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Dr.Web Enterprise Security Suite 12.0 Features of the Application Control module Functional analysis

Dr.Web Enterprise Security Suite 12.0

Features of the Application Control module

Functional analysis

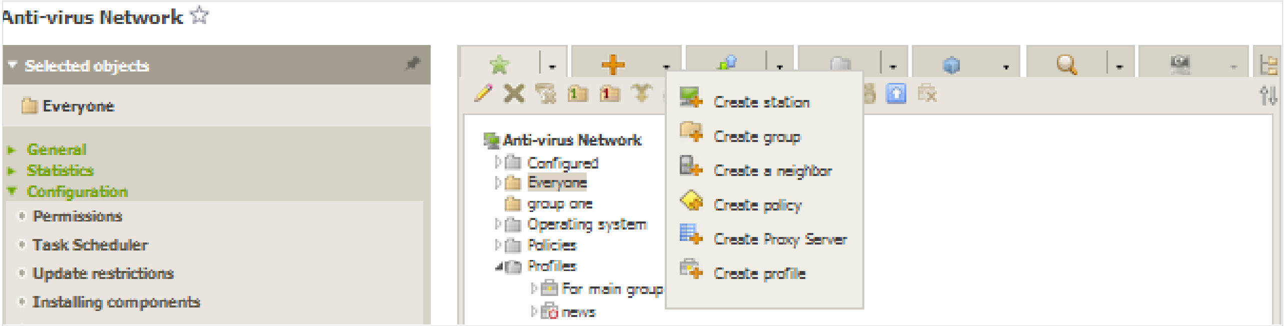
No one knows what processes are running on a controlled computer. It's entirely possible to use special utilities to view the list of downloaded programs (if, of course, one doesn't know that malicious programs track the launch of these utilities and stop working as soon as they detect them). But while obtaining a list of running programs is fairly feasible, figuring out what a program or script does is no longer always possible.

With the Application Control module included in the Dr.Web Enterprise Security Suite Control Center, you can create rules that prohibit the launch of certain categories of software. This prevents suspicious programs from being able to run from the risk zone—anti-virus software developers certainly know what features usually count as malicious when examining such programs!

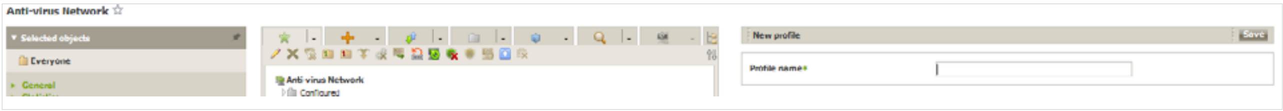
Configure the application control system by using profiles—the profile settings will dictate which applications will be launched or blocked on stations (or for selected users).

To create a profile

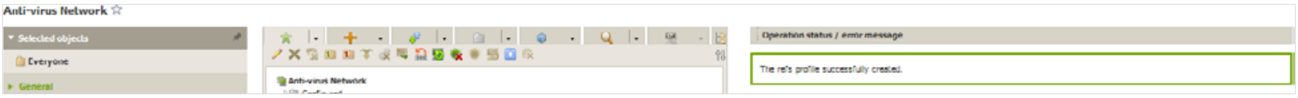
1. Select **Anti-virus Network** in the Control Center's main menu.
2. In the newly appeared window, on the toolbar, click on **Add network object** → **Create profile**.



3. In the newly opened panel, enter the **Profile name**.



4. Click on **Save**.



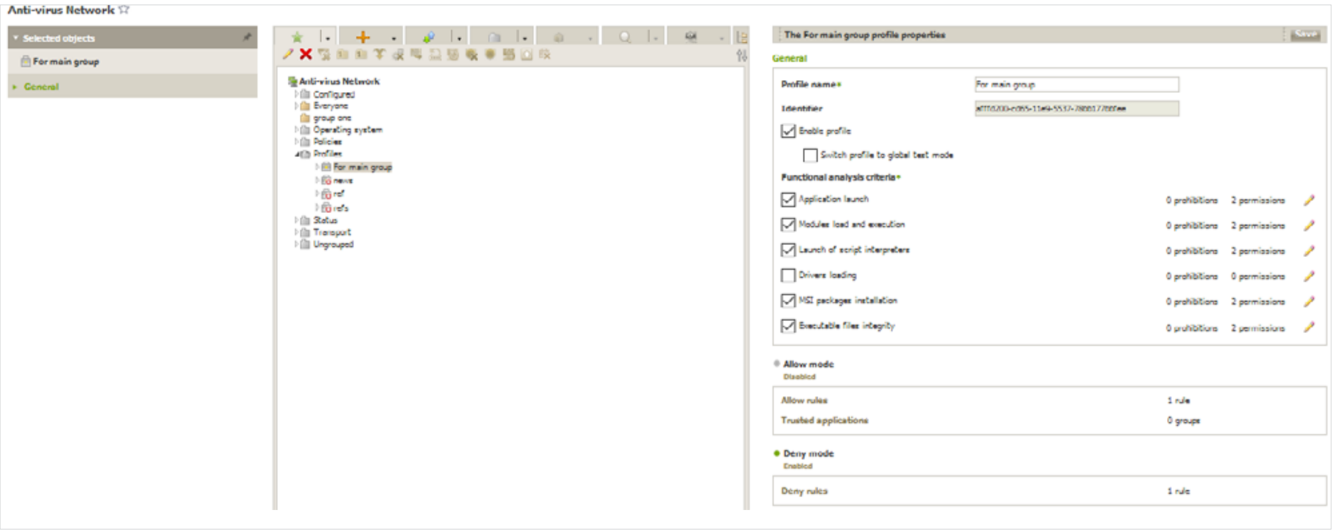
The ref's profile successfully created.

