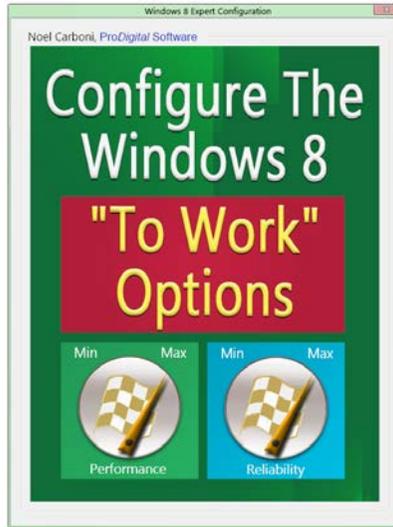


# Configure The Windows 8 "To Work" Options



8.1.10

Copyright 2012-2014 Noel Carboni, [ProDigital Software](#)

## License Notes

This eBook is licensed for your personal use and enjoyment only. It may not be re-sold or copied for other people. If you would like to share this eBook with another person, please purchase an additional copy for each recipient - it's inexpensive and makes a great gift!

If you're reading this eBook and did not purchase it, or it was not purchased for your use only, please purchase your own copy from [ProDigitalSoftware.com](#).

**Thank you for respecting the hard work of this author.**

# Clickable Table of Contents

## A Message From the Author - **Thank You!**

## Section 1 - Setting Up and Configuring Windows

- Preparing to Install Windows
- Upgrade or Clean Install?
- Where to Install Windows
- Personalize Your Computer Name
- Choose Custom Setup

- Share Your Files
- Online Error Reporting and Telemetry Settings
- Share Info with Microsoft
- Don't Sign In with a Microsoft Account
- You Really Do Want a Local Account, Honest

- Set Up Your Local Account Info
- It's Installed! But Now I See These Big, Flat Tiles
- Get a New Start Button and Menu Today
- How to Log In After Locking the Screen or a Reboot
- Export an Initial Reference Copy of Your Registry

- Set Up To Do Serious Networking
- Change Workgroup Name
- Turn User Account Control (UAC) Prompting Down
- Really Disable UAC
- Set Up Windows Update and Apply Current Updates

- Configure Windows File Explorer
- Add a Useful File Explorer Shortcut to the Desktop
- Show Actual Times, Not "2 minutes ago"
- Configure Menu Opening Direction
- Font Smoothing Settings and Tuning Your Display

- Minimize Chrome on Your Desktop
- Set Taskbar Properties
- Disable Aero Peek
- Configure a Shutdown Safety Net
- Adjust the Mouse Speed

- Speed Up the Display of Menus and Live Previews
- Set Up a Short, Simple TEMP Folder Path
- Create a CMD Shortcut on the Desktop
- Speed Up NTFS File Access
- Improve Disk Cache Efficiency

Enable Default Administrative Shares  
Always Show Advanced Boot Options  
Change Explorer's Sort Order  
Make It Less Likely a Window Will 'Pop Behind'  
Turn Off Caching of Thumbnails in Thumbs.db Files

Configure What Shows on Your Desktop  
Customize the Places Bar in Common Dialogs  
Internet Explorer Tweaks  
Block Bad Internet Sites via a Custom HOSTS File  
Unhide ProgramData and AppData

Organize the Start Menu  
Set Drive Letters in Disk Administrator  
Rename Drives So Their Drive Letter is First  
Adjust Power Settings  
Install the .NET Framework for Older Apps

Create a 'GodMode' Configuration Shortcut  
The Microsoft Customer Experience Improvement Program  
Copy Utilities Folders, Set Up Path  
Set Your System to Automatically Log On  
Configure System Tray Icon Visibility

Start Task Manager and Configure Its Display  
Set the Maximum Password Age to 0 to Avoid Expiry  
Get Initial Baseline Process and Service Lists  
Install a Quality Anti-Malware Package  
Enable Remote Desktop

Deepen Your System Restore History Storage  
Install Shortcut Overlay Mgr Freeware by FrameworkX  
Install Send To Toys Freeware by Gabriele Ponti  
Install WizMouse Freeware by Antibody Software  
Install ShellFolderFix Freeware by Georg Fischer

Install grepWin Freeware by Stefan Kueng  
Install Scanner Freeware by Stephan Gerlach  
Install HWMonitor Freeware by CPUID  
Install 7-Zip Freeware by 7-Zip.org  
Install Aero Glass for Windows 8

Install Windows Update Notification Tool  
Make File Explorer Show More Files and Be Easier To Use  
Configure Aero Accessibility Enhancements  
About Windows Search & Disabling Indexing  
Install Your Favorite Applications

