datacenter
- Windows Server 2012 R2 Essentials / Standard / Foundation / Datacenter.
- Windows Hyper-V Server 2012
- Windows Hyper-V Server 2012 R2
- Microsoft Windows XP Professional Edition SP2 or later
- Microsoft Windows Vista Editions
- Microsoft Windows 7 Editions
- Microsoft Windows 8;
- Microsoft Windows 8 Enterprise / Professional
- Microsoft Windows 8.1
- Microsoft Windows 8.1 Enterprise / Professional.

APPLICATION LICENSING

This section provides information about the main concepts related to licensing of the application.

IN THIS SECTION

ABOUT LICENSES

A *license* is a time-limited right to use the application, granted to you under the End User License Agreement.

A valid license entitles you to receive the following services:

- Use of the application in accordance with the terms of the End User License Agreement
- Technical support

The scope of service and the term of application use depend on the type of license under which the application has been activated.

The following license types are possible:

- A *trial license* is a free license intended for trying out the application.

  A trial license is valid for a short period. When the trial license expires, Kaspersky Anti-Virus ceases to be fully functional. To continue using the application, you must purchase a commercial license.

  You can activate the application under a trial license one time only.

- A *commercial license* is a paid license granted upon purchase of the application.

  When a commercial license expires, the application continues to run but some of its features become unavailable (for example, Kaspersky Anti-Virus databases cannot be updated). To continue using all the features of Kaspersky Anti-Virus, you must renew your commercial license.

To ensure maximum protection of your computer against security threats, we recommend renewing the license before it expires.

ABOUT THE END USER LICENSE AGREEMENT

The *End User License Agreement* is a legal agreement between you and Kaspersky Lab ZAO that stipulates the terms and conditions under which you can use the application.

We recommend carefully reviewing the terms of the End User License Agreement before you start using the application.

You can review the terms of the End User License Agreement in the following ways:

- During installation of Kaspersky Anti-Virus.
- By reading the file license.txt. This document is included in the application's distribution kit.

By confirming that you agree with the End User License Agreement when installing the application, you signify your acceptance of the terms of the End User License Agreement. If you do not accept the terms of the End User License Agreement, you must abort application installation and must not use the application.

ABOUT LICENSE CERTIFICATES

A license certificate is a document given to you together with a key file or activation code.

The license certificate contains the following information about your license:

- License number
- Information about the user to whom the license is granted
- Information about the application that you can activate with the license
- Limit on the number of licensed seats (for example, the maximum number of computers on which the application may be run according to the license)
- License start date
- Expiration date or validity period of the license
- License type

ABOUT KEYS

A *key* is a sequence of bits with which you can activate and subsequently use the application in accordance with the terms of the End User License Agreement. A key is generated by Kaspersky Lab.

You can add a key to the application by using a *key file*. After you add a key to the application, the key is displayed in the application interface as a unique alphanumeric sequence.

Your key may be blocked by Kaspersky Lab if the terms of the End User License Agreement are violated. If your key is blocked, a different key must be added in order for the application to work.

A key may be an "active key" or an "additional key".

An *active key* is the key that the application currently uses to function. A key for either a trial or commercial license may be added as the active key. The application can have no more than one active key.

An *additional key* is a key that confirms the right to use the application but is not currently in use. An additional key automatically becomes active when the license associated with the current active key expires. An additional key may be added only if there is an active key.

A key for a trial license may be added only as an active key. A key for a trial license may not be added as an additional key.

ABOUT KEY FILES

A *key file* is a file with the .key extension that you receive from Kaspersky Lab. Key files are designed to activate the application by adding a key.

You receive a key file at the email address that you provided when you bought Kaspersky Anti-Virus or ordered the trial version of Kaspersky Anti-Virus.

You do not need to connect to Kaspersky Lab activation servers in order to activate the application with a key file.

You can recover a key file if it is accidentally deleted. You may need a key file to register with Kaspersky CompanyAccount.

To recover a key file, you should perform one of the following actions:

- Contact Kaspersky Lab Technical Support (http://support.kaspersky.com/).
- Obtain a key file on the Kaspersky Lab website (https://activation.kaspersky.com) based on your existing activation code.

USING KASPERSKY ANTI-VIRUS CONSOLE AND ACCESSING APPLICATION FEATURES

This section provides information about Kaspersky Anti-Virus Console and describes how to manage Kaspersky Anti-Virus using Kaspersky Anti-Virus Console installed on the protected server or a different computer.

IN THIS SECTION

ABOUT KASPERSKY ANTI-VIRUS CONSOLE

Kaspersky Anti-Virus Console is an isolated snap-in added to Microsoft Management Console.

Kaspersky Anti-Virus can be managed via the Kaspersky Anti-Virus Console installed on the protected server or on another computer on the corporate network. After Kaspersky Anti-Virus console has been installed on another computer, advanced configurationmust be run (see section "Additional settings after the installation of Kaspersky Anti-Virus Console on another computer", page 22).

If Kaspersky Anti-Virus Console and Kaspersky Anti-Virus are installed on different computers assigned to different domains, limitations may be imposed on delivery of information from Kaspersky Anti-Virus to Kaspersky Anti-Virus Console. For example, after a Kaspersky Anti-Virus task starts, its status may remain unchanged in the Console.

During installation of Kaspersky Anti-Virus Console the installer creates the kavfs.msc file in the Installation folder and adds Kaspersky Anti-Virus snap-in to the list of isolated Microsoft Windows snap-ins.

You can start Kaspersky Anti-Virus Console from the **Start** menu. You can also start Kaspersky Anti-Virus Console on the protected server by clicking the Kaspersky Anti-Virus icon in the taskbar notification area.

The Kaspersky Anti-Virus snap-in msc-file can be run or the Kaspersky Anti-Virus snap-in can be added to the existing MMC console as a new element in the tree (see section "Kaspersky Anti-Virus Console window interface" on page 25).

Under a 64-bit version of Microsoft Windows, the Kaspersky Anti-Virus snap-in can be added only in the 32-bit version of MMC (MMC32). To do so, open MMC via the command line by executing the command: mmc.exe /32.

Multiple Kaspersky Anti-Virus snap-ins can be added to a single Microsoft Management Console opened in authorizing mode, in order to manage protection of multiple servers on which Kaspersky Anti-Virus is installed.

ADVANCED SETTINGS AFTER THE INSTALLATION OF KASPERSKY ANTI-VIRUS CONSOLE ON ANOTHER COMPUTER

To manage Kaspersky Anti-Virus via Kaspersky Anti-Virus Console installed on a different computer:

- Do the following on the protected server:
  - Add users of the Kaspersky Anti-Virus Console to the KAVWSEE Administrators group.

- If the Windows firewall is enabled on the protected server, allow network connections for the process of the Kaspersky Anti-Virus management service: kavfsgt.exe.

  Windows firewall is enabled by default in all Windows server operating systems starting from Windows Server 2008.

- If you have not selected the **Allow network connections for Kaspersky Anti-Virus Console** check box on the computer with Kaspersky Anti-Virus Console while installing the Console, you have to allow network connections for Kaspersky Anti-Virus Console.

IN THIS SECTION

ADDING KASPERSKY ANTI-VIRUS USERS TO THE KAVWSEE ADMINISTRATORS GROUP ON THE PROTECTED SERVER

To manage Kaspersky Anti-Virus through Kaspersky Anti-Virus Console installed on another computer, the account used for connection to Kaspersky Anti-Virus must have full access to Kaspersky Anti-Virus Management service on the protected server. By default, users included in the "Administrators" group on the protected server have access to this service.

For detailed information about services registered by Kaspersky Anti-Virus please refer to the *Installation Guide for Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition*.

During installation Kaspersky Anti-Virus registers the KAVWSEE Administrators group on the protected server. Users of this group are granted access to the Kaspersky Anti-Virus management service. Users can be granted or disallowed access to the Kaspersky Anti-Virus management service by adding them to the KAVWSEE Administrators group or by removing them from this group.

You can connect to Kaspersky Anti-Virus under a local account if an account with the same name and password has been registered on the protected server.

ALLOWING NETWORK CONNECTIONS FOR KASPERSKY ANTI-VIRUS MANAGEMENT SERVICE ON THE PROTECTED SERVER

The names of settings may vary under different Windows operating systems.

➧ *To allow network connections for Kaspersky Anti-Virus management service on the protected server:*

1. On the protected server running under Microsoft Windows Server 2008 select **Start** → **Control panel** → **Security** → **Windows firewall**.
2. In the **Windows firewall settings** window, select the **Change settings** item.
3. In the list of predefined exceptions on the **Exclusions** tab check the flags: **COM + Network access**, **Windows Management Instrumentation (WMI)** and **Remote Administration**.
4. Click the **Add Program** button.
5. Select the kavfsgt.exe file in the **Add program** window. This is located in the folder specified as a destination folder during the installation of Kaspersky Anti-Virus Console using MMC.
6. Click **OK**.
7. Click **OK** in the **Windows firewall settings** window.

ALLOWING NETWORK CONNECTIONS FOR KASPERSKY ANTI-VIRUS CONSOLE

The names of settings may vary under different Windows operating systems.

Kaspersky Anti-Virus Console on the remote computer uses DCOM protocol to receive information about Kaspersky Anti-Virus events (such as objects scanned, tasks completed, etc.) from the Kaspersky Anti-Virus management service on the protected server. You need to allow network connections for Kaspersky Anti-Virus Console in the Windows firewall settings in order to establish connections between Kaspersky Anti-Virus Console and the Kaspersky Anti-Virus management service.

Take the following steps:

- Make sure that anonymous remote access to COM applications is allowed (but not remote launch and activation of COM applications).
- In the Windows firewall open TCP port 135 and allow network connections for the executable file of the Kaspersky Anti-Virus remote management process, kavfsrcn.exe.

  The client computer on which Kaspersky Anti-Virus Console is installed uses port TCP 135 to access the protected server and to receive a server response.

If Kaspersky Anti-Virus Console was opened while you were configuring the connection between the protected server and the computer on which Kaspersky Anti-Virus Console is installed, close Kaspersky Anti-Virus Console, wait until the Kaspersky Anti-Virus remote management process kavfsrcn.exe is terminated, and restart the Console. The new connection settings will be applied.

➧ *To allow anonymous remote access to COM applications, take the following steps:*

1. On a computer with Kaspersky Anti-Virus Console installed, open the Component Services console: select **Start** → **Run**, enter the command dcomcnfg, and click **OK**.
2. Expand the **Computers** node in the Component Services console on your computer, open the context menu on the **My Computer** node and select **Properties** item from the context menu.
3. On the **COM Security** tab of the **Properties** window, click the **Edit limits** button in the **Access permissions** group of settings.
4. Make sure that the **Allow Remote Access** check box is selected for the ANONYMOUS LOGON user in the **Access Permission** window.
5. Click **OK**.

➧ *To open TCP port 135 in the Windows firewall and to allow network connections for the Kaspersky Anti-Virus remote management process executable file:*

1. Close Kaspersky Anti-Virus Console on the remote computer.
2. Perform one of the following steps:
   - *In Microsoft Windows XP* or *Microsoft Windows Vista*:
     a. In Microsoft Windows XP SP2 or later, select **Start** → **Windows firewall**.

        in Microsoft Windows Vista, select **Start** → **Control Panel** → **Windows firewall** and in the **Windows firewall** window select the command **Change settings**.

     b. In **Windows Firewall** window (or **Windows Firewall settings**) click the **Add port** button on the **Exclusions** tab.

     c. In the **Name** field specify the part name RPC (TCP/135) or enter another name, for example Kaspersky Anti-Virus DCOM, and specify port number (135) in the **Port name** field: 135.

     d. Select **TCP protocol**.

     e. Click **OK**.

     f. Press the **Add Program** button on the **Exclusions** tab.

- *In Microsoft Windows 7*:
    a. Select **Start** → **Control panel** → **Windows firewall**, in the **Windows firewall** window select **Allow run of a program or component through Windows firewall**.
    b. In the **Allow programs to communicate through Windows Firewall** window click the **Allow another program...** button.

3. Specify kavfsgt.exe file in the **Add Program** window. This is located in the folder specified as a destination folder during the installation of Kaspersky Anti-Virus Console using MMC.
4. Click **OK**.
5. Click the **OK** button in the **Windows firewall** (**Windows firewall settings**) box.

STARTING KASPERSKY ANTI-VIRUS CONSOLE FROM THE START MENU

The names of settings may vary under different Windows operating systems.

Make sure that Kaspersky Anti-Virus Console is installed on the computer.

➧ *To start Kaspersky Anti-Virus Console from the Start menu:*

select **Start** → **Programs** → **Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition** → **Administration tools** → **Kaspersky Anti-Virus Console**.

- To add other snap-ins to Kaspersky Anti-Virus Console, open the Console in author mode. To do this, select **Start** → **Programs** → **Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition** → **Administration tools**. Open the context menu of **Kaspersky Anti-Virus Console** and select the **Author** command.
- If Kaspersky Anti-Virus Console has been started on the protected server, the Console window opens (see section "Kaspersky Anti-Virus Console window interface" on page 25).
- If you have started Kaspersky Anti-Virus Console not on a protected server but on a different computer, connect to the protected server. To do so, in the console tree open the context menu of the Kaspersky Anti-Virus node and select the **Connect to another computer** command. In the **Select computer** window that opens, select **Another computer** and type the network name of the protected server in the entry field.
- If the account that you have used to log in to Microsoft Windows does not have sufficient permissions to access the Kaspersky Anti-Virus management service on the server, select the **Connect on behalf of user's account** check box and specify a different user account that has such permissions (see the section "Adding Kaspersky Anti-Virus users to the KAVWSEE Administrators group on the protected server" on page 23).

KASPERSKY ANTI-VIRUS CONSOLE WINDOW INTERFACE

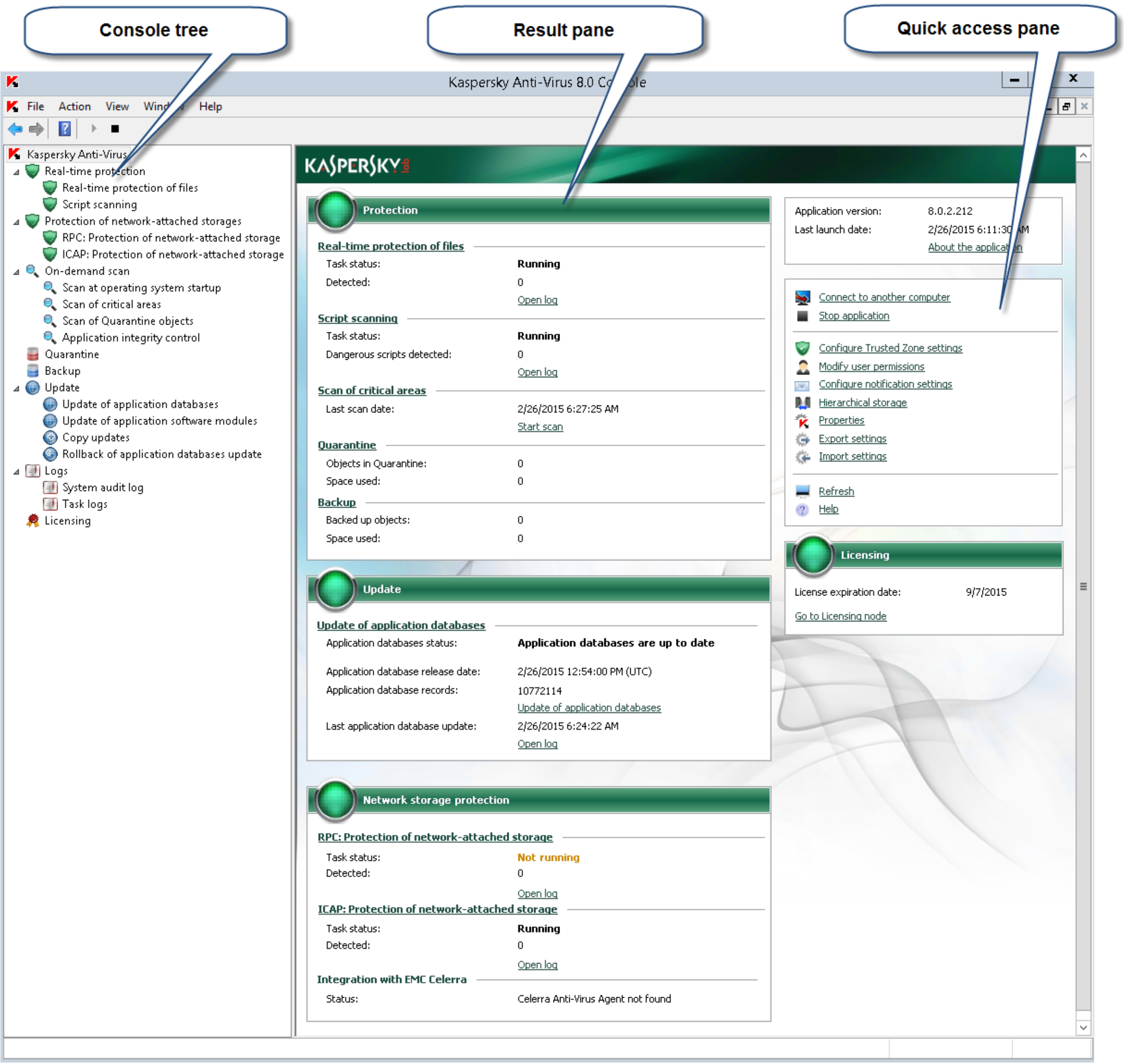
Kaspersky Anti-Virus Console is displayed in the MMC console tree as a node named **Kaspersky Anti-Virus**.

After a connection has been established to Kaspersky Anti-Virus installed on a different computer, the name of the node is supplemented with the name of the computer on which Kaspersky Anti-Virus is installed and the name of the account under which the connection has been established: **Kaspersky Anti-Virus <Computer name> as <user account name>**. The name of the node does not change after the connection has been established to Kaspersky Anti-Virus installed on the same computer with Kaspersky Anti-Virus Console.

By default, the Kaspersky Anti-Virus Console window includes the following elements:

- console tree
- details pane
- Quick access bar
- Toolbar

You can also enable the display of the description area and the action panel in the Kaspersky Anti-Virus Console window.


Console tree
Result pane
Quick access pane
Kaspersky Anti-Virus 8.0 Console
File
Action
View
Window
Help
Kaspersky Anti-Virus
Real-time protection
Real-time protection of files
Script scanning
Protection of network-attached storages
RPC: Protection of network-attached storage
ICAP: Protection of network-attached storage
On-demand scan
Scan at operating system startup
Scan of critical areas
Scan of Quarantine objects
Application integrity control
Quarantine
Backup
Update
Update of application databases
Update of application software modules
Copy updates
Rollback of application databases update
Logs
System audit log
Task logs
Licensing
KASPERSKY lab

Protection

Real-time protection of files
Task status: Running
Detected: 0
Open log

Script scanning
Task status: Running
Dangerous scripts detected: 0
Open log

Scan of critical areas
Last scan date: 2/26/2015 6:27:25 AM
Start scan

Quarantine
Objects in Quarantine: 0
Space used: 0

Backup
Backed up objects: 0
Space used: 0

Update

Update of application databases
Application databases status: Application databases are up to date
Application database release date: 2/26/2015 12:54:00 PM (UTC)
Application database records: 10772114
Update of application databases
Last application database update: 2/26/2015 6:24:22 AM
Open log

Network storage protection

RPC: Protection of network-attached storage
Task status: Not running
Detected: 0
Open log

ICAP: Protection of network-attached storage
Task status: Running
Detected: 0
Open log

Integration with EMC Celerra
Status: Celerra Anti-Virus Agent not found

Application version: 8.0.2.212
Last launch date: 2/26/2015 6:11:30 AM
About the application

Connect to another computer
Stop application

Configure Trusted Zone settings
Modify user permissions
Configure notification settings
Hierarchical storage
Properties
Export settings
Import settings

Refresh
Help

Licensing
License expiration date: 9/7/2015
Go to Licensing node

Figure 1: The Kaspersky Anti-Virus Console main window.

Taskpad

The console tree displays the Kaspersky Anti-Virus node and the nested nodes of functional components of the application.

The **Kaspersky Anti-Virus** nodes includes the following nested nodes:

- **Real-time protection**: manage real-time protection of files and script scanning. There is a separate node for each component:
  - **Real-time protection of files**.
  - **Script scanning**.
- **Network storage protection**: manage network storage protection.
  - **RPC: Protection of network-attached storages**.
  - **ICAP: Protection of network-attached storages**.

- **On-demand scan**: manage on-demand scan tasks. There is a separate node for each system task:
  - **Scan at operating system startup**.
  - **Scan of critical areas**.
  - **Scanning quarantined objects**.
  - **Application integrity check**.

  A separate node is created for each user-defined task and for each group task created and sent to the server by Kaspersky Security Center.
- **Quarantine**: manage Quarantine settings and quarantined objects. The node contains a list of quarantined objects.
- **Backup**: manages Backup settings and handles objects in Backup. The node contains a list of backup copies.
- **Updates**: manages updates for Kaspersky Anti-Virus databases and modules and copying updates to a local update source folder. The node contains subnodes for administering each system update task and last application database update rollback task:
  - **Update of application databases**.
  - **Update of application software modules**.
  - **Copy updates**.
  - **Database update rollback**.

  A separate node is created for each task created and sent to the server by Kaspersky Security Center.
- **Logs**: manage logs of real-time protection, network storage protection, on-demand scan, and update tasks; manage the Kaspersky Anti-Virus audit log.
- **Licensing**: add or delete Kaspersky Anti-Virus keys, view license details.

Details pane

The results pane displays information about the selected node. If the Kaspersky Anti-Virus node is selected, the results pane displays information about the current protection status of the server, information about Kaspersky Anti-Virus, and the status of its components.

Quick access bar and context menu for the Kaspersky Anti-Virus node

Using links on the quick access bar and context menu items of the **Kaspersky Anti-Virus** node, you can perform the following operations:

- **Connect to another computer** – connects to another server to manage Kaspersky Anti-Virus installed on it.
- **Start the application / stop the application** – start or stop Kaspersky Anti-Virus. To carry out these operations, you can also use the buttons on the toolbar.
- **Configure trusted zone settings** – specify trusted processes and exclusion rules (see the section "Adding exclusions to the trusted zone" on page 69). You can also specify tasks that use each trusted zone setting.
- **Modify user permissions** – modify permissions of users and user groups to access the features of Kaspersky Anti-Virus (see the section "Configuring rules for access to the features of Kaspersky Anti-Virus" on page 29).
- **Configure notification settings** – configure user and administrator notifications about Anti-Virus events.
- **Hierarchical storage** - configure Tiered storage settings.
- **Export settings** – save the application settings in a configuration file in XML format (see the section "Exporting settings" on page 99).
- **Import settings** – restore the application settings from a configuration file in XML format (see the section "Importing settings" on page 99).
- **About the application** – view information about the application: number of the installed application version, details of installed updates. You can also go to the website of Kaspersky Lab and the website of Technical Support and read the End User License Agreement.
- **Properties** - view and configure general Kaspersky Anti-Virus settings.

ABOUT ACCESS PERMISSIONS FOR KASPERSKY ANTI-VIRUS FUNCTIONS

By default, access to all of the features of Kaspersky Anti-Virus is granted to users of the Administrators group and users of the KAVWSEE Administrators group (see section "Adding Kaspersky Anti-Virus users to the KAVWSEE Administrators group on the protected server" on page 23) created on the protected server during Kaspersky Anti-Virus installation.

Users who have access to the Anti-Virus function Permissions modification can grant access to Anti-Virus functions to other users registered on the protected server or included in the domain.

Users who are not registered in the list of Kaspersky Anti-Virus users cannot open Kaspersky Anti-Virus Console.

You can choose one of the following preset levels of Kaspersky Anti-Virus access permissions for a user or group of users:

- **Full control**: ability to view and edit general Kaspersky Anti-Virus settings, component settings, permissions of Kaspersky Anti-Virus users, and also view Kaspersky Anti-Virus statistics.
- **Modification**: ability to view and edit general Kaspersky Anti-Virus settings, component settings, and also view Kaspersky Anti-Virus statistics and user permissions.
- **Read**: ability to view general Kaspersky Anti-Virus settings, component settings, Kaspersky Anti-Virus statistics and user permissions.

You can also configure advanced settings of access permissions (see section "Configuring access rights to Kaspersky Anti-Virus functions" on page 29): allow or block access to specific Kaspersky Anti-Virus functions (see table below).

Table 3. Distribution of access permissions for Kaspersky Anti-Virus functions

FEATURE	**DESCRIPTION**
Task management	Ability to start / stop / pause / resume Kaspersky Anti-Virus tasks.
Creating and deleting on-demand scan tasks	Ability to create and delete on-demand scan tasks
Edit settings	Ability to: • view and edit general Kaspersky Anti-Virus settings; • import Kaspersky Anti-Virus from the configuration file and export them to the configuration file; • view and edit task settings; • view and edit settings for task logs, system audit log, and notifications.
Read settings	Ability to: • view general Kaspersky Anti-Virus settings and task settings; • export Kaspersky Anti-Virus settings to the configuration file; • view settings of task logs, system audit log, and notifications.
Manage storages	Ability to: • move objects to Quarantine; • remove objects from Quarantine and Backup; • restore objects from Quarantine and Backup.
Manage logs	Ability to delete task logs and clear the system audit log.
Read logs	Ability to view Anti-Virus events in task logs and the system audit log
Read statistics	Ability to view Kaspersky Anti-Virus statistics
Application licensing	Ability to add and delete Kaspersky Anti-Virus keys
Read permissions	Ability to view the list of Kaspersky Anti-Virus users and access privileges of each user.
Edit permissions	Ability to: • add and remove Kaspersky Anti-Virus users; • edit user permissions to access Kaspersky Anti-Virus functions.

CONFIGURING ACCESS RIGHTS TO KASPERSKY ANTI-VIRUS FUNCTIONS

➧ *To add or delete a user (group) or change permissions for the user (group) to access Kaspersky Anti-Virus functions:*

1. In the console tree, open the context menu of the Kaspersky Anti-Virus node and select **Modify user permissions**.

   The **Permissions for Kaspersky Anti-Virus group** window opens.

2. Use the **Permissions for Kaspersky Anti-Virus group** window to do the following:

   - In order to add a user (a group) to the list of Kaspersky Anti-Virus users, click the **Add** button and select users or groups you wish to add.
   - To grant an added user (group) permissions to access Kaspersky Anti-Virus functions, select the user (group) in the **Groups or users** list, and in the **Permissions for <User (Group)>** section select the **Allow** check box for the following access permissions:
     - **Full control**: to grant access to all Kaspersky Anti-Virus functions;
     - **Read**: to grant access to the features **Retrieve statistics**, **Read logs**, **Read settings**, and **Read permissions**;
     - **Modification**: to grant access to all Kaspersky Anti-Virus functions except the function **Edit permissions**.
   - To perform advanced permission configuration (Custom permissions), click the **Advanced** button.

     In the **Advanced security settings for Kaspersky Anti-Virus** window, select the relevant user or group and click the **Edit** button. Then, in the **Permission entry** window, select the **Allow** or **Block** check box next to the names of features to which you want to allow or block access (see the section "About permissions to access Kaspersky Anti-Virus functions" on page 28). Click **OK**.

3. Click **OK** to save changes.

KASPERSKY ANTI-VIRUS ICON IN THE TASK TRAY NOTIFICATION AREA

Every time Kaspersky Anti-Virus automatically starts after a server reboot the Kaspersky Anti-Virus icon will be displayed in the task tray notification area. It is displayed by default if the **Kaspersky Anti-Virus taskbar icon** component was installed during application setup.

The Kaspersky Anti-Virus icon may have one of the two statuses:

- Active (colored icon) if the **Real-time protection of files** or **Script scanning** task is being currently executed (see page 47)
- Inactive (black and white icon) if the **Real-time protection of files** and **Script scanning** tasks are not being currently executed.

You can open the context menu of the Kaspersky Anti-Virus icon by right-clicking it.

The context menu offers several commands which can be used to display application windows (see the table below).

Table 4. Context menu commands displayed in the Kaspersky Anti-Virus tray icon

COMMAND	**DESCRIPTION**
Open Kaspersky Anti-Virus Console	Opens Kaspersky Anti-Virus Console (if installed).
About the application	Opens the **About the application** window containing information about Kaspersky Anti-Virus. For registered Kaspersky Anti-Virus users, the **About the application** window contains information about urgent updates that have been installed.
Hide	Hides the Kaspersky Anti-Virus icon in the task panel notification area. To display the application icon again, in the **Start** menu, select **Programs →Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition →Kaspersky Anti-Virus icon**.

When configuring general Kaspersky Anti-Virus settings, the display of the Anti-Virus icon can be enabled or disabled every time the Anti-Virus starts automatically following a server reboot (see section "Procedure for configuring general Kaspersky Anti-Virus settings using Kaspersky Anti-Virus Console" on page 34).

VIEWING PROTECTION STATUS AND KASPERSKY ANTI-VIRUS INFORMATION

➡ *To view information about the protection status of the server and protected network storage systems, as well as about Kaspersky Anti-Virus,*

select the Kaspersky Anti-Virus node in the console tree.

By default, information in the details pane of Kaspersky Anti-Virus is refreshed automatically every minute. You can refresh information manually.

➡ *To refresh information in the Kaspersky Anti-Virus node manually,*

select the **Refresh** command in the context menu of the Kaspersky Anti-Virus node.

The results pane of Kaspersky Anti-Virus Console displays information about the protection status of the server and protected network storage systems, as well as information about Kaspersky Anti-Virus (see the table below).

Table 5. Information about server protection status

"PROTECTION" SECTION	**INFORMATION**
Server protection status indicator	The indicator may appear as follows: 🟢 – Real-time file protection and Script scanning tasks are running, Critical areas scan task was completed no more than 30 days ago (default) 🟡 – one or several real-time protection tasks have not been run or have been stopped, or the *Critical areas of computer have not been scanned for a long time* event has occurred 🔴– one or several real-time protection tasks were completed with an error.
Real-time protection of files	**Task status** – current task status, for example, *Running* or *Stopped*. **Detected** – number of objects detected by Kaspersky Anti-Virus. For example, if Kaspersky Anti-Virus detects one malware program in five files, the value in this field increases by one.
Script scanning	**Task status** – current task status, for example, *Running* or *Stopped*. **Dangerous scripts detected** – number of dangerous scripts detected by Kaspersky Anti-Virus since the task startup.
Scan Critical Areas	*Critical areas of computer have not been scanned for a long time* – event that occurs if the Critical areas scan task was completed 30 or more days ago (default). You can change the threshold value for creation of this event. **Last scanned** – the date and time of the latest scan of the computer's critical areas for viruses and other data security threats.
Quarantine	*Quarantine free space threshold exceeded* – event that occurs if the threshold value of free space in Quarantine reaches the specified value. Kaspersky Anti-Virus then continues to move objects to Quarantine. *Maximum Quarantine size exceeded* – event that occurs if the size of Quarantine reaches the specified value. Kaspersky Anti-Virus then continues to move objects to Quarantine. **Objects in Quarantine** – number of objects currently quarantined. **Space used** – amount of disk space used by Quarantine.
Backup	*Backup free space threshold exceeded* – event that occurs if the threshold value of free space in Backup reaches the specified value. Kaspersky Anti-Virus continues to move objects to Backup. *Maximum Backup size exceeded* – event that occurs if the size of Backup reaches the specified value. Kaspersky Anti-Virus continues to move objects to Backup. **Backup objects** – number of objects currently in Backup. **Space used** – amount of Backup space used.

Table 6. Information about the status of Kaspersky Anti-Virus databases and modules

UPDATES SECTION	**INFORMATION**
Status indicator for databases and application software modules	The indicator may appear as follows: 🟢 – databases are up-to-date, no critical updates available for application software modules 🟡 – one of the following events has occurred: *Application databases are out of date*; *New critical update of application software modules is available*; *Critical updates for application software modules are revoked*; *You must restart your computer to complete the update of application software modules*; 🔴 – the *Databases are extremely out of date* or *Databases are corrupted* event has occurred.
Program database update.	**Update status of application databases** – assessment of the update status of the application databases. It can take the following values: • **Application databases are up-to-date** – the application databases were updated no more than 7 days ago (default) • **Application databases are out of date** – application databases were updated between 7 and 14 days ago (default); • **Application databases are extremely out of date** – the application databases were updated more than 14 days ago (default). You can change the thresholds for creation of the *Application databases are out of date* and *Application databases are extremely out of date* events. **Application database release date** – release date and time of the latest update installed for the databases. The date and time are specified in UTC format. **Number of records in application databases** – number of records on threats in the application databases currently installed. **Last update of application databases** – date and time when the application databases were updated for the last time. The date and time are specified as of the protected server.

Table 7. Information about Kaspersky Anti-Virus licensing

LICENSING SECTION	**INFORMATION**
License status indicator	The indicator may appear as follows: 🟢 – license is active, more than 14 days are left until the license expiration 🟡 – 14 or less days are left before the license expires 🔴 – license has expired; the application is not activated (no key has been added); the End User License Agreement has been violated (for example, the key file is blacklisted).
License expiration date	The expiration date of the license associated with the active key. If an additional key has been added, the expiration date of the license associated with the additional key is displayed.

The **Protection of network-attached storage** section (see the table below) is displayed if the active key supports the network storage protection feature.

Table 8. Information about network storage protection

NETWORK STORAGE PROTECTION SECTION	INFORMATION
Network storage protection status indicator	The indicator may appear as follows: 🟢 – in the following cases: • at least one of the following tasks is running: **RPC: Network storage protection** or **ICAP: Network storage protection**; • – Kaspersky Anti-Virus has established connection to EMC software, and the Real-time file protection task is running in Kaspersky Anti-Virus. 🟡 – all other cases.
Status of integration with EMC Celerra	It can take the following values: • **Celerra Anti-Virus Agent not found** – Kaspersky Anti-Virus cannot find any EMC software, or an error has occurred in the integration code. • **Protection disabled** – Kaspersky Anti-Virus has established a connection to EMC software, but the Real-time protection of files task is not running in Kaspersky Anti-Virus. • **Protection enabled** – Kaspersky Anti-Virus has established a connection to EMC software, and the Real-time file protection task is running in Kaspersky Anti-Virus.

For detailed information and instructions on how to protect network storage systems using Kaspersky Anti-Virus please refer to the *Implementation Guide for Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition for network storage protection*.

CONFIGURING GENERAL KASPERSKY ANTI-VIRUS SETTINGS IN KASPERSKY ANTI-VIRUS CONSOLE

General Kaspersky Anti-Virus settings establish the general conditions on which the application operates. They allow controlling of the number of working processes used by Kaspersky Anti-Virus, enable Kaspersky Anti-Virus task recovery after an abnormal termination, maintain the tracking log, enable creating the memory dump file of Anti-Virus processes in case of an abnormal termination, turn on or off the display of Kaspersky Anti-Virus icon each time Anti-Virus starts after the server restart, and configure other general settings.

IN THIS SECTION

PROCEDURE OF CONFIGURING GENERAL KASPERSKY ANTI-VIRUS SETTINGS IN KASPERSKY ANTI-VIRUS CONSOLE

➧ *To configure general Kaspersky Anti-Virus settings:*

1. Open the context menu of the **Kaspersky Anti-Virus** node in the console tree and select the **Properties** command.

   The **Properties: Kaspersky Anti-Virus**.

2. In the window that opens, configure general Kaspersky Anti-Virus settings according to your preferences:

   - The following settings can be configured on the **General** tab:

     In the **Scalability settings** section:

     - maximum number of working processes that Kaspersky Anti-Virus can run;
     - fixed number of processes for real-time protection tasks;
     - number of working processes for background on-demand scan tasks;

     In the **Reliability settings** section:

     - the number of attempts to recover an on-demand scan task after it crashed.

   - The following settings can be configured on the **Advanced** tab:

     In the **Interaction with user** section:

     - displaying the Kaspersky Anti-Virus icon in the taskbar notification area (see page 30) after each startup of the application;

     In the **Use of uninterruptible power supply** section:

     - Kaspersky Anti-Virus operations when running on UPS power;

     In the **Event generation thresholds** section:

     - specify the number of days after which the events *Database is obsolete*, *Database is outdated* and *Scanning of critical areas has not been performed for a long time* will occur.