5. The new profile will be created and placed in the **Profiles** group of the anti-virus network tree.

After you create a profile, you need to configure it (set the necessary restrictions and operating rules) and assign it to anti-virus network stations and users.

Important! It is recommended that you configure profiles in the test mode. The test mode imitates what the Application Control module does, fully logging the activity occurring on all the protected stations in the statistics log, but applications are not actually blocked.

1. In the Control Center's main menu, select **Anti-virus Network**. Click on the profile name in the hierarchical list of the anti-virus network (on the right side of the Control Center's window, the profile properties panel will automatically open), or click on the profile icon in the anti-virus network tree, or select a profile and then select **Properties** in the control menu (a window showing the profile properties will open).



The For main group profile properties

General

Profile name* For main group

Identifier afffd200-cd65-11e9-5537-78bb177bbfee

☑ Enable profile

☐ Switch profile to global test mode

Functional analysis criteria*

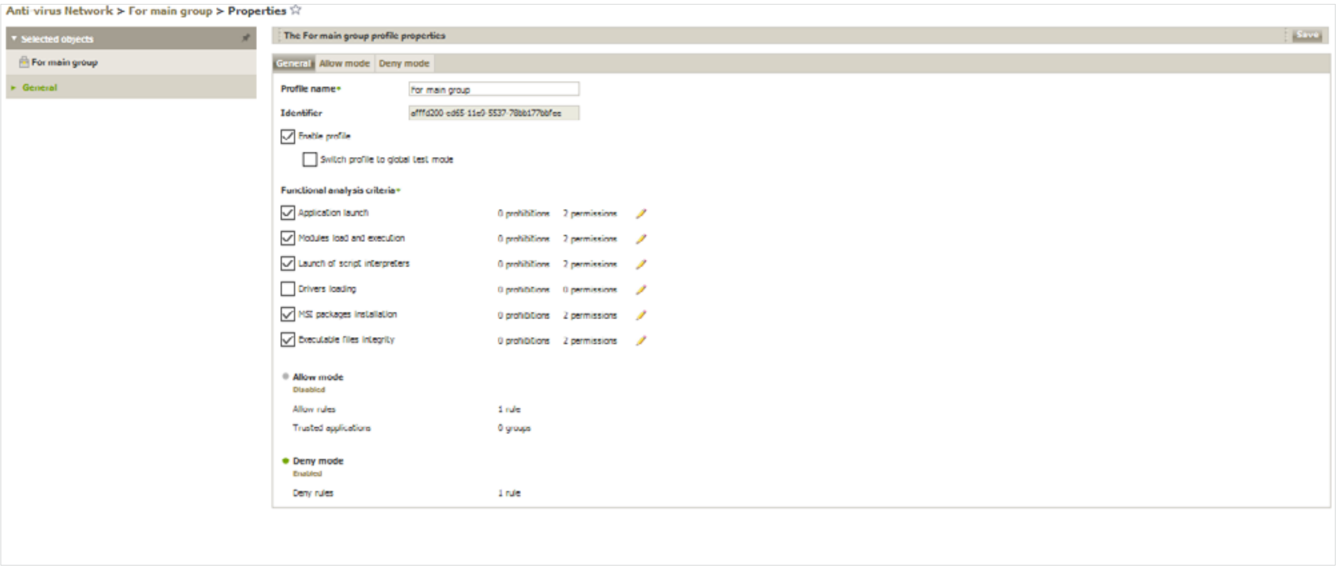
☑ Application launch	0 prohibitions	2 permissions
☑ Modules load and execution	0 prohibitions	2 permissions
☑ Launch of script interpreters	0 prohibitions	2 permissions
☐ Drivers loading	0 prohibitions	0 permissions
☑ MSI packages installation	0 prohibitions	2 permissions
☑ Executable files integrity	0 prohibitions	2 permissions

Allow mode
Disabled

Allow rules 1 rule
Trusted applications 0 groups

Deny mode
Enabled

Deny rules 1 rule



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Allow mode
Disabled

Allow rules 1 rule
Trusted applications 0 groups

Deny mode
Enabled

Deny rules 1 rule

2. Select **Enable profile** to start using this profile. If you select **Switch profile to global test mode**, all the profile settings will not be applied to the stations, but activity will be recorded as if the settings were enabled.
3. In the **Functional analysis criteria** section, select the events that you want to track.