[Get a Copy of the XP Calculator](#)  
[Create System and Password Recovery Media](#)  
[Save Your Desktop Theme](#)  
[Desktop Background on Multiple Monitors](#)  
[Prevent the Cursor from Catching Between Monitors](#)

[Disable Hibernation and Reclaim Gigabytes](#)  
[How to Invoke Your Screensaver Immediately](#)  
[Request More Detailed Status Messages](#)  
[If You Prefer Not To Be Quite So Cloud-Integrated](#)

## **Section 2 - Good Practices to Keep Windows Working**

[Buy the Best Disk Drives You Can](#)  
[Back Up Your System](#)  
[Restoring Files or Folders from Backup](#)  
[Restoring Your System from Backup](#)  
[Review the Software Running on Your Computer](#)

[Links to Remote Computers](#)  
[Don't Install Things You Don't Absolutely Need](#)  
[Avoid Registry Cleaners](#)  
[Opt Out of Customer Experience Improvement Programs](#)  
[Use of NTFS Data Compression](#)

[Maintain Your System's Health](#)

## **Section 3 - Known Windows Bugs**

[Can't Set a Wallpaper Screen Background Image](#)  
[File Explorer Sorting Glitch](#)  
[File Explorer Fails to Update](#)  
[File Explorer Becomes Confused After Moving Folder](#)

## **About the Author**

## Thank You for Purchasing This Book!

**Configure the Windows 8 "To Work" Options** started out as a set of notes we here at **ProDigital Software** have been accumulating for years to help us quickly set up our own Windows systems and get them to where they are *lean, stable, and useful*. It follows in the footsteps of our prior successful book, **Configure the Windows 7 "To Work" Options**.

As Microsoft continues to make Windows more and more a "consumer" operating system, this amazing collection of tips, tricks, and tweaks will be valuable to you if you're looking to continue the benefits of *keeping current* yet get the most professional functionality out of your **Microsoft® Windows® 8** installation on your desktop or laptop system!

You may not wish to do everything we suggest here, but there may be some tweaks we've found that you just can't live without!

What makes this guide special is that we include not only "*how to*" information, but also "*why you might want to*" descriptions, as well as how to reverse the changes.

Enjoy turning Windows 8 into a modern workhorse!

-Noel Carboni and the team at **ProDigital Software**.

**Please recommend this guide to your friends and coworkers!**

<http://www.ProDigitalSoftware.com/W8ToWork.html>

**Check the site from which you downloaded this copy from time to time to see if there have been updates. We add new information all the time!**

*If you find any errors in this guide or if there is something you would like to see added, please drop us a line at:*

[W8ToWork@ProDigitalSoftware.com](mailto:W8ToWork@ProDigitalSoftware.com)

## Section 1 - Setting Up and Configuring Windows

**While it might not look it at first**, Windows 8.1 can be the foundation for a dynamite desktop system that runs efficiently, without fault, and provides you the tools to facilitate your high quality work day in and day out!

We've managed software and hardware development teams using all the Windows versions, going way back to the very first releases, and we currently use Windows 8.1 actively on a number of our systems right now. It's providing a powerful and productive development environment.

In this guide we'll help you set up your system(s) to reveal the functionality you might not know is there, while minimizing the negative impact of recent Windows user interface changes.

In this first section you'll find a wealth of information on setting up Windows to be **lean**, **stable**, and most importantly **useful** for getting real work done, without Microsoft's changes targeted to tablet users getting in your way quite so much as they appear to do at first.

While this section is written with the setup of a new system in mind, you can generally apply much of what's here to a Windows 8.1 system you've been running for a while as well.

Throughout this book we make assumptions about the capabilities of the version of Windows you are running and the additional programs you have installed. For example, we assume you'll install the free program **Classic Shell** early on, which restores the Start button and facilitates searching for things right from the desktop (so you can do things like "click Start then type xxxxx..."). We also often refer to the Windows 8.1 Pro or Enterprise tool **gpedit.msc**, the Group Policy Editor.

If you choose not to install **Classic Shell** (or use an alternate product) you can still do pretty much everything else - where we say "click Start" you can "press the Win Key" to get the standard Windows 8.1 "Metro/Modern" start screen, then you can do your searches from there.

Depending on the edition of Windows 8.1 you have, you may not have **gpedit.msc** on your system at all. If that's the case, we've provided the equivalent registry changes to accomplish the same things.