   - On the **Malfunction diagnosis** tab, do the following:

     - enable or disable the logging of debugging information; if necessary, configure log settings;
     - enable or disable creation of Kaspersky Anti-Virus process memory dump files.

     Kaspersky Anti-Virus records information to trace files and memory dump files in non-encrypted format.

3. Click the **Apply** button to save changes.

TASK MANAGEMENT

This section provides information about Kaspersky Anti-Virus tasks, how to create them, define their settings, start and stop tasks, and set up a schedule for automatic startup and automatic stop of those tasks.

IN THIS SECTION

CREATING AN ON-DEMAND SCAN TASK

User-defined tasks can be created in the **On-demand scan** node. In the other functional components of Kaspersky Anti-Virus creation of user-defined tasks is not provided for.

➧ *To create a new on-demand scan task, take the following steps:*

1. In the console tree, open the context menu of the **On-demand scan** item and select the command **Add task**.

   The **Add task** window opens.

2. Enter the following information about the task:

   - **Name** – task name of no more than 100 characters, may contain any symbols apart from **% ?** I **\ | / : * < >**.
   - **Description** - any additional information about the task, no more than 2000 characters. This information will be displayed in the task properties window.

3. Configure the following task settings, if necessary:

   - Using the Heuristic Analyzer By default, the application uses the Heuristic Analyzer in newly created on-demand scan tasks. To change the level of analysis, make sure that the **Use Heuristic Analyzer** check box is selected and move the slider to the desired position. To disable the Heuristic Analyzer, clear the **Use Heuristic Analyzer** check box.
   - Applying the trusted zone (see page 68). By default, the application uses the trusted zone in newly created on-demand scan tasks. To disable the trusted zone, clear the **Apply trusted zone** check box.
   - Executing tasks in background mode (see page 66). If you need to run the task in a low-priority process, select the **Perform task in the background** check box.

4. Click **OK**. The task will be created. A line with information about this task will appear in the console window. The operation will be logged in the system audit log (see page 85).

SAVING TASK AFTER CHANGING ITS SETTINGS

The settings of a task that is running or stopped (paused) can be modified. New settings take effect under the following conditions:

- if you have changed the settings of a running task: the new values for the settings are applied immediately after they have been saved, and for all other tasks they will be applied the next time the task is started
- if you have changed the settings of a stopped task: new values for settings will apply after they have been saved and the task has been started.

To save changed task settings, open the context menu on the task name and select **Save task** from the context menu.

If after changing task settings another node in the console tree is selected without first selecting the **Save task** command, the window for saving the settings appears. Click the **Yes** button in this window to save task settings or **No** to leave the node without saving changes.

You can also edit the settings for each of the following tasks: Real-time file protection (see the section "Configuring the Real-time file protection task" on page 47), Network storage protection, On-demand scan ("Configuring on-demand scan tasks" on page 58), Update (see page 42).

RENAMING TASKS

Only user-defined tasks in the Kaspersky Anti-Virus Console can be renamed. System or group tasks cannot be renamed.

➧ *To rename a task, take the following steps:*

1. Open the context menu on the task name and select the **Properties** command.
2. In the **Properties: <Task name >** window, enter a new task name in the **Name** field and click the **OK** or **Apply** button.

   The task will be renamed. The operation will be logged in the system audit log (see page 85).

REMOVING TASKS

Only user-defined tasks in the Kaspersky Anti-Virus Console can be deleted; system or group tasks cannot be deleted.

➧ *To delete a task, take the following steps:*

1. Open the context menu on the task name and select the **Delete task** command.
2. In the window that opens, click the **Yes** button to confirm the operation.

The task status will be deleted, and the operation will be registered into the system audit log (see page 85).

STARTING / PAUSING / RESUMING / STOPPING TASKS MANUALLY

All tasks can be paused and resumed, except update tasks.

➧ *To start / pause / resume / stop a task,*

Open the context menu of the task name and select the relevant command: **Start**, **Pause**, **Resume**, or **Stop**.

The operation will be performed. The task status in the details pane will change; the operation will be registered in the system audit log (see page 85).

When an on-demand scan task is paused and resumed, Kaspersky Anti-Virus will resume the scan from that object on which the task had been paused.

MANAGING TASK SCHEDULES

You can modify the schedule for running Kaspersky Anti-Virus tasks.

IN THIS SECTION

ENABLING AND DISABLING SCHEDULED TASKS

After a task launch schedule has been configured once, it can be enabled and disabled. After a schedule has been disabled, its settings (frequency, start time, etc.) will not be deleted and the schedule can be enabled again, if required.

➧ *To enable or disable the task launch schedule:*

1. Open the context menu on the name of the task for which you want to configure the launch schedule, and select **Properties**.
2. In the **Properties: <Task name>** window, perform one of the following actions on the **Schedule** tab:
   - select the **Run by schedule** check box to enable the schedule;
   - clear the **Run by schedule** check box to disable the schedule.
3. Press the **OK** or **Apply** button.

CONFIGURING TASK LAUNCH SCHEDULE SETTINGS IN KASPERSKY ANTI-VIRUS CONSOLE

In Kaspersky Anti-Virus Console, you can set up a schedule for running local system and custom tasks. You cannot configure the launch schedule for group tasks.

Also read the description of task schedule settings.

➧ *To configure the task start schedule*:

1. Open the context menu of the name of the task for which you wish to configure the launch schedule, and select the **Properties** item.
2. In the **Properties** window: **<Task name>** on the **Schedule** tab, enable task launch by schedule: select the **Run by schedule** check box.

   Fields with the schedule settings of the on-demand scan task and the update task are unavailable if the launch of that task is blocked by a policy of Kaspersky Security Center (see section "Disabling scheduled launch of the local system tasks" on page 131).

3. Configure schedule settings in accordance with your requirements. To do so:

   a. Specify the task launch frequency: In the **Frequency** list, select one of the following values: **Hourly**, **Daily**, **Weekly**, **At application startup**, **After database update**. Define the following settings:
      - if **Hourly** is selected, specify the number of hours in the **Every <number> h** in the **Task start settings** group;
      - if **Daily** is selected, specify the number of days in the **Every <number> d** in the **Task start settings** group;
      - if **Weekly** is selected, specify the number of weeks in the **Every <number> w** in the **Task start settings** group. Specify the days of the week on which the task will be launched (by default the task is launched on Mondays).

   b. Specify the time for the first task launch in the **Start time** field.

   c. In the **Start date** field, specify the date from which the schedule applies.

   After the task startup frequency has been specified, the time of the first task launch, and the date from which the schedule applies, information about the calculated time for the next task launch will appear in the top part of the window in the **Next start** field. Updated information about the estimated time of the next task launch will be displayed each time you open the **Properties: <Task name>** window on the **Schedule** tab.

   The **Blocked by policy** value is displayed in the **Next start** field if the active policy settings of Kaspersky Security Center prohibit launching scheduled system tasks (see section "Disabling scheduled launch of local predefined tasks" on page 131).

4. Using the **Advanced** tab configure the following schedule settings in accordance with your requirements.

   a. To specify the maximum duration of a task, enter the number of hours and minutes you wish in the **Duration** field in the **Task stop settings** group.

   b. To specify time interval within a 24-hour period in which a task execution is be paused, in the group **Task stop settings** enter the start and end values of the interval in the **Pause from… until** field.

   c. To specify the date at which the schedule will be disabled: select the **Cancel schedule from** check box and select the date when schedule will be disabled using the **Calendar** window.

   d. To enable launching of missed tasks: select the **Run skipped tasks** check box.

   e. To enable the use of the "Randomize the task start within internal, min" setting, check the **Randomize the task start within interval of** and specify the value for this setting in minutes.

5. Click the **Apply** button to save the changes that you have made in the **Settings <Task>**.

USING USER ACCOUNTS TO LAUNCH THE TASK

You can launch tasks under the system account or specify a different account.

IN THIS SECTION

ABOUT USING ACCOUNTS TO LAUNCH TASKS

You can specify the account under which a selected task of any component of Kaspersky Anti-Virus will be run, except the **Real-time file protection**, **Script scanning**, and **Protection of network-attached storage** components.

By default, all tasks, except for Real-time file protection tasks, Script scanning tasks, and Protection of network-attached storage tasks, are run under the **Local system** (**SYSTEM**) account. While performing real-time protection tasks Kaspersky Anti-Virus intercepts the object being scanned when it accessed by an application, and uses the permissions of that application.

A different account with proper access permissions must be specified in the following cases:

- in the update task, if you specified public folder on different computer in the network as the updates source;
- if a proxy server with in-built Windows NTLM authentication is used for accessing updates sources;
- in on-demand scan tasks, if the **Local System** (**SYSTEM**) account does not have access permissions to any of the objects being scanned (for example to the files in public folders in the network).

Under **Local System** (**SYSTEM**) account it is possible to launch the update and on-demand scan tasks in which the Anti-Virus accesses public folder on a different computer if this computer is registered in the same domain as the protected server. In such a case the account **Local System** (**SYSTEM**) must have access permissions to these folders. Kaspersky Anti-Virus will access the computer using permissions of the account **Domain_name\Computer_name$**.

SPECIFYING A USER ACCOUNT FOR RUNNING A TASK

To specify an account for running a task, take the following steps:

1. Open the context menu on the task name and select the **Properties** command.
2. In the **Properties: <Task name>** dialog box, select the **Run as** tab.
3. Using the **Run as** tab perform the following:

   a. Select **User name**.

   b. Enter username and password for the user whose account you wish to use.

   The selected user must be registered on the protected server or in the same domain as this server.

   c. Confirm the password that has been entered.

4. Click **OK**.

UPDATING KASPERSKY ANTI-VIRUS DATABASES AND MODULES

This section provides information about databases and application modules update tasks of Kaspersky Anti-Virus, copying updates and rolling back databases updates of Kaspersky Anti-Virus, as well as instructions on how to configure databases and application modules update tasks.

IN THIS SECTION

ABOUT UPDATING KASPERSKY ANTI-VIRUS DATABASES

Kaspersky Anti-Virus databases stored on the protected server quickly become outdated. Kaspersky Lab's virus analysts detect hundreds of new threats daily, create identifying records for them, and include them in application database updates. (Database updates are a file or set of files containing records that identify threats discovered during the time since the last update was created). To maintain the required level of server protection, we recommend that database updates are received regularly.

By default, if the Kaspersky Anti-Virus database is not updated within a week from the time at which the installed database updates were last created, the event *Databases out of date* occurs, and if the database is not updated within two weeks, the event *Database is obsolete* occurs. Information about the up-to-date status of the databases is displayed in the **Kaspersky Anti-Virus** node (see section "**Viewing protection status and Anti-Virus information**" on page 31) of the console tree. The number of days to pass before these events occur can be specified using the general settings of Kaspersky Anti-Virus (see page 34). You can also define the settings for notification of the administrator on those events (see page 94).

Kaspersky Anti-Virus downloads updates of application databases and modules from FTP or HTTP update servers of Kaspersky Lab, Kaspersky Security Center Administration Server, or other update sources.

Updates can be downloaded to every protected server, or one computer can be used as intermediary by copying all updates onto it and then distributing them to the servers. If you use Kaspersky Security Center for centralized administration of protection of computers in an organization, you can use Kaspersky Security Center Administration Server as an intermediary for downloading updates.

Database update tasks can be started manually or by schedule (see page 37).

If the update downloading process is interrupted or results in an error Kaspersky Anti-Virus will automatically switch back to using the databases with the last installed updates. If the Anti-Virus databases become corrupted, they can be manually rolled back to previously installed updates (see section "Rolling back Anti-Virus database updates" on page 46).

ABOUT UPDATING KASPERSKY ANTI-VIRUS MODULES

Kaspersky Lab can issue update packages for Kaspersky Anti-Virus modules. The update packages can be *urgent* (or *critical*) and *planned*. Critical update packages repair vulnerabilities and errors; planned packages add new features or enhance existing features.

Urgent (critical) update packages are uploaded to Kaspersky Lab's update servers. Their automatic installation can be configured using the **Update of application software modules** task.

Kaspersky Lab does not publish planned update packages on its update servers for automatic update; these can be downloaded from the Kaspersky Lab website. The **Update of application software modules** task can be used to receive information about the release of scheduled Kaspersky Anti-Virus updates.

Critical updates can be updated from the Internet to each protected server, or one computer can be used as intermediary by copying all updates onto it and then distributing them to the servers. In order to copy and save updates without installing them use the **Copying updates** task.

Before updates of modules are installed Kaspersky Anti-Virus creates backup copies of the previously installed modules. If the application modules updating process is interrupted or results in an error, Kaspersky Anti-Virus will automatically return to using the previously installed application modules. Application modules can be rolled back manually to the previously installed updates.

During the installation of downloaded updates the Kaspersky Anti-Virus service automatically stops and then restarts.

SCHEMES FOR UPDATING DATABASES AND MODULES OF ANTI-VIRUS APPLICATIONS USED WITHIN AN ORGANIZATION

Selection of updates source in the update tasks depends on the databases and program modules update scheme used in the organization.

Kaspersky Anti-Virus databases and modules can be updated on the protected servers using the following schemes:

- download updates directly from the Internet to each protected server (Scheme 1);
- download updates from the Internet to an intermediary computer and distribute updates to other servers from it.

Any computer with the software listed below installed can serve as an intermediary computer:

- Kaspersky Anti-Virus (one of the protected servers) (Scheme 2).
- Kaspersky Administration Kit Security Center (Scheme 3).

Updating using an intermediary computer will not only allow Internet traffic to be decreased, but will also ensure additional server security.

Description of update schemes listed is provided below.

Scheme 1. Updating directly from the Internet

Configure the **Update of application databases** (**Update of application software modules**) task on each protected server (see figure below). Specify Kaspersky Lab's update servers as the updates source. Configure the task schedule.

Other HTTP or FTP servers which have an update folder can be configured as the updates source.

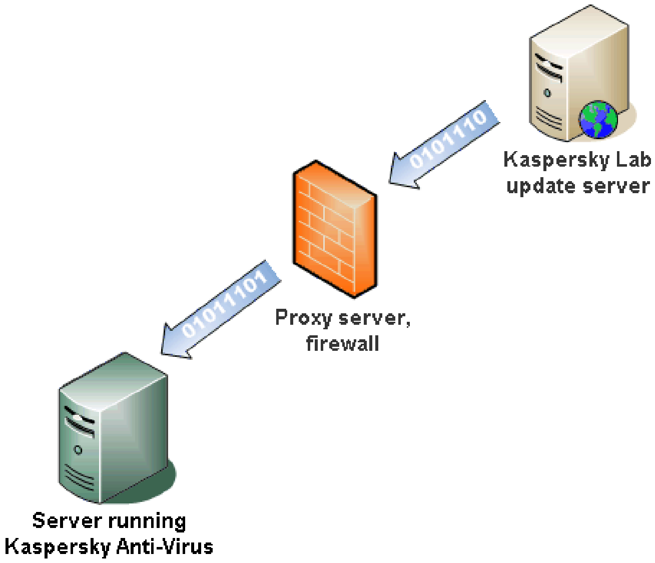

0101110
Kaspersky Lab update server
Proxy server, firewall
01011101
Server running Kaspersky Anti-Virus

Figure 1: Scheme for updating the databases and application software modules

Scheme 2. Updating via one of the protected servers

➧ *To update according to this scheme, take the following steps:*

1. **Copy updates to the selected protected server.**

   Configure the **Copying updates** task on the selected server. Specify Kaspersky Lab's update servers as the updates source. Specify the folder for saving the updates: it has to be a shared folder.

   Using this task you can retrieve updates not only for the protected server, but for computers in the local area network on which other Kaspersky Lab applications from corporate solutions versions 6.0 and 8.0 are installed.

2. **Distribute updates to other protected servers.**

   Configure **Update of application databases** (**Update of application software modules**) task on each protected server (see figure below). As updates source for this task specify a folder on the intermediary computer's drive to which updates will be downloaded.

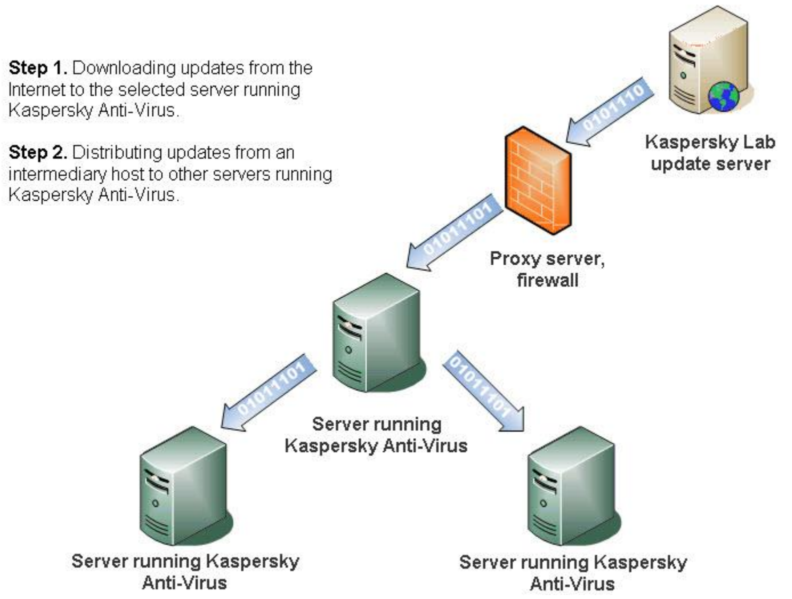

Step 1. Downloading updates from the Internet to the selected server running Kaspersky Anti-Virus.
Step 2. Distributing updates from an intermediary host to other servers running Kaspersky Anti-Virus.
Kaspersky Lab update server
0101110
Proxy server, firewall
01011101
Server running Kaspersky Anti-Virus
01011101
01011101
Server running Kaspersky Anti-Virus
Server running Kaspersky Anti-Virus

Figure 2: Updating via one of the protected servers

Scheme 3. Updating via Kaspersky Security Center Administration Server

If the Kaspersky Security Center application is used for the centralized administration of Anti-Virus computer protection, updates can be downloaded via the Kaspersky Security Center Administration Server installed in the local area network (see figure below).

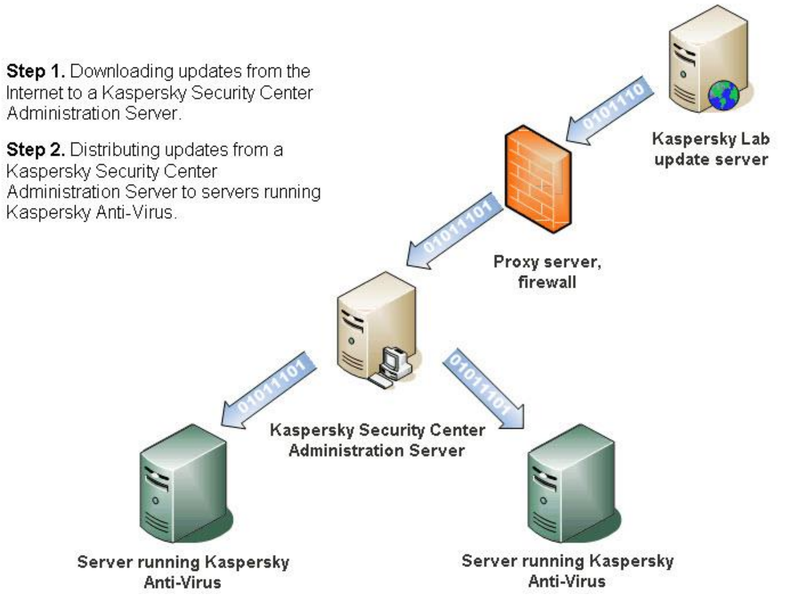

Step 1. Downloading updates from the Internet to a Kaspersky Security Center Administration Server.
Step 2. Distributing updates from a Kaspersky Security Center Administration Server to servers running Kaspersky Anti-Virus.
Kaspersky Lab update server
0101110
Proxy server, firewall
01011101
Kaspersky Security Center Administration Server
01011101
01011101
Server running Kaspersky Anti-Virus
Server running Kaspersky Anti-Virus

Figure 3: Updating through Kaspersky Security Center Administration Server

➡ *To update according to this scheme, take the following steps:*

1. Downloading updates from Kaspersky Lab's update servers to Kaspersky Security Center Administration Server.

   Configure the **Retrieve updates by Administration server** task for the specified set of computers. Specify Kaspersky Lab's update servers as the updates source.

   Using this task you can retrieve updates not only for the protected server, but for computers in the local area network on which other Kaspersky Lab applications from corporate solutions versions 6.0 and 8.0 are installed.

2. **Distribute updates to protected servers**

   Distribute updates to protected serves using one of the following methods:

   - On the Kaspersky Security Center Administration Server configure an Anti-Virus database (application module) update group task to distribute updates to protected servers.

     In the task schedule specify the frequency of **After Administration Server has retrieved updates**. Administration Server will start the task each time it receives updates (recommended method).

     The frequency of **After Administration Server has retrieved updates** cannot be specified in the Kaspersky Anti-Virus Console.

   - Configure the **Update of application databases** (**Update of application software modules**) task on each of the protected servers and select the Kaspersky Security Center Administration Server as the updates source for this task. Configure the task schedule.

If you plan to use Kaspersky Security Center administration server for distributing updates, install Network Agent, an application component included in the distribution kit of Kaspersky Security Center, onto each of the protected servers. This ensures interaction between the Administration Server and Kaspersky Anti-Virus on the protected server. For more details about the Network Agent and its configuration using Kaspersky Security Center see the document *Kaspersky Security Center. Administrator's Guide*.

CONFIGURING UPDATE TASKS

IN THIS SECTION

SELECTING THE UPDATE SOURCE, CONFIGURING CONNECTION WITH THAT UPDATE SOURCE

For each update task you can specify one or several update sources and configure connection with those update sources.

Please note that when update task settings are changed their new values are not enforced in the update tasks running; they are applied only at the next task launch.

➡ *To configure update task settings, take the following steps:*

1. In the console tree expand the **Update** node and select one of the update tasks.
2. Click the **Properties** link in the details pane to proceed to task configuration.

   On the tabs of the **Properties: <Task name>** window, configure the update settings according to your preferences.

3. On the **General** tab, select an update source for Kaspersky Anti-Virus:

4. If **Custom HTTP or FTP servers, or network folders** is selected, add one or multiple user-defined updates sources. To specify a source, click the **Custom HTTP or FTP servers, or network folders** link and in the **Update servers** window click the **Add** button. In the entry field define the address of the folder containing update files on the FTP or HTTP server; specify a local or network folder in the UNC (Universal Naming Convention) format. Click **OK**.

   You can enable or disable the custom update sources that have been added: to disable the source added, clear the check box in the list next to it; to enable the source, select the check box in the list next to it.

   In order to change the order in which Kaspersky Anti-Virus accesses user-defined files, use the **Move Up** and **Move Down** buttons to move the selected source to the beginning or to the end of the list, depending on whether it is to be used before or after other sources.

   To change the path to the source, select the source in the list and click the **Modify** button, make the required changes in the entry field and press the **ENTER** key.

   In order to remove a source, select it in the list and press the **Delete** button. The source will be deleted from the list.

5. To use Kaspersky Lab update servers to retrieve updates in case the user-defined sources are unavailable, select the **Use Kaspersky Lab update servers if custom servers are not accessible** check box.

6. On the **Connection Settings** tab, configure the connection with the update source.

   take the following steps:

   - Specify the FTP server mode for connecting to the protected server;
   - if required, modify the FTP or HTTP server connection timeout;
   - if access to the proxy server is required for downloading updates from one of the specified sources, describe proxy server access settings:
     - Accessing proxy server when connecting to update sources;
     - proxy server settings;
     - authentication method used when accessing the proxy server;

7. When the required settings have been configured, click the **OK** button in order to save changes.

OPTIMIZING THE USAGE OF THE DISK SUBSYSTEM WHEN RUNNING THE UPDATE OF APPLICATION DATABASES TASK

When running the **Update of application databases** task, Kaspersky Anti-Virus stores update files on the local disk of the computer. You can lower the workload on the disk I/O subsystem of the computer through storing update files on a virtual drive in the RAM when running the update task.

This feature is available in Microsoft Windows Server 2008 and later versions of the operating system.

When using this feature while running the **Update of application databases** task, an extra logical drive may appear in the operating system. This logical drive is discarded from the operating system after the task is completed.

To reduce the workload on the computer's disk subsystem when running the Update of application databases task:

1. In the console tree, expand the **Update** node and select the **Update of application databases** task.
2. Click the **Properties** link in the details pane to proceed to task configuration.
3. On the **General** tab, in the **Disk I/O usage optimization** section, define the following settings:
   - Select the **Lower the load on the disk I/O** check box.
   - In the **RAM used for optimization** field, specify the RAM volume in MB. The operating system will temporarily allocate this RAM volume to store update files while running the task.
4. Click **OK** to save changes.

CONFIGURING UPDATE DISTRIBUTION TASK SETTINGS

➧ *To configure **Copying updates** task settings, take the following steps*:

1. In the console tree expand the **Update** node and select the **Copying updates** task.
2. Click the **Properties** link in the details pane.
3. In the **Properties: Copying updates** window, specify an update source and define the corresponding connection settings. For instructions refer to the section "Selecting updates source, configuring connection with updates source" (see page 42).
4. On the **General** tab, specify the composition of updates.
5. Specify the local or network folder where Kaspersky Anti-Virus will be saving downloaded updates.
6. Click **OK** to save changes.

CONFIGURING UPDATE OF APPLICATION SOFTWARE MODULES TASK SETTINGS

➧ *To configure the **Update of application software modules** task, take the following steps*:

1. In the console tree expand the **Update** node and select the **Update of application software modules** task.
2. Click the **Properties** link in the details pane.
3. In the **Properties: Update of application software modules** window, specify an update source and define the corresponding connection settings. For instructions refer to the section "Selecting updates source, configuring connection with updates source" (see page 42).
4. On the **General** tab, specify the actions to be performed: download and install updates or only check if updates are available.
5. If you want Kaspersky Anti-Virus to automatically restart the server upon completion of the task (if this is required in order to apply the installed application modules), select the **Allow operating system restart** check box.
6. To obtain information about Kaspersky Anti-Virus module upgrades, select **Receive information about available maintenance updates for application software modules**.

   Kaspersky Lab does not publish planned update packages on its update servers for automatic update; these can be downloaded from the Kaspersky Lab website. Administrator notification about the *Planned Anti-Virus modules update available* event can be configured; this will contain the URL of the page on our website from which planned updates can be downloaded. For more details please refer to the section "Configuring administrator and user notifications" (see page 94).
7. Click **OK** to save changes.

UPDATE TASKS

Kaspersky Anti-Virus supports four system update tasks: **Update of application databases**, **Update of application software modules**, **Copying updates**, and **Database update rollback**.

By default Kaspersky Anti-Virus connects to the updates source (one of Kaspersky Lab's update servers) every hour, by automatically detecting proxy server settings in the network, and by not authenticating on access to the proxy server.

Database update tasks can be configured (see page 42). When task settings are modified, Kaspersky Anti-Virus will apply the new values at the next task launch.

Update tasks can be stopped; however, they cannot be paused.

For managing tasks in the Anti-Virus refer to the section "Managing tasks" (see page 35).

Program database update.

Kaspersky Anti-Virus copies databases from the update source to the protected server and immediately starts using them by running the **Real-time protection** task. The **On-demand scan** and **Real-time protection of network storage systems** tasks start using the updated databases at the next launch.

By default, Kaspersky Anti-Virus runs the **Program database update** task every hour.

Update of application software modules.

Kaspersky Anti-Virus copies updates of its application modules from updates source to the protected server and installs them. In order to start using installed application modules a computer restart and / or a restart of Kaspersky Anti-Virus may be required.

Kaspersky Anti-Virus will run the **Update of application software modules** task weekly, on Fridays at 16.00 (time according to the regional settings of the protected server), in order to check for available patches and upgrades of Anti-Virus modules without downloading them.

Copying updates

Kaspersky Anti-Virus downloads database and application module update files and saves them to the specified network or local folder without applying them.

Database update rollback

Kaspersky Anti-Virus returns to using databases with previously installed updates.

UPDATE TASK STATISTICS

While the update task is running, real-time information can be viewed about the amount of data downloaded since the task has been launched until the present moment, and also other task execution statistics.

When the task is completed or stopped, you can view this information in the task log (see section "Viewing statistics and information about a Kaspersky Anti-Virus task using logs" on page 88).

➧ *To view update task statistics, take the following steps:*

1. In the console tree expand the **Update** node.
2. Select the task whose statistics you wish to view.

Task statistics will be displayed in the **Statistics** section of the details pane.

If you are reviewing the **Update of application databases** or **Copying updates** tasks, then Kaspersky Anti-Virus shows the volume of data retrieved to the present moment (**Received data**).

If you are viewing the **Update of application software modules** task, you will see the information described in the following table.

Table 9. Information about the Update of application software modules task

FIELD	DESCRIPTION
Received data	Total amount of downloaded data
Available critical updates	Number of critical updates available for installation
Available scheduled updates	Number of scheduled updates available for installation
Errors applying updates	If the value of this field is non-zero, the update was not applied. The name of the update, which caused an error during its application, can be viewed in the task log (see section "Viewing statistics and information about a Kaspersky Anti-Virus task using logs" on page 88).

ROLLING BACK KASPERSKY ANTI-VIRUS DATABASE UPDATES

Before applying database updates Kaspersky Anti-Virus creates backup copies of the databases currently in use. If the update has been interrupted or has resulted in an error, Kaspersky Anti-Virus will automatically return to using the previously installed databases.

If any problems arise after database update, the databases can be rolled back to the previously installed databases, by starting the task **Database update rollback**.

ROLLING BACK APPLICATION MODULE UPDATES

The names of settings may vary under different Windows operating systems.

Before updates of application modules are applied, Kaspersky Anti-Virus creates backup copies of the modules currently in use. If the modules updating process has been interrupted or has resulted in an error, Kaspersky Anti-Virus will automatically return to using modules with the latest installed updates.

In order to roll back the application modules use the Microsoft Windows component Install and delete applications.

Application modules can be rolled back manually to previously installed updates.

REAL-TIME PROTECTION

This section provides information about real-time protection tasks: **Real-time protection of files** task and **Script scanning** task. This section also provides instructions on how to configure real-time protection tasks and manage the security settings of a protected server.

IN THIS SECTION

ABOUT REAL-TIME PROTECTION TASKS

Kaspersky Anti-Virus supports two real-time protection tasks: **Real-time protection of files** and **Script scanning**.

When the **Real-time protection of files** task is running, Kaspersky Anti-Virus scans the following protected server objects when they are accessed:

- files;
- alternate file system threads (NTFS threads);
- master boot record and boot sectors on the local hard drives and removable media.

When any application writes a file to a server or reads a file from it, Kaspersky Anti-Virus will intercept this file, scan it for threats, and, if a threat is detected, performs the actions you have specified: attempts to disinfect the file, movies it to Quarantine, or simply deletes it. Kaspersky Anti-Virus returns the file to the application only if it is not infected or if it has been successfully disinfected.

By default Real-time protection tasks are automatically started at Kaspersky Anti-Virus startup. These tasks can be stopped or started and / or their schedule configured. Real-time protection tasks can be paused or resumed if you need to interrupt the object scan briefly, for example at the time of data replication.

You can configure the **Real-time protection of files** task (see section "**Configuring the Real-time protection of files task**" on page 47), i.e., create the protection scope and define the security settings for selected nodes, apply the trusted zone, and manage the use of the heuristic analyzer.

When the **Script scanning** task is running, Kaspersky Anti-Virus controls the execution of scripts created using Microsoft Windows Script Technologies (or Active Scripting), for example, VBScript or JScript®. Kaspersky Anti-Virus allows script execution only if this script has been found to be safe. Kaspersky Anti-Virus blocks the execution of a script that has been found to be dangerous. If Kaspersky Anti-Virus finds a script to be potentially dangerous, it performs the action you have specified: blocks or allows script execution. To learn how to allow or block the execution of probably dangerous scripts, see section "Configuring the **Script monitoring** task" (see page 56).

CONFIGURING THE REAL-TIME PROTECTION OF FILES TASK

By default, the **Real-time protection of files** system task uses the settings described in the table below. These settings can be modified to configure this task.

When task settings are modified (for example, a different protection area is specified), Kaspersky Anti-Virus will immediately apply new settings in the running task. In the task execution log it will record the date and time of settings modification and task configuration before and after modification.

➧ *To configure the **Real-time protection of files task**,* perform the following steps:

1. Expand a real-time **protection** node in the console tree.
2. Select the **Real-time protection of files** subnode.

   The server file resource tree and **Security level** (Standard mode) window are displayed on the **Protection scope settings** tab. for the selected node of the tree of file resources.
3. Configure the task settings as necessary (see table below).
4. Open the context menu on the task name and select **Save task** in order to save changes to the task.

*Table 10. Default **Real-time protection of files** task setting*

SETTING	DEFAULT VALUE	DESCRIPTION
Protection scope	Entire server	You can limit the protection scope.
Security settings	Common settings for the entire protection scope; security level – **Recommended** (see page 51).	For nodes selected in the server file resources tree you can perform the following operations: • apply a different pre-defined security level (see page 51); • edit security settings manually (see page 65); • save security settings of the selected node as a template for later application to a different node (see page 53).
Protection mode	On access and modification	You can select protection mode, i.e. define type of access at which Kaspersky Anti-Virus will scan objects.
Heuristic Analyzer	The **Medium** security level is applied.	The Heuristic Analyzer can be enabled or disabled and the analysis level configured.
Trusted zone	Used If **Add objects using the not-a-virusRemoteAdmin* mask to exclusions** and **Add exclusions specified by Microsoft** have been selected, the remote administration programs **RemoteAdmin** and files recommended by Microsoft will be excluded.	A unified list of exclusions can be applied to the selected on-demand scan tasks and the **Real-time protection of files** task. Creation and application of trusted zone (see page 68).

IN THIS SECTION

PROTECTION SCOPE IN THE REAL-TIME PROTECTION OF FILES TASK

IN THIS SECTION

DEFINING PROTECTION SCOPE IN THE REAL-TIME PROTECTION OF FILES TASK

If the **Real-time protection of files** task is executed with settings that have default values, Kaspersky Anti-Virus will scan all objects of the server file system. If your security requirements allow scanning of all objects to be skipped, you can restrict the protection scope.

In Kaspersky Anti-Virus Console, the protection scope is displayed as the tree of server file resources that Kaspersky Anti-Virus can scan.

Server file resource tree nodes are displayed as follows:

☑ The node is included in the protection scope.

□ The node is excluded from the protection scope.

▣ At least one of the subnodes of this node is excluded from the protection scope, or the security settings of the subnode(s) differ from that of this node.

Note that the node will be marked with the ▣ icon if all subnodes are selected but not the parent node itself. In such a case files and folders that do not appear in this node will not be automatically included in the protection scope. To include these in the protection scope the parent node should be included in it. Alternatively, "virtual copies" can be included in Kaspersky Anti-Virus Console and these objects added to the protection scope.

The names of the virtual nodes in the protection scope are displayed in blue font.

PRE-DEFINED PROTECTION SCOPES

Once the **Real-time protection of files** task has been opened, the server file resources tree will be displayed on the **Protection scope settings** tab of the results panel.

Example of server file resources tree in the Anti-Virus console.

The server file resources tree contains the following pre-defined protection scopes:

- **Local hard drives**. Kaspersky Anti-Virus scans files on the server's hard drives.
- **Removable drives**. Kaspersky Anti-Virus scans files on removable media, for example on CDs or USB drives.
- **Network**. Kaspersky Anti-Virus scans files that are written to network folders or read from them by applications running on the server. Kaspersky Anti-Virus does not scan files when such files are accessed by applications from other computers.
- **Virtual drives**. Dynamic folders and files and drives that are temporarily connected to the server can be included in the protection scope, for example, common cluster drives (create virtual protection scope).

Virtual drives created using a SUBST command are not displayed in the server file resource tree in the Kaspersky Anti-Virus Console. To include objects on the virtual drive in the protection scope, include the server folder with which this virtual drive is associated in the protection scope.

Connected network drives will also not be displayed in the server file resources tree. To include objects on network drives in the protection scope, specify the path to the folder which corresponds to this network drive in UNC format.

