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Making the Case for Windows 8.1

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Introduction

I have been working with Windows 8 since its earliest Beta version, and I simply love it. I fully understand possible resistance and enduser rejection to this version of Microsoft's Windows operating system. Public and Enterprise organizations' perception of Windows 8 reminds me of Windows Vista and how unreceptive people were to the changes in a new operating system and the slight learning curve of the new platform. Enterprise organizations' need for backward compatibility with existing applications was a major stumbling block to full deployment. This need was addressed with Windows 7 and now perfected in Windows 8.x and more so in Windows 8.1. You should note that Vista was in the retail channel for almost two years as the operating system of choice installed by OEMs, as Windows 8.1 now is.

This white paper address some facts and features of Windows 8.1 that will help mitigate any resisting issues you might have to move forward to the new "best yet" version of the Microsoft Windows 8 family of operating systems to date.

Consider the following reasons to move forward.

Reason #1: It's "Refreshing"

Enterprise organizations and Windows users sometimes have a need to reinstall Windows. Original Equipment Manufacturers (OEMs) are aware of this need, and have built a "restore from a recovery partition" on the computer's hard drive to fix system problems. The feature becomes useless when destructive imaging methods are used or the physical hard drive is replaced. In the enterprise, you can hear "reimage" the computer being directed by the IT administrators when the user's computer has a problem; it's sometimes just cheaper to reimage instead of fixing the machine.

Now the Windows 8 family of operating systems includes easier-to-use **Refresh** and **Reset** options that quickly restore Windows to a fresh, factory default configuration. Just as mobile devices have an integrated reset to factory defaults option, so do Windows 8 and 8.1. IT Administrators can create their own **Refresh Image** to use as a **Refresh** option. These options are available if your computer won't start.

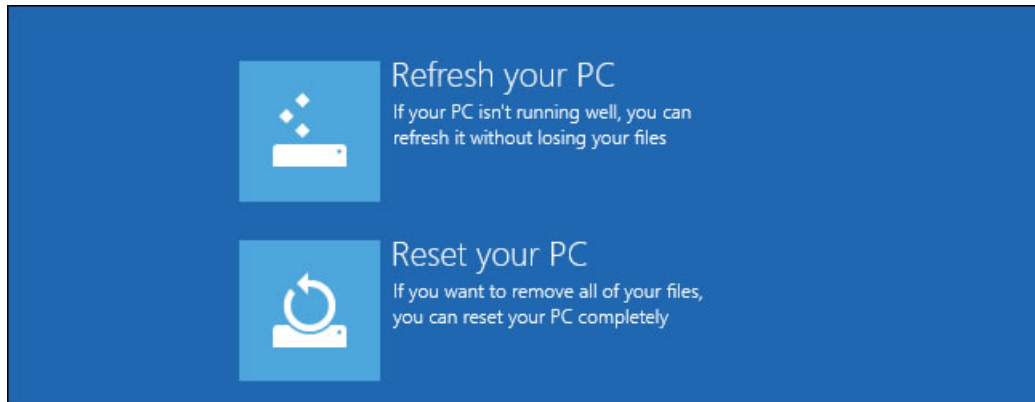


Figure 1. Refresh and Reset Your PC Interface

The difference between Refresh and Reset your PC

Windows 8 has two factory reset options above, named **Refresh** and **Reset** (Figure 1). Both selections reset your computer to a fresh, factory default state. **Refresh** preserves your files and installs **Modern Programs** on start menu, while **Reset** removes everything on your system.

Should you Refresh or Reset?

If you're experiencing problems with your computer and want to fix them, you should try **Refresh** your PC first. Windows will restore system files and desktop programs to their default state, saving all your important personal files (and Modern apps, if you use them.)

Reset your PC returns it to its factory default state, which is particularly useful if you're trying to eliminate viruses and malware, and you want to remove your personal data as well, or if you just want a clean start.

These wonderful, time-saving features are a bit hidden. Go to your **Charms Bar** by moving your mouse to the top right or bottom right of the display or press **Windows + C**; click **Settings** (the Gear Icon), and then click **Change PC Settings**. You will see your choices like the list in Figure 2 below.

From here you will find other PC settings that are useful to set. Figure 2 shows this feature that even the most savvy a user may not be aware of.

