

PC Cleaner Pro

Windows 7 System Optimization versus CCleaner Professional Ed., Norton Utilities 16, RegClean Pro & TuneUp Utilities 2014

EXECUTIVE SUMMARY

Nothing detracts from the user experience and productivity of a PC user as much as a slow system. While today's hardware is powerful, normal usage frequently results in systems that become slower over time as they are cluttered by files deposited by websites, unwanted "bloatware" and myriad registry updates. A PC utility that can find, analyze and remove this clutter can provide great value to the PC user by restoring it to a state where it boots quickly and "runs like new."

PC Cleaner Pro commissioned Tolly to evaluate the effectiveness of PC Cleaner Pro in optimizing a Microsoft Windows 7 system environment and compare that to CCleaner Professional Edition from Piriform Ltd, Norton Utilities 16 from Symantec Corp., RegClean Pro from Systweak Software and Tuneup Utilities 2014 from AVG. Test results show that PC Cleaner Pro provides features and performance benefits compared to alternative solutions. See Table 1.

THE BOTTOM LINE

PC Cleaner Pro delivers:

- 1 Support for system clutter removal and privacy cleaner
- 2 Pre-defined optimization profiles for easy use
- 3 Higher PCMark "Productivity" score than other solutions
- 4 Security malware protection not provided by other solutions

PC System Optimization Features Summary
(Evaluated with a Windows 7 Enterprise System "in service" 6 months)

Feature	Solution					
	PC Cleaner Pro	CCleaner - Professional Edition	Norton Utilities 16	RegClean Pro	TuneUp Utilities 2014	Baseline
System Clutter Removal	Yes	Yes	Yes	No	Yes	N/A
Privacy Cleaner	Yes	Yes	Yes	No	Yes	N/A
Pre-defined Profiles	Yes	No	Yes	No	Yes	N/A
CPU % Utilization ¹	0.28 ("Best Performance" profile)	0.57	0.48	0.47	0.60 ("Turbo Mode")	0.68
Windows ADK - File Delete (s)	0.280	0.320	0.290	0.290	0.370	0.350
PCMark - Productivity	3,220	2,895	3,088	2,932	3,015	2,959
Security Features	Malware protection Security Defense which detects the vulnerabilities of the operating system.	No	No	No	No	No

Notes: 1) Avg. utilization during a 2 minute period beginning 8 minutes after boot. See Test Methodology section for test details. For CPU and file handling tests, lower results are better. For the PCMark test, higher results are better.

Source: Tolly, July 2014

Table 1



Test Results

Target System

To evaluate the feature and performance benefits of the PC optimization solutions, Tolly engineers chose a Windows 7 Enterprise system that had been lightly used by a business/home user for approximately 6 months. The system had over 150 applications installed and some 325,000 registry keys. See Test Methodology section for additional details.

Test Focus

Tests encompassed features as well as performance. Performance tests were run using a subset of tests from Microsoft's Windows Assessment and Deployment Kit (ADK) suite as well as PassMark Software's PerformanceTest 8.

System Clutter Removal

The fundamental first step in optimizing a system and freeing up disk space is to remove clutter. While PC Cleaner Pro and other systems offer this option, testers noted that RegClean Pro did not provide this feature. (Again, see Table 1 for a summary of the feature comparison.)

Privacy Cleaner

A second important feature is the availability of a privacy cleaner to clean up information that might be used in unintended manner if found on the machine by malicious programs or users. Again, while PC Cleaner Pro and others provide this feature, it is notably absent from RegClean Pro.

Performance: CPU Utilization

For applications to perform at their best, it is always good to have the system support

tasks to use as little CPU as possible - thus providing the maximum CPU resource to the various user applications.

Tolly engineers measured the system CPU for 2 minutes at a point starting approximately 8 minutes after the system booted and with no user applications running.

Not only did the system running PC Cleaner Pro consume the least CPU of all solutions tested but the system CPU utilization with PC Cleaner Pro was less than half that of "baseline" system with no optimization solution installed. See Figure 1.