## Preparing to Install Windows

- If you're unsure just what Windows 8.1 holds in store, **consider installing it in a Virtual Machine** first to get to know it. With the power of virtualization (e.g. using VMware), assuming your computer is capable, you can build a complete Windows setup without risking losing your current configuration, and run it for a while.
- Fortunately, doing a Windows 8.1 installation is pretty simple and straightforward. We'll guide you through it.
- **Consider purchasing the high-end 64 bit Windows 8.1 Pro x64.** If your computer can run it, the 64 bit Pro edition is more powerful, more future-proof, and is perfectly compatible with 32 bit applications.
- **Watch out for counterfeit copies.** If the price for Windows 8.1 seems too good to be true, it probably is. If the holographic decal on the disc seems stuck on, it's likely counterfeit.
- **IMPORTANT:** Plan to install Windows 8.1 as a **fresh, clean install, NOT an upgrade from your prior version.** You may feel you want to save time and avoid reinstalling all your apps, but with a clean setup you avoid problems from a prior installation.
- Make sure you have your **product key** handy before you start.
- If you're replacing an existing system, make sure you've copied all your data off it onto **backup** media before installing Windows 8. External USB **MyBook** drives from Western Digital are great for backups.
- Set aside plenty of quality time so you don't have to rush through the install and initial setup. Your computing experiences with the system for future years will depend on your doing this well. Give yourself a day or two before you really need the computer to be fully functional to install apps and get your system set up just right.
- Having **another computer** (or mobile device) on hand with which you can **access the Internet** or **read this book** is a great idea, especially if you need to research something unexpected, copy something to a USB key, etc.
- When making the choice about how to set up your hard drives, we generally recommend making **just one partition** (one drive letter) for each physical disk drive (in other words, **don't partition your drive**). You can use **folders and subfolders** to organize things.

- Windows hates running out of free space, and most apps like to install on drive C:, so **make drive C: large**. If you're installing on a Solid State Disk drive, even if you plan to install all your apps elsewhere against our advice, consider using a drive that provides at least **200 GB or more** of free space - ideally much more - or you may find yourself fighting ongoing drive space issues later. We prefer to set our development systems up with a 2 TB (2,000 GB) drive C:.
- If your system is capable of RAID operation, it's quite effective to **create a RAID 0 drive C:**. The faster the drive access the faster Windows and all your apps and *everything* will be, and if Windows will install on it, Windows Backup is quite happy to backup from and restore to a RAID 0 C: drive.
- If you do use one or more **SSD drives** for your Windows system disk, the low latency will really speed up system responsiveness. SSDs seem expensive, but **don't skimp on the size** to save a few bucks or you'll be spending a lot of time worrying about full disk problems later. Don't assume you can just move things to other drives without trouble. It may seem like a logical alternative to use a small SSD, but both the system and applications sometimes make assumptions about where things are, and **it's really always best to keep things that normally go on drive C: on drive C:**. This is a lot of experience talking.

## **Choices During Installation**

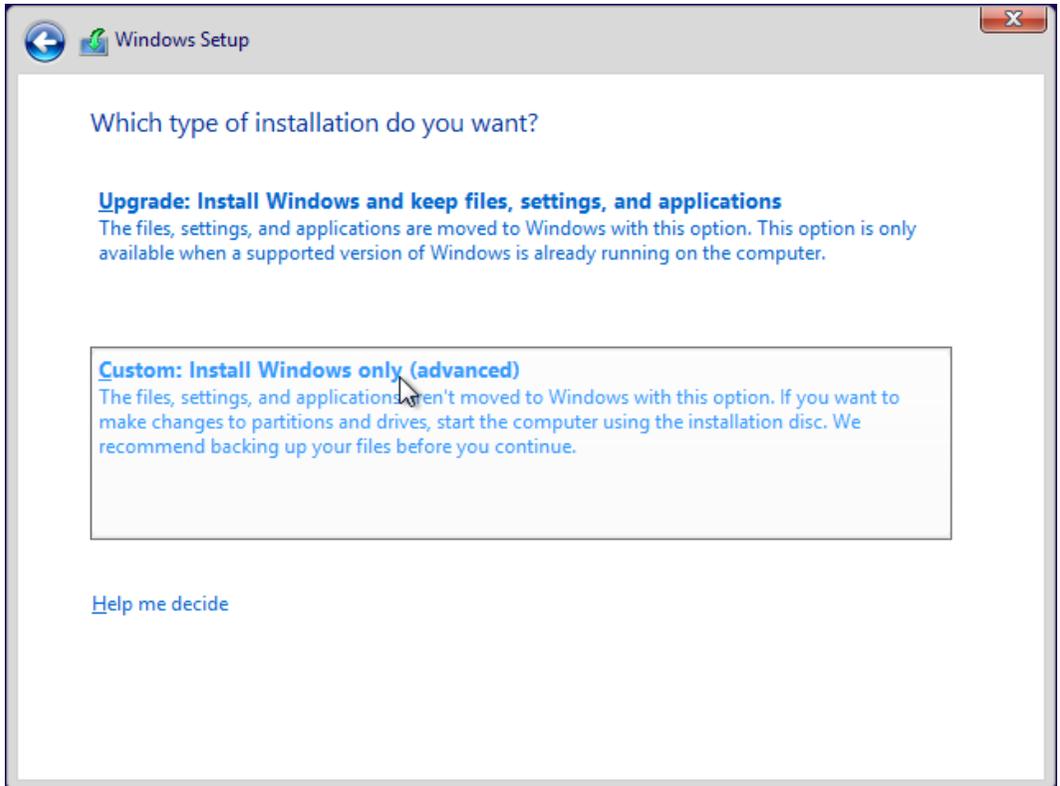
When asked questions about whether you want to do a "custom" or "advanced" install, we recommend you **always take the choices that allow you more control**. Maybe it will take a little longer, and you'll have to read a bit more, but you'll see just what options you have and you'll get the opportunity to review the choices the installer would otherwise make for you. If you really need Windows 8 **To Work** you aren't in the mainstream of users and the default choices may be wrong for you.

