

User manual



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Dr.Web Security Space (Windows) Version 12.0 User manual 4/15/2025

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Doctor Web

Doctor Web develops and distributes Dr.Web information security solutions that provide effective protection against malicious software and spam.

Doctor Web customers include home users around the world, government agencies, small businesses, and nationwide corporations.

Since 1992, Dr.Web anti-virus solutions have been known for their continuous excellence in malware detection and compliance with international information security standards.

The state certificates and awards received by Dr.Web solutions, as well as the worldwide use of our products, are the best evidence of exceptional trust in the company products.

We thank all our customers for their support and devotion to Dr.Web products!



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1. Introduction

This manual describes how to install the Dr.Web Security Space product and contains recommendations on how to use it and solve typical problems caused by computer threats. Mostly, the manual describes the standard operation modes of the Dr.Web Security Space components (with default settings).

The Appendices contain some general information and additional parameters for experienced users for Dr.Web Security Space setting-up.

1.1. Document Conventions and Abbreviations

Conventions

The following symbols and text conventions are used in this guide:

Convention	Comment		
<u></u> ♠	A warning about possible errors or important notes that require special attention.		
Anti-virus network	A new term or an emphasis on a term in descriptions.		
<ip-address></ip-address>	Placeholders.		
Save	Names of buttons, windows, menu items and other program interface elements.		
CTRL	Names of keyboard keys.		
C:\Windows\	Names of files and folders, code examples.		
Appendix A	Cross-references to document chapters or internal hyperlinks to webpages.		

Abbreviations

The following abbreviations will be used in the manual without further interpretation:

- Dr.Web—Dr.Web Security Space
- FTP—File Transfer Protocol
- HTTP—Hypertext Transfer Protocol
- IMAP—Internet Message Access Protocol
- IMAPS—Internet Message Access Protocol Secure
- MTU—Maximum Transmission Unit



- NNTP—Network News Transfer Protocol
- POP3—Post Office Protocol Version 3
- POP3S—Post Office Protocol Version 3 Secure
- SIP—Session Initiation Protocol
- SMTPS—Simple Mail Transfer Protocol Secure
- SSL—Secure Sockets Layer
- TCP—Transmission Control Protocol
- TLS—Transport Layer Security
- UAC—User Account Control
- UNC—Uniform Naming Convention
- URL—Uniform Resource Locator
- OS—Operating system



2. About the Product

Dr.Web Security Space protects RAM, hard drives, and removable media of computers running Windows operating system against any kind of viruses, rootkits, Trojans, spyware, adware, hacktools, and other types of malicious objects from any external source.

Dr.Web Security Space consists of several modules responsible for different functions. Scan engine and virus databases are common for all components and different platforms.

Product components are constantly updated. New threat signatures are regularly added to the virus databases, databases of website categories and rules for email spam filtration. Constant update provides an up-to-date level of protection for users' devices, applications and data. Heuristic analysis methods implemented in the scan engine ensure an additional protection against unknown malicious software.

Dr.Web Security Space can detect and remove unwanted programs: adware, dialers, jokes, riskware, and hacktools from your computer. Dr.Web uses default component features to detect unwanted programs and perform actions with the files containing them.

Dr.Web Security Space checks the integrity of the product composition during every update. Dr.Web Security Space protects itself against malicious actions directed at the operation of antivirus programs by continuously protecting its own files and processes from accidental damage and unauthorized interference during its operation.

On the **Support** page, in the <u>About</u> section, you can find information about the product version, the last update date.

2.1. Protection Components and Management Modules

Dr.Web Security Space contains the following protection components and management modules:

Component/module	Description
SplDer Guard	A component that constantly resides in memory. SpIDer Guard scans processes and files on their launch and creation and detects any malicious activity.
SplDer Gate	A component that scans an HTTP traffic. By default, the SpIDer Gate internet monitor automatically scans incoming HTTP traffic and blocks transferring objects, containing threats. URL filtering of malicious and unreliable websites is also enabled by default. SpIDer Gate scans traffic over the HTTP, XMPP (Jabber), and TLS (SSL) protocols.
SplDer Mail	A component that monitors data exchange between any mail clients on your computer and mail servers made via POP3/SMTP/IMAP4/NNTP protocols (IMAP4 stands for IMAPv4rev1), detects and neutralizes threats before they are



Component/module	Description	
	transferred to or from your computer thus preventing spread of infection via email. SplDer Mail can also scan email for spam messages using <u>Dr.Web Anti-Spam</u> .	
<u>Dr.Web Firewall</u>	A component that allows restricting network connections according to the specified parameters.	
Parental Control	A component that restricts access to websites, files and folders, and allows a user to set custom time limits on using the computer and the internet for different Windows accounts.	
Behavior Analysis	A component that controls application access to critical system objects and provides exploit prevention and integrity of running applications.	
Exploit Prevention	A component that blocks malicious objects that use application vulnerabilities.	
Ransomware Protection	A component that provides protection against ransomware.	
<u>Scanner</u>	A scanner with a graphical interface that launches on demand or as scheduled and scans your computer for viruses and other malicious software.	
Console Dr.Web Scanner	A command-line version of Dr.Web Scanner.	
Dr.Web for Microsoft Outlook	A plug-in that scans Microsoft Outlook mailboxes for threats and spam.	
<u>Dr.Web Updater</u>	A module that allows registered users to receive and automatically install updates for virus databases and Dr.Web modules.	
SplDer Agent	A module that helps you configure and manage your anti-virus product.	

2.2. Detection Methods

Doctor Web anti-virus solutions use several malicious software detection methods simultaneously, which allows them to perform thorough checks on suspicious files and control software behavior.

Signature analysis

The scans begin with signature analysis that is performed by comparison of file code segments to the known threat signatures. A signature is a finite continuous sequence of bytes which is necessary and sufficient to identify a specific threat. To reduce the size of the signature dictionary, Dr.Web anti-virus solutions use signature checksums instead of complete signature sequences. Checksums uniquely identify signatures, which preserves correctness of threat detection and neutralization. Dr.Web virus databases are composed so that some entries can be used to detect not just specific threats, but whole classes of threats.



Origins Tracing

On completion of signature analysis, Dr.Web anti-virus solutions use the unique Origins Tracing method to detect new and modified threats that use the known infection mechanisms. Thus, Dr.Web users are protected against such threats as notorious blackmailer Trojan. Encoder. 18 (also known as gpcode). In addition to detection of new and modified threats, the Origins Tracing mechanism allows to considerably reduce the number of false triggering of the heuristic analyzer. Objects detected using the Origins Tracing algorithm are indicated with the .Origin extension added to their names.

Execution emulation

The technology of program code emulation is used for detection of polymorphic and encrypted viruses, when the search against checksums cannot be applied directly, or is very difficult to be performed (due to the impossibility of building secure signatures). The method implies simulating the execution of an analyzed code by an *emulator*—a programming model of the processor and runtime environment. The emulator operates with protected memory area (*emulation buffer*), in which execution of the analyzed program is modelled instruction by instruction. However, none of these instructions is actually executed by the CPU. When the emulator receives a file infected with a polymorphic virus, the result of the emulation is a decrypted virus body, which is then easily determined by searching against signature checksums.

Heuristic analysis

The detection method used by the heuristic analyzer is based on certain knowledge (*heuristics*) about certain features (attributes) that might be typical for the malicious code itself, and vice versa, that are extremely rare in threats. Each attribute has a weight coefficient which determines the level of its severity and reliability. The weight coefficient can be positive if the corresponding attribute is indicative of a malicious code or negative if the attribute is uncharacteristic of a computer threat. Depending on the sum weight of a file, the heuristic analyzer calculates the probability of unknown infection. If the threshold is exceeded, the heuristic analyzer generates the conclusion that the analyzed object is probably infected with an unknown threat.

The heuristic analyzer also uses the FLY-CODE technology, which is a versatile algorithm for extracting files. The technology allows making heuristic assumptions about the presence of malicious objects in files compressed not only by packagers Dr.Web is aware of, but also by new, previously unexplored programs. While checking packed objects, Dr.Web anti-virus solutions also use structural entropy analysis. The technology detects threats by arranging pieces of code; thus, one database entry allows identification of a substantial portion of threats packed with the same polymorphous packager.



As any system of hypothesis testing under uncertainty, the heuristic analyzer may commit type I or type II errors (omit threats or raise false alarms). Thus, objects detected by the heuristic analyzer are treated as "suspicious".

Behavior Analysis

Behavior analysis methods analyze the sequence of actions of all the processes in the system. When the malicious behavior is detected, actions of this program are blocked.

Dr.Web Process Heuristic

The Dr.Web Process Heuristic behavioral analysis technology protects systems against new dangerous malicious programs that can avoid detection by traditional signature-based and heuristic analyses.

Dr.Web Process Heuristic analyses the behavior of each running program in real time. Using the constantly updated Dr.Web cloud service, along with the information on malware behavior, it determines whether the program is dangerous and then takes necessary measures to neutralize the threat. Objects detected using Dr.Web Process Heuristic are indicated with the DPH prefix added to their names.

This data protection technology helps to minimize losses resulting from the actions of unknown malware while consuming very few of the protected system resources.

Dr. Web Process Heuristic monitors any attempts to modify the system:

- Detects malicious processes that modify users' files (such as encryption attempts of ransomware), including shared files and folders accessible through network.
- Prevents malware from injecting its code into the processes of other applications.
- Protects critical system areas from being modified by malware.
- Detects and shuts down the execution of malicious, suspicious or unreliable scripts and processes.
- Prevents malware from modifying boot sectors so that malicious code cannot be executed on the computer.
- Blocks changes in the Windows Registry to make sure that the safe mode won't be disabled.
- Prevents malware from changing launch permissions.
- Prevents new or unknown drivers from being downloaded without the user's consent.
- Prevents malware and certain other applications, such as anti-antiviruses, from adding their entries into the Windows Registry, so that they could be launched automatically.
- Locks registry sections containing information about virtual device drivers, ensuring that no new virtual devices are created.
- Prevents malware from disrupting system routines such as scheduled backups.



Dr.Web Process Dumper

Dr.Web Process Dumper, a comprehensive analysis of packed threats significantly improves the detection of supposedly "new" malicious programs that were added to the Dr.Web virus database before they were concealed by new packers. In addition, this type of analysis eliminates the need to keep adding new entries into the virus database. With Dr.Web virus databases kept small, system requirements do not need to be constantly increased. Updates remain traditionally small, while the quality of detection and curing remains at the same high level. Objects detected using Dr.Web Process Dumper are indicated with the DPD prefix added to their names.

Dr.Web ShellGuard

Dr.Web ShellGuard protects your device against exploits. *Exploits* are malicious objects that take advantage of software vulnerabilities. These vulnerabilities are used to gain control over a targeted application or the operating system. Objects detected using Dr.Web ShellGuard are indicated with the DPH: Trojan. Exploit prefix added to their names.

Dr.Web ShellGuard protects the most common applications installed on almost all computers running Windows:

- popular web browsers (Internet Explorer, Mozilla Firefox, Google Chrome, and others);
- MS Office applications;
- system Applications;
- applications that use java, flash and pdf;
- media players (software).

To detect malicious actions, Dr.Web ShellGuard uses not only the information stored locally, but also the following data from the Dr.Web Cloud service:

- information on algorithms of malicious programs;
- information about known clean files;
- information on the compromised digital signatures of well-known software developers;
- information about digital signatures used by adware and riskware;
- information about websites unwanted for visiting;
- protection algorithms used by specific applications.

Injection Protection

Injection is a method for introducing (or injecting) malicious code into the processes running on a device. Dr.Web monitors continuously the behavior of all the processes in the system and prevents any attempt to inject the code if considers it to be malicious. Objects detected using Injection Protection are indicated with the DPH: Trojan.Inject prefix added to their names.

Dr. Web scans the application that has executed the process according to the following criteria:

• If the application is a new one.



- How did it get into the system.
- Where is the application situated.
- What is its name.
- If the application is in the list of trusted applications.
- If it has a valid digital signature of a trusted certification center.
- If it belongs to the black or white list on Dr.Web Cloud service.

Dr.Web monitors the state of the executed process: checks whether remote threads are created in the process space, whether extraneous code is embedded in the active process.

The anti-virus program controls the changes that applications make, prohibits changing system and privileged processes. Separately, Dr.Web ensures that malicious code cannot modify the memory of popular browsers, for example, when you make purchases on the internet or make transfers in online banks.

Ransomware Protection

Ransomware Protection is one of the methods of Behavior Analysis that protects users' files from cryptoware actions. When entering a user's computer, such malicious programs block the access to user's data and then demand money for decryption. Objects detected using Ransomware Protection are indicated with the DPH: Trojan. Encoder prefix added to their names.

The component analyzes the behavior of a suspicious process paying particular attention to the processes of file search, reading the files and attempts to modify them.

The following information on the application is also checked:

- If the application is a new one.
- How did it get into the system.
- Where is the application situated.
- What is its name.
- If the application is a trusted one.
- If it has a valid digital signature of a trusted certification center.
- If it belongs to the black or white list of applications that is stored on Dr.Web Cloud service.

The method for modification of files is also checked. When the malicious behavior is detected, actions of this program are blocked, and the attempts to modify files are prevented.

Machine learning

Machine learning is used for detecting and neutralizing malicious objects missing from the virus databases. The advantage of the method is detection of a malicious code without executing it, judging only by its features.



Threat detection is based on the malicious object classification according to specific features. Support vector machines (SVM) underlie machine learning technologies that are used for classification and adding code fragments written in scripting languages to the databases. Detected objects are then analyzed on the basis of whether they have features of a malicious code. Machine learning technology makes the process of updating these features and virus databases automatic. Large amounts of data are processed faster thanks to the connection to the cloud service, and continuous training of the system provides preventive protection from the latest threats. At that, the technology can function even without a constant connection to the cloud.

The machine learning method significantly saves the resources of the operating system, since it does not require code execution to detect threats, and dynamic machine learning of the classifier can be carried out without a constant update of the virus databases that is used for signature analysis.

Cloud-based threat detection technologies

Cloud-based detection methods allow scanning any object (file, application, browser extension, etc.) by its hash value. Hash is a unique sequence of numbers and letters of a given length. When analyzed by a hash value, objects are scanned using the existing database and then classified into categories: clean, suspicious, malicious, etc. Objects detected using Cloud-based technologies are indicated with the CLOUD prefix added to their names.

This technology optimizes the time of file scanning and saves device resources. The decision on whether the object is malicious is made almost instantly, because it is not the object that is analyzed, but its unique hash value. If there is no connection to the Dr.Web servers, the files are scanned locally, and the cloud scan resumes when the connection is restored.

Thus, the Doctor Web cloud service collects information from numerous users and quickly updates data on previously unknown threats increasing the effectiveness of device protection.

2.3. System Requirements

Dr.Web can be installed and run on a computer that meets the following minimum requirements:

Parameter	Requirements	
CPU	An i686-compatible processor	
Operating system	For 32-bit platforms: • Windows XP with Service Pack 2 or later • Windows Vista with Service Pack 2 or later	



Parameter	Requirements			
	Windows 7 with Service Pack 1 or later			
	• Windows 8			
	• Windows 8.1			
	Windows 10 22H2 or earlier			
	For 64-bit platforms:			
	Windows Vista with Service Pack 2 or later			
	Windows 7 with Service Pack 1 or later			
	• Windows 8			
	• Windows 8.1			
	Windows 10 22H2 or earlier			
	Windows 11 22H2 or earlier			
RAM	Minimum 512 MB			
Screen resolution	Recommended 1024 × 768 or higher			
Cloud and virtualization	Operation of the program is guaranteed in the following environments:			
environment support	• VMware			
	Hyper-V			
	• Xen			
	• KVM			
Other	Dr.Web plug-in for Microsoft Outlook requires one of the following Microsoft Outlook clients from the Microsoft Office suite:			
	• Outlook 2000			
	Outlook 2002			
	• Outlook 2003			
	Outlook 2007			
	Outlook 2010 with Service Pack 2			
	• Outlook 2013			
	• Outlook 2016			
	• Outlook 2019			
	• Outlook 2021			



As Microsoft has stopped supporting SHA-1 hashing algorithm, please ensure that your operating system supports SHA-256 hashing algorithm before installing Dr.Web Security Space on Windows Vista or Windows 7. For this, install all the recommended updates listed in Windows Update section. For the detailed information, please visit Doctor Web official website C.



Reliable and uninterrupted operation of Dr.Web is not guaranteed on hardware with custom configurations, such as overclocked processors, modified memory parameters, or power voltage settings.

To ensure a correct operation of Dr.Web the following ports must be opened:

Purpose	Direction	Port numbers
Activate and renew the license	outgoing	443
Receive updates (if the option to update using https is enabled)	outgoing	443
Receive updates	outgoing	80
Send email notifications		25 or 465 (or depending on the settings of email notifications)
Connect to Dr.Web Cloud	outgoing	443 (TCP), 2075 (including UDP), 3010 (TCP), 3020 (TCP), 3030 (TCP), 3040 (TCP)



3. Installing, Removing, or Changing Dr. Web

Before installing Dr.Web Security Space, get familiar with <u>system requirements</u>. In addition, it is recommended that you do the following:

- Install all critical updates released by Microsoft for the OS version used on your computer (detailed information about <u>Windows</u> <u>C</u>). If the operating system is no longer supported, then upgrade to a newer operating system.
- Check the file system with system utilities and remove the detected problems.
- Remove any anti-virus software from your computer to prevent possible incompatibility of Dr.Web components.
- In case of installation of Dr.Web Firewall, uninstall firewalls from your computer.
- Close all active applications.



To install Dr.Web, the user should have administrative privileges.

Dr.Web is not compatible with other anti-virus software (including other versions of Dr.Web anti-virus programs). Installing two anti-virus programs on one computer may lead to system crash and loss of important data. If you already have another anti-virus software installed then it is necessary to uninstall it using the installation file or standard tools of the OS.

There are two installation modes of Dr.Web anti-virus software:

- Command line mode
- Wizard mode

3.1. Installing the Product



To install Dr.Web, the user should have administrative privileges.

Installation in wizard mode

To start usual installation, do one of the following:

- If you have an executable file (drweb-12.0-ss-win.exe), run it.
- If you have an original disk containing installation package, insert the disk into the CD/DVD drive. If autorun is enabled, the installation will start automatically. If autorun is disabled, run the autorun.exe file of the installation kit manually. The window opens and displays the autorun menu. Click **Install**.



At any installation step, before the Wizard starts copying files to your computer, you can do the following:

- Return to the previous step by clicking **Back**.
- Go to the next step by clicking **Next**.
- Abort installation by clicking **Cancel**.

To install the program

1. If other anti-virus software is installed on your computer, the Installation Wizard informs you on incompatibility between Dr.Web and another anti-virus product and offers to remove it.



Before the installation starts, the Wizard checks if the installation file is the latest one. If a newer installation file exists, you will be offered to download it before the installation.

2. At the first step of installation process, you are prompted to connect to <u>Dr.Web cloud</u> <u>services</u> that allow scanning using the newest information on threats. The information is updated in real-time mode. The option is enabled by default. You can also specify whether Dr.Web Firewall should be installed or not.

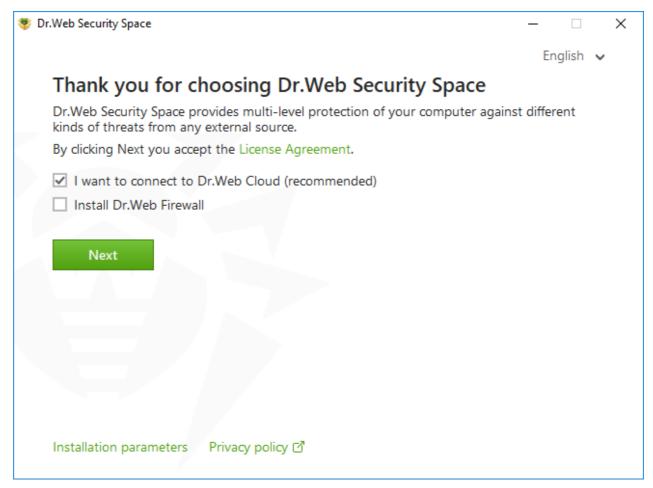


Figure 1. Installation Wizard



3. If you want to use default installation settings, go to the next step. To select components you want to install, specify the installation path and configure other settings, click **Installation parameters**.

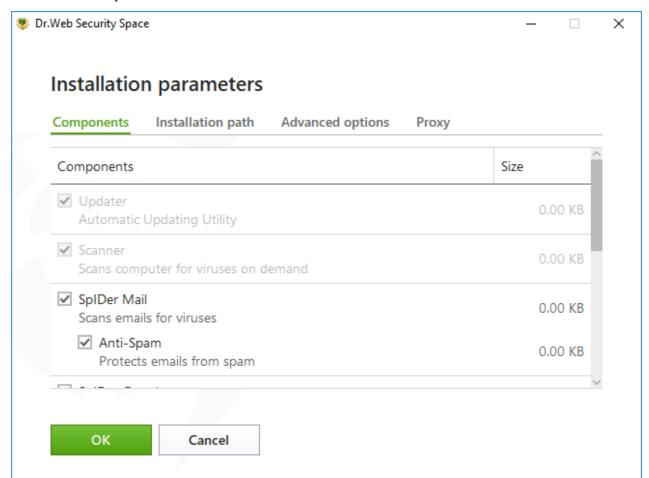


Figure 2. Installation parameters

The option is meant for experienced users.

- On the first tab, you can specify the components you want to install. Select the check boxes next to those components that you want to install.
- On the second tab, you can change the installation path. By default, it is installed into the DrWeb folder in the Program files folder on the system disk. To change the installation path, click **Browse** and specify the necessary folder.
- The third tab of the window allows you to enable the Update during installation option
 to download updates to virus databases and other program components. Enable the
 Enable compatibility with screen readers option to use such screen readers as, for
 example, JAWS and NVDA for reading aloud the information on Dr.Web interface
 elements. This option makes Dr.Web interface accessible for disabled people. The tab also
 prompts you to create shortcuts to Dr.Web.
- Specify the proxy server parameters if necessary.
- To save the changes, click **OK**. To close the window without saving the changes, click **Cancel**.
- 4. Click **Next**. Please note that by clicking the Next button you accept the terms of the License agreement.



- 5. In **Registration Wizard** window select one of the following options:
 - If a key file is present on the hard drive or removable media, select **Specify path to an available valid key file**. Click **Browse** and select the key file in dialog box. More information can be found in <u>Activation Using Key File</u> section.
 - To continue installation <u>without a license</u>, select **Receive license later**. Updates are not available until you specify or obtain a key file. You will be able to purchase a license and get a valid key file after the installation.

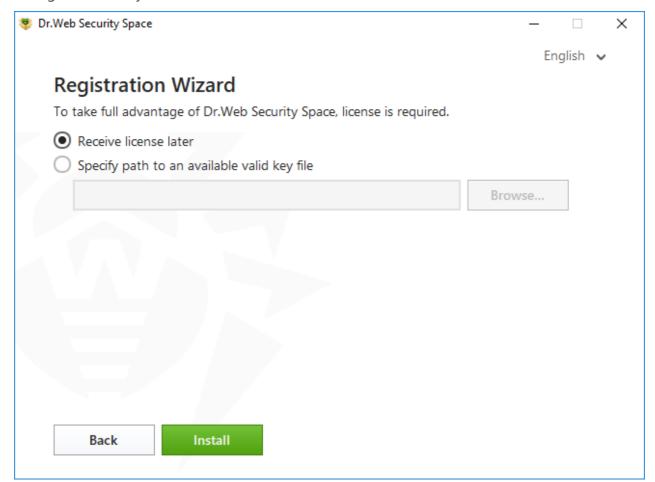


Figure 3. Registration Wizard

Click Install.

- 6. If you have specified a key file during the installation and have not cleared the **Update during installation** check box, the Wizard updates virus databases and other Dr.Web components. Updating starts automatically and does not require any additional actions.
- 7. To complete installation, restart your computer.



Installation via the command line

To start the installation of Dr.Web in the background mode, enter the executable file name and specify necessary parameters in the command line:

Parameter	Value
installFirewall	Install Dr.Web Firewall.
lang	Language used for the installation. The value of this parameter is language in ISO 639-1 format, e.g., /lang en.
reboot	Restart the computer automatically after installation is completed. Can take the value <code>yes or no</code> .
silent	Installation in the background mode. Can take the value <code>yes</code> or no.
blockEmulateUserActions	Enable the Block user activity emulation option during the installation. Can take the value yes or no.
allowUiAccessibility	Enable the compatibility with screen readers option during the installation. Can take the value <code>yes</code> or no.
importSettings	Import settings from the file (the maximum file size is 20 MB). You need to specify the path to the file.
enableDebugLogs	Enable debug logging. Can take the value <code>yes</code> or no. Debug logging is enabled for SpIDer Guard, SpIDer Mail, SpIDer Gate, Scanner, Dr.Web Updater and Dr.Web Service. Logging is disabled when you restart your computer after the installation is completed.

For example, to start background installation of Dr.Web with reboot after the process completes, execute the following command:

drweb-12.0-ss-win.exe /silent yes /reboot yes

BFE service error while installing Dr.Web

Several Dr.Web components require the BFE (Base Filtering Engine Service) running. In case this service is absent or damaged, the installation of Dr.Web will not be possible. The damage or the absence of BFE service may indicate the presence of security threats on your computer.

If the attempt of Dr.Web installation has ended with an error, do the following:

- 1. Scan the system using Curelt! utility by Doctor Web. You can download Curelt! from Doctor Web website: https://free.drweb.com/download+cureit+free/.
- 2. Restore BFE service. To do this, you can use the Windows firewall recovery <u>utility</u> (for Windows 7 and later).



3. Run Dr.Web Installation Wizard and perform the installation according the instruction described above.

If the problem continues to appear, address to Doctor Web technical support.

3.2. Configuring Components

Configuring components can be done in Uninstall/Change Wizard. You can open the Uninstall/Change Wizard in one of two ways:

- If you have an installation file, run it.
- From Windows Control Panel:
 - 1. Select (depends on operating system installed on your computer):

Operating system	Actions			
Windows XP	Start menu			
	Classic Start menu	Start → Settings → Control Panel → Add or Remove programs		
Windows Vista	Start menu	Start → Control Panel	Classic view	Programs and Features
			Home page	Programs → Programs and Features
	Classic Start menu	Start → Settings → Control Panel → Add or Remove programs		
Windows 7 Start → Cont Panel	Start → Control Panel	Small/large icons: Programs and components		
		Category: Programs → Uninstall a program		
Windows 8 Windows 8.1	Control Panel	Small/large icons: Programs and Features		



Operating system	Actions		
Windows 10 Windows 11		Category: Programs → Uninstall a program	

- 2. In the list of installed programs select the line **Dr.Web Security Space**.
- 3. Click Change.

To delete or add components

1. In the Uninstall/Change Wizard window, click **Change components**:

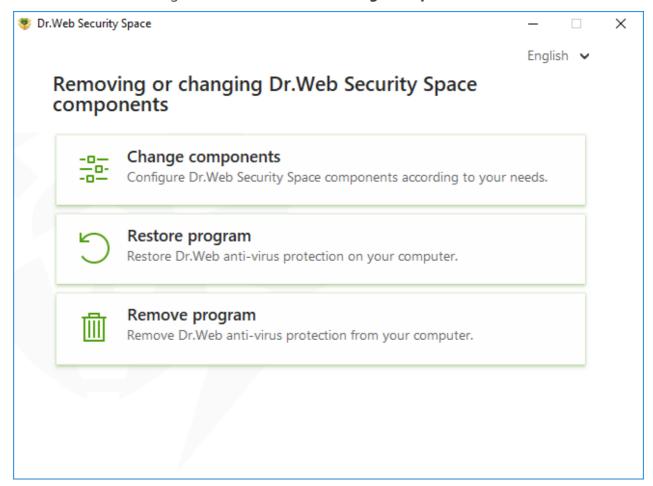


Figure 4. Uninstall/Change Wizard

- 2. In the open window, select check boxes of the components you want to add and clear check boxes of the components you want to remove.
- 3. Click **Apply**.
- 4. The **Disabling Self-Protection** window opens. Enter the confirmation code that is displayed.
- 5. Click **Apply**.



In the Uninstall/Change Wizard window, the following options are also available:

- **Restore program**, if you need to restore the anti-virus protection on your computer. This function is applied in case when some of Dr.Web components have been corrupted.
- Remove program, to <u>delete</u> all installed components.

3.3. Removing and Reinstalling the Product

Removing Dr.Web



After you uninstall Dr.Web, your computer will not be protected from threats.

If you have an installation file you can skip the steps 1-3. Run the installation file and go to the step 4.

1. To remove the Dr.Web Security Space program from Windows Control Panel, select (depending on operating system):

Operating system	Actions				
Windows XP	Start menu	Start → Control Panel → Add or Remove programs			
	Classic Start menu	Start → Settings → Control Panel → Add or Remove programs			
Windows Vista	Start menu	Start → Control Panel	Classic view	Programs and Features	
			Home page	Programs → Programs and Features	
	Classic Start menu	Start → Settings → Control Panel → Add or Remove programs			



Operating system	Actions	Actions				
Windows 7	Start → Control Panel	Small/large icons: Programs and components				
		Category: Programs → Uninstall a program				
Windows 8 Windows 8.1 Windows 10 Windows 11	Control Panel	Small/large icons: Programs and Features				
		Category: Programs → Uninstall a program				

- 2. In the list select the line with the program name.
- 3. Click **Delete**.
- 4. In the **Parameters to save** window, select check boxes of those components that you do not want to remove from your system. Saved objects and settings can be used by the program if it is installed again. By default, all options—**Quarantine** and **Dr.Web Security Space settings**—are selected. Click **Next**.
- 5. The **Disabling Self-Protection** window opens. Enter the displayed confirmation code and click **Remove program**.
- 6. Once you reboot your computer, the changes are applied. You can snooze the reboot by clicking **Restart later**. Click **Restart now** to immediately complete the procedure of Dr.Web components deletion or modification.

Reinstalling Dr.Web

- 1. Download the latest installation package of the program from the official Dr.Web website ☑. For this, enter a valid serial number in the corresponding field.
- 2. Uninstall the program, as described above.
- 3. Restart your computer.
- 4. Using the downloaded executable file (drweb-12.0-ss-win.exe), reinstall the program. While installing, specify the path to the key file.
- 5. Restart your computer.



4. Testing Functionality

Testing the Anti-Virus

Testing the Anti-virus with EICAR file

The EICAR (European Institute for Computer Anti-Virus Research) test file helps to test performance of anti-virus programs that detect threats using signature analysis.

For this purpose, most of the anti-virus software vendors generally use a standard test.com program. This program was designed specially so that users could test reaction of newly-installed anti-virus tools to threat detection without compromising security of their computers. Although the test.com program is not actually malicious, it is treated by the majority of anti-viruses as if it were a threat. On detection of this file, Dr.Web reports the following: EICAR Test File (Not a Virus!). Other anti-virus tools alert users in a similar way.

The test.com program is a 68-byte COM-file that prints the following line on the console when executed: EICAR-STANDARD-ANTIVIRUS-TEST-FILE!

The test.com file contains the following character string only:

X50!P%@AP[4\PZX54(P^)7CC)7}\$EICAR-STANDARD-ANTIVIRUS-TEST-FILE!\$H+H*

To make your own test file with the "threat", create a new file with this line and save it as test.com.



When running in the Optimal mode, SpIDer Guard does not terminate execution of an EICAR test file and the file is not processed as malicious since it does not pose any actual threat to your system. However, if you copy or create such a file in your system, it will be detected by SpIDer Guard and moved to Quarantine by default.

Testing the Anti-Virus with CloudCar file

To check the <u>Dr.Web Cloud</u> service, use the CloudCar test file by AMTSO (Anti-Malware Testing Standards Organization). This file is specially created to check cloud service operation. It is not malicious.

To check Dr.Web Cloud operation

- 1. Temporarily disable the SpIDer Gate component, if it is installed. Make sure the usage of the Dr.Web Cloud service is enabled.
- 2. Download the test file. For that, go to https://download.geo.drweb.com/pub/drweb/tools/cloudcar.exe (EXE, 7 KB).



- 3. If the SpIDer Guard is installed and enabled, Dr.Web automatically moves the file to quarantine after the file is saved to the computer. If the SpIDer Guard component is not installed or disabled, scan the downloaded file. For that, right-click on the file name and select the **Check with Dr.Web** option in the context menu.
- 4. Check that the test file is processed by Dr.Web as CLOUD: AMTSO. Test. Virus. The CLOUD prefix in the threat name indicates correct Dr.Web Cloud operation.
- 5. Enable the SpIDer Gate component if it has been disabled according to step 1 of this instruction.

Testing the integrity

After installation, Dr.Web dynamically maintains its integrity, both during the operation of the program and while updating, in the following ways:

- <u>Self-Protection</u> continuously protects Dr.Web files and processes from unauthorized changes.
- <u>Dr.Web Updater</u> checks the integrity of program components and virus databases by checksums of downloaded files during each update.

To check the integrity of Dr.Web without waiting for the update, you can use the <u>Restore program</u> option in the Uninstall/Change Wizard window.



5. Licensing

User rights are regulated by the license purchased on the Doctor Web website or through authorized partners. The license allows you to take advantage of all product features during the whole period. User rights are set in accordance with the <u>License agreement</u> , the conditions of which users accept during the program installation.

A unique *serial number* corresponds to each license, and a special file that regulates Dr.Web operation in accordance with license parameters is stored on the local computer. This file is called a *key file*. For details on the key file see the <u>Key file</u> section.

If you want to evaluate the product before purchasing it, you can activate a trial version. All product features and components are available during the *demo period*. It is possible to activate a trial version on the same computer once a year only. A special key file is generated during the activation.



A trial version cannot be activated and used on Windows XP.

License activation methods

You can activate your license in one of the following ways:

- during the installation via the Installation Wizard,
- at any moment after the installation via the License Manager,
- on the official Doctor Web website at https://products.drweb.com/register/.

License activation via the Registration Wizard is available using the key file only. License activation via the License Manager is available using the serial number or the key file.

For the detailed information on license activation, refer to the <u>Activation using serial number</u> and <u>Activation using key file</u> sections.

Demo period

A trial license for 1 month is available for Dr.Web users. You can get the trial license right in the License Manager window or in the License Activation window without entering your personal data.



A trial version cannot be activated and used on Windows XP.



If you have questions on licensing, read the <u>FAQ</u> of section on Doctor Web website.

Possible questions

How to transfer a license to another computer?

You are entitled to transfer your license for commercial use using the key file or serial number. If you want to transfer a license to a computer run by Windows XP, you can only do it using the key file.

To transfer a license to another computer

- using the serial number:
 - 1. Copy the serial number from the computer of license origin.
 - 2. Remove Dr.Web from the computer of license origin or activate another license on this computer.
 - 3. Activate the current license on the target computer. To do this, use the License Manager after the installation (see <u>Activation using serial number</u>).
- using the key file:
 - 1. Copy the key file from the computer of origin. By default, the key file is stored in the Dr.Web installation folder and has the . key extension.
 - 2. Remove Dr.Web from the computer of license origin or activate another license on this computer.
 - 3. Activate the current license on the target computer. To do this, use the Registration Wizard during the product installation or the License Manager after the product is installed (see <u>Activation Using Key File</u>).



It is impossible to transfer a demo period to another computer.

I forgot the registration email. How can I restore it?

If you forget the email address, specified during registration, you should address to Dr.Web technical support at https://support.drweb.com.

If you make a request from an email address that differs from the one to which your license is registered, a technical support specialist may ask you to provide a photo or scan copy of the license certificate, payment receipt, an online store letter and other documents proving your license ownership.



How can I change the registration email?

If you need to change the email address specified during registration, use the special email address changing service at https://products.drweb.com/register/change_email.

Why are some components missing in my product?

• Not all the components, that are included in your license, were installed.

To enable missing components

- 1. Go to Windows Control Panel, click Programs.
- 2. In the list of installed programs, select the line with the program name.
- 3. Click **Change** button, Uninstall/Change Wizard launches.
- 4. Select the Change components option.
- 5. Select the components you want to enable from the list of components and click **Apply**. Other option is to run the installation file drweb-12.0-ss-win.exe. Select the **Change components** option in the open window. Go to step 5.
- The license intended for another product with fewer supported components is activated in this product.

To check which license is specified in the product

- 1. Open the main menu .
- 2. Select **License** item. The **License Manager** window opens.
- 3. Check if Dr.Web Security Space is indicated in the **Current license** section.

If another product is indicated:

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open). Otherwise, click the lock .
- 2. Click **Details** to open the License Information window.
- 3. Select another license from the drop-down list. Make sure that the selected license corresponds to the installed product.

To check information about the installed product

- 1. Open the main menu .
- 2. Select the **Support** item. In the **About** section, the installed product is indicated.
- The installed product does not correspond to the obtained license.

To install another Dr. Web product that corresponds to the activated license



- 1. Download the latest Dr.Web version from the official website: https://download.drweb.com/.
- 2. Specify the product serial number and the registration email, then click **Download**.
- 3. Select a required product version, then download the installation package.
- 4. Remove previously installed product. For this, refer to the instruction on product removing in the <u>Removing and Reinstalling the Product</u> section.
- 5. <u>Install</u> the product using the installation file you have downloaded.

5.1. License Activation

To get access to all product functions and components, activate the license. License activation is available using:

- Serial number
- Key file

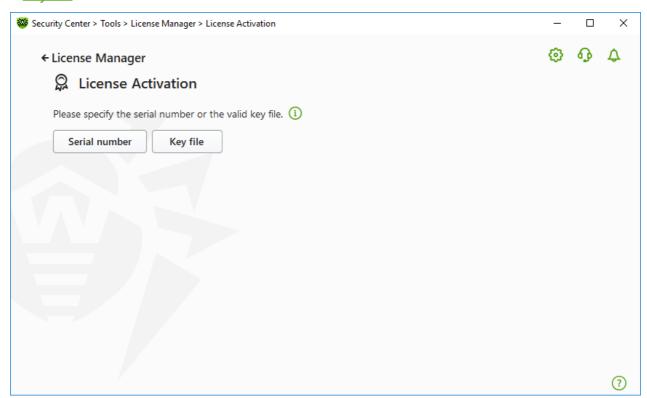


Figure 5. License Activation

Windows XP users can <u>activate the license</u> using the key file only.



If you are already a Dr.Web user, you are eligible for <u>extension</u> of your new license.



You can specify Dr.Web Anti-Virus for Windows license to activate Dr.Web Security Space. As Dr.Web Anti-Virus for Windows offers fewer features than Dr.Web Security Space, the following components and tools will be disabled:

- SpIDer Gate
- Anti-Spam
- Blocking access to webcams or microphones
- Device Blocking
- Data Loss Prevention
- Parental Control
- Anti-Virus Network

License activation on Windows XP

Users of Windows XP can activate their licenses using the key file only. If you have a serial number without the key file, it is necessary to register it on the <u>Doctor Web website</u> . After the registration is over, the link for downloading the key file becomes available. Use this key file for license activation during the installation or in any moment after the installation via the Registration Wizard included in the License Manager:

- 1. In the Dr.Web menu , select License. The License Manager opens. Click Activate.
- 2. In the open window, click **Browse** to specify the path to the key file.
- 3. Click **OK** to close the window and go to the License Manager.



A trial version cannot be activated and used on Windows XP.

Reactivating license

You may need to reactivate a license if the key file is lost.



When reactivating a license or a trial version, you receive the same key file as during the previous registration providing that the validity period is not expired.

When you reinstall the product or install it on several computers, if the license allows that, reactivation of the key file is not required.

A license key file can be obtained through the License Manager a limited number of times. If that amount has been exceeded, you can confirm the registration of your serial number at https://products.drweb.com/register/ to receive the key file. The key file is sent to the email that was specified during the first registration.



5.1.1. Activation Using Serial Number

If you have a serial number, you can:

- activate the license via the License Manager:
 - 1. In the Dr.Web menu , select **License**. The License Manager opens. Click **Activate**.
 - 2. The License Activation window opens. Click **Serial number**.

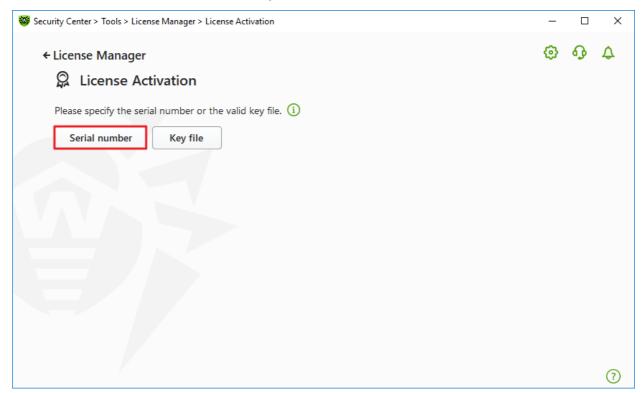


Figure 6. Access to the serial number specification window

3. In the additional window enter your serial number and click **Activate**.



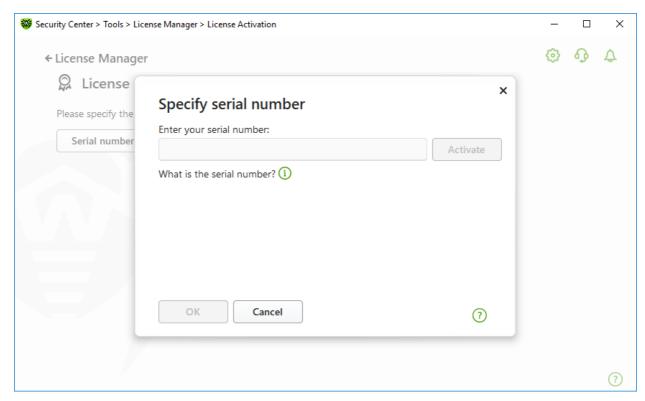


Figure 7. Activation using a serial number

4. The Doctor Web official website page opens where you can enter your registration data. Follow the instructions on the website to complete the registration.