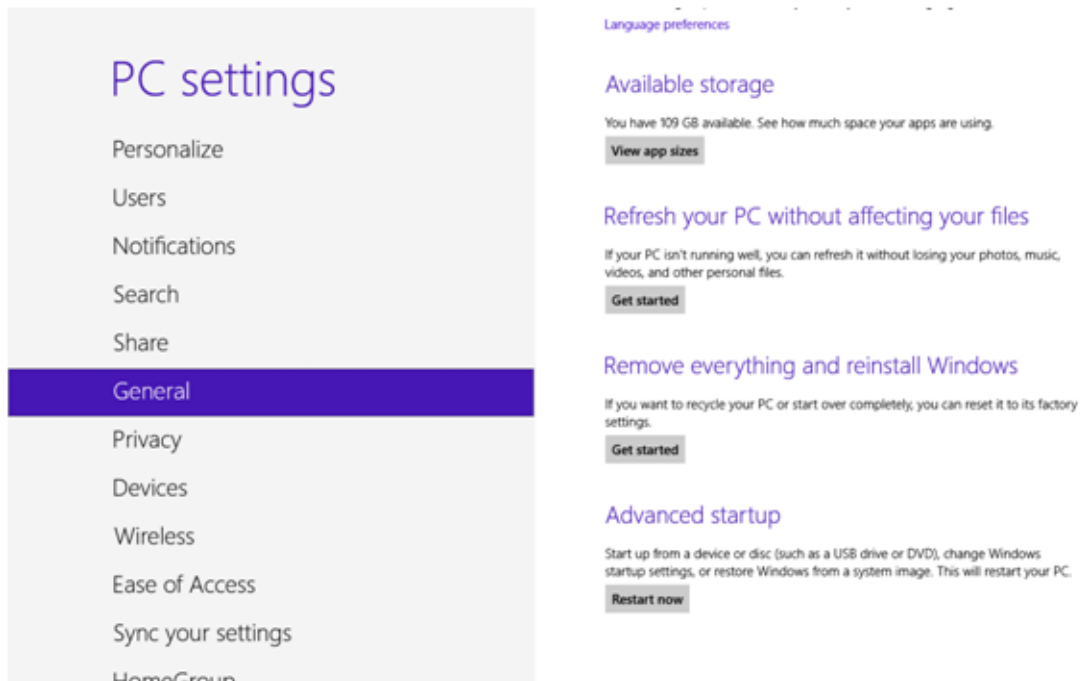


Figure 2. Refresh and Reset Your PC Interface

In the **PC Setting App**, click the **General Category** and scroll down to see the **Refresh** your PC without affecting your files and the **Remove everything and reinstall Windows**.

Poke around the other PC Settings solutions listed in Figure 2 above, and you will be surprised what you find. For example, see if you can find how to enter a security PIN in lieu of your password.

Reason #2: NT Version and Why It's Important

With every release of a Windows operating system by Microsoft, out comes a security-enhanced, performance-optimized, and more fully featured OS than its previous release. One secure feature that goes unnoticed is the built in Anti-Malware, Virus, and Spyware Application called **Windows Defender**. Yes, Windows 7 has it too, but to get the full-featured protection, you need to download the free **Microsoft Security Essentials (MSE)**. The Windows 8 family combines these security tools into one built-in suite to defend the operating system from attack. I can testify that it works so well that I have not purchased any third-party security tools. And how about the secure boot environment? **Secure Boot**, also referred to as **Trusted Boot**, is a new security feature in Windows 8 that leverages the **Unified Extensible Firmware Interface (UEFI)** to block the loading and operation of any program or driver that has not been signed by an OS-provided key. Trusted Boot thus protects the integrity of the kernel, system files, boot-critical drivers, and even anti-malware software.

Many enterprise organizations are in a race to roll out the next operating system, now that Window XP support from Microsoft is ending on April 8, 2014. I found that a large majority are deploying Windows 7. There is noth-

ing wrong with Windows 7; it served me well and still does. However, if you contrast that operating system with Windows 8, you will find that the Windows 8 family of operating systems is a much more mature, secure, and performance-optimized operating system by far.