   In this section, you can specify the features that are unwanted or desirable for the programs launched on the protected computers. To specify advanced settings for each selected event criteria type, click on ✎ (**Edit**) for the corresponding type of event. A window showing a list of settings will open.

   Let's consider the advanced settings in more detail.

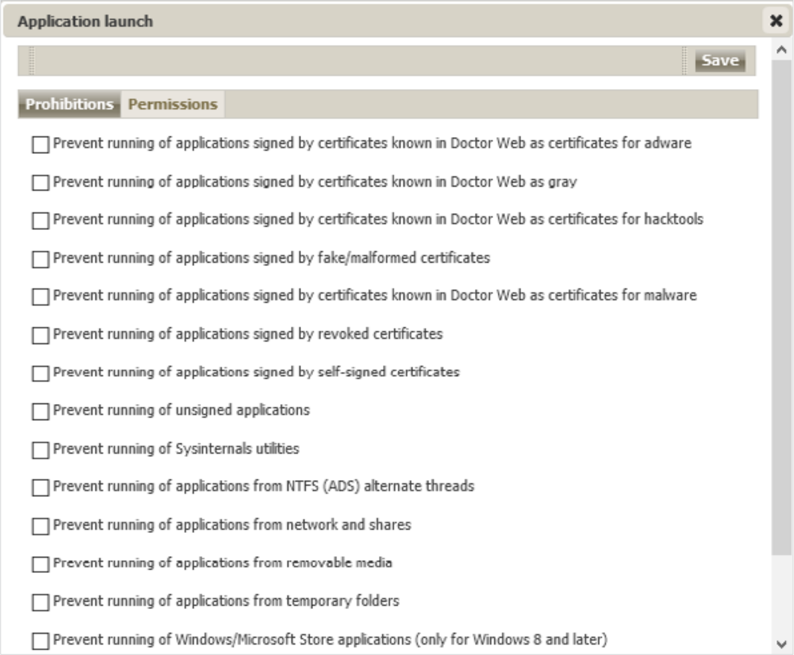
   There are 6 criteria types of functional analysis:

   - Application launch
   - Module load and execution

- Launch of script interpreters
- Driver loading
- MSI package installation
- Executable file integrity

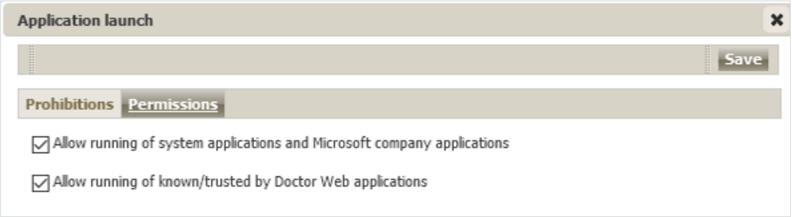
Each group has its own set of criteria; let's consider them in detail.

Application launch



Application launch

□ Prevent running of applications signed by certificates known in Doctor Web as certificates for adware
□ Prevent running of applications signed by certificates known in Doctor Web as gray
□ Prevent running of applications signed by certificates known in Doctor Web as certificates for hacktools
□ Prevent running of applications signed by fake/malformed certificates
□ Prevent running of applications signed by certificates known in Doctor Web as certificates for malware
□ Prevent running of applications signed by revoked certificates
□ Prevent running of applications signed by self-signed certificates
□ Prevent running of unsigned applications
□ Prevent running of Sysinternals utilities
□ Prevent running of applications from NTFS (ADS) alternate threads
□ Prevent running of applications from network and shares
□ Prevent running of applications from removable media
□ Prevent running of applications from temporary folders
□ Prevent running of Windows/Microsoft Store applications (only for Windows 8 and later)



Application launch

☑ Allow running of system applications and Microsoft company applications
☑ Allow running of known/trusted by Doctor Web applications

The list of permissions is easy to understand, so let's proceed to the prohibitions. Most items do not even need any commentary—it is obvious what kind of programs fall within them and whether you need to launch them:

- Prevent the running of applications signed by certificates known in Doctor Web as certificates for adware
- Prevent the running of applications signed by certificates known in Doctor Web as gray
- Prevent the running of applications signed by certificates known in Doctor Web as certificates for hacktools
- Prevent the running of applications signed by fake/malformed certificates
- Prevent the running of applications signed by certificates known in Doctor Web as certificates for malware
- Prevent the running of applications signed by revoked certificates
- Prevent the running of Sysinternals utilities
- Prevent the running of applications from NTFS (ADS) alternate threads