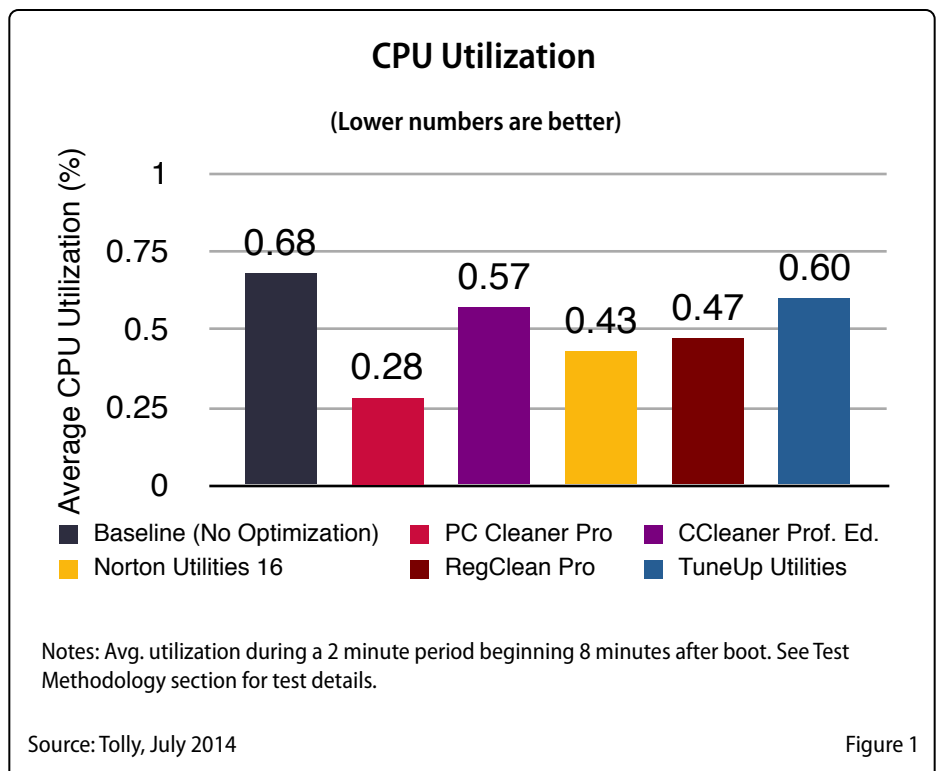
Performance: File Handling

Test engineers used the Microsoft ADK to benchmark the file delete function. PC Cleaner Pro, as shown in Table 1, accomplished this task faster than the other solutions as well as faster than the baseline, non-optimized system.



Performance: PCMark Productivity

Tolly engineers ran the PCMark benchmark program to provide an overall "productivity" score across the various solutions and the baseline system. Here, again, PC Cleaner Pro delivered the highest score. See Figure 2.





Security Features

Tolly engineers also noted that PC Cleaner Pro provides features that enhance the security of the PC system. Specifically, PC Cleaner Pro has what it terms “security defense” which detects vulnerabilities of the operating system. None of the other solutions tested offered similar functionality.

Boot Time & Disk Utilization

Finally, engineers ran two additional tests on only the PC Cleaner solution. Engineers measure the system boot time and the available disk space before and after the installation and execution of PC Cleaner Pro.

Engineers noted that boot time was improved by more than a factor of 2 by PC Cleaner Pro and that the solution freed up 500MB of disk space on the target system with cleaning. See Table 2 and Figures 3 and 4.