CREATING PROTECTION SCOPE

➧ *To create protection scope, take the following steps:*

1. Open **Real-time protection of files** task.
2. On the **Protection scope settings** tab of the details pane, in the server file resource tree, do the following:
   - To exclude an individual node from the protection scope, expand file resource tree to display the node you need and clear the check box next to its name.
   - To select only those nodes you wish to include in the protection scope, clear the **My Computer** check box and then perform one of the following operations:
     - if all drives of one type are to be included in the protection scope, select the check box opposite the name of the required disk type (for example, to add all removable drives on the server, select the **Removable drives** check box);

- if an individual disk of a certain type is to be included in the protection scope, expand the node that contains the list of drives of this type and check the box next to the name of the required drive. For example, in order to select removable drive **F:**, expand node **Removable drives** and check the box for drive **F:**;
- if you would like to include a single folder only on the disk in the protection scope, expand the server file resource tree to display the folder you wish to include in the protection scope and check the box next to its name. It is also possible to include files in the protection scope by using the same procedure.

3. Open the context menu on the task name and select **Save task** in order to save changes to the task.

The task **Real-time protection of files** can be started only if at least one of the server file resources tree nodes is included in the protection scope.

If a complex protection scope is specified, for example, if different security values for settings for multiple nodes in the server file resource tree are specified, this may lead to a certain slowdown in the scan of objects when they are accessed.

ABOUT VIRTUAL PROTECTION SCOPE

Kaspersky Anti-Virus can scan not only existing folders and files on hard and removable drives, but also drives that are connected to the server temporarily, for example common cluster drives and folders and files that are dynamically created on the server by various applications and services.

If all server objects are included in the protection scope, these dynamic nodes will automatically be included in the protection scope. However, if you wish to specify special values for the security settings of these dynamic nodes or if you have selected not the entire server for real-time protection, but discrete areas of it, then in order to include dynamic drives, files or folders in the protection scope, you will first have to create them in Kaspersky Anti-Virus Console: that is, specify the virtual protection scope. The drives, files and folders created will exist only in Kaspersky Anti-Virus Console, but not in the file structure of the protected server.

If, while creating a protection area, all subfolders or files are selected without the parent folder being selected, then all dynamic folders or files which will appear in it will not automatically be included in the protected scope. "Virtual copies" of these should be created in Kaspersky Anti-Virus Console and added to the protection scope.

About the creation of a virtual protection area in the "Real-time protection of files" task(see page 50).

About the creation of a virtual protection area in the on-demand scan tasks (see page 63).

CREATING A VIRTUAL PROTECTION SCOPE: INCLUDING DYNAMIC DRIVES, FOLDERS AND FILES IN THE PROTECTION SCOPE

You can expand the protection / scan scope by adding individual virtual drives, folders, or files only if the protection / scan scope is presented as a tree of file resources.

To add a virtual drive to the protection scope, take the following steps:

1. Expand the node **Real-time protection**in the console tree and select the subnode **Real-time file protection**.
2. On the **Configuring protection scope** tab of the results panel, in the server file resource tree open the context menu on the **Virtual drives** node and select the virtual drive name from the list of available names.
3. Check box next to the drive added to include the drive in the protection scope.
4. Open the context menu on the task name and select **Save task** in order to save changes to the task.

To add a virtual folder or virtual file to the protection scope, take the following steps:

1. Expand the node **Real-time protection**in the console tree and select the subnode **Real-time file protection**.
2. On the **Configuring protection scope** tab in the results panel, in the server file resources tree, open the context menu on the node where you wish to add a folder or file, and select one of the following options: **Add virtual folder** or **Add virtual file**.
3. In the entry field specify name of folder (file). When specifying the file name, a mask can be used with the special symbols * and ?.

4. In the line with the name of folder created (or file created) select the check box to include this folder (file) in the protection scope.
5. Open the context menu on the task name and select **Save task**, in order to save changes to the task.

CONFIGURING SECURITY SETTINGS FOR THE SELECTED NODE

IN THIS SECTION

SELECTING PRE-DEFINED SECURITY LEVELS IN THE REAL-TIME PROTECTION OF FILES TASK

One of the following pre-defined security levels for the nodes selected in the server file resources tree can be applied: **Maximum performance**, **Recommended**, and **Maximum protection**. Each of these levels contains its own pre-defined set of security settings (see the table below).

Maximum performance

The **Maximum performance** security level is recommended if, apart from using Kaspersky Anti-Virus on servers and workstations, there are additional computer security measures on your network, for example, firewalls are set up, network users comply with existing security policies.

Recommended

The **Recommended** security level ensures an optimum combination of protection quality and degree of impact on the performance of protected servers. This level is recommended by Kaspersky Lab experts as sufficient for protection of file servers on most corporate networks. The **Recommended** security level is set by default.

Maximum Protection

The **Maximum protection** security level is recommended if you have higher requirements for computer security on your organization's network.

Table 11. Pre-defined security levels and corresponding security setting values

SETTINGS	SECURITY LEVEL		
	MAXIMUM PERFORMANCE	RECOMMENDED	MAXIMUM PROTECTION
Objects protection	By extension	By format	By format
Optimization	Enabled	Enabled	Disabled
Action to be performed with infected objects	Disinfect, delete if disinfection is impossible	Disinfect, delete if disinfection is impossible	Disinfect, delete if disinfection is impossible
Action to be performed on infected objects	Quarantine	Quarantine	Quarantine
Exclude objects	No	No	No
Do not detect	No	No	No
Stop scan if it takes longer than (sec)	60 sec.	60 sec.	60 sec.
Do not scan compound objects larger than (MB)	8 MB	8 MB	Not set
Scan alternate NTFS streams	Yes	Yes	Yes

SETTINGS	SECURITY LEVEL		
Scan disk boot sectors and MBR	Yes	Yes	Yes
Compound objects protection	• Packed objects* * New and modified objects only	• SFX archives* • Packed objects* • Embedded OLE-objects* * New and modified objects only	• SFX archives* • Packed objects* • Embedded OLE-objects* * All objects

Note that the **Objects protection**, **Use iChecker technology**, **Use iSwift technology**, and **Use heuristic analyzer** settings are not included in the settings of preset security levels. If you edit the **Objects protection**, **Use iChecker technology**, **Use iSwift technology**, or **Use heuristic analyzer** security settings after selecting one of the preset security levels, the security level that you have selected will not change**.**

To select one of the preset security levels, take the following steps:

1. Expand the node **Real-time protection**in the console tree and select the subnode **Real-time file protection**.
2. On the **Configuring protection scope** tab of the details pane, in the server file resource tree, select the node for the pre-defined security level you wish to select.
3. Make sure that this node is included in the protected area (see section "Creating protection scope" on page 49).
4. In the **Security level** window, select the security level you wish to apply from the list of security levels.
5. The window displays the list of security values for settings which correspond to the security level selected.
6. Open the context menu on the task name and select **Save task** in order to save changes to the task.

CONFIGURING SECURITY SETTINGS MANUALLY IN REAL-TIME PROTECTION OF FILES TASK

By default the **Real-time file protection** task uses common security settings for the entire protection scope. Their values correspond to those of the **Recommended** pre-defined security level (see page)51.

The default values of security settings can be modified by configuring them as common settings for the entire protection scope, or as different settings for different nodes in the server file resource tree.

The security settings configured for a selected node will be automatically applied to all of its subnodes. If, however, the security settings for a subnode are separately configured, the security settings of the parent node will not apply to it.

To configure the security settings of the selected node manually, take the following steps:

1. Expand the node **Real-time protection**in the console tree and select the subnode **Real-time file protection**.
2. On the **Configuring protection scope** tab of the details pane, in the server file resource tree, select the node whose security settings you wish to configure.
3. Click the **Settings** button in the bottom part of the window.

   The **Security settings** window opens.

   A predefined template containing security settings can be applied for a selected node in the protection scope (see page 53).
4. Configure the required security settings of the selected node in accordance with your requirements. To do so:
   - On the **General** tab take the following actions:
     - under the **Objects protection** heading, specify whether Kaspersky Anti-Virus will scan all protection areas, or objects of certain formats or with certain extensions, and whether Kaspersky Anti-Virus will scan disk boot sectors and master boot records and alternative NFTS streams - scanned objects.
     - under the **Performance** heading, specify whether Kaspersky Anti-Virus will scan all objects within the selected area or new and modified objects only.
     - under the **Compound objects protection** heading, indicate which compound objects will be scanned by Kaspersky Anti-Virus.

- On the **Actions** tab take the following actions:
  - Select the action to be performed on infected objects;
  - Select the action to be performed on probably infected objects;
  - Configure actions to be performed on objects depending on the type of object detected.
- On the **Performance** tab take the following actions:
  - Exclude from processing files according to name or mask;
  - Exclude detected objects from processing by name or mask;
  - Specify the maximum object scan time;
  - Specify the maximum size of a compound object to be scanned;
  - enable or disable the use of iChecker technology;
  - enable or disable the use of iSwift technology;

5. After the required security settings have been configured, open the context menu on the task name and select **Save task** in order to save changes in the task.

WORKING WITH TEMPLATES IN REAL-TIME PROTECTION TASKS

IN THIS SECTION

SAVING SECURITY SETTINGS TO A TEMPLATE

In the **Real-time protection of files** task, after security settings have been configured for any of the nodes in the server file resource tree, these values can be saved to a template to be applied later to any other node.

➡ *To save a set of security values for settings into a template, take the following steps:*

1. Expand the node **Real-time protection**in the console tree and select the subnode **Real-time file protection**.
2. On the **Configuring protection scope** tab of the details pane, in the server file resource tree, select the node whose security settings you wish to save.
3. Click the **Settings** button in the bottom part of the window.
4. In the window protection scope settings, on the **General** tab, click the **Save as template** button.
5. In the **Template properties** window, enter the name of the template in the **Template name** field.
6. Enter additional template information in the **Description** field.
7. Click **OK**. The template with the set of security values for settings will be saved.

VIEWING SECURITY SETTINGS IN A TEMPLATE

➡ *To view security settings in a template that you have created, perform the following steps:*

1. Expand a real-time **protection** node in the console tree.
2. Open the context menu on the **Real-time file protection** task and select **Settings templates**.
3. The **Templates** window displays the list of templates that you can apply to the **Real-time file protection** task.
4. To view information and security settings in a template, select a template from the list and click the **View** button.

   The **General** tab displays the template name and additional information about the template; the **Properties** tab lists security settings saved in the template.

APPLYING A TEMPLATE

If a template is applied to a parent node, security settings from the template will also apply to all subnodes except for the following nodes:

- The template will not apply to the nodes for which you have configured settings individually. To apply security settings from the template to all subnodes, the parent node in the server's file resources tree must be cleared before the template is applied, and then checked again. Apply the template to the parent node. All subnodes will have the same security settings as the parent node.
- The template will not apply to virtual subnodes. If you wish to configure the settings of a virtual subnode in the same way as those of the parent node, a virtual node should be selected and a template applied to it individually.

➧ *To apply a template with specific security settings to the selected node, take the following steps:*

1. Save the security values for settings to the template first (see page 61).
2. Expand the node **Real-time protection**in the console tree and select the subnode **Real-time file protection**.
3. On the **Protection scope settings** tab of the details pane in the server file resources tree, open the context menu on the node to which you want to apply the template, and select **Apply template→ <Template name>**.
4. Open the context menu on the task name and select **Save task** in order to save changes to the task.

DELETING A TEMPLATE

➧ *To delete a template, take the following steps:*

1. Expand a real-time **protection** node in the console tree.
2. Open the context menu on the **Real-time file protection** task and select **Settings templates**.
3. In the **Templates** window, select the template to be deleted from the template list, and click the **Delete** button.
4. Click **Yes** in the confirmation window. The selected template will be deleted.

SELECTING PROTECTION MODE

In the **Real-time protection of files** task, the protection mode can be selected.

➧ *To select protection mode, take the following steps:*

1. Expand a real-time **protection** node in the console tree.
2. Open the context menu on the **Real-time file protection** task and select **Properties**.
3. In the **Properties: Real-time protection of files** window, switch to the **General** tab, select the required objects protection mode, and click the **OK** button.

USING THE HEURISTIC ANALYZER IN REAL-TIME FILE PROTECTION TASKS

In the **Real-time file protection** task, you can use the Heuristic Analyzer and configure the level of analysis.

➧ *To enable heuristic analyzer, perform the following steps:*

1. Expand a real-time **protection** node in the console tree.
2. Open the context menu on the **Real-time protection of files** task and select **Properties**.
3. In the **Properties: Real-time protection of files** window, on the **General** tab, select the **Use heuristic analyzer** check box and adjust the analysis level according to your needs.

   To disable the heuristic analyzer, clear the **Use heuristic analyzer** check box.
4. Press the **OK** button.

REAL-TIME PROTECTION OF FILES TASK STATISTICS

While the **Real-time protection of files** task is being executed detailed information can be viewed in real time about the number of objects processed by Kaspersky Anti-Virus since it was started until the current moment (task execution statistics).

➧ *To view the statistics of a **Real-time protection of files** task, take the following steps:*

1. Expand a real-time **protection** node in the console tree.
2. Select **Real-time protection of files** task.
3. On the **Overview and management** tab of the details pane in the **Statistics** section, click the **Complete statistics** link.

The following information can be viewed about objects processed by Kaspersky Anti-Virus since it was started until the current moment (see the table below).

*Table 12. Default settings of the **Real-time protection of files** task, **Complete statistics***

FIELD	DESCRIPTION
Detected	Number of objects detected by Kaspersky Anti-Virus. For example, if Kaspersky Anti-Virus detects one malware program in five files, the value in this field increases by one.
Infected objects detected	Number of objects found by Kaspersky Anti-Virus to be infected.
Probably infected objects detected	Number of objects found by Kaspersky Anti-Virus to be probably infected.
Objects not disinfected	Number of objects which Kaspersky Anti-Virus did not disinfect for the following reasons: • the type of detected object cannot be disinfected; • an error occurred during disinfection.
Objects not moved to Quarantine	The number of objects that Kaspersky Anti-Virus attempted to quarantine but was unable to do so, for example, due to insufficient disk space.
Objects not deleted	The number of objects that Kaspersky Anti-Virus attempted but was unable to delete, because, for example, access to the object was blocked by another application.
Objects not scanned	The number of objects in the protection scope that Kaspersky Anti-Virus failed to scan because, for example, access to the object was blocked by another application.
Objects not backed up	The number of objects the copies of which Kaspersky Anti-Virus attempted to save in Backup but was unable to do so, for example, due to insufficient disk space.
Processing errors	Number of objects whose processing resulted in an error.
Objects disinfected	Number of objects disinfected by Kaspersky Anti-Virus.
Moved to Quarantine	Number of objects quarantined by Kaspersky Anti-Virus.
Moved to Backup	The number of object copies that Kaspersky Anti-Virus saved to Backup.
Objects deleted	Number of objects deleted by Kaspersky Anti-Virus.
Password-protected objects	Number of objects (archives, for example) that Kaspersky Anti-Virus missed because they were password protected.
Corrupted objects	The number of objects skipped by Kaspersky Anti-Virus as their format was corrupted.
Objects processed	Total number of objects processed by Kaspersky Anti-Virus.

CONFIGURING SCRIPT MONITORING TASK

By default the **Script scanning** system task uses the settings described in the following table. These settings can be modified to configure this task.

*Table 13. Default **Script scanning** task settings*

SETTING	DEFAULT VALUE	DESCRIPTION
Execution of dangerous scripts	Blocked	Kaspersky Anti-Virus always blocks the execution of scripts that have been recognized as dangerous.
Execution of probably dangerous scripts	Blocked	It is possible to configure the actions which Kaspersky Anti-Virus will perform on scripts it recognizes as probably dangerous: block or allow their execution.
Heuristic Analyzer	The **Medium** security level is applied.	The Heuristic Analyzer can be enabled or disabled and the analysis level configured.
Trusted zone	Used	General list of exclusions which can be used in selected tasks. About the creation and application of the trusted zone (see page)68

*To configure a **Script scanning** task, take the following steps:*

1. In the console tree expand a **Real-time protection** node and select the **Script scanning** task.

   Click the **Properties** link to open the **Properties: Script scanning.**

2. Use the **Actions to be performed on probably dangerous scripts** group of settings to allow or block execution of probably dangerous scripts. To do so:

   - to allow execution of probably dangerous scripts, select **Allow**;
   - to prohibit execution of probably dangerous scripts, select **Block**.

3. Configure the **Heuristic analyzer** group of settings as follows:

   - To enable the Heuristic Analyzer, select the **Use Heuristic Analyzer** check box. To change the analysis level, move the slider to the desired position.
   - To disable the Heuristic Analyzer, clear the **Use Heuristic Analyzer** check box.

4. Use the **Trusted zone** group of settings to enable or disable trusted zone as follows:

   - To enable the trusted zone, check the **Apply trusted zone** box;
   - To disable the trusted zone, clear the **Apply trusted zone** check box.

   How to add scripts to the list of trusted zone exclusions (see page 71).

5. In the **Properties: Script scanning** window, click **OK** to save changes.

SCRIPT SCANNING TASK STATISTICS

While the **Script scanning** task is being executed information can be viewed in real time about the number of scripts processed by Kaspersky Anti-Virus since it was started until the current moment (task execution statistics).

To view update task statistics, take the following steps:

1. Expand a real-time **protection** node in the console tree.
2. Select **Script monitoring** task.

   The **Script scanning** task settings can be viewed (see table below).

Table 14. Script scanning settings, Complete statistics

FIELD	DESCRIPTION
Scripts blocked	Number of scripts, execution of which was blocked by Kaspersky Anti-Virus
Dangerous scripts detected	Number of dangerous scripts detected
Probably dangerous scripts detected	Number of probably dangerous scripts detected
Processed scripts	Total number of processed scripts

LIST OF FILES EXTENSIONS SCANNED BY DEFAULT. REAL-TIME PROTECTION OF FILES

Kaspersky Anti-Virus scans files with the following extensions by default:

- 386;
- acm;
- ade, adp;
- asp;
- asx;
- ax;
- bas;
- bat;
- bin;
- chm;
- cla, clas*;
- cmd;
- com;
- cpl;
- crt;
- dll;
- dpl;
- drv;
- dvb;
- dwg;
- efi;
- emf;
- eml;
- exe;
- fon;
- fpm;
- hlp;
- hta;
- htm, html*;
- htt;
- ico;
- inf;
- ini;
- ins;
- isp;
- jpg, jpe;
- js, jse;
- lnk;
- mbx;
- msc;
- msg;
- msi;
- msp;
- mst;
- nws;
- ocx;
- oft;
- otm;
- pcd;
- pdf;
- php;
- pht;
- phtm*;
- pif;
- plg;
- png;
- pot;
- prf;
- prg;
- reg;
- rsc;
- rtf;
- scf;
- scr;
- sct;
- shb;
- shs;
- sht;
- shtm*;
- swf;
- sys;
- the;
- them*;
- tsp;
- url;
- vb;
- vbe;
- vbs;
- vxd;
- wma;
- wmf;
- wmv;
- wsc;
- wsf;
- wsh;
- do?;
- md?;
- mp?;
- ov?;
- pp?;
- vs?;
- xl?.

ON-DEMAND SCAN

This section provides information about on-demand scan tasks and instructions on how to configure on-demand scan tasks and manage security settings of on-demand scan tasks.

IN THIS SECTION

ABOUT ON-DEMAND SCAN TASKS

Kaspersky Anti-Virus runs a single scan of the specified area for viruses and other computer security threats. Kaspersky Anti-Virus scans server files and RAM and also startup objects.

Kaspersky Anti-Virus provides four system tasks of on-demand scan:

- By default, the **Critical areas scan** task is performed weekly upon a schedule. Kaspersky Anti-Virus scans objects located in critical areas of the operating system: startup objects, boot sectors and master boot records of hard and removable drives, system memory and memory of processes. It scans files in the system folders, for example, in %windir%\system32. Kaspersky Anti-Virus uses the security settings corresponding to the **Recommended** level (see page 64). You can modify the settings of the **Scan critical areas** task.
- **Scan of Quarantine objects** task is executed by default according to the schedule after every databases update. The **Scan of Quarantine objects** task settings cannot be modified (see page 74).
- The **Scan at operating system startup** task is performed every time Kaspersky Anti-Virus starts. Kaspersky Anti-Virus scans boot sectors and master boot records of hard and removable drives, system memory, and memory of processes. Every time Kaspersky Anti-Virus runs the task, it creates a copy of non-infected boot sectors. If at the next task launch it detects a threat in those sectors, it replaces them with the backup copy.
- The **Application integrity check** task is performed every time Kaspersky Anti-Virus starts running. It provides the option of checking Kaspersky Anti-Virus modules for damage or modification. The application installation folder is checked. The task execution statistics contain information about the number of modules checked and corrupted. The values of the task settings are defined by default and cannot be edited. The values of the task run schedule settings can be edited.

Additionally user-defined on-demand scan tasks can be created. For example you can create a task for scanning public access folders on the server.

Kaspersky Anti-Virus may run several on-demand scan tasks at the same time.

Categories of Kaspersky Anti-Virus tasks by type of creation and execution

About the Real-time protection and On-demand scan functions

About task management using Kaspersky Anti-Virus Console(see page 35).

CONFIGURING ON-DEMAND SCAN TASKS

You can configure the system task **Scan of critical areas** and user-defined on-demand scan tasks (see the table below).

To learn how to create a new user-defined task, see the section "Creating on-demand scan task" (see page 35).

Table 15. Default settings for newly created on-demand scan tasks

SETTING	VALUE	HOW TO SET
Scan scope	Entire server	You can change the scan scope (see page 60).
Security settings	Common settings for the entire scan scope correspond to the security level **Recommended**.	For nodes selected in the server file resources tree you can perform the following operations: • Select a different preset security level (see page 64) • Edit security settings manually (see page 65). You can save a set security settings for a selected node as a template to use later for a different node (see page 61).
Heuristic Analyzer	Enabled with **Medium** analysis level	The Heuristic Analyzer can be enabled or disabled and the analysis level configured.
Trusted zone	Used **RemoteAdmin** remote administration utilities are excluded if you selected **Add objects using the not-a-virusRemoteAdmin* mask to exclusions** when installing Kaspersky Anti-Virus.	The integral list of exclusions that you can apply in selected on-demand scan tasks, as well as in the **Real-time protection of files**, **Script scanning**, and **RPC:** Protection of network-attached storages: Also learn about the creation and use of a trusted zone (see page 68).

➧ *To configure an on-demand scan task, take the following steps:*

1. Expand the **On-demand scan** node in the console tree.
2. Press the on-demand scan task you wish to configure in order to open it.
3. Configure task settings on the **Scan scope settings** tab: create a scan scope; if necessary, edit the security settings of the entire scan scope or of individual nodes within the scan scope. By default, new user-defined tasks have the settings described in the table above.
4. Open the context menu on the task name and select **Save task** in order to save changes to the task.

IN THIS SECTION

SCAN SCOPE IN ON-DEMAND SCAN TASKS

IN THIS SECTION

ABOUT DEFINING THE SCAN SCOPE IN ON-DEMAND SCAN TASKS

By default, the scan scope in newly created on-demand scan tasks includes the entire server. You can restrict the scan scope only by the number of server areas if there is no need to scan them all according to your security requirements.

In Kaspersky Anti-Virus Console, the scan scope is displayed as the tree of server file resources that Kaspersky Anti-Virus can scan.

Server file resource tree nodes are displayed as follows:

☑ The node is included in the scan scope.

□ The node is excluded from the scan scope.

▣ At least one of the subnodes of this node is excluded from the scan scope or this security settings of the subnode differ from those of this node.

The names of virtual nodes in the scan scope are displayed in blue font.

PRE-DEFINED SCAN SCOPES

➡ *To display the server file resource tree, take the following steps:*

1. Expand the **On-demand scan** node in the console tree.
2. Select the On-demand scan task for the scan scope you wish to view in order to open the task.

   The server file resource tree will be displayed on the **Scan scope settings** tab of the details pane. A scan scope can be created from the objects displayed there.

The server file resources tree contains the following pre-defined scopes:

- **My Computer**. Kaspersky Anti-Virus scans the entire server.
- **Local hard drives**. Kaspersky Anti-Virus scans objects on the server's hard drives. All hard drives, individual disks, folders or files can be included in or excluded from the scan scope.
- **Removable drives**. Kaspersky Anti-Virus scans objects on removable media, for example on CDs or USB drives. All removable disks, individual disks, folders or files can be included in or excluded from the scan scope.
- **Network**. Network folders or files can be added to the scan scope by specifying their path in UNC (Universal Naming Convention) format. The account used to launch the task must have access permissions for the network folders and files added. By default on-demand scan tasks are executed under the **Local system (SYSTEM)** account. For more details refer to the section "Including network drives, folders or files into the scan scope" (see page 62).
- **System memory**. Kaspersky Anti-Virus scans the executable files and modules of the processes running in the operating system when the check is initiated.
- **Startup objects**. Kaspersky Anti-Virus scans objects to which register keys and configuration files refer, for example WIN.INI or SYSTEM. INI, as well as the application's modules that are started automatically at computer startup.
- **Shared folders**. Kaspersky Anti-Virus scans all public folders on the protected server.
- **Virtual drives**. Dynamic drives, folders, and files, as well as drives that are mounted on the server, can be included in the scan scope, for example: Common cluster drives (create a virtual scan scope). For details, see "Creating a virtual scan scope: including dynamic drives, folders, or files in the scan scope (see page 63).

> Virtual drives created using a SUBST command are not displayed in the server file resource tree in the Kaspersky Anti-Virus Console. In order to scan objects on a virtual drive, include the server folder with which this virtual drive is associated.
>
> Connected network drives will also not be displayed in the server file resources tree. To include objects on network drives in the scan scope, specify the path to the folder which corresponds to this network drive in UNC format.

CREATING SCAN SCOPE

If you are remotely managing Kaspersky Anti-Virus on the protected server using Kaspersky Anti-Virus Console installed on administrator's workstation, you must be a member of administrators group on the protected server to be able to view folders on it.

If you modify the scan scope in the **Scan at system startup** and **Scan of critical areas** tasks, you can restore the default scan scope in these tasks by restoring Kaspersky Anti-Virus itself (**Start** > **Programs** > **Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition** > **Modify or Remove**). In the wizard, check the box named **Restore recommended program settings**.

➧ *To define the scan scope, take the following steps:*

1. Expand the **On-demand scan** node in the console tree.
2. Select on-demand task, scan scope you wish to create.
3. The Server file resource tree will be displayed on the **Scan scope settings** tab of the details pane. In a new on-demand scan task, all scopes of the protected server are included in the scan scope by default.
4. take the following steps:
   - To select the nodes to be included in the scan scope, clear the **My Computer** check box and perform the following:
     - if you wish to include all drives of the same type in the scan scope, select the check box next to the name of the required disk type;
     - if you wish to include an individual disk in the scan scope, expand the node that contains the list of drives of this type and check the box next to the name of the required drive. For example, to select removable drive **F:**, expand the **Removable drives** node and select the check box for drive **F:**.
     - If you would like to include a single folder on the disk in the scan scope, expand the server file resource tree to display the folder required check the box next to its name. Files can also be included in the scan scope by using the same procedure.
   - To exclude an individual node from the scan scope, expand the server file resource tree to display the node required and clear the box next to its name.
5. Open the context menu on the task name and select **Save task** in order to save changes to the task.

Please refer to the following sections for information about including in the scan scope:

- a network drive, folder or file (see page 62);
- a dynamic drive, folder or file (see page 62).

WORKING WITH TEMPLATES IN ON-DEMAND SCAN TASKS

IN THIS SECTION

SAVING SECURITY SETTINGS TO A TEMPLATE

After you have configured security settings for any node in the server file resource tree in the on-demand scan task, this set of settings can be saved to a template. This template can then be used to configure the security settings of other nodes in the same task or in other on-demand scan tasks.

Templates created in the **On-demand scanning** task cannot be used for the security settings in the **Real-time protection of files** and **RPC:** Protection of network-attached storages:

➧ *To save a set of security settings to a template, take the following steps:*

1. Select the **On-demand scan** in the console tree.
2. Select the on-demand scan task whose security settings you wish to save to a template.
3. On the **Scan scope settings** tab, in the server file resource tree, select the node whose security settings you wish to save.
4. On the **General** tab of the **Security settings** window, click the **Save as template** button.

5. In the **Template properties** window, enter the name of the template in the **Template name** field.
6. Enter additional template information in the **Description** field.
7. Click **OK**. A template with the set of values for settings will be saved.

VIEWING SECURITY SETTINGS IN A TEMPLATE

➧ *To view security settings in a template that you have created, perform the following steps:*

1. Open the context menu on the **On-demand scan** node in the console tree and select **Templates of settings**.

   The **Templates** window displays the list of templates that you can apply to the on-demand scan tasks.

2. To view information and security settings in a template, select the template from the list and click the **View** button.

   The name of the template and additional information is displayed on the **General** tab. The **Properties** tab lists the security settings saved in the template.

APPLYING A TEMPLATE

If you apply a template to a parent node, the security settings from the template will also apply to all subnodes except in the following cases:

- The template will not apply to the nodes for which you have configured settings individually. To apply security settings from the template to all subnodes, the parent node in the server's file resources tree must be cleared before the template is applied, and then checked again. Apply the template to the parent node. All subnodes will have the same security settings as the parent node.
- The template is not applied to network drives, folders and files.

➧ *To apply a template with security settings, take the following steps:*

1. Save the security values for settings to the template first (see page 53).
2. Select the **On-demand scan** in the console tree.
3. Select the on-demand scan task to which the security settings are to be applied.
4. On the **Scan scope settings** tab, in the tree of server file resources, open the context menu on the node to which you want to apply the template, and select **Apply template** → **<Template name>**.
5. To save changes click the **OK** button in the **Security settings** window.

DELETING A TEMPLATE

➧ *To delete a template, take the following steps:*

1. Open the context menu on the **On-demand scan** node in the console tree and select **Templates of settings**.
2. In the **Templates** window, select the template to be deleted from the template list, and click the **Delete** button.
3. Click **Yes** in the confirmation window. The selected template will be deleted.

INCLUDING NETWORK DRIVES, FOLDERS OR FILES IN THE SCAN SCOPE

Network drives, folders or files can be added to the scan scope by specifying their path in UNC (Universal Naming Convention) format.

Users cannot scan network folders while using the **Local system** account.

➧ *To add a network place to the scan scope, take the following steps:*

1. Expand the **On-demand scan** node in the console tree.
2. Select the on-demand scan, the scan scope of which a network path is to be added to.
3. On the **Scan scope settings** tab open the context menu on the **Network** node and select **Add network folder** or **Add network file**.
4. Enter the path to network folder or file in UNC format and click the **ENTER** key.
5. Check the box next to the network object added in order to include it in the scan scope.

6. If necessary, change the security settings for the network object added (see section "Configuring security settings in the on-demand scan task" on page 63).
7. Open the context menu on the task name and select **Save task** in order to save changes to the task.

CREATING A VIRTUAL SCAN SCOPE: INCLUDING DYNAMIC DRIVES, FOLDERS AND FILES IN THE SCAN SCOPE

Dynamic drives, folders, and files, as well as drives that are mounted on the server (for example, shared cluster drives), can be included in the scan scope in order to create a virtual scan scope.

> You can expand the protection / scan scope by adding individual virtual drives, folders, or files only if the protection / scan scope is presented as a tree of file resources.

➧ *To add a virtual drive to the scan scope, take the following steps:*

1. Expand the **On-demand scan** node in the console tree.
2. Select the on-demand scan task in which you wish to create a virtual scan scope to open the task.
3. On the **Scan scope settings** tab of the results panel, in the server file resource tree open the context menu on the **Virtual drives** node and select the virtual drive name from the list of available names.
4. Check the box next to the drive added in order to include the drive in the scan scope.
5. Open the context menu on the task name and select **Save task** in order to save changes to the task.

➧ *To add a virtual folder or virtual file to the scan scope, and take the following steps:*

1. Expand the **On-demand scan** node in the console tree.
2. Select the on-demand scan task in which you wish to create a virtual scan scope to open the task.
3. On the **Scan scope settings** tab of the results pane, in the tree of server file resources, open the context menu on the node of the virtual drive to which you want to add a folder or a file, and select the **Add virtual folder** or **Add virtual file** command from the context menu.
4. In the entry field specify name of folder (file). You can use a folder (file) name mask. Use special symbols ***** and **?** for the mask.
5. In the line with the name of folder created (or file created) select the check box to include this folder (file) in the scan scope.
6. Open the context menu on the task name and select **Save task** in order to save changes to the task.

CONFIGURING SECURITY SETTINGS IN THE ON-DEMAND SCAN TASKS

Security settings can be configured in the selected on-demand scan task either as common settings for the entire scan area or as individual settings for different nodes in the server file resource tree. The security settings configured for a selected node will be automatically applied to all of its subnodes. If, however, the security settings for a subnode are configured separately, the security settings of the parent node will not apply to it.

The settings for a selected scan scope can be configured using one of the following methods:

- Select one of three pre-defined security levels (maximum performance, recommended or maximum protection).
- Manually change the security settings of the selected nodes in the server file resource tree.

A set of node settings can be saved in a template in order to be applied later to other nodes.

IN THIS SECTION

SELECTING PRE-DEFINED SECURITY LEVELS FOR ON-DEMAND SCAN TASKS

One of the following pre-defined security levels can be set for nodes selected in the server file resources tree: **Maximum performance**, **Recommended**, and **Maximum protection**. Each of these levels contains its own pre-defined set of security settings (see the table below).

Maximum performance

The **Maximum performance** security level is recommended if, apart from using Kaspersky Anti-Virus on servers and workstations, there are additional computer security measures on your network, for example, firewalls are set up, network users comply with existing security policies.

Recommended

The **Recommended** security level ensures an optimum combination of protection quality and degree of impact on the performance of protected servers. This level is recommended by Kaspersky Lab experts as sufficient for protection of file servers on most corporate networks. The **Recommended** security level is set by default.

Maximum Protection

The **Maximum protection** security level is recommended if you have higher requirements for computer security on your organization's network.

Table 16. Pre-defined security levels and corresponding security setting values

SETTINGS	PRE-DEFINED SECURITY LEVEL		
	MAXIMUM PERFORMANCE	RECOMMENDED	MAXIMUM PROTECTION
Objects scan	By format	All objects	All objects
Optimization	Enabled	Disabled	Disabled
Action to perform on infected objects	Disinfect, delete if disinfection is impossible	Disinfect, delete if disinfection is impossible	Disinfect, delete if disinfection is impossible
Action to be performed on infected objects	Quarantine	Quarantine	Quarantine
Exclude objects	No	No	No
Do not detect	No	No	No
Stop scan if it takes longer than (sec)	60 sec.	No	No
Do not scan compound objects larger than (MB)	8 MB	No	No
Scan alternate NTFS streams	Yes	Yes	Yes
Scan disk boot sectors and MBR	Yes	Yes	Yes
Scan composite objects	• SFX archives* • Packed objects* • Embedded OLE-objects* * New and modified objects only	• Archives* • SFX archives* • Packed objects* • Embedded OLE-objects* * All objects	• Archives* • SFX archives* • email databases* • plain mail* • Packed objects* • Embedded OLE-objects* * All objects
Offline file processing	Yes	Yes	Yes

Note that such security settings as **Use iChecker technology**, **Use iSwift technology**, and **Use heuristic analyzer and Check Microsoft signature in files** are not included in the settings of preset security levels. If the status of such settings as **Use iChecker technology**, **Use iSwift technology**, **Use heuristic analyzer**, or **Check Microsoft signature in files** is changed, the preset security level that you have selected will not change.

➧ *To select one of the preset security levels, take the following steps:*

1. Select the **On-demand scan** in the console tree.
2. Select the on-demand scan task whose security settings you wish to configure.
3. On the **Scan scope settings** tab of the details pane select the scan scope node for which you wish to select a pre-defined security level.
4. Make sure that this node is included in the scan scope (see page 60).
5. In the **Security level** window, select the security level to be applied.

   The window displays the list of security settings corresponding to the security level selected.
6. Open the context menu on the task name and select **Save task** in order to save changes to the task.