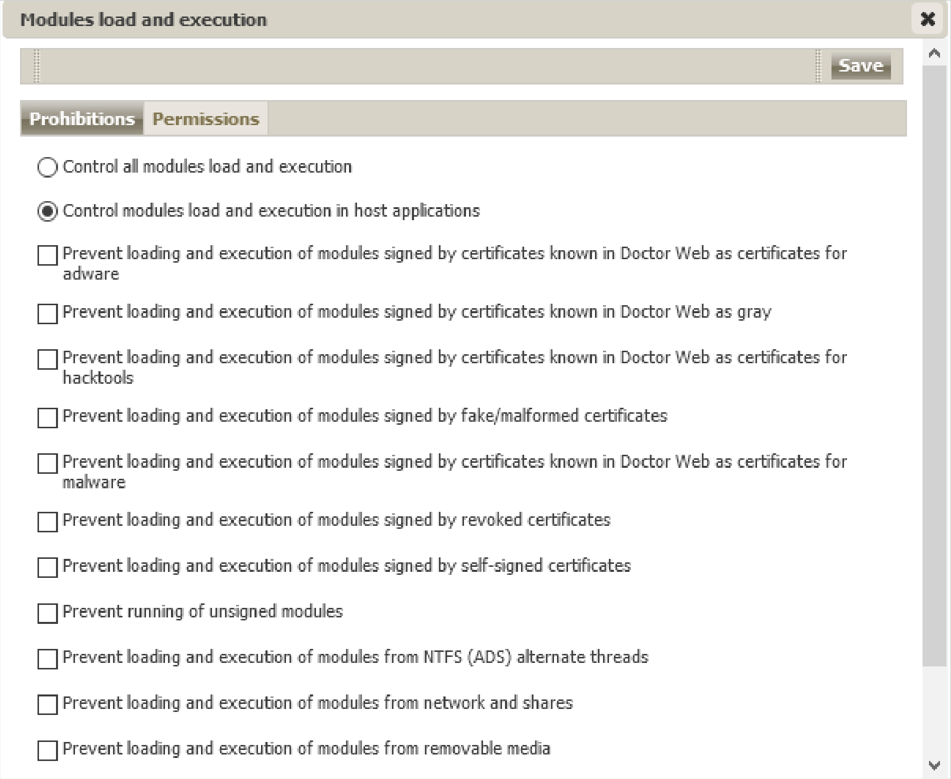
- Prevent the running of Windows/Microsoft Store applications (only for Windows 8 and later)
- Prevent the running of applications with a double/atypical extension

It's well understood that Linux programs run under Windows are not used in most systems, so we can also select **Prevent running of bash shells and WSL applications (only for Windows 10 and above)**.

It's also not a bad idea to prohibit the launch of applications from removable media **(Prevent the running of applications from removable media)** and over the network **(Prevent the running of applications from the network and shared resources)**. Flash cards are a well-known source of viruses.

Quite often, malware is used to run folders for temporary files. If you are not going to deploy new software that can also use those folders—select the option **Prevent the running of applications from temporary folders**.

Module load and execution



○ Control all modules load and execution

● Control modules load and execution in host applications

□ Prevent loading and execution of modules signed by certificates known in Doctor Web as certificates for adware

□ Prevent loading and execution of modules signed by certificates known in Doctor Web as gray

□ Prevent loading and execution of modules signed by certificates known in Doctor Web as certificates for hacktools

□ Prevent loading and execution of modules signed by fake/malformed certificates

□ Prevent loading and execution of modules signed by certificates known in Doctor Web as certificates for malware

□ Prevent loading and execution of modules signed by revoked certificates

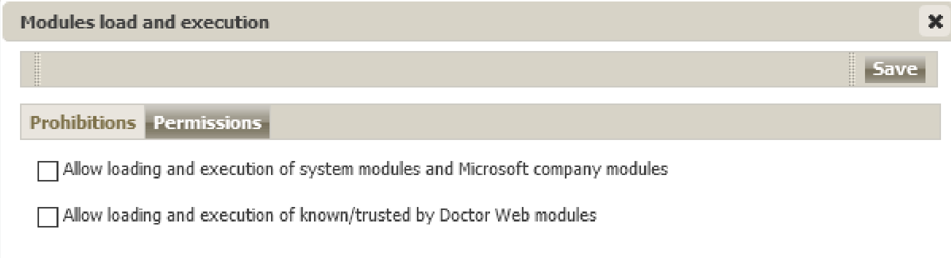
□ Prevent loading and execution of modules signed by self-signed certificates