Test Setup & Methodology

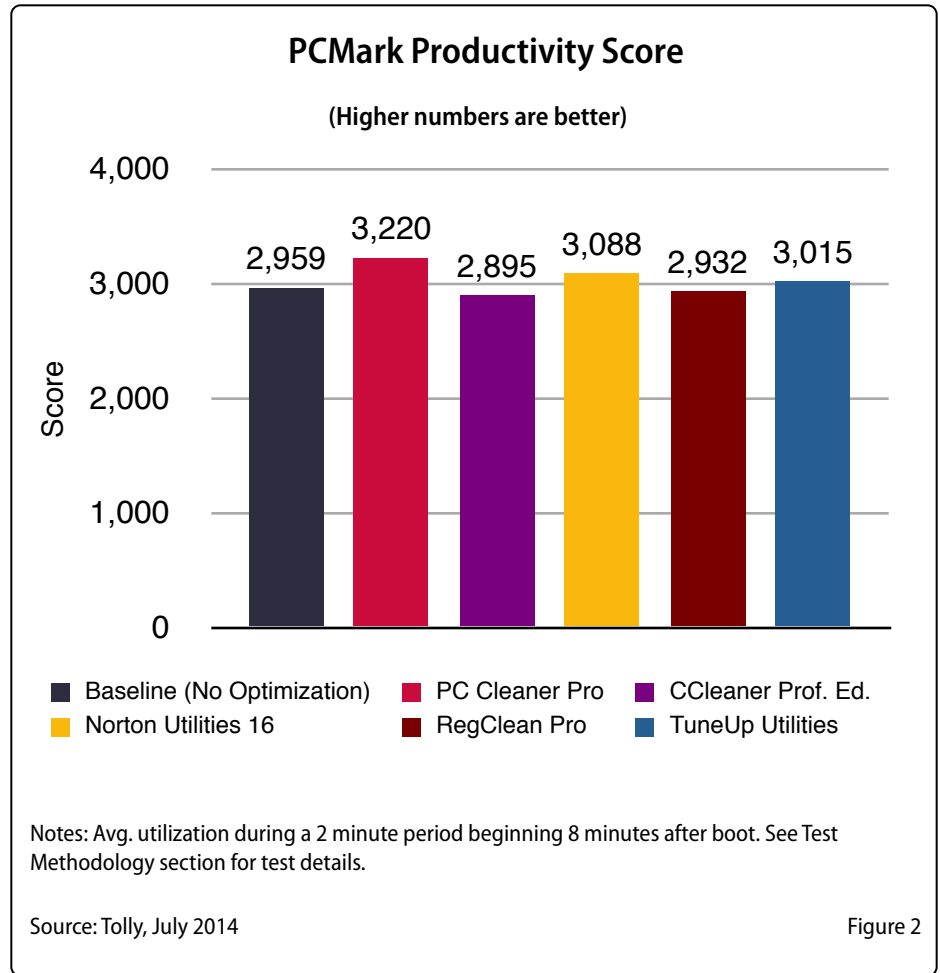
System Information

Systems under Test

See Table 3 for version details of the solutions tested.

Windows PC

One Windows 7 Enterprise 32-bit system was used as the target machine. The image was cloned to a VMware virtual machine. This Windows 7 system had been previously used lightly for about 6 months with 100+ applications installed, and had several GB of files in several user folders. Additionally, the user had a large web



Boot Time & Disk Utilization Test Results

(run only on PC Cleaner Pro)

Feature	PC Cleaner Pro Test Results	
	Before Cleaning	After Cleaning
System Boot Time (s)	358	113
Free Disk Space After Installation (GB)	11.60	12.10

Notes: PC Cleaner version: 13.0.14.11.25. Boot time reported by Windows ADK.

Source: Tolly, November 2014 Table 2



history and roughly 25 session cookies. To increase the application inventory, additional applications were installed from ninite.com. All ninite.com product categories except security were installed, bringing the total application count to 160. The system registry was analyzed via a snapshot and contained 325,000 registry keys.

Virtualized Test Environment

Windows Update was run to ensure an up-to-date system and Windows Idle tasks were run prior to shutdown and templating for each solution.

The VMware virtual machine for each system was provisioned with 2 vCPU, 4GB RAM and 60GB hard disk. All tests were performed in a VMware ESXi 5.5 environment, to allow multiple tests to be run from the same image.

