

## Anti-Virus Comparative



## PC Matic PC Pitstop SuperShield 2.0

Language: English  
February 2017

Last Revision: 30<sup>th</sup> March 2017

[www.av-comparatives.org](http://www.av-comparatives.org)

*Commissioned by PC Matic*

## Introduction

This report has been commissioned by PC Matic.

We found PC Matic PC Pitstop very easy to install. The wizard allows the user to change the location of the installation folder and the placing of shortcuts, but the average user only needs to click *Next* a few times. The program can be started as soon the setup wizard completes.

## A Different Approach

PC Matic approaches security differently than traditional security products. PC Matic relies mainly on a white list to defeat malware; this can lead to a higher number of false alarms if users have files which are not yet on PC Matic's whitelist. Unknown files are uploaded to PC Matic servers, where they get compared against a black- and white list (signed and unsigned).

By default, PC Matic SuperShield only blocks threats and unknown files on-execution, but does not remove/quarantine them.

## Additional features

In addition to malware protection, PC Matic also provides system maintenance and optimization features. These include checking for driver updates, outdated programs with vulnerabilities, erroneous registry entries and disk fragmentation. A single scan can be run which checks not only for malware, but also for any available system optimization opportunities.



## Tested products

The tested products have been chosen by PC Matic. We used the latest available product versions and updates available at time of testing (February 2017).

1. Adaware Pro Security 12.0
2. Avanquest System Suite Professional 15.6
3. AVAST Free Antivirus 17.1
4. AVG Free Antivirus 17.1
5. AVIRA Antivirus Pro 15.0
6. Bitdefender Internet Security 2017
7. BullGuard Internet Security 17.0
8. Checkpoint ZoneAlarm Extreme Security 15.0
9. Comodo Internet Security FREE 10.0
10. Cylance CylanceProtect (malwaremanaged) 1.2
11. Emsisoft Anti-Malware 2017
12. ESET Internet Security 10.0
13. F-Secure Internet Security 2017
14. G DATA Internet Security 2017
15. iolo System Mechanic Pro 15.5
16. Kaspersky Internet Security 2017
17. MalwareBytes Anti-Malware Premium 3.0
18. McAfee Internet Security 2017
19. Microsoft Windows Defender 4.10
20. Panda Free Antivirus 18.0
21. PC Pitstop PC Matic with SuperShield 2.0
22. Qihoo 360 Total Security 9.0
23. Sophos Antivirus 10.6
24. Symantec Norton Security 22.9
25. TotalDefense Premium Internet Security 9.0
26. Trend Micro Internet Security 11.0
27. VIPRE Internet Security Pro 9.3
28. Webroot AntiVirus 9.0

## Test

The test has been performed under Windows 10 64-bit English in February 2017.

The test sets consisted of **1000 recent ransomware** samples and **4000 other malware** samples.

Furthermore, **120 generated polymorphic ransomware** samples were used (10 samples per family). The 12 used ransomware families were: Cerber, Crisis, Erebus, FileCoder, FileLocker, Genasom, Havoc, HydraCrypt, Locky, Milicry, Petya, Troldeh.