After long standby, the window will automatically close and an error message will be displayed.

Do not close the activation window before completing the serial number registration. If a window is closed, the license can only be activated with a key file.

- 5. The link to register your serial number is sent to the specified email address. Follow the link to complete the license activation.
- 6. If activation is successful, the program window shows detailed information about the license. Click **OK** to close the window and go to the License Manager.

If the license activation has failed, an error message displays. Check internet connection parameters and click **Retry**.

• register your serial number on the <u>Doctor Web website</u> and get a key file to activate your license.

5.1.2. Activation Using Key File

If you have a key file, you can activate your license:

• during the installation via the Registration Wizard:



1. Run product installation. At <u>step 5</u> of the installation, select **Specify path to an available valid key file**. Click **Install**.

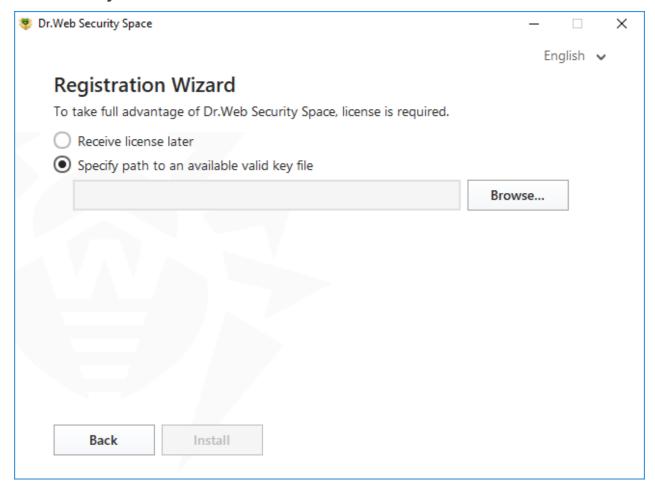


Figure 8. Installation. Registration Wizard

- 2. Continue product installation following the instructions of the Installation Wizard.
- at any moment after the installation via the License Manager:
 - 1. In the Dr.Web menu , select License. The License Manager opens. Click Activate.
 - 2. The License Activation window opens. Click **Key file**.



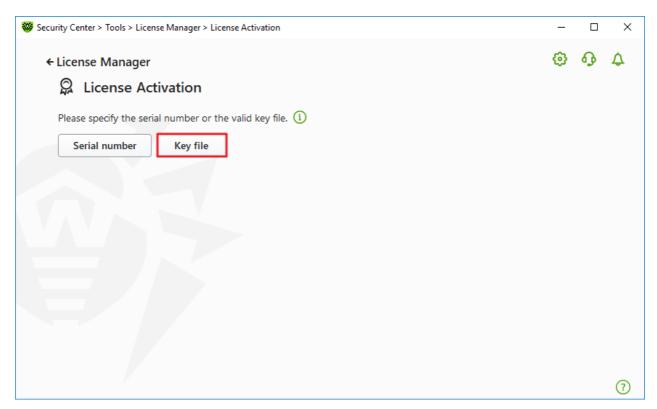


Figure 9. Access to the key file specification window

3. In the open window, click **Browse** to specify the path to the key file.

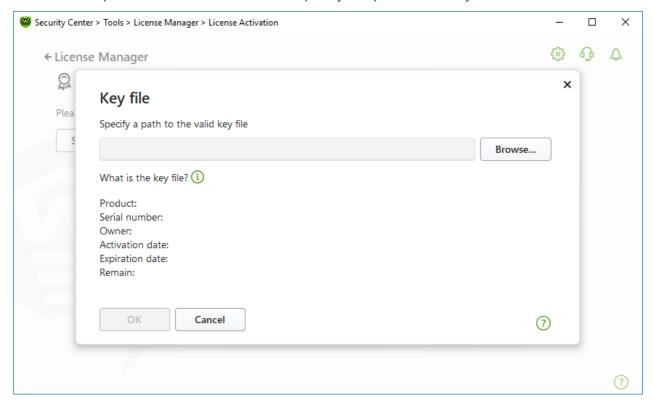


Figure 10. Activation using a key file

4. Click **OK** to close the window and go to the License Manager.



5.2. Renewing License

You can renew the current license using Renewal Wizard on the <u>Doctor Web website</u>

To renew the current license using License Manager

- 1. Open Dr.Web menu , then select **License**.
- 2. In the License Manager window, click **Buy**. A page on the Doctor Web website where you can renew your license with a discount will open.

Dr.Web supports updating on the fly, thus you do not need to reinstall Dr.Web or interrupt it. To update the license, you need to activate a new license.



After long standby, the window will automatically close and an error message will be displayed.

Do not close the activation window before the renewal process is completed. If a window is closed, the license can only be activated with a key file.

If license activation has failed, an error message displays. Check internet connection parameters and click **Retry**.

To activate a license

- 1. Open License Manager by selecting **License** in Dr.Web <u>menu</u> . Click **Activate**.
- 2. In the open window, click **Serial number** or **Key file**. Enter the product serial number or specify the path to the key file. Windows XP users can <u>activate the license</u> using the key file only.

The detailed information on license activation is available in the <u>Activation using serial number</u> and <u>Activation using key file</u> sections.

If the license you want to renew has expired, Dr.Web will start using the new license.

If the license you want to renew is still valid, the number of days remaining will be automatically added to the new license. At the same time, the old license will be blocked, and you will receive a corresponding notification to the email address you provided during registration. It is also recommended that you remove the old license using License Manager.

If you have questions on license renewal, read the FAQ of section on Doctor Web website.



Possible questions

After the license renewal I received an email that my key file will be blocked in 30 days

If the validity period of the license that you have extended has not expired yet, the number of the remaining days is added to the new license automatically. At the same time the license at the expense of which the extension was made will be blocked. If you use a blocked license, Dr.Web components do not function and the software is not updated.

It is recommended that you remove the previous license from the product. To remove the license:

- 1. In Adiminstator mode, in Dr.Web menu , select License. The License Manager opens.
- 2. Click **Details** to open the License Information window.
- 3. In the drop-down menu select the license, on which behalf the extension was made, then

5.3. Key File

The use rights for Dr.Web are specified in the *key file*. Key files received within the product distribution kit are installed automatically.

The key file has the .key extension and contains the following information:

- List of licensed anti-virus components
- Licensed period for the product
- Availability of technical support for the user
- Other restrictions (for example, the number of remote computers allowed for simultaneous anti-virus check)



By default, the key file is located in the Dr.Web installation folder. Dr.Web verifies the file regularly. Do not edit or modify the key file to avoid its corruption.

If no valid key file is found, all Dr.Web components are blocked.

A valid key file for Dr.Web satisfies the following criteria:

- License is not expired.
- Integrity of the key file is not violated.

If any of the conditions is violated, the key file becomes invalid and Dr.Web stops detecting and neutralizing malicious programs in files, memory, and email messages.



If during Dr.Web installation you did not specify a path to it, a temporary key file is used. Such a key file provides full functionality of Dr.Web. However, in the Dr.Web menu , the **Update** item is not available until you either activate a license or a trial version or specify a path to the valid key file via the License Manager.

It is recommended that you keep the key file until the license or the trial version expires.



A key file for a trial version activation can be used only on the computer where the registration procedure was run.



6. Program Menu

After Dr.Web is installed, icon is added to Windows notification area. The icon displays the current application state. To open Dr.Web menu, click . If the application is not running, in **Start** menu expand the application group **Dr.Web** and then select **Security Center**.

In the Dr.Web menu , you can view security status and get access to the main managing tools and program settings.



To access the component parameters and open your personal webpage My Dr.Web, you also need to enter the password if you have enabled the **Protect Dr.Web settings with a password** option in the <u>settings</u> window.

If you have forgotten your password for the product settings, contact technical support $\vec{\Box}$.

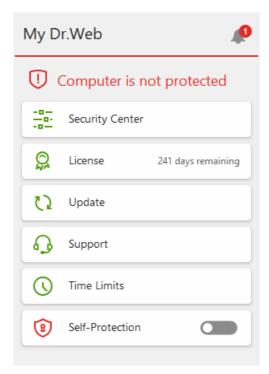


Figure 11. Program menu

Menu items

My Dr.Web. Opens your personal webpage on the Doctor Web official website. This page provides you with the information on your licenses including usage period and serial number, allows you to renew the license, contact technical support, and so on.

Computer security status. If all the program components are enabled, the **Computer protected** status is displayed. If one or several components are disabled, the status is changed to **Computer not protected**.



Security Center. Opens a window with an access to the main settings, parameters of the protection components, including Parental Control parameters, and exclusions.

License. Information on the amount of days remaining until the license expires. Opens <u>License</u> Manager.

Update . Information about the actuality of virus databases and last update date. Launches the update of program components and virus databases.

Support. Opens support window.

Time Limits (if an option of internet or computer usage limits is enabled in the Parental Control component). A brief information on internet or computer usage restrictions or on break duration if time intervals are specified.

Self-Protection (if Self-Protection is disabled). You can enable Self-Protection using the switcher.

Notification Feed . Opens the <u>Notification Feed</u> window.

Possible application states

Dr.Web icon displays the current application state:

Dr.Web icon	Description
**	All necessary components are running and protecting your computer.
₹ 7	Self-Protection or an important component is disabled, or virus databases are out- of-date, that compromises security of the anti-virus and your computer. Enable Self- Protection or the disabled component.
***	Components are expected to start after the operating system startup process is completed, thus wait until the components start; or an error occurred while starting one of the main Dr.Web components, and your computer is at risk of infection. Check that you have a valid key file and, if required, install it.



7. Security Center

The **Security Center** window provides you with an access to all the components, tools, statistics and program settings.

To open Security Center window

- 2. Select Security Center.

To open Security Center window from the Start Menu

- 1. In the **Start Menu** expand **Dr.Web** group.
- 2. Click **Security Center**.

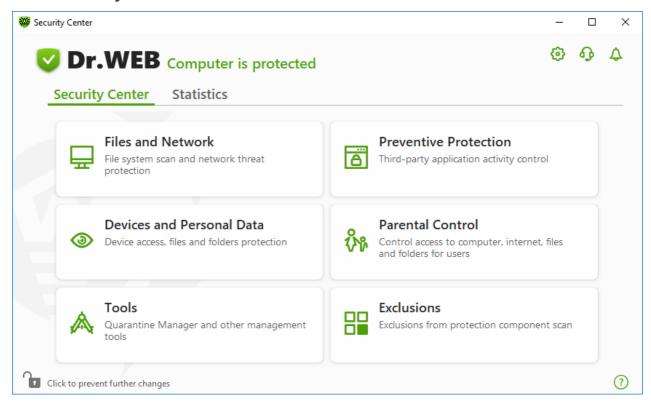


Figure 12. Security Center window

Groups of settings

You have an access to the next groups of settings from the main window:

- **Security Center**, the main tab. Provides an access to all the security components and tools:
 - Files and Network;
 - Preventive Protection:
 - Devices and Personal Data



- Parental Control;
- Tools;
- Exclusions:
- <u>Statistics</u> tab. Provides statistics on the main program operation events.
- Dutton at the top of the program window. Provides an access to the program settings.
- Debutton at the top of the program window. Provides an access to **Support** window where you can generate report for technical support and review information on the product version and the date of the last update of the components and virus databases.
- \triangle button at the top of the program window. Provides an access to **Notification Feed** window where you can review the important notifications on the program operation events.

Administrative mode

To control all the groups of settings, switch Dr.Web to the <u>administrative mode</u> by clicking the lock at the bottom of the program window. When Dr.Web is in the administrative mode, the lock is open .

You have full access to the **Tools** group of settings in both modes. Besides, you can enable all the security components and start Scanner without switching to the administrative mode. To disable the security components, control the component parameters and change program settings, you need to switch to the administrative mode.

Protection status

At the top of the program window, the system protection status is displayed.

- **Computer is protected**. All the components are enabled and operating properly, Self-Protection is enabled, the license is valid. Displayed in green color.
- **Computer is not protected**. Displayed when at least one of the components is disabled. Displayed in red color. The disabled component tile is also highlighted in red.
- **License expires**. Starts to display when 7 days are left before the license expires. Displayed in yellow color. To renew the license, go to <u>License Manager</u>.



8. Updating of Virus Databases and Program Components

To detect malicious objects, Dr.Web products use virus databases that contain information about all known malicious programs. Regular updates of databases allow the detection of previously unknown threats, blocking their distribution, and in some cases curing previously incurable infected files. Virus databases are considered outdated after 24 hours since the last successful update. Besides virus databases, Dr.Web software components and help documentation are updated as well.

For Dr.Web to update, you need a connection to the internet or to the update mirror (local or network folder), or to the Anti-virus network with at least one computer that has an update mirror set. Customizing of update source settings can be done in **General** \rightarrow **Update**. The details of customization of Dr.Web updating parameters is located in <u>Update</u> section.

Update relevance check

To check the relevance of virus databases and program components, open Dr.Web menu . If updates are relevant, the **Update** item is highlighted in green:

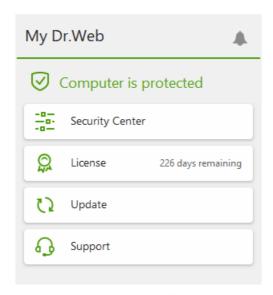


Figure 13. Dr.Web menu

If updates are required, the **Update is required** highlighted in red appears:





Figure 14. Update required

Starting update

During the update, Dr.Web downloads all updated files that correspond to your version of Dr.Web and upgrades Dr.Web if a newer version is available.



After an update of executable files, drivers, or libraries, a restart may be required. In such cases, an appropriate warning displays. You can set any convenient time for the restart or pick a time for the next reminder.

To start update from Dr.Web menu 👺

- 1. Open Dr.Web menu , then select **Update**. Depending on relevance of virus databases and program components, the color of this menu item can vary.
- 2. This opens information on relevance of Dr.Web virus databases and other components as well as the date of their last update. Start updating by clicking **Update**.

To start update from the command line

- 1. Open the Dr.Web installation folder (%PROGRAMFILES%\Common Files\Doctor Web\Updater).
- 2. Run the drwupsrv.exe file. The list of command-line parameters can be found in Appendix A.

Update and statistics logs

To view update history on Statistics tab

1. Open Dr.Web menu [™].



- 2. Select Security Center.
- 3. Open the **Statistics** tab.
- 4. Click the **Detailed Report** tile.

Dr.Web update logs are stored in dwupdater.log file located in the %allusersprofile% \Doctor Web\Logs\ folder.

How to set update of databases and components without internet access?

If the computer is connected to the local network, you can choose to update the virus databases and components using the update mirror created on another computer with Dr.Web product installed (Security Space, Anti-virus for Windows, or Server Security Suite). The computer on which the update mirror is created should have the internet connection. The product version should be the same.

More information on how to create an update mirror

You can set the update from the update mirror in two ways:

To set the update when the computer is connected to the anti-virus network

1. Enable remote control of Dr.Web product in Anti-virus network section of settings window.

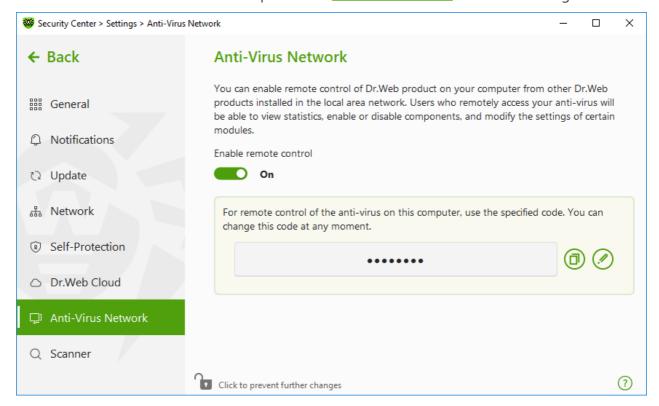


Figure 15. Switching on the remote access

2. Go to **Settings** → **Update** window.



3. In the **Update source** section, click **Edit** and then select **Anti-Virus Network** from the drop-down list.

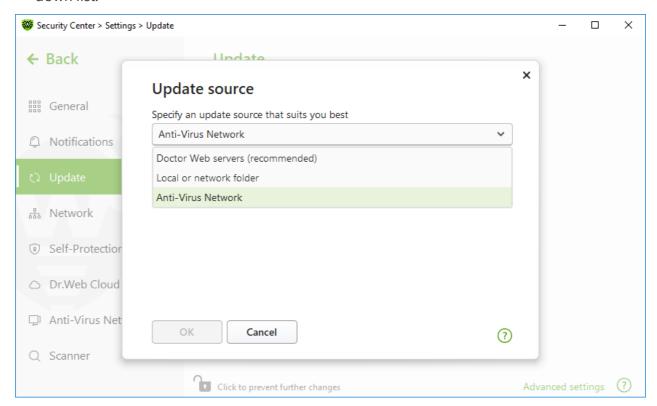


Figure 16. Selecting the update source

- 4. Select the computer that will be used to update program virus databases and components.
- 5. Click **OK**.

To set the update from local or network folder

- 1. Go to **Settings** \rightarrow **Update** window.
- 2. In the **Update source** section, click **Edit** and then select **Anti-Virus Network** from the drop-down list.



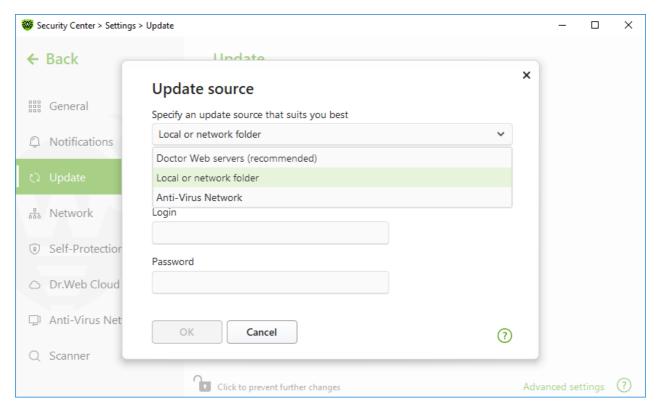


Figure 17. Selecting the update source

- 3. In the **Path to the update mirror** field, specify the folder that contains files of the created update mirror. For this, click **Browse** button and select the required folder, or enter the path manually using UNC.
- 4. Enter the **Login** and **Password** to the folder you try to connect, if necessary. **Login** is the user name of the account on the computer that contain network folder. Login requires the computer name in the local network and full path to the folder. **Password** is the account password.
- 5. Click **OK**.



9. Notification Feed

In this window, the important notifications on the program operation events are listed. The notifications in this window duplicate some of the desktop notifications.

To access the Notification Feed from the program menu

- 1. Open Dr.Web menu .
- 2. Click button. Above the icon the number of saved notifications is displayed.
- 3. Window with the event notifications opens.

To access the Notification Feed window from Security Center

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. At the top of the program window, click \triangle .
- 3. A window with the event notifications opens.

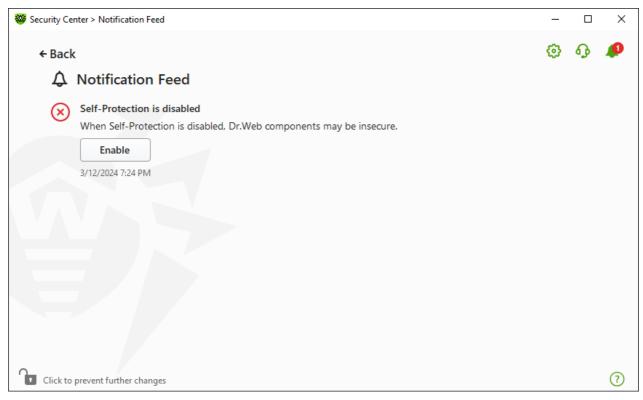


Figure 18. Notification Feed window



Notification retention period

The notifications are kept for two weeks. After the problem is resolved, the notification is also removed.

Notification types

⊗ O Critical notifications	
License	The valid license is not found.
	The current license is blocked.
Threats	Threat is detected.
	The reboot is required to neutralize the threats.
	Virus databases are out of date.
Blocked access to the objects and devices	Device is blocked according to settings.
! Major notifications	
License	License expires.
Licerise	The current license is blocked.
Update	The restart is required to complete the update.
Components	Changes in the method of Data Loss Prevention.
Not important informative notifications	
New version	New version is available.

Display settings

The display settings of the notifications in the feed duplicate those of desktop notifications. To change the display settings so that certain notifications are not displayed in the feed, disable the correspondent check box in the **Desktop** column in the **Notification parameters** window. See also Notification settings section.



10. Program Settings

To open program settings

- 1. Open Dr.Web menu , then select Security Center.
- 2. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 3. At the top of the program window, click .
- 4. Window with the settings opens.



If you enable the **Protect Dr.Web settings with a password** option in the <u>general settings</u>, you are prompted to enter the password to access the main Dr.Web settings.

In this section:

- <u>General</u>—protect settings with password, select a language, select a color theme, and import or export settings.
- <u>Notifications</u>—configure parameters to display pop-ups and to receive notifications by email.
- <u>Update</u>—change source or frequency of updates and create an update mirror.
- <u>Network</u>—configure the proxy server connection or scanning of data transmitted over secure protocols.
- <u>Self-Protection</u>—configure advanced security parameters.
- <u>Dr.Web Cloud</u>—configure access to the Doctor Web cloud services.
- Anti-Virus Network—configure remote access to Dr.Web installed on your computer.
- File Scan Options—configure Scanner parameters.

10.1. General Settings

You can find the following features among general settings:

- Program settings password protection
- Selecting interface color theme
- Selecting program language
- Managing program settings (import and export settings or restore defaults)
- Operation logging settings
- Quarantine settings
- Settings of automatic deletion of statistics records



To access General Settings

- 1. Open Dr.Web menu ₩, then select Security Center.
- 2. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 3. At the top of the program window, click .
- 4. A product main settings window opens. Select **General** at the left of the window.

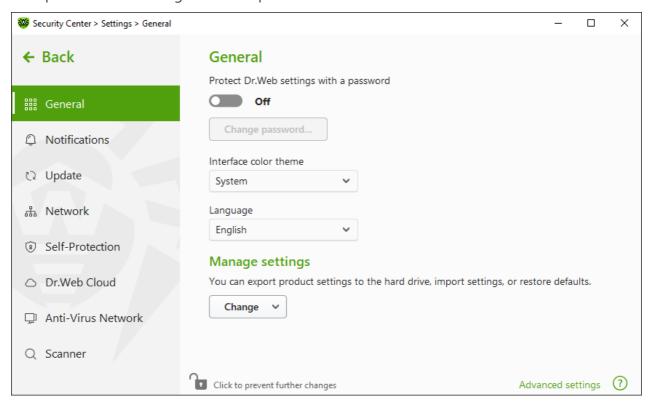


Figure 19. General Settings

10.1.1. Program Settings Password Protection

You can restrict access to Dr.Web settings on your computer by using a password. A password can be any length, and can include any combination of letters, numbers, and special characters. For better protection, use a password consisting of 10 or more different characters. On every attempt to access Dr.Web settings, a password will be required.

To set a password

1. In the window with general settings, enable the **Protect Dr.Web settings with a password** option using the switcher.



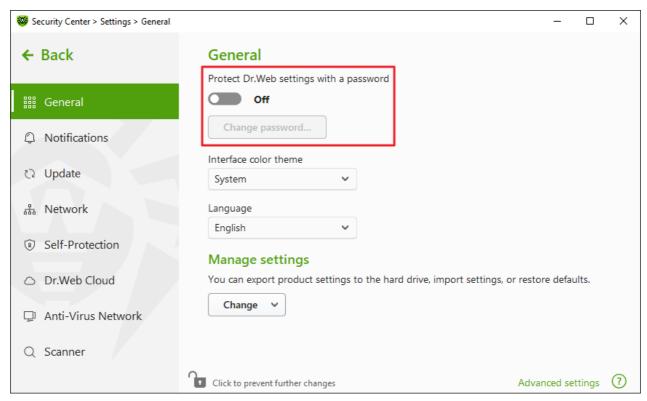


Figure 20. Settings password protection

- 2. In the open window, set a password and confirm it.
- 3. Click OK.



If you have forgotten your password for the product settings, reinstall Dr.Web program without saving the current settings.

10.1.2. Selecting Interface Color Theme

If necessary, you can switch the program interface color theme. For this, select one of the following options from the **Interface color theme** drop-down list:

- **Light** to use the light appearance.
- Dark to use the dark appearance.
- **System** to use the system interface color. This option is selected by default.



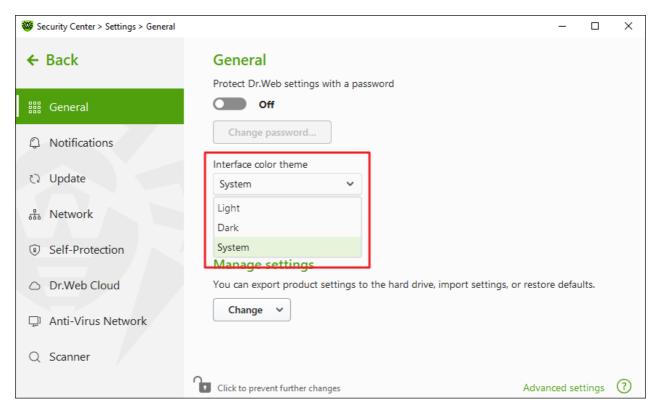


Figure 21. Selecting interface color theme



The dark color theme is available for computers running Windows 10 (version 1909 and later) and Windows 11. Interface color theme settings are hidden for earlier versions.



10.1.3. Selecting Program Language

If necessary, you can switch the program interface language. The language list is updated automatically. Thus, it contains all localization languages that are currently available for the Dr.Web graphical interface. To switch the language, in the **Language** group, select a language from the drop-down menu.

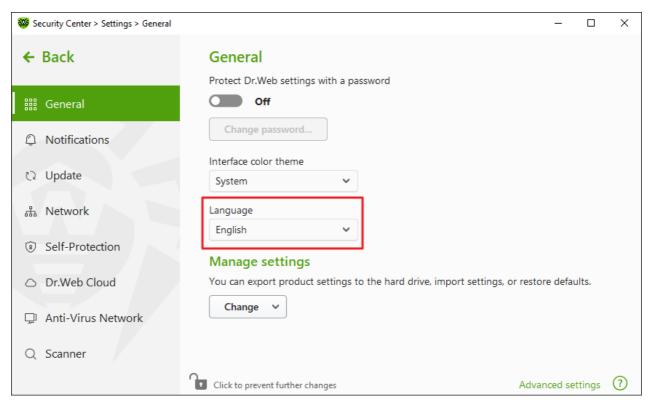


Figure 22. Selecting program language



10.1.4. Managing Dr.Web Settings

To manage settings, select one of the following actions in the drop-down menu of the **Manage** settings setting group:

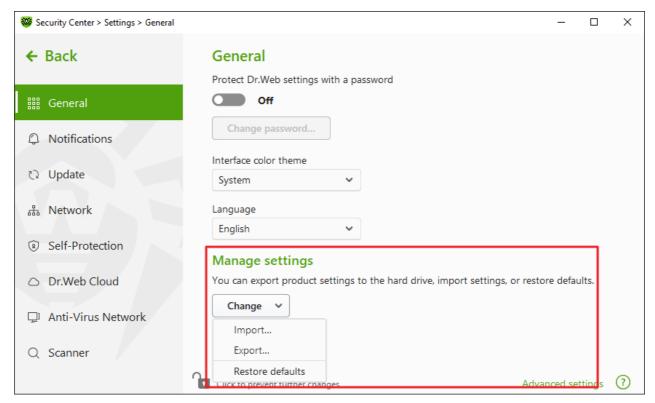


Figure 23. Managing settings

- Restore defaults to restore default settings.
- **Import**, if you want to use settings of the anti-virus that you already configured on another computer.
- **Export**, if you want to use your settings on other computers. Then, use the import feature on another computer.

10.1.5. Dr. Web Operation Logging

You can enable detailed logging for one or several Dr.Web components or services.

To change operation logging settings

- 1. Click **Advanced settings** link.
- 2. In the **Log** section click **Edit**.



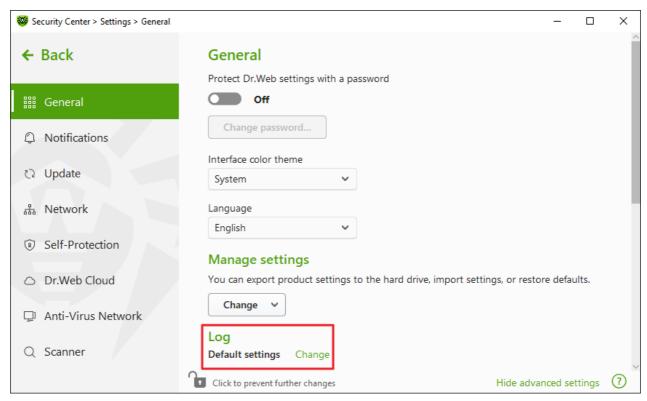


Figure 24. General Settings. Log

The window with detailed logging settings opens:

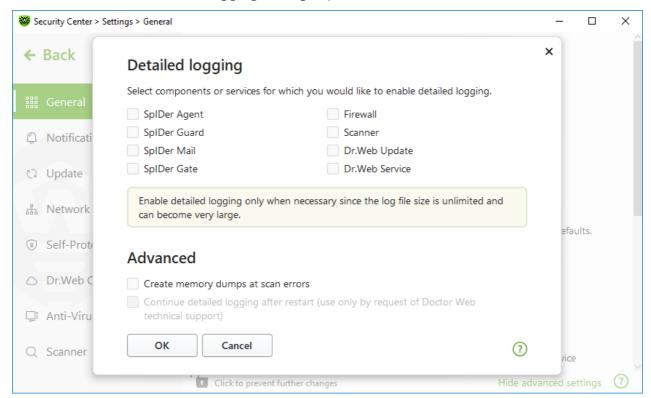


Figure 25. Operation logging settings

3. Select components, modules or services for which you would like to enable detailed logging. By default, the standard logging mode is enabled for all the Dr.Web components and the following information is logged:



Component	Information
SplDer Agent	Time of updates and SpIDer Agent starts and stops, detected threats, connections to anti-virus network, license events, Dr.Web component status, settings management (import, export), error notifications, and system reboot notifications.
	It is recommended that you use this mode to get detailed information about the sources of errors in the program operation.
SplDer Guard	Time of updates and SpIDer Guard starts and stops, detected threats, data on scanned files, names of packers, and content of scanned complex objects (archives, email attachments, file containers).
	It is recommended that you use this mode to determine the most frequent objects scanned by SpIDer Guard file monitor. If necessary, add these objects to the list of exclusions in order to increase computer performance.
SplDer Mail	Time of updates and the mail anti-virus SpIDer Mail starts and stops, detected threats, connection interception settings, data on scanned files, names of packers, and content of scanned archives.
	It is recommended that you use this mode when testing mail interception settings.
SpIDer Gate	Time of updates, starts and stops of SpIDer Gate, detected threats, connection interception settings, names of scanned files, names of packers, and contents of scanned archives.
	It is recommended that you use this mode for reception of more detailed information on the checked objects and work of the internet monitor.
Scanner	Updates of scanning modules and virus database information, time of Scanner starts and stops, information on detected threats, names of packers, and content of scanned archives.
Firewall	Information and decisions on requests coming to the service, information on unknown connections with reasons for the request, and information on errors.
	When you enable detailed logging, the component collects data on network packets (pcap logs).
Dr.Web Update	List of updated Dr.Web files and their download status, date and time of updates, and details on auxiliary script execution and Dr.Web component restart.
Dr.Web Service	Information on Dr.Web components, changes in their settings, component starts and stops, preventive protection events, connections to anti-virus network.

Memory dump creation

The **Create memory dumps at scan errors** option allows you to save useful information on operation of several Dr.Web components. This helps Doctor Web technical support specialists analyze an occurred problem in detail and find a solution. We recommend enabling this option on request of Doctor Web technical support specialists or when errors of scanning or



neutralizing occur. Memory dump is saved to .dmp file located in the %PROGRAMFILES% \Common Files\Doctor Web\Scanning Engine\ folder.

Enabling detailed logging



When logging detailed data on Dr.Web operation is enabled, the maximum amount of information is recorded. This will result in disabling of log file size limitations and will have an impact on system and Dr.Web performance. Make sure to use this mode only when errors occur in component operation or by request of Doctor Web technical support.

- 1. To enable detailed logging for a Dr.Web component, select the corresponding check box.
- By default, detailed logging is enabled until the first restart of the operating system. If it is necessary to log component activity before and after the restart, select the **Continue detailed logging after restart (use only by request of Doctor Web technical support)** check box.
- 3. Click **OK** to save the changes.



Size of a log file is restricted to 10 MB by default (and 100 MB for SpIDer Guard). If the log file size exceeds the limit, the content is reduced to:

- Specified size if the current session information does not exceed the limit.
- Size of the current session if the session information exceeds the limit.

10.1.6. Quarantine Settings

To prevent the disk overuse, you can configure settings of storage of objects in quarantine, i.e. the period of storage, and to create the quarantine folder on a removable media.

To change storage settings of the detected threats

- 1. In the window with general settings, click the **Advanced settings** link.
- 2. In the **Quarantine** section, enable or disable a necessary option using the **Solution** switcher.



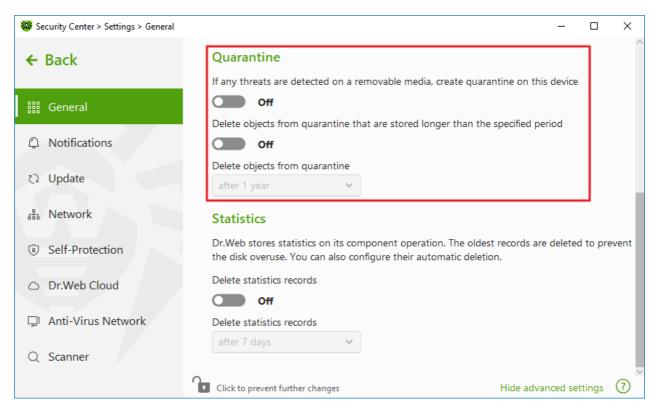


Figure 26. Quarantine settings

3. To enable the automatic deletion of objects from quarantine, select the time period in the drop-down menu. Objects stored more than the time specified will be deleted.

Creating quarantine on removable media

The **If any threats are detected on a removable media, create quarantine on this device** option allows creating a quarantine folder on removable media for threats that are detected on the removable media. When this option is enabled, detected threats are moved to the quarantine folder without being encrypted. The quarantine folder can be created only when the removable media is accessible for writing. The use of separate folders and omission of encryption on removable media prevents possible data loss.

If the option is disabled, threats that are detected on removable media are moved to quarantine on the local disk.

Automatic deletion of objects from quarantine

To prevent disk overuse, enable automatic deletion of objects from quarantine.

10.1.7. Automatic Deletion of Statistics Records

By default, Dr.Web stores optimal number of <u>statistics</u> records to prevent the disk overuse. In addition, you can enable automatic deletion of statistics records that are stored more than the specified period.



To enable or disable automatic deletion of statistics records

- 1. In the window with general settings, click the **Advanced settings** link.
- 2. In the **Statistics** section, enable or disable automatic deletion of statistics records using the switcher.

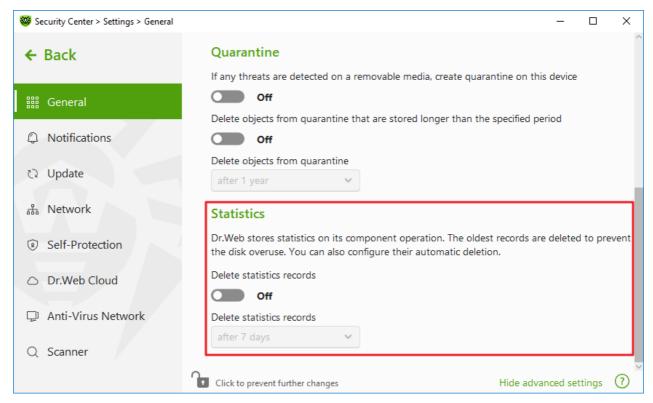


Figure 27. Statistics settings

3. Once this option is enabled, select the time period in the drop-down menu. Records stored more than the time specified will be deleted.

10.2. Notification Settings

You can configure parameters of receiving notifications on critical and important events of Dr.Web operation.

In this section:

- Configuring notification parameters
- Configuring showing notifications on the desktop
- Configuring email notifications

If necessary, configure parameters of receiving notifications on critical and important events of Dr.Web operation.



To open the notification settings

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 3. At the top of the program window, click .
- 4. A product main settings window opens. Select **Notifications** at the left of the window.

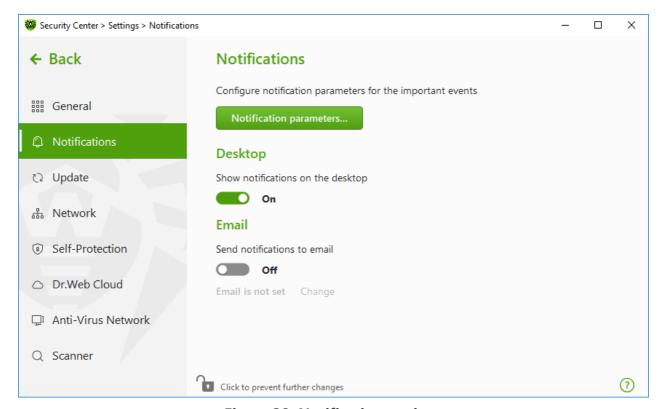


Figure 28. Notification settings

To configure notification parameters

- 1. Click **Notification parameters**.
- 2. Select notifications that you want to receive.
 - To display the notifications on the desktop, select a corresponding option in the **Desktop** column.
 - To receive email notifications, select check boxes in the **Email** column.

Clear check boxes if you do not want to receive notifications on the event.

Notification type	Description
Threat is detected	Notifications on threats detected by SpIDer Guard and SpIDer Gate.
	By default, these notifications are enabled.



Notification type	Description
Critical notifications	Notifications on the following critical issues:
	Connections waiting for Firewall to reply are detected.
	By default, these notifications are enabled.
Major notifications	Important notifications on the following issues:
	Working time on computer has expired.
	Virus databases are out of date.
	Access to webcam or microphone is blocked.
	Device is blocked.
	Attempt to change system date and time is blocked.
	Access to the protected object is blocked by Behavior Analysis.
	• Access to the protected object is blocked by Exploit Prevention.
	• Access to the protected object is blocked by Ransomware Protection.
	Information about product updates and support
Minor notifications	Minor notifications on the following issues:
	URL is blocked by Parental Control.
	URL is blocked by SpIDer Gate.
	Working time in the internet has expired.
	Access to the protected object is blocked by Parental Control.
	Successful update.
	Update error.
	• Modification of the folder contents is blocked for the process.
	By default, these notifications are disabled except the notification on blocking an attempt of a process to modify folder contents.
License	Notifications on the following issues:
	License expires.
	The valid license is not found.
	The current license is blocked.

3. If necessary, configure additional parameters:

Option	Description
Do not show notifications in full- screen mode	Hide notifications when an application is running in full-screen mode on your computer (e.g., a game or a movie).
	Clear this check box to display notifications regardless of the mode.



Option	Description
Display Firewall notifications on separate desktop in full-screen mode	Notifications from Firewall on a separate desktop when an application is running in full-screen mode on your computer (a game or a movie).
	Clear this check box to display notifications on the same desktop where an application is running in full-screen mode.

4. If you select one or more email notifications, configure sending emails from your computer.



Notifications on the following issues are not included in any of the specified groups and are always displayed to the user:

- Priority updates installed and restart is required.
- To finish neutralizing threats, restart the computer.
- Automatic restart.
- Request for allowing a process to modify an object.
- Successful connection to a remote computer in the Anti-virus Network.
- You activated a trial version. It is recommended that you obtain a license.
- New keyboard connected.

Pop-up notifications

In the notification settings window, enable the appropriate option to get pop-up notifications above Dr.Web icon in the Windows notification area.

Email notifications

To receive email notifications about events

- 1. In the notification settings window, enable the **Send notifications to email** option.
- 2. Specify the email address that you want to use for receiving notifications in the appeared window. You will need to confirm this email address at step 7.