Why spend the time and effort rolling out and/or migrating to a Windows operating system that is two versions behind, taking into consideration the release of Windows known as Windows 8.1, codename Blue? To see the Windows version of your operating system, look at **Computer Properties**; it's the system icon in **Control Panel**, or type **WinVer.exe** (not case-sensitive) into the search box. The NT 6.x versions are: NT version 6.0 Vista and Server 2008, NT version 6.1 is Windows 7 and Server 2008 R2, NT version 6.2 is Windows 8 and Server 2012, and NT Version 6.3 is Windows 8.1 and Server 2012 R2.

There you have it. Why roll out to a Windows version that is already two releases behind Windows 8.1?

Not reason enough to go to Windows 8? Are you bothered about the classic Start menu or the lack thereof? Read on!

Reason #3: The Start Menu

I will preface this issue by saying that the **Start Menu** that we've become used to, also known as the Classic Start Menu, is no longer needed. Just consider the Windows 8 family's start menu as being spread across the entire display. You can right-click the **Modern User Interface** (MUI) also known as the Start Menu screen to select show all-programs. It is from this MUI screen that you simply type anything, thereby invoking the automatic Search feature (also available by pressing **Windows + F**) to search for files. Move your mouse to any corner of the display, and you will find your open programs, start menu, and the **Charms Bar**, which is also accessible by pressing **Windows + C**. These interactive mouse moves to each corner are a Windows 8 family feature called **Magic Corners**. You also access Magic Corners from the desktop. One feature of the Magic Corners is to mouse-over the extreme left edge of **Display** to see your running background programs. From here, you can right click to on the background program you want to close. An important hot key is **Windows + X** that brings up the **Tools Menu** from any screen; try it!

Windows 8.1 includes a **Start Button** that serves as a single-click way to access the MUI Tiles, as well as a "Classic Style" way to shut down the system. This new Start Menu optionally allows a system boot directly to the Desktop. It's available as a download for Windows 8 systems.

The small learning curve needed can be compared to learning to use the ribbon bar of Microsoft Office when the 2007 version rolled out; a little user experience is all it took. But we don't even want to go through that, right? So here's what I did.

I downloaded into a test environment a freeware third-party "Classis Style" Start menu. I was quite comfortable with the way it booted into the desktop, thereby bypassing the Tiles. You can go back to the Windows 8 family style of Start Menu Tiles and the MUI at any time. Simply put your mouse in any one of the Magic Corners of the display or through the Charms Bar (**Windows + C**). It's even easier knowing that pressing the Windows Key toggles between the Desktop and the **Start Menu MUI**; press a second time and see what happens.

Will this knowledge make enterprise organization users more comfortable? Will this cut down on support of the new look and feel of Windows 8 or 8.1 and reduce the learning curve? I was eager to find the answers. On my next real-world rollout of Windows 8, I deployed this configuration to the users, who were unaware of this external customization. It worked! Take a look at the screen shot below (Figure 3) to see your choices of Start Menu styles, as you would have with a real built-in start menu.



Figure 3. Multiple Versions of the Windows Start Menu

The result of my test was successful. Almost all users agreed it behaves like Windows 7 to that extent. I suggest that you make users aware of this customization. I did experience a user who called to ask how to go back to the Desktop from the MUI; quick fix for that is **Windows + D** or click the **Desktop** tile. It would be helpful to know the old, along with some new, hot keys allow you to quickly navigate your way around. There are a number of hot key "cheat sheets" out there on the Internet that you can download and distribute to your users. I highly recommend doing so.

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Reason #4: Client Hyper-V

Hyper-V, also known as PC-Virtualization or Client Hyper-V, is a Windows 8 and Windows 8.1 feature that can be installed from the control panel – **Turn Windows Features On or Off** (Figure 4). It is available with Windows 8 Pro or higher versions. This new addition hasn't made a lot of headlines, and, oddly, most people don't seem to know Client Hyper-V even exists in Windows 8, let alone what it's good for. Incompatibility is mitigated by

loading a previous operating system with your software in a virtual machine, and the Hypervisor layer makes integration to your hardware seamless; it's another machine!

Client Hyper-V has a few system requirements and behavioral restrictions you should be aware of. First, Client Hyper-V has stringent hardware requirements. Not every PC will be able to run it. You need a 64-bit processor that can support Second Level Address Translation (SLAT). You also need at least 4GB of RAM. If you're in doubt about your PC, you can run a utility like CoreInfo to find out if SLAT is supported on your machine. My Lenovo ThinkPad Edge (which I am using to write this paper) does support SLAT. If you're running the most recent generation of Intel or AMD processors, then you're probably good to go.