Sometimes in the setup screens there are options that are not obviously worded or are in small print. **Take the time to read everything carefully**. This is not the time to hurry or just blindly hit OK buttons!

The following sections will give you an idea of what to expect during Windows 8 installation.

## Upgrade or Clean Install?

After you've entered your product key, chosen your language and answered a few other basic things, one of the early prompts during installation asks you to choose from the following options:

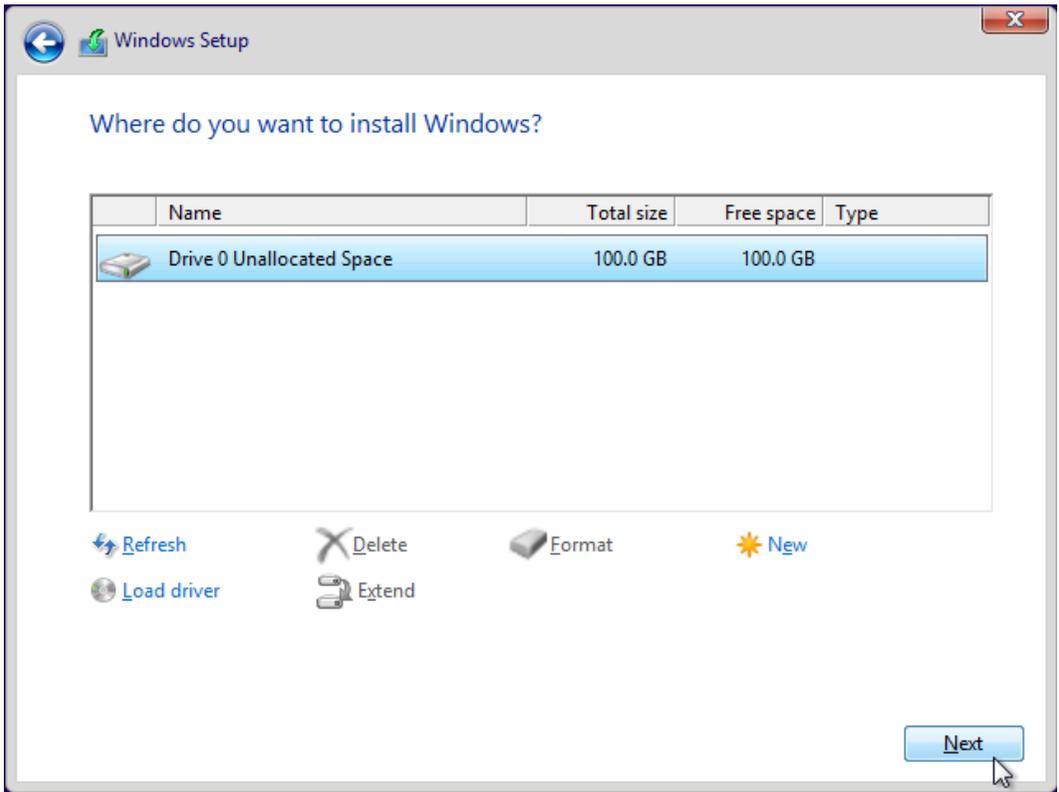


Windows has never been very good at installing itself as an upgrade - it may be a truly impossible task to get exactly right, since no two Windows systems can possibly be alike after they've been run for a while, and upgrade installations always inherit problems the old system has. People are already reporting that upgrade installs are failing because of incompatibilities with existing software, such as antivirus software or shell extensions.