Performance Test Tools

Windows ADK

Windows Assessment and Deployment Toolkit (ADK) with Windows Assessment Console Version 6.2.9200.16384 was used to evaluate the boot time and file handling performance. The "Total Boot Time [Exclude BIOS]" result in the Windows ADK was reported as the boot time.

PCMark

PCMark Vantage Professional 1.2.0.0 was used to run the Productivity Suite. A script was used to start the Performance Monitor and record the CPU usage.

Procedure

For each System under Test (SUT) engineers ran the following series of steps:

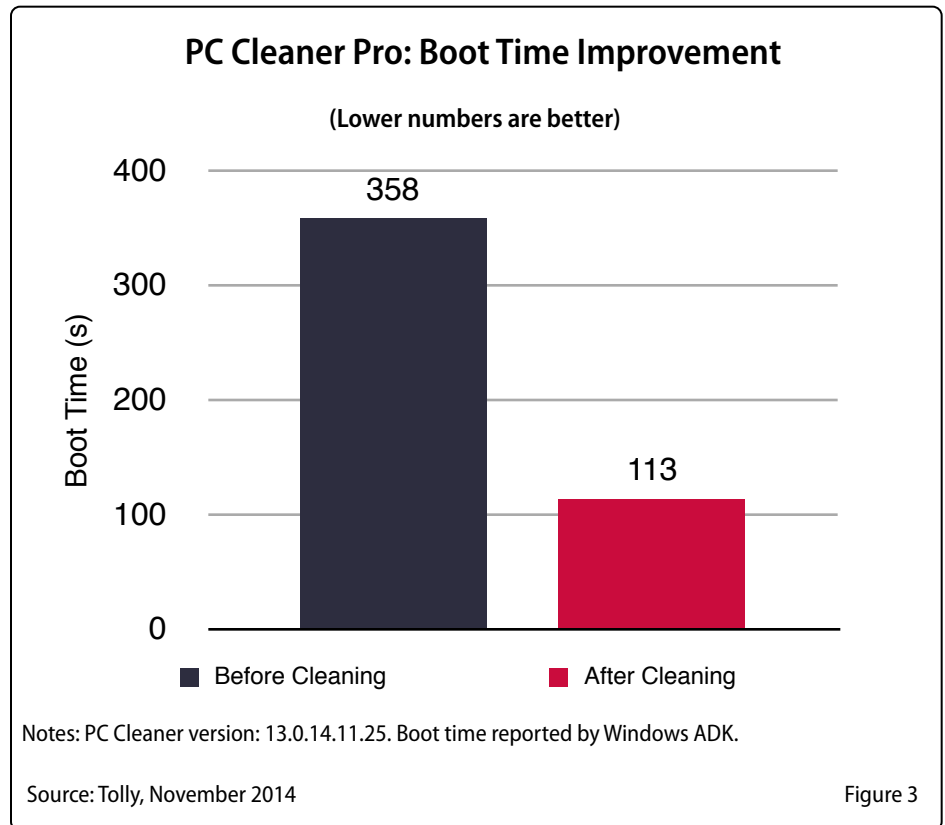


Figure 3

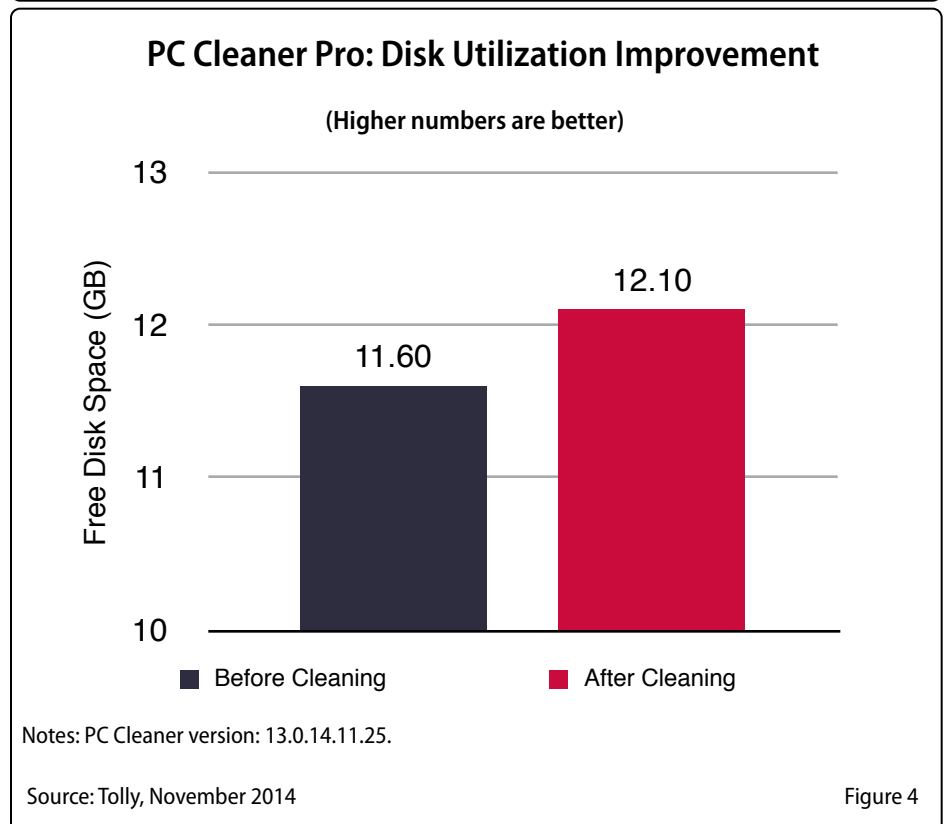


Figure 4



- booted the Windows 7 system
- installed the SUT
- ran the SUT to clean the system
- rebooted the Windows 7 system
- ran the Windows Assessment Toolkit to evaluate the boot time and the file handling performance
- rebooted the Windows 7 system
- ran the PCMark Vantage Professional application to evaluate the productivity performance
- rebooted the Windows 7 system
- let the script record the CPU information during the 8 minutes and 10 minutes from the booting.

Before testing each SUT, engineers reverted the Windows 7 system to the same snapshot to keep it the same for each SUT.

Optimizer Solution Usage