CONFIGURING SECURITY SETTINGS MANUALLY IN ON-DEMAND SCAN TASKS

➧ *To configure security settings manually, take the following steps:*

1. Select the **On-demand scan** in the console tree.
2. Select the on-demand scan task whose security settings you wish to configure.
3. On the **Scan scope settings** tab of the details pane select the scan scope node for which you wish to configure security settings. Make sure that this node is included in the scan scope (see page 60).
4. The **Security level** window appears in the bottom part of the results pane.
5. Click the **Settings** button to open the **Security settings** window.
6. In the **Security Settings** window, configure the necessary security settings for the selected node in accordance with your requirements. To do so:
   - Do the following on the **General** tab:
     - Under the **Scan objects** header, specify whether Kaspersky Anti-Virus will scan all objects within the scan scope or only objects with specific formats or extensions, and whether Anti-Virus will scan disk boot sectors, the master boot record, and alternate NFTS threads
     - Under the **Performance** heading, specify whether Kaspersky Anti-Virus will scan all objects within the selected area or new and modified files only
     - Under the **Scan of compound objects** heading, indicate which composite objects will be scanned by Kaspersky Anti-Virus.
   - On the **Actions** tab take the following actions:
     - Select the action to be performed on infected objects;
     - Select the action to be performed on probably infected objects;
     - If necessary, select actions to be performed depending on the type of detected object.
   - On the **Performance** tab take the following actions:
     - Exclude from processing files according to name or mask;
     - Exclude detected objects from processing by name or mask;
     - Specify the maximum object scan time;
     - Specify the maximum size of a compound object to be scanned;
     - enable or disable the use of iChecker technology;
     - enable or disable the use of iSwift technology;
     - specify whether Kaspersky Anti-Virus will check files for Microsoft signatures.

- On the **Hierarchical storage** tab, select the method by which offline files are processed.

  > You can specify a method of processing offline files only if you have selected a method used by the HSM system to determine the location of files to be scanned in advance.

7. After the required security settings have been configured, open the context menu on the task name and select **Save task** in order to save changes in the task.

USING HEURISTIC ANALYZER IN ON-DEMAND SCAN TASKS

In on-demand scan tasks, you can use the Heuristic Analyzer and configure the level of analysis.

➧ *To enable heuristic analyzer, perform the following steps:*

1. Expand the **On-demand scan** node in the console tree.
2. Open the context menu for the on-demand scan task that you want to apply the heuristic analyzer to and select the **Properties** command.
3. In the **Properties: <Task name>** window, on the **General** tab, select the **Use heuristic analyzer** check box and adjust the analysis intensity level according to your needs.

   To disable the heuristic analyzer, clear the **Use heuristic analyzer** check box.
4. Press the **OK** button.

RUNNING BACKGROUND ON-DEMAND SCAN TASK

By default the processes in which Kaspersky Anti-Virus tasks are executed are assigned the base priority **Medium** (**Normal**).

The process that will run an on-demand scan task can be assigned **Low** priority. Demoting the process priority increases the time required to execute the task, but it may have a beneficial effect on the execution speed of the processes of other active programs.

Multiple background tasks can be running in a single working process with low priority. You can specify the maximum number of processes to background on-demand scan tasks.

You can specify the priority of a task when creating one, or later, in the **Properties: <Task>**.

➧ *To change the priority of an on-demand scan task, take the following steps:*

1. Expand the **On-demand scan** node in the console tree.
2. Open the context menu on the on-demand scan task whose priority you wish to change, and select **Properties**.
3. The **Properties: <Task>**.
4. Perform one of the following actions on the **General** tab:
   - in order to enable the background task execution mode check the **Perform task in the background** box;
   - in order to disable the background task execution mode, clear the **Perform task in the background** check box.

   > If you enable or disable background mode for the task running, task priority will not change immediately but only when it is next run.

ON-DEMAND SCAN TASK STATISTICS

While the on-demand scan task is being executed, you can view information about the number of objects processed by Kaspersky Anti-Virus since it was started until the current moment.

This information remains available even if the task is paused. You can view the task statistics in the task execution log (see the section "Viewing statistics and information of a Kaspersky Anti-Virus task using logs" on page 88).

➡ *To view the statistics of an on-demand scan task, take the following steps:*

1. Expand the **On-demand scan** node in the console tree.
2. Select the on-demand scan task whose statistics you wish to view.
3. On the **Overview and management** tab of the details pane in the **Statistics** section, click the **Complete statistics** link.

You can view the following information about objects processed by Kaspersky Anti-Virus since it was started until the current time (see the table below).

Table 17. On-demand scan task statistics

FIELD	**DESCRIPTION**
Detected	Number of objects detected by Kaspersky Anti-Virus. For example, if Kaspersky Anti-Virus detects one malware program in five files, the value in this field increases by one.
Infected objects detected	Number of objects found by Kaspersky Anti-Virus to be infected.
Probably infected objects detected	Number of objects found by Kaspersky Anti-Virus to be probably infected.
Objects not disinfected	Number of objects which Kaspersky Anti-Virus did not disinfect for the following reasons: • the type of detected object cannot be disinfected; • an error occurred during disinfection.
Objects not moved to Quarantine	The number of objects that Kaspersky Anti-Virus attempted to quarantine but was unable to do so, for example, due to insufficient disk space.
Objects not deleted	The number of objects that Kaspersky Anti-Virus attempted but was unable to delete, because, for example, access to the object was blocked by another application.
Objects not scanned	The number of objects in the protection scope that Kaspersky Anti-Virus failed to scan because, for example, access to the object was blocked by another application.
Objects not backed up	The number of objects the copies of which Kaspersky Anti-Virus attempted to save in Backup but was unable to do so, for example, due to insufficient disk space.
Processing errors	Number of objects whose processing resulted in an error.
Objects disinfected	Number of objects disinfected by Kaspersky Anti-Virus.
Moved to Quarantine	Number of objects quarantined by Kaspersky Anti-Virus.
Moved to Backup	The number of object copies that Kaspersky Anti-Virus saved to Backup.
Objects deleted	Number of objects deleted by Kaspersky Anti-Virus.
Password-protected objects	Number of objects (archives, for example) that Kaspersky Anti-Virus missed because they were password protected.
Corrupted objects	The number of objects skipped by Kaspersky Anti-Virus as their format was corrupted.
Objects processed	Total number of objects processed by Kaspersky Anti-Virus.

TRUSTED ZONE

This section provides information about the trusted zone of Kaspersky Anti-Virus, as well as instructions on how to add objects to the trusted zone when executing Kaspersky Anti-Virus tasks.

IN THIS SECTION

ABOUT KASPERSKY ANTI-VIRUS TRUSTED ZONE

You can create a list of exclusions from the protection / scan scope and apply this list of exclusions to On-demand scan tasks, Real-time protection tasks, Script scanning tasks, and tasks of Real-time protection of network storage systems over RPC. This list of exclusions is called the *trusted zone*.

If you have selected the **Add objects using the not-a-virus:RemoteAdmin* mask to exclusions** check box when installing Kaspersky Anti-Virus, the application adds to the trusted zone all objects matching the `not-a-virus:RemoteAdmin*` mask for the tasks of Real-time protection of files, Script scanning, Real-time protection of network storage systems over RPC, and On-demand scan.

If you selected the **Add exclusions specified by Microsoft** and **Add files recommended by Kaspersky Lab to exclusions** check boxes while installing Kaspersky Anti-Virus, the application adds to the trusted zone the files recommended by Microsoft and Kaspersky Lab for Real-time protection of files tasks.

You can add the following objects to the trusted zone of Kaspersky Anti-Virus:

- objects accessed by the processes of applications susceptible to file interceptions (trusted processes);
- objects accessed during backup operations (file backup operations);
- objects specified by their location and/or object detected within them (exclusion rules).

By default, the trusted zone is applied in tasks of Real-time protection of files, Real-time protection of network storage systems, and Script scanning, as well as in newly created user-defined on-demand scan tasks, and in all system tasks of on-demand scan, except for the Scan Quarantine objects task.

The list of trusted zone exclusions can be exported to a configuration file in XML format in order for it then to be imported into Kaspersky Anti-Virus running on another server.

Trusted processes

Exclusions of this type are applied in tasks of real-time protection of files and network storage protection over RPC.

Some applications on the server may be instable if the files that they access are intercepted by Kaspersky Anti-Virus. Such applications include, for example, system domain controller applications.

In order to avoid disrupting the operation of such applications, you can disable real-time protection of files accessed by the operating processes of these applications (thereby creating a list of trusted processes within the trusted zone).

Microsoft Corporation recommends excluding some Microsoft Windows operating system files and Microsoft application files from real-time file protection as programs that cannot be infected. The names of some of these are listed on the Microsoft website http://www.microsoft.com/en/ (article code: KB822158).

You can enable or disable the use of trusted processes in the trusted zone.

If the executable process file is modified, for example, if it is updated, Kaspersky Anti-Virus will exclude it from the list of trusted processes.

Backup operations

Exclusions of this type are used in Real-time protection of files tasks.

For the duration of Backup copying, you can disable real-time protection of objects that are accessed during Backup copying operations. Kaspersky Anti-Virus will scan objects which the backup copying application opens for reading with the FILE_FLAG_BACKUP_SEMANTICS attribute.

Exclusion rules

Exclusions of this type are applied in the Real-time protection of files, Real-time protection of network storage systems, Script scanning tasks and in on-demand scan tasks.

You can use the list of exclusions in the trusted zone for the Real-time protection of files, Real-time protection of network storage systems, and Script scanning tasks, as well as for on-demand scan tasks. You can select tasks for which you want to use every exclusion rule that has been added to the trusted zone. Also, you can exclude objects from scans in the security level settings of every single Kaspersky Anti-Virus task.

You can add objects to the trusted zone by their location on the server, by name or name mask of the object detected in those objects, or use both criteria.

Based on an exclusion rule, Kaspersky Anti-Virus can skip objects while performing the specified tasks according to the following settings:

- Specified objects detected by name or name mask in the specified areas of the server or the network storage system
- All objects detected in the specified areas of the server or the network storage system
- Specified detectable objects by name or name mask within the entire protection / scan scope.

ADDING EXCLUSIONS TO THE TRUSTED ZONE

This section provides instructions on how to add trusted processes and exclusion rules to the trusted zone of Kaspersky Anti-Virus.

IN THIS SECTION

ADDING PROCESSES TO THE LIST OF TRUSTED PROCESSES

You can add a process to the list of trusted processes using one of the following methods:

- select this process from the list of processes running on the protected server;
- Select the executable file of a process regardless of whether the process is currently running.

> If the executable file of a process has been modified, Kaspersky Anti-Virus excludes this process from the list of trusted processes.

➡ *To add a process to the list of trusted processes:*

1. Open the context menu of the Kaspersky Anti-Virus node in the tree of Kaspersky Anti-Virus Console and select **Configure trusted zone settings**.

   The **Trusted zone** window opens.

2. In the **Trusted zone** window, on the **Trusted processes** tab, select the **Do not check file activity of the specified processes** check box.

3. Add a trusted process in one of the following ways:
   - To add a process from the list of running processes:
     a. Press the **Add** button.

        The **Add trusted process** window opens.

     b. In the **Add trusted process** window, click the **Processes** button.

        The **Active processes** window opens.

     c. In the **Active processes** window, select the required process in the list of running processes and click the **OK** button.

        > It is required that the account under which the Real-time protection of files task is run has the administrator rights on the server with Kaspersky Anti-Virus installed in order to allow viewing the list of active processes. You can sort processes in the list of active processes by file name, PID, or path to the executable file of the process on the local computer.

     d. In the **Add trusted process** window, click the **OK** button.

        The selected process will be added to the list of trusted processes in the **Trusted zone** window.

   - To specify the executable file of the process:
     a. Press the **Add** button.

        The **Add trusted process** window opens.

     b. Click **Browse** in the **Add trusted process** window and select an executable file of the process and click **OK**.

        The name of the executable file and the path to it are displayed in the **Adding a trusted process** window.

        When specifying the path system environment variables can be used; user environment variables are not allowed.

        > Kaspersky Anti-Virus does not consider a process to be trusted if the path to the executable file of that process differs from the path that you have specified in the **Folder containing file on protected computer** field.

     c. In the **Add trusted process** window, click the **OK** button.

        The selected process will be added to the list of trusted processes in the **Trusted zone** window.

4. Click **OK** to save changes and close the window.

DISABLING THE USE OF A TRUSTED PROCESS IN THE TRUSTED ZONE

➧ *To disable the use of a trusted process in the trusted zone:*

1. Open the context menu of the Kaspersky Anti-Virus node in the tree of Kaspersky Anti-Virus Console and select **Configure trusted zone settings**.

   The **Trusted zone** window opens.

2. In the **Trusted zone** window, on the **Trusted processes** tab, in the list of trusted processes, clear the check box next to the name of the executable file of the process that you want to temporarily exclude from the trusted zone.
3. Click **OK** to save changes and close the window.

DISABLING THE FEATURES OF REAL-TIME FILE PROTECTION AND REAL-TIME PROTECTION OF NETWORK STORAGE SYSTEMS DURING BACKUP. EXCLUSIONS OF THE TRUSTED ZONE

➧ *To disable Real-time protection of files during backup copying, do the following:*

1. Open the context menu of the Kaspersky Anti-Virus node in the tree of Kaspersky Anti-Virus Console and select **Configure trusted zone settings**.

   The **Trusted zone** window opens.

2. On the **Trusted processes** tab in the **Trusted zone** window, select the **Do not check file backup operations** check box.

3. Click **OK** to save changes and close the window.

ADDING AN EXCLUSION RULE TO THE TRUSTED ZONE

➧ *To add an exclusion rule to the trusted zone:*

1. Open the context menu of the Kaspersky Anti-Virus node in the tree of Kaspersky Anti-Virus Console and select **Configure trusted zone settings**.

   The **Trusted zone** window opens.

2. In the **Trusted zone** window, on the **Exclusion rules** tab, click the **Add** button.

   The **Exclusion rule** window opens.

3. In the **Conditions for skipping an object** section, specify the objects that you wish to exclude from the protection / scan scope and objects that you wish to exclude from among detectable objects (such as remote administration utilities):

   - If you want to exclude an object from the protection / scan scope, select the **Object to scan** check box, click the **Modify** button, and, in the **Select object** window, specify the object that will be excluded from scanning.

     You can use such wildcards as ? and * when specifying objects.

   - If you want to specify the name of an object to detect, select the **Objects to detect** check box, click the **Modify** button, and, in the **List of objects to detect** window, specify the name or name mask of the object to detect according to the Virus Encyclopedia classification (http://www.securelist.com/en/), such as `not-a-virus:RemoteAdmin*`.

   - In the **Rule scope** section, select the check boxes next to the names of task to which the exclusion should be applied.

4. Click **OK** to save changes and close the window.

   The exclusion rule that you have added will be displayed in the list on the **Exclusion rules** tab of the **Trusted zone** window.

ABOUT IMPORTING AND EXPORTING SETTINGS

You can export Kaspersky Anti-Virus settings to an XML configuration file and import settings into Kaspersky Anti-Virus from the configuration file. All Kaspersky Anti-Virus settings or settings for individual Kaspersky Anti-Virus components can be saved in the configuration file.

When you export all of the settings of Kaspersky Anti-Virus, the application saves the general settings and the settings of the following Kaspersky Anti-Virus functions and components to the file:

- Real-time protection of files.
- Script scanning.
- Protection of network-attached storages:

- On-demand scan.
- Updating Kaspersky Anti-Virus databases and application modules.
- Quarantine.
- Backup.
- Logs
- Administrator and user notifications
- Trusted zone.

Also, you can save the general settings of Kaspersky Anti-Virus in the file, as well as the rights of user accounts.

Kaspersky Anti-Virus does not export group task settings.

Kaspersky Anti-Virus exports all passwords used in the application, for example data for the accounts used to launch tasks or to connect to the proxy server, and saves them in the configuration file in an encrypted format. However, these can be imported only by the Kaspersky Anti-Virus installed on the same computer if it has not been re-installed or upgraded. Kaspersky Anti-Virus installed on another computer cannot import them. After settings have been imported to another computer passwords must be entered manually.

If a Kaspersky Security Center policy is active at the moment of export, Kaspersky Anti-Virus exports the values used by that policy.

Settings from a configuration file containing parameters for individual components of Kaspersky Anti-Virus (e.g., from a file created in Kaspersky Anti-Virus installed with incomplete set of components) can be imported. After such a configuration is imported, only those Kaspersky Anti-Virus settings that were present in the configuration file will change. Other settings will remain unchanged.

Imported task settings are not used in tasks running; they will be applied upon the next task start.

Settings of an active policy of Kaspersky Security Center that have been blocked do not change when importing the settings.

ENABLING AND DISABLING THE USE OF THE TRUSTED ZONE IN KASPERSKY ANTI-VIRUS TASKS

By default, the trusted zone is applied in the **Real-time protection of files**, **RPC: Network storage protection**, and **Script scanning** tasks, in newly created user-defined on-demand scanning tasks, as well as in all system on-demand scanning tasks, except for the **Scan Quarantine objects** task.

After the trusted zone is enabled or disabled, exclusions in this zone will be applied immediately or removed from tasks running.

➧ *To enable or disable the use of the trusted zone in Kaspersky Anti-Virus tasks:*

1. In the tree of Kaspersky Anti-Virus Console, open the context menu of a task and select **Properties**.

   The **Properties: <Task>**.

2. In the **Properties: <Task name>** window, on the **General** tab, in the **Trusted zone** section, perform one of the following actions:

   - To apply the trusted zone in the task, select the **Apply trusted zone** check box.
   - To disable the use of the trusted zone in the task, clear the **Apply trusted zone** check box.

3. To configure the trusted zone, click the trusted zone link.

4. Click **OK** to save changes and close the window.

ISOLATING PROBABLY INFECTED OBJECTS. USING QUARANTINE

This section describes how to isolate probably infected objects by quarantining them and how to configure Quarantine settings.

IN THIS SECTION

ABOUT QUARANTINING OF PROBABLY INFECTED OBJECTS

Kaspersky Anti-Virus quarantines probably infected objects by moving such objects from their original location to the *Quarantine storage*. Objects are stored in the Quarantine storage in encrypted form for security considerations.

VIEWING QUARANTINE OBJECTS

Quarantined objects can be viewed in the **Quarantine** node of the Kaspersky Anti-Virus Console.

To view quarantined objects, select the **Quarantine** node in the console tree.

To find the required object in the list of quarantined objects, objects can be sorted (see page)73 or filtered.

IN THIS SECTION

SORTING QUARANTINE OBJECTS

By default, objects in the list of quarantined objects are sorted by date of quarantining in reverse chronological order. To find the desired object you may sort objects by columns with information about the objects. Sorted results will be saved if you leave and then re-open the **Quarantine** node or if you close Kaspersky Anti-Virus Console, save the msc file and then re-open it from this file.

➧ *To sort objects, take the following steps:*

1. Select the **Quarantine** node in the console tree.
2. In the details pane select the column heading that you wish to use to sort objects in the list.

FILTERING QUARANTINE OBJECTS

To find the required quarantined object you can filter objects in the list - display only those objects that satisfy the filtering criteria (filters) that you specify. The filter results will be saved if you leave and then re-open the Quarantine node or if you close Kaspersky Anti-Virus Console, save the msc file and then re-open it from this file.

➧ *To specify one or multiple filters, take the following steps:*

1. Open the context menu on the **Quarantine** node in the console tree and select **Filter**.

   The **Filter settings** window opens.

2. To add a filter, perform the following steps:

   a. In the **Field name** select a file to which the filter value will be compared.

   b. In the **Operator** list select the filtering condition. The values of the filtering conditions in the list may differ depending on the value you have selected in the **Field name** list.

   c. Enter the filter value in the **Field value** field or select it from the list.

   d. Press the **Add** button.

   The filter you have added will appear in the list of filters in the **Filter settings** window. Repeat these steps for each filter you add. Use the following guidelines while working with filters:

   - To combine multiple filters using the logical operator "AND", select **If all conditions are met**.
   - To combine multiple filters using the logical operator "OR", select **If any condition is met**.
   - In order to delete a filter, select the filter you wish to delete in the filter list, and click the **Delete** button.
   - In order to edit a filter, select the filter in the list in the **Filter settings** window. Then change the required values in the **Field name**, **Operator** or **Field value** fields and click the **Replace** button.

3. When all filters have been added, click the **Apply** button.

➧ *In order to re-display all objects in the list of quarantined objects,*

open the context menu on the **Quarantine** node in the console tree and select **Remove filter**.

SCANNING QUARANTINED OBJECTS SCAN QUARANTINE OBJECTS TASK SETTINGS

By default, each time after the database is updated, Kaspersky Anti-Virus executes the **Scan of Quarantine objects** system task. Task settings are described in the table below. You cannot modify them.

You can modify the schedule for the **Scan of Quarantine objects** task or start it manually.

Having scanned quarantined objects after updating its databases, Kaspersky Anti-Virus may recognize some of the objects as not infected: the status of such objects changes to **False alarm**. Other objects can be detected infected by Kaspersky Anti-Virus and it may handle such objects as specified by the **Scan of Quarantine objects** on-demand scan task settings: **Disinfect, delete if disinfection is impossible**.

Table 18. ***Scan Quarantine objects** task settings*

SCAN OF QUARANTINE OBJECTS TASK SETTING	VALUE
Scan scope	Quarantine folder
Security settings	Common for the entire scan area; their values are provided in the next table.

*Table 19. Scan settings in the **Scan of Quarantine objects** task*

SECURITY SETTING	VALUE
Objects scan	All objects
Optimization	Disabled
Action to be performed with infected objects	Disinfect, delete if disinfection is impossible
Action to be performed on infected objects	Skip
Exclude objects	No
Do not detect	No
Stop scan if takes longer than (sec)	Not configured
Do not scan compound objects larger than (MB)	Not configured
Scan alternate NTFS streams	Enabled
Scan disk boot sectors and MBR	Disabled
Using iChecker technology	disabled
Use iSwift technology	disabled
Scan composite objects	• Archives* • SFX archives* • Packed objects* • Embedded OLE-objects* * Scan only new and changed files is disabled.
Checking files for Microsoft signatures	Not performed
Use heuristic analyzer	Enabled with **Deep** analysis level
Trusted zone (see page 68)	Not applied

RESTORING OBJECTS FROM QUARANTINE

Kaspersky Anti-Virus places probably infected objects into the quarantine folder in encrypted form to shield the protected server against their possible harmful effect.

You can restore any object from the quarantine. This may be required in the following cases:

- if after the quarantine scan using the updated database the status of the object changed to **False alarm** or **Disinfected**;
- if you consider the object harmless for the server and wish to use it. If you do not wish Kaspersky Anti-Virus to isolate this object during the subsequent scans you can exclude this object from the processing in the **Real-time protection of files** task and in the on-demand scan tasks. To do this, specify the object as the value of the **Exclude objects** (by filename) security setting or the **Do not detect** in those tasks security setting, or add it to the trusted zone (see page 68).

In restoring an object, you may select the storage location for the restored object: the original location (by default), special folder for restored objects on the protected server or custom folder on the computer where Kaspersky Anti-Virus console is installed or on another computer in the network.

To avoid scanning large-sized objects by Kaspersky Anti-Virus when restoring files from Quarantine, set an exclusion for the folder %Temp%\wseeqbfiles\.

The Restore to folder is used for storing restored objects on the protected server. You can configure special security settings for it to be scanned. The path to this folder is set by the Quarantine settings.

Restoring objects from the quarantine may lead to computer infection.

You can restore the object and save its copy in the quarantine folder to use it later, for example in order to rescan the object after the database has been updated.

> If a quarantined object was contained in a composite object (for example in an archive), Kaspersky Anti-Virus will not include into this composite object during the restoration, rather it will save separately into a selected folder.

You can restore one or several objects.

➧ *To restore quarantined objects, perform the following steps:*

1. Select the **Quarantine** node in the console tree.
2. Perform one of the following actions in the details pane:
   - to restore an object right-click the object you wish to restore and select **Restore** from the context menu;
   - to restore multiple objects select the objects you wish to restore using the **Ctrl** or **Shift** key, right-click one of the selected objects and select **Restore** from the context menu.

   The **Restore object** window opens.
3. In the **Restore object** window, specify folder into which the object being restored will be saved for each of the selected object. (The name of the object is displayed in the **Object** field in the upper part of the window. If you selected several objects, the name of the first object in the list of selected objects will be displayed).

   Perform one of the following steps:
   - to restore an object to its original location, select **Restore to the source folder**;
   - to restore an object to the folder specified as the location for restored objects in the Quarantine settings, select **Restore to the default server folder for restoration**;
   - to save an object to a different folder on computer where Kaspersky Anti-Virus console is installed or to a network folder, select **Restore to folder on your local computer or on network resource** and then select required folder or specify path to it.
4. If you wish to save a copy of the object in the quarantine folder after this objects is restored, clear the **Delete objects from storage after they are restored** check box.
5. In order to apply the specified restoration conditions to the rest of the selected objects, check the **Apply to all selected objects** box.

   All selected objects are restored and saved in the specified location: if you have selected **Restore to the source folder on the server**, each of the objects will be restored to its original location; if you have selected **Restore to the default server folder for restoration** or **Restore to folder on your local computer or on network resource**, all objects will be restored to the folder that you have specified.
6. Click **OK**.

   Kaspersky Anti-Virus will start restoring the first of the selected objects.
7. If an object with this name already exists in the specified location, the **Object with this name already exists** window opens.

   a. Select one of the following actions:
      - **Replace**, in order to restore an object instead of the existing one;
      - **Rename**, to save the restored object under a different name. In the entry field enter a new object's filename and full path to it;
      - **Rename by adding suffix**, to rename the object by adding a suffix to its filename. Enter suffix in the entry field.

   b. If you have selected several objects to be restored, then in order to apply the selected action, such as **Replace** or **Rename by adding suffix**, to the rest of the selected objects, select the **Apply to all selected objects** check box. (If you have selected the **Rename** value, the **Apply to all selected objects** check box will be unavailable).

   c. Click **OK**.

      The object will be restored; information about the restoration operation will be entered into the system audit log.

If you did not select option **Apply to all selected objects** in the **Restore object** window, the **Restore object** window will open again. Using this window you can specify the location into which next selected object will be saved (see Step 3 of this procedure).

QUARANTINING OBJECTS

You can quarantine files manually.

➧ *To quarantine a file, perform the following steps:*

1. Right-click the **Quarantine** node in the console tree and select **Add** object.
2. In the **Open** window, select the file on the disk that you wish to quarantine and click the **OK** button.

   Kaspersky Anti-Virus will quarantine the selected file.

DELETING OBJECTS FROM QUARANTINE

According to the settings of the **Scan of Quarantine objects** task (see page 74), Kaspersky Anti-Virus automatically deletes objects from the Quarantine folder if their status has changed to **Infected** during the scan of Quarantine with the updated databases and if Kaspersky Anti-Virus has failed to disinfect them. Kaspersky Anti-Virus does not remove other objects are from Quarantine.

One or multiple objects can be deleted from Quarantine.

➧ *To delete one or multiple objects from the Quarantine, take the following steps:*

1. Select the **Quarantine** node in the console tree.
2. Perform one of the following steps:
   - to delete an object open the context menu on the object you wish to delete and select **Delete**;
   - to delete multiple objects, select the objects you wish to delete using the **Ctrl** or **Shift** key, open the context menu on the one of the selected objects and select **Delete**.
3. In the confirmation window, click the **Yes** button to confirm operation.

SENDING PROBABLY INFECTED OBJECTS TO KASPERSKY LAB FOR ANALYSIS

If the behavior of a file gives you a reason to suspect that it contains a threat, and Kaspersky Anti-Virus considers this file to be clean, you may have encountered a new unknown threat whose signature has not yet been added to the databases. You may send this file to Kaspersky Lab for analysis. Kaspersky Lab's Anti-Virus analysts will analyze it and, if they detect a new threat in it, will add a record identifying it in the databases. It is likely that when you rescan the object after the database has been updated Kaspersky Anti-Virus will find this object to be infected and will be able to disinfect it. You will not only be able to keep the object, but will prevent a virus outbreak.

Only quarantined files can be sent for analysis. These are stored in the encrypted form in the quarantine folder. and during transfer will not be deleted by the Anti-Virus application installed on the mail server.

Quarantined object cannot be sent for analysis to Kaspersky Lab after the license expires.

➧ *To send a file for analysis to Kaspersky Lab, take the following steps:*

1. If the file was not quarantined, first move it into Quarantine (see page 77).
2. In the **Quarantine** node, open the context menu on the file which you wish to send for analysis and select **Send object for analysis** in the context menu.
3. If a mail client is configured on the computer on which Kaspersky Anti-Virus Console is installed, a new email message will be created. Review it and click the **Send** button.

   The **Receiver** field will contain the Kaspersky Lab email address newvirus@kaspersky.com. The **Subject** field will contain the text "Quarantined object".

   The body of the message will contain the following text: "This file will be sent to Kaspersky Lab for analysis". You can include any additional information about the file in the message body: why you considered it to be probably infected or dangerous, how it behaves, or how it impacts the system.

Archive <object name>.cab will be attached to the message. This archive will contain file <uuid>.klq with the object in encrypted form, file <uuid>.txt with information about the object collected by Kaspersky Anti-Virus, as well as the file Sysinfo.txt, which contains the following information about Kaspersky Anti-Virus and the operation system installed on the server:

- name and version of the operating system;
- Kaspersky Anti-Virus name and version;
- release date of the latest database update installed;
- Active key number.

This information is required by Kaspersky Lab's anti-virus analysts in order analyze your file faster and more efficiently. If, however, you do not wish to transfer this information you can delete Sysinfo.txt file from the archive.

If no mail client applications are configured on the computer on which the Kaspersky Anti-Virus Console is installed, the Microsoft Windows Internet connection setup wizard will open. You can perform the following operations:

- follow the Internet connection setup wizard instructions to create a new account and send the file from this computer.
- close the wizard and save the selected encrypted object to a file. This file can be sent to Kaspersky Lab manually.

To save an encrypted object to a file, take the following steps:

1. In the window that opens with a prompt to save the object click the **Yes** button.
2. Select a folder on the drive of the protected server or a network folder where the file containing the object will be saved.

CONFIGURING QUARANTINE SETTINGS USING MMC

This section describes how to configure quarantine settings. New Quarantine values for settings apply immediately after they are saved.

➧ *To configure Quarantine settings, take the following steps:*

1. Right-click the **Quarantine** node in the console tree and select **Properties**.
2. In the **Properties:** Configure the desired **Quarantine** settings in accordance with your requirements:
   - To specify for Quarantine a folder that is other than the default one, in the **Quarantine storage folder** field, select the relevant folder on the local disk of the protected server or specify its name and full path to it.
   - To set the maximum size of Quarantine, select the **Maximum Quarantine size** check box and specify a value in megabytes in the entry field.
   - To set the minimum free space in Quarantine, define the **Maximum Quarantine size** setting, select the **Threshold of free space** check box, and specify the relevant setting value in the entry field (in megabytes).
   - to specify a different folder for restored objects, select the required folder on the disk in the **Restoration settings** section or enter its absolute path and name.
3. Click **OK**.

QUARANTINE STATISTICS

You can view information about the number of quarantined objects - quarantine statistics.

➧ *In order to view quarantine statistics,*

open the context menu on the **Quarantine** node in the console tree and select **Statistics**.

The **Statistics** window displays information about the number of objects currently stored in Quarantine (see the following table):

Table 20. Information about quarantined objects in the Statistics window

FIELD	DESCRIPTION
Probably infected objects	Number of objects found by Kaspersky Anti-Virus to be probably infected.
Current Quarantine size	Total size of data in the quarantine folder.
False alarms	The number of objects that received **False alarm** status because they were classified as non-infected during the quarantine scan using updated databases.
Objects disinfected	The number of objects that received **Disinfected** status after the quarantine scan.
Total number of objects	Total number of objects in Quarantine.

BACKUP COPYING OF OBJECTS BEFORE DISINFECTION / DELETION. USING BACKUP

This section provides information about backup of detected malicious objects before disinfection or deletion, as well as about how to configure Backup.

IN THIS SECTION

ABOUT BACKING UP OBJECTS BEFORE DISINFECTION / DELETION

Kaspersky Anti-Virus stores encrypted copies of objects classified as *Infected* or *Probably infected* in *Backup* before disinfecting or deleting them.

If the object is a part of a composite object (for example, part of an archive), Kaspersky Anti-Virus will save such a composite object in its entirety in Backup. For example, if Kaspersky Anti-Virus has detected that one of the objects from a mail database is infected, it will back up the entire mail database.

Large objects placed in Backup can slow down the system and reduce disc space on the hard drive.

Files can be restored from Backup either to their original folder or to a different folder on the protected server or on another computer in the local area network. A file can be restored from Backup, for example, if an infected file contained important information, but during the disinfection of this file Kaspersky Anti-Virus was unable to maintain its integrity and therefore the information became unavailable.

Restoring files from Backup may lead to computer infection.

VIEWING FILES STORED IN BACKUP

Files can be stored in the Backup folder only by using Kaspersky Anti-Virus Console in the **Backup** node. They cannot be viewed using Microsoft Windows file managers.

➡ *In order to view the files in Backup,*

select the **Backup** node in the console tree.

➡ *In order to find the required object in the list,*

sort the objects (see page 81) or filter the objects (see page 81).

IN THIS SECTION

SORTING FILES IN BACKUP

By default, files in Backup are sorted by the date of saving in reverse chronological order. To find the required file, you can sort files according to the content of any column in the details pane.

The sorted results will be saved if you leave and then re-open the **Backup** node or if you close Kaspersky Anti-Virus Console, save the msc file, and then re-open it from that file.

➧ *To sort files in Backup, take the following steps:*

1. Select the **Backup** node in the console tree.
2. In the list of files in Backup select the column heading which you wish to use to sorting the objects.

FILTERING FILES IN BACKUP

To find the required file in Backup you can filter files: display in the **Backup** node only those files which satisfy the filtering criteria you have specified (filters).

the sorting result will be saved if you leave and then re-open the **Backup** node or if you close the Kaspersky Anti-Virus Console, save the msc file and then re-open it from this file.

➧ *To filter files in Backup, take the following steps:*

1. Open the context menu on the **Backup** node in the console tree and select **Filter**.
2. The **Filter settings** window opens.
3. To add a filter, perform the following steps:

   a. From the **Field name** list select the field against whose values the filter values will be compared during selection.

   b. In the **Operator** list select the filtering condition. The values of the filtering conditions in the list may differ depending on the value you have selected in the **Field name** field.

   c. Enter the filter value in the **Field value** field or select filter value.

   d. Press the **Add** button.

   The filter you have added will appear in the list of filters in the **Filter settings** window. Repeat these steps for each filter you add. The following guidelines can be used while working with the filters:

   - To combine multiple filters using the logical operator "AND", select **If all conditions are met**.
   - To combine multiple filters using the logical operator "OR", select **If any condition is met**.
   - In order to delete a filter, select the filter you wish to delete in the filter list, and click the **Delete** button.
   - To edit the filter, select it from the filter list in the **Filter settings** window, modify the required values in the **Field name**, **Operator** or **Field value** fields and click the **Replace** button.

   When all filters have been added, click the **Apply** button. Only files selected by the filters you have specified will then be displayed in the list.

➧ *In order to display all files included in the list of objects stored in Backup*

Open the context menu on the **Backup** node in the console tree and select **Remove filter**.

RESTORING FILES FROM BACKUP

Kaspersky Anti-Virus stores files in the Backup folder in encrypted form in order to protect the protected server against their possible harmful effect.

Any file can be restored from Backup.

A file may need to be restored in the following cases:

- If the original file, which appeared to be infected, had been containing important information and Kaspersky Anti-Virus failed to keep its integrity so, as a result, the information in the file became unavailable
- if you consider the file harmless to the server and wish to use it. If you do not wish Kaspersky Anti-Virus to consider this file infected or probably infected, during subsequent scans you can exclude it from processing in the **Real-time protection of files** task and in the on-demand scan tasks. To do this, specify the file as the **Exclude objects** setting or as the **Do not detect** setting in the corresponding tasks.

> Restoring files from Backup may lead to computer infection.

When restoring a file, you can choose the location where to save it: to the original folder (by default), to a special folder for restored objects on the protected server, to a custom folder on a computer where Kaspersky Anti-Virus Console is installed, or to another computer in the network.