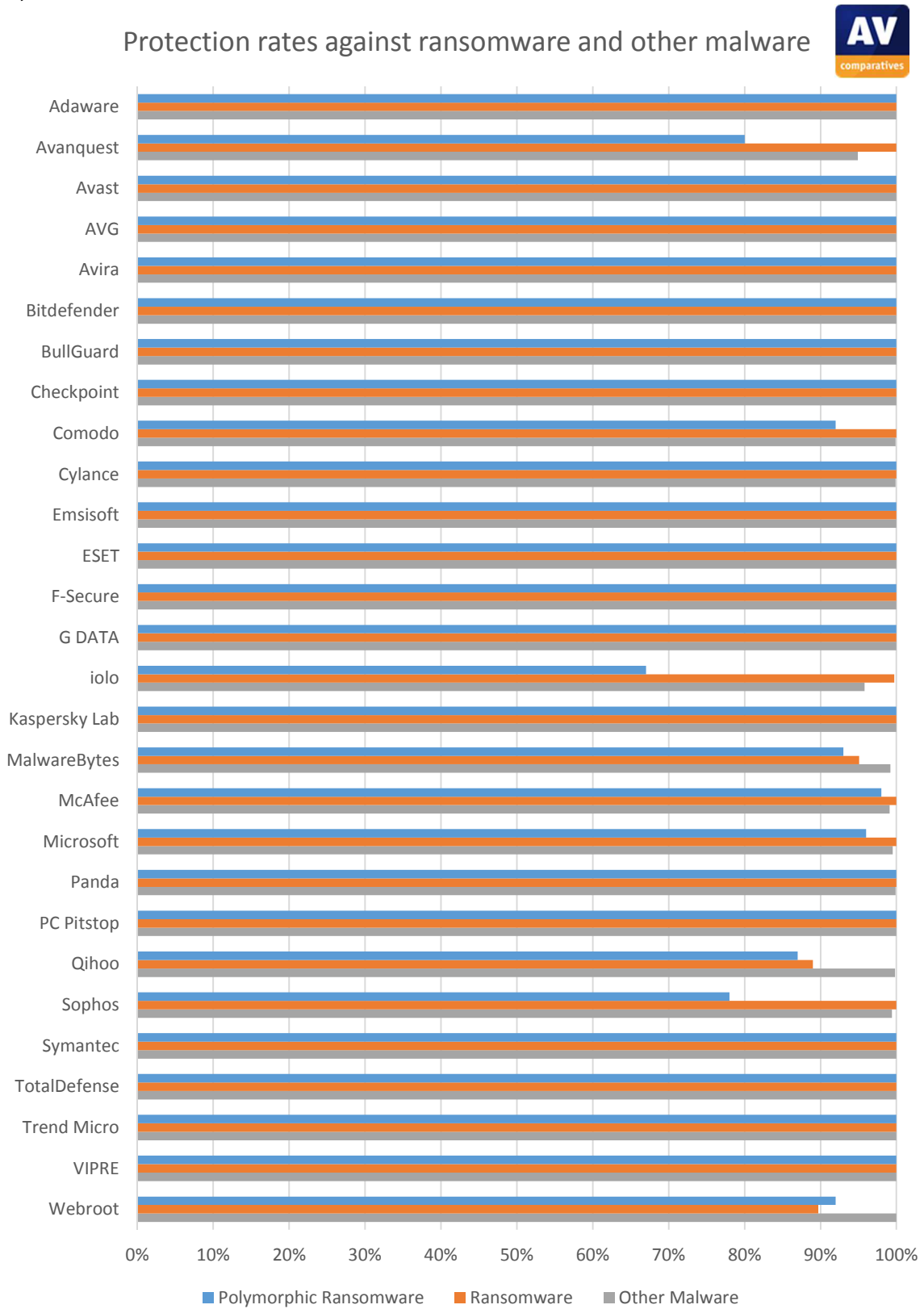
None of the samples were known to VirusTotal at time of testing. All products were tested with cloud connection and the samples were **executed** using AV-Comparatives' Real-World-Testing Framework.

For the false alarm test, **50000** clean files have been used.

	# of samples in test-set
<b>Polymorphic ransomware</b>	120
<b>Recent ransomware</b>	1000
<b>Other malware</b>	4000
<b>Clean files</b>	50000

## Results

The chart below shows the protection rates against the used ransomware and other malware samples.



The table below shows the protection rates against the used ransomware and other malware samples, as well as the false alarm rate.