Client Hyper-V, like the Hyper-V on the Windows Server products, supports a broad range of virtualized hardware, snapshotting, dynamic allocation of memory, support for multiple virtual processors, and so on. There is even a **Virtual Network Switch** to set up V-Lans to virtual or physical networking. Plus, Client Hyper-V should give better performance, thanks to its architecture, especially when working with Microsoft operating systems as the guests. I use the virtualization for testing my client-based scenarios, using external USB storage running my VMs. I am happy with the overall performance, but with your usage scenario and hardware, your performance mileage will vary.

And how about the PowerShell for Client Hyper-V? Figure 4 below highlights Client Hyper-V from the list of Windows Features in Window 8. Fantastic!

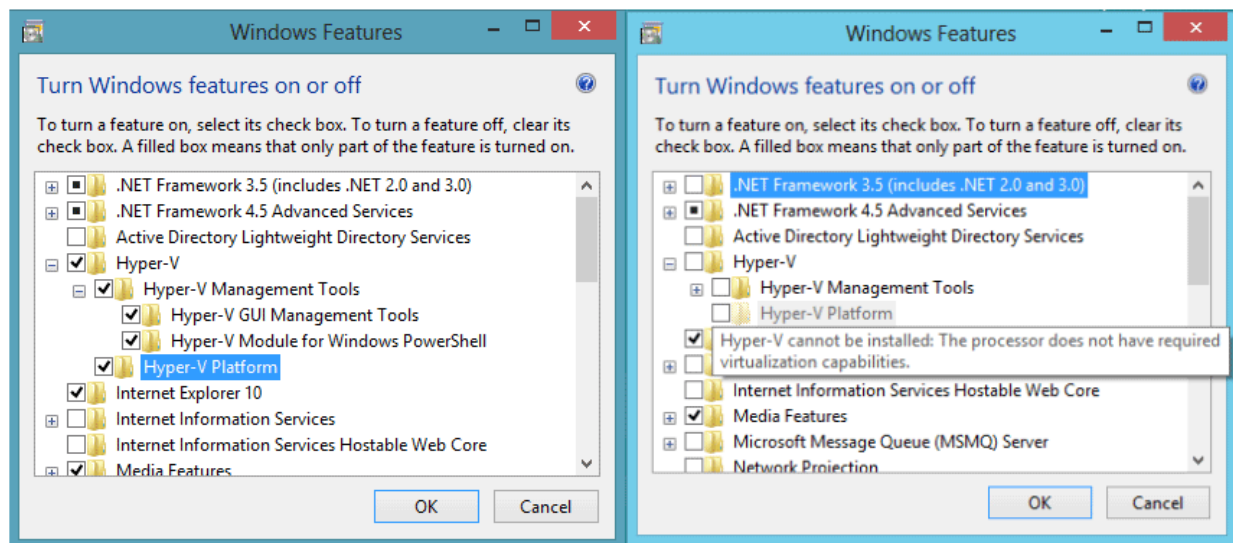


Figure 4. Client Hyper-V Feature Selections and Non-supported Processor Message

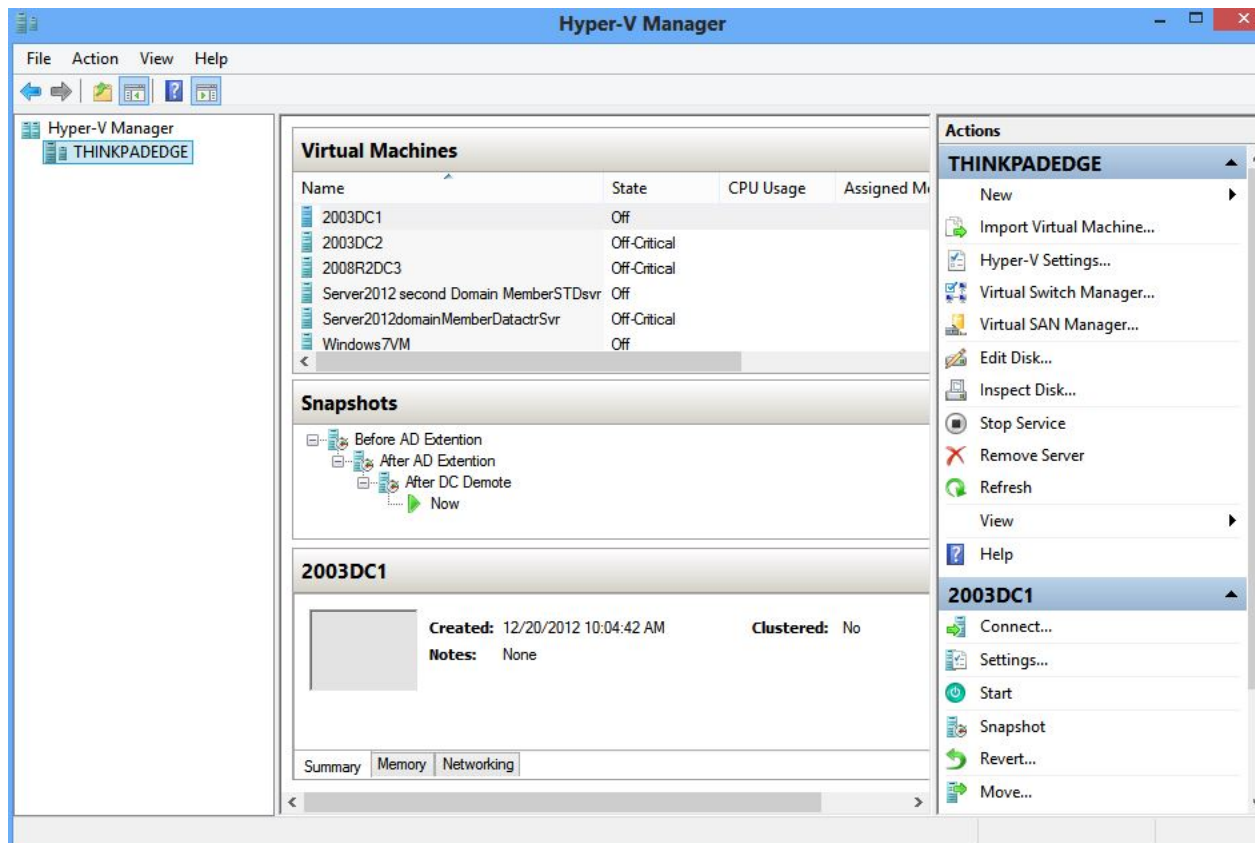


Figure 5. Client Hyper-V Management Console

Notice the screen shot of my Client Hyper-V MMC (Figure 5 above). In the top right, the **Actions Pane** shows the Client Hyper-V settings; as well as **Virtual Switch Manager**, **Virtual SAN Manager**, and other wonderfully useful settings. This is on the client version of the product; just imagine the possibilities!

Reason #5: Wow, Task Manager

One of Windows 8 features that has undergone a massive overhaul and is now so much more awesome is the unassuming **Windows Task Manager** – that modest window that helps you bail out of trouble whenever you hit a brick wall with a stalled application. To launch it, use the old hot key **Ctrl + Shift + Esc**, or type in search: **Task Manager**, or right-click the task bar and select **Task Manager**, as usual.

Figure 6 shows a listing of process names. These are your running Apps category along with two other categories: **Background Processes** and **Windows Processes**. Columns can be customized to show PID ID, Publisher, and even Command Line, which shows you the location it's launching from. Task Manager gives you the ability to collapse into what some users refer to as a compact dashboard, by clicking the **Fewer details** link. You can put it off to the side of the screen to help you keep an eye on things.