You have to live with this system for a while, and it needs to work right. Do yourself a favor and choose the **Custom: Install Windows only** option and make this a **full, clean installation**.

**Make sure you've backed up all your files before installing over an existing system!**

## Where to Install Windows



You'll be asked where you want to put Windows. Normally you want to allow Windows to use the entire boot drive in your system.

If you have a special setup, such as a RAID array, you may have to load a driver to get Windows to see your drive. Microsoft provides a way to do this through the **Load driver** link - you can load drivers off a USB key, for example.

Generally speaking, it's not a good idea to partition drives. Use a single partition and folders to organize your data instead. This keeps all the free space in one place, usable for anything that may need it.

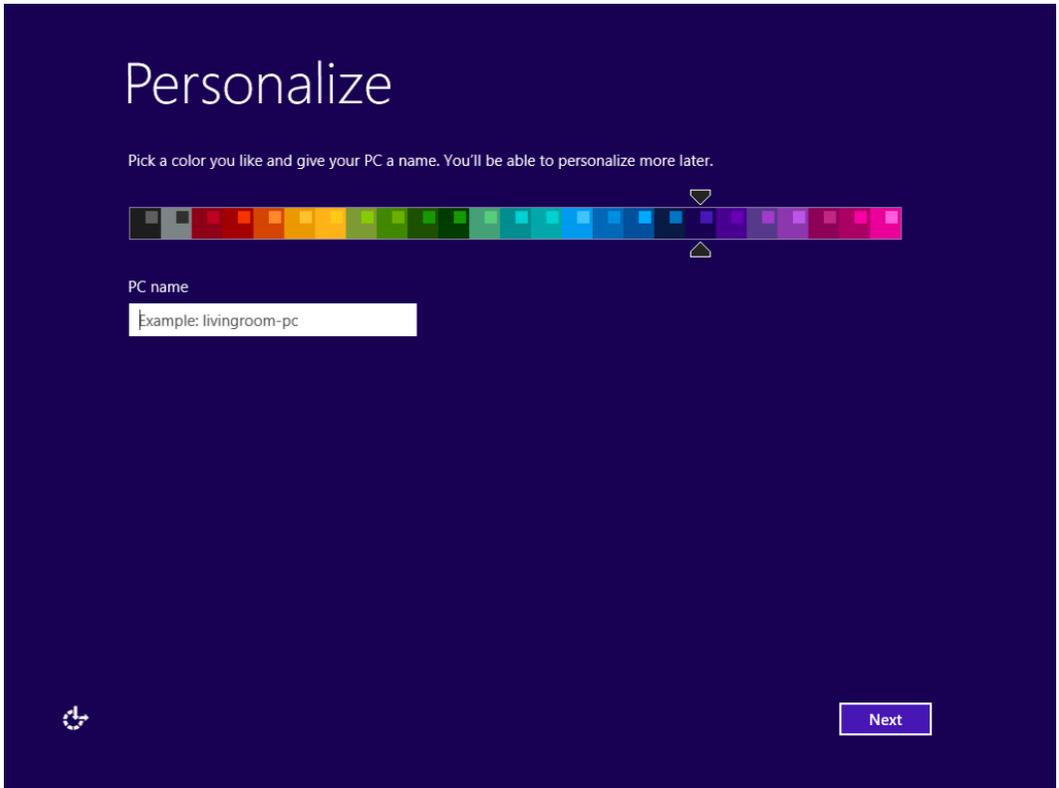
You do NOT need to format unallocated space.

**Make sure you've backed up all your files before installing over an existing system!**

When you click [ **Next** ] Windows will install itself.

## Personalize Your Computer Name

After restarting itself, Windows will prompt you for more information, including your preferred color choice for the Metro/Modern start screen and your computer's name.



This PC name will be the one you'll use in UNC file paths (e.g., `\\PCNAME\Share\Path\file.ext`), so we suggest you make it short and easy to remember, and **different from the names of other computers you have in your network now**.

## Choose Custom Setup

# Settings

## Express settings

We recommend these settings, which include occasionally sending info to Microsoft. You can customize these settings now or later.

