Contents

A Introduction ........................................................................................................................................... 2

B PC Insights & Analysis - Software ................................................................................................. 3

   Installed programs ............................................................................................................................. 4

   Out of date applications .................................................................................................................... 5

   The Top 10 least updated applications ........................................................................................... 6-7

   Global Windows usage ...................................................................................................................... 8

   The Top 3 most up-to-date applications .......................................................................................... 9

C PC Insights & Analysis - Hardware ................................................................................................. 10

   Most popular memory size ............................................................................................................... 11

   CPU cores ........................................................................................................................................ 11

   HDD vs. SDD ..................................................................................................................................... 12

   Contact information ......................................................................................................................... 13
A Introduction

The Avast PC Trends Report for Q1 2017 looks at the anonymous data of millions of desktop and laptop users worldwide running Windows® to give a real world picture of most used applications, which hardware is the most popular, which software is outdated and more.

In the last year, the Windows® PC has undergone a significant transformation. With the advent of Windows 10, new form factors, and new use cases, the role of the PC is being re-defined in today’s mobile-centric world.

The Avast PC Trends Report for Q1 2017 reveals how people are using their PCs today and provides an overview of the hardware and software out there.

Methodology

- SOFTWARE, RAM & HDD DATA FROM OVER 116,000,000 WINDOWS USERS
- CPU DATA FROM OVER 3,000,000 WINDOWS USERS

The Avast PC Trends Report - Q1 2017 contains anonymous data from a base sample of more than 116 million users worldwide. The CPU data features in this report was gathered from a sample of 3 million randomly selected PCs worldwide.
The average PC owner has 49 installed programs. This includes well-known applications like Firefox, 7-ZIP, Java and iTunes. So what does the majority of our sampled user base of 116 million do with their PCs?

Browsing top the list with Google Chrome at number 1, Adobe Reader in 2nd position and Flash in the number 3 spot. This is closely followed by Skype in position 6 and Java and Adobe Air in positions 9 and 10 respectively.

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**THE TOP 10 MOST INSTALLED PC PROGRAMS**

1. Google Chrome
   - Google Inc.
2. Adobe Reader
   - Adobe
3. Flash Player (Active X)
   - Adobe
4. Mozilla Firefox
   - Mozilla
5. Flash Player Plug-In
   - Adobe
6. Skype
   - Microsoft Corp.
7. VLC Player
   - Videolabs
8. WinRAR
   - HARLAB
9. Java
   - Oracle Corporation
10. Adobe Air
    - Adobe

Chrome, Adobe and VLC

Just a few of the most installed programs in our list
PC Insights & Analysis - Software

Out of date applications

Over 52% of the most popular, critical and security related applications, like Firefox, Flash or Java aren’t being updated by users around the world. This can be caused by users ignoring updates and updates not working properly. It doesn’t just open up the door for attackers exploiting out of date software vulnerabilities, but users are also missing out on the latest features, bug fixes and compatibility they get through latest software.

We sampled this data using Automatic Software Updater, which is now part of the 2017 release of AVG TuneUp (by Avast).

Java Runtime Environment: one of the most outdated programs and a security risk.
B PC Insights & Analysis - Software

The Top 10 least updated applications

1. **Java (Runtime 6 & 7):** Almost 50% of users (56 million users) are running one version of Java Runtime Environment (6-8). Given this program has in the past been the carrier of some of the most critical security vulnerabilities (see here for a comprehensive list) on Windows PCs, this opens up the front gates for malware and exploits. Almost 25% of users are running the outdated JRE 6 or 7. Unfortunately, even users on the newest release (version 8) might not be up to date as our data showed 70% aren’t running the latest version.

2. **Flash (ActiveX):** Popular web technology Flash is known for its security exploits and other issues such as draining battery life from laptops. Our research showed the Flash ActiveX control for Internet Explorer is outdated in 99% of all instances.

3. **Foxit Reader:** Popular 3rd party PDF reader “Foxit” also suffered as one of the top programs that was not updated. 92% of all Foxit users are working with an older version.

4. **GOM Media Player:** Touted by its developer as “The only player you’ll ever need”, it appears from our research that users download the media player but subsequently don’t update it. 90% of our user sample aren’t running the latest version, which would give them enhanced playback performance, more video filters and a range of useful upgrades on an almost monthly basis.

5. **Nitro Pro:** Another PDF reader, Nitro Pro is also neglected in 89% of all cases. Again, the lack of updates means users can be faced with bugs and vulnerabilities.

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Uninstall Flash if you’re not using Internet Explorer. For users of other browsers like Firefox, Chrome or Opera which use the Flash plugin, note that a still high 38% of all cases were outdated.
Adobe Shockwave: Another popular free web player by Adobe that is used in high-performance games or other interactive desktop and web applications. But just as with its subscription sibling, Shockwave is also not free of security issues and a massive 84% of users had not updated to the latest version.