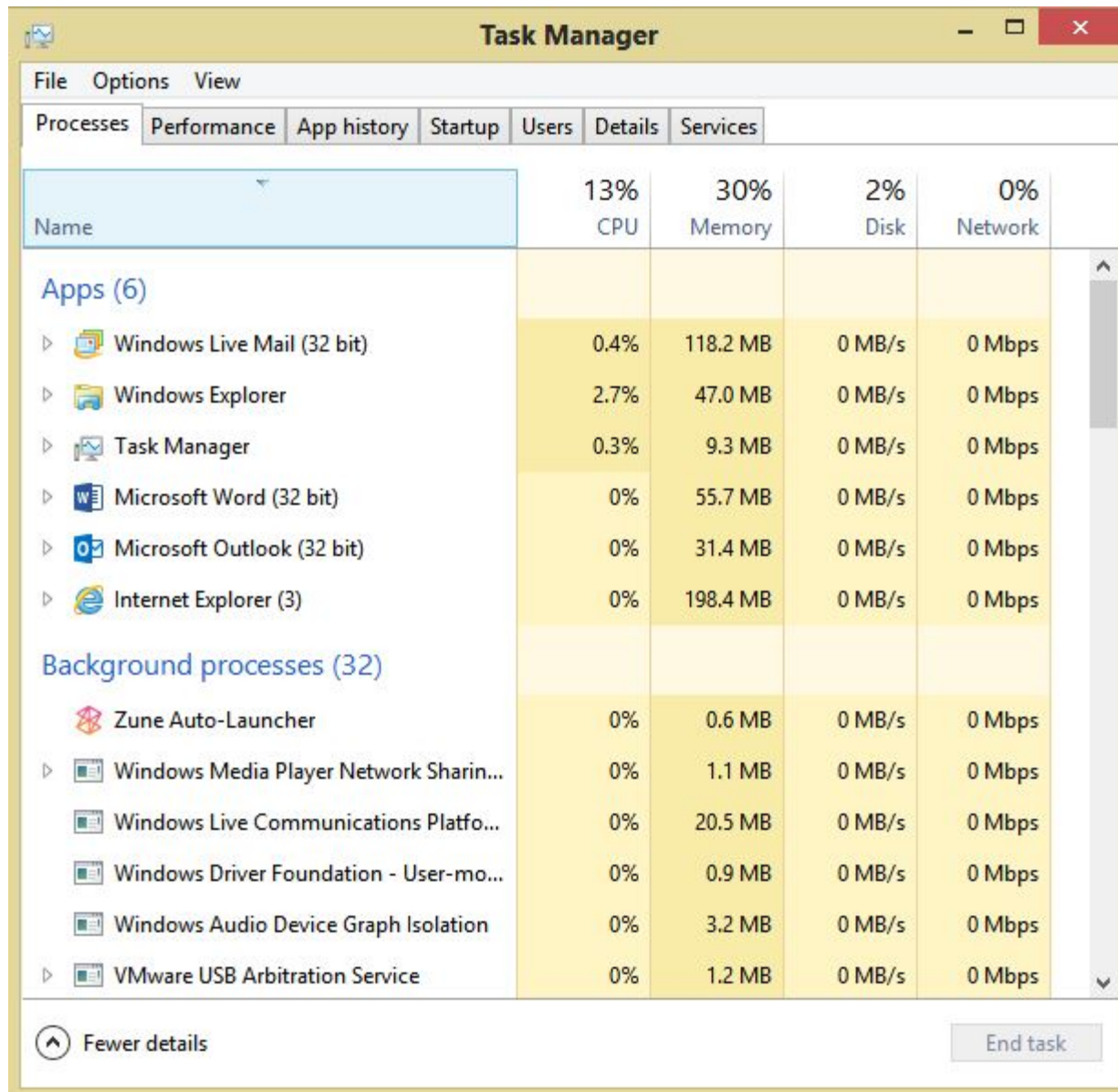


Figure 6. Task Manager and Process Tab Showing Details View

In Figure 7, you can see the **performance tab**. How wonderful it is to have a **Fewer details** link to get a **Dashboard** view with no title bar, no toolbar, and basically no extra window clutter, except for a bunch of meters showing you your CPU, memory, disk, and network usage. Once you see a spike, you can just double-click a metric to expand the minimized-view into a full-view window with a large graph.

This is an extremely useful feature. It's like making your own custom Gadget.