□ Prevent running of unsigned modules

□ Prevent loading and execution of modules from NTFS (ADS) alternate threads

□ Prevent loading and execution of modules from network and shares

□ Prevent loading and execution of modules from removable media



□ Allow loading and execution of system modules and Microsoft company modules

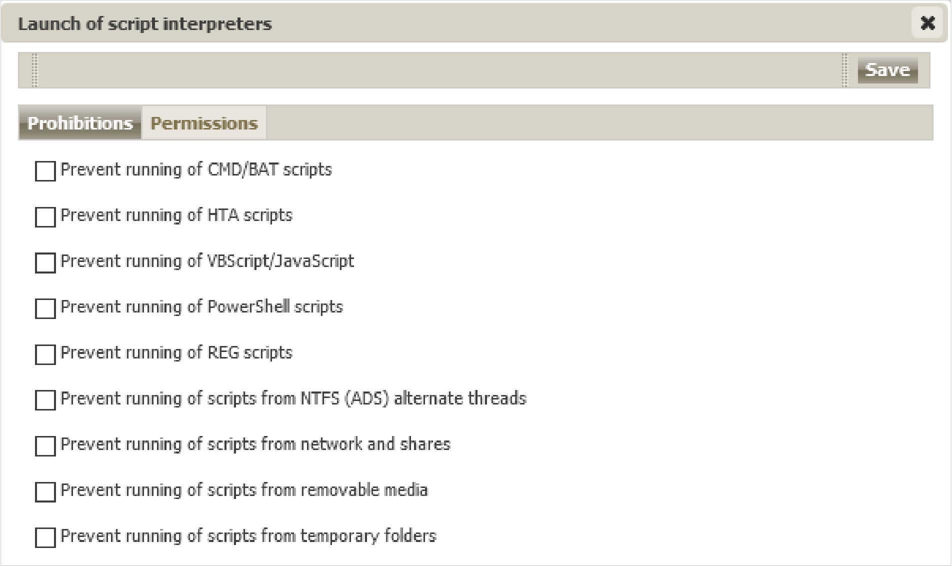
□ Allow loading and execution of known/trusted by Doctor Web modules

Control the loading and execution of all modules

Control the loading and execution of modules in host applications

The list of permissions is also straightforward; the prohibitions are similar to the previous section.