- Automatically find and connect to devices and content on this network.
- Automatically install Windows updates, app updates, and device software.
- Turn on Do Not Track in Internet Explorer.
- Help protect your PC from unsafe files, apps, and websites, and check online for solutions to problems.
- Help improve Microsoft software, services, and location services by sending us info.
- Use Bing to get search suggestions and web results in Windows Search, and let Microsoft use your location and other info to personalize your experiences.
- In Internet Explorer, use page prediction to preload pages, which sends your browsing history to Microsoft.
- Let Windows and apps use your name, account picture, and advertising ID, and request your location from the Windows Location Platform.

[Learn more about express settings](#)

[Privacy statement](#)



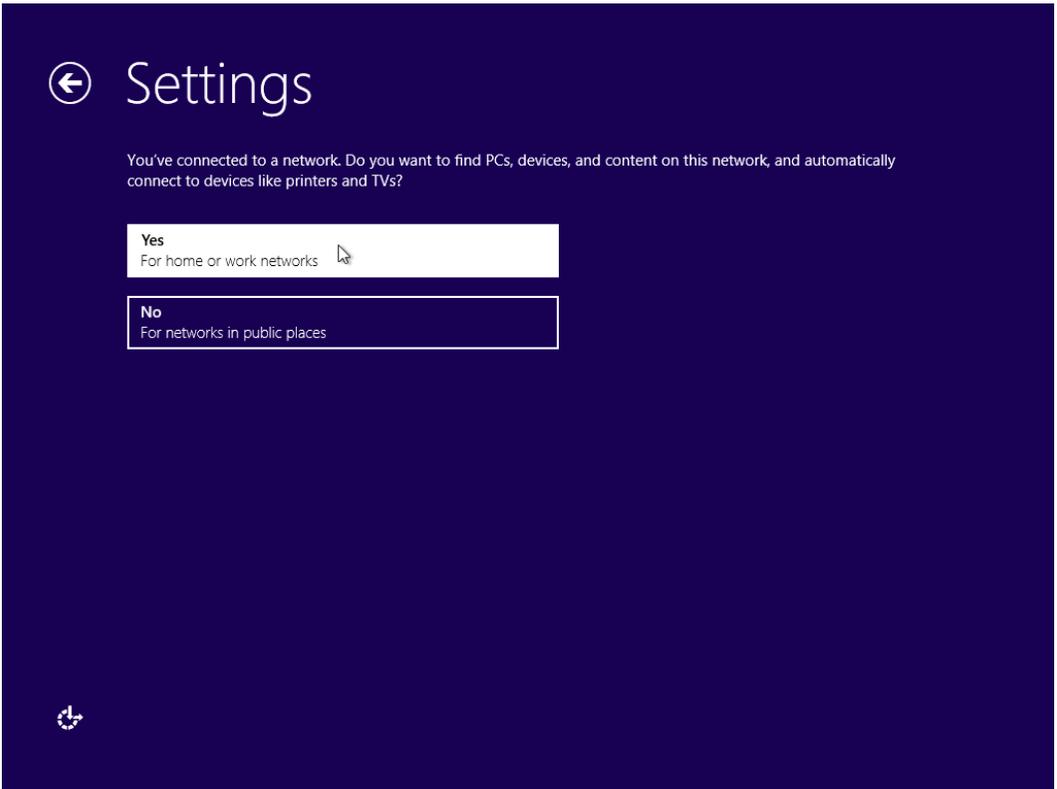
Use express settings

Customize

We recommend you click the [ **Customize** ] button at the lower-right so that you can make individual choices that make sense to you. The "express settings" defaults are oriented toward casual users.

It may seem tedious to go through all this, but you really need to think about all the things it's going to ask you about. Don't worry, we'll help you get through it.

## Share Your Files



Most folks nowadays have computers and other devices connected to a network and wish to be able to find them and share files between them. Choose the default here, "**Yes** For home or work networks".