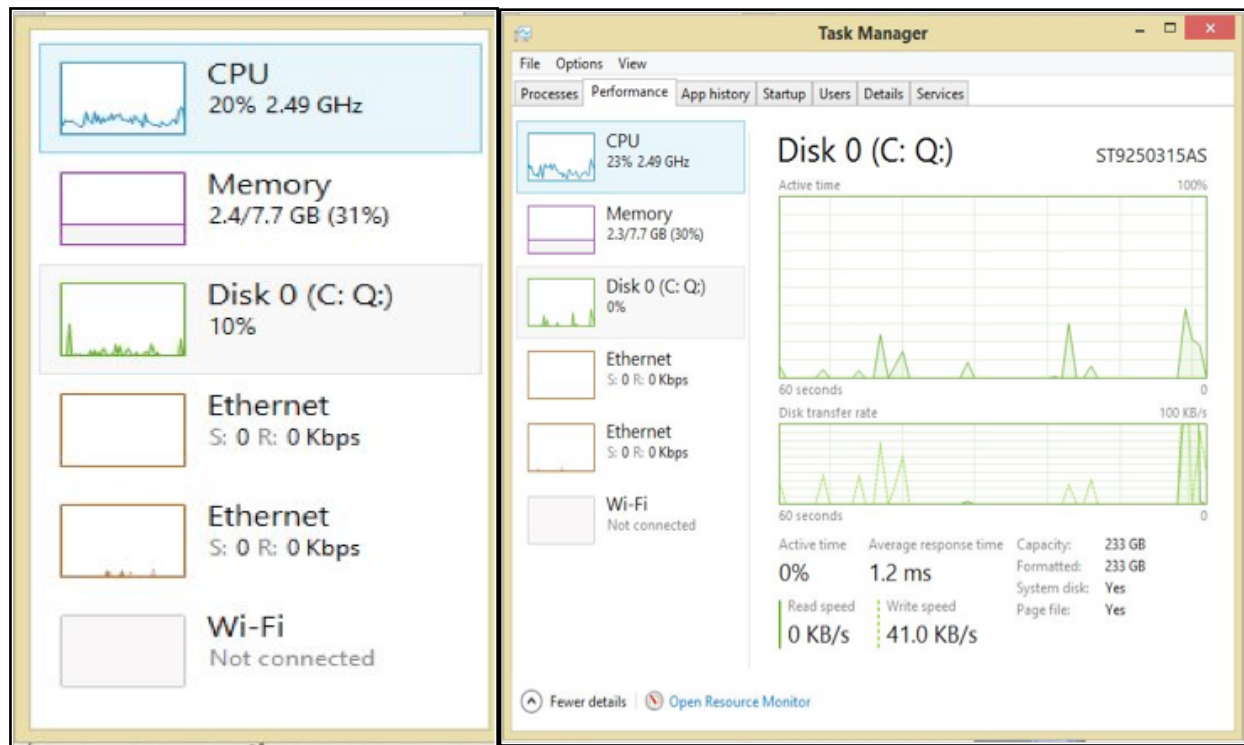


Figure 7. Performance Tab Showing Fewer Details and Full view

Also notice the **App history** tab, which shows columns that enable you to get a handle on CPU time, Network, Tile update, Downloads, to mention a few; check it out.

But wait, that's not all. A **Startup** tab shows programs that start with the computer at boot-up and a column that shows the **Startup** impact column, plus the right-click context menu allows you to **Disable – Enable**, **Search online**, and go to the properties page for the App. It's actually the new location of the **MsConfig utility – Startup Tab**.

Other tabs include a **Users** tab that was present in the previous version of Task Manager and the newer **Services and Details** tabs. These, and the other tabs discussed above leverage the right-click context menu that allows additional selections of CPU Priority, CPU Affinity, and Analyze Wait Chain. You must check this out for yourself.