> In Administration Console, to restore a file from Backup without scanning this file at the moment of saving it to the folder specified, the Administrator should previously create an exclusion rule for the folder %Temp%\wseeqbfiles\.

The Restore to folder is used for storing restored objects on the protected server. You can configure special security settings for it to be scanned. The path to this folder is set by the Backup settings. See section "Configuring backup settings" (see page 83).

By default when Kaspersky Anti-Virus is restoring a file it makes a copy of it in Backup. The file copy can be deleted from Backup after it is restored.

➧ *To restore files from Backup, take the following steps:*

1. Select the **Backup** node in the console tree.
2. Perform one of the following steps:
   - in order to restore one file, open the context menu on the file you wish to restore in the list of files in Backup and select the **Restore** command.
   - to restore multiple files, select the files you wish to restore in the list using the **Ctrl** or **Shift** key, open the context menu on the one of the selected files and select the **Restore** command.
3. In the **Restore object** window, specify the folder to which the restored file will be saved.

   The name of the file is displayed in the **Object** field in the upper part of the window. If multiple files are selected, this field will contain the name of the file displayed first in the list.

   Perform one of the following steps:

   - To save the file being restored on the protected server, select one of the following options:
     - **Restore to the source folder**, if you do not want to restore the file to its original folder.
     - **Restore to the default server folder for restoration**, if you wish to restore the file to the folder specified as the folder for restored objects in the Backup settings.
   - To save the restored file to a different folder select **Restore to folder on your local computer or on network resource** and select the required folder (on the computer where Kaspersky Anti-Virus Console is installed or network folder), or specify the path to it.
4. If you wish to save a copy of the file in the Backup folder after it is restored, clear the **Delete objects from storage after they are restored** check box.
5. If several files are selected to be restored, then in order to apply the selected saving conditions to the rest of the selected objects, check the box **Apply to all selected objects**.

   All selected files are restored and saved in the specified folder: if you have selected **Restore to the source folder on the server**, each of the files will be saved to its original location; if you have selected **Restore to the default server folder for restoration** or **Restore to folder on your local computer or on network resource**, all objects will then be saved into the folder that you have specified.
6. Click **OK**.

   Kaspersky Anti-Virus will start restoring the first of the selected files.

   If a file with this name already exists in the specified location, the **Object with this name already exists** window opens.

7. take the following steps:

   a. Select the condition for saving the restored file:

      - **Replace**, to restore a file instead of the existing one.
      - **Rename**, to save a restored file with a different name. In the entry field enter the new filename and full path to it
      - **Rename by adding suffix**, to rename the file by adding a suffix to its filename. Enter suffix in the entry field.

   b. If you wish to apply the action **Replace** or **Rename** by adding a suffix to other selected files, select the **Apply to all objects** check box.

      If you have specified **Rename**, then the **Apply to all objects** box will not be available.

   c. Click **OK**.

   The file will be restored. Information about the restore operation will be registered in the system audit log.

   If you have selected several files to be restored and did not select the option **Apply to all selected objects** in the **Restore object** window, the **Restore object** window opens again. This window can be used to specify the folder in which the next selected object will be saved (see Step 3 of this procedure).

DELETING FILES FROM BACKUP

➧ *To delete one or multiple files from Backup, take the following steps:*

1. Select the **Backup** node in the console tree.
2. Perform one of the following steps:
   - to delete one file, open the context menu on the file you wish to delete in the object list, and select **Delete**;
   - to delete multiple files, select the files you wish to delete using the **Ctrl** or **Shift** key, open the context menu on the one of the selected files, and select **Delete** in the context menu.
3. In the **Confirm** window, click the **Yes** button to confirm the operation. Selected files will be deleted.

CONFIGURING BACKUP SETTINGS USING MMC

This section describes how to configure Backup settings.

New values for Backup settings apply immediately after they are saved.

➧ *To configure Backup settings, take the following steps:*

1. Open the context menu on the **Backup** node in the console tree and select **Properties**.
2. In the **Properties: Backup**, do the following:
   - To specify the **Backup folder**, use the Backup folder field to select the required folder on the local drive of the protected server, or enter its full path.
   - To set the maximum size of Backup, select the **Maximum Backup size** check box and specify the relevant value in megabytes in the entry field.
   - To set the threshold of free space in Backup, define the value of the **Maximum Backup size** setting, select the **Available space threshold (MB)** check box, and specify the minimum value of free space in the Backup folder in megabytes.
   - To specify a folder for restored objects, select the relevant folder on a local drive of the protected server in the **Restoration settings** section, or enter the name of the folder and the full path to it in the **Target folder for restoring objects** field.
3. Click **OK**.

BACKUP STATISTICS

You can view information about the current status of Backup: Backup statistics.

➡ *To view Backup statistics,*

open the context menu on the **Backup** node in the console tree and select **Statistics**. The **Backup statistics** window opens.

The **Backup statistics** window displays information about the current Backup status (see table below).

Table 21. Information about current Backup status

FIELD	DESCRIPTION
Current Backup size	Data size in the Backup folder; application calculates the file size in encrypted form.
Total number of objects	Current total number of objects in Backup

EVENT REGISTRATION. KASPERSKY ANTI-VIRUS LOGS

This section provides information about how to manage Kaspersky Anti-Virus logs: system audit log, Kaspersky Anti-Virus task log, and Kaspersky Anti-Virus event log.

IN THIS SECTION

WAYS OF LOGGING KASPERSKY ANTI-VIRUS EVENTS

Events of Kaspersky Anti-Virus are divided into two groups:

- Events related to the processing of objects in Kaspersky Anti-Virus tasks
- Events related to the administration of Kaspersky Anti-Virus, such as application startup, creation or deletion of tasks, or edition of task settings.

Kaspersky Anti-Virus uses the following methods of logging events:

- **Task logs**. A task execution log contains information about current task status and events that occurred during its execution.
- **System audit log**. The system audit log contains information about events that are related to the administration of Kaspersky Anti-Virus.
- **Event Log**. The Event Log contains information about events that are required for diagnostics of failures in the operation of Kaspersky Anti-Virus. The Event Log is available in Microsoft Windows Event Viewer.

If a problem occurs during Kaspersky Anti-Virus operation (for example, Kaspersky Anti-Virus or an individual task terminates abnormally or does not start), you can create a trace log and Kaspersky Anti-Virus process memory dump and send files with this information for analysis to Kaspersky Lab Technical Support in order to diagnose the problem encountered. For more details on creating a trace log and memory dump files see the section "Procedure of configuring general Kaspersky Anti-Virus settings in Kaspersky Anti-Virus Console" (see page 34).

Kaspersky Anti-Virus records information to trace files and memory dump files in non-encrypted format.

SYSTEM AUDIT LOG

Kaspersky Anti-Virus performs the system audit of events related to the administration of Kaspersky Anti-Virus. The application logs information about, for example, startup of the application, starts and stops of Kaspersky Anti-Virus tasks, changes in task settings, creation and deletion of on-demand scan tasks. Records of all those events are displayed in the results pane when you select the **System audit log** node in Kaspersky Anti-Virus Console.

By default Kaspersky Anti-Virus stores records in the system audit log for an unlimited period of time. You specify the storage period for records in the system audit log.

You can specify a folder which Kaspersky Anti-Virus will use to store files containing system audit log other than the default one.

IN THIS SECTION

SORTING EVENTS IN THE SYSTEM AUDIT LOG

By default, events in the system audit log node are displayed in reverse chronological order.

Events can be sorted by the contents of any column except the Event column.

➧ *To sort events in the system audit log:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Select the **System audit log** subnode.
3. In the results pane, select the header of the column that you want to use to sort the events in the list.

   The sorted results will be saved until your next viewing session in the system audit log.

FILTERING EVENTS IN THE SYSTEM AUDIT LOG

You can configure the system audit log to display only the records of events that meet the filtering conditions (filters) that you have specified.

➧ *To filter events in the system audit log, take the following steps:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Open the context menu of the **System audit log** subnode and select **Filter**.

   The **Filter settings** window opens.
3. To add a filter, perform the following steps:

   a. In the **Field name** list, select a column by which events will be filtered.

   b. In the **Operator** list select the filtering condition. Filtering conditions vary depending on the item selected in the **Field name** list.

   c. In the **Field value** list, select a value for the filter.

   d. Press the **Add** button.

   The filter you have added will appear in the list of filters in the **Filter settings** window.
4. If necessary, perform one of the following actions:
   - If you want to combine multiple filters using the logical operator "AND", select **If all conditions are met**.
   - If you want to combine multiple filters using the logical operator "OR", select **If any condition is met**.
5. Click the **Apply** button to save the filtering conditions in the system audit log.

   The list of events of the system audit log displays only events that meet the filtering conditions. The filtering results will be saved until your next viewing session in the system audit log.

➧ *To disable the filter:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Open the context menu of the **System audit log** subnode and select **Remove filter**.

   The list of events of the system audit log will then display all events.

DELETING EVENTS FROM SYSTEM AUDIT LOG

By default Kaspersky Anti-Virus stores records in the system audit log for an unlimited period of time. You specify the storage period for records in the system audit log.

You can manually delete all events from system audit log.

➧ *To delete events from the system audit log:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Open the context menu of the **System audit log** subnode and select **Clear**.
3. Perform one of the following steps:
   - If you want to save the log contents as a file in CSV or TXT format before deleting events from the system audit log, click the **Yes** button in the deletion confirmation window. In the window that opens, specify the name and location of the file.
   - If you do not want to save the log contents as a file, click the **No** button in the deletion confirmation window.

The system audit log will be cleared.

TASKS LOGS

This section provides information about tasks logs of Kaspersky Anti-Virus and instructions on how to manage them.

IN THIS SECTION

ABOUT TASKS LOGS

Information about the execution of Kaspersky Anti-Virus tasks is displayed in the results pane when you select the **Task logs** node in Kaspersky Anti-Virus Console.

In the log of each task, you can view the statistics of the task execution, details of each of the objects that have been processed by the application since the task startup until the present moment, and the task settings.

By default, Kaspersky Anti-Virus stores records in task logs during 30 days since the task completion. You can change the storage period for records in task logs.

You can specify a folder that Kaspersky Anti-Virus will use to store files containing task logs other than the default one. You can also select events that Kaspersky Anti-Virus will record into task logs.

VIEWING THE LIST OF EVENTS IN TASKS LOGS

➧ *To view the list of events in task logs:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Select the **Task logs** subnode.

   The list of events saved in task logs of Kaspersky Anti-Virus will be displayed in the results pane.

Events can be sorted by any column or filtered.

SORTING EVENTS IN TASK LOGS

By default, events in task logs are displayed in reverse chronological order. They can be sorted by any column.

➧ *To sort events in tasks logs:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Select the **Task logs** subnode.
3. In the results pane, select the header of the column that you want to use to sort events in task logs of Kaspersky Anti-Virus.

   The sorted results will be saved until your next viewing session in the task logs.

FILTERING EVENTS IN TASK LOGS

You can configure the list of task logs to display only the records of events that meet the filtering conditions (filters) that you have specified.

➧ *To filter events in the task logs:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Open the context menu of the **Task logs** subnode and select **Filter**.

   The **Filter settings** window opens.
3. To add a filter, perform the following steps:
   a. In the **Field name** list, select a column by which events will be filtered.
   b. In the **Operator** list select the filtering condition. Filtering conditions vary depending on the item selected in the **Field name** list.
   c. In the **Field value** list, select a value for the filter.
   d. Press the **Add** button.

   The filter you have added will appear in the list of filters in the **Filter settings** window.
4. If necessary, perform one of the following actions:
   - If you want to combine multiple filters using the logical operator "AND", select **If all conditions are met**.
   - If you want to combine multiple filters using the logical operator "OR", select **If any condition is met**.
5. Click the **Apply** button to save the filtering conditions in the list of task logs.

   The list of events of task logs displays only events that meet the filtering conditions. The filtered results will be saved until your next viewing session in the task logs.

➧ *To disable the filter:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Open the context menu of the **Task logs** subnode and select **Remove filter**.

   The list of events of the task logs will then display all events.

VIEWING STATISTICS AND INFORMATION ABOUT A KASPERSKY ANTI-VIRUS TASK IN TASK LOGS

In task logs, you can view detailed information about all events that have occurred in tasks since they had been started until the present moment, as well as task execution statistics and task settings.

➧ *To view statistics and information about a Kaspersky Anti-Virus task:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Select the **Task logs** subnode.
3. In the results pane, open the **Logs** window using one of the following methods:
   - By double-clicking the event that has occurred in the task for which you want to view the log

- Open the context menu of the event that has occurred in the task for which you want to view the log, and select **View log**.

4. In the window that opens, the following details are displayed:
   - The **Statistics** tab displays the time of the task startup and completion, as well as the task statistics.
   - The **Events** tab displays a list of events that have been logged during the task run.
   - The **Properties** tab displays the task settings.
5. If necessary, click the **Filter** button to filter the events in the task log.
6. If necessary, click the **Export** button to export data from the task log into a file in CSV or TXT format.
7. Click the **Close** button to close the **Logs** window.

EXPORTING INFORMATION FROM A TASK LOG

You can export data from a task log into a file in CSV or TXT format.

➧ *To export data from a task log:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Select the **Task logs** subnode.
3. In the results pane, open the **Logs** window using one of the following methods:
   - By double-clicking the event that has occurred in the task for which you want to view the log
   - Open the context menu of the event that has occurred in the task for which you want to view the log, and select **View log**.
4. In the lower part of the **Logs** window, click the **Export** button.

   The **Save as** window opens.
5. Specify the name, location, type, and coding of the file into which you want to export data from the task log, and click the **Save** button.

DELETING EVENTS FROM TASK LOGS

By default, Kaspersky Anti-Virus stores records in task logs during 30 days since the task completion. You can change the storage period for records in task logs.

You can manually delete all events from logs of tasks that have been already completed for the present moment.

Events from logs of tasks that are currently running and tasks being used by other users will not be deleted.

➧ *To delete the events from tasks logs:*

1. In the tree of Kaspersky Anti-Virus Console, expand the **Logs** node.
2. Select the **Task logs** subnode.
3. Perform one of the following steps:
   - If you want to delete the events from the logs of all tasks that have been already completed for the present moment, open the context menu of the **Task logs** subnode and select **Clear**.
   - If you want to clear the log of an individual task, in the results pane, open the context menu of an event that has occurred in the task for which you want to clear the log, and select **Delete**.
   - If you want to clear the logs for several tasks:
     a. In the results pane, use the **Ctrl** or **Shift** keys to select events that have occurred in the tasks for which you want to clear the logs.
     b. Open the context menu of any selected event and select **Delete**.
4. Click the **Yes** button in the deletion confirmation window to confirm that you want to delete the logs.

The task logs that you have selected will be cleared. The deletion of events from the task logs will be registered with the system audit log.

VIEWING THE EVENT LOG OF KASPERSKY ANTI-VIRUS IN EVENT VIEWER

You can view the event log of Kaspersky Anti-Virus using Microsoft Windows **Event Viewer** for Microsoft Management Console. The log contains events registered by Kaspersky Anti-Virus and required for diagnostics of failures in its operation.

Events that will be registered in the events log can be selected based on the following criteria:

- **by event types**;
- **by level of detail**. The level of detail corresponds to the level of severity of the events registered in the log (informational, important, or critical events). The most detailed is the **Informational events** level, which registers all events, and the least detailed is the **Critical events** level, which registers critical events only. By default, all components except for the **Update** component have the level of detail **Important events** selected (only important and critical events are logged); for the **Update** component the level **Informational events** is selected.

➧ *To view the event log of Kaspersky Anti-Virus:*

1. Click the **Start** button, enter the `mmc` command at the search bar, and press **ENTER**.

   The window of Microsoft Management Console opens.
2. Select **File** → **Add or remove snap-in**.

   The **Add or remove snap-ins** window opens.
3. In the list of available snap-ins, select the **Event Viewer** snap-in and click the **Add** button.

   The **Select computer** window opens.
4. In the **Select computer** window, specify the computer on which Kaspersky Anti-Virus is installed, and click **OK**.
5. In the **Add and remov snap-ins** window, click **OK**.

   In the console tree, the **Event Viewer** node appears.
6. In the console tree, expand the **Event Viewer** node and select the **Logs of applications and services** → **Kaspersky Anti-Virus** subnode.

   The event log of Kaspersky Anti-Virus opens.

CONFIGURING LOGS OF KASPERSKY ANTI-VIRUS IN KASPERSKY ANTI-VIRUS CONSOLE

You can edit the following settings of logs of Kaspersky Anti-Virus:

- Length of the storage period for events in task logs and the system audit log
- Location of the folder in which Kaspersky Anti-Virus stores files of task logs and the system audit log
- Events that Kaspersky Anti-Virus saves in task logs, the system audit log, and the event log of Kaspersky Anti-Virus in Event Viewer.

➧ *To configure Kaspersky Anti-Virus logs, perform the following steps:*

1. In the Kaspersky Anti-Virus Console tree, open the context menu of the **Logs** node and select **Properties**.

   The **Properties: Logs**.
2. In the **Properties** window: **Logs** window, configure the logs in accordance with your requirements. To do so:
   - On the **General** tab, if necessary, select events that Kaspersky Anti-Virus will save in task logs, the system audit log, and the event log of Kaspersky Anti-Virus in Event Viewer. To do so:
     - In the **Component** list, select the component of Kaspersky Anti-Virus for which you want to set the detail level.

> For the **Real-time protection of files**, **RPC**: Network storage protection, **ICAP**: **Network storage protection**, **Script scanning**, **On-demand scan**, and **Update** components, events are set to be recorded in the task completion log and the event log. For these components, the table of event list contains the **Logs** and **Event Log** columns. Events for the **Quarantine** and **Backup** components are registered with the system audit log and the event log. For these components, the table of event list contains the **Audit** and **Event Log** columns.

  - In the **Severity level** list, select a detail level for events in tasks logs, the system audit log, and the event log for the selected component.

    In the following table with a list of events, the check boxes are selected next to events that are registered with task logs, the system audit log, and the event log, according to the current detail level.

  - If you want to manually enable registration of specific events for a selected component, perform the following actions:

    a. In the **Importance level** list, select **Custom**.

    b. In the table with the list of events, select the check boxes next to events that you want to be registered in task logs, the system audit log, and the event log.

- On the **Advanced** tab, if necessary, select a folder in which Kaspersky Anti-Virus should save log files, and specify the time period for the storage of events in task logs and the system audit log:

  - **Logs folder**.

    Path to the log folder in UNC (Universal Naming Convention) format.

    Default path: C:\ProgramData\Kaspersky Lab\KAV for Windows Servers Enterprise Edition\8.0\Reports\.

  - **Delete task logs and event logs older than (days)**.

    The check box enables / disables a function that deletes logs with the results of execution of completed tasks and events published in logs of running tasks after the specified period of time (default value: 30 days).

    If the check box is selected, Kaspersky Anti-Virus deletes logs with the results of execution of completed tasks and events published in logs of running tasks after the specified period of time.

    The check box is selected by default.

  - **Delete from the audit log events older than (days)**.

    The check box enables / disables a function that deletes events recorded in the audit log after the specified period of time (default value: 60 days).

    If the check box is selected, Kaspersky Anti-Virus deletes events recorded in the audit log after the specified period of time.

    The check box is selected by default.

3. Click **OK** to save changes and close the window.

MANAGING KASPERSKY ANTI-VIRUS KEYS

This section describes how to add a key to the application, delete a key, and view information about keys that have been added.

IN THIS SECTION

ADDING A KEY

You can add a key by applying a key file.

If an active key has already been added for Kaspersky Anti-Virus and you add another key as the active key, the new key replaces the key added previously. The key installed earlier is removed.

If an additional key has already been added for Kaspersky Anti-Virus and you add another key as the additional key, the new key replaces the previously added key. The supplementary key installed earlier is removed.

If an active key and an additional key have already been added for Kaspersky Anti-Virus and you add a new key as the active key, the new key replaces the active key added previously and the additional key is deleted.

➡ *To add a key, perform the following steps:*

1. Open the context menu of the **Licensing** node in the console tree and select **Add key**.
2. Specify the key file in the **Add key** window that opens.
3. To add an additional key, select the **Use as additional key** check box.
4. Click **OK**.

SEE ALSO

Deleting a key.. 92

Viewing the details of added keys 93

REMOVING THE KEY

You can remove the added key.

If an additional key has been added to Kaspersky Anti-Virus and you remove the active key, the additional key automatically becomes the active key.

If you delete an added key, you can restore it only by re-applying the key file.

➡ *To remove a key that has been added:*

1. Select the **Licensing** node in the console tree.
2. Open the context menu in the details pane on the bar with information about the key that you wish to delete, and select **Delete**.
3. Click the **Yes** button in the confirmation window to confirm that you wish to delete the key.

VIEWING THE DETAILS OF ADDED KEYS

➡ *To view information about the added keys:*

1. Select the **Licensing** node in the console tree.
2. In the details pane select the line containing information about the key whose details you wish to view, and select **Properties**.

The following information is displayed in the results panel for the key (see table below).

Table 22. Information about the license

FIELD	DESCRIPTION
Key	Key number.
License type	License type: Trial or commercial.
Expiration date	Expiry date of the license associated with the key.
Status	Key status: active or additional.

In the **Properties:** <**Key**> window on the **General** tab shows detailed information about the key (see table below).

Table 23. Detailed license information

FIELD	DESCRIPTION
Key	Key number.
Key addition date	Date when the key was added to the application.
License type	License type: Trial or commercial.
Expires in (days)	Number of days remaining until the expiry of the license associated with the key.
Expiration date	Expiry date of the license associated with the key.
Application	Name of the application for which the key has been added.
Key usage restriction	Restriction on key usage (if any).
Eligible for technical support	Information on whether Kaspersky Lab or one of its partners will provide technical support for customers according to the license terms.

In the **Properties:** <**Key**> window, on the **Advanced** tab, information about the customer is displayed, as well as contact information of Kaspersky Lab or the retailer from which you purchased Kaspersky Anti-Virus.

NOTIFICATION SETTINGS

This section provides information about ways in which users and administrators of Kaspersky Anti-Virus can be notified about application events and the server protection status, as well as instructions on how to configure notifications.

IN THIS SECTION

ADMINISTRATOR AND USER NOTIFICATION METHODS

You can configure the application to notify the administrator and users who access the protected server about events in Kaspersky Anti-Virus operation and the status of Anti-Virus protection on the server.

The application ensures performance of the following tasks:

- The administrator can receive information about events of selected types;
- LAN users who access a protected server and terminal server users can receive information about events of the type *Object detected* in the **Real-time protection of files** task.

> The NET SEND command sends a notification of an infected object only if the user works on a remote computer running on Microsoft Windows Server 2003 or earlier, or on Microsoft Windows XP. If it is located on the protected server, the NETSEND command does not send any notifications of infected objects.

In Kaspersky Anti-Virus Console, administrator or user notifications can be activated using several methods:

- User notification methods:

  a. Terminal service tools.

     You can apply this method for notifying terminal users if the protected server is used as terminal.

  b. Message service tools.

     You can apply this method for notification via Microsoft Windows message services. This method is not used if the protected server is running on Microsoft Windows Server 2008.

- Administrator notification methods:

  a. Message service tools.

     You can apply this method for notification via Microsoft Windows message services. This method is not used if the protected server is running on Microsoft Windows Server 2008.

  b. Running an executable file.

     This method runs an executable file stored on the local drive of the protected server, when the event occurs.

  c. Sending by email.

     This method uses email to transmit messages.

You can create a message text for individual event types. It can include an information field to describe an event. By default, the application uses a predefined text to notify users.

CONFIGURING ADMINISTRATOR AND USER NOTIFICATIONS

Event notification settings give you a choice of methods for configuring and composing a message text.

➡ *To configure event notification settings, take the following steps:*

1. In the console tree, open the context menu of the Kaspersky Anti-Virus node and select the **Configure notification settings** command.

   The **Notifications** window opens.

2. On the **Notifications** tab in the **Notifications** window, select the events and specify the method of notification for them:

   - To specify the notification method for the administrator, take the following steps:

     a. Select the event for which you wish to select a notification method from the **Event type** list.

     b. In the **Notify administrators** group settings, select the check box next to the notification methods that you wish to configure.

   - To specify the user notification methods, in the **Notify users** group of settings, select the check box next to the notification methods that you wish to configure for the **Object detected** event.

3. To compose a message text, click the **Message text** button in the appropriate settings group. Enter in the **Message text** window the text to be displayed in the corresponding event message.

   You can create the same message text for several types of events: after you have selected a notification method for one event type, select the other event types for which you want to use the same message text, by using the **Ctrl** or **Shift** key, and then click the **Message text** button.

   To add fields with information about an event, click the **Macro** button and select the relevant fields from the dropdown list. Fields with event information are described in the table in this section.

   In order to restore the default text of the message for this event, click the **By default** button.

4. To configure the selected methods of administrator notification of selected events, click the **Settings** button in the **Notifications** window and configure the selected methods in the **Advanced settings** window. To do so:

   a. For email notifications, open the **Email** tab and specify the email addresses of recipients (delimit addresses with semicolon), name or network address of SMTP server, and port number in the appropriate fields. If necessary, specify the text that will be displayed in the **Subject** and **From** fields. The text in the **Subject** field can also include a field with information about the event (see table below).

   If you wish to use user account authentication when connecting to the SMTP server, select **Use SMTP authentication** in the **Authentication settings** group and specify the name and password of the user whose user account will be authenticated.

   b. To send notifications via the messaging service on the **Messaging Service** tab, compile a list of notification recipient computers: for each computer that you want to add, click the **Add** button and type its network name in the entry field.

   Note that **Messaging Service** notifications are not used to deliver notifications if the protected server is running Microsoft Windows Server 2008 and subsequent versions of Microsoft Windows Server.

   c. To run an executable file, select the file on a local drive of the protected server that will be executed on the server triggered by the event or enter the full path to it on the **Executable file** tab. Enter the username and password which will be used to execute the file.

   System environment variables can be used when the path to the executable file is specified; user environment variables are not allowed.

   If you wish to limit the number of messages for one event type over a period of time, on the **Advanced** tab select **Do not send the same notification more than** and specify the number of times and time unit.

5. Click **OK**.

Table 24. Fields with event information

FIELD	DESCRIPTION
%EVENT_TYPE%	Event type.
%EVENT_TIME%	Event time.
%EVENT_SEVERITY%	Severity level.

FIELD	DESCRIPTION
%OBJECT%	Object name (in real-time protection and on-demand scan tasks). The **Update of application software modules** task includes the name of the update and the address of the web page with information on the update.
%VIRUS_NAME%	The name of object according to the Virus Encyclopedia classification (http://www.securelist.com/en/). This name is included in the full name of the detected object that Kaspersky Anti-Virus returns on detecting an object. You can view the full name of the detected object in the task log (see the section "Viewing statistics and information of a Kaspersky Anti-Virus task using tasks logs" on page 88).
%VIRUS_TYPE%	The type of detected object according to the Kaspersky Lab classification, such as "virus" or "trojan". It is included in the full name of the detected object, which is returned by Kaspersky Anti-Virus when it finds an object to be infected or probably infected. You can view the full name of the detected object in the task log (see the section "Viewing statistics and information of a Kaspersky Anti-Virus task using tasks logs" on page 88).
%USER_COMPUTER%	In the **Real-time protection of files** and **RPC: Network storage protection** tasks, the name of the user's computer that has accessed the object on the server.
%USER_NAME%	In the **Real-time protection of files** and **RPC: Network storage protection** tasks, the name of the user that has accessed the object on the server.
%FROM_COMPUTER%	Name of the protected server where the notification originated.
%EVENT_REASON%	Reason event occurred (some events do not have this field).
%ERROR_CODE%	Error code (used only for the "internal task error" event).
%TASK_NAME%	Task name (only for events related to task performance).

HIERARCHICAL STORAGE MANAGEMENT

This section provides information about how to perform anti-virus scans of files located in hierarchical storage areas and backup systems.

IN THIS SECTION

ABOUT TIERED STORAGE

The Hierarchical Storage Management system (further referred to as HSM system) allows data relocation between fast local drives and slow long-term data storage devices. Despite evident advantages of fast data storage devices, they tend to be too expensive for most organizations. HSM systems transfer unused data to inexpensive remote data storage devices thus minimizing corporate expenses.

HSM systems preserve some data in remote storage areas restoring the information, if necessary. HSM systems constantly monitor file access detecting which files can safely be moved to remote storage and which should be preserved locally. Files are relocated to remote storage if no requests to access them are made for a certain specified time period. If a user accesses a file stored remotely, the file is transferred back to the local drive. That approach ensures that users can quickly access large data volume considerably exceeding available disk space.

While moving a file from local drive to remote storage, HSM system saves a link to the actual location of the file. Whenever a file containing the link is accessed, the system determines the data location on the backup device. Replacement of actual files with links to the locations where they are stored allows creation of storage areas of practically unlimited size.

Some HSM systems support local storage of file portions. In that case larger portion of file data is transferred to remote storage while local storage retains just a small part of the original file.

HSM systems use two methods to access the data in hierarchical storage:

- reparse points;
- extended file attributes.

CONFIGURING HSM SYSTEM SETTINGS

If you do not use HSM systems, leave unchanged the default value for the **Hierarchical storage access type** setting (**Non-HSM system**).

To configure access to the tiered storage, you have to specify the way the HSM system determines the location of the file being scanned. You can find this information in manuals of the HSM system being used.

➡ *To define the access type for hierarchical storage, perform the following steps:*

1. Open the **HSM system settings** window in one of the following ways:
   - in the console tree, open the context menu of the **Kaspersky Anti-Virus** node and select the **Hierarchical storage** item;
   - in the console tree, select the **Kaspersky Anti-Virus** node, and on the quick access panel open the window by clicking the **Hierarchical storage** link.

2. Specify the settings of the HSM system on the **Hierarchical storage** tab:
   - **Non-HSM system**.
   - **HSM system uses reparse points**.
   - **HSM system uses extended file attributes**.
   - **Unknown HSM system**.

   > If you specify the wrong version or select the **Unknown HSM system** option, Kaspersky Anti-Virus can incorrectly determine the location of objects, which will increase the time it takes to process objects.

3. Click **OK** to save the selected settings.

IMPORTING AND EXPORTING SETTINGS

This section provides information about how to export the settings of Kaspersky Anti-Virus or the settings of specific application components to a configuration file in XML format, and how to import those settings from that configuration file to the application.

IN THIS SECTION

EXPORTING SETTINGS

➧ *To export settings to a configuration file, take the following steps:*

1. If you have modified settings in Kaspersky Anti-Virus Console, save the new values before exporting the settings.
2. Perform one of the following steps:
    - To export all of the settings of Kaspersky Anti-Virus, open the context menu of the Anti-Virus node in the console tree and select **Export settings**
    - To export the settings of an individual component, open the context menu of the node of that component in the console tree and select **Export settings**
    - To export the settings of the Trusted Zone component:
        a. Open the context menu of the Kaspersky Anti-Virus node in the tree of Kaspersky Anti-Virus Console and select **Configure trusted zone settings**.

           The **Trusted zone** window opens.

        b. Click the **Export** button.

    The welcome window of the settings export wizard will open.
3. Follow the instructions in the Wizard windows: specify the configuration file name for saving settings and the path to it.

    System environment variables can be used when specifying the path; user environment variables are not allowed.

    > If a policy of Kaspersky Security Center is active at the moment of export, Kaspersky Anti-Virus exports the settings' values used by that policy.

4. Press the **OK** button in the **Export of application settings complete** window in order to close the Export Settings Wizard.

IMPORTING SETTINGS

➧ *To import settings from a saved configuration file, take the following steps:*

1. Perform one of the following steps:
    - To import all of the settings of Kaspersky Anti-Virus, open the context menu of the Kaspersky Anti-Virus node in the console tree and select **Import settings**
    - To import the settings of an individual component, open the context menu of the node of that component in the console tree and select **Import settings**

- To import the settings of the Trusted Zone component:

    a. Open the context menu of the Kaspersky Anti-Virus node in the tree of Kaspersky Anti-Virus Console and select **Configure trusted zone settings**.

    The **Trusted zone** window opens.

    b. Click the **Import** button.

The welcome window of the settings import wizard will open.

2. Follow the instructions in the Wizard windows: specify the configuration file from which you want to import settings.

> After you have imported the general settings of Kaspersky Anti-Virus or its functional components on the server, you will not be able return to the previous setting values.

3. In the **Application settings import completed** window, click the **OK** button to close the Settings Import Wizard.

4. Press the **Refresh** button in the toolbar of the Kaspersky Anti-Virus Console to display the imported settings.

> Kaspersky Anti-Virus does not import passwords (data of the accounts used to launch tasks or to connect to the proxy server) from the file created on another computer or on the same computer after the Kaspersky Anti-Virus installed on it has been re-installed or updated. After the importing operation is completed, passwords must be entered manually.

MANAGING KASPERSKY ANTI-VIRUS FROM THE COMMAND LINE

This section provides information and instructions on how to manage Kaspersky Anti-Virus at the command prompt.

IN THIS SECTION

KASPERSKY ANTI-VIRUS COMMAND LINE COMMANDS

You can perform basic Kaspersky Anti-Virus management commands from the command line of the protected server if you included the **Command line utility** into the list of installed features during Kaspersky Anti-Virus installation.

Using command line commands you can manage only those functions which are accessible to you based on the rights assigned to you in Kaspersky Anti-Virus.

Some of the commands of Kaspersky Anti-Virus are executed in synchronous mode: The management returns to the console only after the command execution completes; other commands are executed in asynchronous mode: the management returns to the console immediately after the command is run.

➧ *To interrupt command execution in synchronous mode*

You can use the **Ctrl**+**C** keyboard shortcut to interrupt command execution in synchronous mode.

Follow the following rules when entering Kaspersky Anti-Virus commands:

- enter modifiers and commands using upper and lower case;
- delimit modifiers with the space character;
- if the file/folder name whose path you specify as key value contains a space character, provide the file/folder path in quotes, for example: "C:\TEST\test cpp.exe";
- if necessary, use wildcards in name and path masks for files, for example: "C:\Temp\Temp*\", "C:\Temp\Temp???.doc", "C:\Temp\Temp*.doc"

You can use the command line for the entire range of operations required for management and administration of Kaspersky Anti-Virus (see the table below).

Table 25. Kaspersky Anti-Virus commands

COMMAND	DESCRIPTION
KAVSHELL HELP (see page 102)	Displays Kaspersky Anti-Virus command help.
KAVSHELL START (see page 102)	Starts Kaspersky Anti-Virus service.
KAVSHELL STOP (see page 102)	Stops Kaspersky Anti-Virus service.
KAVSHELL SCAN (see page 102)	Creates and launches a temporary on-demand scan task with the scan scope and security settings set by the command modifiers.
KAVSHELL SCANCRITICAL (see page 105)	Starts the **Scan of critical areas** system task.
KAVSHELL TASK (see page 106)	Starts / pauses / resumes / stops the selected task asynchronously / returns the current task status / statistics.
KAVSHELL RTP (see page 107)	Starts or stops all real-time protection tasks.
KAVSHELL UPDATE (see page 107)	Starts Kaspersky Anti-Virus bases update task with the settings specified using command modifiers.
KAVSHELL ROLLBACK (see page 109)	Rolls back bases to the previous version.

COMMAND	DESCRIPTION
KAVSHELL LICENSE (see page 110)	Manages keys.
KAVSHELL TRACE (see page 110)	Enables or disables the tracing log, manages settings of the tracing log.
KAVSHELL DUMP (see page 112)	Enables or disables Kaspersky Anti-Virus process memory dump in case of abnormal termination of processes.
KAVSHELL IMPORT (see page 112)	Imports general Kaspersky Anti-Virus settings, functions, and tasks from a configuration file created beforehand.
KAVSHELL EXPORT (see page 113)	Exports all Kaspersky Anti-Virus settings and existing tasks to a configuration file.