7-ZIP: 82% of all 7-Zip users in our sample are out of date - it’s likely that users are not aware that even a compression tool might need updates. Due to its popularity, using an outdated version opens up the door to potential attacks (see here).

Cut the software updates manually today or use AVG TuneUp’s Automatic Software Updater and be done with it once and for all as it automatically checks and installs updates silently in the background.

Firefox: With over 73% of users running an out of date version, they aren’t enjoying the latest release and might be missing out on important security fixes and new features.
Windows XP is still installed on 6.5 million of our users PCs which is just over 5% of our sample base. This is a 15 year old operating system that was discontinued almost 3 years ago with Microsoft not issuing any significant security updates or bug fixes since. Worryingly, this usage is actually higher than that of Windows Vista, coming in at just 2% - and that’s more secure and reliable by far.

Microsoft’s unsupported Windows XP OS is still used by 6.5 million people.
The Top 3 most up-to-date applications

On the other side, a few applications have really managed to keep more than 70% of their entire user base updated. Given the fact that these programs include built-in updaters, it’s surprising that not all users are on the latest version. These are:

1. **Google Chrome** 88% Up-to-date
2. **Opera** 84% Up-to-date
3. **Skype** 76% Up-to-date
PC Insights & Analysis
HARDWARE
## PC Insights & Analysis - Hardware

### Most popular memory size - **4 Gigabyte**

The most popular memory size is 4 GB of RAM followed by 2 GB. Small memory size may cause PCs to run and perform tasks slowly if users do more than basic emailing or running a browser with just a few tabs open. On the other hand, 8 GB and 16 GB are increasingly common with roughly 15 and 12 million of our users respectively running these today.

At one end of the spectrum, we found 9.6 million users have 1 GB or less of memory, which is barely enough to have just a few browser tabs open. At the other end, only 174,000 users are working with 32 GB of RAM, and less than 10,000 have a massive 64 GB of RAM sitting under their desk.

### CPU cores

The CPU is a PC’s brain, controlling and calculating everything a user does on their computer. The most common number of cores are two since, more than a decade ago, CPUs became smarter and improved their multi-tasking capabilities with multiple cores on one chip. While the technology has improved, dual-core remains the most popular type of processor with 77% of our user base sample owning a PC with a dual-core by either AMD or Intel. And even though both chip makers have moved on, quad-core is still relatively rare at just 15%. Only less than 0.5% of users have 6, 8 or more cores.

### Amount of RAM installed

<table>
<thead>
<tr>
<th>Memory Size</th>
<th>Percentage</th>
<th>Number of Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 GB or less</td>
<td>8.28%</td>
<td>9,615,469</td>
</tr>
<tr>
<td>3 GB</td>
<td>6.00%</td>
<td>6,969,049</td>
</tr>
<tr>
<td>2 GB</td>
<td>21.60%</td>
<td>25,073,456</td>
</tr>
<tr>
<td>6 GB</td>
<td>5.59%</td>
<td>6,493,368</td>
</tr>
<tr>
<td>32 GB or more</td>
<td>0.16%</td>
<td>183,984</td>
</tr>
<tr>
<td>8 GB</td>
<td>13.09%</td>
<td>15,193,492</td>
</tr>
<tr>
<td>16 GB</td>
<td>1.94%</td>
<td>2,256,280</td>
</tr>
</tbody>
</table>

### Diagram

[Image of CPU cores distribution chart]

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Avast PC Trends Report - Q1 2017
PC Insights & Analysis - Hardware

HDD vs. SSD

The supposed rise of SSDs is clearly a myth as old-school mechanical disks (HDDs) still dominate the world. Out of a total of 91 million hard disks*, only 10 million were newer Solid State Disks — which are usually much faster and more reliable, giving users almost instant boot times and much better performance opening programs or files.

Average size:
500 GB for HDDs, 256 GB for SSDs

As mechanical hard disks are still sold at a lower price point, it’s no surprise that traditional HDDs are more common than their faster SSD successors. 500 GB is the most common HDD size, with over 30 million of the 81 million users surveyed owning a traditional hard disk at that size.

On the SSD side, the most common size among the 10 million sampled users is 256 GB (33%), closely followed by 128 GB (29%). Despite the fact that SSDs are significantly faster, their higher price point seems to encourage users to choose HDDs.

* Note: We only evaluated hard disk drives using the modern SATA standard and excluded older interfaces, USB drives and also zeroed out disks that reported wrong disk capacity (too low or too high), which accounts for only 91 million out of our total userbase of 116 million sampled.
Contact Information

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