Reason #6: File Explorer View

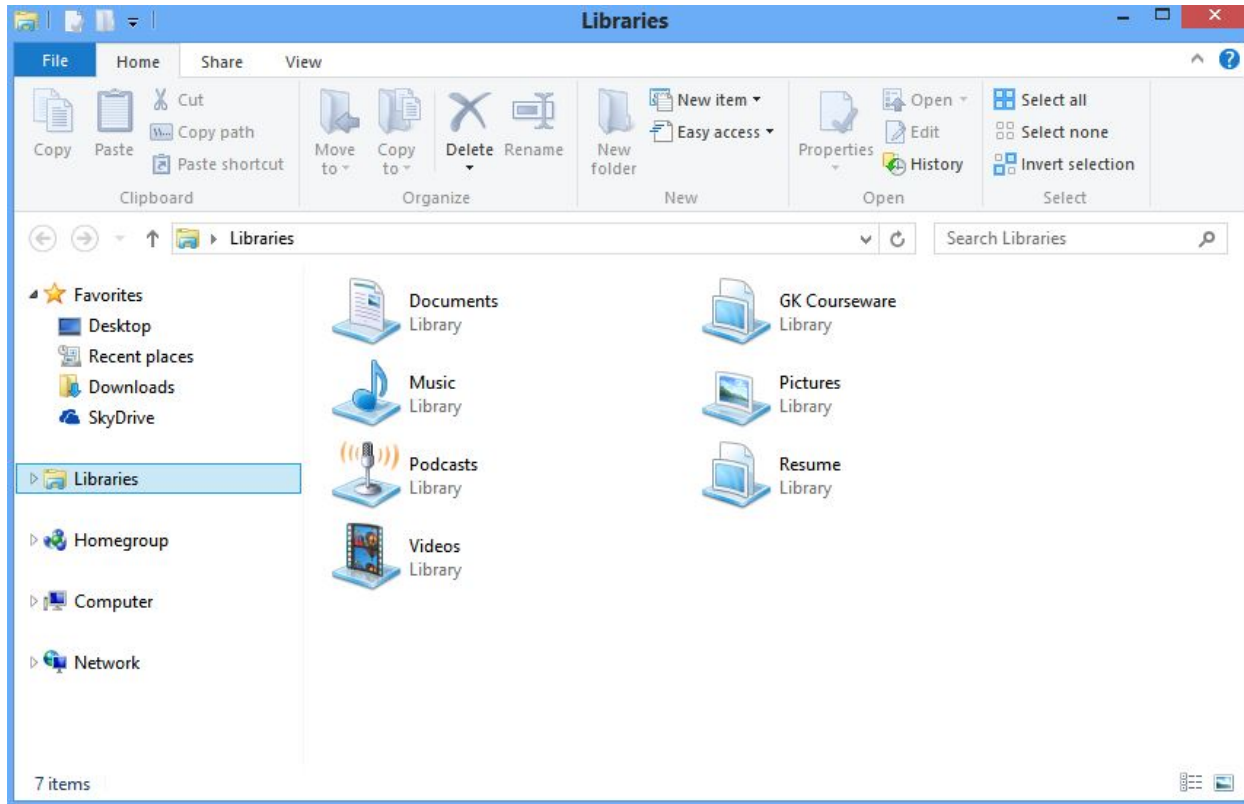


Figure 8. New File Explorer Interface

The **Windows Explorer** has undergone an overhaul as well; it's now renamed **File Explorer** (Figure 8). With the new name comes a new interface. Look closely at the top: Yes, the **Ribbon Bar** is now in **File Explorer**. Most users are fairly familiar with the Microsoft Office suite of applications. Since Office 2007, Microsoft has standardized the Ribbon Bar to be a common interface to all Applications. Now, Windows 8 users can feel comfortable with the different menu bar options and tabs that show different Ribbons and Tabs.

I think that now you might be appreciating the purpose of a common Ribbon Bar across the Microsoft Application Platforms. Also, check out Wordpad's Ribbon Bar, too.

Conclusion

I constantly brag about the stability of the Windows 8 family of operating systems and how, as of this writing, I have never seen a *Blue Screen of Death*. As an advantage to the Tablet form factor design of the Operating System, it quickly wakes up from a "sleep" state, easily reconnecting to the network and internet. And that's only the start to the key benefits and features of Windows 8.1 After reading this white paper, I hope you will find, as I have, how easy is to use this operating system. A bit of patience, a forward-looking frame of mind, and, if necessary, some minor tweaks and customizations and I know you will love Windows 8.1, too.

Learn More

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About the Author

Mark Mizrahi has been a Microsoft Certified Systems Engineer (MCSE) since Windows NT3.51. He holds a CEH Certified Ethical Hacker Security Certification and is a CEI Certified EC-Council Instructor. He is a Microsoft Certified Trainer (MCT) and MCTS and MCITP for Windows Server 2008, Vista, Windows 7, Windows 8 and Server 2012. He currently teaches Microsoft curriculum for Global Knowledge and other training vendors. Mark is president of Standard Computer Services and consults for various Fortune 500 companies. He designs and implements web-based Internet Security and Video Surveillance Systems for a diversified customer base. Keeping up the various hacking methods is part of his daily intake of information, and he loves sharing it with this clients and students.