DISPLAYING KASPERSKY ANTI-VIRUS COMMAND HELP. KAVSHELL HELP

In order to obtain the list of all Kaspersky Anti-Virus commands, enter one of the following commands:

```
KAVSHELL
```

```
KAVSHELL HELP
```

```
KAVSHELL /?
```

To obtain an overview of a command and its syntax, enter one of the following commands:

```
KAVSHELL HELP <command>
```

```
KAVSHELL <command> /?
```

KAVSHELL HELP command examples

To view detailed information about the KAVSHELL SCAN command, execute the following command:

```
KAVSHELL HELP SCAN
```

STARTING AND STOPPING KASPERSKY ANTI-VIRUS SERVICE. KAVSHELL START, KAVSHELL STOP

In order to start Kaspersky Anti-Virus service use command `KAVSHELL START`.

By default when Kaspersky Anti-Virus is started, tasks **Real-time protection of files**, **Script scanning** and **Scan at system startup** as well as other tasks that are scheduled to start **At application startup** will be launched.

In order to stop Kaspersky Anti-Virus service use command `KAVSHELL STOP`.

Return codes for KAVSHELL START and KAVSHELL STOP commands (on page 114)

SCANNING SELECTED AREA. KAVSHELL SCAN

In order to start a task for scanning specific areas of the protected server use command `KAVSHELL SCAN`. The task settings (scan scope and security settings) are specified by the command modifiers.

The on-demand scan task launched using `KAVSHELL SCAN` command is a temporary task. It is displayed in the Kaspersky Anti-Virus console only while being executed (you cannot view task settings in the Anti-Virus console). The task performance log is generated at the same time. It is displayed in the **Task logs** of the Kaspersky Anti-Virus console. As with on-demand scan tasks created in the Kaspersky Anti-Virus console, policies of Kaspersky Security Center can be applied to tasks created and launched using the SCAN command. For Anti-Virus management using Kaspersky Security Center please refer to the section "Managing Anti-Virus using Kaspersky Security Center" (see page 119).

When specifying paths in scan tasks for specific areas, you can use environmental variables. If you use environmental variable specified for user, execute `KAVSHELL SCAN` command with the rights of this user.

Command `KAVSHELL SCAN` is executed in the synchronous mode.

To start an existing on-demand scan task from the command line, use the KAVSHELL TASK command (see page 106).

KAVSHELL SCAN command syntax

KAVSHELL SCAN <scan scope> [/MEMORY|/SHARED|/STARTUP|/REMDRIVES|/FIXDRIVES|/MYCOMP] [/L:< path to file with the list of scan scopes >] [/F<A|C|E>] [/NEWONLY] [/AI:<DISINFECT|DISINFDEL|DELETE|REPORT|AUTO>] [/AS:<QUARANTINE|DELETE|REPORT|AUTO>] [/DISINFECT|/DELETE] [/E:<ABMSPO>] [/EM:<"masks">] [/ES:<size>] [/ET:<number of seconds>] [/TZOFF] [/OF:<SKIP|RESIDENT|SCAN[=<days>] [NORECALL]>] [/NOICHECKER][/NOISWIFT][/ANALYZERLEVEL][/NOCHECKMSSIGN][/W:<path to task log file>] [/ANSI] [/ALIAS:<task alias>] [/ANSI]

The KAVSHELL SCAN command has both mandatory and optional keys (see table below).

KAVSHELL SCAN command examples

KAVSHELL SCAN Folder4 D:\Folder1\Folder2\Folder3\ C:\Folder1\ C:\Folder2\3.exe \\server1\Shared Folder\ F:\123\*.fgb /SHARED /AI:DISINFDEL /AS:QUARANTINE /FA /E:ABM /EM:*.xtx;*.ff?;*.ggg;*.bbb;*.info /NOICHECKER /NOISWIFT /ANALYZERLEVEL:1 /W:report.log

```
KAVSHELL SCAN /L:scan_objects.lst /W:log.log
```

Table 26. `KAVSHELL SCAN` command syntax and the purpose of its modifiers

KEY	DESCRIPTION
Scan scope. Mandatory modifier.	
<files>	Specifies the scan scope - list of files, folders, network paths and pre-defined areas. Specify network paths to the UNC format (Universal Naming Convention). In the following example folder Folder4 is specified without a path - it is located in the folder from which you launch command KAVSHELL: KAVSHELL SCAN Folder4 If the name of the object to be checked contains spaces, it must be placed in quotation marks. When a folder is selected, Kaspersky Anti-Virus will also check all subfolders for the folder in question. The symbols * or ? can be used to scan a group of files.
<folders>	
<network path>	
/MEMORY	Scan objects in RAM
/SHARED	Scan shared folders on the server
/STARTUP	Scan startup objects
/REMDRIVES	Scan removable drives
/FIXDRIVES	Scan hard drives
/MYCOMP	Scan all areas of protected server
/L: <path to file with the list of scan scopes>	File name with the list of scan scopes including full path to the file. Delimit scan scopes in the files using line breaks. You can specify pre-defined scan areas as shown as follows in this example of a file with a scan scope list: C:\ D:\Docs\*.doc E:\My Documents /STARTUP /SHARED
Scanned objects (File types). If you do not specify values for this modifier, Kaspersky Anti-Virus will scan objects by their format.	
/FA	Scan all objects
/FC	Scan objects by format (by default). Kaspersky Anti-Virus scans only objects format of which are included into the list of formats of infectable objects.

KEY	DESCRIPTION
/FE	Scan objects by extension. Kaspersky Anti-Virus scans only objects with extensions included into the list of extensions of infectable objects.
/NEWONLY	Scan only new and modified files. If you do not provide this modifier, Kaspersky Anti-Virus will scan all objects.
/AI: **Actions to perform on infected objects**. If you do not specify values for this modifier, Kaspersky Anti-Virus will perform the **Skip** action.	
DISINFECT	Skip, delete if disinfection is not possible
DISINFDEL	Disinfect, delete if disinfection is impossible
DELETE	Delete The settings DISINFECT and DELETE are saved in the current version of Kaspersky Anti-Virus in order to ensure compatibility with previous versions. These settings can be used instead of the key commands /AI: and /AS:. In this case, Kaspersky Anti-Virus will not process probably infected objects.
REPORT	Send report (by default)
AUTO	Perform the recommended action
/AS: **Action to perform on probably infected objects** (**actions**). If you do not specify values for this modifier, Kaspersky Anti-Virus will perform the **Skip** action.	
QUARANTINE	Quarantine
DELETE	Delete
REPORT	Send report (by default)
AUTO	Perform the recommended action
Exclusions	

/E:ABMSPO	Excludes composite objects of the following types:
	A – archives (scan SFX archives only);
	B – email databases;
	M – plain mail;
	S – archives and SFX-archives;
	P – packed objects;
	O – embedded OLE objects.

/EM:<"masks">	Exclude files by mask. You can specify several masks, for example: EM:″*.txt;*.png; C\Videos\*.avi″.
/ET:<number of seconds>	Stop processing object if it continues longer than the number of seconds specified by value <number of seconds>. There is no time restriction by default.
/ES:<size>	Do not scan compound objects larger than the size (in MB) specified by value <size>. Kaspersky Anti-Virus scans all sizes of objects by default.
/TZOFF	Disable Trusted Zone exclusions.
/AI: **Action to be performed on offline files:** (HSM options)	
/SKIP	Skip offline files.
/RESIDENT	Scan resident file part only.
/SCAN	Scan all offline files.
SCAN=<days>	Scan only offline files which were accessed during a designated period (day(s)).
/SCAN NORECALL	Scan all offline files, where possible not copying them to the hard drive.

KEY	**DESCRIPTION**
SCAN=<days>	Scan only offline files which were accessed during a designated period (day(s)), where possible not copying them to the hard drive.
Advanced settings (Options)	
/NOICHECKER	Disable the use of iChecker (enabled by default)
/NOISWIFT	Disable the use of iSwift (enabled by default)
/ANALYZERLEVEL:<analysis intensity>	Enable Heuristic Analyzer, configure analysis level. The following levels of heuristic analysis intensity are available: 1 – light; 2 – medium; 3 – deep. If you omit the modifier, Kaspersky Anti-Virus will not use heuristic analyzer.
/NOCHECKMSSIGN	Do not scan files with a digital signature from Microsoft (enabled by default).
/ALIAS:<task alias>	Enables you to assign an on-demand scan task a temporary name by which the task can be accessed during its execution, for example in order to view its statistics using TASK command. The task alias must be unique among the task aliases of all functional components of Kaspersky Anti-Virus. If this modifier is not specified, temporary name scan_<kavshell_pid> is used, for example scan_1234. The task name is also assigned automatically as Scan objects (<date and time>) for example Scan objects 8/16/2007 5:13:14 PM.
Settings of task logs (Report settings)	
/W:<path to task execution log file>	If this key is specified, Kaspersky Anti-Virus will save the task log file with the name defined by the key's value. The log file contains task execution statistics, the time when it was started and completed (stopped), and information about events in this task. The log is used to register events defined by the settings of task logs and the Kaspersky Anti-Virus event log in the "Event Viewer". Either the absolute or relative path to the log file can be specified. If you specify only the name of a file without specifying the respective path, the log file will be created in the current folder. Restarting the command with the same log settings will overwrite the existing log file. The log file can be viewed while a task is running. The log appears in the **Task logs** node of Kaspersky Anti-Virus Console. If Kaspersky Anti-Virus fails to create the log file, it will not stop the command from executing but it will display an error message.
/ANSI	The option enables recording of events to task log in the ANSI encoding. The ANSI option will not be applied, if the W option is not defined. If the ANSI option is not specified, task log is generated using the UNICODE encoding.

Return codes for the KAVSHELL SCAN and KAVSHELL SCANCRITICAL commands (on page 114)

STARTS THE SCANNING CRITICAL AREAS TASK. KAVSHELL SCANCRITICAL

Use the `KAVSHELL SCANCRITICAL` command to start the system on-demand scan task **Scan of critical areas** with the settings defined in the Anti-Virus console.

KAVSHELL SCANCRITICAL command syntax

```
KAVSHELL SCANCRITICAL [/W:<path to task log file>]
```

KAVSHELL SCANCRITICAL command examples

To run the **Scan of critical areas** on-demand scan task, and save the task log scancritical.log in the current folder, execute the following command:

```
KAVSHELL SCANCRITICAL /W:scancritical.log
```

Depending upon the syntax of the /W modifier, you can configure the location of the task log (see the table below).

Syntax of the `/W` modifier for the `KAVSHELL SCANCRITICAL` command

KEY	DESCRIPTION
/W:<path to task execution log file>	If this key is specified, Kaspersky Anti-Virus will save the task log file with the name defined by the key's value. The log file contains task execution statistics, the time when it was started and completed (stopped), and information about events in this task. The log is used to register events defined in the task execution log settings and in the Anti-Virus event log settings in the "Event Viewer". Either the absolute or relative path to the log file can be specified. If you specify only the name of a file without specifying the respective path, the log file will be created in the current folder. Restarting the command with the same log settings will overwrite the existing log file. The log file can be viewed while a task is running. The log appears in the **Task logs** node of Kaspersky Anti-Virus Console. If Kaspersky Anti-Virus fails to create the log file, it will not stop the command from executing but it will display an error message.

Return codes for the KAVSHELL SCAN and KAVSHELL SCANCRITICAL commands (on page 114)

MANAGING THE SPECIFIED TASK ASYNCHRONOUSLY. KAVSHELL TASK

You can manage the specified task using the `KAVSHELL TASK` command: run, pause, resume, and stop the task, as well as view its current status and statistics. The command is performed in asynchronous mode.

You cannot manage group tasks of Kaspersky Security Center using this command.

KAVSHELL TASK command syntax

```
KAVSHELL TASK [<task name alias> </START | /STOP | /PAUSE | /RESUME | /STATE |
/STATISTICS >]
```

KAVSHELL TASK command examples

```
KAVSHELL TASK

KAVSHELL TASK on-access /START

KAVSHELL TASK user-task_1 /STOP

KAVSHELL TASK scan-computer /STATE
```

`KAVSHELL TASK` command can run without modifiers or with one/several modifiers (see the table below).

Table 27. KAVSHELL TASK command syntax

KEY	DESCRIPTION
Without keys	Returns the list of all existing Kaspersky Anti-Virus tasks. The list contains the following fields: task name, task category (system, user-defined or group) and current task status.
<task alias>	Instead of the task name, in the SCAN TASK command, use its Task alias, an additional short-form name that Kaspersky Anti-Virus assigns to tasks. To view Kaspersky Anti-Virus task aliases enter the command KAVSHELL TASK without any modifiers.
/START	Starts the specified task in asynchronous mode

KEY	DESCRIPTION
/STOP	Stops the specified task
/PAUSE	Pauses the specified task
/RESUME	Resumes the specified task in asynchronous mode
/STATE	Returns the current task status (**Running**, **Completed**, **Paused**, **Stopped**, **Failed**, **Starting**, **Recovering**)
/STATISTICS	Retrieve task statistics - information on the number of objects processed from the time the task started until now

Return codes for the KAVSHELL TASK command (on page 115)

STARTING AND STOPPING REAL-TIME PROTECTION TASKS. KAVSHELL RTP

Using the `KAVSHELL RTP` command you can start or stop all real-time protection tasks.

KAVSHELL RTP command syntax

```
KAVSHELL RTP {/START | /STOP}
```

KAVSHELL RTP command examples

To start all real-time protection tasks, execute the following command:

```
KAVSHELL RTP /START
```

The `KAVSHELL RTP` command can include any of two mandatory modifiers (see the table below).

KAVSHELL RTP command modifiers

KEY	DESCRIPTION
/START	starts all real-time protection tasks.
/STOP	stops all real-time protection tasks.

Return codes for KAVSHELL RTP command (on page 115)

STARTING KASPERSKY ANTI-VIRUS DATABASES UPDATE TASK. KAVSHELL UPDATE

The `KAVSHELL UPDATE` command can be used to start the Kaspersky Anti-Virus databases update command in the synchronous mode.

The Kaspersky Anti-Virus databases update task, run using a `KAVSHELL UPDATE` command, is a temporary task. It is only displayed in the Anti-Virus console while being executed. The task execution log is generated at the same time. It is displayed in the **Task logs** of the Anti-Virus console. Kaspersky Security Center policies may apply to update tasks created and launched using the `KAVSHELL UPDATE` command and update tasks created in the Anti-Virus console. For details of Anti-Virus management on servers by means of Kaspersky Security Center, please refer to the section "Managing Anti-Virus via Kaspersky Security Center" (see page 119).

Environment variables can be used when specifying the path to updates source in this task. If a user's environment variables are used, execute the `KAVSHELL UPDATE` command with the rights of this user.

Command syntax for KAVSHELL UPDATE

```
KAVSHELL UPDATE < Path to updates source | /AK | /KL> [/NOUSEKL] [/PROXY:<address>:<port>]
[/AUTHTYPE:<0-2>] [/PROXYUSER:<user name>] [/PROXYPWD:<password>] [/NOPROXYFORKL]
[/USEPROXYFORCUSTOM] [/NOFTPPASSIVE] [/TIMEOUT:<seconds>] [/REG:<iso3166 code>] [/W:<path
to task execution log file>] [/ALIAS:<task alias>]
```

The KAVSHELL UPDATE command has both mandatory and optional keys (see the following table).

Examples of the KAVSHELL UPDATE command

To start a user-defined database update task, execute the following command:

```
KAVSHELL UPDATE
```

To run the database update task using the update files in the \\Server\databases network folder, run the following command:

```
KAVSHELL UPDATE \\Server\databases
```

To start an update task using the FTP server ftp://dnl-ru1.kaspersky-labs.com/ as the source and log all task events to the c:\update_report.log file, execute the command:

```
KAVSHELL UPDATE ftp://dnl-ru1.kaspersky-labs.com/ W:c:\update_report.log
```

To retrieve updates for Kaspersky Anti-Virus databases from an update server at Kaspersky Lab; connect to the update source via a proxy server (proxy server address: proxy.company.com, port: 8080); to access the server, use NTLM authentication integrated in Microsoft Windows logging in under an account (user name: inetuser, password: 123456), run the following command:

```
KAVSHELL UPDATE /KL /PROXY:proxy.company.com:8080 /AUTHTYPE:1 /PROXYUSER:inetuser
/PROXYPWD:123456
```

Table 28. KAVSHELL UPDATE command keys

KEY	**DESCRIPTION**
Updates sources (mandatory key). Specify one or multiple sources. Kaspersky Anti-Virus will access the sources in the order in which they are listed. Delimit sources with a space.	
<path in UNC format>	User-defined updates source. Path to network update folder in the UNC format.
<URL>	User-defined updates source. HTTP server address where update folder is located.
<Local folder>	User-defined updates source. Folder on the protected server.
/AK	Kaspersky Security Center Administration server as the updates source.
/KL	Kaspersky Lab's update servers as the updates sources.
/NOUSEKL	Do not use Kaspersky Lab's update servers if other updates sources are not available (used by default).
Proxy server settings	
/PROXY:<address>:<port>	Network name or IP address of the proxy server and its port. If this key is not specified, Kaspersky Anti-Virus will automatically detect the settings of the proxy server used in the local area network.
/AUTHTYPE:<0-2>	This key specifies the authentication method to access proxy server. It can have the following values: **0 – in-built Microsoft Windows NTLM-authentication; Kaspersky** Anti-Virus **will contact the proxy server under the** Local system (SYSTEM) account; **1** – in-built Microsoft Windows NTLM-authentication; Kaspersky Anti-Virus will contact the proxy server under account with login name and password specified by the keys /PROXYUSER and /PROXYPWD; **2** – authentication by login name and password specified by keys /PROXYUSER and /PROXYPWD (basic authentication). If authentication is not required for accessing the proxy server, there is no requirement to specify a key.
/PROXYUSER:<user name>	Username which will be used for accessing proxy server. If the value of key /AUTHTYPE:0 is specified, then /PROXYUSER:<user name> and /PROXYPWD:<password> keys will be ignored.
/PROXYPWD:<password>	Username which will be used for accessing proxy server. If the value of key /AUTHTYPE:0 is specified, then /PROXYUSER:<user name> and /PROXYPWD:<password> keys will be ignored. If /PROXYUSER key is specified and /PROXYPWD omitted, the password will be considered blank.
/NOPROXYFORKL	Do not use proxy server settings for connecting with Kaspersky Lab's update servers (used by default)

KEY	DESCRIPTION
/USEPROXYFORCUSTOM	Use proxy server settings for connecting to user-defined updates sources (not used by default).
/USEPROXYFORLOCAL	Use proxy server settings for connecting to local updates sources. If not specified, the value **Do not use proxy server settings to connect to the local updates sources** will apply.
General FTP and HTTP server settings	
/NOFTPPASSIVE	If this key is specified, Kaspersky Anti-Virus will use the active FTP server mode to connect to the protected server. If this key is not specified, Kaspersky Anti-Virus will use the passive FTP server mode, if possible.
/TIMEOUT:<number of seconds>	FTP or HTTP server connection timeout. If this key is not specified, Kaspersky Anti-Virus uses the default value: 10 s. You can only use integers as the value for this key.
/REG:<iso3166 code>	Regional settings. This key is used when receiving updates from Kaspersky Lab's update servers. Kaspersky Anti-Virus optimizes the update load on the server by selecting the update server nearest to it. As the value of this key, specify the letter code of the location country for the protected server in accordance with ISO 3166-1, for example /REG: gr or /REG:RU. If this key is omitted or a non-existent country code is specified, Kaspersky Anti-Virus will detect the location of the protected server based on the regional settings on the computer where Anti-Virus console is installed (for Microsoft Windows 2003 Server and above – according to the value of **Location** variable).
/ALIAS:<task alias>	This key will allow you to assign a temporary name to the task, to be used to access the task during its execution. For example, task statistics can be viewed using the TASK command. The task alias must be unique among the task aliases of all functional components of Kaspersky Anti-Virus. If this key is not specified, update_<kavshell_pid>, for example, update_1234 will be used. In the Kaspersky Anti-Virus Console the task will be automatically assigned Update-databases (<date time>), for example, Update-databases 8/16/2007 5:41:02 PM.
/W:<path to task execution log file>	If this key is specified, Kaspersky Anti-Virus will save the task log file with the name defined by the key's value. The log file contains task execution statistics, the time when it was started and completed (stopped), and information about events in this task. The log is used to register events defined by the settings of task logs and the Kaspersky Anti-Virus event log in the "Event Viewer". Either the absolute or relative path to the log file can be specified. If only the file name is specified without its path, then the log file will be created in the current folder. Restarting the command with the same log settings will overwrite the existing log file. The log file can be viewed while a task is running. The log appears in the **Task logs** node of Kaspersky Anti-Virus Console. If Kaspersky Anti-Virus fails to create a log file, this will not stop the command from executing, but an error message will be displayed.

Return codes for the command KAVSHELL UPDATE (see section "Return codes for the command KAVSHELL RTP" on page 115)

ROLLING BACK KASPERSKY ANTI-VIRUS DATABASE UPDATES KAVSHELL ROLLBACK

The `KAVSHELL ROLLBACK` command can be used to perform a Kaspersky **Anti-Virus database rollback** system task (roll back Kaspersky Anti-Virus databases to the previously installed version). The command is performed synchronously.

Command syntax:

```
KAVSHELL ROLLBACK
```

Return codes for the KAVSHELL ROLLBACK command (on page 116)

ADDING OR DELETING KEYS. KAVSHELL LICENSE

Kaspersky Anti-Virus keys can be installed and deleted using the `KAVSHELL LICENSE` command.

Command syntax for KAVSHELL FULLSCAN

```
KAVSHELL LICENSE [/ADD:<key file name>[/R]| /DEL:<key number>]
```

Examples of the KAVSHELL SCAN command

To add a key from a key file, execute the command:

KAVSHELL LICENSE /ADD:C:/License.key

To view information on added keys, execute the command:

```
KAVSHELL LICENSE
```

To remove an added key with number 0000-000000-00000001, execute the command:

```
KAVSHELL LICENSE /DEL:0000-000000-00000001
```

`The KAVSHELL LICENSE` command can run with keys or without them (see table below).

Table 29. KAVSHELL LICENSE command keys

KEY	DESCRIPTION
Without keys	The command returns the following information about added keys: • Key number. • License type (commercial or trial). • Duration of the license associated with the key. • Key status (active or additional). If the value specified is *, the key has been added as an additional key.
/ADD:<key file name>	Adds key via the specified file. System environment variables can be used when specifying the path to a key file; user environment variables are not allowed.
/R	/R key is an addition to /ADD and indicates that the key being added is an additional key.
/DEL:<key number>	Deletes the key with specified number.

Return codes for KAVSHELL LICENSE command (on page 116)

ENABLING, CONFIGURING AND DISABLING THE TRACE LOG. KAVSHELL TRACE

The `KAVSHELL TRACE` command can be used to enable and disable the trace log for all Kaspersky Anti-Virus subsystems and to set the log detail level.

Kaspersky Anti-Virus records information to trace files and memory dump files in non-encrypted format.

Command syntax for KAVSHELL TRACE

```
KAVSHELL TRACE </ON /F:<path to trace log file folder> [/S:<maximum log size in
megabytes>] [/LVL:debug|info|warning|error|critical] | /OFF>
```

If the trace log is maintained and you wish to change its settings, enter `KAVSHELL TRACE` command with /ON key and specify log settings with values of /S and /LVL keys (see table below).

Table 30. KAVSHELL TRACE command keys

KEY	DESCRIPTION
/ON	Enables the trace log.
/F:<folder with trace log files>	This key specifies the full path to the folder to which the trace log files will be saved (required). If a path to a non-existent folder is specified, no trace log will be created. Network paths in UNC (Universal Naming Convention) format can be used, but paths to folders on the network drives of the protected server cannot be specified. If a space character is contained in the name of the folder to which you specify the path as the value of the key, put the path to this folder into quotes, for example: /F:"C\Trace Folder". System environment variables can be used when specifying the path to the trace log files; user environment variables are not allowed.
/S: <maximum log file size in megabytes>	This key sets the maximum size of a single trace log file. As soon as the log file reaches the maximum level, Kaspersky Anti-Virus will start recording information into a new file; the previous log file will be saved. If the value of this key is not specified, the maximum size of one log file will be 50 MB.
/LVL:debug|info|warning|error|critical	This key sets the log detail level from maximum (**Debug information**) in which all events are recorded into the log, to minimum (**Critical events**) in which only critical events are recorded. If this key is not specified, events with the **Debug information** level of detail will be recorded in the trace log.
/OFF	This key disables the trace log.

Examples of the KAVSHELL TRACE command

To enable the trace log using the Debug information level of detail and maximum log size of 200MB, and to save the log file to folder C:\Trace Folder, execute the command:

KAVSHELL TRACE /ON /F:"C:\Trace Folder" /S:200

To enable the trace log using the Important events level of detail, and to save the log file to folder C:\Trace Folder, execute the command:

KAVSHELL TRACE /ON /F:"C:\Trace Folder" /LVL:warning

To disable the trace log, execute the command:

```
KAVSHELL TRACE /OFF
```

Return codes for KAVSHELL TRACE command (on page 116)

CLEANING THE ISWIFT BASE. KAVSHELL FBRESET

Kaspersky Anti-Virus uses the iSwift technology, which allows the application to avoid rescanning files that have not been modified since the last scan (**Use iSwift technology**).

Kaspersky Anti-Virus creates in the %SYSTEMDRIVE%\System Volume Information directory the files fidbox.dat and fidbox2.dat, which contain information about clean objects that have already been scanned. The file fidbox.dat (fidbox2.dat) grows with the number of files scanned by Kaspersky Anti-Virus. This file stores only up-to-date information about files that actually exist in the system: if a file is deleted from the system, Kaspersky Anti-Virus deletes all relevant information from the file fidbox.dat (fidbox2.dat).

To clean up a file, use the command `KAVSHELL FBRESET`.

Please keep in mind the following specifics for operating the `KAVSHELL FBRESET` command:

- While cleaning the file fidbox.dat by means of the KAVSHELL FBRESET command, Kaspersky Anti-Virus does not pause the protection (unlike in cases of manual deletion of fidbox.dat).
- Kaspersky Anti-Virus may increase the server workload after the data is cleared in fidbox.dat. In this case, Anti-Virus scans all files accessed for the first time after the clearing of fidbox.dat. After the scan, Kaspersky Anti-Virus adds back to fidbox.dat the information about each scanned object. In the case of new attempts to access the object, the iSwift technology will prevent rescanning of the file provided it remains unchanged.

If the UAC (User Account Control) feature is enabled in your operating system, **you should run the command prompt under the administrator rights to run the** `KAVSHELL FBRESET` command.

ENABLING AND DISABLING DUMP FILE CREATION. KAVSHELL DUMP

Creation of memory snapshots (dumps) for Kaspersky Anti-Virus processes in cases of abnormal termination can be enabled or disabled using the `KAVSHELL DUMP` command (see the following table). Additionally memory snapshots of Kaspersky Anti-Virus processes in progress can be taken at any time.

Command syntax for KAVSHELL DUMP

```
KAVSHELL DUMP </ON /F:<folder with dump files>|/SNAPSHOT /F:< folder with dump files> /
P:<pid> | /OFF>
```

Examples of the KAVSHELL DUMP command

To enable creation of dumps; to save dump files to folder C:\Dump Folder, execute the command:

```
KAVSHELL DUMP /ON /F:"C:\Dump Folder"
```

To make a memory dump for the process with ID 1234 to folder C:/Dumps, execute the command:

```
KAVSHELL DUMP /SNAPSHOT /F: C:\Dumps /P:1234
```

To disable generation of dumps, execute the command:

```
KAVSHELL DUMP /OFF
```

Table 31. KAVSHELL DUMP command keys

KEY	DESCRIPTION
/ON	Enables creation of process memory dumps in cases of abnormal termination.
/F:<path to folder with dump files>	This is a mandatory key. It specifies the path to the folder to which the dump file will be saved. If a path to a non-existent folder is specified, no dump files will be created. Network paths can be used in UNC (Universal Naming Convention) format, but paths to folders on network drives of the protected server cannot be specified. System environment variables can be used when specifying the path to the folder with memory dump files; user environment variables are not allowed.
/SNAPSHOT	Takes a snapshot of the memory of the specified Kaspersky Anti-Virus process in progress and saves the dump file into the folder the path to which is specified by key /F.
/P	PID process identifier is displayed in the Microsoft Windows **Task Manager**.
/OFF	Disables the creation of process memory dumps in cases of abnormal termination.

Return codes for KAVSHELL DUMP command (on page 117)

IMPORTING SETTINGS. KAVSHELL IMPORT

The `KAVSHELL IMPORT` command allows you to import the settings of Kaspersky Anti-Virus, its features and tasks from a configuration file to a copy of Kaspersky Anti-Virus on the protected server. A configuration file can be created using the `KAVSHELL EXPORT` command.

Command syntax for KAVSHELL IMPORT

```
KAVSHELL IMPORT <name of configuration file and path to file>
```

Examples of KAVSHELL IMPORT command

```
KAVSHELL IMPORT Server1.xml
```

Table 32. KAVSHELL IMPORT command keys

KEY	DESCRIPTION
<name of configuration file and path to file>	Name of configuration file used as the import source for settings. System environment variables can be used when specifying the path to the file; user environment variables are not allowed.

Return codes for KAVSHELL IMPORT command (on page 117)

EXPORTING SETTINGS. KAVSHELL EXPORT

The `KAVSHELL EXPORT` command allows you to export all of the settings of Kaspersky Anti-Virus and its current tasks to a configuration file in order to import them later into copies of Kaspersky Anti-Virus installed on other servers.

Command syntax for KAVSHELL EXPORT

```
KAVSHELL EXPORT <name of configuration file and path to file>
```

Examples of KAVSHELL EXPORT command

```
KAVSHELL EXPORT Server1.xml
```

Table 33. KAVSHELL EXPORT command keys

KEY	DESCRIPTION
<name of configuration file and path to file>	Name of configuration file which will contain settings. Any extension can be assigned to the configuration file. System environment variables can be used when specifying the path to the file; user environment variables are not allowed.

Return codes for KAVSHELL EXPORT command (on page 118)

RETURN CODES

IN THIS SECTION

Return code for the commands KAVSHELL START and KAVSHELL STOP

Table 34. Return code for the commands KAVSHELL START and KAVSHELL STOP

Description	
0	Operation completed successfully
-3	Permissions error
-5	Invalid command syntax
-6	Invalid operation (for example, Kaspersky Anti-Virus service is already running or already stopped)
-7	Service not registered
-8	Service is forbidden to start
-9	Attempt to start server under another user account failed (by default Kaspersky Anti-Virus service runs under the **Local system** user account).
-99	Unknown error

Return code for KAVSHELL SCAN and KAVSHELL SCANCRITICAL commands

Table 35. Return code for KAVSHELL SCAN and KAVSHELL SCANCRITICAL commands

Return code	Description
0	Operation completed successfully (no threats detected)
1	Operation canceled
-2	Service not running
-3	Permissions error
-4	Object not found (file with the list of scan scopes not found)
-5	Invalid command syntax or scan scope not defined
-80	Infected objects detected
-81	Probably infected objects detected
-82	Processing errors detected
-83	Unchecked objects found
-84	Corrupted objects detected
-85	Task log creation failed
-99	Unknown error
-301	Invalid key

RETURN CODES FOR KAVSHELL TASK COMMAND

Table 36. Return codes for KAVSHELL TASK command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
-2	Service not running
-3	Permissions error
-4	Object not found (task not found)
-5	Invalid command syntax
-6	Invalid operation (for example, task not running, already running, or cannot be paused)
-99	Unknown error
-301	Invalid key
401	Task not running (for modifier /STATE)
402	Task already running (for modifier /STATE)
403	Task already paused (for modifier /STATE)
-404	Error executing operation (change in task status led to it crashing)

RETURN CODES FOR THE KAVSHELL RTP COMMAND

Table 37. Return codes for the KAVSHELL RTP command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
-2	Service not running
-3	Permissions error
-4	Object not found (one of the real-time protection tasks or all real-time protection tasks not found)
-5	Invalid command syntax
-6	Invalid operation (for example, the task is already running or already stopped)
-99	Unknown error
-301	Invalid key

RETURN CODES FOR KAVSHELL UPDATE COMMAND

Table 38. Return codes for KAVSHELL UPDATE command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
200	All objects are up-to-date (database or program components are current)
-2	Service not running
-3	Permissions error
-5	Invalid command syntax
-99	Unknown error
-206	Extension files are missing in the specified source or have unknown format

RETURN CODE	DESCRIPTION
-209	Error connecting to the update source
-232	Authentication error while connecting to proxy server
-234	Error connecting to Kaspersky Security Center
-235	Kaspersky Anti-Virus was not authenticated when connecting to the update source
-236	Kaspersky Anti-Virus database corrupted
-301	Invalid key

RETURN CODES FOR THE KAVSHELL ROLLBACK COMMAND

Table 39. Return codes for the KAVSHELL ROLLBACK command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
-2	Service not running
-3	Permissions error
-99	Unknown error
-221	Backup copy of database not found or corrupted
-222	Backup copy of database corrupted

RETURN CODES FOR THE KAVSHELL LICENSE COMMAND

Table 40. Return codes for the KAVSHELL LICENSE command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
-2	Service not running
-3	Insufficient privileges to manage keys
-4	Key with specified number not found
-5	Invalid command syntax
-6	Invalid operation (key already added)
-99	Unknown error
-301	Invalid key
-303	License applies to a different application

RETURN CODES FOR THE KAVSHELL TRACE COMMAND

Table 41. Return codes for the KAVSHELL TRACE command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
-2	Service not running
-3	Permissions error
-4	Object not found (path specified as path to the Tracking logs folder not found)

RETURN CODE	DESCRIPTION
-5	Invalid command syntax
-6	Invalid operation (attempt of KAVSHELL TRACE /OFF command execution if trace log creation is already disabled)
-99	Unknown error

RETURN CODES FOR THE KAVSHELL FBRESET COMMAND

Table 42. Return codes for the KAVSHELL FBRESET command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
-99	Unknown error

RETURN CODES FOR THE KAVSHELL DUMP COMMAND

Table 43. Return codes for the KAVSHELL DUMP command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
-2	Service not running
-3	Permissions error
-4	Object not found (path specified as path to the dump file folder not found; process with specified PID not found)
-5	Invalid command syntax
-6	Invalid operation (attempt of KAVSHELL DUMP/OFF command execution if dump file creation is already disabled)
-99	Unknown error
-237	Incompatible update source selected

RETURN CODES FOR THE KAVSHELL IMPORT COMMAND

Table 44. Return codes for the KAVSHELL IMPORT command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
-2	Service not running
-3	Permissions error
-4	Object not found (importable configuration file not found)
-5	Invalid syntax
-99	Unknown error
501	Operation completed successfully, however an error/comment occurred during the command execution, for example, Kaspersky Anti-Virus did not import parameters of some functional component
-502	File being imported is missing or has an unrecognized format
-503	Incompatible settings (configuration file exported from a different program or a later and incompatible version of Kaspersky Anti-Virus)

RETURN CODES FOR THE KAVSHELL EXPORT COMMAND

Table 45. Return codes for the KAVSHELL EXPORT command

RETURN CODE	DESCRIPTION
0	Operation completed successfully
-2	Service not running
-3	Permissions error
-5	Invalid syntax
-10	Unable to create a configuration file (for example no access to the folder specified in the path to the file)
-99	Unknown error
501	Operation completed successfully, however an error/comment occurred during the command execution, for example, Kaspersky Anti-Virus did not export parameters of some functional component

MANAGING ANTI-VIRUS USING KASPERSKY SECURITY CENTER

This section provides information and instructions on how to manage Kaspersky Anti-Virus and configure it through Kaspersky Security Center Administration Console.

IN THIS SECTION

CONFIGURING KASPERSKY ANTI-VIRUS USING THE APPLICATION SETTINGS WINDOW

The **Application settings** window lets you remotely manage Kaspersky Anti-Virus on the protected server.

IN THIS SECTION

OPENING THE APPLICATION SETTINGS WINDOW

➧ *To open the **Application settings** window:*

1. Expand the **Managed Computers** node in the Administration Console tree and select the group that the protected server belongs to.
2. In the results pane, select the **Computers** tab.
3. Open the **Properties: <Computer name>** window using one of the following methods:
   - double-click the name of the protected server;
   - open the context menu of the protected server name and select the **Properties** item.
4. In the **Properties: <Computer name>** window, in the **Applications** section, open the **Application settings** window using one of the following methods:
   - double-click the name of the application in the list of installed applications;
   - select the application name in the list of installed applications and click the **Properties** button;
   - open the context menu of the application name in the list of installed applications and select the **Properties** item.