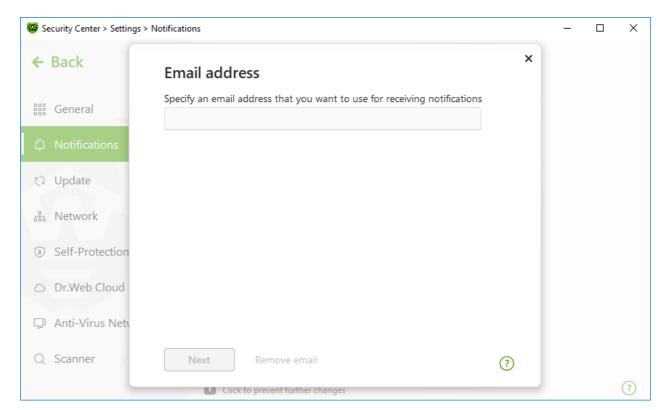


Figure 29. Specifying address for email notifications

- 3. Click **Next**.
- 4. In the open window, specify the data of the account that will be used to send notifications.
 - Select the mail server from the list and enter your account login and password.
 - If the required mail server is not on the list, select **Set manually**. In the open window, fill in the following fields:

Option	Description
SMTP server	Specify the outgoing (SMTP) server for Dr.Web to use when sending email notifications.
Port	Enter the port for Dr.Web to use when connecting to the mail server.
Login	Enter the login for Dr.Web to use when connecting to the mail server.
Password	Enter the password for the login to be used when connecting to the mail server.
Use SSL/TLS	Select this check box to use SSL/TLS encryption when sending messages.
NTLM authentication	Select this check box to use NTLM authentication when connecting to the mail server.



- 5. Click **Send a test message** link to make sure that all the details are specified correctly. The message is forwarded to the email address that will be used to send notifications (specified at step 4).
- 6. Click Next.
- 7. Enter the conformation code that was sent to the email address specified at <u>step 2</u>. If you do not receive the message within 10 minutes, click **Send the code again**. If you do not enter the code, notifications to this email address will not be sent.

To change the email address and other parameters, in the notification settings window (see Figure Notification settings), click **Edit** and repeat all the actions starting from step 2.

10.3. Update Settings

Set the period for receiving updates and the source of updates for virus databases and components. You can also create an update mirror to receive updates on another computer.

You can configure the following Dr.Web update parameters:

- **Update frequency**
- Update source
- <u>Updating components</u>
- **Update mirror**

To open update settings

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 3. At the top of the program window, click 😂.
- 4. A product main settings window opens. Select **Update** at the left of the window.



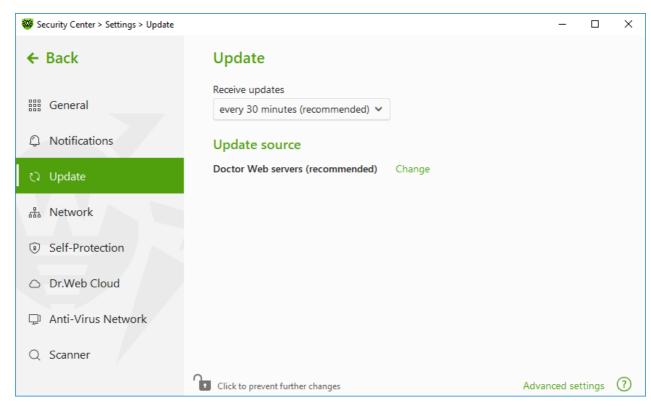


Figure 30. Update settings

Update frequency

The default value (30 minutes) is optimal to keep information on threats up-to-date. To specify the frequency of updates, select the necessary value from the drop-down list.

Automatic update is performed in the background mode. You can also select the option **Manually** from the drop-down menu. In this case, you will have to <u>manually run</u> the Dr.Web update.

Configuring update source

The default update source is **Doctor Web servers (recommended)**.

To specify the update source that suits you best

1. In the update settings window (see Figure <u>Update settings</u>), in the **Update source** group, click the **Edit** link. The update source settings window opens.



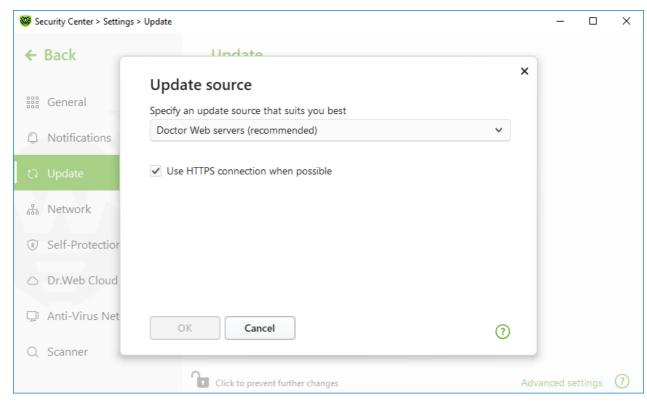


Figure 31. Configuring update source

- 2. Select an update source that suits you best from the drop-down list.
 - **Doctor Web servers (recommended)**. Updating from Doctor Web servers via the internet. If you want to download updates via a secure protocol when it is possible, select the **Use HTTPS connection when possible** check box.
 - **Local or network folder**. Updating from local or network folder to which the updates have been copied. Specify the path to the folder (by clicking **Browse** button or by entering the path manually using UNC), enter the user name and password if necessary.
 - **Anti-Virus Network**. Updating from a local network using a computer with Dr.Web product installed and an update mirror created. Select the computer that will be used as an update source.
- 3. To save the changes, click **OK**.



If Dr.Web product of 12.0 version is already installed on the computer, do not select a computer with previous Dr.Web product versions installed as an update source as it may lead to critical operation issues.

Advanced settings

To open advanced settings, click the **Advanced settings** link in the **Update** window (see Figure <u>Update settings</u>).



Configuring updating components

You can choose one of the following ways of downloading the Dr.Web components update:

- **All (recommended)**, when are downloaded both updates for Dr.Web virus database and updates for the scan engine and other Dr.Web program components.
- **Only virus databases**, when only the updates for Dr.Web virus databases and the scan engine are downloaded; other components of Dr.Web are not updated.

Creating update mirror

Update mirror is a folder to which the update files are copied. The update mirror can be used as an Dr.Web update source for other computers of the local network that are not connected to the internet.

To set your computer as an update mirror

1. In the update settings window (see Figure <u>Update settings</u>), click the **Advanced settings** link and enable the update mirror using the switcher . The update mirror settings window opens.

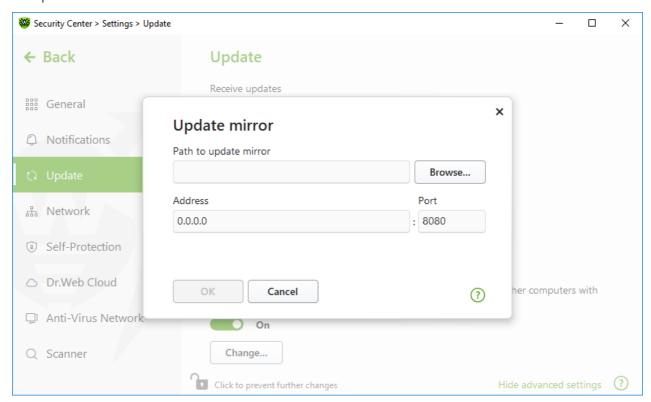


Figure 32. Configuring update mirror

2. Click **Browse** and select a folder to copy updates into. Please select an empty folder or create a new one. If the selected folder is not empty, all its contents will be deleted. You can also specify the path to the folder in UNC format.



- 3. If your computer is connected to several subnets, you can specify the IP address available to computers of only one subnet. You can also specify the port for HTTP server to receive connection requests.
 - In the **Address** field, specify the host name or IP address in Ipv4 or Ipv6 formats.
 - In the **Port** filed, specify any free port.
- 4. To save the changes, click **OK**.

The frequency of the mirror updates corresponds to the value selected in **Receive updates**.

10.4. Network

You can configure the parameters of connection to the proxy server, enable scanning data transmitted over cryptographic protocols, and export Doctor Web certificate to be further imported into other programs.

In this section:

- Proxy server connection settings
- Scanning data transmitted over cryptographic protocols
- Exporting Dr.Web certificate

To open network settings:

- 1. Open Dr.Web menu ₩, then select Security Center.
- 2. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 3. At the top of the program window, click ②.
- 4. A product main settings window opens. Select **Network** at the left of the window.



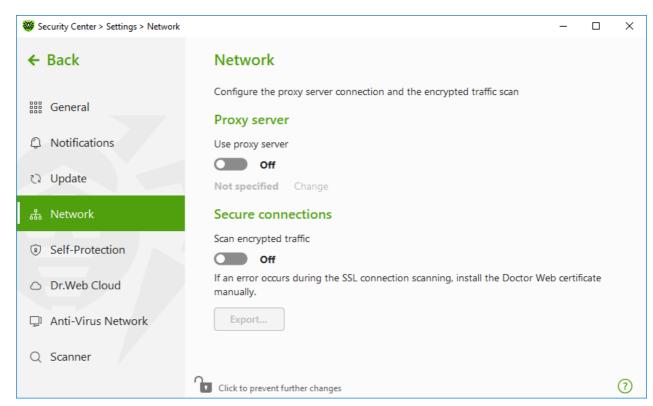


Figure 33. Connecting to proxy server and checking the encrypted traffic

Proxy server usage

By default, all components use direct connection mode. If necessary, you can enable use of a proxy server and specify its connection settings. For this:

- 1. Enable **Use proxy server** option by using the switcher
- 2. Click **Edit** to specify the following proxy server parameters:

Option	Description
Туре	Select the protocol to connect to the proxy server.
Address	Specify the address of the proxy server.
Port	Specify the port of the proxy server.
Login	Specify the username to use when connecting to the proxy server.
Password	Specify the password to use when connecting to the proxy server under the provided username.
Authorization type	Select an authorization type required to connect to the proxy server (for HTTP only).



Secure connections

If you want Dr.Web to check data transmitted over SSL, TLS or STARTTLS protocols, enable the **Scan encrypted traffic** option. SpIDer Mail will check messages sent over POP3S, SMTPS, or IMAPS, and SpIDer Gate—messages sent over HTTPS.

If your client application that uses secure connections does not refer to the default Windows system certificate storage, then you need to export the Doctor Web security certificate to every application manually.



The security certificate is valid for one year. You should import the certificate again every year if necessary.

What is a security certificate

A security certificate is an electronic document which confirms that a certified program has been tested in one of the certification centers. Also, security certificates are named SSL-certificates, because SSL protocol (Secure Socket Layer) is used. It provides encrypted communication between hosts in internet, for example, between a user and a web server.

Installing (importing) into a program which works with the internet security certificate of a web site ensures that communication will be carried out in a secure mode with authentication check. In this case, criminals will face a number of difficulties with data interception.

The following applications may require the Dr.Web certificate import:

- Opera browser
- Firefox browser
- Mozilla Thunderbird mail client
- The Bat! mail client and others

To export and import Dr. Web certificate

- 1. Enable the **Scan encrypted traffic** option by using the switcher of the **Export** button is not enabled. This will generate the Dr.Web security certificate.
- 2. Click **Export**.
- 3. Select a folder you want the certificate to be saved in. Click **OK**.
- 4. Import the certificate to a target application. Find more details about the certificate import into target application's user documentation.



If **Scan encrypted traffic** is activated, for correct operation of cloud storages clients (such as Google Drive, Dropbox, Yandex.Disk etc.), <u>exclude these applications from scanning by</u>



SplDer Gate.

10.5. Self-Protection

You can configure protection of Dr.Web itself from unauthorized modification by malicious programs that target anti-viruses or from accidental damage.

In this section:

- Enable and disable Self-Protection
- Block changing the system date and time

To open Self-Protection settings

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 3. At the top of the program window, click .
- 4. A product main settings window opens. Select **Self-Protection** at the left of the window.

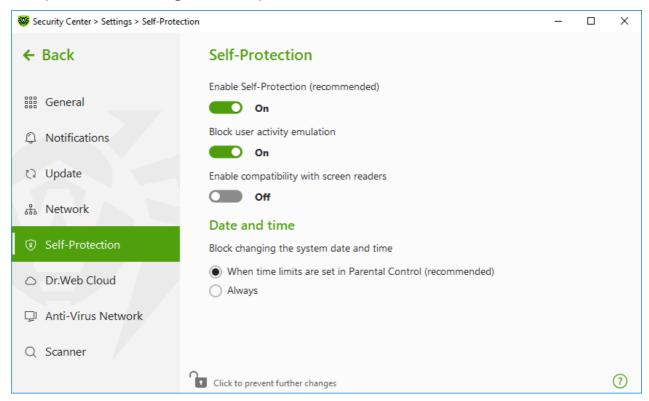


Figure 34. Dr. Web self-protection parameters



Self-Protection settings

The **Enable Self-Protection (recommended)** option allows you to protect Dr.Web files and processes from unauthorized access. Self-Protection is enabled by default. It is not recommended disabling Self-Protection.



If any problems occur during operation of defragmentation programs, disable Self-Protection temporary.

To rollback to a system restore point, disable Self-Protection.

The **Block user activity emulation** option allows you to prevent any changes in Dr.Web settings made by third-party software, including execution of scripts that emulate the mouse and the keyboard functioning in Dr.Web windows (for example, scripts to make changes in Dr.Web settings, license removal and other actions aimed at changing Dr.Web operation).

The **Enable compatibility with screen readers** option allows you to use such screen readers as, for example, JAWS and NVDA for reading loud the information on Dr.Web interface elements. This option makes Dr.Web interface accessible for disabled people.

Date and time

Some malicious programs intentionally change system data and time. In this case virus databases are not updated as scheduled, license can be marked as expired, and protection components will be disabled.

The **Block changing the system date and time** option allows you to prevent manual and automatic changes of the system date and time as well as of the time zone. This restriction is set for all system users. The option can improve performance of the <u>time limit function</u> implemented in Parental Control. If internet or computer usage limits are set in Parental Control, this option is automatically enabled. You can configure <u>notification parameters</u> to be informed on an attempt to change the system time.

10.6. Dr.Web Cloud

You can connect to the Doctor Web cloud service and take part in the Dr.Web quality improvement program. The cloud service collects information on last threats detected on user stations, ensuring virus databases are constantly updated and the newest threats are neutralized effectively. Moreover, data is processed faster on the cloud service than on the local computer.

In this section:

- Cloud service
- Software quality improvement program



To enable or disable Dr.Web Cloud

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 3. At the top of the program window, click .
- 4. A product main settings window opens. Select **Dr.Web Cloud** at the left of the window.
- 5. Enable or disable Dr.Web Cloud by using the switcher

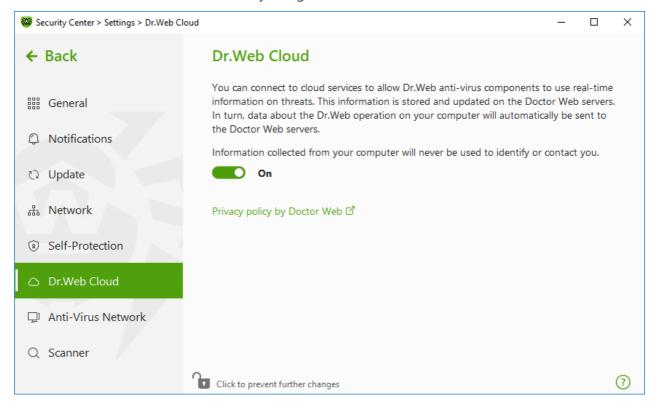


Figure 35. Connecting to Dr. Web Cloud

Cloud service

Dr.Web Cloud provides most recent information on threats which is updated on Doctor Web servers in real-time mode and is used for anti-virus protection.

Depending on <u>update settings</u>, information on threats, that is used by your anti-virus protection components, could become obsolete. The use of cloud services allows you to protect users of your computer from websites with unwanted content and infected files.

Software quality improvement program

If you participate in the software quality improvement program, impersonal data about Dr.Web operation on your computer will be periodically sent to Doctor Web servers, for example,



information on created rule sets for Dr.Web Firewall. Received information is not used to identify or contact you.

Click the **Privacy policy by Doctor Web** link to look through a privacy policy on the <u>Doctor</u> Web official website **2**.

10.7. Remote Access to Dr.Web

You can enable remote control of your anti-virus from other computers of the local network using the <u>Anti-Virus Network</u> component. Anti-virus network allows you to remotely control the security state (view statistics, enable or disable components, and change their settings) and receive updates via local network. To use a computer as an update source for other anti-virus network computers with Dr.Web installed, configure <u>Update mirror</u> on it.

To enable or disable Dr.Web remote control

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 3. At the top of the program window, click .
- 4. A product main settings window opens. Select **Anti-Virus Network** at the left of the window.
- 5. Enable or disable remote control using the switcher

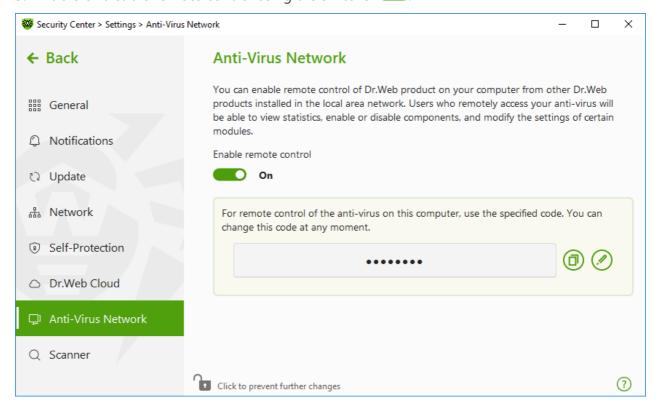


Figure 36. Switching on the anti-virus remote access



For remote access to Dr.Web settings on your computer, the code is required. You may use the code that is automatically generated when the option is enabled or set a new one.

Remote control allows you to view statistics, enable or disable components, and change their settings. Quarantine, Scanner, Data Loss Prevention and Anti-Virus Network are not available.

10.8. File Scan Options

You can configure Scanner parameters, and change default actions for detected threats. The default settings are optimal for most cases. Do not change them unnecessarily.

To open file scan options

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 3. At the top of the program window, click .
- 4. A product main settings window opens. Select **Scanner** at the left of the window.

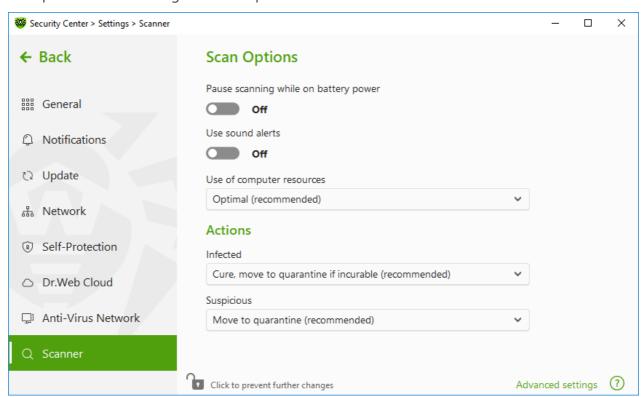


Figure 37. Scanner settings



Scan Options

In this group, you can configure general parameters of Dr.Web Scanner operation.

- Pause scanning while on battery power. Enable this option to pause scanning when switching to battery mode. If the grid power is restored within 30 seconds, the scan will resume automatically. Option is disabled by default.
- **Use sound alerts**. Enable this option for Dr.Web Scanner to use sound alerts for every event of detecting or neutralizing a threat. Option is disabled by default.
- **Use of computer resources**. This option limits the use of computer resources by Dr.Web Scanner. The default value is optimal for most cases.

Actions

In this setting group, you can specify Scanner reaction to detection of infected or suspicious files and malware.

For different types of compromised objects, actions are assigned separately from the respective drop-down lists:

- **Infected**—objects with a known and (presumably) curable threat.
- **Suspicious**—objects suspected to contain threats.
- Objects that pose potential threat (riskware).

By default, Scanner attempts to cure files with a known and potentially curable threat. Scanner moves the other most dangerous objects to <u>Quarantine</u>. You can change reaction of Scanner to detection of each type of malware separately. Set of available reactions depends on the threat type. The default actions are optimal and marked as recommended.

You can select one of the following actions for detected threats:

Action	Description
Cure, move to quarantine if not cured	Instructs to restore the original state of the object before infection. If the object is incurable, or the attempt of curing fails, this object is moved to quarantine. The action is available only for objects with a known threat that can be cured except for Trojan programs and files within complex objects such as archives, mailboxes, or file containers.
Cure, delete if incurable	Instructs to restore the original state of the object before infection. If the object is incurable, or the attempt of curing fails, this object is deleted. The action is available only for objects with a known threat that can be cured except for Trojan programs and files within complex objects such as archives, mailboxes, or file containers.



Action	Description
Delete	Instructs to delete the object.
	This action is not available for boot sectors.
Move	Instructs to move the object to a specific folder of Quarantine.
to quarantine	This action is not available for boot sectors.
Ignore	Instructs to skip the object without performing any action or displaying a notification.
	The action is available only for potentially dangerous files: adware, dialers, jokes, hacktools and riskware.



Threats within complex objects (archives, email attachments, file containers) cannot be processed individually. For such threats, Dr.Web Scanner applies an action selected for this type of a complex object.

Additional options

To open advanced settings, click the **Advanced settings** link in the **Scan Options** window Figure <u>Scanner settings</u>.

You can disable check of containers, archives, and email files. This option is enabled by default.

You can also select one of the following actions for Scanner to perform once scanning is completed:

- **Do not apply action**. Scanner will display the list of detected threats.
- **Neutralize detected threats**. Scanner will neutralize threats automatically.
- **Neutralize detected threats and shut down the computer**. Scanner will shut down the computer once threats are automatically neutralized.



11. Files and Network

This group of settings provides you with an access to the parameters of the main protection components and Scanner.

To open the Files and Network group of settings

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click Files and Network tile.

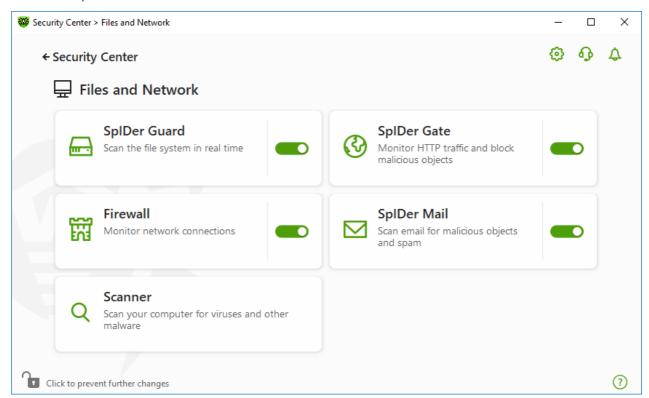


Figure 38. The Files and Network window

Enable and disable protection components

Enable or disable the necessary component by using the switcher **.**.

To open the component parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 2. Click the tile of a necessary component.

In this section:

• <u>The file system monitor SpIDer Guard</u> is a component that scans files when they are being opened, launched, or changed, and processes that are being launched, in real time.



- The internet monitor SpIDer Gate is a component that scans HTTP traffic.
- <u>The email anti-virus SpIDer Mail</u> is a component that scans email for malicious objects and spam.
- <u>Firewall</u> is a component that monitors connections and data transfer via the internet and blocks suspicious connections both on network and application levels.
- Scanner is a component that scans object on user demand or according to schedule.
- <u>Dr.Web for Microsoft Outlook</u> is a module for Microsoft Outlook.



To *disable* any component, Dr.Web should operate in the administrator mode. For that, click the lock at the bottom of the program window.

11.1. Real-Time File System Protection

The file system monitor SpIDer Guard protects your computer in real time and prevents infecting of your computer. SpIDer Guard automatically launches upon Windows startup and scans file when they are opened, run, or edited. SpIDer Guard also monitors actions of launched processes.

To enable or disable the file system monitor

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Files and Network** tile.
- 3. Enable or disable the file system monitor SpIDer Guard by using the switcher



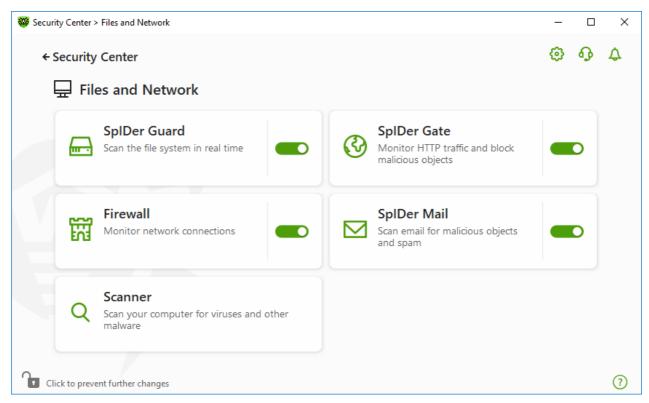


Figure 39. Enabling/Disabling SpIDer Guard

In this section:

- SpIDer Guard operation peculiarities
- Removable media scan
- Actions for detected threats
- Selecting the scan mode by SpIDer Guard
- Advanced settings

See also

- Excluding files and folders from scanning
- Excluding applications from scanning

SpIDer Guard operation peculiarities

With the default settings, SpIDer Guard performs on-access scans of files that are being created or changed on the hard drives and all files that are opened on removable media. Moreover, SpIDer Guard constantly monitors all running processes and blocks malicious processes.



SpIDer Guard does not scan files within archives, email archives, and file containers. If a file within an archive or email attachment is infected, a threat will be detected on the archive extraction, when a computer cannot be infected.



By default, SpIDer Guard loads automatically when Windows starts and cannot be unloaded during the current Windows session.

SpIDer Guard file system monitor parameters

If infected objects are detected, SpIDer Guard applies actions according to the specified parameters. The default settings are optimal for most cases. Do not change them unnecessarily.

To open SpIDer Guard parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 2. Click the **SpIDer Guard** tile. A component parameters window opens.

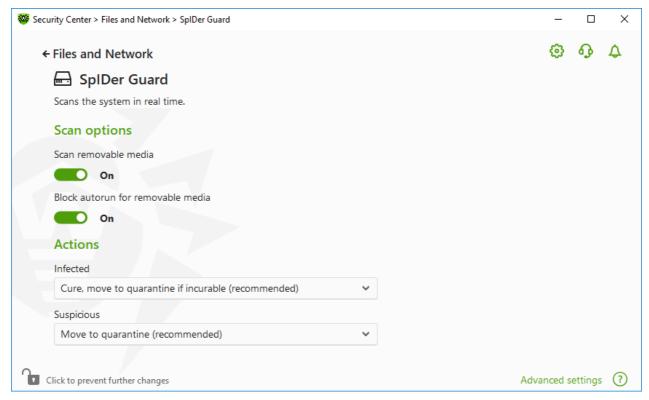


Figure 40. The file system monitor parameters

Removable media scan

By default, SpIDer Guard performs on-access scans of files that are being created or changed on the hard drives and all files that are opened on removable media, as well as blocking the automatic startup of their active content. This method prevents your computer from getting infected through removable media, as SpIDer Guard monitors your file system accesses in the real-time mode and blocks the execution of malicious code.





Operating system may register some removable media as hard drives (for example, portable USB hard drives). In this case, the Safely Remove Hardware and Eject Media icon is not displayed in the Windows notification area. Unless in paranoid scan mode, SplDer Guard does not perform scanning when reading a file from such a disk. Scan such devices with Dr.Web Scanner when you connect them to the computer.

You can enable or disable the **Scan removable media** and **Block autorun for removable media** options by using the switcher in the **Scan options** setting group.



If any problem occurs during installation with the autorun option, it is recommended that you temporary disable the **Block autorun for removable media** option.

Actions for detected threats

In this group, you can configure actions that Dr.Web will apply to threats detected by the file system monitor SpIDer Guard.

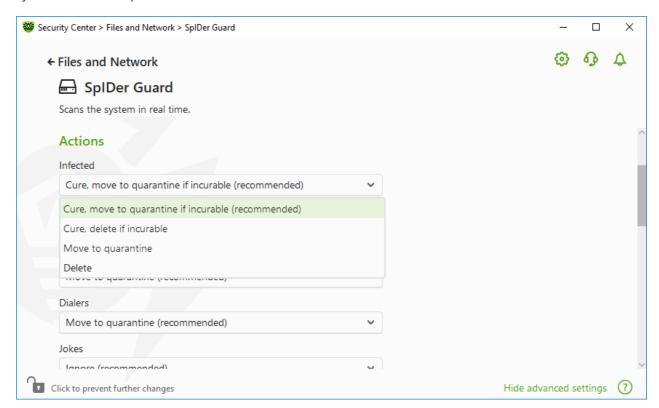


Figure 41. Configuring actions applied to threats

The actions are set separately for each type of malicious and suspicious objects. These actions vary for different object types. The recommended actions are set by default for each type of objects. Copies of all processed objects are stored in Quarantine.



Possible actions

The following actions can be applied to threats:

Action	Description
Cure, move to quarantine if not cured	Instructs to restore the original state of the object before infection. If the object is incurable, or the attempt of curing fails, this object is moved to quarantine. The action is available only for objects with a known threat that can be cured except for Trojan programs and files within complex objects such as archives, mailboxes, or file containers.
Cure, delete if incurable	Instructs to restore the original state of the object before infection. If the object is incurable, or the attempt of curing fails, this object is deleted. The action is available only for objects with a known threat that can be cured except for Trojan programs and files within complex objects such as archives, mailboxes, or file containers.
Delete	Instructs to delete the object. This action is not available for boot sectors.
Move to quarantine	Instructs to move the object to a specific folder of Quarantine . This action is not available for boot sectors.
Ignore	Instructs to skip the object without performing any action or displaying a notification. The action is available only for potentially dangerous files: adware, dialers, jokes, hacktools and riskware.

SpIDer Guard scan mode

To access this and following sections, click the **Advanced settings** link.

In this setting group, you can select the file scan mode of the SpIDer Guard monitor.

Mode	Description
Optimal, used by default	In this mode, SpIDer Guard scans objects only when one of the following actions is traced:
	For objects on hard drives, an attempt to execute a file, create a new file, or add a record to an existing file or boot sector.
	• For objects on removable media, an attempt to access file or boot sectors in any way (write, read, execute).



Mode	Description
	It is recommended that you use this mode after a thorough <u>scan</u> of all hard drives by Dr.Web Scanner. With this mode activated, SplDer Guard prevents possibility of penetration of new viruses and other malicious objects via removable media into your computer while preserving performance by omitting knowingly "clean" objects from repeated scans.
Paranoid	In this mode, SpIDer Guard scans files and boot sectors on hard or network drives and removable media at any attempt to access them (create, write, read, execute). This mode ensures maximum protection but considerably reduces computer performance.

Additional options

The settings of this group allow you to specify parameters for scanning objects on-the-fly and are always applied regardless of the selected SpIDer Guard operation mode. You can enable:

- Use of heuristic analysis
- Scan of programs and modules to download
- Scan of containers
- Scan of files on network drives (not recommended)
- Scan of a computer for the presence of rootkits (recommended)
- Scan of scripts executed with Windows Script Host and PowerShell (for Windows 10, Windows 11)

Heuristic analysis

By default, SpIDer Guard performs scan using <u>heuristic analysis</u>. If this option is disabled, SpIDer Guard will use signature analysis only.

Background rootkit scanning

Anti-rootkit component included in Dr.Web provides options for background scanning of the operating system for complex threats and curing of detected active infections when necessary.

If this option is enabled, Dr.Web Anti-rootkit constantly resides in memory. In contrast to the on-the-fly scanning of files by SpIDer Guard, scanning for rootkits includes checking of autorun objects, running processes and modules, Random Access Memory (RAM), MBR/VBR disks, computer BIOS system, and other system objects.



One of the key features of Dr.Web Anti-rootkit is delicate attitude towards consumption of system resources (processor time, free RAM, and others) as well as consideration of hardware capacity.

When Dr.Web Anti-rootkit detects a threat, it notifies you on the detection and neutralizes the malicious activity.



During background rootkit scanning, files and folders specified on the <u>Excluded files</u> page are excluded from scanning.

Background rootkit scanning is enabled by default.

11.2. Checking Web Traffic

SpIDer Gate scans HTTP traffic and blocks malicious objects. HTTP is used by browsers, download managers, and other applications which work with the internet. SpIDer Gate can check data transmitted over cryptographic protocols, such as HTTPS. For that, enable the **Scan encrypted traffic** option in the <u>Network</u> section.

By default, SpIDer Gate filters non-recommended websites and websites known as infection sources. The information on such websites is also obtained from real-time data stored on Dr.Web cloud service.

SpIDer Gate automatically launches on Windows startup and resides in memory.

To enable or disable traffic scan and non-recommended websites filter

- 1. Open Dr.Web menu ₩, then select Security Center.
- 2. In the open window, click **Files and Network** tile.
- 3. Enable or disable SpIDer Gate by using the switcher



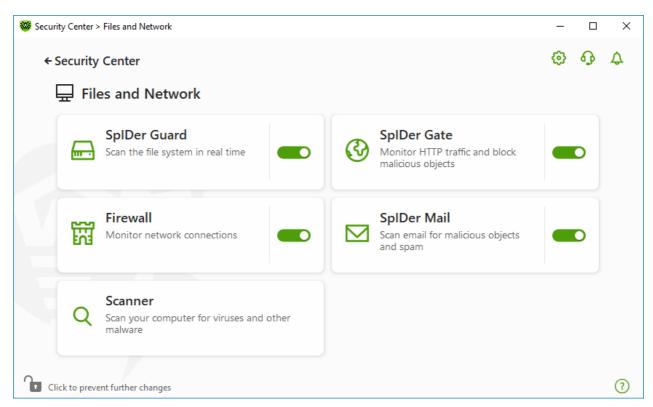


Figure 42. Enabling/Disabling SpIDer Gate

In this section:

- Traffic and URLs in IM clients scan
- Blocking parameters
- Block programs
- Block unchecked and corrupted objects
- Check archives and containers
- Use system resources during the checks
- Traffic direction

See also:

- Exclude websites from scan
- Excluding applications from scanning

Traffic check options

The default SpIDer Gate settings are optimal for most cases. Do not change them unnecessarily.

To open SpIDer Gate parameters

1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **b**). Otherwise, click the lock **c**.



2. Click the **SpIDer Gate** tile. A component parameters window opens.

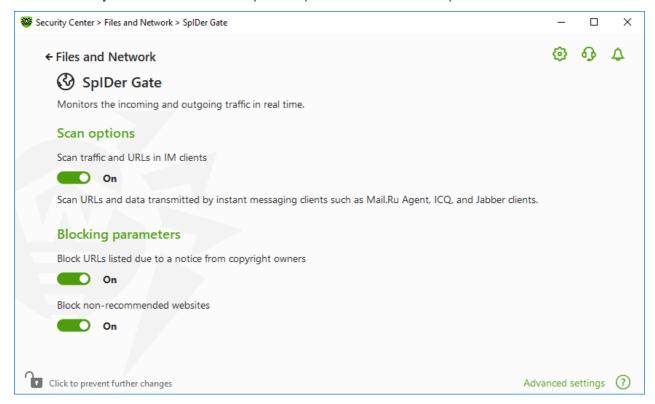


Figure 43. HTTP traffic check parameters

Traffic and URLs in IM clients scan

In the **Scan options** group, you can enable scanning of URLs and files transmitted by instant messaging clients, such as Mail.ru Agent, ICQ, and Jabber clients. Only incoming traffic is checked. By default, the option is enabled.



The following actions are applied to the found threats:

Object	Action	
URL scan		
Websites known as infection sources	Blocked automatically.	
Non-recommended websites and URLs listed due to a notice from the copyright owner	Blocked according to settings in the Blocking parameters group.	
File scan		
Viruses	Blocked automatically.	
Malware:	Blocked according to parameters in the Block	
Suspicious	programs group.	
Riskware		
• Dialers		
Hacktools		
Adware		
• Jokes		

When SpIDer Gate scans URLs in messages, the <u>websites</u> and <u>applications</u> excluded from scan have an effect.

Blocking parameters

In the **Blocking parameters** group, you can enable automatic blocking of URLs listed due to a notice from copyright owners and blocking unreliable websites. For this, enable the corresponding option.

To allow access to necessary websites <u>specify exclusions</u> in the **Exclusions** group.



By default, SpIDer Gate blocks access to the websites known as infection or malware sources except the <u>list of websites excluded from scan</u>.

Block programs

To access this and following sections, click the **Advanced settings** link.

SpIDer Gate can block the following malware:

- Suspicious
- Riskware



- Dialers
- Hacktools
- Adware
- Jokes

To enable blocking of malware, click the **Advanced settings** link and enable the corresponding switchers in the **Block programs** group. By default, SpIDer Gate blocks suspicious programs, adware and dialers.

Block objects

SpIDer Gate can block unchecked and corrupted objects. By default, these settings are disabled. To open the settings, click the **Advanced settings** link.

Advanced settings

Scan archives and **Scan containers**. The settings are disabled by default.

Level of system resource consumption. In some cases Dr.Web cannot determine the final file size for example when loading the file. In this case, the file is sent for the scan in parts. It requires the use of computer resources. You can configure the resource use level and determine the frequency of sending files with unknown size. If you select a high resource use level, files will be sent more frequently and will be scanned faster. However, frequent scans increase processor load.

Traffic scan mode. By default, SpIDer Gate scans incoming traffic only. If necessary, you can select HTTP traffic type to scan.

During the traffic scanning, the SpIDer Gate parameters, the <u>white list</u>, and the <u>list of applications excluded from scan</u> have an effect.

11.3. Email Scan

SpIDer Mail scans your email. Email anti-virus SpIDer Mail is installed by default. It resides in memory and runs automatically at OS startup. SpIDer Mail can also scan messages for spam using Dr.Web Anti-spam.

SpIDer Mail can scan encrypted email traffic transferred via POP3S, SMTPS, and IMAPS. For that, enable the **Scan encrypted traffic** option in the <u>Network</u> section.

To enable or disable email scan

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Files and Network** tile.



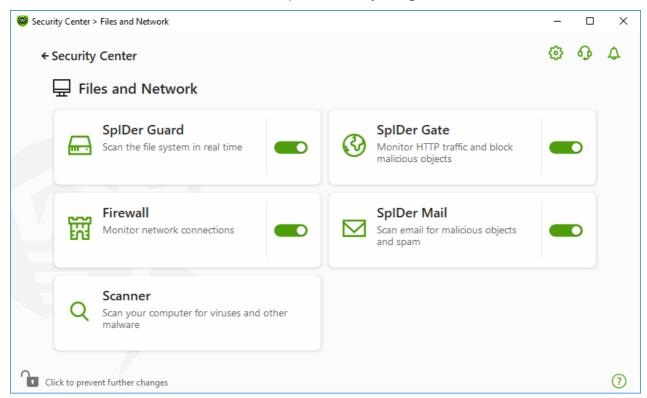


Figure 44. Enabling/Disabling SpIDer Mail

In this section:

- Message processing
- Scanning messages by other components

See also:

- Configuring message scan
- Anti-spam parameters

Message processing

SpIDer Mail intercepts any incoming messages and scans them before they are received by mail clients. If no threats are detected, messages are passed on to the email client as if they have been received directly from the server. Similar procedure is applied to outgoing messages before they are sent to a server.

By default, SpIDer Mail reacts to detection of infected incoming messages and messages that have not been scanned (for example, due to a complicated structure) as follows:

Message type	Action
Infected messages	Removes malicious content from the messages. Then the messages are delivered as usual. This action is called <i>curing</i> the message.



Message type	Action
Messages with suspicious objects	Moves the messages to <u>Quarantine</u> as separate files. The email client receives a notification about this. This action is called <i>moving</i> the message. All moved messages are deleted from the POP3 or IMAP4 mail servers.
Safe messages and messages that have not been scanned	Passes the messages on to the mail client (skips).

Infected or suspicious *outgoing messages* are not sent to the server. The user is notified that a message will not be sent (usually the email client saves such a message).

Scanning messages by other components

Scanner can also detect threats in mailboxes of several formats, but SpIDer Mail has several advantages:

- Not all formats of popular mailboxes are supported by Dr.Web Scanner. When using SpIDer Mail, the infected messages are not even delivered to mailboxes.
- Scanner does not check mailboxes at the moment of the mail receipt, but either on user demand or according to schedule. Furthermore, this action is resource consuming and may take a lot of time.

11.3.1. Configuring Message Scan

By default, SpIDer Mail attempts to cure messages with a known and (supposedly) curable threat and moves incurable and suspicious messages as well as adware and dialers to Quarantine. Other messages are transmitted unchanged by SpIDer Mail (*skipped*). The default message scan parameters are optimal for most cases. Do not change them unnecessarily.

In this section:

- Actions for detected threats
- Configuring message scan parameters
- Scanning archives
- Scanning messages transmitted over cryptographic protocols

Configuring message scan

The default SpIDer Mail settings are optimal for recent users, provide maximum protection and require minimum user actions. However, by default SpIDer Mail may block some features of email programs (for example, sending a message to multiple addresses might be considered as mass distribution, incoming mail is not scanned for spam). Useful information from safe text part of infected messages also becomes unavailable in case of automatically deletion.



To start editing email scan parameters

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Files and Network** tile.
- 3. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 4. Click the **SpIDer Mail** tile. A component parameters window opens.