Launch of script interpreters



□ Prevent running of CMD/BAT scripts

□ Prevent running of HTA scripts

□ Prevent running of VBScript/JavaScript

□ Prevent running of PowerShell scripts

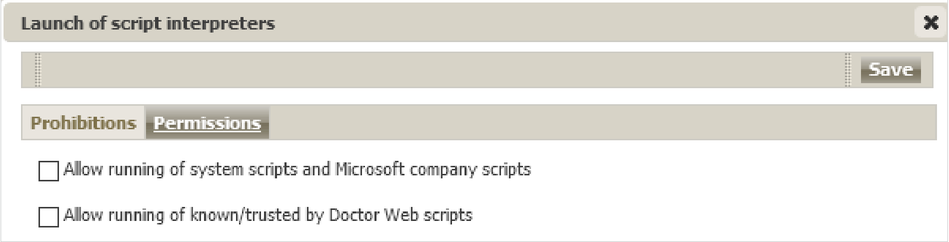
□ Prevent running of REG scripts

□ Prevent running of scripts from NTFS (ADS) alternate threads

□ Prevent running of scripts from network and shares

□ Prevent running of scripts from removable media

□ Prevent running of scripts from temporary folders

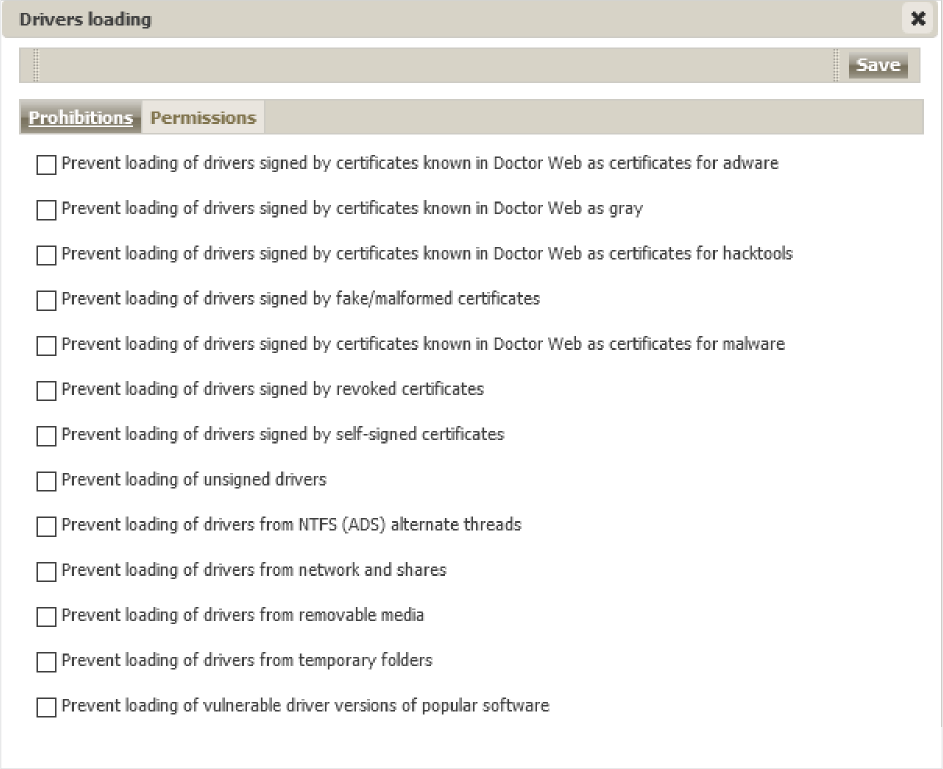


□ Allow running of system scripts and Microsoft company scripts

□ Allow running of known/trusted by Doctor Web scripts

In this section, you can prohibit the types of scripts (and also registry modification) that are definitely not used in your system and their launch from removable media or from temporary directories.

Driver loading



□ Prevent loading of drivers signed by certificates known in Doctor Web as certificates for adware

□ Prevent loading of drivers signed by certificates known in Doctor Web as gray

□ Prevent loading of drivers signed by certificates known in Doctor Web as certificates for hacktools

□ Prevent loading of drivers signed by fake/malformed certificates

□ Prevent loading of drivers signed by certificates known in Doctor Web as certificates for malware

□ Prevent loading of drivers signed by revoked certificates

□ Prevent loading of drivers signed by self-signed certificates

□ Prevent loading of unsigned drivers

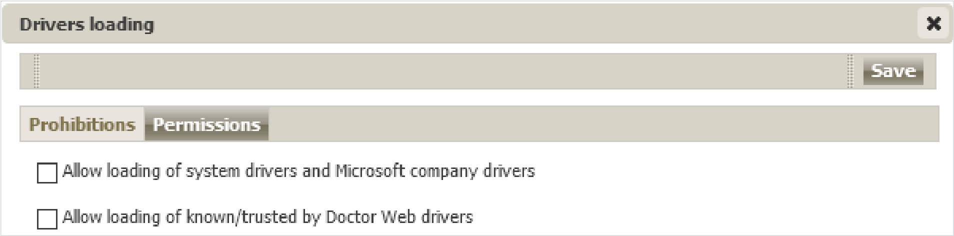
□ Prevent loading of drivers from NTFS (ADS) alternate threads