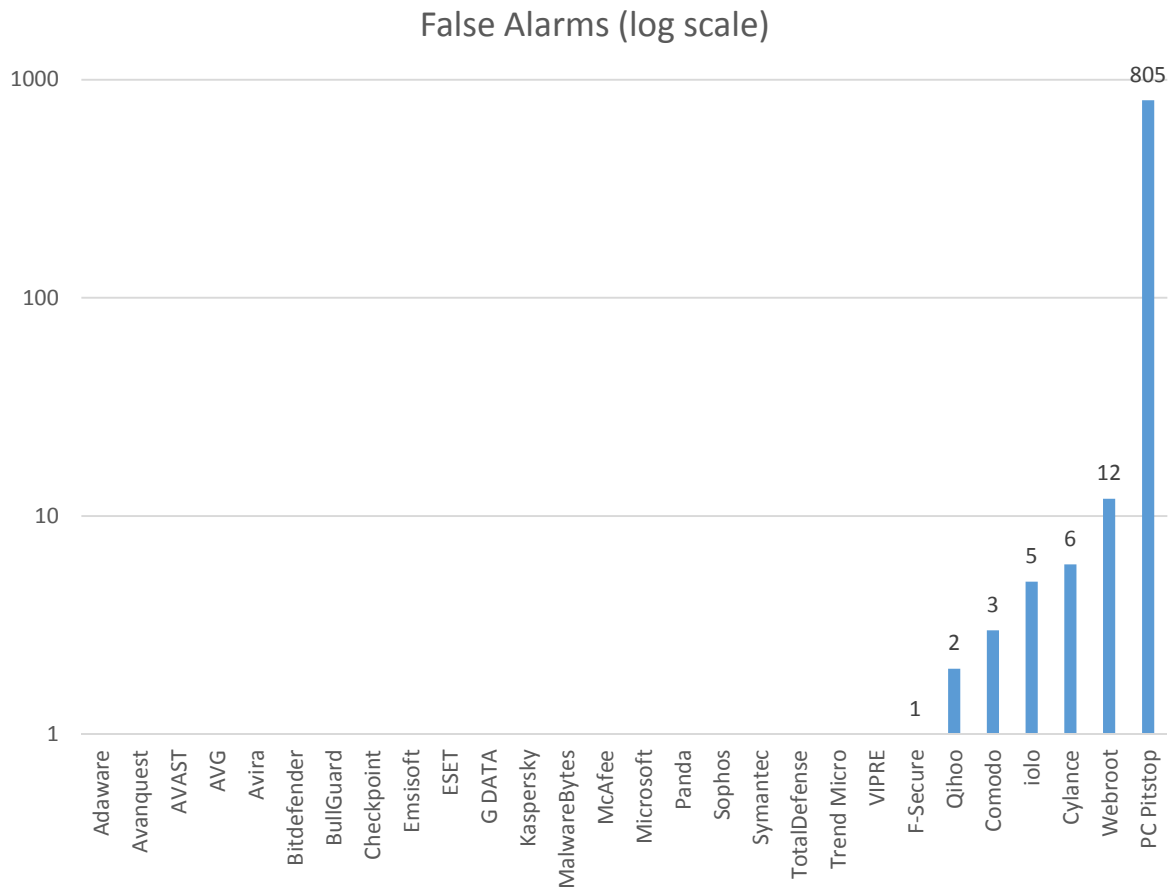
	<b>Polymorphic Ransomware</b> (120 samples)	<b>Ransomware</b> (1000 samples)	<b>Other Malware</b> (4000 samples)	<b>False Alarms</b> (50000 samples)
<b>Adaware</b>	100%	100%	100%	0
<b>Avanquest</b>	<b>80%</b>	100%	<b>94.9%</b>	0
<b>Avast</b>	100%	100%	100%	0
<b>AVG</b>	100%	100%	100%	0
<b>Avira</b>	100%	100%	100%	0
<b>Bitdefender</b>	100%	100%	100%	0
<b>BullGuard</b>	100%	100%	100%	0
<b>Checkpoint</b>	100%	100%	100%	0
<b>Comodo</b>	<b>92%</b>	100%	<b>99.9%</b>	<b>3</b>
<b>Cylance</b>	100%	100%	<b>99.9%</b>	<b>6</b>
<b>Emsisoft</b>	100%	100%	100%	0
<b>ESET</b>	100%	100%	100%	0
<b>F-Secure</b>	100%	100%	100%	<b>1</b>
<b>G DATA</b>	100%	100%	100%	0
<b>iolo</b>	<b>67%</b>	<b>99.7%</b>	<b>95.8%</b>	<b>5</b>
<b>Kaspersky Lab</b>	100%	100%	100%	0
<b>MalwareBytes</b>	<b>93%</b>	<b>95.1%</b>	<b>99.2%</b>	0
<b>McAfee</b>	<b>98%</b>	100%	<b>99.1%</b>	0
<b>Microsoft</b>	<b>96%</b>	100%	<b>99.5%</b>	0
<b>Panda</b>	100%	100%	<b>99.9%</b>	0
<b>PC Pitstop</b>	100%	100%	100%	<b>805</b>
<b>Qihoo</b>	<b>87%</b>	<b>89.0%</b>	<b>99.8%</b>	<b>2</b>
<b>Sophos</b>	<b>78%</b>	100%	<b>99.4%</b>	0
<b>Symantec</b>	100%	100%	100%	0
<b>TotalDefense</b>	100%	100%	100%	0
<b>Trend Micro</b>	100%	100%	100%	0
<b>VIPRE</b>	100%	100%	100%	0
<b>Webroot</b>	<b>92%</b>	<b>89.7%</b>	100%	<b>12</b>