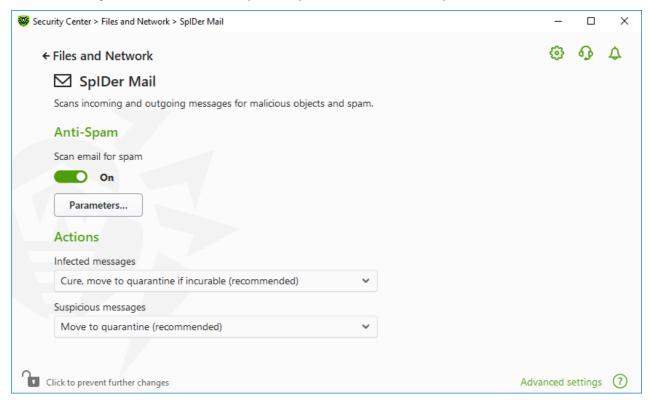


Figure 45. Email scan parameters

Actions for detected threats

In this group, you can configure actions that Dr.Web will apply to messages if Dr.Web detects a threat in them.



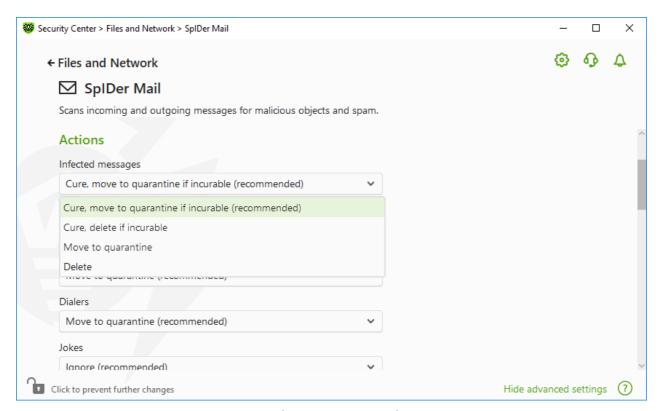


Figure 46. Configuring actions for messages

Possible actions

The following actions can be applied to threats:

Action	Description
Cure, move to quarantine if not cured	Instructs to restore the original state of the message before infection. If the message is incurable, or the attempt of curing fails, the object is moved to quarantine.
	Available only for objects with a known threat that can be cured except for Trojan programs, which are deleted on detection. This action is not applicable to files within archives.
	Results in failure to send the message.
Cure, delete if incurable	Instructs to restore the original state of the message before infection. If the message is incurable, or the attempt of curing fails, this object is deleted.
	Results in failure to send the message.
Delete	Instructs to delete the message. The message is not sent to the recipient; the mail client receives a notification about this.
	Results in failure to send the message.



Action	Description
Move to quarantine	Instructs to move the message to the special <u>Quarantine</u> folder. The message is not sent to the recipient; the mail client receives a notification about this.
	Results in failure to send the message.
Ignore	Instructs to pass the message to the mail client as usual, that is, without performing any action.

You can increase security above the default level. For this, click the **Advanced settings** link and select **Move to quarantine** action for **Not scanned**. It is recommended that you scan the moved file with Dr.Web Scanner after that.



If you want to disable scans of email, ensure that SpIDer Guard monitors your computer constantly.

Configuring message scan parameters

To access the parameters of message scan, click the **Advanced settings** link.

Actions on messages

In this group, you can configure additional actions to be applied when SpIDer Mail processes messages.

Option	Description
Insert 'X-AntiVirus' header into messages	This option is enabled by default. Instructs SpIDer Mail to add scan results and information on Dr.Web version to message headers after processing. You cannot edit data format.
Delete modified messages on server	Instructs to remove messages to which either Delete or Move to quarantine action was applied by SpIDer Mail. The messages are removed from mail servers regardless of the mail client settings.

Scan optimization

You can set the condition under which SpIDer Mail should acknowledge complex messages, whose scanning is time consuming, as unchecked. To do that, enable the **Message scan timeout** option and set the maximum message scanning time. After the expiry of the specified period (by default, 250 sec.), SpIDer Mail stops scanning the message.



Scanning archives

Enable the **Scan archives** option if you want SpIDer Mail to scan archived files transferred via email. If necessary, enable the following options and configure scan parameters for archives:

- **Maximum file size to extract**. If an archive size exceeds the specified value (by default, 30,720 KB), SpIDer Mail does not unpack and scan the archive.
- Maximum archive nesting level. If a nesting level is greater than the specified value (by default, 64), SpIDer Mail proceeds unpacking and scanning the archive until this limit is exceeded.



There is no restrictions for the parameter if the value is set to 0.

Additional options

The following settings allow you to configure additional email scanning parameters:

- Use heuristic analysis—in this mode, <u>special methods</u> are used to detect suspicious objects that are most likely infected with unknown threats. To disable the analyzer, disable the **Use heuristic analysis (recommended)** option.
- Scan containers. This option is disabled by default.

Notification settings

After performing the action you configured, SpIDer Mail can display a notification in the notification area. If necessary, you can <u>configure</u> desktop and email notifications.

Scanning messages transferred via POP3S, SMTPS, IMAPS

If you want SpIDer Mail to scan data transmitted over cryptographic protocols, enable the **Scan encrypted traffic** option in the <u>Network</u> window.

11.3.2. Anti-Spam Parameters

The default SpIDer Mail settings, including Anti-Spam settings, are optimal for most cases. Do not change them unnecessarily.

To enable or disable email scan for spam

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Files and Network** tile.



- 3. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open). Otherwise, click the lock ...
- 4. Click the **SpIDer Mail** tile. A component parameters window opens.

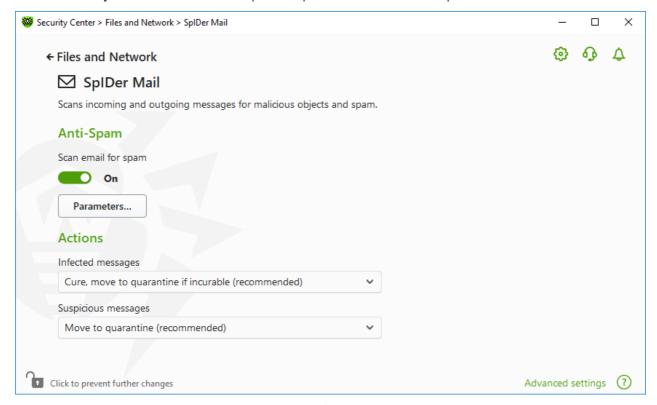


Figure 47. Email scan parameters

5. In the **Anti-Spam** section, enable or disable mail scan for spam using a corresponding switcher ...



Configuring Anti-spam parameters

1. In the Anti-Spam group, click Parameters.



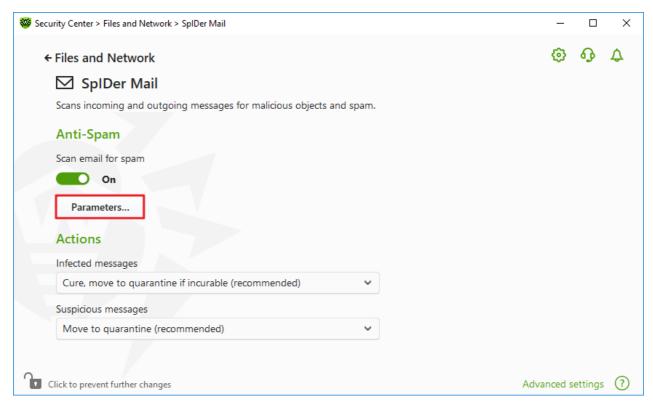


Figure 48. Changing Anti-spam parameters

2. In the open Anti-Spam parameters window, enable or disable the necessary options.

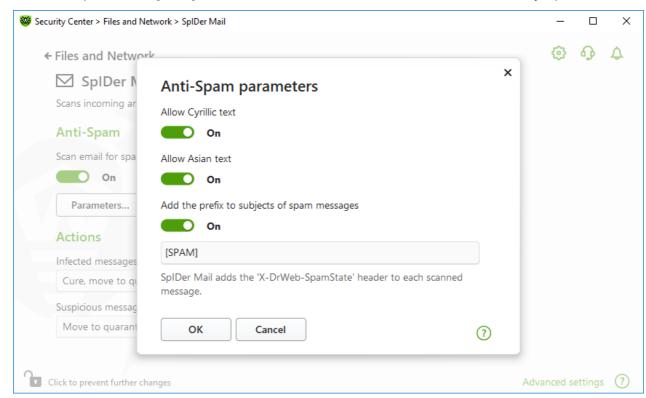


Figure 49. Anti-Spam parameters



Available scan settings (enabled by default)

Option	Description
Allow Cyrillic text	Select this check box to prevent SpIDer Mail from marking Cyrillic emails as spam without prior analysis. Otherwise, such emails are most likely to be marked as spam.
Allow Asian text	Select this check box to prevent SpIDer Mail from marking emails with the most spread Asian encodings as spam without prior analysis. Otherwise, such emails are most likely to be marked as spam.
Add the prefix to subjects of spam messages	By default, SpIDer Mail adds the [SPAM] prefix to the Subject field of all spam messages. You can change this prefix. Instructs SpIDer Mail to add a special prefix to subjects of spam messages.
	Using a prefix allows you to create filter rules for spam in those mail clients (for example, Microsoft Outlook Express) where it is not possible to enable filtering by headers.

3. To save the settings, click **OK**.

Additional information

Anti-spam technologies

Dr.Web Anti-spam technologies consist of rules that can be divided into several groups:

- **Heuristic analysis**—a technology that empirically analyzes all parts of a message: header, message body, and attachments, if any.
- **Detection of evasion techniques**—a technology that detects evasion techniques adopted by spammers to bypass anti-spam filters.
- **HTML signature analysis**—a technology that compares messages containing HTML code with a list of known patterns from the anti-spam library. Such comparison, in combination with the data on sizes of images typically used by spammers, helps to protect users against spam messages with HTML code linked to online content.
- **Semantic analysis**—a technology that compares the words and phrases of a message (both visible to the human eye and hidden) with words and phrases typical for spam using a special dictionary.
- **Anti-scamming**—a technology that filters scam and pharming messages including so-called "Nigerian" scams, loan scams, lottery and casino scams, and false messages from banks and credit organizations.
- **Technical spam**—a technology that detects bounces that are delivery-failure messages sent by a mail server. Such messages are also sent by a mail worm. The bounces are detected as unwanted.



Processing mail by spam filter

SpIDer Mail adds the following header to the processed messages:

- X-DrWeb-SpamState: <value>, where <value> indicates whether the message is considered by SpIDer Mail as spam (Yes) or not (No).
- X-DrWeb-SpamVersion: < version>, where < version> indicates Dr.Web Anti-spam version.
- X-DrWeb-SpamReason: < spam rate >, where < spam rate > includes a list of evaluations on various spam criteria.

You can use these headers and the prefix in the Subject field, if selected, to configure email filtering for your mail client.



If you use IMAP/NNTP protocols, configure your mail client to download complete messages from mail server at once, i.e. without previewing their headers. This is required for correct operation of the spam filter.

Spam filter processes email messages composed in accordance with the MIME RFC 822 standard.

To improve performance of the spam filter, you can report to Doctor Web errors in spam detection.

Spam detection errors

If you find an error in the spam filter:

- 1. Create a new email and attach the message that was processed incorrectly. Messages included in the email body are not analyzed.
- 2. Send the message with the attachment to one of the following addresses:
 - If the attached message is detected as spam incorrectly, send the email to nonspam@drweb.com.
 - If the attached messages is an undetected spam, send it to spam@drweb.com.

11.4. Firewall

Dr.Web Firewall monitors connection attempts and filters connections both on network and application levels.

Firewall provides you with the following features:

- Control and filtration of all incoming and outgoing traffic
- Access control on the application level
- Filtration of packets on the network level



- Fast selection of rule sets
- Event logging

To enable or disable Firewall

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click Files and Network tile.
- 3. Enable or disable Firewall by using the switcher

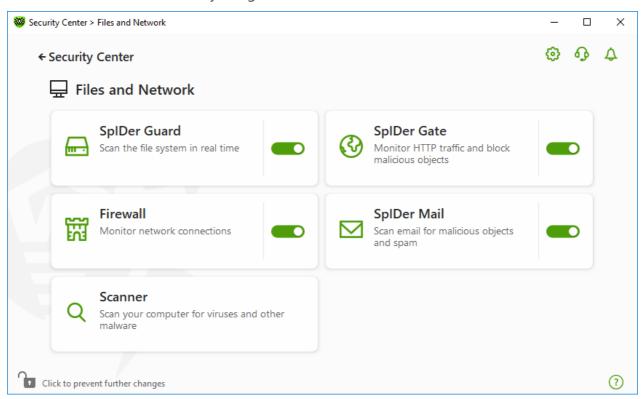


Figure 50. Enabling/Disabling Firewall

In this section:

- Configuring Firewall
- Parameters for applications
- Application rules
- Configuring parameters for application rules
- Parameters for networks
- Packet filter
- Set of rules for filtering packets
- Filtering rules



11.4.1. Configuring Firewall

You can configure the following Firewall options:

- Select the operation mode
- List authorized applications
- Configure parameters for the known networks



To access the Firewall parameters, you are prompted to enter the password if you have enabled the **Protect Dr.Web settings with a password** option in the <u>settings</u>.

By default, Firewall does not automatically create rules for known applications. Regardless of the operation mode, events are logged.

The default settings are optimal for most cases. Do not change them unnecessarily.

To select an operation mode and open Firewall parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 2. Click the **Firewall** tile. A component parameters window opens.

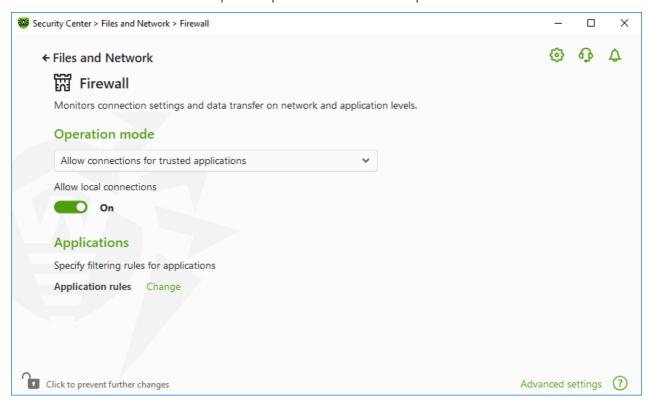


Figure 51. Firewall parameters

The **Allow local connections** option allows all applications on you computer to interconnect (i.e., allow unlimited local connections (to or from 127.0.0.1 interface (localhost)) between



applications installed on your computer). This option is applied after verifying that the connections match the set rules. Disable this option to apply filtering rules to connections carried out both through the network and within your computer.

Selecting an operation mode

Select one of the following operation modes:

Operation mode	Description
Allow connections for trusted applications	This mode is used by default. In this mode, all trusted applications are allowed to access network resources, including the internet. Among trusted applications are system applications, applications with Microsoft certificate, and applications with a valid digital signature. Rules for such applications are not displayed in the rule list. For other applications, Firewall prompts you to allow or block once the unknown connection manually, as well as create a new rule for it. When a user application or operating system attempts to connect to a network, Firewall checks whether filtering rules have been created for the application. If no filtering rules have been set, you are prompted to select a temporary solution or create a rule to be applied each time this type of connection is detected.
Allow unknown connections	In this mode, Firewall allows all unknown applications for which filtering rules have not been set to access network resources, including the internet. No notification on access attempt is displayed by Firewall.
Interactive learning mode	In this mode, you have total control over Firewall reaction to the detection of unknown connections. When a user application or operating system attempts to connect to a network, Firewall checks whether filtering rules have been created for the application. If no filtering rules have been set, you are prompted to select a temporary solution or create a rule to be applied each time this type of connection is detected.
Block unknown connections	In this mode, Firewall automatically blocks all unknown connections to network resources, including the internet. When a user application or the operating system attempts to connect to a network, Firewall checks whether filtering rules have been created for the application. If there are no filtering rules, Firewall blocks network access for the application without displaying any notification to the user. If filtering rules for the application are set, Firewall processes the connection according to the specified actions.



Parameters for Applications

Application level filtering helps you to control access of various applications and processes to network resources as well as enable or disable applications to run other processes. You can create rules for both system and user applications.

This page lists all applications and processes for which you can modify application filter rule sets by creating new rules, editing existing ones, or deleting those that are no longer needed. Each application is explicitly identified by the path to its executable file. Firewall uses the SYSTEM name to indicate the rule set applied to the operating system kernel (the system process for which there is no unique executable file).



Firewall allows you to create no more than one set of rules per each application.

If you create a blocking rule for a process or set Block unknown connections mode and then disable the rule or change the work mode, the process is blocked till it will be restarted and will attempt to establish connection again.

Application Rules

To open Application rules window

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Files and Network** tile.
- 3. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 4. Click the **Firewall** tile. A component parameters window opens.
- 5. In the **Application rules** section click **Edit**. A window with a list of applications opens. For these applications, rules have been set.





Figure 52. Application rules

6. To start creating a new rule set or editing an existing one, click or select an application and click . To search for a necessary rule, click .

When an application is deleted from your computer, the related rules are not automatically deleted. You can delete them manually by clicking **Remove unused rules** in the shortcut menu of the list.

Editing of an existing rule set or creating a new rule set

You can configure access to network resources as well as enable or disable launch of other applications in the **New application rule set** (or **Edit rule set for** <**application name>**) **window.**



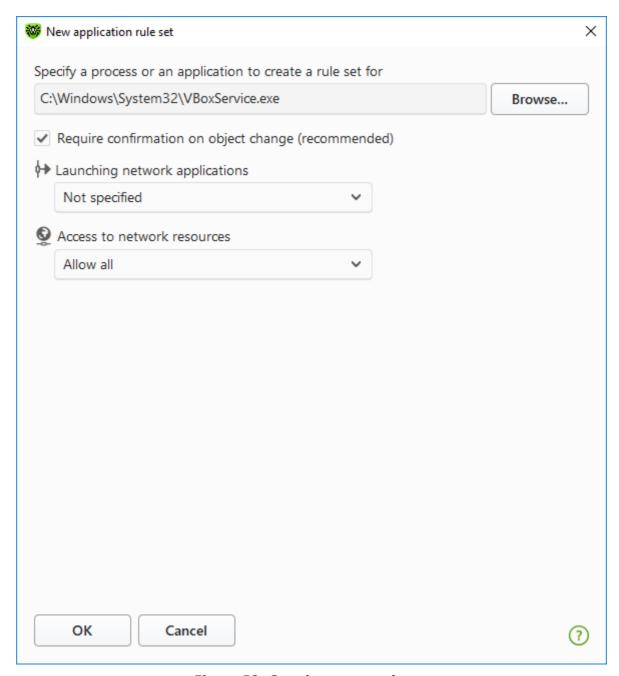


Figure 53. Creating a new rule set

Launching other applications

To enable or disable launch of other applications, from the **Launching network applications** drop-down list select one of the following:

- **Allow**—if you want to enable the application to run other processes.
- **Block**—if you want to disable the application to run other processes.
- **Not specified**—if you want to use the settings specified for the selected <u>operation mode</u> of Firewall.



Access to network resources

- 1. Specify one of the following modes to access network resources:
 - Allow all—all connections are allowed.
 - **Block all**—all connections are blocked.
 - **Not specified**—if you want to use the settings specified for the selected <u>operation mode</u> of Firewall.
 - **User-defined**—enables you to create a set of rules that allow or block different connections.
- 2. When you select the **User-defined** mode, a table with details on the application rule set displays below.

Davanastan	Description
Parameter	Description
Enabled	Status of the rule.
Action	The action for Dr.Web Firewall to perform when an attempt to connect to the internet is detected:
	Block packets—block the connection.
	Allow packets—allow the connection.
Rule name	The rule name.
Connection type	The direction of the connection:
	• Inbound —the rule is applied when someone from the network attempts to connect to an application on your computer.
	• Outbound —the rule is applied when an application on your computer attempts to connect to the network.
	Any—the rule is applied regardless of packet transfer direction.
Description	User description of the rule.

- 3. If necessary, edit the predefined rule set or create a new one.
- 4. If you select to create a new rule set or edit an existing one, <u>adjust the settings</u> in the open window.
- 5. When you finish adjusting the settings, click **OK** to save changes or **Cancel** to cancel them. When shifting to another mode, all changes made in the rule set will be kept.

Enable the **Require confirmation on object change (recommended)** option if you want the access to network resources to be confirmed each time when the application is changed or updated.



Creating application rules from the Firewall notification window

When Firewall is operating in the interactive mode or in the Allow connections for trusted applications mode, you can start creating a new rule directly from the window with notification on an unknown connection attempt.

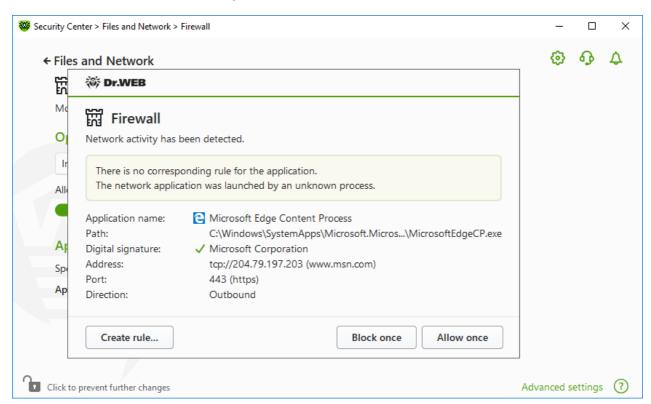


Figure 54. Example of a notification on a network connection attempt



When running under limited user account (Guest), Dr.Web Firewall does not display notifications on network access attempts. Notifications are shown for the session with administrator privileges if such session is simultaneously active.

To add application rules

1. To make a decision, consider the following information displayed in the notification:

Field	Description	
Application name	The name of the application. Ensure that the path to the application executable, specified in the Path entry field, corresponds to the file location.	
Path	The full path to the application executable file and its name.	
Digital signature	Digital signature of the application.	
Address	The used protocol and network address to which the application is trying to connect.	



Field	Description
Port	The network port used for the connection attempt.
Direction	The direction of the connection.

- 2. Once you make a decision, select an appropriate action:
 - To block application access using this port once, select **Block once**.
 - To allow application access by this port once, select **Allow once**.
 - To open a window where you can create a new application filter rule, select **Create rule**. In the open window, you can either choose one of the predefined rules or create your rule for the application.
- 3. Click **OK**. Firewall executes the selected action and closes the notification window.



In some cases Windows operating system does not allow identifying uniquely a service that acts as a system process. If a connection attempt is detected by the system process, take note on the port specified in the information about the connection. If you use an application that can access using the specified port, allow this connection.

If a connection is initiated by a trusted application (an application with existing rules), but this application is run by an unknown parent process, Firewall displays the corresponding notification.

To set parent process rules

- 1. Consider information about the parent process in the notification displayed on a connection attempt.
- 2. Once you make a decision about what action to perform, select one of the following:
 - To block this connection once, select **Block**.
 - To allow this connection, click **Allow**.
 - To create a rule for the parent process, click **Create rule** and in the open window specify required settings.
- 3. Click **OK**. Firewall executes the selected action and closes the notification window.

When an unknown process is run by another unknown process, a notification displays the corresponding details. If you click **Create rule**, a new window appears allowing you to create new rules for this application and its parent process.

Rule Settings

Application filtering rules control interaction of a particular application with certain network hosts.



To add or edit a rule

- 1. In **Access to network resources** section select the **User-defined** mode.
- 2. In **Edit rule set for** window press button to add a new rule or select the rule from the list and press the button to edit the rule.
- 3. Configure the following parameters:

Parameter	Description		
General	General		
Rule name	The name of the created/edited rule.		
Description	The rule description.		
Action	The action for Dr.Web Firewall to perform when an attempt to connect to the internet is detected:		
	Block packets—block the connection.		
	Allow packets—allow the connection.		
State	Rule status:		
	Enabled—the rule is applied for all matching connections.		
	• Disabled —the rule is temporary not applied.		
Connection type	The direction of the connection:		
	• Inbound —the rule is applied when someone from the network attempts to connect to an application on your computer.		
	 Outbound—the rule is applied when an application on your computer attempts to connect to the network. 		
	Any—the rule is applied regardless of packet transfer direction.		
Logging	Logging mode:		
	• Enabled—register events.		
	Disabled—do not log rule information.		
Rule settings			
Protocol	The network and transport level protocols used for the connection attempt.		
	The following protocols of the network level are supported:		
	• IPv4		
	• IPv6		
	IP all—any version of the IP protocol		
	The following protocols of the transport level are supported:		



Parameter	Description
	 TCP UDP TCP & UDP—TCP or UDP protocol RAW
Local address/Remote address	The IP address of the remote host. You can specify either a certain address (Equal) or several IP addresses using a range (In range), specific subnet mask (Mask) or masks of all subnets in which your computer has a network address (MY_NETWORK). To apply the rule for all remote hosts, select Any .
Local port/Remote port	The port used for the connection. You can specify either a specific port number (Equal) or a port range (In range). To apply the rule for all ports, select Any .

4. Click OK.

Parameters for Networks

Packet filtering allows you to control access to network regardless of what program initiates the connection. These rules are applied to all network packets transmitted through a network interface of your computer.

Thus, packet filtering provides you with more general mechanisms to control access to network than the <u>application level filtering</u>.

Packet Filter

In the **Network** window, you can create a set of rules for filtering packets transmitted through a certain interface.

To open Network window

- 1. Open Dr.Web menu , then select Security Center.
- 2. In the open window, select the **Files and Network** section.
- 3. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open). Otherwise, click the lock ...
- 4. Click the **Firewall** tile. A component parameters window opens.
- 5. Expand the **Advanced settings** group.
- 6. In the **Application rules** section click **Edit**. A window with a list of network interfaces opens. For these network interfaces, rules have been set.



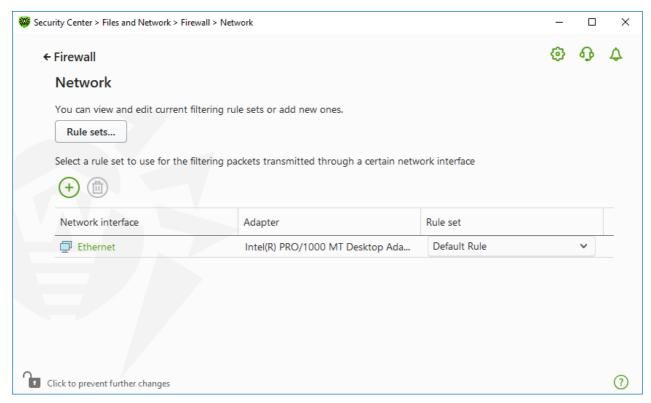


Figure 55. Sets of rules for network interfaces

7. For the required interface, select the appropriate rule set. If the appropriate rule set does not exist, you can <u>create it</u>.

Firewall uses the following predefined rule sets:

- **Default Rule**—this rule set is used by default for new <u>network interfaces</u>.
- Allow All—this rule set configures the component to pass through all packets.
- **Block All**—this rule set configures the component to block all packets.

For fast switching between filtering modes, you can create custom sets of filtering rules.

To list all available interfaces or add a new interface, click +. This opens a window where you can select interfaces that are to be permanently listed in the table. Active interfaces are listed in the table automatically.

You can delete inactive interfaces by clicking .

To access the interface parameters, click on the interface name.

Packet filter settings

To configure the existing rule sets and to add new ones, go to **Packet filter settings** window by clicking **Rule sets** button.



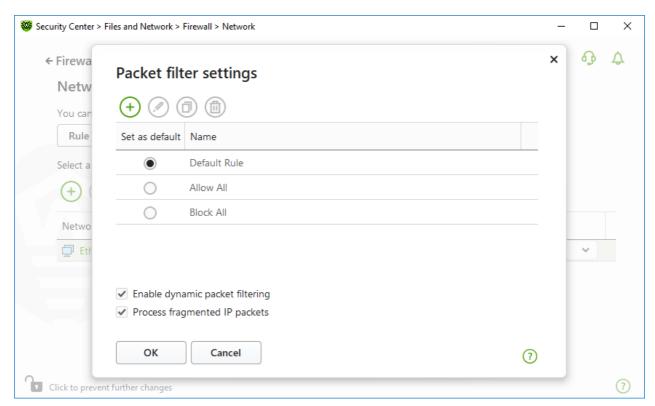


Figure 56. Packet filter settings

On this page you can:

- Configure <u>sets of filtering rules</u> by adding new rules, modifying existing ones or deleting them.
- Configure advanced filtering settings.

Configuring rule sets

Do one of the following:

- To add a new set of rules for the network interface, click +.
- To edit an existing set of rules, select the rule set in the list and click \bigcirc .
- To add a copy of an existing set of rules, select the rule set and click . The copy is added after the selected rule set.
- To delete the selected rule set, click .



Advanced settings

In the **Packet filter settings** window, you can select the following options:

Option	Description
Use TCP stateful packet filtering	Select this check box to filter packets according to the state of existing TCP connections. Firewall will block packets that do not match the TCP protocol specification. This option helps to protect your computer from DoS attacks (denial of service), resource scanning, data injection, and other malicious operations.
	It is also recommended that you enable stateful packet filtering when using complex data transfer protocols (FTP, SIP, etc.). Clear this check box to filter packets without regard to the TCP session state.
Management of fragmented IP packets	Select this check box to ensure correct processing of large amounts of data. The maximum transmission unit (MTU) may vary for different networks, therefore large IP packets may be fragmented. When this option is enabled, the rule selected for the first fragment of a large IP packet is applied to all other fragments.
	Clear this check box to process fragmented packets independently.

Click **OK** to save changes or **Cancel** to exit the window without saving the changes.

Rule Sets for Filtering Packets

The **Edit rule set** window lists packet filtering rules for the selected rule set. You can configure the list by adding new rules or modifying existing ones and the order of their execution. The rules are applied according to their order in the set.



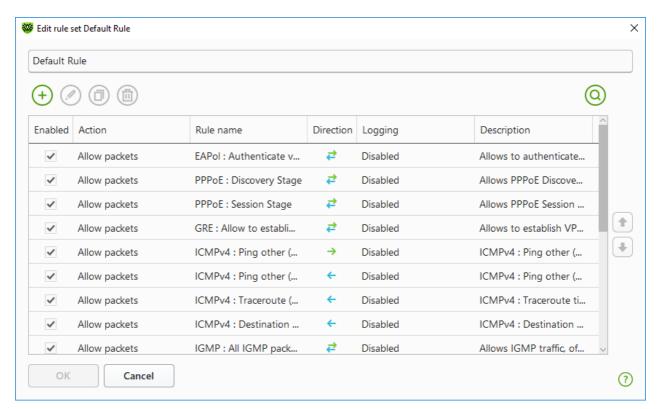


Figure 57. Rule set for filtering packets

For each rule in the set, the following information is displayed:

Parameter	Description
Enabled	Status of the rule.
Action	The action for Firewall to perform when a packet is intercepted: • Block packets—block a packet; • Allow packets—allow a packet.
Rule name	The rule name.
Direction	 The direction of the connection: —the rule is applied when a packet is received from the network. —the rule is applied when a packet is sent into the network from your computer. —the rule is applied regardless of packet transfer direction.
Logging	The logging mode for the rule. This parameter defines which information should be stored in the log: • Headers only—log packet headers only. • Entire packet—log the whole packet. • Disabled—do not log packet information.
Description	The rule description.



To edit or create a rule set

- 1. If required, add or change the rules set name.
- 2. Use the following options to create filtering rules:
 - To add a new rule, click . The new rule is added to the beginning of the list.
 - To modify a rule, select it and click .
 - To add a copy of the selected rule, click . The copy is added before the selected rule.
 - To remove the selected rule, click .
 - To search for a necessary rule, click .
- 3. If you have selected to create or edit a rule, configure the rule settings in the open window.
- 4. Use the arrows next to the list to change the order of rules. The rules are applied according to their order in the set.
- 5. When you finish the list adjustments, click **OK** to save changes or **Cancel** to cancel them.



Packets with no rules in a rule set are blocked automatically except for packets allowed by <u>Application Filter</u> rules.

Filtering Rule Settings

To add or edit a filtering rule

1. In the packet filter rule set creation or modification window, click \bigcirc or \bigcirc . This opens a rule creation or rule modification window.



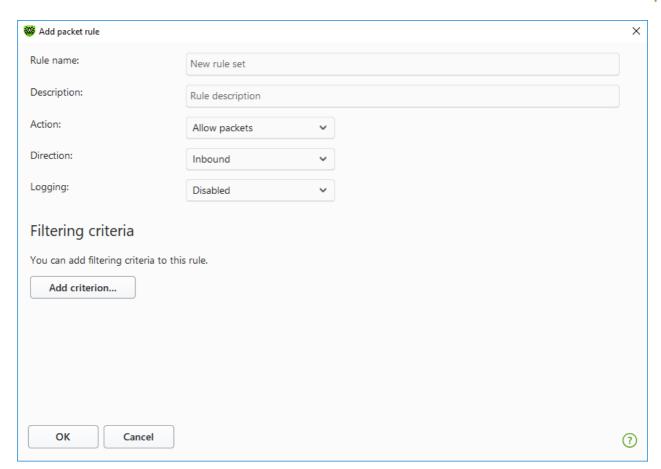


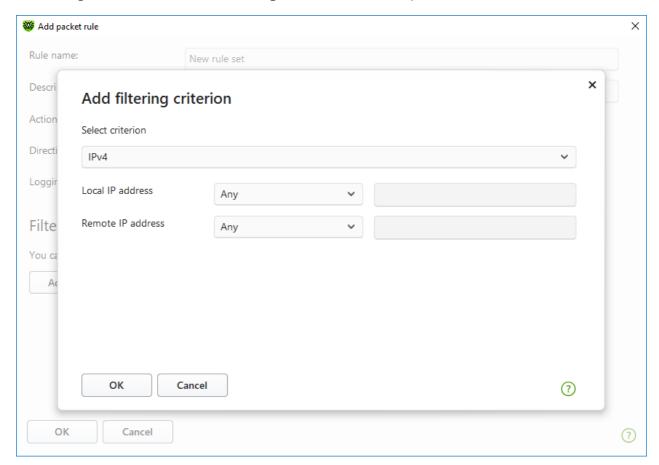
Figure 58. Adding filtering rule

2. Configure the following parameters:

Damanatan	Description.
Parameter	Description
Rule name	The name of the created/edited rule.
Description	The rule description.
Action	The action for Firewall to perform when a packet is intercepted:
	Block packets—block a packet;
	Allow packets—allow a packet.
Direction	The direction of the connection:
	• Inbound—the rule is applied when a packet is received from the network.
	• Outbound —the rule is applied when a packet is sent into the network from your computer.
	• Any—the rule is applied regardless of packet transfer direction.
Logging	The logging mode for the rule. This parameter defines which information should be stored in the log:
	Entire packet—log the whole packet.
	Headers only—log packet headers only.
	Disabled—do not log packet information.



3. You can add a filtering criterion if needed, for example, transport or network protocol, by clicking **Add criterion**. **Add filtering criterion** window opens:



Figures 59. Adding filtering criterion

Select the required filtering criterion from the drop-down list. In this window, you can also configure parameters for the selected criterion. You can add any number of filtering criteria.



The criterion should meet at least one of its parameters.

For certain headers, there are additional criteria available. All added criteria are listed in the edit packet rule window and can be modified.



The packet should meet all the criteria of the rule in order for the rule action to be applied to the packet.

4. When you finish the adjustments, click **OK** to save changes or **Cancel** to exit the window without saving the changes.



If you do not add any criterion, the rule will allow or block all packets depending on the setting specified in the **Action** field.



If you select **Any** for the **Local IP address** and **Remote IP address** fields, the rule is applied for any packet which contains an IPv4 header. *Local IP address* is the IP address of the network adapter on the computer where the Firewall is configured, and *Remote IP address* is the address of the host from which incoming packets are received or to which outgoing packets are routed.

11.5. Computer Scan

The Scanner component performs anti-virus scan of the computer. Scanner checks boot sectors, memories, and both separate files and objects enclosed within complex structures (archives, containers, or email attachments). Dr.Web uses all <u>detection methods</u> during computer scan.

On detection of a malicious object, Scanner only informs you about the threat. Report on all infected or suspicious objects is displayed in the table where you can <u>select a necessary action</u>. You can apply default actions to all detected threats or select the necessary action to certain objects.

The default settings are optimal for most cases. However, if necessary, you can modify the suggested actions in the Scanner <u>settings window</u>. Please note that you can specify a custom action for each detected threat after the scan is completed, but common reaction for a particular threat type should be configured before the scanning process starts.

See also:

- File Scan Options
- Scan Start and Scan Modes
- Neutralizing Detected Threats

11.5.1. Scan Start and Scan Modes



Scanner can be started when Windows is booted in safe mode. In this case other Dr.Web components will not start.

To start scan of the files



When using Windows Vista or later operating systems, it is recommended running Scanner with administrative privileges. Otherwise, all folders and files (including system folders) that are not accessible to an unprivileged user will not be scanned.

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Files and Network** tile, then **Scanner** tile.



You can also start the file scan from **Start** menu. For this, expand the application group **Dr.Web** and then select **Dr.Web Scanner**.



- 3. Choose the needed scan mode:
 - Express item to scan only critical Windows objects.
 - Full to scan all files on logical drives and removable media.
 - **Custom** item to scan only selected objects. The Scanner window opens.

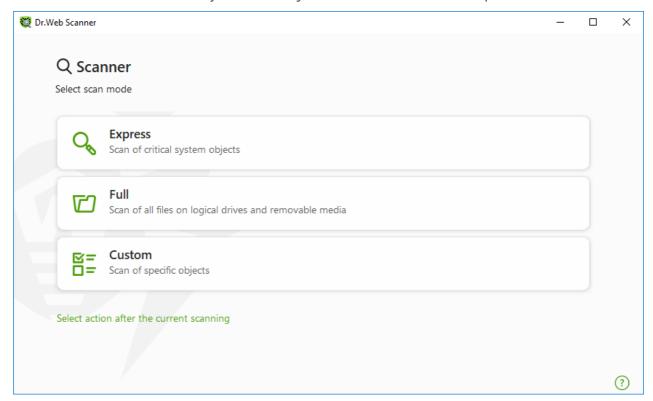


Figure 60. Selecting the scanning mode

You can also select an action after the current scanning. For this, click the corresponding link at the bottom of the window. The action does not depend on the action selected in the Scanner settings and does not affect general settings.

4. The scanning starts. To pause scanning, click **Pause**. To stop scanning, click **Stop**.



The Pause button is not available while processes and RAM are scanned.

When the scan is completed, Scanner informs you about detected threats and recommends that you <u>neutralize</u> them.

To scan a certain file or folder

- 1. Open shortcut menu of the file or folder (on your desktop or in Windows Explorer).
- 2. Select **Check with Dr.Web**. The file or folder will be scanned according to the default settings.



Scan modes

Scan mode	Description
Express	In this mode, Scanner checks the following: Boot sectors of all disks Random access memory Boot disk root folder Windows system folder User documents folder ("My Documents") Temporary files System restore points Presence of rootkits (if the process is run with administrative privileges). Scanner does not check archives and email files in this mode.
Full	In this mode, random access memory and all hard drives (including boot sectors of all disks) are scanned. Moreover, Scanner runs a check for rootkits.
Custom	In this mode, you can scan any files or folders and such objects as random access memory, boot sectors, and so on. To select objects, click .

11.5.2. Neutralizing Detected Threats

When the scan is completed, Scanner informs you about detected threats and recommends that you neutralize them.



If you enable the **Neutralize detected threats** or **Neutralize detected threats and shut down the computer** option on the <u>settings</u> page of Dr.Web Scanner to configure **After scanning**, threats will be neutralized automatically.



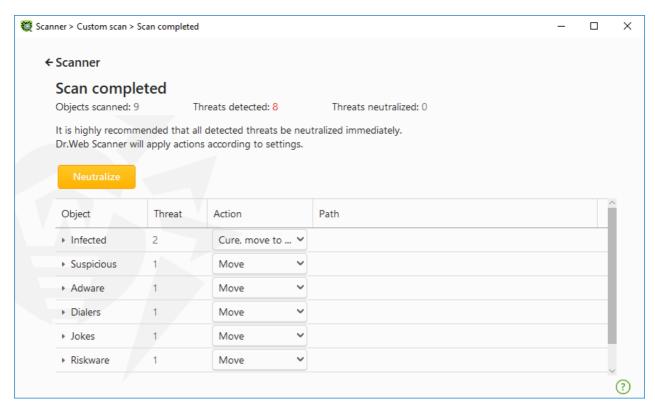


Figure 61. Selecting an action after a scan

The table with scan results contains the following information:

Column	Description
Object	This table column contains the name of an infected or suspicious object (either a file name if a file is infected, or Boot sector if a boot sector is infected, or Master Boot Record if an MBR of the hard drive is infected).
Threat	The names of threats or their <u>modifications</u> as per the internal classification of Doctor Web. For suspicious objects, the following is displayed: indication that the object "is possibly infected" and the type of a possible threat according to the classification used by the heuristic analyzer.
Action	The action recommended for the detected threat according to the <u>Scanner settings</u> . To apply the action for the selected threat, use the drop-down list options.
Path	The full paths to the corresponding files.

Neutralizing all the threats in the table

An action is specified for each threat according to the <u>Scanner settings</u>. To neutralize all the threats by applying actions that are specified in the table, click **Neutralize**.