□ Prevent loading of drivers from network and shares

□ Prevent loading of drivers from removable media

□ Prevent loading of drivers from temporary folders

□ Prevent loading of vulnerable driver versions of popular software

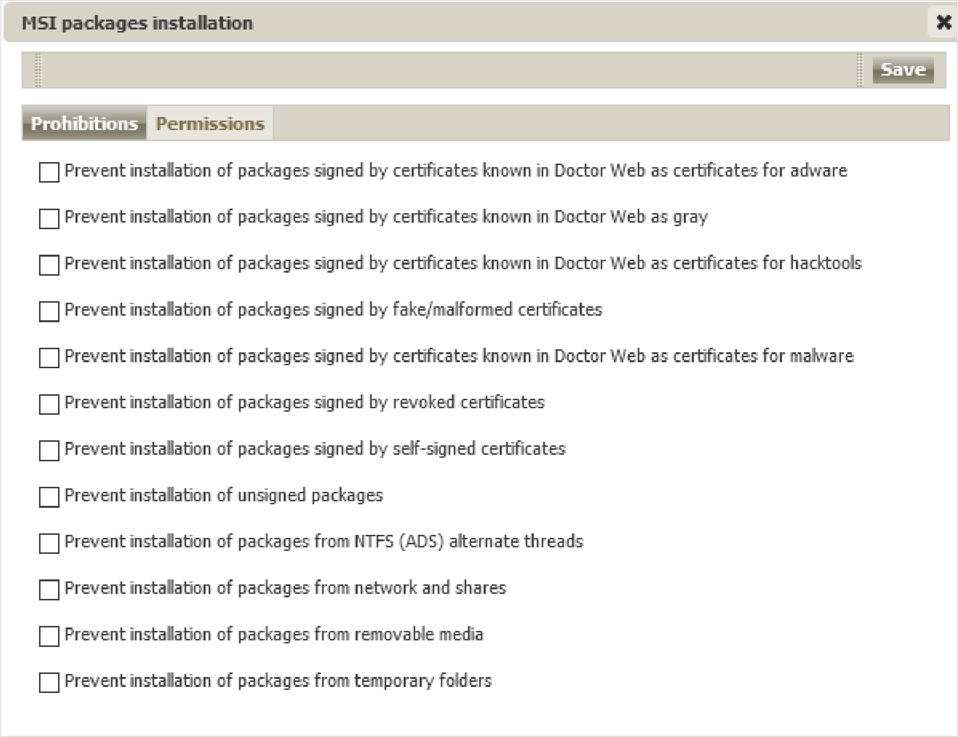


□ Allow loading of system drivers and Microsoft company drivers

□ Allow loading of known/trusted by Doctor Web drivers

In addition to the prohibitions described above in this section, there is a unique option—**Prevent the loading of vulnerable driver versions of popular software**. We think that its importance is clear.

MSI package installation



□ Prevent installation of packages signed by certificates known in Doctor Web as certificates for adware

□ Prevent installation of packages signed by certificates known in Doctor Web as gray

□ Prevent installation of packages signed by certificates known in Doctor Web as certificates for hacktools

□ Prevent installation of packages signed by fake/malformed certificates

□ Prevent installation of packages signed by certificates known in Doctor Web as certificates for malware

□ Prevent installation of packages signed by revoked certificates

□ Prevent installation of packages signed by self-signed certificates

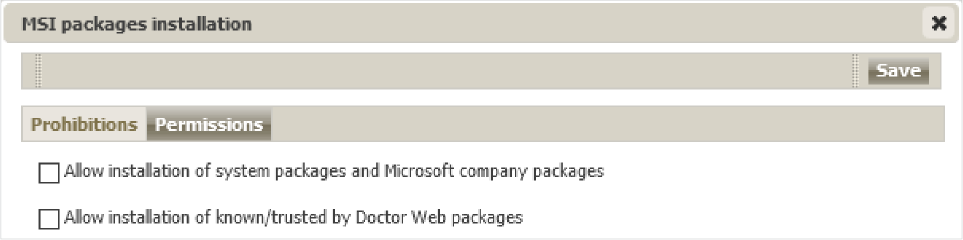
□ Prevent installation of unsigned packages

□ Prevent installation of packages from NTFS (ADS) alternate threads

□ Prevent installation of packages from network and shares

□ Prevent installation of packages from removable media

□ Prevent installation of packages from temporary folders

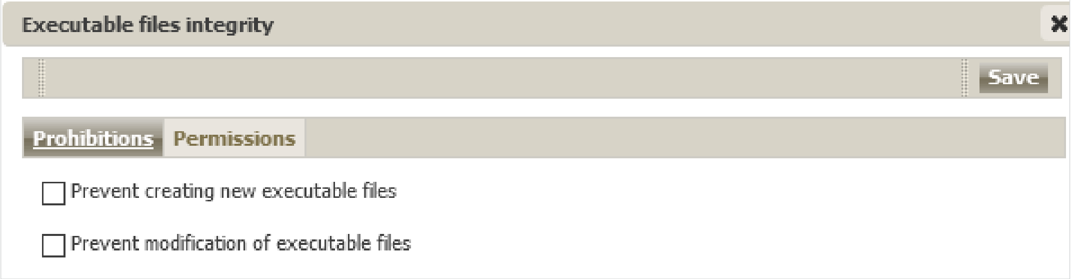


□ Allow installation of system packages and Microsoft company packages

□ Allow installation of known/trusted by Doctor Web packages

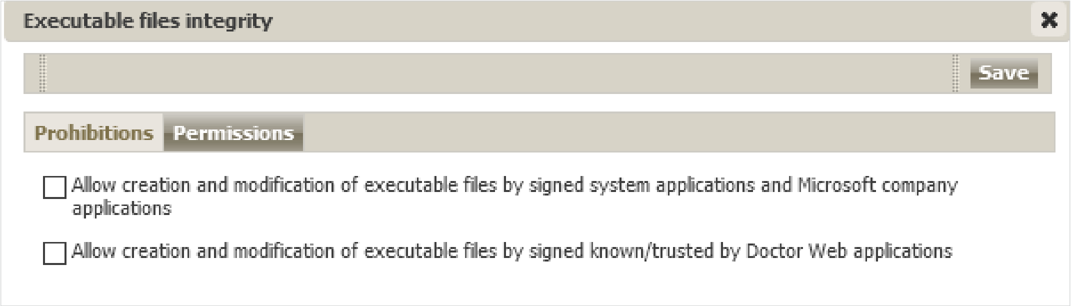
Malicious packages are often used by malicious software. You can use the options in this section to prevent the launch of installation packages.