	<b>Cerber</b>	<b>Crysis</b>	<b>Erebus</b>	<b>Filecoder</b>	<b>Filelocker</b>	<b>Genasom</b>	<b>Havoc</b>	<b>Hydracrypt</b>	<b>Locky</b>	<b>Mitlicry</b>	<b>Petya</b>	<b>Troldesh</b>
<b>Adaware</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Avanquest</b>	10%	100%	100%	100%	100%	100%	<b>70%</b>	<b>80%</b>	100%	<b>0%</b>	100%	100%
<b>Avast</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>AVG</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Avira</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Bitdefender</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>BullGuard</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Checkpoint</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Comodo</b>	<b>0%</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Cylance</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Emsisoft</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>ESET</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>F-Secure</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>G DATA</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>iolo</b>	<b>10%</b>	100%	100%	100%	100%	<b>0%</b>	<b>60%</b>	<b>30%</b>	100%	<b>0%</b>	100%	100%
<b>Kaspersky Lab</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>MalwareBytes</b>	<b>70%</b>	100%	100%	100%	100%	100%	<b>80%</b>	100%	100%	<b>70%</b>	100%	100%
<b>McAfee</b>	100%	100%	100%	100%	100%	100%	<b>80%</b>	100%	100%	100%	100%	100%
<b>Microsoft</b>	100%	100%	100%	100%	100%	100%	<b>50%</b>	100%	100%	100%	100%	100%
<b>Panda</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>PC Pitstop</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Qihoo</b>	<b>30%</b>	100%	100%	100%	100%	100%	<b>10%</b>	100%	100%	100%	100%	100%
<b>Sophos</b>	<b>0%</b>	100%	100%	100%	100%	<b>0%</b>	<b>40%</b>	100%	100%	100%	100%	100%
<b>Symantec</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>TotalDefense</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Trend Micro</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>VIPRE</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Webroot</b>	100%	100%	100%	<b>50%</b>	100%	<b>80%</b>	<b>80%</b>	<b>90%</b>	100%	100%	100%	100%

### False Alarm Test

On request of PC Matic, the false alarm test set was built to contain only EXE files, of which 67% had to be signed and 33% had to be unsigned files. Most of the used signed files were signed by Microsoft. All unsigned files included in the clean set had a very high prevalence (millions). During this test, these **50000** clean applications have been tested.

Only seven products (F-Secure, Qihoo, Comodo, iolo, Cylance, Webroot and PC Pitstop) had false alarms.



Although PC Pitstop whitelists files signed by publishers they trust and adds files after they see them in their user base to their whitelists, PC Pitstop had - due to its whitelist approach / by product design - a **very high FP rate**.



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