To change the action for the threat specified in the table

1. Select an object or a group of objects.



- 2. In the **Action** column, select a necessary action from the drop-down list.
- 3. Click **Neutralize**. Scanner starts neutralizing all the threats listed in the table.

Neutralizing selected threats

You can also neutralize selected threats separately. To do so:

- 1. Select an object, several objects (by pressing the CTRL key) or a group of objects.
- 2. Open a shortcut menu and select a necessary action. Scanner starts neutralizing the selected threat (threats).

Restrictions on neutralizing threats

There are the following limitations:

- For suspicious objects, curing is impossible.
- For objects which are not files (boot sectors) moving and deletion is impossible.
- For files inside archives, containers, or attachments, no actions are possible. The action applies to the whole file.

Scanner report

The detailed report on component operation is stored in the dwscanner.log file that is located in %USERPROFILE%\Doctor Web folder.

11.5.3. Additional Options

This section contains information about the additional Scanner options:

- Command-Line Scanning Mode
- Console Scanner
- Automatic Launch of Scanning

Command-Line Scanning Mode

You can run Scanner in the command-line mode. This allows you to specify settings of the current scanning session and the list of objects for scanning as additional parameters. Automatic Scanner launch is performed in this mode <u>according to schedule</u>.

The launching command syntax is as follows:

```
[<path_to_program>] dwscanner [<switches>] [<objects>]
```

Switches are command-line parameters that specify program settings. If no switches are defined, scanning is performed with the settings specified earlier (or with the default settings if



you have not changed them). Switches begin with the forward slash (/) character and are separated by blanks as other command-line parameters.

The list of objects for scanning can be empty or contain several elements separated by spaces. If the path to objects is not specified, they are searched in the Dr.Web installation folder.

The most commonly used examples of specifying the objects for scanning are given below:

- /FAST—performs an express scan of the system.
- /FULL—performs a <u>full scan</u> of all hard and removable media (including boot sectors).
- /LITE—performs a basic scan of random access memory and boot sectors of all disks as well as run a check for rootkits.

Console Scanner

Dr.Web also includes Console Scanner which allows you to run scanning from the command line and provides advanced settings.



Console Scanner moves suspicious files to Quarantine.

The command syntax to launch Console Scanner is as follows:

```
[<path_to_program>]dwscancl [<switches>] [<objects>]
```

Parameter begins with the forward slash (/) character; several parameters are separated by spaces. The list of objects for scanning can be empty or contain several elements separated by spaces.

All Console Scanner switches are listed in Appendix A.

Return codes:

0—scanning completed successfully; infected objects were not found;

1—scanning completed successfully; infected objects were detected;

10—invalid keys are specified;

11—key file is not found or does not support Console Scanner;

12—Scanning Engine did not start;

255—scanning was aborted by user request.

Scanning Your System via the Task Scheduler

During installation of Dr.Web, an anti-virus scan task is automatically created in the Task Scheduler (the task is disabled by default).



To view task settings, open **Control Panel** (extended view) \rightarrow **Administrative Tools** \rightarrow **Task Scheduler**.

From the task list, select the scan task. You can enable the task, adjust trigger time, and set required parameters.

On the **General** page, you can review general information and security options on a certain task. On the **Triggers** and **Conditions** pages, various conditions for task launching are specified. To review event log, open the **Log** page.

You can also create your own anti-virus scan tasks. For details on the system scheduler operation, please refer to the Help system and Windows documentation.



If installed components include Firewall, after Dr.Web installation and the first system restart Task Scheduler will be blocked by Firewall. **Scheduled tasks** will operate only after a second restart when a new rule is already created.

11.6. Dr. Web for Microsoft Outlook

Main functions

The Dr.Web for Microsoft Outlook plug-in performs the following functions:

- Anti-virus check of incoming email attachments
- Check of email attachments transferred over encrypted SSL connections
- Spam check
- Malware detection and its neutralization
- Heuristic analysis for additional protection against unknown threats



When scanning email with Dr.Web for Microsoft Outlook, it is recommended to use <u>Cached Exchange Mode</u> <u>C</u>.

Configuring Dr.Web for Microsoft Outlook plug-in

You can set up parameters of plug-in operation and view statistics on Microsoft Outlook mail application, in the **Tools** \rightarrow **Options** \rightarrow **Dr.Web Anti-virus** page (for Microsoft Outlook 2010, in the **Files** \rightarrow **Options** \rightarrow **Add-ins** section select Dr.Web for Microsoft Outlook and click the Add-in Options button).



The **Dr.Web Anti-virus** page of Microsoft Outlook settings is active only if the user has permissions to change these settings.



On the **Dr.Web Anti-virus** page, the current protection status is displayed (enabled/disabled). This page also provides you with an access to the following program functions:

- <u>Log</u>—allows you to configure the program logging.
- <u>Check attachments</u>— allows you to configure email scan and to specify program actions on detection of malicious objects.
- <u>Anti-spam filter</u>—allows you to specify program actions on spam detection and to create black and white lists of email addresses.
- Statistics—allows you to view the number of scanned and processed objects.

11.6.1. Threat Check

Dr.Web for Microsoft Outlook uses different <u>detection methods</u>. Infected objects are processed according to the actions defined by the user: the program can cure such objects, remove them, or move them to <u>Quarantine</u> to isolate the objects from the rest of the system.

Dr. Web for Microsoft Outlook detects the following malicious objects:

- Infected objects
- Bomb files or bomb archives
- Adware
- Hacktools
- Dialers
- Jokes
- Riskware
- Spyware
- Trojans
- Computer worms and viruses

Actions

Dr.Web for Microsoft Outlook allows you to specify program reaction to detection of infected or suspicious files and malicious objects in email attachments.

To configure threat scan of email attachments and to specify program actions for detected malicious objects, in the Microsoft Outlook mail application, go to the **Tools** \rightarrow **Options** \rightarrow **Dr.Web Anti-virus** page (for Microsoft Outlook 2010, in the **Files** \rightarrow **Options** \rightarrow **Add-ins** section select Dr.Web for Microsoft Outlook, then click the **Add-in Options** button) and click **Check attachments**.



The **Check attachments** window is available only for users with administrative privileges.



For Windows Vista and later operating systems, after clicking **Check attachments**:

- If UAC is enabled: administrator is requested to confirm program actions; user without administrative privileges is requested to enter system administrator credentials.
- If UAC is disabled: administrator can change program settings; user does not have the permission to change program settings.

In the **Check attachments** window, specify actions for different types of scanned objects and also for the scan failure. You can also enable or disable scan of archives.

To set actions to be applied on threat detection, use the following options:

- The **Infected** drop-down list sets the reaction to the detection of a file containing a known and (presumably) curable threat.
- The **Not cured** drop-down list sets the reaction to the detection of a file containing a known incurable threat (and in case an attempt to cure a file failed).
- The **Suspicious** drop-down list sets the reaction to the detection of a presumably infected file (upon reaction of the heuristic analyzer).
- In the **Malware** section, set a reaction to detection of unwanted software of the following types:
 - Adware
 - Dialers
 - Jokes
 - Hacktools
 - Riskware
- The **If check failed** drop-down list allows you to configure actions if the attachment cannot be scanned, that is, if the attached file is corrupted or password protected.
- The **Check archives (recommended)** check box allows you to enable or disable scan of attached archived files. Select this check box to enable scanning; clear this check box to disable scanning.

For different types of objects, actions are specified separately.

The following actions for detected threats are available:

- **Cure** (only for infected objects)—instructs to try to restore the original state of an object before infection.
- **Delete**—delete the object.
- Move to quarantine—move the object to the special Quarantine folder.
- **Ignore**—skip the object without performing any action or displaying a notification.



11.6.2. Spam Check

Dr.Web for Microsoft Outlook checks emails for spam by means of Dr.Web Anti-spam and filters messages according to the user-defined <u>settings</u>.

To configure spam check, go to the **Tools** \rightarrow **Options** \rightarrow **Dr.Web Anti-virus** page (for Microsoft Outlook 2010, in the **Files** \rightarrow **Options** \rightarrow **Add-ins** section select Dr.Web for Microsoft Outlook and click the **Add-in Options** button) and click **Anti-spam filter**. The <u>Anti-spam filter</u> window opens.



The **Anti-spam filter** window is available only for users with administrative privileges.

For Windows Vista and later operating systems, after clicking Anti-spam filter:

- If UAC is enabled: administrator is requested to confirm program actions; user without administrative privileges is requested to enter system administrator credentials.
- If UAC is disabled: administrator can change program settings; user does not have the permission to change program settings.

Anti-Spam Filter Settings

To configure Anti-spam filter parameters:

- 1. Select the **Check for spam** check box to enable the anti-spam filter.
- You can add special text to the spam message header by enabling the Add prefix to
 message header option. Text of the added prefix is specified to the right of the option. The
 default prefix is *SPAM*.
- 3. The checked messages can be marked as read in message options. For that purpose, enable the **Mark message as read** option. This option is enabled by default.
- 4. You can also configure white and black lists for message filtration.



If spam filter processes certain messages incorrectly, you are advised to forward such messages to special email addresses for analysis and improvement of filtering methods.

- messages that are wrongly regarded as spam should be forwarded to nonspam@drweb.com;
- unblocked spam messages should be forwarded to spam@drweb.com.

Forward messages as attachments, that is, do not include them in the message body.

Black and White Lists

Black and white lists are used for message filtration.



To review and to edit the white and black lists, in the <u>Anti-spam filter window</u> click **White list** or **Black list** respectively.

To add an address to the white or black list

- 1. Click Add.
- 2. Enter the email address in the corresponding field.
- 3. Click **OK** in the **Edit list** window.

To change an address in the list

- 1. Select the address you want to change and click **Edit**.
- 2. Make necessary changes to the information.
- 3. Click **OK** in the **Edit list** window.

To remove an address from the list

- 1. Select the address from the list.
- 2. Click **Delete**.

In the **Black and White lists** window, click **OK** to save the changes.

White list

If the sender's address is in the white list, the message is not checked for spam. Details:

- To add a specific sender, enter the full email address (for example, mail@example.net). This ensures delivery of all messages from this sender.
- Each list item can contain only one address or address mask.
- To add a group of sender addresses, enter the mask that determines their names. The mask defines a template for an object definition. It may contain regular characters from email addresses and a special asterisk character (*), which replaces any (including an empty one) sequence of characters.

For example, the following variations are possible:

- mailbox@domain.com
- " *box@domain.com
- mailbox@dom*
- " *box@dom*



The asterisk (*) can be specified at the start or at the end of an address only.

The 'at' sign (@) is mandatory.



- To ensure delivery of messages sent from any email address within a certain domain, use an asterisk (*) instead of the username in the address. For example, if you enter
 *@example.net, messages from all senders within the example.net domain will be delivered without scanning.
- To ensure delivery of messages sent from email address with a certain user name from any domain, use an asterisk (*) instead of the domain name in the address. For example, if you want to receive messages from all senders with the "someone" mailbox, enter name@*.

Black list

If the sender's address is on the black list, the message will be automatically regarded as spam. Details:

- To add a specific sender, enter the full email address (for example, spam@spam.com). All messages, received from these addresses, will be automatically regarded as spam.
- Each list item can contain only one address or address mask.
- To add a group of sender addresses, enter the mask that determines their names. The mask defines a template for an object definition. It may contain regular characters from email addresses and a special asterisk character (*), which replaces any (including an empty one) sequence of characters.

For example, the following variations are possible:

- mailbox@domain.com
- " *box@domain.com
- mailbox@dom*
- *box@dom*



The asterisk (*) can be specified at the start or at the end of an address only.

The 'at' sign (@) is mandatory.

- To regard messages sent from any email address within a domain as spam, use an asterisk character (*) instead of the username in the address. For example, if you enter *@spam.com, all messages from addresses within the spam.com domain will be regarded as spam automatically.
- To regard messages sent from an email address with a certain user name from any domain as spam, enter an asterisk character (*) instead of the domain name in the address. For example, if you enter name@*, all messages from all senders with the "someone" mailbox name will be regarded as spam automatically.

11.6.3. Event Logging

Dr. Web for Microsoft Outlook registers errors and application events in the following logs:

• Windows Event Log



• Debug Text Log

Event Log

The following information is registered in the Windows Event Log:

- Program starts and stops
- Key file parameters: license validation, license expiration date (information is logged on program startup, while the program is running, and when the key file is changed)
- Parameters of program modules: scanner, engine, virus databases (information is logged on program startup and module update)
- License errors: the key file is absent, permission for program module usage is absent in the key file, the license is blocked, the key file is corrupted (information is logged on program startup and while the program is running)
- Information on threat detection
- License expiration notifications (a message is registered in 30, 15, 7, 3, 2, and 1 days before expiration)

To view Windows Event Log

- 1. Open **Control Panel** of the operating system.
- 2. Select Administrative Tools → Event Viewer.
- 3. In the tree view, select **Application**. The list of events, registered in the log file by user applications, opens. The source of Dr.Web for Microsoft Outlook messages is the Dr.Web for Microsoft Outlook application.

Debug Text Log

The following information is registered in the debug log:

- License validity status
- Information on threat detection
- Read/write errors or errors occurred while scanning archives or password-protected files
- Parameters of program modules: scanner, engine, virus databases
- Core failures
- License expiration notifications (a message is registered in 30, 15, 7, 3, 2, and 1 days before expiration)

To configure the program logging

- 1. On the **Dr.Web Anti-virus** tab, click **Log**. The window with logging settings opens.
- 2. To set the maximum detailing for the logging, select the **Detailed logging** check box. By default, logging is set to regular mode.





The maximum detailing for the logging decreases server performance; therefore, we recommend that you enable detailed logging only in case an error in operation of Dr.Web for Microsoft Outlook occurs.

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



The **Log** window is available only for users with administrative privileges.

For Windows Vista and later operating systems, after clicking Log:

- If UAC is enabled: administrator is requested to confirm program actions; user without administrative privileges is requested to enter system administrator credentials.
- If UAC is disabled: administrator can change program settings; user does not have the permission to change program settings.

To open the text log

- 1. On the **Dr.Web Anti-virus** tab, click **Log**. The window with logging settings opens.
- 2. Click **Show in folder**. The folder with the log opens.

11.6.4. Statistics

In the Microsoft Outlook mail application, on the **Tools** \rightarrow **Options** \rightarrow **Dr.Web Anti-virus** page (in Microsoft Outlook 2010, go to **Files** \rightarrow **Options** \rightarrow **Add-ins**, select **Dr.Web for Microsoft Outlook** and click the **Add-in Options** button), statistic information about total number of objects, which have been checked and processed by the program, is listed.

These scanned objects are classified as follows:

- **Checked**—total number of checked objects and messages.
- **Infected**—total number of infected objects attached to the messages.
- **Suspicious**—number of messages presumably infected (upon a reaction of the heuristic analyzer).
- **Cured**—number of objects successfully cured by the program.
- **Not checked**—number of objects which cannot be checked or check of which failed due to an error.
- **Clear**—number of objects and messages that are not infected.

Then the number of processed objects is specified:

- **Moved**—number of objects moved to Quarantine.
- **Deleted**—number of objects removed from the system.
- **Ignored**—number of objects skipped without changes.
- **Spam messages**—number of objects detected as spam.



By default, statistics is saved to the drwebforoutlook.log file located in the % USERPROFILE%\Doctor Web folder.



Statistics accumulates during a session. It is reset to zero if the computer or Dr.Web Security Space is restarted.



12. Preventive Protection

In this group, you can configure Dr.Web reaction to such actions of other programs that can compromise security of your computer and select protection level against exploits.

To open the Preventive Protection group of settings

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Preventive Protection** tile.

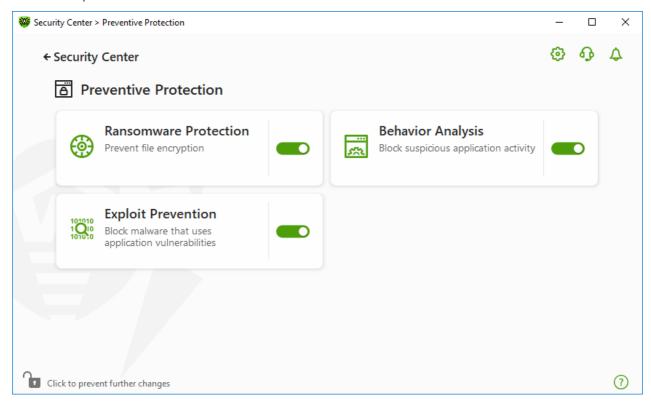


Figure 62. Preventive Protection window

Enable and disable protection components

Enable or disable the required component by using the switcher **.**.

To open the component parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **a**). Otherwise, click the lock **a**.
- 2. Click the tile of a necessary component.

In this section:

- Ransomware Protection—prevent user files encryption.
- Behavior Analysis—configure application access to the system objects.



• Exploit Prevention—block the usage of application vulnerabilities.



To *disable* any component, Dr.Web should operate in administrator mode. For that, click the lock at the bottom of the program window.

12.1. Ransomware Protection

Ransomware Protection allows detection of processes that attempt to encrypt user files using known algorithm that defines processes as a security threat. *Ransomware* is one of these processes. When entering a computer such malicious programs block access to user data and then demand ransom for decryption. They are considered among the most common malicious programs and cause great annual losses both to companies and ordinary users. The most common way of getting infected are bulk emails containing malicious files or a link to malware.

According to Doctor Web statistics, probability of restoring files compromised by encryption ransomware is only 10%, that is why the most efficient way of fighting it is to prevent the infection. Recently the number of users that have suffered such infection has decreased. However, the number of Dr.Web technical support requests for decryption reaches 1000 every month.

To enable or disable Ransomware Protection

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Preventive Protection** tile.



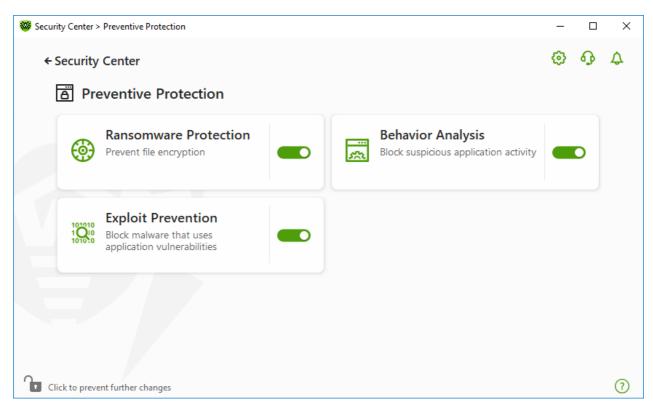


Figure 63. Enabling/Disabling Ransomware Protection

In this section:

- Configuring reaction to application attempts to encrypt files
- Scan exclusions

Dr. Web reaction to application attempts to encrypt a file

To configure Ransomware Protection parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 2. Click the **Ransomware Protection** tile. A component parameter window opens.
- 3. In the drop-down menu, select an action to be applied to all applications.



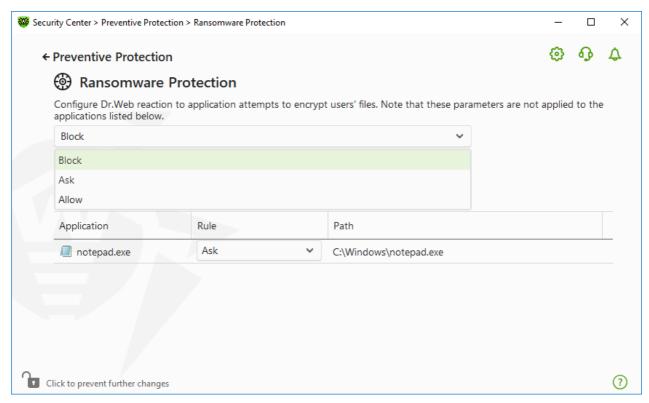


Figure 64. Selecting Dr. Web reaction

- Allow—all the applications are allowed to modify user files.
- **Block**—all the applications are not allowed to encrypt user files. This mode is enabled by default. When an application attempts to encrypt the user files following notification will be shown:

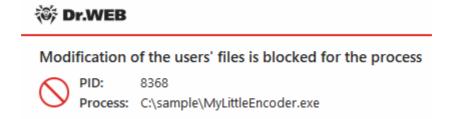


Figure 65. Notification example with a blocked application attempt to modify user files

• **Ask**—when an application attempts to encrypt a user file, a notification appears, where you can prevent the encryption or ignore it:

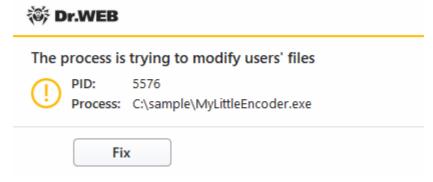


Figure 66. Notification example with an application attempt to modify user's files



- When clicking Fix button the process is blocked and moved to quarantine. Even if the application is restored from the quarantine it cannot be launched until the computer restart.
- If you close the notification window, the application will not be neutralized.

Receiving notifications

If necessary, you can <u>configure</u> desktop and email notifications on Ransomware Protection actions.

See also:

Notifications

List of applications, excluded from the scanning

You can create a list of applications, excluded from Ransomware Protection scanning. The following management elements are available to work with objects in the list:

- The $\stackrel{+}{\oplus}$ button—add the application to the exclusion list.
- The button—delete the application from the exclusion list.

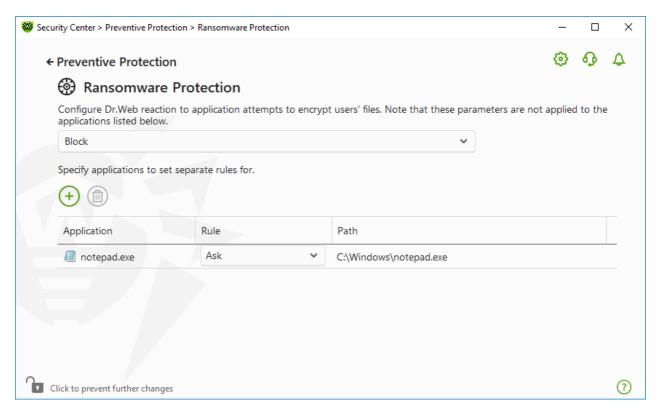


Figure 67. Excluding from Ransomware protection scanning



To add an application to the list

- 1. Click $\stackrel{+}{\oplus}$ and select a necessary application in the open window.
- 2. Click OK.

To protect your data from unauthorized changes, you can also <u>add files to the list of protected</u> <u>files</u>.

12.2. Behavior Analysis

The Behavior Analysis component allows you to configure Dr.Web reaction on third-party application actions that are not trusted and may result in infecting your computer, e.g., attempts to modify the HOSTS file or to change the critically important system registry keys. When the Behavior Analysis component is enabled, Dr.Web blocks automatic changing of system objects, if such modification explicitly signifies a malicious attempt to harm the operating system. Behavior analysis protects the system against previously unknown malicious programs that can avoid detection by traditional signature-based and heuristic analyses. To determine whether an application is malicious, the component uses the real-time data from Dr.Web cloud service.

To enable or disable Behavior Analysis

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Preventive Protection** tile.
- 3. Enable or disable the Behavior Analysis component by using the switcher —.



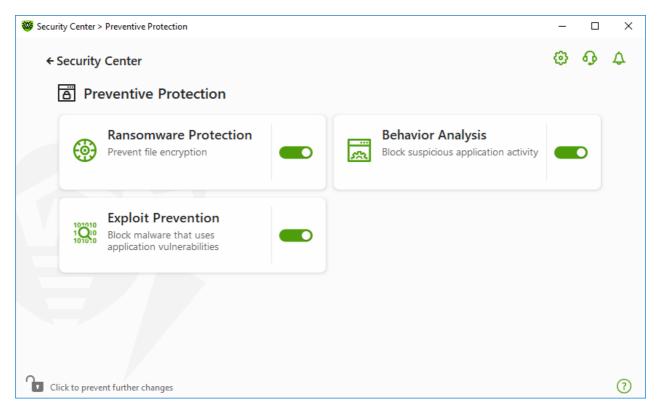


Figure 68. Enabling/Disabling the Behavior Analysis component

In this section:

- Component operation modes
- Creating and editing necessary application rules
- Protected object description

Behavior Analysis parameters

The default settings are optimal for most cases. Do not change them unnecessarily.

To open Behavior Analysis parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open . Otherwise, click the lock ...
- 2. Click the **Behavior Analysis** tile. A component parameters window opens.



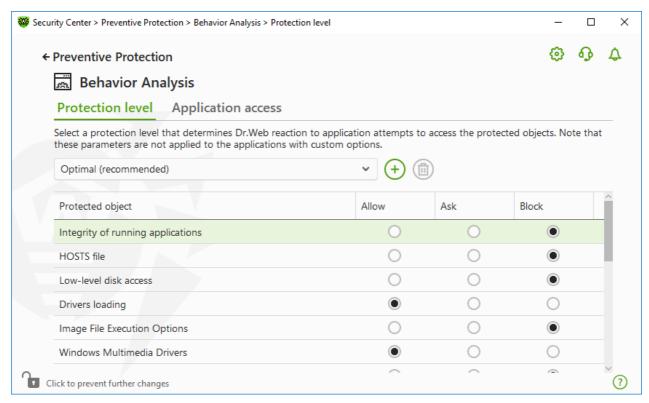


Figure 69. Behavior Analysis parameters

You can configure a separate protection level for particular objects and processes or set a general level which settings will be applied to all other processes. To set a general protection level, select it from the drop-down list on the **Protection level** tab.

Protection levels

Protection level	Description
Optimal (recommended)	This mode is set by default. Dr.Web disables automatic changes of system objects, whose modification explicitly signifies a malicious attempt to harm the operating system. It also blocks low-level application access to disk and protects the HOSTS file from modification, if it explicitly signifies a malicious attempt to harm the operating system.
	Only actions by the applications that are not trusted, are blocked.
Medium	If there is a high risk of your computer getting infected, you can increase protection by selecting this mode. In this mode, access to the critical objects, which can be potentially used by malicious software, is blocked.
	Using this mode may lead to compatibility problems with legitimate software that uses the protected registry



Protection level	Description
	branches.
Paranoid	When required to have total control of access to critical Windows objects, you can select this mode. In this mode, Dr.Web also provides you with interactive control over loading of drivers and automatic running of programs.
User-defined	With this mode, you can set a custom protection level for various objects.

User mode

All changes are saved in the User mode. In this window, you can also create a new protection level for saving necessary settings. The protected objects will be available for reading at all component settings.

You can choose one of the Dr.Web reactions to application attempts to modify the protected objects:

- **Allow**—the access to a protected object will be allowed for all the applications.
- **Ask**—if an application attempts to modify a protected object the notification will be displayed:

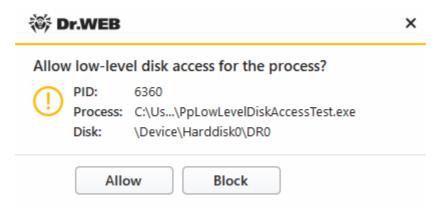


Figure 70. Notification example with an access to a protected object request

• **Block**—if an application attempts to modify a protected object the access will be blocked. Herewith, the notification will be displayed:





Figure 71. Notification example with a blocked access to a protected object

To create a new protection level

- 1. Look through default settings and, if necessary, edit them.
- 2. Click the + button.
- 3. In the open window, enter a name for the new profile.
- 4. Click OK.

To delete a protection level

- 1. In the drop-down menu, select a protection level created earlier that you want to delete.
- 2. Click the button. Predefined profiles cannot be deleted.
- 3. To confirm the deletion, click **OK**.

Receiving notifications

If necessary, you can configure desktop and email notifications on Behavior Analysis actions.

See also:

Notifications

Application access

To add custom access parameters for certain applications, go to the **Application access** tab. On this tab, you can add a new application rule, edit or delete an existing one.



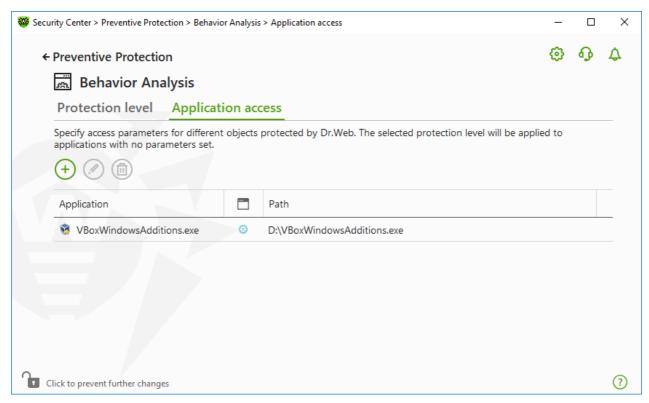


Figure 72. Application access parameters

The following management elements are available to work with objects in the table:

- The $\stackrel{\textstyle \leftarrow}{}$ button—adding a rule set for the application.
- The button—editing existing rule sets.
- The button—deleting a rule set.

In the (Rule type) column you can see three rule types:

- **⊘**—the **Allow all** rule is set for all protected objects.
- @—different rules are set for protected objects.
- — the **Block all** is set for all protected objects.

To add an application rule

- 1. Click \oplus .
- 2. In the open window, click **Browse** and specify the path to the application executable file.



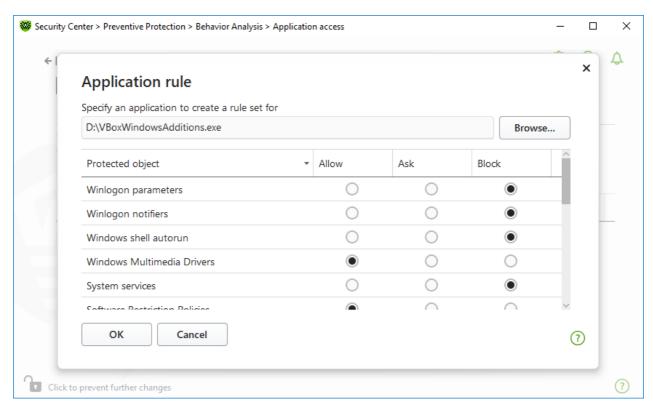


Figure 73. Adding a rule set for an application

- 3. Look through default settings and, if necessary, edit them.
- 4. Click OK.

Protected objects

Protected object	Description
Integrity of running applications	This option allows detection of processes that inject their code into running applications. It indicates that the process may compromise computer security.
HOSTS file	The operating system uses the HOSTS file when connecting to the internet. Changes to this file may indicate infection.
Low level disk access	Block applications from writing on disks by sectors while avoiding the file system.
Drivers loading	Block applications from loading new or unknown drivers.

Other options allow protection of the following registry branches from modification (in the system profile as well as in all the users' profiles).

Protected object	Description
Image File Execution Options	• Software\Microsoft\Windows NT\CurrentVersion\Image File Execution Options



Protected object	Description	
Windows Multimedia Drivers	• Software\Microsoft\Windows NT\CurrentVersion\Drivers32 • Software\Microsoft\Windows	
	NT\CurrentVersion\Userinstallable.drivers	
Winlogon parameters	• Software\Microsoft\Windows NT\CurrentVersion\Winlogon, Userinit, Shell, UIHost, System, Taskman, GinaDLL	
Winlogon notifiers	• Software\Microsoft\Windows NT\CurrentVersion\Winlogon\Notify	
Windows shell autorun	• Software\Microsoft\Windows NT\CurrentVersion\Windows, AppInit_DLLs, LoadAppInit_DLLs, Load, Run, IconServiceLib	
Executable file associations	• Software\Classes\.exe, .pif, .com, .bat, .cmd, .scr, .lnk (keys)	
	• Software\Classes\exefile, piffile, comfile, batfile, cmdfile, scrfile, lnkfile(keys)	
Software Restriction Policies	• Software\Microsoft\Windows\CurrentVersion\Group Policy Objects*\Software\Policies\Microsoft\Windows\Safer\CodeIde ntifiers	
	• Software\Microsoft\Windows\CurrentVersion\Group Policy Objects*\Software\Policies\Microsoft\Windows\SrpV2	
	• Software\Policies\Microsoft\Windows\Safer	
	• Software\Policies\Microsoft\Windows\Safer\CodeIdentifiers	
	• Software\Policies\Microsoft\Windows\SrpV2	
Internet Explorer plug-ins (BHO)	• Software\Microsoft\Windows\CurrentVersion\Explorer\Browser Helper Objects	
Program autorun	Software\Microsoft\Windows\CurrentVersion\Run	
	• Software\Microsoft\Windows\CurrentVersion\RunOnce	
	• Software\Microsoft\Windows\CurrentVersion\RunOnceEx	
	• Software\Microsoft\Windows\CurrentVersion\RunOnce\Setup	
	• Software\Microsoft\Windows\CurrentVersion\RunOnceEx\Setup	
	• Software\Microsoft\Windows\CurrentVersion\RunServices	
	• Software\Microsoft\Windows\CurrentVersion\RunServicesOnce	
Policy autorun	• Software\Microsoft\Windows\CurrentVersion\Policies\Explorer \Run	
Safe mode	SYSTEM\ControlSetXXX\Control\SafeBoot\Minimal	
configuration	SYSTEM\ControlSetXXX\Control\SafeBoot\Network	
	• System\ControlSetXXX\Control\Session Manager\SubSystems,	
Session Manager parameters	Windows	





If any problems occur during installation of important Microsoft updates or installation and operation of programs (including defragmentation programs), temporarily disable Behavior Analysis.

12.3. Exploit Prevention

The Exploit Prevention component allows you to block malicious programs that use vulnerabilities of well-known applications. To determine whether an object is malicious, the component uses also the data from Dr.Web cloud service.

To enable or disable Exploit Prevention

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Preventive Protection** tile.
- 3. Enable or disable the Exploit Prevention component by using the switcher

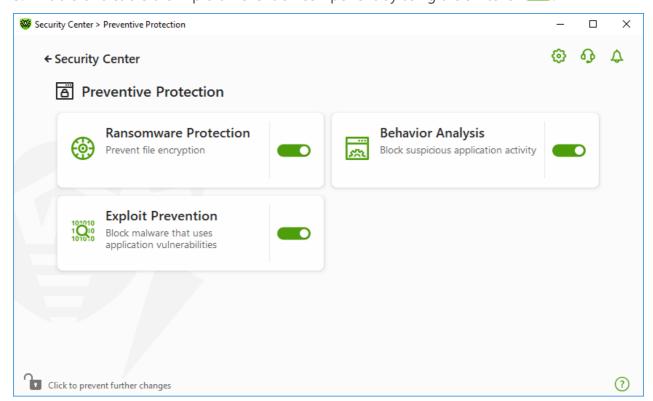


Figure 74. Enabling/Disabling the Exploit Prevention component

To open Exploit Prevention parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 2. Click the **Exploit Prevention** tile. A component parameter window opens.



In the window of component parameters, from the corresponding drop-down list, select the required level of protection against exploits.

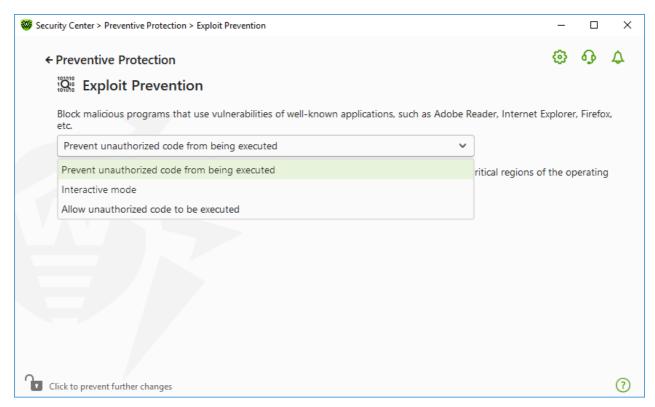


Figure 75. Selecting protection level

Protection levels

Protection level	Description
Prevent unauthorized code from being executed	If an attempt of a malicious object to exploit software vulnerabilities in order to get access to critical regions of the operating system is detected, it will be blocked automatically.
Interactive mode	If an attempt of a malicious object to exploit software vulnerabilities in order to get access to critical regions of the operating system is detected, Dr.Web will display an appropriate message. Read the information and select a suitable action.
Allow unauthorized code to be executed	If an attempt of a malicious object to exploit software vulnerabilities in order to get access to critical regions of the operating system is detected, it will be allowed automatically.

Receiving notifications

If necessary, you can configure desktop and email notifications on Exploit Prevention actions.



See also:

• Notifications



13. Devices and Personal Data

This group of settings allows you to configure application access to webcams and microphones connected to your computer, protect important folders, and block access to certain buses and device classes.

To open the Devices and Personal Data group of settings

- 1. Open Dr.Web menu ₩, then select Security Center.
- 2. In the open window, click **Devices and Personal Data** tile.

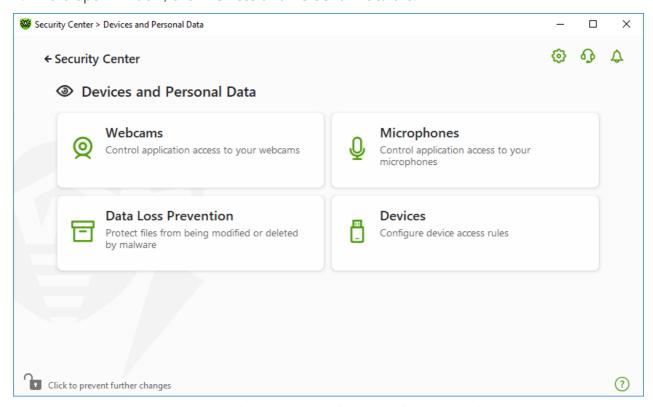


Figure 76. The Devices and Personal Data window

To open the component parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open). Otherwise, click the lock ...
- 2. Click the tile of a necessary component.

In this window:

- Webcams—application access control to webcams.
- Microphones—application access control to microphones.
- <u>Data Loss Prevention</u>—additional protection of important files and folders.
- <u>Devices</u>—control of device blocking.



13.1. Configuring Access to Webcams

Dr.Web protects your privacy by controlling application access to webcams connected to your computer.

To access the Webcams window

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Devices and Personal Data** tile.
- 3. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 4. Click the Webcams tile. A parameter window opens.



Figure 77. Access to the Webcams window

In this section:

- Dr.Web reaction to application access to webcams
- Access for specific applications

Dr. Web reaction to application access to webcams

In the drop-down window, select an operation mode to be applied to all applications.

- Allow—applications are allowed to access webcams. This option is selected by default.
- **Block**—applications cannot access webcams.



• **Ask**—on every application attempt to access a webcam, you are prompted to select a further action for the application: allow or block access to the webcam.

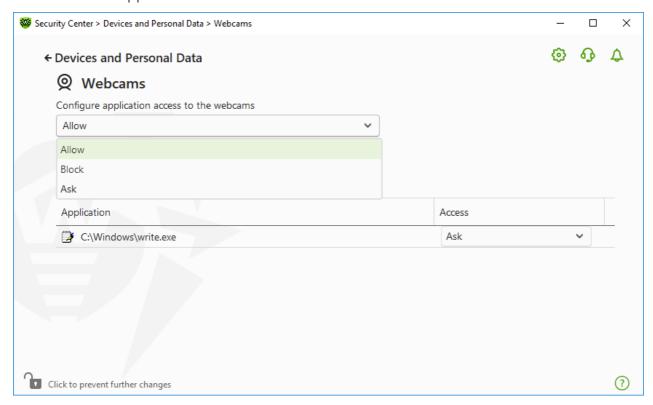


Figure 78. Select Access Mode for Applications

Access for specific applications

To configure access rules for specific applications

- 1. Click \oplus .
- 2. In the open window, click the **Browse** button and select an application that you want to create a rule for.
- 3. Select the webcam access mode in the drop-down list.



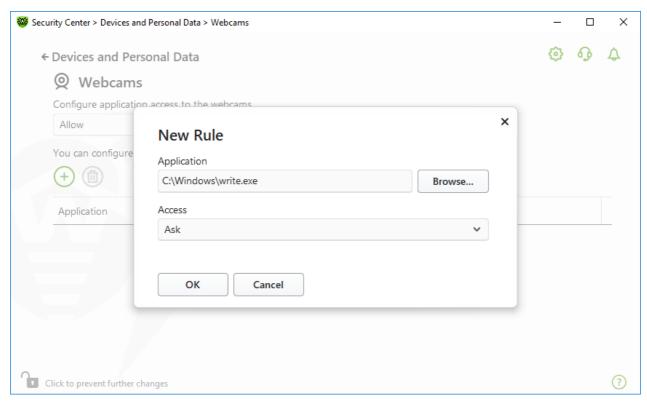


Figure 79. Creating access rule for an application

4. Click OK.

Application list

You can edit access rules for applications.

- To edit an application rule for a certain application, select a new value in the drop-down menu for this application.
- To delete a rule, select an application from the list and click . Click **OK** to confirm the deletion.

Receiving notifications

When access to webcams is blocked for a process, a notification is displayed. If necessary, you can <u>configure</u> desktop and email notifications.

13.2. Configuring Access to Microphones

Dr.Web protects your privacy by controlling application access to microphones connected to your computer.

To access the Microphones window

1. Open Dr.Web menu , then select **Security Center**.



- 2. In the open window, click **Devices and Personal Data** tile.
- 3. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 4. Click the Microphones tile. A parameter window opens.