Executable file integrity



□ Prevent creating new executable files

□ Prevent modification of executable files



□ Allow creation and modification of executable files by signed system applications and Microsoft company applications

□ Allow creation and modification of executable files by signed known/trusted by Doctor Web applications

This is probably the most simple and attractive option. An anti-virus must cure, so it’s logical for it to have the right to modify objects. But the updating system can also modify objects. So, if you are using a Microsoft updating system, you can prevent the modification of executable files for all other sources by ticking the boxes on the **Prohibitions** page.

Tick the boxes for the settings that you want to be applied, and don't forget—before enabling the new operation mode on stations, it should be tested.

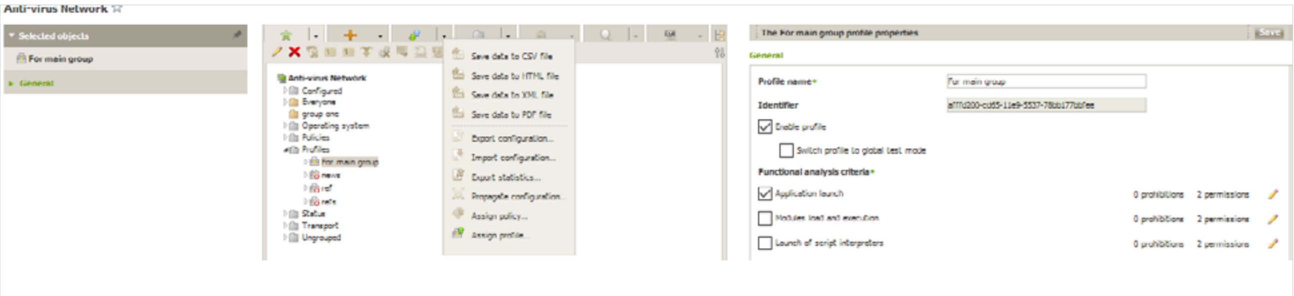
If you enable an event type but do not specify its advanced settings, launch control will be carried out for all the objects according to this criteria in accordance with the allow or deny modes. If you specify advanced settings but do not enable the event type itself, neither the advanced settings nor the criteria will be executed.

To save the advanced settings, click on **Save** in the window containing the list of advanced settings.

4. To apply the settings specified in the **General** section, click on **Save** in the profile settings.

The second stage in configuring the application launch control system involves assigning a created and configured profile to stations or anti-virus network users.

1. Select **Anti-virus Network** in the Control Center's main menu.
2. In the newly appeared window, from the hierarchical list, select the profile that you want to assign.
3. On the toolbar, click on **Export Data** → **Assign profile**.



Profile name* For main group

Identifier af7fd200-cd65-11e9-5537-78bb177bbfee

☑ Enable profile

□ Switch profile to global test mode

Functional analysis criteria*

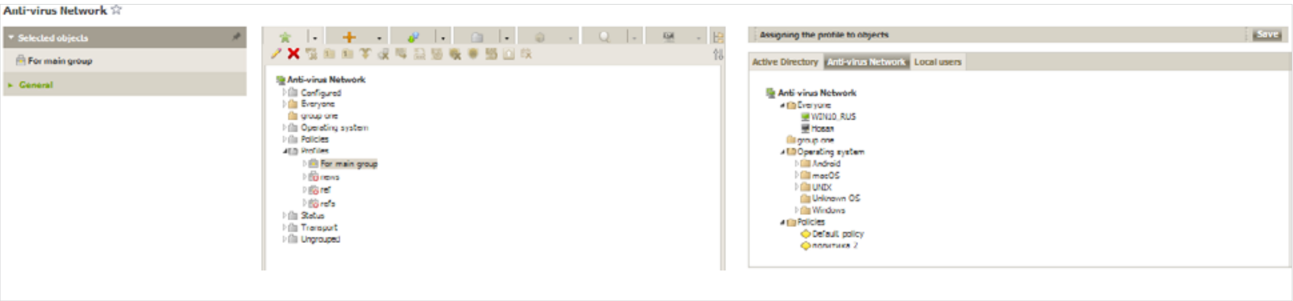
☑ Application launch 0 prohibitions 2 permissions

□ Modules load and execution 0 prohibitions 2 permissions

□ Launch of script interpreters 0 prohibitions 2 permissions

4. In the newly appeared window, select the object to which the settings are to be distributed. In the case of the global deny to execute malicious code option, the most logical thing to do is to assign this restriction to all the stations in the anti-virus network.

   In the **Anti-virus Network** tab, you can select groups of stations (the settings will be applied to all the user accounts of all the stations included in the group data) or individual stations in groups (the settings will be applied to all the user accounts of the selected stations):



5. Click on **Save**. All the selected objects will be added to the list to which the profile is being applied. Furthermore, the objects will appear as nested items for the configured profile.

The problem solved.

Doctor Web
2003–2019

3rd street Yamskogo polya 2-12A, Moscow, Russia, 125040

Tel.: +7 (495) 789–45–87
Fax: +7 (495) 789–45–97

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