If an application is covered by the Kaspersky Security Center policy and this policy prohibits changing the application settings, these settings cannot be edited via the Application settings window.

MANAGING QUARANTINED OBJECTS AND CONFIGURING QUARANTINE SETTINGS

Kaspersky Anti-Virus quarantines probably infected objects by moving such objects from their original location to the *Quarantine storage*. Objects are stored in the Quarantine storage in encrypted form for security considerations.

This section describes the functions of Quarantine and management tools that can be used to configure these functions, and also instructions for configuring Quarantine settings via Kaspersky Security Center.

IN THIS SECTION

QUARANTINE FUNCTIONS AND CONFIGURATION TOOLS

The table below contains Quarantine functions and administration tools which enable you to manage these functions.

Table 46. Quarantine functions and configuration tools

QUARANTINE FUNCTIONS	ADMINISTRATION CONSOLE OF KASPERSKY SECURITY CENTER	KASPERSKY ANTI-VIRUS CONSOLE
Viewing, sorting, removing objects	Yes (Detailed information is available in the *Kaspersky Security Center Administrator's Guide*.)	Yes
Filtering objects	No	Yes
Sending probably infected quarantined objects to the Anti-Virus lab for analysis	No	Yes
Quarantining objects manually	No	Yes
Restoring quarantined objects	Yes The following options are available for restoring selected objects: • to original location; • to a specified location in the Kaspersky Security Center Administration Console (Detailed information is available in the *Kaspersky Security Center Administrator's Guide*.)	Yes
Scanning quarantined objects	Yes Start task **Scan of Quarantine objects**.	Yes
Configuring Quarantine settings	Yes	Yes
Viewing quarantine statistics	Yes	Yes

CONFIGURING QUARANTINE SETTINGS USING KASPERSKY SECURITY CENTER

➧ *To configure Quarantine settings, take the following steps:*

1. Expand the **Managed Computers** node in the Administration Console tree and select the group that the protected server belongs to.
2. In the results pane, select the **Computers** tab.
3. Open the **Properties: <Computer name>** window using one of the following methods:
   - double-click the name of the protected server;
   - open the context menu of the protected server name and select the **Properties** item.
4. In the **Properties: <Computer name>** window, in the **Applications** section, open the **Application settings** window using one of the following methods:
   - double-click the name of the application in the list of installed applications;
   - select the application name in the list of installed applications and click the **Properties** button;
   - open the context menu of the application name in the list of installed applications and select the **Properties** item.

   If an application is covered by the Kaspersky Security Center policy and this policy prohibits changing the application settings, these settings cannot be edited via the Application settings window.

5. In the **Properties** section, click the **Settings** button under **Storages**.
6. In the **Storage settings** window on the **Quarantine storage** tab, configure Quarantine settings:
   - To change the Quarantine storage folder, in the **Quarantine storage folder** entry field specify the complete path to the folder on the local drive of the protected server.
   - To set the maximum Quarantine size, select the **Maximum quarantine size (MB)** check box and specify the value of this parameter in megabytes in the entry field.
   - To set the minimum amount of free space in the Quarantine storage, select the **Maximum quarantine size (MB)** check box and the **Available space threshold (MB)** check box, and then specify the value of this parameter in megabytes in the entry field.
   - To change the folder to which objects are restored from Quarantine, in the **Folder for restoring objects** entry field specify the complete path to the folder on the local drive of the protected server.
7. Click **OK** to save changes.

MANAGING BACKUP FILES AND CONFIGURING BACKUP SETTINGS

IN THIS SECTION

FUNCTIONS OF BACKUP AND TOOLS USED TO CONTROL THESE FUNCTIONS

The table provided below lists the functions of Backup and the administration tools with which these functions can be managed.

Table 47. Backup functions

BACKUP FUNCTIONS	KASPERSKY SECURITY CENTER ADMINISTRATION CONSOLE (SEE THE ***KASPERSKY SECURITY CENTER ADMINISTRATOR'S GUIDE***)	KASPERSKY ANTI-VIRUS CONSOLE
Viewing, sorting, removing objects	Yes	Yes
Filtering files	No	Yes
Restoring files from Backup	Yes The following options are available for restoring selected objects: • to original location; • to a specified location in the Kaspersky Security Center Administration Console	Yes
Configuring Backup settings	Yes	Yes
Viewing Backup statistics	Yes	Yes

CONFIGURING BACKUP SETTINGS IN KASPERSKY SECURITY CENTER

Backup settings can be configured in the **Application settings** window of the selected protected server.

Read more on creating backup copies of objects before disinfecting or deleting them (see page 80).

➧ *To configure Backup settings, take the following steps:*

1. Expand the **Managed Computers** node in the Administration Console tree and select the group that the protected server belongs to.
2. In the results pane, select the **Computers** tab.
3. Open the **Properties: <Computer name>** window using one of the following methods:
   - double-click the name of the protected server;
   - open the context menu of the protected server name and select the **Properties** item.
4. In the **Properties: <Computer name>** window, in the **Applications** section, open the **Application settings** window using one of the following methods:
   - double-click the name of the application in the list of installed applications;
   - select the application name in the list of installed applications and click the **Properties** button;
   - open the context menu of the application name in the list of installed applications and select the **Properties** item.

   If an application is covered by the Kaspersky Security Center policy and this policy prohibits changing the application settings, these settings cannot be edited via the Application settings window.
5. In the **Properties** section, in the **Storages settings** group click the **Settings** button.
6. Use the **Backup** tab of the **Storage settings** window to configure the following Backup settings, if necessary:
   - To specify the **Backup folder**, use the Backup folder field to select the required folder on the local drive of the protected server, or enter its full path.
   - To set the maximum size of Backup, select the **Maximum Backup size (MB)** check box and specify the relevant value in megabytes in the entry field.

- To set the threshold of free space in Backup, define the value of the **Maximum Backup size** setting, select the **Threshold of free space** check box, and specify the minimum value of free space in the Backup folder in megabytes.
- To specify a folder for restored objects, select the relevant folder on a local drive of the protected server in the **Restoration settings** section, or enter the name of the folder and the full path to it in the **Target folder for restoring objects** field.

7. Click **OK**.

MANAGING THE TRUSTED ZONE

You can manage Kaspersky Anti-Virus Trusted zone using Kaspersky Security Center.

IN THIS SECTION

ADDING PROCESSES TO THE TRUSTED LIST (KASPERSKY SECURITY CENTER)

Kaspersky Security Center Administration Console can be used to add executable files of processes located on the protected server drive to the trusted zone; note that processes from the list of active processes on the server cannot be added.

➧ *To add a process to the list of Kaspersky Anti-Virus trusted processes, take the following steps:*

1. In Kaspersky Security Center Administration Console, open the **Application settings** window.
2. In the **Settings** section, click the **Settings** button in the **Trusted zone** group of settings.
3. In the **Configure trusted zone settings** window, on the **Trusted applications** tab enable the **Trusted processes** function: select the **Do not check file activity of specified processes** check box.
4. If trusted zone settings have been exported from Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition into a configuration file, the trusted zone settings can be imported from that file. To do so:

   a. Click the **Import** button.

   b. Specify the configuration file containing trusted zone settings in the **Open** window.

   c. Click **OK**.

   Note that all trusted zone settings will be imported from the file.
5. To select an executable process file on the drive of the protected server, perform the following:

   a. Press the **Add** button.

   b. In the **Add trusted process** window, click the **Browse** button and select the executable file of a process on the local drive on which Kaspersky Security Center Administration Console is installed.

   c. The filename and the path to this file are displayed in the **Add trusted process** window.

   d. Click **OK**.

   The name of the selected executable process file will then be displayed in the List of trusted processes in the **Trusted processes** window.

   Click **OK** to save changes.

DISABLING REAL-TIME FILE PROTECTION DURING BACKUP COPYING

Real-time protection for files accessed during backup can be disabled. Kaspersky Anti-Virus will scan files which the backup copying application opens for reading with the FILE_FLAG_BACKUP_SEMANTICS attribute.

To disable real-time file protection during backup copying, take the following steps:

1. Open the **Application settings** window.
2. In the **Settings** section, click the **Settings** button in the **Trusted zone** group of settings.
3. To disable real-time protection for files accessed by the backup task, click the **Trusted process** tab and select the **Do not check file backup operations** check box.
4. Click **OK** to save changes.
5. If required, apply trusted zone exclusions in the selected tasks and policies.

ADDING EXCLUSIONS TO THE TRUSTED ZONE

Objects can be added to the trusted zone in order to exclude them from scanning.

To add an exclusion to the trusted zone, take the following steps:

1. In Kaspersky Security Center Administration Console, open the **Application settings** window.
2. In the **Settings** section, click the **Settings** button in the **Trusted zone** group of settings.
3. In the **Trusted zone settings** window, open the **Exclusion rules** tab.
4. If trusted zone settings have been exported from Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition into a configuration file, the trusted zone settings can be imported from that file.

   a. Click the **Import** button.

   b. Specify the configuration file containing trusted zone settings in the **Open** window.

   c. Click **OK**.

   Note that all trusted zone settings will be imported from the file.
5. To add exclusions recommended by Microsoft corporation to the trusted zone, click the **Add recommended exclusions** button on the **Exclusion rules** tab and click the **OK** button in the window that opens, in order to confirm the operation.
6. To add a new exclusion rule, click **Add** under the **Exclusion rule description** field. The **Exclusion rule** window opens.

   Specify the rule by which Kaspersky Anti-Virus will exclude the object. Use the following guidelines:

   - To exclude objects detected in specified folders or files, select the **Object to scan** check box and the **Objects to detect** check box.
   - To exclude all objects detected in specified folders or files, select the **Scanned object** check box and clear the **Detectable objects** check box.
   - To exclude specified detected objects from the entire scan scope, clear the **Object to scan** check box and select the **Objects to detect** check box.

   If you wish to specify the object's location, select the **Object to scan** check box, click the **Modify** button and use the **Select object** window to specify the object that will be excluded from scanning, then click the **OK** button. The following object locations can be selected:

   - **Predefined scope**. Select one of the predefined scan scopes from the list.
   - **Disk, folder, or network location**. Specify a server drive, a folder on the server or on the local area network, or an object on the local area network.
   - **File**. Specify the file on the server or in the local network.
   - **File or URL of script**. Select the script on the protected server in the local network or in the Internet.

     Masks for file or folder names can be specified using the characters **?** and *****.

7. To exclude a detectable object by its name or name mask, select the **Detectable objects** check box, click the **Edit** button, and enter the relevant value in the **List of detectable objects** window.

   Click **OK**. Perform one of the following steps:

   - To edit a rule, select the rule you wish to edit on the **Exclusion rules** tab, click **Modify** and edit it in the **Exclusion rule** window.
   - To delete the rule, select it on the **Exclusion rules** tab, click **Delete** and confirm the operation.

8. Check the boxes next to the names of the functional components to whose tasks the exclusion rule will be applied.

   Click **OK** in the **Configure trusted zone settings** window.

9. If required, apply trusted zone exclusions in the selected tasks and policies.

APPLYING THE TRUSTED ZONE IN KASPERSKY SECURITY CENTER

You can enable or disable the trusted zone in existing policies and in tasks (during task creation or in the **Properties: <Task name>** window).

By default, trusted zone is applied in newly created policies and tasks.

➡ *To apply a trusted zone in a policy, perform the following steps:*

1. In the Administration Console tree, expand the **Managed computers** node and select the group to which the protected server belongs.
2. In the results pane, select the **Policies** tab.
3. Open the context menu of the policy that you want to configure and select the **Properties** command.
4. In the **Properties: <Application name>** window, do the following:
   - In the **Settings** section, click the **Settings** button in the **Trusted zone** group of settings.
   - To apply *trusted processes* as exclusions, make sure that the **Do not check file activity of the specified processes** check box is selected on the **Trusted processes** tab and set the 🔒 lock in the **Trusted processes** block of settings.
   - To apply *backup operations* as exclusions, make sure that the **Do not check file backup operations** check box is selected on the **Trusted processes** tab and set the 🔒 lock in the **Trusted processes** block of settings.
   - To apply user-defined exclusions, set the lock in the **Exclusion rules** block of settings, on the **Exclusion rules** tab.
5. Click **OK**.

➡ *To apply a trusted zone in an existing task, perform the following steps:*

1. Expand the **Managed Computers** node in the Administration Console tree and select the group that the protected server belongs to.
2. In the details pane, select the **Computers** tab, open the context menu on the row with information about the protected server, and select the **Properties** command.
3. In the **Properties: <Computer name>** window, in the **Tasks** section open the context menu of the tax that you want to configure and select the **Properties** command.
4. In the **Properties: <Task name>** window, open the **Properties** section and select the **Apply trusted zone** check box.

You can also apply trusted zone when you create a task.

CONFIGURING KASPERSKY SECURITY CENTER NOTIFICATIONS

IN THIS SECTION

GENERAL INFORMATION ON NOTIFICATION SETTINGS IN KASPERSKY SECURITY CENTER

The Kaspersky Security Center Administration Console can be used to configure notifications for administrator and users about the following events related to Kaspersky Anti-Virus operation and the status of Anti-Virus protection of the protected server:

- The administrator can receive information about events of selected types;
- LAN users who access the protected server and terminal server users can receive information about events of the *Object detected* type.

You can configure notifications of Anti-Virus events either for a single server in the **Properties** window of the selected server, or for a group of servers in the**Properties: <Policy name>** of the selected group.

Notifications can be configured using the **Events** tab or on the **Notification settings** window. The following types of updates can be configured:

- Administrator notifications about events of selected types can be configured using the **Events** tab (the standard tab of the Kaspersky Security Center application). For more details on configuring notification methods see *Kaspersky Security Center. Administrator's Guide*.
- Both administrator and user notifications can be configured in the **Notification settings** window.

  More on notification methods which can be configured in the **Notification settings** window (see page 94).

Notifications of some types of events can be configured in one of the tabs while notifications of other types of events can be configured in both tabs.

If you configure notifications about events of the same type using the same mode but on the two tabs simultaneously (both on the **Events** tab and in the **Notification settings** window), the system administrator will receive notifications of those events twice but in the same mode.

CONFIGURING ADMINISTRATOR AND USER NOTIFICATIONS IN THE NOTIFICATION SETTINGS WINDOW

➡ *To configure notifications, take the following steps:*

1. Expand the **Managed Computers** node in the Administration Console tree and select the group that the protected server belongs to.
2. In the results pane, select the **Computers** tab.
3. Open the **Properties: <Computer name>** window using one of the following methods:
   - double-click the name of the protected server;
   - open the context menu of the protected server name and select the **Properties** item.
4. In the **Properties: <Computer name>** window, in the **Applications** section, open the **Application settings** window using one of the following methods:
   - double-click the name of the application in the list of installed applications;
   - select the application name in the list of installed applications and click the **Properties** button;
   - open the context menu of the application name in the list of installed applications and select the **Properties** item.

   If an application is covered by the Kaspersky Security Center policy and this policy prohibits changing the application settings, these settings cannot be edited via the Application settings window.
5. In the **Logs and notifications** section, click the **Settings** button under **Event notifications**.
6. In the **Notification settings** window, configure notifications about the events of required types and click the **OK** button.

   Configuring notifications in the **Notification settings** window is similar to configuring notifications in the **Notifications** window of the Kaspersky Anti-Virus Console.
7. Click **OK** to save changes.

CONFIGURING SETTINGS IN KASPERSKY SECURITY CENTER

➧ *To configure general Kaspersky Anti-Virus settings, take the following steps:*

1. Expand the **Managed Computers** node in the Administration Console tree and select the group that the protected server belongs to.
2. In the results pane, select the **Computers** tab.
3. Open the **Properties: <Computer name>** window using one of the following methods:
   - double-click the name of the protected server;
   - open the context menu of the protected server name and select the **Properties** item.
4. In the **Properties: <Computer name>** window, in the **Applications** section, open the **Application settings** window using one of the following methods:
   - double-click the name of the application in the list of installed applications;
   - select the application name in the list of installed applications and click the **Properties** button;
   - open the context menu of the application name in the list of installed applications and select the **Properties** item.

   If an application is covered by the Kaspersky Security Center policy and this policy prohibits changing the application settings, these settings cannot be edited via the Application settings window.

5. In the following sections, edit the settings of Kaspersky Anti-Virus according to your requirements.
6. In the **Malfunction diagnosis** section, edit the following settings for diagnostics of failures:
   - enable or disable creation of the trace log;
   - configure the log settings if required;
   - enable or disable creation of Kaspersky Anti-Virus process memory dump files.

   Kaspersky Anti-Virus records information to trace files and memory dump files in non-encrypted format.

7. In the **Settings** section, click the **Settings** button in the **Scalability and reliability** block of settings and define the following settings of Kaspersky Anti-Virus in the window that opens, according to your requirements:
   - maximum number of working processes that Kaspersky Anti-Virus can run;
   - number of processes for real-time protection tasks;
   - maximum number of working processes for background on-demand scan tasks;
   - number of task recovery attempts after their abnormal termination.

   Click **OK**.
8. In the **Settings** section, click the **Settings** button in the **Additional** block of settings and define the following settings of Kaspersky Anti-Virus in the window that opens, according to your requirements:
   - specify whether you want the Kaspersky Anti-Virus icon to be displayed in the server's taskbar notification area every time Kaspersky Anti-Virus automatically starts after a server restart. For more details see section "Kaspersky Anti-Virus icon in notification area of the task" tray (see page 30).
   - Kaspersky Anti-Virus operations when running on UPS power;
   - specify the number of days after which the events *Database is obsolete*, *Database is outdated* and *Scanning of critical areas has not been performed for a long time* will occur.

   Click **OK**.

   On the tab **Tiered storage** choose one of the following options for access to hierarchical storage:
   - **Non-HSM system**.
   - **HSM system uses reparse points**.
   - **HSM system uses extended file attributes**.
   - **Unknown HSM system**.

   If you do not use HSM systems, leave unchanged the default value of the **HSM system settings** setting (**Non-HSM system**).

9. After you have configured values for the required Kaspersky Anti-Virus settings, click **OK** in the **Application settings** window.

CONFIGURING LOG SETTINGS USING KASPERSKY SECURITY CENTER

➧ *To configure Kaspersky Anti-Virus logs, perform the following steps:*

1. Expand the **Managed Computers** node in the Administration Console tree and select the group that the protected server belongs to.
2. In the results pane, select the **Computers** tab.
3. Open the **Properties: <Computer name>** window using one of the following methods:
   - double-click the name of the protected server;
   - open the context menu of the protected server name and select the **Properties** item.
4. In the **Properties: <Computer name>** window, in the **Applications** section, open the **Application settings** window using one of the following methods:
   - double-click the name of the application in the list of installed applications;
   - select the application name in the list of installed applications and click the **Properties** button;
   - open the context menu of the application name in the list of installed applications and select the **Properties** item.

   If an application is covered by the Kaspersky Security Center policy and this policy prohibits changing the application settings, these settings cannot be edited via the Application settings window.

5. In the **Logs and notifications** section, click the **Settings** button in the **Task logs** block of settings.
6. In the **Log settings** window, define the following settings of Kaspersky Anti-Virus according to your requirements:
   - Configure the level of detail of events in logs. To do so:
     a. Use the **Component** list to select Kaspersky Anti-Virus component, for which you are selecting the level of details.
     b. To define level of detail in the task execution logs and system audit log for the selected component, choose the level you need from **Importance level**.
   - To change the default location for logs, specify full path to the folder or click the **Browse** button to select it.
   - Specify how many days task execution logs will be stored.
   - Specify how many days information displayed in the **System audit log** node will be stored.
7. After you have configured the values of the required Kaspersky Anti-Virus logging settings, click **OK**.
8. Press the **OK** button in the **Application settings** window.

CREATING AND CONFIGURING POLICIES

IN THIS SECTION

ABOUT POLICIES

Global Kaspersky Security Center policies can be created for managing protection on several servers where Kaspersky Anti-Virus is installed.

A policy enforces the Kaspersky Anti-Virus settings, functions and tasks specified in it on all the protected servers for one administration group.

Several policies for one administration group can be created and enforced in turns. In the Administration Console, the policy currently active for a group has the *active* status.

Information on policy enforcement is logged in the Kaspersky Anti-Virus system audit log. This information can be viewed in the Kaspersky Anti-Virus console in the **System audit log** node.

Please note that Kaspersky Security Center features only one method for applying policies: **Change required settings**. After applying a policy of Kaspersky Security Center, Kaspersky Anti-Virus uses the values for settings next to which you have selected the 🔒 icon in the policy properties, instead of the values for those settings that had been actual before the policy was applied. Kaspersky Anti-Virus will not apply the values for settings next to which the icon has been selected in the policy properties.

🔓 When the policy is active, Kaspersky Anti-Virus Console and the **<Application name> settings** window of Administration Console display the values of settings marked with the 🔒 icon in the policy, but those values cannot be edited. The rest of the settings (marked with the 🔓 icon in the policy) can be edited in Kaspersky Anti-Virus Console and in the **<Application name> settings** window of Administration Console.

If the policy defines the settings for any real-time protection task and / or the task of real-time protection of network storage systems and if such a task is currently running, then the settings defined by the policy will be modified as soon as the policy is applied. If the task is not running, the settings will be enforced when it starts. If the policy defines the settings for update tasks or on-demand scan tasks, those settings will be modified after the policy is applied but only at the next startup of the tasks.

CREATING A POLICY USING KASPERSKY SECURITY CENTER

The process of creating a policy involves the following steps:

1. Create a policy using the policy creation wizard. Real-time protection settings can be configured using the wizard dialogs.
2. In the **Properties** window of the created policy, you can define the real-time protection settings, the settings of real-time protection of network storage systems, the general settings of Kaspersky Anti-Virus, the settings of Quarantine and Backup, the level of detail for task execution logs, as well as user and administrator notifications about Kaspersky Anti-Virus events.

➡ *In order to create a policy for a group of servers running the installed Kaspersky Anti-Virus, take the following steps:*

1. Expand the **Managed computers** node in the Administration Console tree, then expand the administration group containing the servers for which you wish to create a policy.
2. In the results pane, select the **Policies** tab and click the **Create a policy** link to open the Policy Creation Wizard window.
3. In the **Choose a group policy name for the application** , in the **Name** entry field, enter a name for the policy being created (it should not contain the following characters: `“ * < : > ? \ / |).`
4. In the **Choose an application for creating a group policy** window, under the **Application name** header, select **Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition**.
5. In the **Operation type selection** window, select one of the following options:

   - **New**, to create a new policy with settings that are defined for newly created default policies;
   - **Import policy from previous version of Kaspersky Anti-Virus**, to use previously created Kaspersky Anti-Virus 6.0 for Windows Server policy.

   Press the **Browse** button and select the configuration file where you saved the existing policy.
6. In a **Real-time protection** window, if required, configure **Real-time file protection** and **Script monitoring** tasks settings according to your requirements.

   In the newly created policy, the settings of the **Real-time file protection** task are defined by default, the settings of the **Script monitoring** task are defined by default, too.

   - To configure **Real-time protection of files** task settings, click the **Settings** button in the **Real-time protection of files** group of settings, and in the **Properties** window configure the protection scope and select one of the preset security levels or configure the security settings manually, select the object protection mode, configure the use of Heuristic Analyzer and the trusted zone. Configure the task schedule. Click **OK**.
   - To edit the settings of the **Script monitoring** task, click the **Settings** button in the **Script monitoring** group of settings, and, in the **Settings** window, select the actions to be performed on probably dangerous scripts, configure the use of Heuristic Analyzer, and configure the use of the trusted zone. Configure the task schedule. Click **OK**.

7. In the **Create a group policy for applications** window, select one of the following policy statuses:
   - **Active policy** if you want to apply the policy immediately after it is created. If an active policy already exists in the group, this existing policy will become inactive and the policy you create will be activated.
   - **Inactive policy** if you do not want to apply the created policy immediately. In this case the policy may be activated later.
   - **Offline user policy** if you want to create a policy for a managed computer located outside the corporate network. The offline user policy is available only for Kaspersky Anti-Virus for Workstations (running Microsoft Windows).
8. Press the **Finish** button in the **Completing the wizard** window of the wizard.

   The created policy will be displayed in the list of policies in the **Policies** node of the selected administration group. In the **Properties: <Policy name>** window, you can now define other Kaspersky Anti-Virus settings, and its features and tasks.

CONFIGURING A POLICY IN KASPERSKY SECURITY CENTER

In the **<Policy name> Properties** window of an existing policy, you can configure general Kaspersky Anti-Virus settings, quarantine and backup settings, trusted zone settings, real-time protection settings, network storage protection settings, the level of detail for task execution logs, as well as user and administrator notifications about the Kaspersky Anti-Virus events.

➡ *To configure a policy in the **Properties: <Policy name>**:*

1. Expand the **Managed computers** node in the Administration console tree, then expand the administration group, for which you want to configure the associated policy settings, and open the **Policies** subnode in the details pane.
2. Select **Properties** in the context menu of the policy that you want to configure.
3. Configure required policy settings in the **<Policy name> Properties** window.

   In the **Properties** section, you can configure general Kaspersky Anti-Virus settings, Quarantine and Backup settings, the same way as in the **Application settings** window.

   In the **Logs and notifications** section, you can configure the settings of the following objects:
   - Settings of task execution logs and of the system audit log. The same as in the **Application settings** window.
   - User and administrator notifications about Kaspersky Anti-Virus events. The same as in the **Application settings** window.

   The following settings can be configured in the **Real-time protection** section:
   - in the **Real-time protection of files** task:
     - protection mode;
     - Using the Heuristic Analyzer;
     - applying a trusted zone.
     - scan scope;
     - security settings for the selected protection scope: you can select a preset security level or define the security settings manually (similarly to Kaspersky Anti-Virus Console);
     - task run settings.
   - in the **Script scanning** task:
     - scan scope;
     - allow or block execution of probably dangerous scripts;
     - Using the Heuristic Analyzer;
     - applying the trusted zone;
     - task run settings.

In the **Network storage protection** in the **RPC: Network storage protection**:

- scan scope;
- Using the Heuristic Analyzer;
- applying the trusted zone;
- Network storage connection settings
- task run settings.

In the **Network storage protection** section in the **ICAP: Network storage protection**:

- Using the Heuristic Analyzer;
- Network storage connection settings
- Task run settings
- Security level.

4. After you have configured the policy settings, click **OK** to save changes.

DISABLING A SCHEDULED LAUNCH OF LOCAL PREDEFINED TASKS

Policies can be used to disable a scheduled launch of the following local pre-defined tasks on all servers of the same administration group:

- On-demand scan tasks: **Scan of critical areas**, **Scan of Quarantine objects**, and **Scan at system startup**
- Update tasks: **Update of application databases**, **Update of application software modules**, and **Copying updates**.

If the protected server is excluded from the administration group, the system tasks schedule will be enabled automatically.

➡ *To disable the scheduled launch of an Kaspersky Anti-Virus system task on the servers of a group, take the following steps:*

1. In the **Managed computers** node in the Administration Console tree, expand the required group and select the **Policies** tab.
2. On the Policies tab in the context menu of the policy with which you want to disable the scheduled launch of Kaspersky Anti-Virus system tasks on the group servers, select the **Properties** command.
3. In the **Properties**: **<Policy name>** window, open the **System tasks** section.
4. Unselect the system tasks whose scheduled launch you wish to disable.

   To resume the schedule for system tasks of the required type, check the box next to the names of system tasks of this type.
5. Click **OK**.

If the scheduled launch of system tasks is disabled, these can still be run manually, either from the Kaspersky Anti-Virus Console or from the Kaspersky Security Center Administration Console.

CREATING AND CONFIGURING TASKS

IN THIS SECTION

ABOUT CREATING TASKS

You can create local user tasks, tasks for sets of computers and group tasks of the following types

- Adding a key;
- Copying updates;
- Update tasks;
- Database update rollback;
- On-demand scan.

You can create local tasks for selected protected server in the **Application settings** window in the **Tasks** section. Group tasks – in the **Group tasks** node of the selected group. Tasks for several computers, which are not combined in one group – in the **Tasks for specific computers** node.

> Using policies you can disable schedules for update and on-demand scan local system tasks on all protected servers, from the same administration group.

General information on tasks in Kaspersky Security Center s provided in *Kaspersky Security Center. Administrator's Guide*.

CREATING A TASK USING KASPERSKY SECURITY CENTER

To create a new task in Kaspersky Security Center Administration Console:

1. Launch the task creation wizard for the required category of tasks:
    - To create a local task:
        a. Expand the **Managed computers** node in the Administration Console tree and select a group to which the protected server belongs.
        b. In the results pane, on the **Computers** tab, open the context menu on the string with information about the protected server and select **Properties**.
        c. In the **Tasks** section, click the **Add** button.
    - To create a group task:
        a. In the Administration Console tree select the group for which you wish to create a group task.
        b. In the results pane, open the context menu on the **Tasks** tab and select **New** → **Task**.
    - To create a task for a custom set of computers, open the context menu on the **Tasks for specific computers** node in the Administration Console tree and select **New** → **Task**.

    This will open the greeting window of the task creation wizard.
2. In the **Specify task name** window of the task wizard, enter a name for the task (no longer than 100 characters, not containing the symbols **I * < > ? \ / | :) %. \ / | :)**. It is recommended that the task type is added to its name (for example, "On-demand scan of shared folders").
3. In the **Task type** window, under the **Kaspersky Anti-Virus 8.0 for Windows Servers Enterprise Edition** header, select the type of the task to be created.
4. If you have selected any task type, except **Database update rollback** or **Add key**, the **Settings** window opens. The two options are available:
    - **New**, to create a new task with default settings for newly created tasks of the type selected;
    - **Import task from previous version of Kaspersky Anti-Virus**, to use a previously created Kaspersky Anti-Virus 6.0 for Windows Server task.

      Press the **Browse** button and select the configuration file into which you saved the existing task.
5. Depending on the type of task created, do one of the following actions:
    - *To create an on-demand scan task*:
        a. Create scan scope in the **Scan scope** window.

        By default, scan scope includes critical areas of the server. Scan scopes are marked in the table with the icon ☑.

        You can modify the scan scope: add specific preset scan scopes, disks, folders, network objects and files and assign specific security settings for each scope added.

  - To exclude all scan scopes from the scan, open the context menu on each of the lines and select **Delete scope**.
  - To include a predefined scan scope, disk, folder, network object, or file in the scan scope, right-click the **Scan scope** table and select **Add scan scope**. In the **Add objects to the scan scope** window, select a predefined scope in the **Predefined scan scope** list, specify a server disk, folder, network object, or file on a server or on another networked computer, and click the **OK** button.
  - To exclude subfolders or files from the scan, select an added folder (disk) in the **Scan scope** window of the wizard, open the context menu and select **Configure**, then click the **Settings** button in the **Security level** window, and in the **On-demand scan settings** window, on the **General** tab, clear the **Subfolders** (**Subfiles**) check box.
  - To change scan scope security settings, open the context menu on the scope whose settings you wish to configure, and select **Configure**. In the **On-demand scan settings** window, select one of the predefined security levels, or click the **Settings** button to configure security settings manually. Configuration is performed in the same way as in Kaspersky Anti-Virus Console.
  - To exclude embedded objects from the scan scope that you have added, open the context menu in the **Scan scope** table, select **Add exclusion**, and specify the objects that you want to exclude: select a predefined scan scope in the **Predefined scan scope** list, specify a server disk, folder, network object, or file on a server or on another networked computer, and click the **OK** button.

    Excluded scan scopes are marked with the □ icon in the table.

  a. Do the following in the **Properties** window.

    Check the **Apply trusted zone** box, if you wish to exclude objects described in Kaspersky Anti-Virus trusted zone from the scan scope of the task.

    If you plan to use the task created as a scan of critical areas task, select the **Task performance is considered as scanning of critical areas** check box in the **Properties** window. Kaspersky Security Center evaluates the security rating of the server (servers) by the performance results of tasks with the Scan critical areas status, and not only by the performance results of the **Critical Areas Scan** system task. When creating a local on-demand scan task, this check box is not available.

    To assign the base priority **Low** to the working process in which the task will be executed, select the **Perform task in the background** check box in the **Properties** window. By default, the working processes in which Kaspersky Anti-Virus tasks are run have the **Medium** (**Normal**) priority. Demoting the process priority increases the time required to execute the task, but it may have a beneficial effect on the execution speed of the processes of other active programs.

- *To create an update task*, configure task settings based on your requirements:

  a. Select updates source in the **Update source** window.

  b. Click the **LAN settings** button. The **Connection settings** window opens.

  c. On the **Connection settings** tab, perform the following actions:

    Specify the FTP server mode for connecting to the protected server.

    Modify the connection timeout when connecting to the update source, if required.

    Configure proxy server access settings when connecting to the update source.

    Specify protected server(s) location, to optimize update downloads.

- *To create the Update application modules task*, define the relevant settings for the update of application modules in the **Application modules update settings** window:

  a. Select download and install critical updates for application modules or check for their availability only.

  b. If you have selected **Copy and install critical updates of application software modules**: you may need to restart the server to apply the application modules that you have installed. If you want Kaspersky Anti-Virus to restart the server automatically upon the task completion, select the **Allow system reboot** check box. To disable automatic server restart upon task completion, clear the **Allow system reboot** check box.

  c. To obtain information about Kaspersky Anti-Virus module upgrades, select **Receive information about available maintenance updates for application software modules**.

    Kaspersky Lab does not publish planned update packages on the update servers for automatic installation; these can be downloaded manually from the Kaspersky Lab website. Administrator notification about the event **Scheduled Kaspersky Anti-Virus updates available** can be configured; this will contain the URL of our site from which planned updates can be downloaded.

- *To create the Copying updates task*, specify the updates set and the destination folder in the **Update copying settings** window.
- *To create the Add key task*, specify the key file name (with .key extension) and the full path to it in the **Key file** field of the **Add key** window.

6. Configure the task schedule (you can configure a schedule for all task types except **Database update rollback**). take the following actions in the **Schedule** window:

   a. select the **Run by schedule** check box to enable the schedule;

   b. Specify the task launch frequency: In the **Frequency** list, select one of the following values: **Hourly**, **Daily**, **Weekly**, **At application startup**, **After application databases update** (in the **Update of application databases**, **Update of application software modules**, and **Copying updates** tasks, you can also select **After Administration Server has retrieved updates**):

      - if **Hourly** is selected, specify the number of hours in the **Every <number> h** in the **Task start settings** group;
      - if **Daily** is selected, specify the number of days in the **Every <number> d** in the **Task start settings** group;
      - if **Weekly** is selected, specify the number of weeks in the **Every <number> w** in the **Task start settings** group. Specify on which days of the week the task will be launched (on Mondays, by default).

   c. In the **Start at** field, specify the time when the task will be launched; in the **Start from** field specify the date when the schedule will become effective.

   d. If necessary, specify other settings of the schedule: click the **Advanced**button and perform the following actions in the **Advanced schedule settings** window:

      - Specify the maximum duration for the task run: enter the number of hours and minutes in the **Duration** field in the **Task stop settings** group.
      - Specify a time period within 24 hours for which the task run will be paused: in the **Task stop settings** group, enter the start and end values for the time period in the **Pause from … until** field.
      - Specify the date on which the schedule will become inactive: select the **Cancel schedule from** check box and, in the **Calendar** window, select the date on which the schedule will become inactive.
      - Enable running of skipped tasks: select the **Run skipped tasks** check box.
      - Enable the start time randomization setting: select the **Randomize the task start time within the interval of** check box and specify the setting value in minutes.

   e. Click **OK**.

7. If the task created is for sets of computers, select the network (group) computers on which this task will be executed.
8. In the **Finish** window of the **Task creation wizard** click the Ready button.

The task created is displayed in the **Tasks** window.

CONFIGURING TASK IN KASPERSKY SECURITY CENTER

Once you have created a task, you can:

- modify task settings;
- configure / modify the task schedule;
- specify the account from which the task will be executed;
- configure notification about task execution.

➧ *To configure a task, take the following steps:*

1. Expand the **Managed Computers** node in the Administration Console tree and select the group that the protected server belongs to.
2. Right-click the line with the information about the protected server in the results pane and select the **Properties** command.
3. In the **Properties: <Computer name>** window, in the **Tasks** section, open the context menu of the task that you want to configure and select **Properties**.