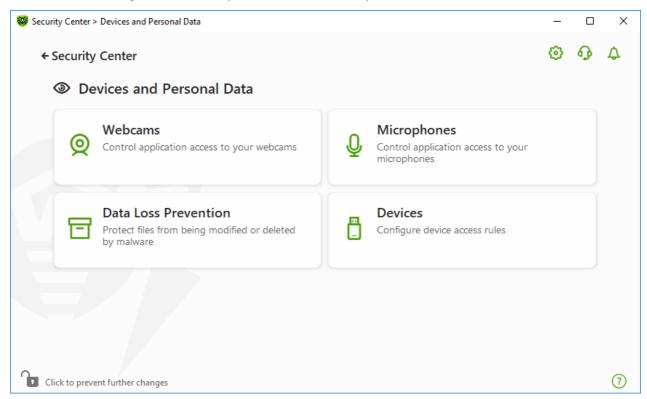


Figure 80. Access to the Microphones window

In this section:

- Dr.Web reaction to application access to microphones
- Access for specific applications

Dr. Web reaction to application access to microphones

In the drop-down window, select an operation mode to be applied to all applications.

- Allow—applications are allowed to access microphones. This option is selected by default.
- **Block**—applications cannot access microphones.
- **Ask**—on every application attempt to access a microphone, you are prompted to select a further action for the application: allow or block access to the microphone.



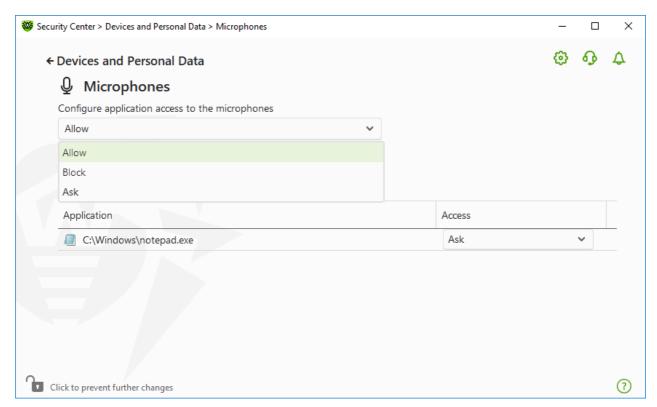


Figure 81. Select Access Mode for Applications

Access for specific applications

To configure access rules for specific applications

- 1. Click \bigoplus .
- 2. In the open window, click the **Browse** button and select an application that you want to create a rule for.
- 3. Select the microphone access mode in the drop-down list.



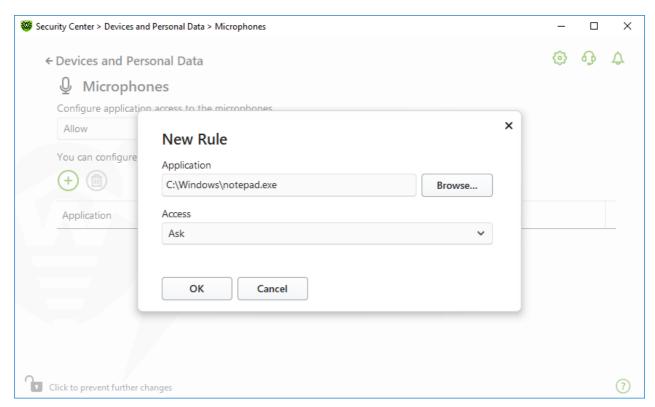


Figure 82. Creating access rule for an application

Application list

You can edit access rules for applications.

- To edit an application rule for a certain application, select a new value in the drop-down menu for this application.
- To delete a rule, select an application from the list and click (a). Click **OK** to confirm the deletion.

Receiving notifications

When access to microphones is blocked for a process, a notification is displayed. If necessary, you can <u>configure</u> desktop and email notifications.

See also

• Notifications

13.3. Data Loss Prevention

To protect content of important folders from being changed by malicious software, use the *Data Loss Prevention* feature. With this feature enabled, you can view and add files to a protected folder, however, any modification or removal of files from this folder is blocked. To



allow access to a folder for applications, add necessary applications to exclusions. You can also restore previously saved copies.

To open the Data Loss Prevention window

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Devices and Personal Data** tile.
- 3. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open a.). Otherwise, click the lock ...
- 4. Click the **Data Loss Prevention** tile.

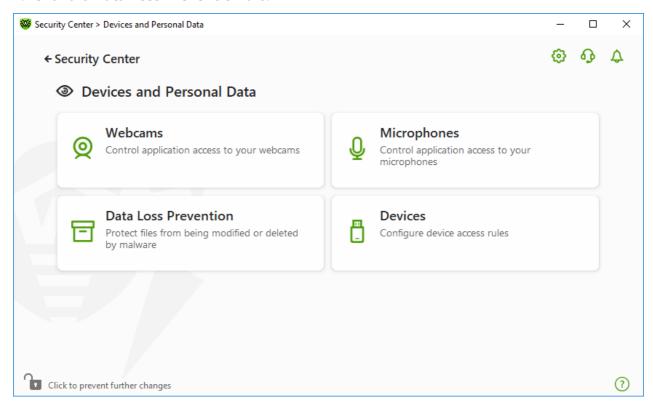


Figure 83. Access to the Data Loss Prevention window

In this section:

- Dr.Web operation with previously saved file copies
- Manage protected folders
- Exclusions
- Restore and delete saved copies

Dr. Web operation with previously saved file copies

Beginning from the version 12.0, you do not have an option to save file copies. As an alternative to the feature of saving copies, a new feature of protected folders is used from now



on.

As the operation principle has been changed, you should configure protection of folders again. Folders that were protected in previous versions of program are added to the list of protected folders, regardless of whether copies of these folders have been saved or not. At the first program launch after updating to version 12.0, a notification appears informing you about switching the file backup feature to the protected folders feature:



Figure 84. Notification on changing the component operation principle

In this notification, you can also see the list of all detected folders and files for which the protection has been enabled. If the folder cannot be added to the list of protected ones, it is marked with sign. System folders, folders to which an access has been blocked in Parental Control, and separate files cannot be protected.

By default, the protection of the folders, that were transferred from previous product versions, is disabled. To protect such folders, go to the **Data Loss Prevention** window and check necessary folders in the **Enable protection** column.

You can also <u>restore</u> file copies saved in previous versions.



Notifications

After the program upgrade to the version 12.0, you are notified about the changes in Data Loss Prevention operation principals:

- Right after the computer restart, in the center of the screen, the notification on changing the component operation principle is shown. See the figure <u>84</u>.
- In Notification Feed, the notification on changes in the method of folder protection. To access the new settings of folder protection, click **Configure protection** button. The notification is deleted after that.

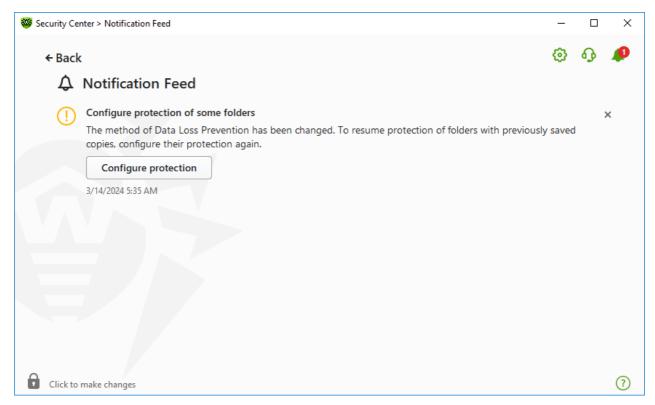


Figure 85. Notification in the feed

• When you open the **Data Loss Prevention** window for the first time after the program upgrade, a notification with the list of files and folders that cannot be protected is displayed.



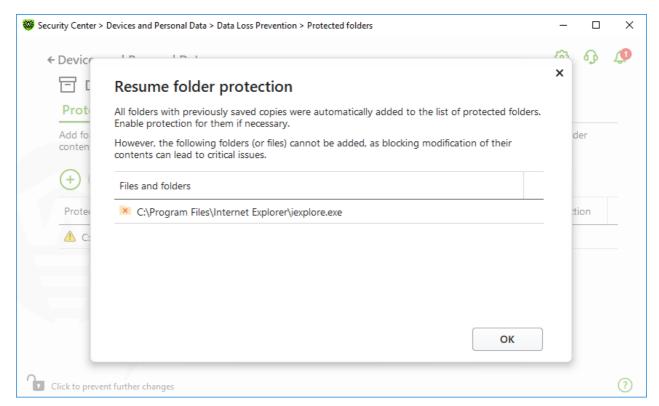


Figure 86. Notification on the first visit of the Data Loss Prevention window

Protected folders

For each folder, you can configure application access parameters. You can view and copy the protected folder. You can also create new elements in this folder. The processes that create the new elements can modify them until these processes are completed. When an application attempts to access the folder, a notification on access blocking will be displayed.



If a threat is detected in files in protected folders, only Dr.Web can still remove and modify them.

If you add a folder to the list of protected folders, a default rule is applied to it. Thus, any modification and removal of the folder content is restricted for all applications, except those from the list of trusted applications. To view this list, visit the website https://products.drweb.com/services/data_protection/. The list contains the most popular applications, for example, some Microsoft and Adobe applications. System processes, such as explorer.exe, are not included into the list of trusted applications as they can be used by malicious objects to attack the system.



It is restricted to add system folders to the list of protected ones. This may lead to critical system operation errors.

Data Loss Prevention applies only to local files and folders (physically located on your device) within the same operating system on which the protection is configured. If you have



several operating systems on the same computer, you should configure Data Loss Prevention separately on each system. Protection of network files and folders is not possible.

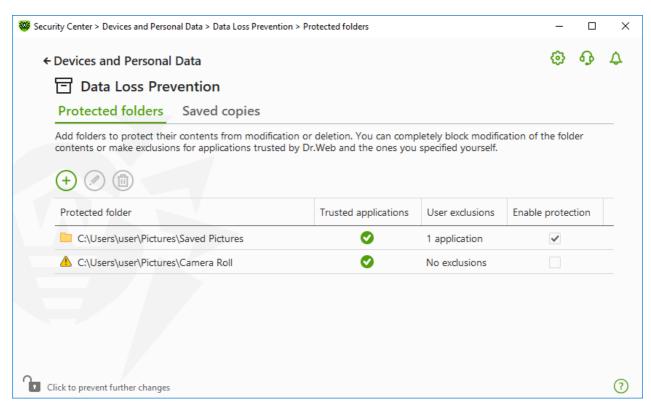


Figure 87. Protected folders

In the table, you can see information on:

- protected object,
- number of exclusions from a general rule, and
- protection status.

To activate protection, select the **Enable protection** check box for the necessary object. If this check box is cleared, the folder is not protected any more. It is displayed with the ... icon.

The following management elements are available to work with objects in the table:

- The $\stackrel{+}{\oplus}$ button—adding an object to the list of protected objects.
- The button—editing elements in the table.
- The button—removing an object from the list of protected objects.

To add a folder to the list of protected folders

1. Click the button. In the open window, select the necessary object by clicking the **Browse** button.



- 2. If necessary, enable or disable access to the folder for trusted applications. This option is enabled by default.
- 3. You can also <u>specify applications</u> that will have full access to an object regardless of the general settings.

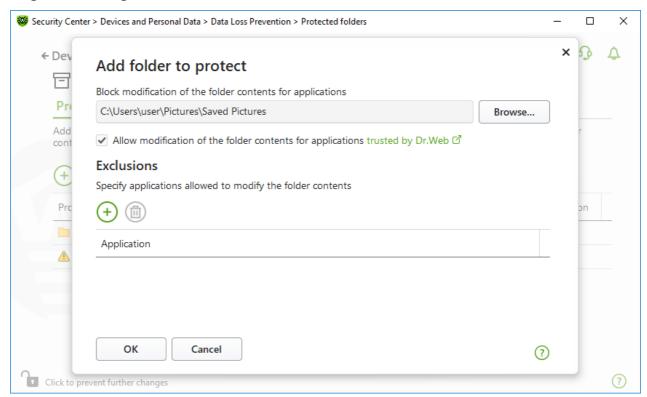


Figure 88. Adding a protected folder

Exclusions

The number of applications that have full access to the protected folder is displayed on the main window of Data Loss Prevention in the **User exclusions** column.

To add an application to the exclusions

- 1. In the <u>Data Loss Prevention</u> window, click to add a new folder to the list of protected.
- 2. In the open window, click . Select an application that will have full access to the objects in the protected folder.
- 3. Click OK.

To edit the list of exclusions for protected folders

- 1. Select a folder from the list and click .
- 2. At the bottom of the open window in the table, you can see all applications that have full access to the selected folder.
 - To add a new application, click +.



- To delete an application from the list of exclusions, click .
- 3. Click OK.

Saved copies

The tab is available only if you have copies of files saved in the previous versions of the program. This function allows you to restore and remove saved copies. However, you cannot save new copies.

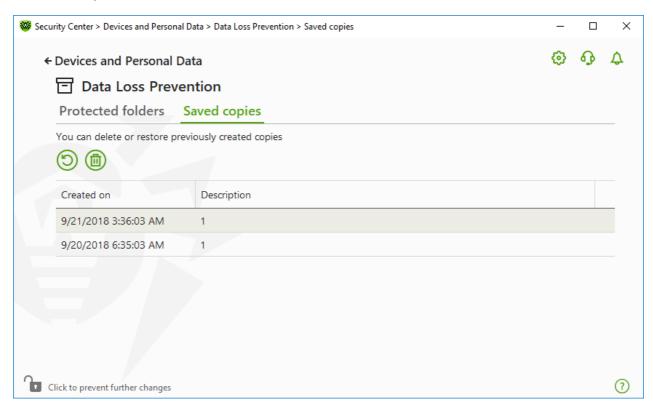


Figure 89. List of saved copies

Removal of created copies

You may also delete existing copies to free up some disk space (deleting the copies will not affect the original files). To do that, select the necessary copy and click the button.

Restoring files

If any threat has caused corruption of your files, you can restore copies of these files created on a specific date. To do that:

- 1. Select the necessary copy (the date when the copy was created is displayed in the left column) and click the button.
- 2. In the open window, specify the path to the folder to which the files will be restored.



13.4. Device Blocking

In the **Devices** window you can restrict access to certain devices or buses and configure the list of allowed devices.



Device access parameters are applied for all Windows accounts.

To open the Devices window

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Devices and Personal Data** tile.
- 3. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 4. Click the **Devices** tile.

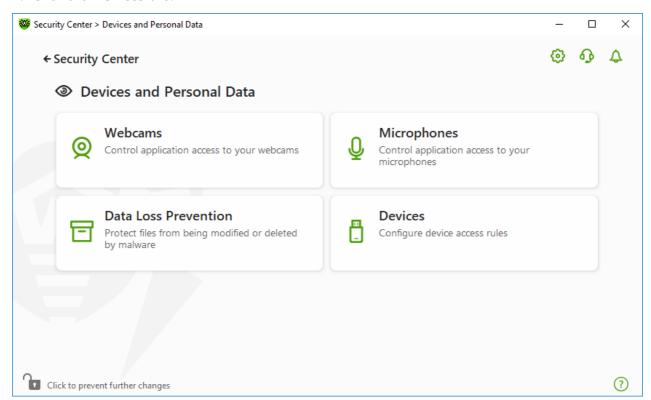


Figure 90. Access to the Devices window

In this section:

- General blocking parameters
- Device classes and buses blocking
- Configuring the list of allowed devices



General parameters

You can enable the corresponding settings to:

- Block sending jobs to printers.
- Block data transfer via local networks and the internet.

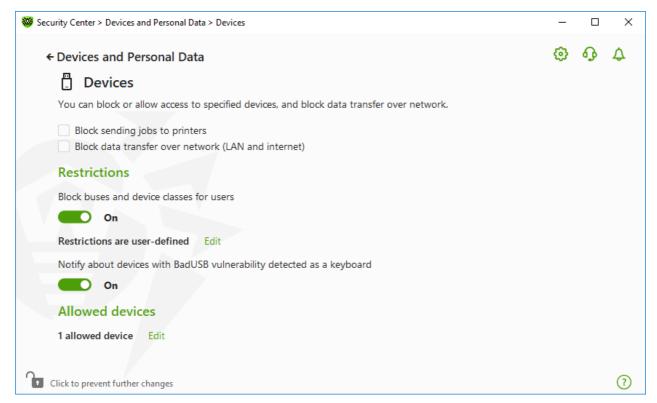


Figure 91. Device blocking parameters

All options are disabled by default.



The **Block removable media** option is only available to the users who had it enabled before the product components were updated on 2/2/2022. If you were not using this option or are installing the product for the first time, use the **Block device classes and buses for users** option to prevent access to data on removable media.

Restrictions

Device blocking parameters

The function of device blocking allows you to block one or several device classes on all the buses and also to block all the devices connected to one or several buses. *Device classes* are all devices that perform the same functions (e.g., printing devices). *Buses* are communication



subsystems for transferring data between functional units of the computer (for example, the USB).

To block access to the selected device classes or buses

- 1. Enable the **Block device classes and buses for users** option by using the switcher **...**.
- 2. Click **Edit** link.
- 3. In the open window, you can <u>select device classes or buses</u> that you want to restrict access to.

Notification on BadUSB vulnerable devices

Some of the infected USB devices can be identified by your computer as a keyboard. If you want Dr.Web to check whether the connected USB device is a keyboard, enable the **Notify about devices with BadUSB vulnerability detected as a keyboard** option. In this case, when a keyboard is connected, you are prompted to press the specified keys.

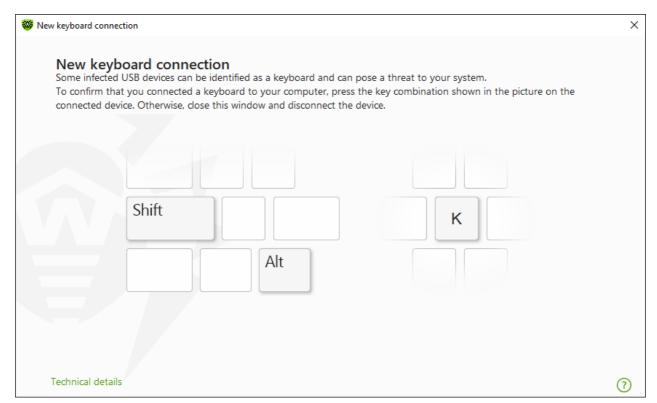


Figure 92. Keyboard unblock window

When you click the **Technical details** link, a window with a detailed information on the device opens.



Allowed Devices

After you restrict access to some buses or device classes, you can allow access to certain devices by adding them to the list of allowed devices. You can also add a certain device to this list if you do not want it to be checked for BadUSB vulnerability.

To add devices to the list of allowed devices, in the **Allowed devices** option click **Edit** (the link is active if restrictions are set). In the open window, you can <u>generate a list of devices</u> to which the access restrictions are not applied.

13.4.1. Bus and Device Class Blocking

To open the Device classes and buses window

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Devices and Personal Data** tile.
- 3. In the open window, click **Devices** tile.
- 4. In **Restrictions** setting group, enable the **Block device classes and buses for users** option by using the switcher ...
- 5. Click Edit.
- 6. In the open window, you can select device classes or buses that you want to restrict access to.

The window contains a table with the information on blocked buses and device classes. By default, the table is empty. After adding buses or classes to the block list, they are displayed in the table. The line with the blocked bus displays all blocked classes on this bus.



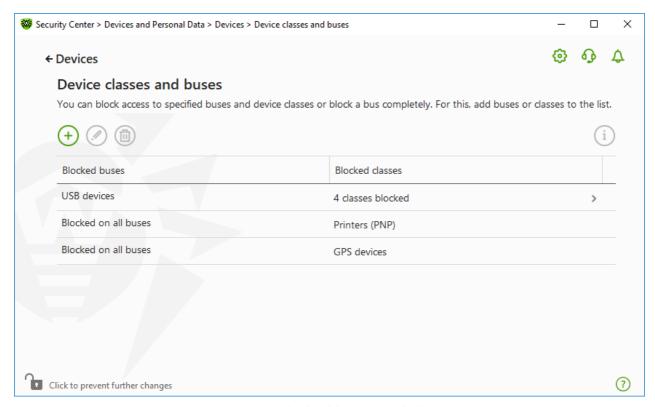


Figure 93. Blocked buses and classes

In the **Blocked classes** column, you can see the number of blocked classes on the corresponding bus. If several classes are blocked on a bus, they are displayed as a drop-down menu.

Class blocked on all buses is grayed out.

The following management elements are available to work with objects in the table:

- The $\stackrel{\textcircled{+}}{=}$ button—adding an object to the block list.
- The button—editing the settings for the selected object in the table.
- The button—removing the selected object from the block list.

You can view detailed information on the blocked bus and blocked classes on it. For that, select the necessary line and click i.

Bus blocking

- 1. To block the entire bus or some devices on a certain bus click $\stackrel{\leftarrow}{+}$.
- 2. Select an object to be blocked from the drop-down menu: **Bus**. Click **Next**.



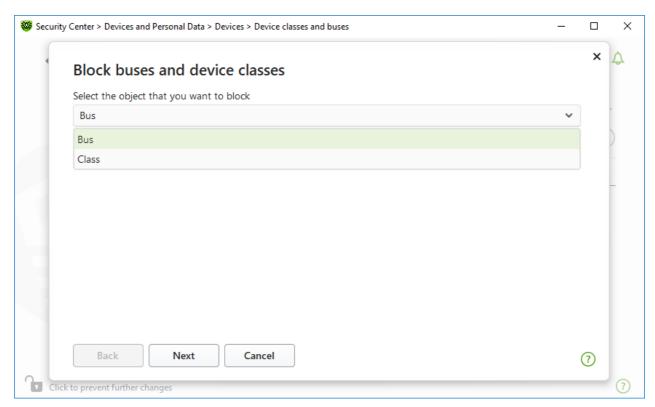


Figure 94. Selecting an object to be blocked

3. Select the bus type. Click **Next**.

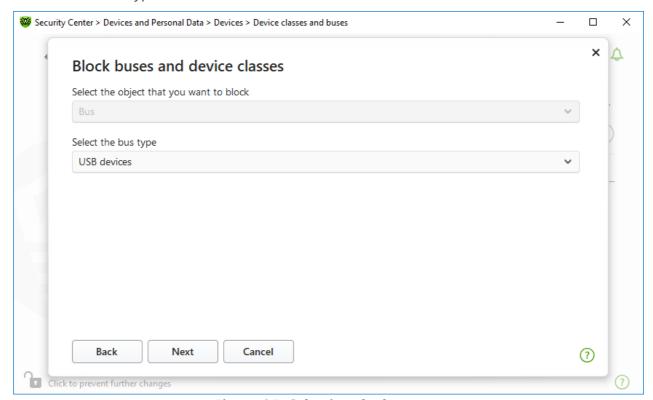


Figure 95. Selecting the bus type

- 4. Select the blocking type and click **Next**:
 - Completely—to block all device classes on the selected bus;



• **Partially**—to open a window where you can select device classes to be blocked on the selected bus.

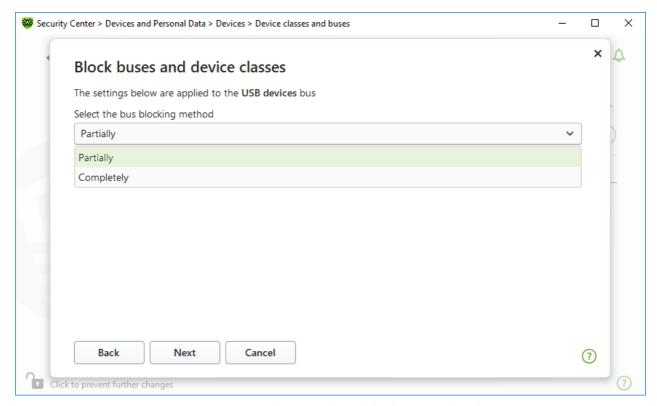


Figure 96. Selecting a bus blocking method

5. If you have selected the **Partially** option, in the open window check the classes on the list to be blocked. Click **Block**.

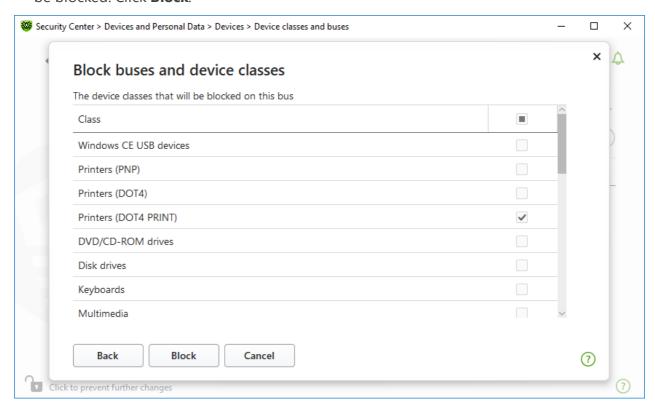


Figure 97. Selecting device classes on a bus



Device class blocking

- 1. To block one or several classes, click +.
- 2. Select an object to be blocked in the drop-down menu: Class. Click Next.

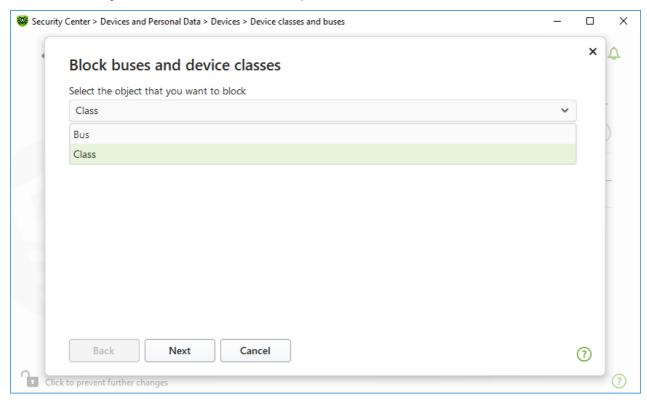


Figure 98. Selecting an object to be blocked

3. Check the classes on the list to be blocked. Click **Block**.



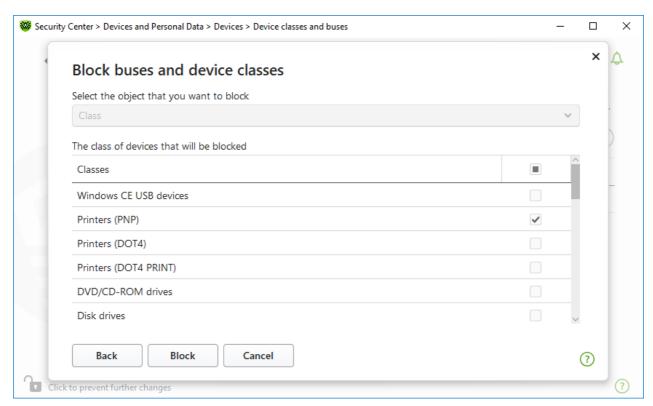


Figure 99. Selecting device classes



To block the device connected before the function activation, it is required to reconnect the device or to reboot the system. The access blocking function affects only devices connected after its activation.

If you block the USB bus, the keyboard and the mouse are added to the exclusions.

Receiving notifications

You can <u>configure</u> displaying pop-ups and receiving notifications by email on blocking a device.

13.4.2. Allowed Devices

To open the Allowed devices window

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Devices and Personal Data** tile.
- 3. In the open window, click **Devices** tile.
- 4. In the **Allowed devices** group, click **Edit**.

The **Allowed devices** window contains information on all the devices added to the list of allowed devices. This information is in the table:



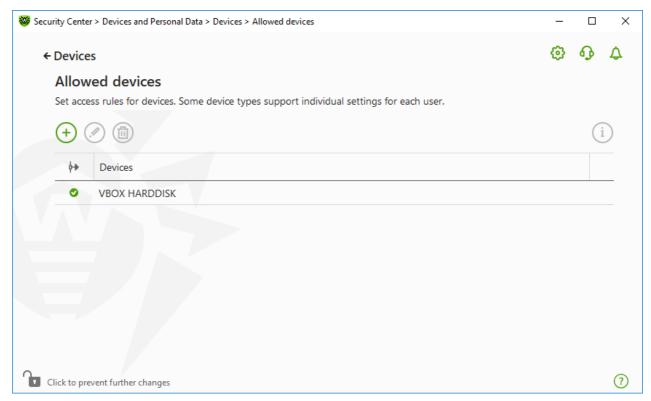


Figure 100. Allowed Devices

The following management elements are available to work with objects in the table:

- The + button—adding a rule set for the device.
- The button—editing a rule set for the device.
- The button—deleting a rule set for the device.

You can view detailed information on a device added to the list of allowed devices. For that, select the necessary line and click (i).

In the (Rule type) column, you can see two rule types:

- — the **Allow all** rule is set.
- @—the **Read-only** rule is set.

To add a device to the list of allowed devices

- 1. Make sure that the device is connected to the computer.
- 2. Click . In the open window, click **Browse** and select the device. You can use a filter to view only connected or only disconnected devices in the table. Click **OK**.



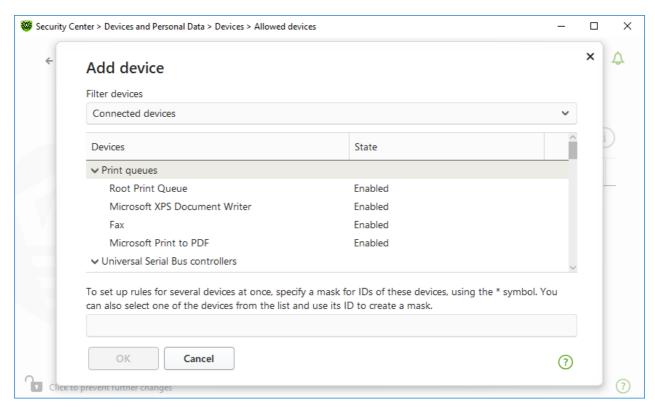


Figure 101. Adding a device to the list of allowed devices

3. You can configure access rules for devices with file systems. For that, from the **Rule** column, select one of the following modes: **Allow all** or **Read-only**. To add a new rule for a specific user, click . To delete a rule, click .

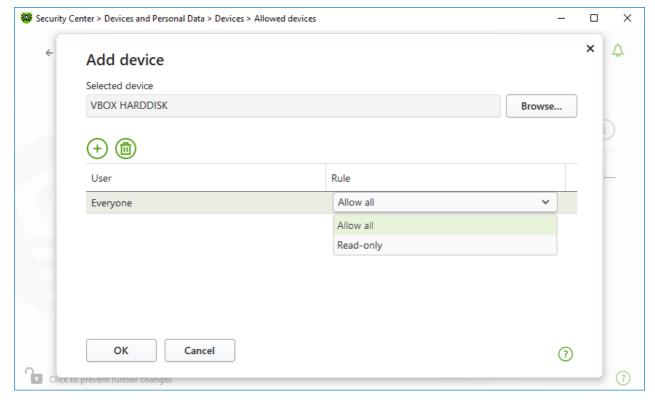


Figure 102. Selecting a rule for a certain user



4. To save the changes, click **OK**. To close the window without saving the changes, click **Cancel**. You will return to the list of allowed devices.



14. Parental Control

The Parental Control component allows you to manage the access to websites, files, and folders. You can also set time limits on internet and computer usage.

By default, Parental Control is enabled for each account and operates in the **No restrictions** mode.

To enable or disable Parental Control

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Parental Control** tile. The **Parental Control** window opens.

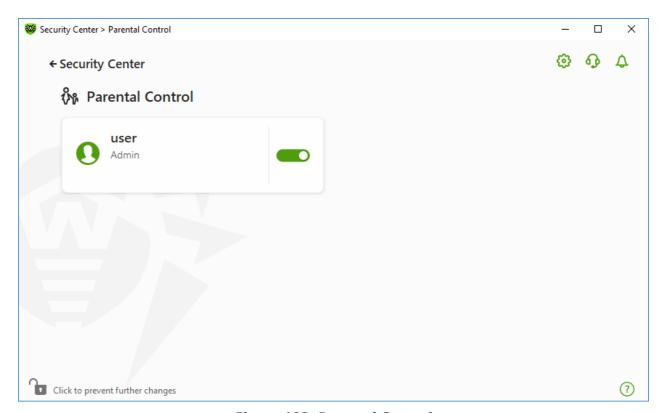


Figure 103. Parental Control

- 3. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 4. Enable or disable Parental Control for the required user using a corresponding switcher —.



New users are listed only after the first login into their account.



Configuring Parental Control for a certain user

Before setting restrictions for a user, make sure that this user does not have administrative privileges. Otherwise, the user could change the Parental Control component parameters and disable the access restrictions.

To open Parental Control parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 2. In the Parental Control window (see figure <u>Parental Control</u>), click the tile with the user name for whom you want to configure Parental Control. A window with Parental Control parameters opens for the selected user.

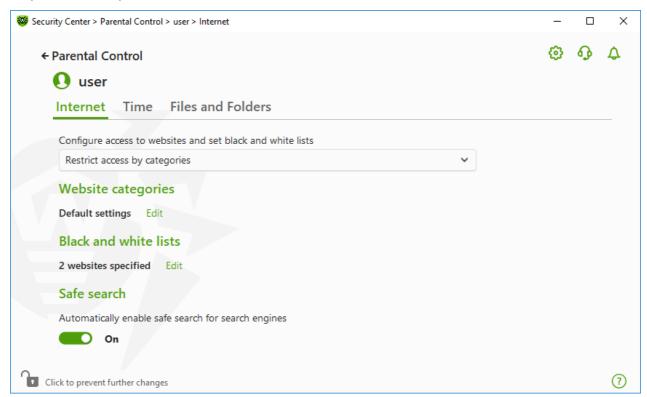


Figure 104. Configuring Parental Control

- 3. Select a necessary tab to configure Parental Control.
 - **Internet**—configure access to internet resources. The tab allows you to restrict users from visiting unwanted websites (pages on violence, gambling, etc.) or allow access only to certain websites. See the <u>Access to internet Resources</u> section.
 - **Time**—configure access to the computer and the internet. The tab allows you to set time limits on use of your computer and the internet on selected time and days of the week. See the <u>Time limits</u> section.
 - **Files and Folders**—configure access the to file system. The tab allows you to restrict access to certain files or folders (on local drives and removable media). See the <u>Access to files and folders</u> section.





If the user has a Windows account with administrator rights, you should change its type to Standard User.

How to change the user's account type

On Windows XP

- 1. Open the **Start** menu, then click **Control Panel** and select **User accounts**.
- 2. Select the account which type you would like to change and click **Change account type**.
- 3. Select the user's account type: **Limited account**.
- 4. Click **Change account type** to save the changes.

On Windows Vista and Windows 7

- 1. Open the **Start** menu, then click **Control Panel** and select **User accounts**.
- 2. To change the account type, click **Manage another account**.
- 3. Select the account which type you would like to change and click **Change account type**.
- 4. Select the user's account type: **Standard User**.
- 5. Click **Change account type** to save the changes.

On Windows 8

- 1. Open Control Panel and select User Accounts and Family Safety.
- 2. Click **Manage another account** button.
- 3. Select the account which type you would like to change and click **Change account type**.
- 4. Select the user's account type: **Standard User**.
- 5. Click **Change account type** to save the changes.

On Windows 8.1

- 1. Point to the lower-right corner of the screen, move the mouse pointer up, click **Settings**, and then click **Change PC settings**.
- 2. Click **Accounts**, and then click **Other accounts**.
- 3. Select the account which type you would like to change and click **Change account type**.
- 4. Select the user's account type: **Standard User**.
- 5. Click OK.



On Windows 10

- 1. Select the **Start** button, then select **Settings**.
- 2. In the open window, select **Accounts**.
- 3. On the left side of the window, select **Other users**.
- 4. Click the icon of an account which type you would like to change and click **Change account type**.
- 5. Select the user account type: **Standard User**.
- 6. Click OK.

On Windows 11

- 1. Select the **Start** button, then select **Settings**.
- 2. In the open window, select **Accounts**.
- 3. In the center of the window, select **Other users**.
- 4. Click the icon of an account which type you would like to change and click **Change account type**.
- 5. Select the user account type: **Standard User**.
- 6. Click OK.

If there is only one account in the system, you cannot change its type to Standard User. For more information, please refer to Microsoft technical support website.

Receiving notifications

If necessary, you can configure desktop and email notifications on Parental Control actions.

14.1. Access to Internet Resources

On the **Internet** tab, you can restrict users from visiting unwanted websites (pages on violence, gambling, etc.) or allow access only to certain websites. By default, the **No restrictions** mode is set for all users. The following modes are also available:

- Restrict access by categories
- Allow access only to websites from the white list



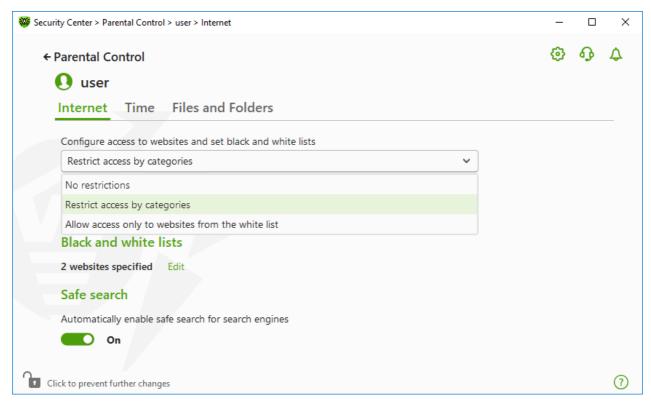


Figure 105. Selecting the mode of Parental Control

Restrict access by categories mode

In the mode, you can specify website categories to block. The same website can be assigned to several different categories. In this case, Parental Control blocks access to the site if it belongs to at least one of the categories included in restrictions list. To categorize the websites, the data from Dr.Web cloud service is also used.

In this mode you can also add websites to block or allow access to the resources regardless of other restrictions. To do so, use <u>black and white lists</u>.



Before restricting access to categories, clear the browser cache.

If the option **Scan encrypted traffic** is disabled in the <u>Network</u> section of program settings, the traffic of websites that use encryption (e.g., HTTPS protocol) will not be analyzed.

To allow or block access to websites of a certain category

1. In the **Website categories** group, click **Edit**. The window with blocking categories parameters opens.



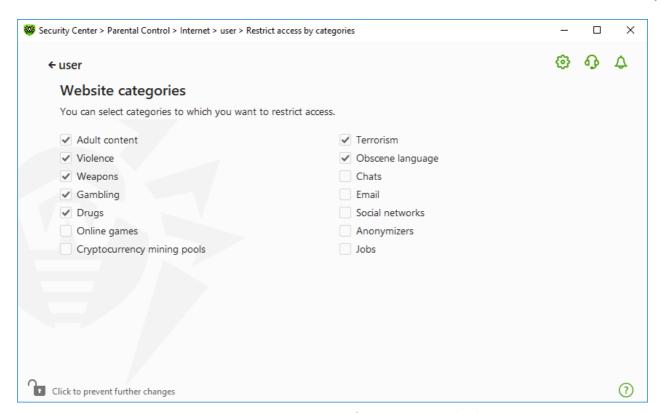


Figure 106. Categories of websites to block

2. Select or clear the check box to allow or block access to websites of a certain category.

Categories of internet resources

Category	Description
Adult content	Websites that contain pornographic or erotic materials, dating sites, etc.
Violence	Websites that encourage violence or contain materials about various fatal accidents, etc.
Weapons	Websites that describe weapons and explosives or provide information on their manufacturing.
Gambling	Websites that provide access to online games of chance, casinos, auctions, including sites for placing bets, etc.
Drugs	Websites that promote use, production or distribution of drugs, etc.
Online games	Websites that provide access to games using the permanent internet connection.
Terrorism	Websites that contain aggressive and propaganda materials or terroristic attacks descriptions, etc.
Obscene language	Websites that contain the obscene language (in titles, articles, etc.).
Chats	Websites that offer a real-time transmission of text messages.



Category	Description
Email	Websites that offer the possibility of free registration of a web mailbox.
Social networks	Different social networks: general, professional, corporate, interest-based; thematic dating sites.
Anonymizers	Websites that allow the user to hide personal information and providing the access to the blocked web resources.
Cryptocurrency mining pools	Websites that provide an access to common services for cryptocurrencies mining.
Jobs	Websites that are used to post job vacancies and search for jobs.

Allow access only to websites from the white list mode

In this mode, the access to all websites except the listed in white list is blocked.



If selecting the **Allow access only to websites from the white list** mode, such websites can be displayed incorrectly. Banners and other site elements integrated with external resources will not be displayed.

Black and white lists

You can set black and white lists of websites access to which is allowed or blocked regardless of other Parental Control parameters.



Before adding a site to black or white lists, clear the browser cache if the site has been previously opened in this browser.