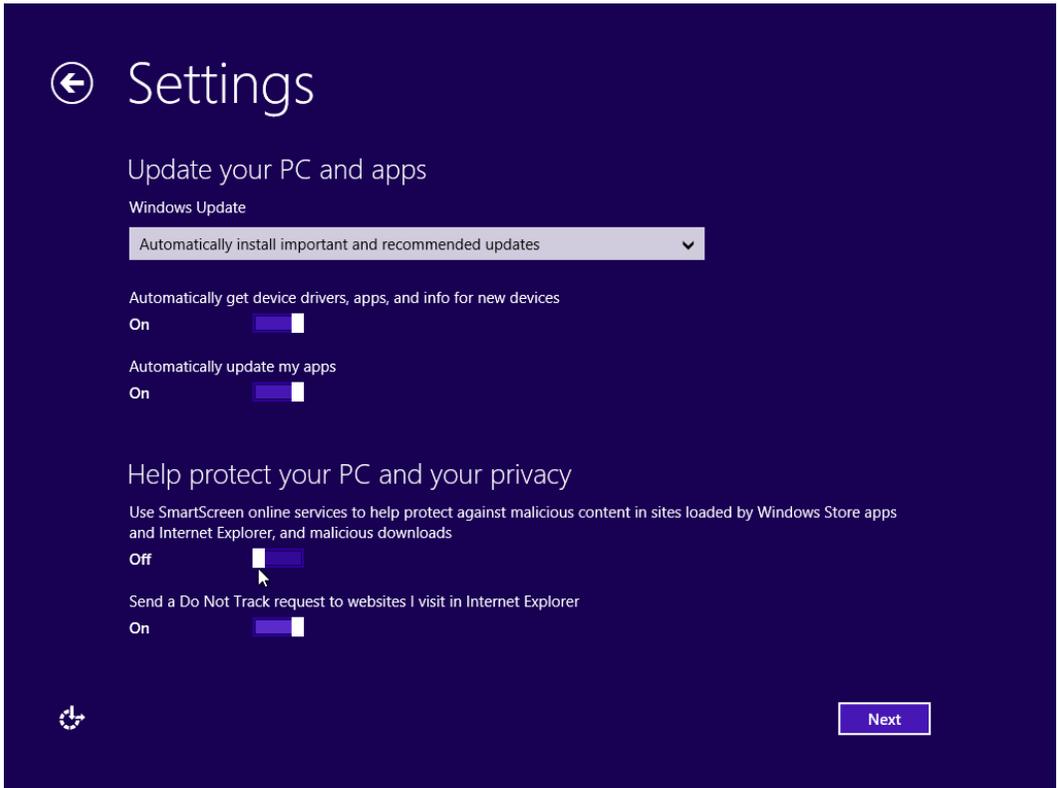
### **A note about terminology:**

While setting things up you'll see two "types" of networking mentioned - "**home**" and "**work**" in Microsoft's terminology.

Even if you are setting up a network at home, and especially if you have systems running older versions of Windows in your network, **generally speaking we recommend you choose the "work" options**. You want your system To Work!

"Work" networking (once called "Workgroup" networking) doesn't preclude home use, and it doesn't limit what you can do, really. What it DOES is just work better than the oversimplified "Homegroup" networking Microsoft has conceived!

## Windows Updates and Internet Explorer



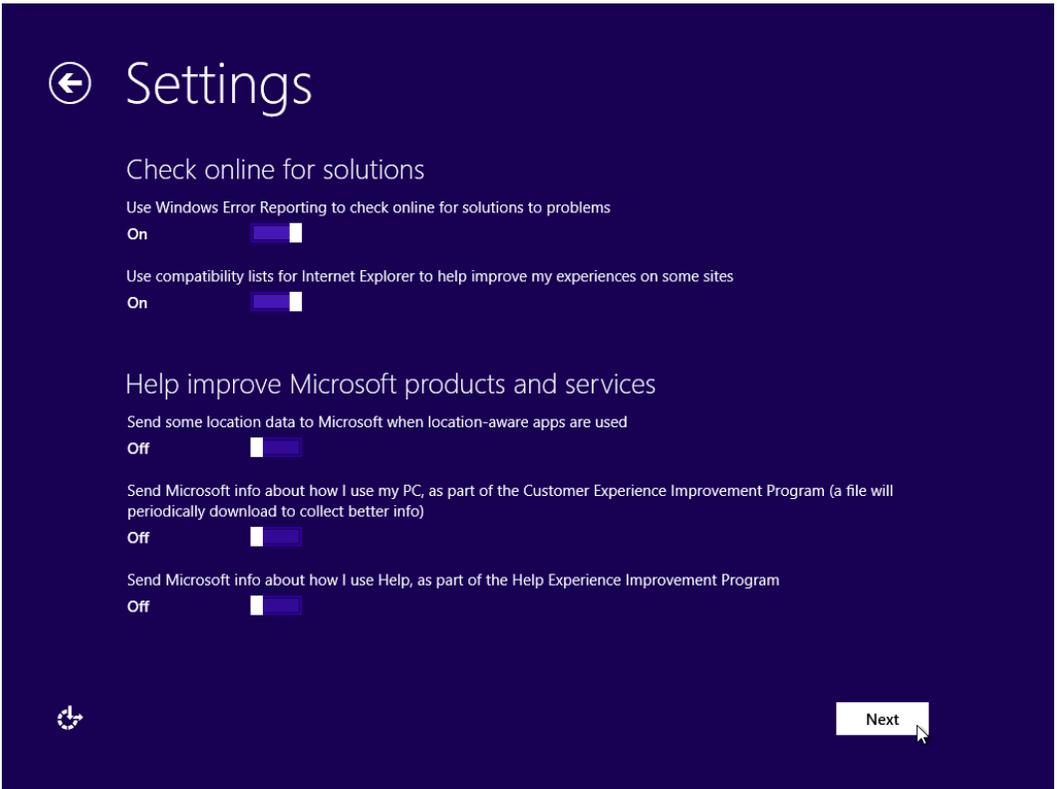
You will adjust the settings for Windows Update in a later step, as we feel Windows should always prompt and give you a choice before installing updates, allowing you the option to put an update off if it's not currently convenient or appropriate.