Tolly engineers used the default setting of PC Cleaner to scan for problems, adjusted the optimizer profile to "Best Performance", clicked to fix all problems, navigated to tools and used the "Office" profile of the PC Optimizer tool to optimize the system.

For all other SUTs that offered an optimizer profile, the best performance profile was used.

Systems Under Test

Product	Vendor	Version
PC Cleaner Pro	PC Cleaner, Inc.	Version:12.9.14.6.13, Engine 3.0.18.a3
CCleaner - Professional Edition	Piriform Ltd	4.14.4707
Norton Utilities 16	Symantec Corp.	16.0
RegClean Pro	Systweak Software	6.21.65.2903
TuneUp Utilities 2014	AVG	Version: 14.0.1000.324, Cleaning definitions version: 2

Notes: PC Cleaner version: 13.0.14.11.25 was used for the Boot Time and Disk Utilization tests.

Source: Tolly, July/November 2014

Table 3



About Tolly

The Tolly Group companies have been delivering world-class IT services for more than 25 years. Tolly is a leading global provider of third-party validation services for vendors of IT products, components and services.

You can reach the company by E-mail at sales@tolly.com, or by telephone at +1 561.391.5610.

Visit Tolly on the Internet at: <http://www.tolly.com>

About PC Cleaner, Inc.

PC Cleaner Inc. is the provider of PC Cleaner Pro, a tool that not only improves the speed and thus the performance of your computer but helps to protect your privacy as well.



For more information visit: <http://www.pc-cleaners.com>

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