Configuring black and white lists of Parental Control

1. In the **Black and white lists** group, click **Edit**. The window with black and white list settings opens.



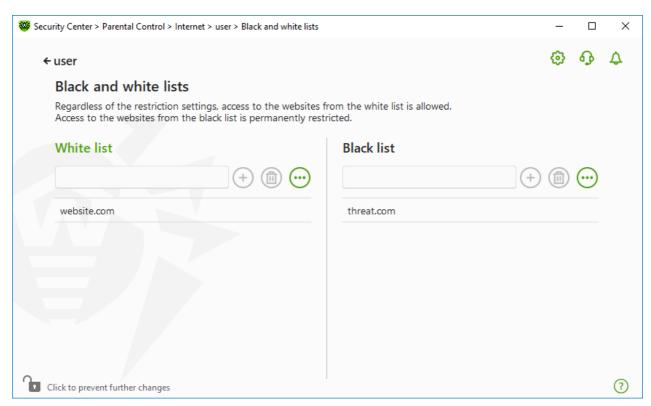


Figure 107. Configuring black and white lists of Parental Control

- 2. Add the object to the **White list** field to allow access to the website. Add the object to the **Black list** field to prevent access to the website. You can enter a mask, a domain or a URL address of an object to white or black lists:
 - To add certain websites to the list, enter the mask of their names. Letters, numbers, colon (:), forward slash (/), hyphen (-), question mark (?) and asterisk (*) characters are allowed. Masks will be added in the mask://... format.

A mask denotes the common part of object names, at that:

- The asterisk (*) character replaces any, possibly empty, sequence of characters.
- □ The question mark (?) replaces any one character.

Examples:

- mask://*.com/—will allow processing of all the domain .com websites;
- " mask://mail—will allow processing of all websites whose names contain the "mail" word:
- mask://ma?l.com/—will allow processing of all websites whose names contain "ma" and "l.com" with any character between them.



If you use the question mark (?) at the beginning of the mask, only the minimum number of random characters is processed. For example: mask://???.com will allow processing of such websites as exe.com, example.com, example.com/test.command.



• To add a website within a particular domain to the list, enter the domain name with or without a dot (.) character at the end of the address. Letters, numbers and forward slash (/) are allowed.

Examples:

- example.com—will allow processing of example.com and its subdomains *example.com;
- example.—will allow processing of subdomains *example.com but not example.com itself;
- com—will allow processing of all subdomains of the domain .com, such as example.com or www.test.com.
- To add websites whose URL contains a certain text, enter this text in the input field. Letters, numbers, forward slash (/) and hyphen (-) characters are allowed.

Examples:

- example.com/test—will allow processing of such webpages as example.com/test11, template.example.com/test22, and so on;
- example—will allow processing of such webpages as example.com, example.test.com, test.com/example, test.example222.com, and so on.

Your input may be unified. For example: the https://www.example.com address will be transformed into example.com.



Masks, domains and addresses are not case-sensitive. This means that example.com and ExAMple.COM will be processed the same way.

- 3. Click to add the website to the list.
- 4. To remove an address from the list, select the corresponding item and click .
- 5. Click to access the following options:
 - **Edit**—allows you to edit the selected address on the list.
 - **Export**—allows you to save the created list of addresses to be used on another computer where Dr.Web is installed.
 - **Import**—allows you to use the list of addresses created on another computer.
 - Clear all—allows you to remove all objects from the list of addresses.
- 6. To add other websites, repeat steps 2 and 3.

Safe search

The **Safe search** option affects results of search engines. This option allows you to exclude unwanted webpages from search results by using the search engine tools.

To activate the **Safe search** function, set the switcher **On** state.



14.2. Time Limits on Computer and Internet Use

On the **Time** tab, you can set time limits on use of your computer and the internet. By default, the **No restrictions** mode is set for all users.

You can set time limits using a table with timeslots or by specifying time intervals.



Setting time limits on computer or the internet use enables automatically the **Block changing the system date and time** option on the <u>Self-Protection</u> page of the main settings.

Table of time limits on computer and internet use

The table is available in the Parental Control **No restrictions** mode. If the table is changed, the **No restrictions** mode is switched to **User-defined** automatically.

Using the table, you can specify hours and days of the week when the user is allowed to use the computer or the internet. When comes the time of computer access restriction, the user will be logged off automatically. While the restriction for a specific user's account is in effect, this user cannot log in to it. When internet use restriction is in effect, all internet content stops to download.

You can check the time remaining until access restrictions activation in the Dr.Web <u>menu</u> by clicking the tile **Time Limits**.

To set time limits in the table mode

- 1. Select days of the week and hours when the user is restricted from accessing the internet and then mark the corresponding time slots blue:
 - To mark one time slot, click it once.
 - To mark several adjacent time slots, click the first slot once and select the rest of required squares while holding down the mouse button.
 - To remove all time slots, right-click anywhere within the table and select **Clear all**.
- 2. Select days of the week and time when the user is restricted from using the computer, and then mark the corresponding time slots red.
 - To mark one time slot, click it twice.
 - To mark several adjacent time slots, click the first slot twice and select the rest of required squares while holding down the mouse button.
 - To remove all time slots, right-click anywhere within the table and select **Clear all**.



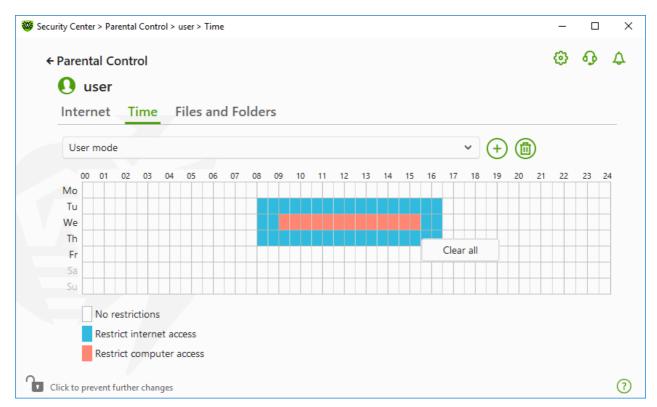


Figure 108. Table of computer and internet use

You can also create different setting profiles for one user. This option allows you to easily switch between existing setting profiles (for example, you can set different time limits for the academic year and school holidays).

Adding and removing a setting profile

- To create a setting profile, click +. The current table settings are saved. If you change the settings, the settings will be saved to the profile automatically.
- To remove a setting profile, click .

Interval time limit on computer use

To specify an amount of time per day a user can spend using the computer, select the **Interval time limit** mode. In this mode, a user can manage time during the day on their own. Please note that this mode does not allow you to set time limits on internet use. You can do it in the table mode.



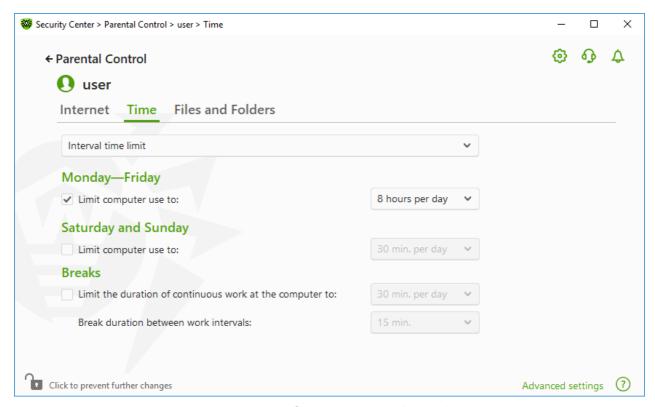


Figure 109. Configuring interval time limit

You can set time limits on computer use during the following periods:

- From Monday to Friday
- On Saturday and Sunday

In the **Breaks** group, you can set duration of uninterrupted computer use and break duration.

When clicking the **Advanced settings** link the **Night time** settings group becomes available, where you can restrict access to the computer during the night-time period regardless of the total number of hours when access is allowed.

14.3. Access to Files and Folders

On the **Files and Folders** tab, you can restrict access to files and folders. By default, no restrictions are set.

To enable or disable access restriction to files and folders for a user, use switcher



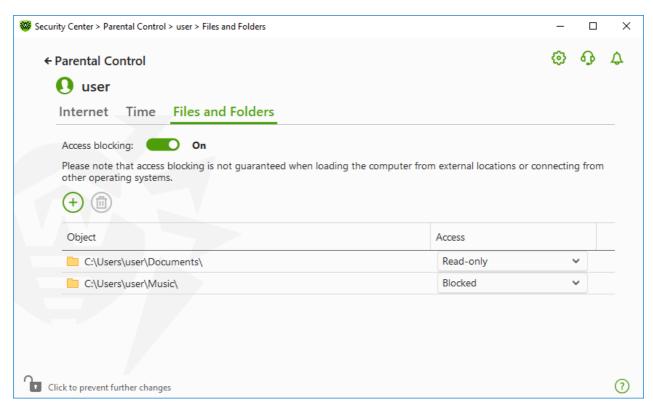


Figure 110. Managing the access to files and folders



Access restriction is not guaranteed when loading the computer from removable media or addressing the objects from other operating systems installed on your computer.

It is restricted to add system folders to the list of blocked ones. This may lead to critical system operation errors.

To restrict access to files and folders

- 1. Enable restriction of access to files and folders using the switcher
- 2. To add an object to the list, click $\stackrel{\textcircled{+}}{+}$ and select a file or a folder.
- 3. Select an access mode for the added object:
 - **Blocked** to block access to the selected object completely.
 - Read-only (selected by default) to allow reading of the object (for example, viewing a
 document or an image, starting an executable file). The object is not allowed to be
 deleted, removed, and modified.

To remove an object from the list, select it and click .



15. Tools

In this window, you can provide access to advanced tools to control Dr.Web product.

To open the Tools group of settings

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click the **Tools** tile.

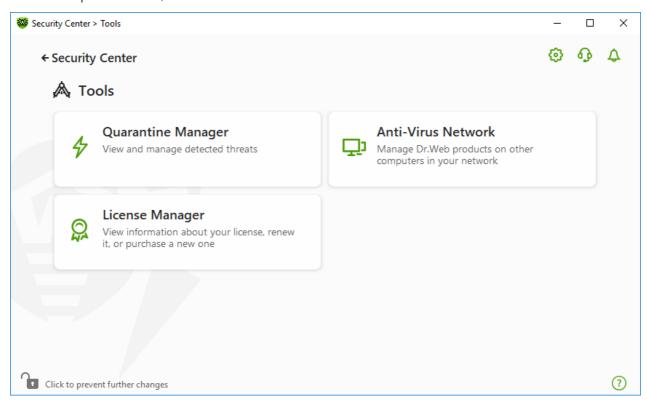


Figure 111. Tools

To open a necessary tool window, tap the corresponding tile.

In this section:

- Quarantine Manager—list of isolated files and a possibility to restore them.
- Anti-Virus Network—remote access to Dr.Web products, installed on other computers within your network.
- <u>License Manager</u>—license information, receiving new license.

15.1. Quarantine Manager

Quarantine Manager is an instrument that allows you to manage isolated files. The quarantine contains files where the malicious objects were detected. Quarantine also stores backup copies



of files processed by Dr.Web. With Quarantine Manager, you can remove, scan again, and restore isolated files.

To open the Quarantine Manager window

- 1. Open Dr.Web menu , then select Security Center.
- 2. In the open window, click the **Tools** tile.
- 3. Click the Quarantine Manager tile.

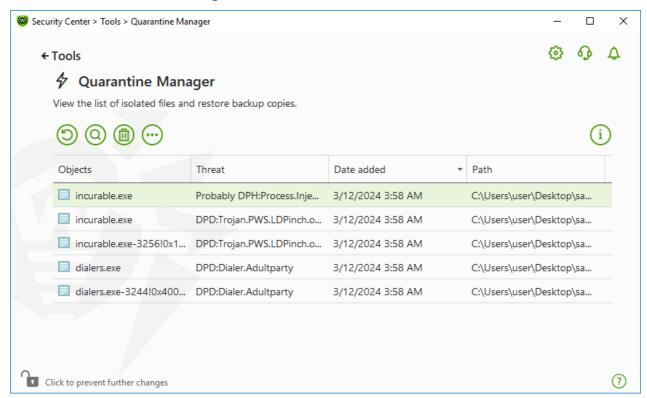


Figure 112. Objects in Quarantine

The central table lists the following information on quarantined objects:

- **Objects**—name of the guarantined object.
- Threat—malware class of the object, which is assigned by Dr.Web when the object is quarantined.
- **Date added**—date and time when the object was moved to the Quarantine.
- Path—full path to the object before it was quarantined.



Quarantine Manager displays objects that can be accessed by your user account. To view hidden objects, you need to have administrator privileges.

By default, backup copies stored in quarantine are not displayed. To view them, click and select **Show backup copies** from the drop-down list.



Managing quarantined objects

In <u>administrator mode</u>, the following buttons are available:

• The (Restore) button—move one or several objects to the selected folder.



Use this action only if you are sure that the object is safe.

Objects added to quarantine after they are installed from the Microsoft Store cannot be restored because they are located in folders protected by the system. If you try to launch a quarantined application, it will be reinstalled.

- The (Rescan) button—scan the file in quarantine again.
- The (Delete) button—delete one or several objects both from quarantine and the system.

You can also access these settings by right-clicking the selected object or several selected objects.

To delete all objects from quarantine at once, click on and select **Delete all** in the drop-down

You can view detailed information on a guarantined object. For that, select the necessary line and click (i).

Advanced

To configure storage and automatic deletion of quarantine records, go to the **Quarantine** Manager settings.

15.2. Anti-Virus Network

This tool allows the user to manage Dr.Web Anti-virus for Windows, Dr.Web Server Security Suite, or Dr.Web Security Space within one product version on other computers of your network.

To open the Anti-Virus Network window

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click the **Tools** tile.
- 3. Click the **Anti-Virus Network** tile.



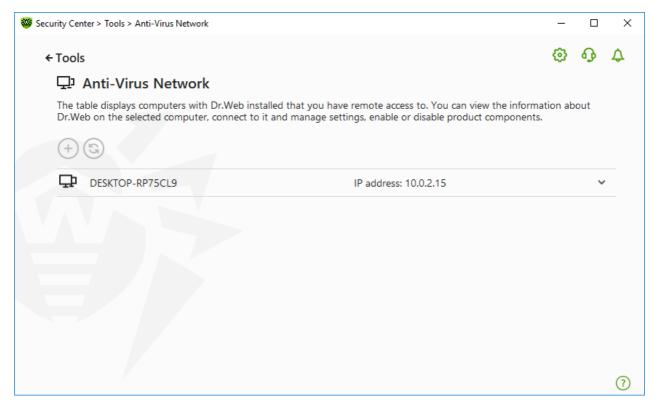


Figure 113. Anti-virus Network nodes

Computers are listed if Dr.Web products installed on these computers allow remote connection. You can allow connection to your Dr.Web on the Anti-virus network settings page.

If the required computer is not on the list, try to add it manually. For this, click \bigcirc and enter an IP-address in a IPv4 or IPv6 format.



If a component is disabled on the station, an exclamation mark is displayed.

Parameters for Anti-Virus Network operation

During anti-virus network operation multicast and UDP requests with following parameters are used:

Parameters for multicast request:

• IP address: 239.194.75.48 or ff08::28 for IPv4 and IPv6 respectively

• Port: 55566

• Polling interval: 2000 ms

Parameters for UDP request:

• Port: 55566



Polling interval: 2000 ms

To connect to remote Dr.Web

- 1. Select a necessary computer from the list. In the expanded line, a detailed information about status of components on the station and about the last update is displayed.
- 2. Click **Connect**.
- 3. Enter the code <u>specified</u> in the settings of the remote anti-virus. An icon for the remote SpIDer Agent appears in the notification area, and the notification about successful connection will be displayed.



You can establish only one connection with a remote Dr.Web product. If one connection is already established, the **Connect** button is disabled.

You can view statistics, enable or disable components, and change their parameters. Anti-Virus Network, Quarantine, Scanner and Data Loss Prevention are not available.

You have also an access to the **Disconnect** option. When choosing this option, the current connection to the remote anti-virus disables.

15.3. License Manager

This tool allows you to view all Dr.Web <u>licenses</u> for your computer. You can also modify the current license, renew it or purchase a new license and activate it.

To open the License Manager window from Security Center

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click the **Tools** tile.
- 3. Click the **License Manager** tile.

To open the License Manager window from the program menu

- 1. Open Dr.Web <u>menu</u> .
- 2. Select **License** item.



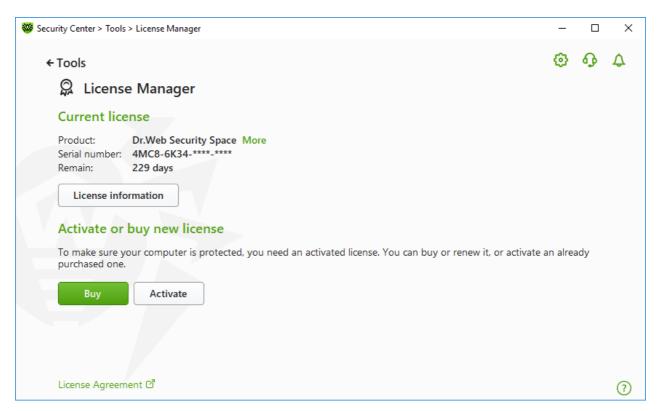


Figure 114. License Manager

To view detailed information on a current license, click **License information**.

To view information on a license that is not currently in use

- 1. Click **License information** to open the License Information window.
- 2. Select the relevant license from the drop-down list.

If the license covers multiple products, the list of all the products is available in the drop-down list by clicking the link **More**.



If you have several licenses activated at the same time, each license will be expiring. To avoid this, specify the serial numbers of previously activated licenses when activating a new one. In this case, the periods of all the licenses will be combined.

To delete a license

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 2. Click **License information** to open the License Information window.
- 3. Select a license that you are going to delete from the drop-down list and click . Please note that the only valid license cannot be deleted.



To set a license as current

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 2. Click **License information** to open the License Information window.
- 3. Select a license that you are going to set as current from the drop-down list, and click \bigcirc .

Once you click the **Buy** button, the program opens the page on the Doctor Web website where you can purchase a new license or renew your current one.

- If you do not have an activated license, the program opens the page where you can purchase a new license. Follow the instructions on the website to purchase and activate a new license.
- If you already have an activated license, the program opens the renewal page where all parameters of the current license will be transmitted. Follow the instructions on the website to purchase and activate the renewal of your license. For the detailed information on license renewal, refer to the <u>Renewing License</u> section.

Once you click **Activate**, the window opens where you can <u>activate a new license</u>.

Advanced

The <u>License Agreement</u> I link opens the license agreement on the Doctor Web official website.



16. Exclusions

In this group, you can configure exclusions from SpIDer Guard, SpIDer Gate, SpIDer Mail and Scanner scans, as well as add sender addresses to black or white lists not to scan the messages for spam.

To open the Exclusions group of settings

- 1. Open Dr.Web menu ₩, then select Security Center.
- 2. In the open window, click **Exclusions** tile.

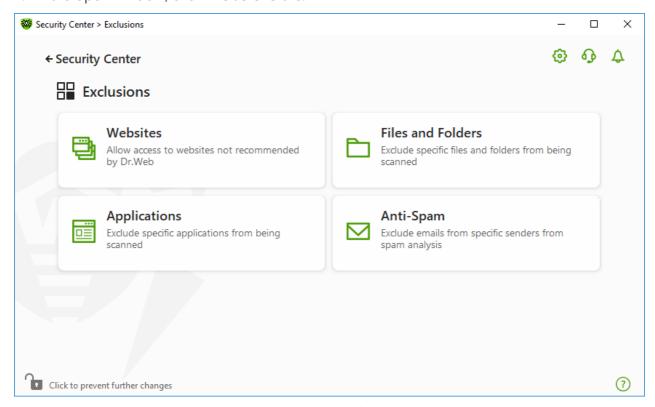


Figure 115. Exclusions

To open exclusion parameters

- 1. Make sure Dr.Web operates in <u>administrator mode</u> (the lock at the bottom of the program window is open **1**). Otherwise, click the lock **1**.
- 2. Click the tile of the corresponding section.

In this section:

- Websites—configure access to websites that are not recommended by Doctor Web.
- Files and Folders—exclude certain files and folders from SpIDer Guard and Scanner scans.
- <u>Applications</u>—exclude specific processes from SpIDer Guard, SpIDer Gate,, and SpIDer Mail scans.



• Anti-Spam—configure SpIDer Mail message scan for spam.

16.1. Websites

You can configure list of websites access to which is allowed regardless of the SpIDer Gate HTTP traffic scan parameters. If the **Block non-recommended websites** option is enabled in SpIDer Gate parameters, you can allow access to specific websites by adding them to the exclusion list. Access to the websites on the list is allowed, however the websites are still scanned for threats.

To configure the list of websites access to which is allowed

- 1. Open Dr.Web menu , then select Security Center.
- 2. In the open window, click **Exclusions** tile.
- Click the Websites tile.

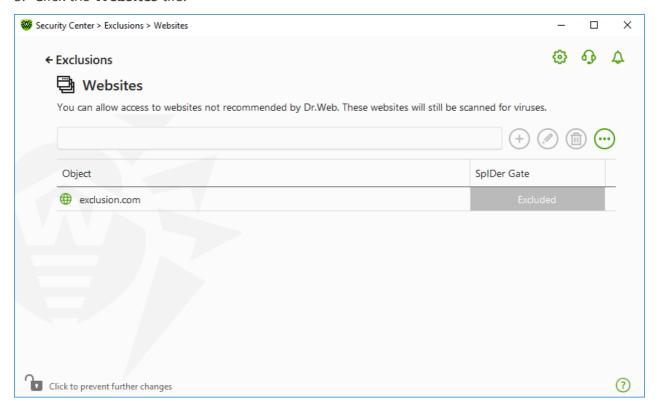


Figure 116. Excluded website list

By default, the list is empty. If you add a website to the list of exlusions, users will be able to access it regardless of other SpIDer Gate parameters. Please note that if this website is added both to the black list of Parental Control and to the exclusions, access will be blocked.

To add domain names to the list

1. In the input field, enter a domain name or a part of a domain name for the website that you want to access regardless of other restrictions:



- To add a certain website, enter its name (for example, www.example.com). It allows access to all the webpages located on this website.
- To allow access to the websites whose URL contains a certain text, enter this text in the input field. Example: if you enter example text, then the access to the addresses example.com, example.test.com, test.com/example, test.example222.ru etc. will be granted.
- To allow access to websites within a particular domain, enter the domain name with a dot (.) character. This allows access to all webpages located on this website. If the domain name includes a forward slash (/), the substring before the slash is considered a domain name, while the substring after the slash is considered a part of address for the websites that you want to access within this domain. For example, if you enter example.com/test, SpIDer Gate will allow access to such webpages as example.com/test11, template.example.com/test22, and so on.
- To add certain websites to the exclusions, enter the mask of their names. Masks will be added in the mask://... format.

A mask denotes the common part of object names, at that:

- The asterisk (*) character replaces any, possibly empty, sequence of characters.
- The question mark (?) replaces any one character.

Examples:

- mask://*.com/—enable opening of all the domain .com websites;
- mask://mail—enable opening of all websites whose names contain the "mail" word;
- mask://ma?l.com/—enable opening of all websites whose names contain "ma" and "l.com" with any character between them.



If you use a question mark (?) at the beginning of the mask, only the minimum number of random characters is processed. For example: mask://???.com will enable opening of such websites as exe.com, example.com, example.org/test.command.

Use a forward slash (/) at the end of the mask to allow processing of the specified number of characters. For example, if you specify the mask mask://???.com/, addresses with exactly three characters before ".com/" will be processed.

Your input may be unified. For example: the http://www.example.com address will be transformed into www.example.com.

- 2. Click the button or press ENTER on the keyboard. The specified address appears on the list.
- 3. To add other addresses, repeat steps 1 and 2.



Managing listed objects

The following management elements are available to work with objects in the table:

- The $\stackrel{+}{\oplus}$ button—adding an address to the exclusion list. The button becomes available if a text field contains any symbol.
- The button—editing the selected website address in the exclusion list.
- The button—removing the selected website address from the exclusion list.
- Click to access the following options:
 - Export—allows you to save the created list of exclusions to be used on another computer where Dr.Web is installed.
 - Import—allows you to use the list of exclusions created on another computer.
 - Clear all—allows you to remove all objects from the list of exclusions.

You can also remove or edit an object by right-clicking the selected object or several selected objects.

16.2. Files and Folders

You can manage the list of files and folders to be excluded from system anti-virus scans by the SpIDer Guard and Scanner components. You can exclude Dr.Web quarantine folders, working folders of some programs, temporary files (paging file), and so on. Archived files can also be excluded from scanning with Scanner.

To configure the list of excluded files and folders

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Exclusions** tile.
- 3. Click the Files and Folders tile.



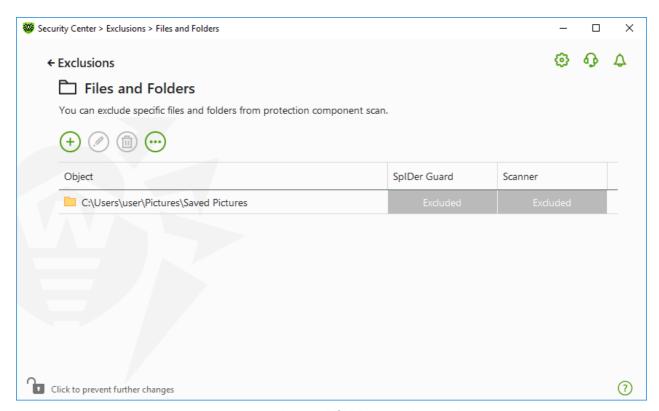


Figure 117. Files and folders exclusion list

The list is empty by default. Add particular files and folders to exclusions or use masks to disable scan of a certain group of files. Any added object can be excluded from the scan of both components or from scan of each component separately.

To add files and folders to the exclusion list

- 1. To add a file or folder to the exclusion list, do one of the following:
 - To add an existing file or folder, click the button. In the open window, click the **Browse** button to select a file or a folder. You can enter the full path to the file or folder or edit the path in the field before adding it to the list.. For example:
 - C:\folder\file.txt—excludes the file.txt file stored in C:\folder.
 - □ C:\folder—excludes all files located in C:\folder and its subfolders.
 - To exclude a file with a particular name, enter the name and the extension without path. For example:
 - file.txt—excludes all files with the name file and the .txt extension located in all folders.
 - file—excludes all files with the name file located in all folders without regard for the extension.
 - To exclude a group of files or folders, enter the mask of their names.

A mask denotes the common part of object names, at that:

The asterisk (*) character replaces any, possibly empty, sequence of characters.



The question mark (?) replaces any character (one).

Examples:

- Report*.doc defines all Microsoft Word documents whose names start with the word "Report" (ReportFebruary.doc, Report121209.doc, etc.)
- " *.exe defines all executable files; i.e., that have the EXE extension (setup.exe, iTunes.exe, etc.)
- photo????09.jpg defines all JPG images which names start with the word "photo", end with "09" and contain exact number of 4 other characters in the middle (photo121209.jpg, photoJoe09.jpg, or photo----09.jpg, etc.)
- file*—excludes all files located in all folders without regard for the extension with the names starting with file.
- file.*—excludes all files with the name file and with all extensions located in all folders.
- C:\folder**—excludes all files located in C:\folder and its subfolders on any nesting level.
- C:\folder*—excludes all files stored in C:\folder. The files stored within subfolders will be scanned.
- C:\folder*.txt—excludes all *.txt files stored in C:\folder. The *.txt files stored within subfolders will be scanned.
- " C:\folder**.txt—excludes all *.txt files stored in the first nesting level subfolders of C:\folder.
- c:\folder***.txt—excludes all *.txt files stored in subfolders of any nesting level within C:\folder. The files stored in C:\folder itself, including *.txt files, will be still scanned.
- To exclude particular files in archives from being scanned by Scanner, enter the mask of the path or the extension. Use forward slash (/) character. For example:
 - C:\folder.zip/file.*—excludes all files with the name file located in the archive C:\folder.zip.
 - " */file.txt—excludes all files file.txt located in all archives.
- 2. In the window of adding a file or a folder, specify the components that should not scan the selected object.
- 3. Click **OK**. The file or folder will appear on the list.
- 4. To add other files and folders, repeat steps 1-3.

Managing listed objects

The following management elements are available to work with objects in the table:

- The $\stackrel{+}{\oplus}$ button—adding an object to the exclusion list.
- The button—editing the selected object in the exclusion list.



- The button—removing the selected object from the exclusion list.

 You can also access these settings by right-clicking the selected object or several selected objects.
- Click to access the following options:
 - Export—allows you to save the created list of exclusions to be used on another computer where Dr.Web is installed.
 - Import—allows you to use the list of exclusions created on another computer.
 - Clear all—allows you to remove all objects from the list of exclusions.

16.3. Applications

You can specify a list of programs and processes which activity will be excluded from scanning by the file monitor SpIDer Guard, the internet monitor SpIDer Gate, and the mail anti-virus SpIDer Mail. The objects that are changed as a result of the activity of these applications are excluded.

To configure the list of excluded applications

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Exclusions** tile.
- 3. Click the **Applications** tile.

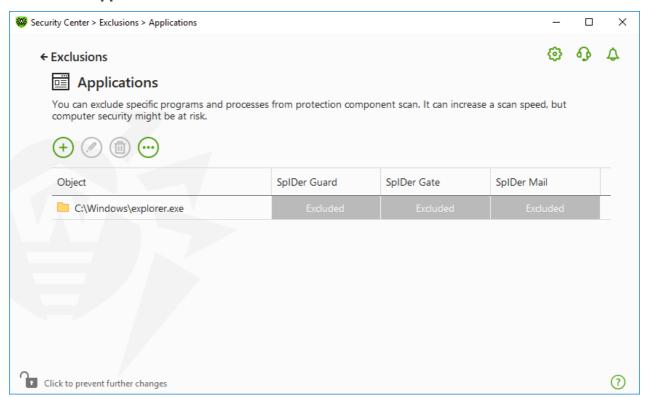


Figure 118. Excluded applications list

The list is empty by default.



To add applications to the list

- 1. To add a program or a process to the exclusion list, click . Do one of the following actions:
 - In the open window, click the **Browse** button to select an application. You can also enter the full path to the application manually or use environment variables, for example:
 - C:\Program Files\folder\example.exe
 - □ %PROGRAMFILES%\folder\example.exe
 - To exclude an application from scan, enter its name in the field. The full path to the application is not required, for example:

```
example.exe
```

• To exclude applications from scan, enter the defining mask of their names.

A mask denotes the common part of object names, at that:

- The asterisk (*) character replaces any, possibly empty, sequence of characters.
- The question mark (?) replaces any character (one).

Examples:

- C:\Program Files\folder*.exe—excludes applications in the folder C: \Program Files\folder from scanning. Applications in subfolders will be scanned.
- " C:\Program Files**.exe—excludes applications stored in the first nesting level subfolders of C:\Program Files.
- C:\Program Files***.exe—excludes applications in subfolders of any nesting level located in the folder C:\Program Files from scanning.
 Applications in the folder C:\Program Files will be scanned.
- □ C:\Program Files\folder\exam*.exe—excludes any application in the folder C:\Program Files\folder from scanning if their names begin with exam. In subfolders, these applications will be scanned.
- example.exe—excludes all applications with the name example and the .exe
 extension located in all folders.
- example* —excludes all types of applications with the name starting with example located in all folders.
- example.*—excludes all applications with the name example in all folders without regard for the extension.
- You can exclude an application from scan by the name of a variable if the name and a value of this variable are specified in the system variable settings.. For example:

%EXAMPLE_PATH%\example.exe – excludes an application by the name of a system variable. A name of a system variable and its value can be specified, if needed, in the operating system settings.



For Windows 7 and higher: Control Panel \rightarrow System \rightarrow Advanced system settings \rightarrow Advanced \rightarrow Environment variables \rightarrow System variables.

A name of a variable in an example: EXAMPLE PATH.

A value of a variable in an example: C:\Program Files\folder.

2. In setting window, specify the components that should not scan the selected application.

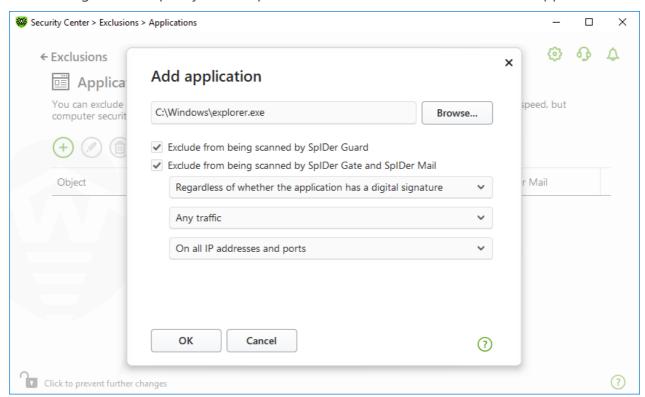


Figure 119. Adding applications to the exclusions

3. For objects, excluded from scans by the SpIDer Gate and SpIDer Mail components, specify additional conditions.

Parameter	Description
Regardless of whether the application has a digital signature	Select this parameter to exclude the application from scan regardless of whether it has a valid digital signature or not.
If the application has a valid digital signature	Select this parameter to exclude the application from scan only if it has a valid digital signature. Otherwise, the application will be scanned by the components.
Any traffic	Select this parameter to exclude encrypted and non-encrypted application traffic from scan.
Encrypted traffic	Select this parameter to exclude only encrypted application traffic from scan.



Parameter	Description
On all IP addresses and ports	Select this parameter to exclude traffic on all IP addresses and ports from scan.
On specific IP addresses and ports	Select this parameter to exclude specific IP addresses and ports from scan. Traffic from other IP addresses and ports will be scanned (unless specified otherwise).
To specify addresses and ports	 To configure exclusion settings follow the guidance below: To exclude a specific domain corresponding to a particular port from scan, enter site.com: 80, for example. To exclude scanning of traffic on a custom port (for example, 1111), enter
	:1111. • To exclude scan of traffic on any port, enter site:.

- 4. Click **OK**. The selected application will appear on the list.
- 5. If necessary, repeat the procedure to add other programs.

Managing listed objects

The following management elements are available to work with objects in the table:

- The $\stackrel{+}{\cup}$ button—adding an object to the exclusion list.
- The button—editing the selected object in the exclusion list.
- The button—removing the selected object from the exclusion list.

You can also access these settings by right-clicking the selected object or several selected objects.

- Click to access the following options:
 - Export—allows you to save the created list of exclusions to be used on another computer where Dr.Web is installed.
 - Import—allows you to use the list of exclusions created on another computer.
 - Clear all—allows you to remove all objects from the list of exclusions.

16.4. Anti-Spam

You can configure lists of senders whose messages will be excluded from spam scan.

To configure black and white lists

1. Open Dr.Web menu , then select **Security Center**.

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- 2. In the open window, click **Exclusions** tile.
- 3. Click the **Anti-Spam** tile.

The SpIDer Mail component reaction on messages from senders from black and white lists:

- If you add an address to the white list, messages from this sender are considered to be safe and are not scanned for spam.
- If you add an address to the black list, messages from this sender are automatically considered as spam.

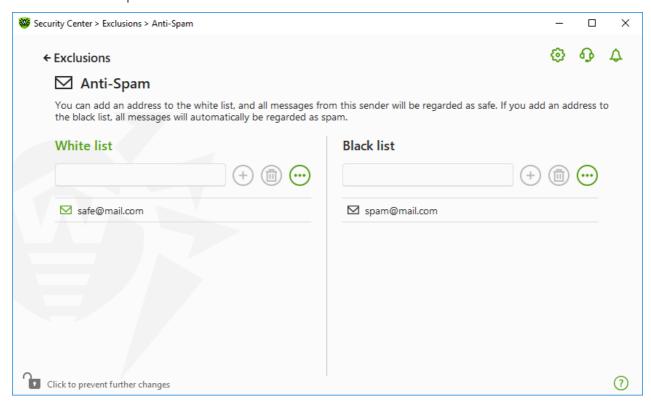


Figure 120. Black and white lists

By default, both lists are empty.

To add email addresses to the exclusions

- 1. Enter an address or a mask for addresses of senders whose email messages you want to process automatically without analysis. Details:
- To add a certain sender, enter the full email address (for example, name@mail.com). This ensures automatic processing of all messages from this sender without analysis.
- To add senders with similar usernames, replace the differing part of their addresses with an asterisk (*) and a question mark (?). Use an asterisk (*) to substitute any character sequence or a question mark (?) to substitute any single character. For example, if you enter name*@mail.com, SpIDer Mail will process automatically messages from name@mail.com, namel@mail.com, namel@mail.com and senders with other similar usernames.



- To process automatically all messages sent from any email address within a domain, use an asterisk (*) instead of the username in the address. For example, to specify all messages sent from any email address within the mail.com domain, enter *@mail.com.
- 2. To add the entered address to the list, click \bigcirc or press ENTER on the keyboard.
- 3. To add other addresses, repeat steps 1 and 2.

Managing listed objects

The following management elements are available to work with objects in the table:

- The $\stackrel{\textcircled{+}}{\oplus}$ button—adding an email address to the list. The button becomes available if a text field contains any symbol.
- The button—removing the selected email address from the list of exclusions.
- Click to access the following options:
 - Edit— allows you to edit the selected email address on the list.
 - Export—allows you to save the created list of exclusions to be used on another computer where Dr.Web is installed.
 - Import—allows you to use the list of exclusions created on another computer.
 - Clear all—allows you to remove all objects from the list of exclusions.

You can also remove or edit an object by right-clicking the selected object or several selected objects.



17. Statistics on Component Operation

You can review the statistics on operation of the main Dr.Web components.

To open the statistics on important events of protection component operation

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, select **Statistics** tab.
- 3. The **Statistics** page opens where reports for the following groups are available:
 - Detailed Report
 - Parental Control
 - Threats
 - Firewall



Figure 121. Statistics on component operation

4. Select a group to review the reports.

Detailed Report

In this window, the detailed information on all the program operation events is collected.



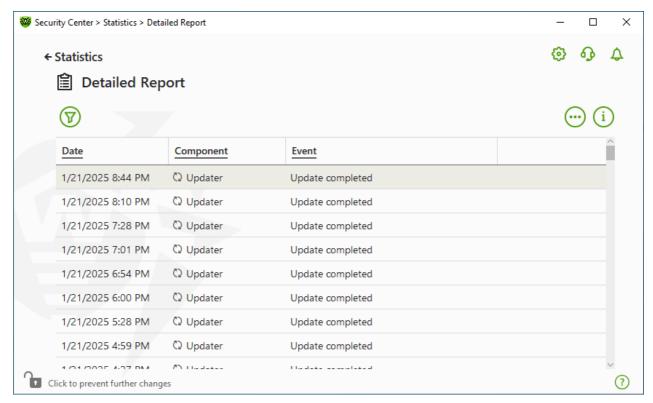


Figure 122. Detailed report window

The following information is logged in the report:

- Date—date and time of an event.
- **Component**—the component or module that caused the event.
- **Event**—a brief description of the event.

By default, all events for all the time are displayed.

The <u>management elements</u> $\overline{\mathbb{V}}$, $\overline{\mathbb{i}}$, $\overline{\mathbb{O}}$ are used to work with objects in the table.

You can use additional filters to select certain events.

Parental Control

In the **Parental Control** group, you can view the statistics of blocked URLs for every user account.



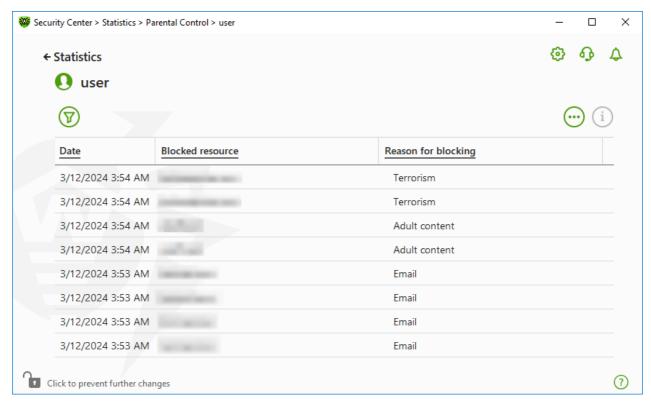


Figure 123. The Parental control statistics window

The following information is logged in the report:

- Date—date and time of blocking.
- **Blocked resource**—the link to the blocked resource.
- Reason for blocking—the category or exclusion list that the blocked resource belongs to.

By default, all events for all the time are displayed.

The management elements $\overline{\mathbb{V}}$, $\overline{\mathbb{I}}$, $\overline{\mathbb{O}}$ are used to work with objects in the table.

You can use additional filters to select certain events.



The statistics also includes the information on external resources integrated with other webpages, such as embedded widgets. Having such resources in the statistics does not mean that the user has tried to visit these websites intentionally.

Threats

On the **Threats** tile on the main statistics window, the information on the total number of threats for a certain period of time is shown.



When choosing this option, the **Detailed Report** window with predefined filters for all the threats will open.

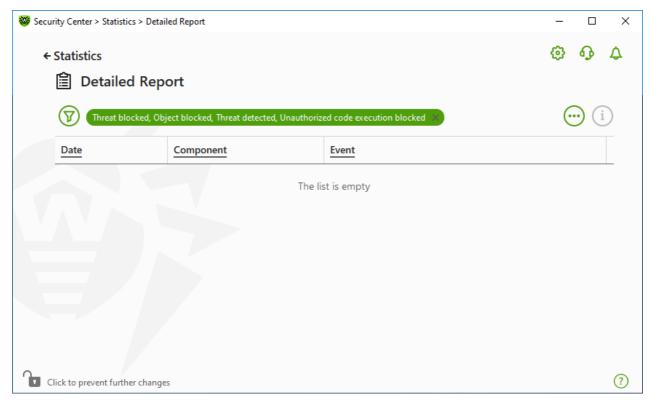


Figure 124. Statistics on threats window

The following information is logged in the report:

- Date—date and time of the threat detection.
- **Component**—the component that has detected the threat.
- **Event**—a brief description of the event.