4. Modify the task settings, if necessary. To do so:
    - in the **Real-time file protection** task, on the **Settings** tab:
        - create a protection scope
        - Enable the use of Heuristic Analyzer: in the **Properties** section, select the **Use heuristic analyzer** check box
        - apply trusted zone: select the **Apply Trusted Zone** check box in the **Properties** section.
        - change the object protection mode: in the **Properties** section, select the required object protection mode
    - in the **RPC: Network storage protection** task, in the **Settings** section:
        - add the network storage system to the protection scope
        - Enable the use of Heuristic Analyzer: in the **Properties** section, select the **Use heuristic analyzer** check box
        - Configure connection with network storage systems in the **Settings** section.
    - in the **ICAP: Network storage protection** task, in the **Settings** section:
        - Enable the use of Heuristic Analyzer: Select the **Use Heuristic Analyzer** check box
        - Configure connection with network storage systems
        - Set up the security level.
    - in the **Script monitoring** task on the **Settings** tab:
        - select whether or allow or deny execution for scripts which Kaspersky Anti-Virus recognizes as probably dangerous;
        - Enable the use of Heuristic Analyzer: in the **Settings** section, select the **Use heuristic analyzer** check box
        - apply trusted zone: select the **Apply Trusted Zone** check box in the **Properties** section.
    - in the **Scan of critical areas** task, in the **Settings** section:
        - Create a scan scope
        - in the **Properties** section, change the priority of the working process in which the task will be run
        - if necessary, in the **Properties** section, assign the Scan of critical areas status to the task
        - apply the trusted zone in the **Properties** section
    - in the **Update distribution** task:
        - specify the set of updates and the destination folder in the **Update copying settings** section
        - specify the update source in the **Update source** section
    - in the **Update of application databases** task:
        - specify the update source in the **Update source** section
    - In the **Update of application software modules** task:
        - specify the update source in the **Update source** section
        - in the **Settings for application software module updates** section, select an option of application modules update copying and select the **Receive information about available maintenance updates of the application** check box,
    - for all tasks, except the **Database update rollback** task, in the **Schedule** section, set up a schedule
    - for all tasks, except the **Database update rollback** task, in the **Account** section, specify the account under which the task will be run
    - for all tasks, except the **Database update rollback** task, in the **Notification** section, configure notification of task run results (for more details, please refer to the *Kaspersky Security Center. Reference Guide*)
5. Click **OK**.
6. Click the **OK** button in the **Properties: <Task name>** window to save changes.

MANAGING SERVERS SCAN. ASSIGNING THE SCAN CRITICAL AREAS TASK STATUS TO AN ON-DEMAND SCAN TASK

By default, Kaspersky Security Center assigns the **Warning** status to the server if the **Scan of critical areas** task is performed less often than specified by the **Critical areas have not been scanned for a long time event generation threshold** setting of Kaspersky Anti-Virus.

To configure scanning of all servers in a single administration group, take the following steps:

1. Create a group on-demand scan task. In the **Settings** window of the task wizard, select the **Consider task as critical areas scan** check box. The task settings specified (the scan scope and security settings) will be applied to all servers in the group. Configure the task schedule. Read the details about task creation.

   > You can select the **Consider task as critical areas scan** check box either when creating the on-demand scan task for a group of computers or a set of computers, or later in the **Properties: <Task name>** window.

2. Using a new or existing policy, disable the **Scan of critical areas** system task on group servers.

Kaspersky Security Center Administration Server will then evaluate the security status of the protected server and will notify you about it based on the results of the last run of the task with the Scan of critical areas status, rather than based on the results of the **Scan of critical areas** system task.

You can assign the Scan of critical areas task status both to group on-demand scan tasks and to tasks for sets of computers.

The Kaspersky Anti-Virus Console can be used to view whether the on-demand scan task is a scan critical areas task.

> In the Anti-Virus console the **Consider task as critical areas scan** check box is displayed in the task settings, but it cannot be edited.

KASPERSKY ANTI-VIRUS COUNTERS

This section provides information about Kaspersky Anti-Virus counters: performance counters for System Monitoring, as well as SNMP counters and traps.

IN THIS SECTION

PERFORMANCE COUNTERS FOR SYSTEM MONITOR

IN THIS SECTION

ABOUT KASPERSKY ANTI-VIRUS PERFORMANCE COUNTERS

If the Performance Counters component is included in the set of installed Kaspersky Anti-Virus components, Kaspersky Anti-Virus registers its own **Performance counters** for the Microsoft Windows System Monitor during installation.

Using Kaspersky Anti-Virus counters, you can monitor Anti-Virus Performance while real-time protection tasks are running. You can uncover tight places when it is running with other applications and resource shortages. You can diagnose undesirable Kaspersky Anti-Virus settings and crashes in its operation.

You can view Kaspersky Anti-Virus performance counters by opening the **Performance** console in the **Administration** item of Control Panel.

The following points list definitions of counters, recommended intervals for taking readings, threshold values, and recommendations for Kaspersky Anti-Virus settings if the counter values exceed them.

TOTAL NUMBER OF DENIED REQUESTS

Table 48. Total number of denied requests

Name	Number of requests denied
Definition	Total number of requests from the file interception driver to process objects that were not accepted by Anti-Virus processes; counted from the time Kaspersky Anti-Virus was last started. Anti-Virus skips objects requests for processing which are denied by Kaspersky Anti-Virus processes.
Purpose	This counter can help you detect: • Lower quality of real-time protection from bogging down the working processes of Kaspersky Anti-Virus. • Interruption of real-time protection because of file interception dispatcher failures.

Normal / threshold value	0 / 1
Recommended reading interval	1 hour
Recommendations for configuration if value exceeds the threshold	The number of requests for processed denied corresponds to the number of skipped objects. The following situations are possible depending on the "behavior" of the counter: • The counter shows a number of denied requests over a long period of time: All operating processes of Kaspersky Anti-Virus were loaded completely, which is why Kaspersky Anti-Virus was unable to scan objects. To avoid skipping objects, increase the number of Anti-Virus processes for real-time protection tasks. You can use such settings of Kaspersky Anti-Virus as **Maximum number of active processes** and **Number of processes for real-time protection** • The number of request denied significantly exceeds the critical threshold and is growing quickly: the file interception dispatcher has crashed. Kaspersky Anti-Virus is not scanning objects on access. Restart Kaspersky Anti-Virus.

TOTAL NUMBER OF SKIPPED REQUESTS

Table 49. Total number of skipped requests

Name	Number of requests skipped
Definition	The total number of requests from the file interception driver to process objects that have been received by Kaspersky Anti-Virus but have not generated events of processing completion; this number is counted starting from the moment Anti-Virus was last started. If a request for processing of such object accepted by one of the work processes did not send an event for completion of the processing, the driver will transfer such request to another process and the value of counter **Total Number of Skipped Requests** will increment by 1. If the driver has gone through all of the working processes and none of them has received the request for processing (was busy) or has sent events of processing completion, Anti-Virus will skip such object, so the value of counter **Total Number of Skipped Requests** will increment by 1.
Purpose	This counter enables you to detect drops in performance because of file interception dispatcher failures.
Normal / threshold value	0 / 1
Recommended reading interval	1 hour
Recommendations for configuration if value exceeds the threshold	If the counter value is anything other than zero, this means that one or several file interception dispatcher streams have frozen and are down. The counter value corresponds to the number of streams currently down. If the scan speed is not satisfactory, restart Kaspersky Anti-Virus to restore the off-line streams.

NUMBER OF REQUESTS NOT PROCESSED BECAUSE OF LACK OF SYSTEM RESOURCES

Table 50. Number of requests not processed because of lack of system resources

Name	Number of requests not processed due to lack of resources
Definition	Total number of requests from the file interception driver which were not processed because of a lack of system resources (for example, RAM); counted from the time Kaspersky Anti-Virus was last started. Kaspersky Anti-Virus skips objects requests to process which are not processed by the file interception driver.
Purpose	This counter can be used to detect and eliminate potentially lower quality in real-time protection that occurs because of low system resources.

Normal / threshold value	0 / 1
Recommended reading interval	1 hour
Recommendations for configuration if value exceeds the threshold	If the counter value is anything other than zero, Kaspersky Anti-Virus working processes need more RAM to process requests. Active processes of other applications may be using all available RAM.

NUMBER OF REQUESTS SENT TO BE PROCESSED

Table 51. Number of requests sent to be processed

Name	Number of requests sent to be processed
Definition	The number of objects that wait for processing by working processes.
Purpose	This counter can be used to track the load on Kaspersky Anti-Virus working processes and the overall level of file activity on the server.
Normal / threshold value	The counter value may vary depending on the level of file activity on the server
Recommended reading interval	1 minute
Recommendations for configuration if value exceeds the threshold	No

AVERAGE NUMBER OF FILE INTERCEPTION DISPATCHER THREADS

Table 52. Average number of file interception dispatcher threads

Name	Average number of file interception dispatcher streams.
Definition	The number of file interception dispatcher streams in one process and the average for all processes currently involved in real-time protection tasks.
Purpose	This counter can be used to detect and eliminate potentially lower quality in real-time protection that occurs because of full load on Kaspersky Anti-Virus processes.
Normal / threshold value	Varies / 40
Recommended reading interval	1 minute
Recommendations for configuration if value exceeds the threshold	Up to 60 file interception dispatcher streams can be created in each working process. If the counter value approaches 60, there is a risk that none of the working processes will be able to process the next request in queue from the file interception driver and Kaspersky Anti-Virus will skip the object. Increase the number of Kaspersky Anti-Virus processes for real-time protection tasks. You can use such settings of Kaspersky Anti-Virus as **Maximum number of active processes** and **Number of processes for real-time protection**.

MAXIMUM NUMBER OF FILE INTERCEPTION DISPATCHER THREADS

Table 53. Maximum number of file interception dispatcher threads

Name	Maximum number of file interception dispatcher streams.
Definition	The number of file interception dispatcher streams in one process and the maximum for all processes currently involved in real-time protection tasks.
Purpose	This counter enables you to detect and eliminate drops in performance because of uneven distribution of loads in running processes.
Normal / threshold value	Varies / 40
Recommended reading interval	1 minute
Recommendations for configuration if value exceeds the threshold	If the value of this counter significantly and continuously exceeds the following of the **Average number of file interception dispatcher streams** counter, Kaspersky Anti-Virus is distributing the load to running processes unevenly. Restart Kaspersky Anti-Virus.

NUMBER OF INFECTED OBJECTS IN THE PROCESSING QUEUE

Table 54. Number of infected objects in the processing queue

Name	Number of items in the infected object queue.
Definition	Number of infected objects currently waiting to be processed (disinfected or deleted).
Purpose	This counter can help you detect: • interruption of real-time protection because of possible file interception dispatcher failures; • overload of processes because of uneven distribution of processor time between different working processes and Kaspersky Anti-Virus; • virus outbreaks.
Normal / threshold value	This value may be something other than zero while Kaspersky Anti-Virus is processing infected or probably infected objects but will return to zero after processing is finished / The value remains non-zero for an extended period of time.
Recommended reading interval	1 minute
Recommendations for configuration if value exceeds the threshold	If the value of the counter does not return to zero for an extended period of time: • Kaspersky Anti-Virus is not processing objects (the file interception dispatcher may have crashed); Restart Kaspersky Anti-Virus. • Not enough processor time to process the objects Make sure Kaspersky Anti-Virus receives additional processor time (by lowering other applications' load on the server, for example). • There has been a virus outbreak. A large number of infected or probably infected objects in the **Real-time protection of files** task also is a sign of a virus outbreak. You can view information on the number of detected objects in the task statistics (see page 55) or in the task log (see the section "Viewing statistics and information of a Kaspersky Anti-Virus task using task logs" on page 88).

NUMBER OF OBJECTS PROCESSED PER SECOND

Table 55. Number of objects processed per second

Name	Number of objects processed per second.
Definition	Number of objects processed divided by the amount of time that it took to process those objects (calculated over equal time intervals).
Purpose	This counter reflects the speed of object processing; it can be used to detect and eliminate low points in server performance that occur because of insufficient processor time being allotted to Kaspersky Anti-Virus processes or errors in Kaspersky Anti-Virus operation.
Normal / threshold value	Varies / No.
Recommended reading interval	1 minute.
Recommendations for configuration if value exceeds the threshold	The values of this counter depend on the values set in Kaspersky Anti-Virus settings and the load on the server from other applications' processes. Observe the average level of counter numbers over an extended period of time. If the general level of the counter values becomes lower, one of the following situations is possible: • Kaspersky Anti-Virus processes do not have enough processor time to process the objects. Make sure Kaspersky Anti-Virus receives additional processor time (by lowering other applications' load on the server, for example). • Kaspersky Anti-Virus has experienced an error (several streams are idle). Restart Kaspersky Anti-Virus.

KASPERSKY ANTI-VIRUS SNMP COUNTERS AND TRAPS

IN THIS SECTION

ABOUT KASPERSKY ANTI-VIRUS SNMP COUNTERS AND TRAPS

If you have included **SNMP Counters and Traps** in the set of Anti-Virus components to be installed, you can view Kaspersky Anti-Virus counters and traps using Simple Network Management Protocol (SNMP).

To view Kaspersky Anti-Virus counters and traps from the administrator's workstation, start SNMP Service on the protected server and start SNMP and SNMP Trap Services on the administrator's workstation.

KASPERSKY ANTI-VIRUS SNMP COUNTERS

IN THIS SECTION

PERFORMANCE COUNTERS

Table 56. Performance counters

COUNTER	DEFINITION
currentRequestsAmount	Number of requests sent to be processed (see page 139)
currentInfectedQueueLength	Number of infected items in the processing queue (see page 140)
currentObjectProcessingRate	Number of objects processed per second (see page 141)
currentWorkProcessesAmount	The current number of working processes used by Kaspersky Anti-Virus

GENERAL COUNTERS

Table 57. General counters

COUNTER	DEFINITION
currentApplicationUptime	The amount of time that Kaspersky Anti-Virus has been running since it was last started, in hundredths of seconds
currentFileMonitorTaskStatus	**Real-time protection of files** task state: **On** – running; **Off** – stopped or paused
currentScriptCheckerTaskStatus	**Script Monitoring** task state: **On** – running; **Off** – stopped or paused
lastCriticalAreasScanAge	The "age" of the last complete scan of the server's critical areas (time elapsed in seconds since the last Scan critical area task was completed)
licenseExpirationDate	License expiration date If an active and additional keys has been added, the date of expiry of the license associated with the additional key is displayed.

UPDATE COUNTER

Table 58. Updates counter

COUNTER	DEFINITION
avBasesAge	"Age" of databases (time elapsed in hundredths of seconds since the creation date of the latest updated databases installed).

REAL-TIME PROTECTION COUNTERS

Table 59. Real-time protection counters

COUNTER	DEFINITION
totalObjectsProcessed	Total number of objects scanned since the time the last **Real-time protection of files** task was run
totalInfectedObjectsFound	Total number of infected objects detected since the time the last **Real-time protection of files** task was run
totalSuspiciousObjectsFound	Total number of probably infected objects detected since the time the last **Real-time protection of files** task was run
totalVirusesFound	Total number of objects detected since the time the **Real-time protection of files** task was last run
totalObjectsQuarantined	Total number of infected or probably infected objects quarantined by Kaspersky Anti-Virus; calculated from the time the **Real-time protection of files** task was last started

COUNTER	DEFINITION
totalObjectsNotQuarantined	Total number of infected or probably infected objects Kaspersky Anti-Virus attempted to quarantine but was unable to do so; calculated from the time the **Real-time protection of files** task was last started
totalObjectsDisinfected	Total number of infected objects which were disinfected by Kaspersky Anti-Virus; calculated from the time the **Real-time protection of files** task was last started
totalObjectsNotDisinfected	Total number of infected objects which Kaspersky Anti-Virus attempted to disinfect but was unable to do so; calculated from the time **Real-time protection of files** task was last started
totalObjectsDeleted	Total number of infected or probably infected objects which were deleted by Kaspersky Anti-Virus; calculated from the time the task **Real-time protection of files** was last started
totalObjectsNotDeleted	Total number of infected or probably infected objects which Kaspersky Anti-Virus attempted to delete, but was unable to do so; calculated from the time the Real-time protection of files task **Real-time protection of files** was last started
totalObjectsBackedUp	Total number of infected objects which were placed into Backup by Kaspersky Anti-Virus; calculated from the time the **Real-time protection of files** task was last started
totalObjectsNotBackedUp	Total number of infected objects which Kaspersky Anti-Virus attempted to place into Backup but was unable to do so; calculated from the time **Real-time protection of files** task was last started

QUARANTINE COUNTERS

Table 60. Quarantine counters

COUNTER	DEFINITION
totalObjects	Number of objects currently in Quarantine
totalSuspiciousObjects	Number of probably infected objects currently in Quarantine
currentStorageSize	Total size of data in Quarantine (MB)

BACKUP COUNTERS

Table 61. Backup counters

COUNTER	DEFINITION
currentBackupStorageSize	Total size of data in Backup (MB)

SCRIPT SCANNING COUNTERS

Table 62. Script scanning counters

COUNTER	DEFINITION
totalScriptsProcessed	Total number of scanned scripts
totalInfectedIDangerousScriptsFound	Total number of dangerous scripts detected
totalSuspiciousScriptsFound	Total number of probably dangerous scripts detected
totalScriptsBlocked	Total number of scripts which has been blocked to

SNMP TRAPS

The settings of Kaspersky Anti-Virus SNMP traps are summarized in the table below.

Table 63. Kaspersky Anti-Virus SNMP traps

TRAP	DESCRIPTION	SETTINGS
eventThreatDetected	An object has been detected.	eventDateAndTime eventSeverity computerName userName objectName threatName detectType detectCertainty
eventBackupStorageSizeExceeds	Maximum backup size exceeded. The total size of data in Backup has exceeded the value specified by the **Maximum Backup Size**. Kaspersky Anti-Virus continues to back up infected objects.	eventDateAndTime eventSeverity eventSource
eventThresholdBackupStorageSizeExceeds	Backup free space threshold reached. The amount of free size in Backup assigned by the **Threshold of free space** is equal to or less than the specified value. Kaspersky Anti-Virus continues to back up infected objects.	eventDateAndTime eventSeverity eventSource
eventQuarantineStorageSizeExceeds	Maximum Quarantine size exceeded. The total size of data in Quarantine has exceeded the value specified by the **Maximum Quarantine size**. Kaspersky Anti-Virus continues to quarantine probably infected objects.	eventDateAndTime eventSeverity eventSource
eventThresholdQuarantineStorageSizeExceeds	Quarantine free space threshold reached. The amount of free size in Quarantine assigned by the Quarantine threshold of free space is less than the specified value. Kaspersky Anti-Virus continues to quarantine probably infected objects.	eventDateAndTime eventSeverity eventSource
eventObjectNotQuarantined	Quarantining error	eventSeverity eventDateAndTime eventSource userName computerName objectName storageObjectNotAddedEventReason

TRAP	DESCRIPTION	SETTINGS
eventObjectNotBackuped	Error of saving an object copy in the backup storage	eventSeverity eventDateAndTime eventSource objectName userName computerName storageObjectNotAddedEventReason
eventQuarantineInternalError	Quarantine has experienced an error.	eventSeverity eventDateAndTime eventSource eventReason
eventBackupInternalError	Backup has experienced an error.	eventSeverity eventDateAndTime eventSource eventReason
eventAVBasesOutdated	Anti-Virus database is out of date. Number of days since the last execution of database update task (local task, or group task, or task for sets of computers) is being calculated.	eventSeverity eventDateAndTime eventSource days
eventAVBasesTotallyOutdated	Anti-Virus database is obsolete. Number of days since the last execution of database update task (local task, or group task, or task for sets of computers) is being calculated.	eventSeverity eventDateAndTime eventSource days
eventApplicationStarted	Kaspersky Anti-Virus started.	eventSeverity eventDateAndTime eventSource
eventApplicationShutdown	Kaspersky Anti-Virus stopped.	eventSeverity eventDateAndTime eventSource
eventCriticalAreasScanWasntPerformForALongTime	Critical areas have not been scanned for a long time. Calculated as the number of days since the last completion of the "Scan critical areas" task.	eventSeverity eventDateAndTime eventSource days
eventLicenseHasExpired	License has expired.	eventSeverity eventDateAndTime eventSource
eventLicenseExpiresSoon	License expires soon. Calculated as the number of days until the expiration date for the license.	eventSeverity eventDateAndTime eventSource days

TRAP	DESCRIPTION	SETTINGS
eventTaskInternalError	Task completion error	eventSeverity eventDateAndTime eventSource errorCode knowledgeBaseId taskName
eventUpdateError	Error performance an update task	eventSeverity eventDateAndTime taskName updaterErrorEventReason

The following table describes the settings of traps and possible parameter values.

Table 64. SNMP traps: values of the settings

SETTING	DESCRIPTION AND POSSIBLE VALUES
eventDateAndTime	Event time.
eventSeverity	Severity level. The setting can take the following values: • critical (1) – critical, • warning (2) – warning, • info (3) – informational.
userName	Username (for example, name of the user that attempted to gain access to an infected file).
computerName	Computer name (for example, name of the computer from which a user attempted to gain access to an infected file).
eventSource	Event source: functional component where the event was generated. The setting can take the following values: • unknown (0) – functional component not known; • quarantine (1) – Quarantine; • backup (2) – Backup; • reporting (3) – task logs; • updates (4)– Update; • realTimeProtection (5) - Real-time file protection; • onDemandScanning (6) – On-demand scan; • product (7) – event related to operation of Kaspersky Anti-Virus as a whole rather than operation of individual components; • systemAudit (8) – system audit log; • nasProtection (10) – Network storage protection.
eventReason	What triggered the event. The setting can take the following values: • reasonUnknown (0) – reason not known, • reasonInvalidSettings (1) – only for a Backup and Quarantine events, displayed if Quarantine or Backup is unavailable (insufficient access permissions or the folder is specified incorrectly in the Quarantine settings -- for example, a network path is specified). In this case, Kaspersky Anti-Virus will use the default Backup or Quarantine folder.
objectName	Object name (for example, name of the file where the virus was detected).

SETTING	DESCRIPTION AND POSSIBLE VALUES
threatName	The name of object according to the Virus Encyclopedia classification (http://www.securelist.com/en/). This name is included in the full name of the detected object that Kaspersky Anti-Virus returns on detecting an object. You can view the full name of the detected object in the task log (see the section "Viewing statistics and information of a Kaspersky Anti-Virus task using tasks logs" on page 88).
detectType	Type of object detected. The setting can take the following values: • undefined (0) – undefined; • virware – classic viruses and network worms; • trojware – Trojans; • malware – other malicious programs; • adware – advertising software; • pornware – pornographic software; • Riskware: legitimate applications that may be used by intruders to harm the user's computer or data.
detectCertainty	Certainty level for threat detection. The setting can take the following values: • Suspicion (probably infected) – Kaspersky Anti-Virus has detected a partial match between a section of the object code and the known malicious code section. • Sure (infected) – Kaspersky Anti-Virus has detected a complete match between a section of the object code and the known malicious code section.
days	Number of days (for example, the number of days until the license expiration date)
errorCode	Error code.
knowledgeBaseId	Address of a knowledge base article (for example, address of an article that explains a particular error).
taskName	Task name.
updaterErrorEventReason	Reason of the update error. The setting can take the following values: • reasonUnknown(0) – reason is unknown; • reasonAccessDenied – access denied; • reasonUrlsExhausted – the list of update sources is exhausted; • reasonInvalidConfig – invalid configuration file; • reasonInvalidSignature – invalid signature; • reasonCantCreateFolder – folder cannot be created; • reasonFileOperError – file error; • reasonDataCorrupted – object is corrupted; • reasonConnectionReset – connection reset; • reasonTimeOut – connection timeout exceeded; • reasonProxyAuthError – proxy authentication error; • reasonServerAuthError – server authentication error; • reasonHostNotFound – computer not found; • reasonServerBusy – server unavailable; • reasonConnectionError – connection error; • reasonModuleNotFound – object not found; • reasonBlstCheckFailed(16) – error checking the black list of keys. It is possible that databases updates were being published at the moment of update; please repeat the update in a few minutes. See the list of these reasons and possible administrator actions on the Technical Support website in the section "If a program generated an error" (http://support.kaspersky.com/error).

SETTING	DESCRIPTION AND POSSIBLE VALUES
storageObjectNotAddedEventReason	The reason why the object was not backed up or quarantined. The setting can take the following values: • reasonUnknown(0) – reason is unknown; • reasonStorageInternalError – database error; please restore Kaspersky Anti-Virus; • reasonStorageReadOnly – database is read-only; please restore Kaspersky Anti-Virus; • reasonStorageIOError – input-output error: a) Kaspersky Anti-Virus is corrupted, please restore Kaspersky Anti-Virus; b) disk with Kaspersky Anti-Virus files is corrupted; • reasonStorageCorrupted – storage is corrupted; please restore Kaspersky Anti-Virus; • reasonStorageFull – database is full; free up disk space; • reasonStorageOpenError – database file could not be opened; please restore Kaspersky Anti-Virus; • reasonStorageOSFeatureError – some operating system features do not correspond to Kaspersky Anti-Virus requirements. • reasonObjectNotFound – object being placed to Quarantine does not exist on the disk. • reasonObjectAccessError – insufficient privileges for using Backup API: the account under which the operation is attempted does not have Backup Operator privileges. • reasonDiskOutOfSpace – not enough space on the disk.

CONTACTING TECHNICAL SUPPORT

This section describes the ways to receive technical support and the conditions on which it is available.

IN THIS SECTION

ABOUT TECHNICAL SUPPORT

If you do not find a solution to your problem in the application documentation or in one of the sources of information about the application, we recommend that you contact Kaspersky Lab Technical Support. Technical Support specialists will answer your questions about installing and using the application.

Technical support is available only to users who have purchased a commercial license for the application. Technical support is not available to users who have a trial license.

Before contacting Technical Support, we recommend that you read through the support rules (http://support.kaspersky.com/support/rules).

You can contact Technical Support in one of the following ways:

- By calling Kaspersky Lab Technical Support.
- By sending a request to Technical Support through the Kaspersky CompanyAccount web service.

TECHNICAL SUPPORT VIA KASPERSKY COMPANYACCOUNT

Kaspersky CompanyAccount (https://companyaccount.kaspersky.com) is a web service for companies that use Kaspersky Lab applications. The Kaspersky CompanyAccount web service is designed to facilitate interaction between users and Kaspersky Lab specialists via online requests. You can use Kaspersky CompanyAccount to track the status of your online requests and store a history of them as well.

You can register all of your organization's employees under a single account on Kaspersky CompanyAccount. A single account gives you centralized management of online requests from these employees to Kaspersky Lab, as well as control over the rights of these employees in your Kaspersky CompanyAccount.

The Kaspersky CompanyAccount web service is available in the following languages:

- English
- Spanish
- Italian
- German
- Polish
- Portuguese
- Russian
- French
- Japanese

To learn more about Kaspersky CompanyAccount, visit the Technical Support website (http://support.kaspersky.com/faq/companyaccount_help).

TECHNICAL SUPPORT BY PHONE

If an urgent issue arises, you can call Kaspersky Lab Technical Support representatives (http://support.kaspersky.com/support/contacts).

Before contacting Technical Support, you are advised to read the technical support rules (http://support.kaspersky.ru/support/rules). These rules contain information about the working hours of Kaspersky Lab Technical Support and about the information that you must provide so that Kaspersky Lab Technical Support specialists can help you.

USING TRACE FILES AND AVZ SCRIPTS

After you report a problem to Kaspersky Lab Technical Support specialists, they may ask you to generate a report with information about the operation of Kaspersky Anti-Virus and to send it to Kaspersky Lab Technical Support. Kaspersky Lab Technical Support specialists may also ask you to create a *trace file*. The trace file allows following the process of how application commands are performed, step by step, in order to determine the stage of application operation at which an error occurs.

After analyzing the data you send, Kaspersky Lab Technical Support specialists can create an AVZ script and send it to you. With AVZ scripts, it is possible to analyze active processes for threats, scan the computer for threats, disinfect or delete infected files, and create system scan reports.

For more effective support and troubleshooting of application problems, Technical Support specialists may ask you to change application settings temporarily for purposes of debugging during diagnostics. This may require doing the following:

- Activating the functionality that gathers extended diagnostic information.
- Fine-tuning the settings of individual application components, which are not available via standard user interface elements.
- Changing the settings of storage and transmission of diagnostic information that is gathered.
- Configuring the interception and logging of network traffic.

GLOSSARY

A

Active key

The key that the application currently uses in its operation.

Additional key

The additional key is a key that confirms the right to use the application but is not currently in use.

Administration group

A set of computers associated in accordance with their functions and the pool of Kaspersky Lab applications installed on them. Computers are grouped for the ease of management, which allows administering them as a single unit. A group may include other groups. Group policies and group tasks can be created for each of the applications installed within one group.

Administration server

A component of Kaspersky Security Center that performs centralized storage of information about Kaspersky Lab applications installed on the corporate network and ways of managing them.

Anti-virus databases

Databases that contain information about computer security threats known to Kaspersky Lab as of the anti-virus database release date. Anti-virus database signatures help to detect malicious code in scanned objects. Anti-virus databases are created by Kaspersky Lab specialists and updated hourly.

Application settings

Settings of the application that are common for tasks of all the types and responsible for the operation of the application itself, for example: application performance settings, settings of reports, Backup settings.

Archive

A file that contains inside itself one or several other files, which, in their turn, may also be archives.

B

Backup

A dedicated storage area intended for storing backup copies of files that have been created before their first disinfection or deletion.

D

Disinfection of objects

A method of processing infected objects that results in a complete or partial recovery of data. Not every infected object can be disinfected.

F

False alarm

A situation when a non-infected object is identified by a Kaspersky Lab application as infected because its code is similar to that of a virus.

FILE MASK

Representation of the name and extension of a file by means of wildcards.

To create a file mask, you can use any symbols that are allowed to use in file names, including special ones:

- * – the symbol, which substitutes zero or more characters
- ? – the symbol, which substitutes any single character.

Please note that the name and the extension of a file are always separated with a dot.

H

HEURISTIC ANALYZER

A module of Kaspersky Anti-Virus that performs heuristic analysis.

HEURISTIC ANALYSIS

A technology intended for detection of threats that cannot be detected using the current version of the databases of Kaspersky Lab applications. It allows finding files that may contain some unknown virus or a new modification of a known virus.

The Probably-infected status is assigned to files in which the heuristic analysis has detected malicious code.

I

INFECTED FILE

A file that contains malicious code (i.e., when scanning the file, code of a known application that poses a threat has been detected). Kaspersky Lab specialists recommend that you abstain from handling such files since this may lead to an infection of your computer.

N

NETWORK AGENT

A component of Kaspersky Security Center that is responsible for interaction between Administration Server and Kaspersky Lab applications installed on a specific network node (workstation or server). This component is common for all Windows-based applications from the company's product range.

O

OLE OBJECT

A file that has been merged or integrated into another one. Kaspersky Lab applications allow scanning OLE objects for viruses. For example, if you embed a Microsoft Office Excel® spreadsheet into a Microsoft Office Word document, the former will be scanned as OLE object.

P

POSSIBLY INFECTED FILE

A file that contains either modified code of a known virus, or code that is similar to one but still unknown to Kaspersky Lab. Possibly files can be detected by means of the heuristic analyzer.

POTENTIALLY INFECTABLE FILE

A file with a specific structure or format that may be used by criminals to convert this file into a container for storing and spreading malicious code. As a rule, they include executable files, for example, those with com, exe, dll, and other similar extensions. The risk of malicious code penetration into such files is rather high.

Q

QUARANTINE

The folder to which Kaspersky Anti-Virus moves possibly infected objects that have been detected. Files are stored in Quarantine in encrypted form in order to avoid any impact on the computer.

S

SIGNATURE ANALYSIS

The technology of threat detection, which uses databases of Kaspersky Anti-Virus that contain descriptions of known threats and methods of neutralizing them. Protection with signature analysis ensures the minimum admissible security level. According to recommendations of Kaspersky Lab specialists, this analysis method is always enabled.

STARTUP OBJECTS

A set of applications that are required for start and proper operation of the operating system and software installed on the computer. Every time the operating system boots, it runs those objects. There are viruses aimed at infecting such objects, which may result, for example, in blocked booting of the operating system.

T

TASK

Functions performed by a Kaspersky Lab application are implemented as tasks, for example: Real-time protection of files, Full Scan, Update application databases.

TASK SETTINGS

Settings of the application that are specific for each task type.

U

UPDATE

A procedure that consists in replacing / adding new files (databases or application modules) retrieved from Kaspersky Lab update servers.

V

VULNERABILITY

A flaw in the operating system or in an application that may be exploited by malicious programs in order to intrude into the operating system or application and corrupt its integrity. A large number of vulnerabilities in the operating system makes its operation unreliable, because viruses that have intruded into the operating system may provoke failures in the system's operation or errors in the operation of installed applications.

KASPERSKY LAB

Kaspersky Lab software is internationally renowned for its protection against viruses, malware, spam, network and hacker attacks, and other threats.

In 2008, Kaspersky Lab was rated among the world's top four leading vendors of information security software solutions for end users (IDC Worldwide Endpoint Security Revenue by Vendor). Kaspersky Lab is the preferred developer of computer protection systems among home users in Russia, according to the COMCON survey "TGI-Russia 2009".

Kaspersky Lab was founded in Russia in 1997. Today Kaspersky Lab is an international group of companies headquartered in Moscow and comprising five regional divisions, which manage the company's operations in Russia, Western and Eastern Europe, the Middle East, Africa, Northern and Southern America, Japan, China, and other countries of the Asia-Pacific region. The company employs more than 2,000 skilled professionals.

PRODUCTS. Kaspersky Lab products provide protection for all systems—from home computers to large corporate networks.

The personal product range includes anti-virus applications for desktop, laptop, and tablet computers, and for smartphones and other mobile devices.

Kaspersky Lab delivers applications and services to protect workstations, file and web servers, mail gateways, and firewalls. Used in conjunction with Kaspersky Lab's centralized management system, these solutions ensure effective automated protection for companies and organizations against computer threats. Kaspersky Lab products are certified by major testing laboratories, compatible with the applications of most software vendors, and optimized for work on most hardware platforms.

Kaspersky Lab virus analysts work around the clock. Every day they uncover hundreds of new computer threats, create tools to detect and disinfect them, and include them in the databases used by Kaspersky Lab applications. *Kaspersky Lab's Anti-Virus database is updated hourly*; *and the Anti-Spam database every five minutes*.

TECHNOLOGIES. Many technologies that are now part and parcel of modern anti-virus tools were originally developed by Kaspersky Lab. It is no coincidence that many other developers use the Kaspersky Anti-Virus kernel in their products, including: SafeNet (USA), Alt-N Technologies (USA), Blue Coat Systems (USA), Check Point Software Technologies (Israel), Clearswift (UK), CommuniGate Systems (USA), Openwave Messaging (Ireland), D-Link (Taiwan), M86 Security (USA), GFI Software (Malta), IBM (USA), Juniper Networks (USA), LANDesk (USA), Microsoft (USA), Netasq+Arkoon (France), NETGEAR (USA), Parallels (USA), SonicWALL (USA), WatchGuard Technologies (USA), ZyXEL Communications (Taiwan). Many of the company's innovative technologies are patented.

ACHIEVEMENTS. Over the years, Kaspersky Lab has won hundreds of awards for its services in combating computer threats. For example, in 2010 Kaspersky Anti-Virus received several top Advanced+ awards in a test administered by AV-Comparatives, a reputed Austrian anti-virus laboratory. But Kaspersky Lab's main achievement is the loyalty of its users worldwide. The company's products and technologies protect more than 300 million users, and its corporate clients number more than 200,000.

Kaspersky Lab website:	http://www.kaspersky.com
Virus Encyclopedia	http://www.securelist.com/en/
Virus Lab:	newvirus@kaspersky.com (only for sending probably infected files in archives)
Kaspersky Lab web forum:	http://www.kaspersky.com

INFORMATION ABOUT THIRD-PARTY CODE

Information about third-party code is contained in a file named legal_notices.txt and stored in the application installation folder.

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