By default, all events for all the time are displayed.

The <u>management elements</u> $\overline{\mathbb{Q}}$, $\overline{\mathbb{Q}}$, $\overline{\mathbb{Q}}$ are used to work with objects in the table.

You can use additional filters to select certain events.

Network activity

You can view the report of network activity if Dr.Web Firewall is installed on your computer.

To view information on active applications, an application log, and a packet filter log, select necessary object from the drop-down list.



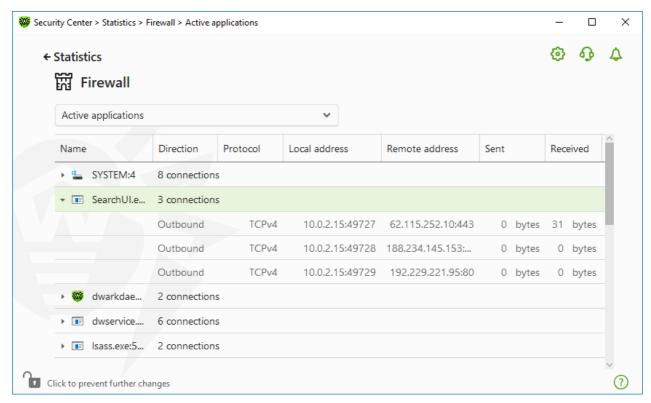


Figure 125. Statistics on network activity window

The report shows the following information for every active application:

- Direction
- Operation protocol
- Local address
- Remote address
- Size of sent data packet
- Size of received data packet

You can block one of the current connections or allow previously blocked connection. For this, select a required connection and right-click. Only one option is available, depending on the connection status.

The application log shows the following information:

- Application start time
- Application name
- Application processing rule name
- Direction
- Action
- Endpoint

To enable the application logging, go to **Firewall** page and then open Add or Edit application rule window. For the detailed information, refer to the <u>Application rule settings</u> section.



Packet Filter Log shows the following information:

- Start time of data packet processing
- Direction
- Processing rule name
- Interface
- Packet data

To enable packet filter logging, go to **Firewall** page and then open Add or Edit packet filter rule window. For the detailed information, refer to the <u>Rule sets for filtering packets</u>.

When clicking at one of the columns, the events are arranged in ascending or descending order.

Filters

To view a list of only those events that correspond to specific parameters, use filters. All the reports have preset filters that are available by clicking \bigcirc . You can also create custom event filters.

The buttons to manage table elements:

- Click \bigcirc to access the following options:
 - □ To select the predefined filter for the set period of time or the filter for the update event.
 - To save the current custom filter. It is also possible to delete previously saved custom filter.
 - To delete all the current filters.
- Click to access the following options:
 - Copy selected—allows you to copy the selected entry (entries) to the clipboard.
 - Export selected—allows you to export the selected entry (entries) to the specified folder in .csv format.
 - Export all—allows you to export all the entries of the table to the specified folder in .csv format.
 - Delete selected—allows you to delete the selected event(s).
 - Delete all—allows you to delete all the events from the table.
- Clicking the i button, the detailed information about the event is displayed. Available when one of the entries is selected. Clicking this button again will hide the detailed information on the event.



To set custom filter

- 1. To filter by a specific parameter, click on the heading of the required column:
 - Filter by date. You can select one of the predefined periods specified in the left part of the window, or specify your own. To set the required period, select the start date and the end date of the period in the calendar, or specify the dates in the **Period** field. Filtering by date is also available in ascending or descending order.

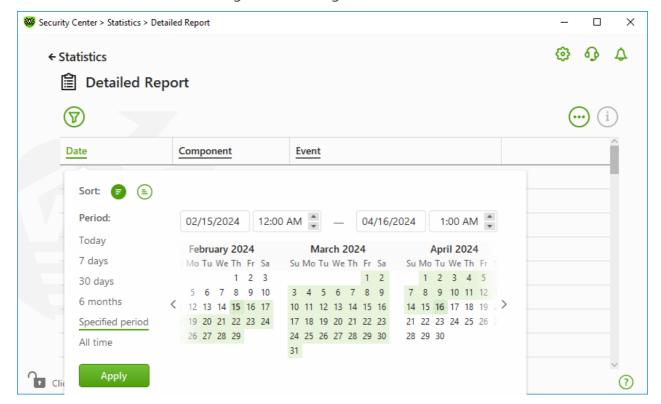


Figure 126. Data sorting

- Filter by component. You can check the components the information on which will be included in the report, or arrange the entries by ascending or descending order.
- Filter by event. You can check the events to be shown in the report, or arrange the entries by ascending or descending order.

For Parental control statistics, in addition to the date filter, the following options are available:

- Filter by blocked resource. You can sort entries in ascending or descending order only.
- Filter by reason for blocking. You can check the reasons for blocking to be shown in the report, or arrange the entries by ascending or descending order.
- 2. Once the filter parameters selected, click **Apply**. Selected items will be displayed above the table.
- 3. To save the filter, click and select **Save filter**.
- 4. In the open window, enter a name for the new filter. Click **Save**.



18. Technical Support

If you have a problem installing or using Doctor Web products, please try the following before contacting technical support:

- 1. Download and review the latest manuals and guides at https://download.drweb.com/doc/.
- 2. See the Frequently Asked Questions section at https://support.drweb.com/show_fag/.
- 3. Browse the official Doctor Web forum at https://forum.drweb.com/.

If you haven't found a solution to your problem, you can request direct assistance from Doctor Web technical support specialists. Please use one of the options below:

- 1. Fill out a web form in the appropriate section at https://support.drweb.com/.
- 2. Call +7 (495) 789-45-86 (for customers in Moscow) or 8-800-333-79-32 (a toll-free line for customers within Russia).

For information on regional and international offices of Doctor Web, please visit the official website at https://company.drweb.com/contacts/offices/.

18.1. Assistance in Resolving Problems

When contacting <u>Doctor Web technical support</u> \mathcal{O} , you may need to generate a report on your operating system and Dr.Web operation.

To generate a report using the Report Wizard

- 1. Open Dr.Web menu , then select **Security Center**.
- 2. In the open window, click **Go to Report Wizard**.

You can also access this window by clicking the \bigcirc button in the upper right side of the **Security Center** window.



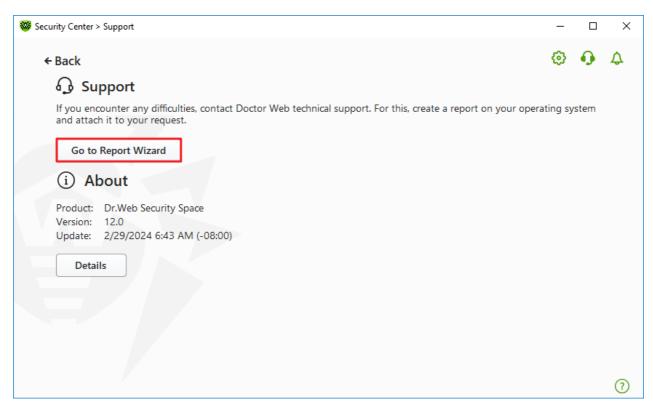


Figure 127. Support

3. In the open window, click Create report.

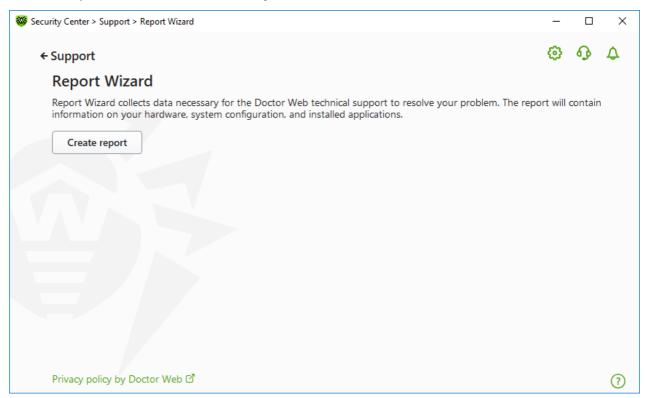


Figure 128. Generating a report for technical support

4. Generating a report starts.



Report generation from command line

To generate a report, use the following command:

```
/auto For example: dwsysinfo.exe /auto
```

You can also use the command:

```
/auto /report:[<full path to the archive>]. For example: dwsysinfo.exe /auto /report:C:\report.zip
```

The report will be stored as an archive in the Doctor Web subfolder of the %USERPROFILE% folder. You can access the archive by clicking the **Open folder** button after the archive has been created. The report is protected by the password virus.

The information included in the report

The report will include the following information:

- 1. Technical information about the operating system:
 - General information about your computer
 - Information on running processes
 - Information on scheduled tasks
 - Information on services, drivers
 - Information on default browser
 - Information on installed applications
 - Information on policies
 - Information on HOSTS file
 - Information on DNS servers
 - System event log
 - System directories
 - Registry branches
 - Winsock providers
 - Network connections
 - Dr. Watson logs
 - Performance index
- 2. Information on installed Dr.Web product:
 - Type and version of Dr.Web product
 - Information on installed components and Dr.Web modules
 - Information on settings and configuration parameters of Dr.Web product



- License information
- Dr.Web Operation Logging

Information about Dr.Web is located in Event Viewer, in **Application and Services Logs** → **Doctor Web**.

18.2. About

The **About** section provides information on:

- Product version
- Date and time of the last update

The **About Dr.Web** window provides you with the information on the version of installed components and update date of virus databases.

To access this window

- 1. Open Dr.Web menu , then select Support.
- 2. In the open window, click **Details**.

You can also access this window by clicking the \bigcirc button in the upper right side of the **Security Center** window.

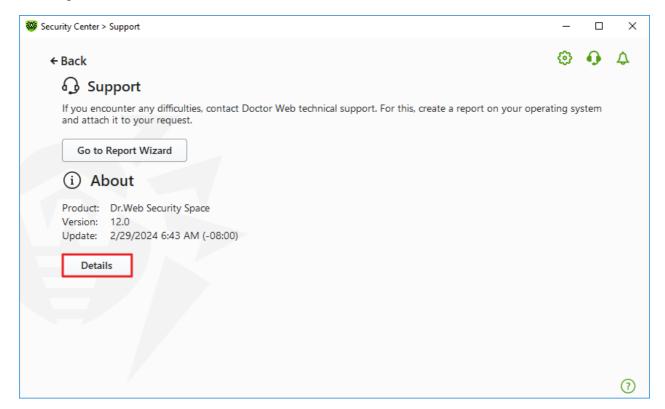


Figure 129. Access to the About Dr.Web window



19. Appendix A. Additional Command-Line Parameters

Additional command-line parameters (switches) are used to set parameters for programs, which can be launched by opening an executable file. This relates to Dr.Web Scanner, Console Scanner, and Dr.Web Updater.

Switches begin with the forward slash (/) character and are separated by spaces as other command-line parameters.

19.1. Scanner and Console Scanner Parameters

Switch	Description
/AA	Apply actions to detected threats automatically. (For Scanner only.)
/AC	Scan containers. Option is enabled by default.
/AFS	Use forward slash to separate paths in an archive. Option is disabled by default.
/AR	Scan archives. Option is enabled by default.
/ARC: <commpression_ratio></commpression_ratio>	Maximum compression level. If the compression ratio of the archive exceeds the limit, Scanner neither unpacks nor scans the archive. By default: unlimited.
/ARL: < nesting_level>	Maximum archive nesting level. By default: unlimited.
/ARS: <size></size>	Maximum archive size (in KB). By default: unlimited.
/ART: <size></size>	Minimum size of a file inside an archive beginning from which compression ratio check is performed (in KB). By default: unlimited.
/ARX: <size></size>	Maximum size of a file inside an archive that is scanned (in KB). By default: unlimited.
/BI	Show information on virus databases. Option is enabled by default.
/CUSTOM	Perform a custom scan. If additional parameters are set (for example, objects to be scanned or /TM and /TB parameters), only the specified objects will be scanned. (For Scanner only.)
/CL	Use cloud checking. Option is enabled by default. (For Console Scanner only.)
/DCT	Do not display estimated scan time. (For Console Scanner only.)
/DR	Scan folders recursively (scan subfolders). Option is enabled by default.



Switch	Description
/E: <number_of_threads></number_of_threads>	Perform scanning in specified number of threads.
/FAST	Perform an express scan of the system. If additional parameters are set (for example, objects to be scanned or /TM and /TB parameters), the specified objects will also be scanned. (For Scanner only.)
/FL: <file_name></file_name>	Scan paths listed in the specified file.
/FM: < mask >	Scan files matching the specified mask. By default, all files are scanned.
/FR:< <i>regexpr</i> >	Scan files matching the specified regular expression. By default, all files are scanned.
/FULL	Perform a full scan of all hard drives and removable media (including boot sectors). If additional parameters are set (for example, objects to be scanned or /TM and /TB parameters), an express scan will be performed, and the specified objects will be scanned. (For Scanner only.)
/FX: <mask></mask>	Exclude from scan files that match the specified mask. (For Console Scanner only.)
/GO	Scanner operation mode that skips the questions that require answers from a user; decisions that require a selection are made automatically. This mode is useful for the automatic file scan; for example, for the daily or weekly hard disk scanning. An object for scanning must be indicated in the command line. Along with the /GO parameter, it is also possible to use the following parameters: /LITE, /FAST, /FULL. In this mode, the scanning stops when switching to the battery power.
/H or /?	Show brief help. (For Console Scanner only.)
/HA	Use heuristic analysis to detect unknown threats. Option is enabled by default.
/KEY: <key_file></key_file>	Specify a path to the key file. It is necessary to use this parameter if your key file is stored outside of the installation folder where the scanner executables reside. By default, drweb32.key or another suitable file from the C:\Program Files\DrWeb\ folder is used.
/LITE	Perform a basic scan of random access memory and boot sectors of all disks as well as run a scan for rootkits. (For Scanner only.)
/LN	Resolve shell links. Option is disabled by default.
/LS	Scan using LocalSystem account rights. Option is disabled by default.



Switch	Description
/MA	Scan mail files. Option is enabled by default.
/MC: <number_of_attempts></number_of_attempts>	Set the maximum number of cure attempts. By default: unlimited.
/NI[:X]	Limits usage of system resources at scanning (%). Defines the amount of memory required for scanning and the system priority of scanning process. By default: unlimited.
/NOREBOOT	Cancel system reboot or shutdown after scanning. (For Scanner only.)
/NT	Scan NTFS streams. Option is enabled by default.
/OK	Show the full list of scanned objects and mark clean files with Ok. Option is disabled by default.
/ ℙ : <priority></priority>	Priority of the current scanning task. Can be as follows: 0—the lowest L—low N—normal (default priority) H—high M—maximal
/PAL: <nesting_level></nesting_level>	Maximum nesting level for executable packers. If a nesting level is greater than the specified value, scanning proceeds until this limit is reached. The nesting level is 1,000 by default.
/QL	Show the list of files quarantined on all disks. (For Console Scanner only.)
/QL: <logical_drive_letter></logical_drive_letter>	Show the list of files quarantined on the specified logical drive. (For Console Scanner only.)
/QNA	Double quote paths.
/QR[:[d][:p]]	Delete quarantined files on drive <d>(logical_drive_letter) that are older than (number) days. If <d> and are not specified, all quarantined files on all drives are deleted. (For Console Scanner only.)</d></d>
/QUIT	Terminate Scanner once scanning is completed regardless of whether or not any actions have been applied to the detected threats. (For Scanner only.)
/RA: <file_name></file_name>	Append the report on program operation to the specified file. By default, logging is disabled (when running Scanner in the command-line mode).



Switch	Description
/REP	Follow symbolic links while scanning. Option is disabled by default.
/RK	Scan for rootkits. Option is disabled by default.
/RP: <file_name></file_name>	Append the report on program operation to the specified file. By default, logging is disabled (when running Scanner in the command-line mode).
/RPC: <sec></sec>	Scanning Engine connection time-out. Time-out is 30 seconds by default. (For Console Scanner only.)
/SCC	Show content of complex objects. Option is disabled by default.
/SCN	Show container name. Option is disabled by default.
/SLS	Show logs on the screen. Option is enabled by default. (For Console Scanner only.)
/SPN	Show packer name. Option is disabled by default.
/SPS	Display the scan progress on the screen. Option is enabled by default. (For Console Scanner only.)
/SST	Display object scan time. Option is disabled by default.
/ST	Start of Scanner in the background mode. If the /GO parameter is not set, the graphical mode is displayed only in case of threat detection. In this mode, the scanning stops when switching to the battery power.
/TB	Scan boot sectors including master boot record (MBR) of the hard drive.
/TM	Scan processes in memory including Windows system control area.
/TR	Scan system restore points.
/W: <sec></sec>	Maximum time to scan (sec.). By default: unlimited.
/WCL	drwebwcl compatible output. (For Console Scanner only.)
/X:S[:R]	Set one of the following states for the computer to enter once scanning is completed: Shutdown/Reboot/Suspend/Hibernate.



The following actions can be specified for different objects (C—cure, Q—move to quarantine, D—delete, I—ignore, R—inform; R is available for Console Scanner only; R is set by default for all objects in Console Scanner):

Action	Description
/AAD: <action></action>	action for adware (possible: DQIR)
/AAR: <action></action>	action for infected archives (possible: DQIR)
/ACN: <action></action>	action for infected containers (possible: DQIR)
/ADL: <action></action>	action for dialers (possible: DQIR)
/AES: <action></action>	action for exploitable software (possible: IR)
/AHT: <action></action>	action for hacktools (possible: DQIR)
/AIC: <action></action>	action for incurable files (possible: DQR)
/AIN: <action></action>	action for infected files (possible: CDQR)
/AJK: <action></action>	action for jokes (possible: DQIR)
/AML: <action></action>	action for infected mail files (possible: QIR)
/ARW: <action></action>	action for riskware (possible: DQIR)
/ASU: <action></action>	action for suspicious files (possible: DQIR)

Several switches can have modifiers that explicitly enable or disable options specified by these switches. For example, as follows:

/AC-	option is clearly disabled
/AC, /AC+	option is clearly enabled

These modifiers can be useful if the option is enabled or disabled by default. The following switches can have modifiers:

/AC, /AFS, /AR, /BI, /DR, /HA, /LN, /LS, /MA, /NT, /OK, /QNA, /REP, /SCC, /SCN, /SLS, /SPN, /SPS, /SST, /TB, /TM, /TR, /WCL.

For /FL parameter '-' modifier directs to scan the paths listed in the specified file and then delete this file.

For /ARC, /ARL, /ARS, /ART, /ARX, /NI[:X], /PAL, /RPC, /W parameters "0" value means that there is no limit.



The following example shows how to use command-line switches with Console Scanner:

```
[<path_to_program>]dwscancl /AR- /AIN:C /AIC:Q C:\
```

scan all files on disk 'C:', excluding those in archives; cure the infected files and move to quarantine those that cannot be cured. To run Scanner the same way, enter the dwscancl command name instead of dwscanner.

19.2. Dr. Web Updater Command-Line Parameters

Common options

Parameter	Description
-h [help]	Show a short help message on how to use the program.
-v [verbosity] arg	Log level. Can be one of following: error, info (standard), debug.
rotate arg	Log rotation. < number of files >, < size value > < size unit > where < size unit > is one of the following: k (kilobyte), m (megabyte), g (gigabyte).
-d [data-dir] arg	Folder where repository and settings are located.
log-dir arg	Folder for storing the log file.
-r [repo-dir] arg	Repository folder (< data_dir > / repo by default).
-t [trace]	Enable tracing.
-c [command] arg (=update)	Command to execute: update, uninstall, exec, keyupdate, download andmirror.
-z [zone] arg	Zones that are to be used instead of those specified in the configuration file.

update command parameters

Parameter	Description
-p [product] arg	Product name. If specified, only this product will be updated. If neither a product nor certain components are specified, all products will be updated. If certain components are specified, only they will be updated.
-n [component] arg	Components that are to be updated to the specified version. <name>, <target revision="">.</target></name>



Parameter	Description
-x [selfrestart] arg (=yes)	Reboot after an update of Dr.Web Updater. Default value is yes. If the value is set to no, notification that reboot is required will appear.
geo-update	Get the list of IP addresses from update.drweb.com before updating.
type arg (=normal)	Can be one of the following:
	• reset-all—forced update of all components
	• reset-failed—reset revision for damaged components
	normal-failed—try to update all components including damaged from the current revision to the newest or specified
	• update-revision—try to update all components of the current revision to the newest if exists
	• normal—update all components
-g [proxy] arg	Proxy server for updating. <address>:<port>.</port></address>
-u [user] arg	Username for proxy server.
-k [password] arg	Password for proxy server.
param arg	Pass additional parameters to the script. <name>: <value>.</value></name>
-l [progress-to-console]	Print information about downloading and script execution to the console.

uninstall command parameters

Parameter	Description
-n [component] arg	Name of the component that is to be uninstalled.
-l [progress-to-console]	Print information about command execution to the console.
param arg	Pass additional parameters to the script. <name>: <value>.</value></name>
-e [add-to-exclude]	Components to be deleted. Update of this components will not be performed.

keyupdate command parameters

Parameter	Description
-m [md5] arg	MD5 hash of the previous key file.



Parameter	Description
-o [output] arg	Output file name to store new key.
-b [backup]	Backup of an old key file if exists.
-g [proxy] arg	Proxy server for updating. <address>:<port>.</port></address>
-u [user] arg	Username for proxy server.
-k [password] arg	Password for proxy server.
-l [progress-to-console]	Print information about downloading of the key file to the console.

download command parameters

Parameter	Description
zones arg	Zone description file.
key-dir arg	Folder where the key file is located.
-l [progress-to-console]	Print information about command execution to the console.
-g [proxy] arg	Proxy server for updating. <address>:<port>.</port></address>
-u [user] arg	Username for proxy server.
-k [password] arg	Password for proxy server.
-s [version] arg	Version name.
-p [product] arg	Name of the product to download.

mirror command parameters

Parameter	Description
zones arg	Zone description file.
key-dir arg	Folder where the key file is located.
-g [proxy] arg	Proxy server for updating. <address>:<port>.</port></address>
-u [user] arg	Username for proxy server.
-k [password] arg	Password for proxy server.



Parameter	Description
-s [version] arg	Version name.

19.3. Console Scanner Return Codes

The values of the return code and corresponding events are as follows:

Return code value	Event
0	OK, no threat found.
1	Known threat detected.
2	Modification of known threat detected.
4	Suspicious object found.
8	Known threat detected in file archive, mail archive, or container.
16	Modification of known threat detected in file archive, mail archive, or container.
32	Suspicious file found in file archive, mail archive, or container.
64	At least one infected object successfully cured.
128	At least one infected or suspicious file deleted/renamed/moved.

The actual value returned by the program is equal to the sum of codes for the events that occurred during scanning. Obviously, the sum can be easily decomposed into separate event codes.

For example, return code 9 = 1 + 8 means that known threats were detected, including threats in archives, mail archives or containers; curing and others actions were not executed; no other threat information.

19.4. Updater Return Codes

The values of the return code and corresponding events are as follows:

Return code	Event
0	No errors.



Return code value	Event
4	Invalid command-line parameters.
6	Update restart required.
7	Update is already running.
8	The specified products or components are already updated.
9	Server connection error.
10	Unable to receive data about component revision.
11	Update zone list is empty.
12	License is blocked.
13	License is not specified.
16	Unable to receive license information.



20. Appendix B. Computer Threats and Neutralization Methods

With the development of computer technologies and network solutions malicious programs (malware) of different kinds, meant to strafe users, become more and more widespread. Their development began together with computer science and facilities of protection against them progressed alongside. Nevertheless, there is still no common classification for all possible threats due to their unpredictable development character and constant improvement of applicable technologies.

Malicious programs can be distributed through the internet, local area networks, email and portable data mediums. Some of them rely on the user's carelessness and lack of experience and can be run in completely automatic mode. Others are tools controlled by a computer cracker and they can harm even the most secure systems.

This chapter describes all of the most common and widespread types of malware, against which products of Doctor Web are aimed.

20.1. Types of Computer Threats

Herein, the term "threat" defines any kind of software that can potentially or directly inflict damage on a computer or network or compromise the user's information or rights (in other words, malicious and other unwanted programs). However, generally speaking, the term "threat" may be used to indicate any potential danger to computer or network security (that is, vulnerabilities that can be exploited to launch attacks).

All program types described below have the ability to endanger the user's data or confidentiality. Programs that do not hide their presence from the user (for example, spamsending software or traffic analyzers) usually are not considered to be computer threats, although they can also become threats under certain circumstances.

Computer viruses

This type of computer threats is characterized by their ability to inject malicious code into running processes of other programs. This action is called *infection*. In most cases, the infected file becomes a virus carrier itself, and the injected code does not necessarily match the original one. The majority of viruses are created with a purpose to damage or destroy data in the system.

Doctor Web divides viruses by the type of objects they infect into the following categories:

- File viruses infect operating system files (usually, executable files and dynamic-link libraries) and are activated when an infected file is run.
- *Macro viruses* infect documents used by Microsoft Office (or other programs supporting macro commands written for example, in Visual Basic). *Macro commands* are a type of built-in programs (macros) that are written in a fully functional programming language and can be



launched under specific circumstances (for example, in Microsoft Word, macros can be activated upon opening, closing, or saving a document).

- *Script viruses* are created using script languages, and, mostly, they infect other scripts (such as OS service files). By exploiting vulnerable scripts in web applications, they can also infect other file types that support script execution.
- Boot viruses infect boot sectors of disks and partitions or master boot records of hard disks.
 They require little memory and can perform their tasks until the operating system is rolled out, restarted, or shut down.

Most viruses have special mechanisms that protect them against detection. These mechanisms are constantly improved, and ways to overcome them are constantly developed. According to the type of protection they use, all viruses can be divided into two following groups:

- Encrypted viruses self-encrypt their malicious code upon every infection to make its detection in a file, boot sector, or memory more difficult. Each sample of such viruses contains only a short common code fragment (decryption procedure) that can be used as a virus signature.
- *Polymorphic viruses* use a special decryption procedure in addition to code encryption. This procedure is different in every new virus copy. This means that such viruses do not have byte signatures.
- Stealth viruses (invisible viruses) perform certain actions to disguise their activity and to conceal their presence in an infected object. Such viruses gather the characteristics of an object before infecting it and then plant these "dummy" characteristics that mislead the scanner searching for modified files.

Viruses can also be classified according to the language they are written in (most viruses are written in Assembly but there are also viruses written in high-level programming languages, script languages, and so on) and operating systems that can be infected by these viruses.

Computer worms

Recently, worms have become much more widespread than viruses and other malicious programs. Like viruses, these programs can replicate themselves however they do not infect other objects. A worm infiltrates a computer from a network (usually, as an email attachment or from the internet) and spreads its functional copies among other computers. Distribution can be triggered by some user action or automatically.

Worms do not necessarily consist of only one file (the worm's body). Many of them have a so-called infectious part (shellcode) that is loaded into the main memory. After that, it downloads the worm's body as an executable file via the network. If only the shellcode is present in the system, the worm can be easily removed by restarting the system (at that, RAM is reset). However, if the worm's body infiltrates the computer, only an anti-virus program can fight it.

Even if worms do not bear any payload (do not cause direct damage to a system), they can still cripple entire networks because of how intensely they spread.



Doctor Web classifies worms in accordance with their distribution methods as follows:

- Network worms spread via various network and file-sharing protocols.
- Mail worms spread via mail protocols (POP3, SMTP, and others).
- Chat worms use protocols of popular instant messengers and chat programs (ICQ, IM, IRC, etc.).

Trojan programs (Trojans)

These programs cannot replicate themselves. Trojans substitute a frequently-used program and perform its functions (or imitate its operation). Meanwhile, they perform some malicious actions in the system (damages or deletes data, sends confidential information, etc.) or make it possible for hackers to access the computer without permission, for example, to harm the computer of a third party.

Like viruses, these programs can perform various malicious activities, hide their presence from the user, and even be a virus component. However, usually, Trojans are distributed as separate executable files (through file-exchange servers, data carriers, or email attachments) that are run by users themselves or by some specific system process.

It is very hard to classify Trojans due to the fact that they are often distributed by viruses or worms and also because many malicious actions that can be performed by other types of threats are attributed to Trojans only. Here are some Trojan types which Doctor Web distinguishes as separate classes:

- Backdoors are Trojans that allow an intruder to get privileged access to the system bypassing any existing protection mechanisms. Backdoors do not infect files—they register themselves in the registry modifying registry keys.
- Rootkits are used to intercept operating system functions in order to hide their presence.
 Moreover, a rootkit can conceal processes of other programs, registry keys, folders, and files.
 It can be distributed either as an independent program or as a component of another malicious application. Based on the operation mode, rootkits can be divided into two following categories: User Mode Rootkits (UMR) that operate in user mode (intercept functions of user-mode libraries) and Kernel Mode Rootkits (KMR) that operate in kernel mode (intercept functions at the system kernel level, which makes these malicious programs hard to detect).
- Keyloggers can log data that users enter by means of a keyboard. These malicious programs can steal varies confidential information (including network passwords, logins, bank card data, and so on).
- *Clickers* redirect users to specified internet resources (may be malicious) in order to increase traffic to those websites or to perform DDoS attacks.
- *Proxy Trojans* provide cybercriminals with anonymous internet access via the victim's computer.



Trojans can also perform other malicious actions besides those listed above. For example, they can change the browser home page or delete certain files. However, such actions can also be performed by threats of other types (viruses or worms).

Hacktools

Hacktools are designed to assist intruders with hacking. The most common among these programs are port scanners that detect vulnerabilities in firewalls and other components of computer protection system. Such tools can be used not only by hackers but also by administrators to check security of their networks. Sometimes various programs that use social engineering techniques are designated as hacktools too.

Adware

Usually, this term refers to a program code incorporated into freeware programs that forcefully display advertisements to users. However, sometimes such codes can be distributed via other malicious programs and show advertisements, for example, in web browsers. Many adware programs operate based on data collected by spyware.

Jokes

Like adware, this type of minor threats cannot be used to inflict any direct damage on the system. Joke programs usually just generate messages about allegedly detected errors and threaten to perform actions that may lead to data loss. Their purpose is to frighten or annoy users.

Dialers

These are special programs that are designed to scan a range of telephone numbers and find those where a modem answers. These numbers are then used to mark up the price of telephoning facilities or to connect the user to expensive telephone services.

Riskware

These programs are not intended to be computer threats. However, they can still cripple system security due to certain features and, therefore, are classified as minor threats. This type of threats includes not only programs that can accidentally damage or delete data but also programs that can be used by hackers or some malicious applications to harm the system. Among such programs are various remote chat and administrative tools, FTP-servers, and so on.



Suspicious objects

These are potential computer threats detected by the heuristic analyzer. Such objects can be any type of threat (even unknown to information security specialists) or turn out safe in case of a false detection. Please move files containing suspicious objects to quarantine and send them for analysis to Doctor Web anti-virus laboratory.

20.2. Actions Applied to Threats

There are many methods of neutralizing computer threats. Products of Doctor Web company combine these methods for the most reliable protection of computers and networks using flexible user-friendly settings and a comprehensive approach to security assurance. The main actions for neutralizing malicious programs are:

- 1. **Cure**—an action applied to malware, worms and Trojans. It implies deletion of malicious code from infected files or deletion of a malicious program's functional copies as well as the recovery of affected objects (that is, return of the object's structure and operability to the state which was before the infection) if it is possible.
- 2. **Move to quarantine**—an action when the malicious object is moved to a special folder and isolated from the rest of the system. This action is preferable in cases when curing is impossible and for all suspicious objects. We recommend that you send copies of such files to Doctor Web anti-virus laboratory.
- 3. **Delete**—the most effective action for neutralizing computer threats. It can be applied to any type of malicious objects. Note that deletion will sometimes be applied to certain files for which curing was selected. This will happen if the file contains only malicious code and no useful information. For example, curing of a computer worm implies deletion of all its functional copies.
- 4. **Block**—this action can also be used for neutralizing malicious programs. In this case, the copies of such programs are kept in the file system. All access attempts to or from the file are blocked.



21. Appendix C. Naming of Threats

When Dr.Web components detect a threat, the notification in the user interface and the report file contain a name of the threat sample given by the specialists of Doctor Web anti-virus laboratory. These names are formed according to certain principles and reflect a threat's design, classes of vulnerable objects, distribution environment (OS and applications), and some other features. Knowing these principles may be useful for understanding software and organizational vulnerabilities of the protected system. The full and constantly updated version of this classification is available at https://vms.drweb.com/classification/.

In certain cases this classification is conventional as some threats can possess several features at the same time. Besides, it should not be considered exhaustive as new types of threats constantly appear, and the classification is made more precise.

The full name of a threat consists of several elements, separated by full stops. Some elements at the beginning of the full name (prefixes) and at the end of it (suffixes) are standard for the accepted classification.

Prefixes

Affected operating systems

The prefixes listed below are used for naming malicious programs infecting executable files of certain operating systems:

- Win—16-bit Windows 3.1 programs
- Win95—32-bit Windows 95/98/Me programs
- WinNT—32-bit Windows NT/2000/XP/Vista/7/8/8.1/10 programs
- Win32—32-bit Windows 95/98/Me and NT/2000/XP/Vista/7/8/8.1/10 programs
- Win64—64-bit Windows XP/Vista/7/8/8.1/10/11 programs
- Win32.NET—programs in Microsoft .NET Framework operating system
- OS2—OS/2 programs
- Unix—programs in various Unix-based systems
- Linux—Linux programs
- FreeBSD—FreeBSD programs
- SunOS—SunOS (Solaris) programs
- Symbian—Symbian OS (mobile OS) programs

Note that some malicious programs can infect programs of one system even if they are designed to operate in another system.



Macrovirus prefixes

The list of prefixes for viruses which infect MS Office objects (the language of the macros infected by such type of virus is specified):

- WM—Word Basic (MS Word 6.0-7.0)
- XM—VBA3 (MS Excel 5.0-7.0)
- W97M—VBA5 (MS Word 8.0), VBA6 (MS Word 9.0)
- X97M—VBA5 (MS Excel 8.0), VBA6 (MS Excel 9.0)
- A97M—databases of MS Access'97/2000
- PP97M—MS PowerPoint presentations
- O97M—VBA5 (MS Office'97), VBA6 (MS Office 2000); this virus infects files of more than one component of MS Office

Development languages

The HLL group is used to name threats written in high-level programming languages, such as C, C++, Pascal, Basic, and others. To specify functioning algorithms, the following modifiers can be used:

- HLLW—worms
- HLLM—mail worms
- HLLO—malicious programs overwriting the code of the victim program
- HLLP—parasitic malicious programs
- HLLC—companion viruses

The following prefix also refers to development language:

• Java—threats designed for the Java virtual machine

Trojan programs (Trojans)

Trojan—a general name for different Trojan programs (Trojans). In many cases the prefixes of this group are used with the Trojan prefix.

- PWS—password stealing Trojan
- Backdoor—Trojan with RAT-function (Remote Administration Tool—a utility for remote administration)
- IRC—Trojan which uses Internet Relay Chat channels
- DownLoader—Trojan which secretly downloads different malicious programs from the internet
- MulDrop—Trojan which secretly downloads different malicious files contained in its body



- Proxy—Trojan which allows a third-party user to work anonymously in the internet via the infected computer
- StartPage (synonym: Seeker)—Trojan which makes unauthorized replacement of the browser home page address (start page)
- Click—Trojan which redirects a user's browser to a certain website (or websites)
- KeyLogger—a spyware Trojan which logs key strokes; it may send collected data to a malefactor
- AVKill—terminates or deletes anti-virus programs, firewalls, etc.
- KillFiles, KillDisk, DiskEraser—deletes certain files (all files on drives, files in certain directories, files by certain mask, etc.)
- DelWin—deletes files vital for the operation of Windows OS
- FormatC—formats drive C (synonym: FormatAll—formats all drives)
- KillMBR—corrupts or deletes master boot records (MBR)
- KillCMOS—corrupts or deletes CMOS memory

Tool for attacking vulnerabilities

• Exploit—a tool exploiting known vulnerabilities of an OS or application to implant a malicious program or perform unauthorized actions

Tools for network attacks

- Nuke—tools for network attacks on known vulnerabilities of operating systems leading to abnormal shutdowns of the attacked system
- DDoS—agent program for performing a DDoS attack (Distributed Denial Of Service)
- FDoS (synonym: Flooder)—Flooder Denial Of Service—programs for performing malicious actions in the internet which use the idea of DDoS attacks; in contrast to DDoS, when several agents on different computers are used simultaneously to attack one victim system, an FDoS program operates as an independent "self-sufficient" program (Flooder Denial of Service).

Script threats

Prefixes of threats written in different scrip languages:

- VBS—Visual Basic Script
- JS—Java Script
- Wscript—Visual Basic Script and/or Java Script
- Perl—Perl
- PHP—PHP
- BAT—MS-DOS command interpreter



Malicious programs

Prefixes of malicious programs that are not viruses:

- Adware—an advertising program
- Dialer—a dialer program (redirecting modem calls to predefined paid numbers or paid resources)
- Joke—a joke program
- Program—a potentially dangerous program (riskware)
- Tool—a program used for hacking (hacktool)

Miscellaneous

Generic—this prefix is used after another prefix describing the environment or the development method to name a typical representative of this type of threats. Such threat does not possess any characteristic features (such as text strings, special effects, etc.) which could be used to assign it some specific name.

Silly—this prefix was used with different modifiers to name simple featureless viruses in the past.

Suffixes

Suffixes are used to name some specific malicious objects:

- generator—an object which is not a virus but a virus generator.
- based—a malicious object which is developed with the help of the specified generator or a modified threat. In both cases the names of this type are generic and can define hundreds and sometimes even thousands of threats.
- dropper—an object which is not a virus but a container of the given virus.



22. Appendix D. Main Terms and Concepts

Α

Administrative mode is a Dr.Web mode in which the user has an access to all the security components parameters and to the program settings. To switch to the administrative mode, click the lock ...

Anti-virus Network is a complex of computers with Dr.Web product installed (Anti-virus for Windows, Server Security Suite, or Dr.Web Security Space) that are connected to one local network.

Archive is a file containing other files and their metadata. Possible formats are ARJ, GZIP, RAR, TAR, ZIP, etc.

B

Bus is a communication subsystem for transferring data between functional units of the computer (for example, the USB).

C

Container is a composite object that can be unpacked. Formats:

Always scanned:

AUTOIT, BANGCLE, CHM, DOC1C, EMBEDOBJ, HTML, HTMLVBA, JAR, JSHTML, LNK, MSGVBA, ODEX, OLEEXPL, OPEN_XML, PDF, PPT, RC, RTF, SECSHELL, SWF, TENCENT, VISIO.

Scanned at launch:

NSIS, NSIS_as, PYINSTALL.

Scanned if the **Scan containers** option is enabled:

ADVINST, ASF, BCOMPILER, CLICKTEAM, CMTSCRIPT, CREATEINSTALL, DDS, DEB, DEPLOY, GKWARE, GTP, IJAMMER, INNO, ISHIELD, ISZ, JCOMPILER, LZMA, MACBIN, MSI, MSSE, MSXML, NETSTREAM, OCRA, PERL2EXE, PHP, PIMP, PYTHON, RPM, RSFX, SFACT, SFX74, SIM, SIS, SQUASH, TARMA, TCOMPR, THINST, UDF, UNIBIN, VISE, WIM, WISE, XAR, XENOCODE, XZ, ZLIB.

D

Device classes are the devices that perform the same functions (e.g., printing devices).



Digital signature is an attribute of a digital document that is meant to protect the document from forgery. It is generated by cryptographic transformation of information with a use of a private key of digital signature and allows to identify the owner of the certificate private key and to verify that the transmitted digital document was not altered.

E

Email file is an email client file used to store various email data. Possible formats are DBX, MIME, PST, TBB, TNEF, UUE.

Emulation is an imitation of a system operation by means of another system without the loss in functionality and distortion of results throughout the use of special computer programs.

Exploit is a program, code fragment or a sequence of commands that use software vulnerabilities to attack the system.

Н

Hash value is a unique file identifier i.e. sequence of numbers and letters of a given length. Hash is used to verify data integrity.

Heuristic is an assumption, the statistical significance of which is confirmed experimentally.

M

Modification is a code resulting from such alteration of a known threat which can still be detected but cannot be cured with the algorithms applied to the initial threat.

S

Signature (threat entry) is a finite continuous sequence of bytes that is necessary and sufficient to identify a specific threat.

Т

Trusted applications are those applications whose digital signatures have been added to the list of trusted signatures in drwbase.db. the list of trusted applications includes the popular software such as Google Chrome, Firefox, Microsoft applications and so on.

U



Update mirror is a folder to which the update files are copied. The update mirror can be used as a Dr.Web update source for other computers of the local network that are not connected to the Internet.