Assuming you're connected to the Internet, using Windows Update to find Device Drivers is generally a good thing. But be aware of the possibility that Windows might update your device drivers and device-specific software from the Internet. Sometimes this is not wanted.

As of now, we advise turning **Off** the "SmartScreen" filter, as Microsoft seems prone to advising you to avoid installing things that haven't built up a reputation with them, and perfectly good new things have been seen to be identified as "suspect" or "dangerous", even though they are legitimate.

We'll advise you later in this book how to configure several much better ways to avoid malware.

## Online Error Reporting and Telemetry Settings

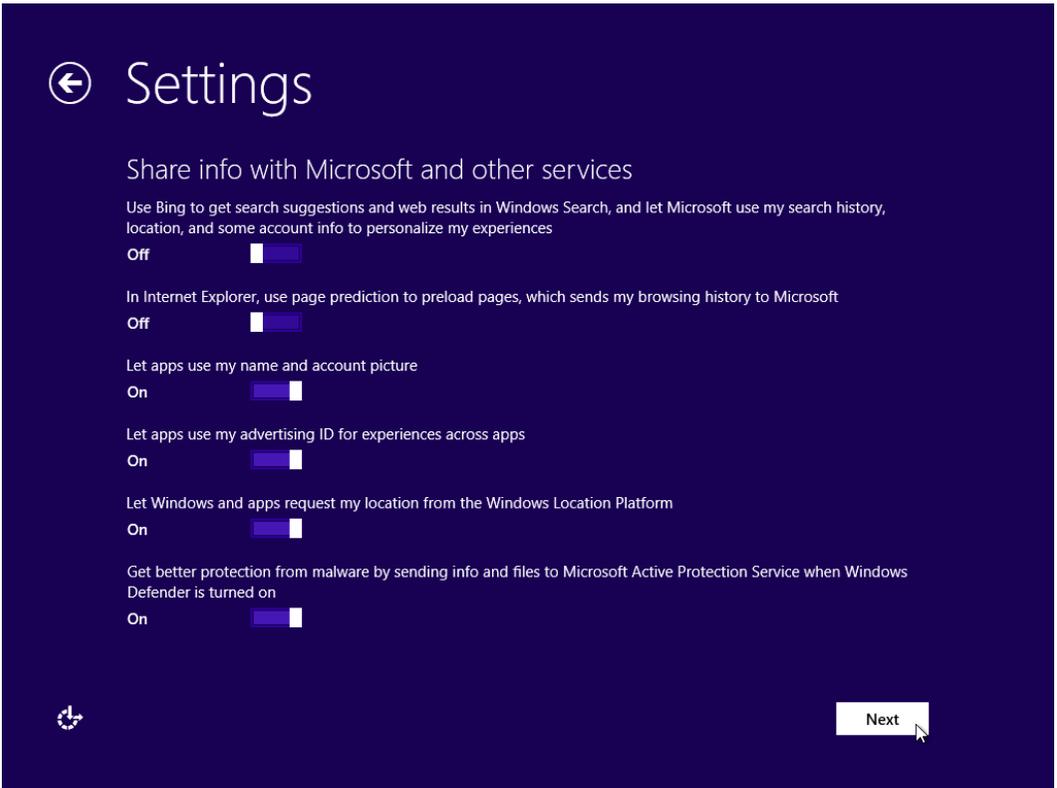


Review these settings and make choices based on your preferences.

We advise turning off the settings in the lower section.

In a way we have mixed feelings about advising you to turn these settings off, because Microsoft will be excluded from hearing about your nonsense use of Windows, but in the end it's all about maximizing the utility of Windows on YOUR system, and we think **you really want your system resources dedicated entirely to doing YOUR work**, not to helping Microsoft.

## Share Info with Microsoft

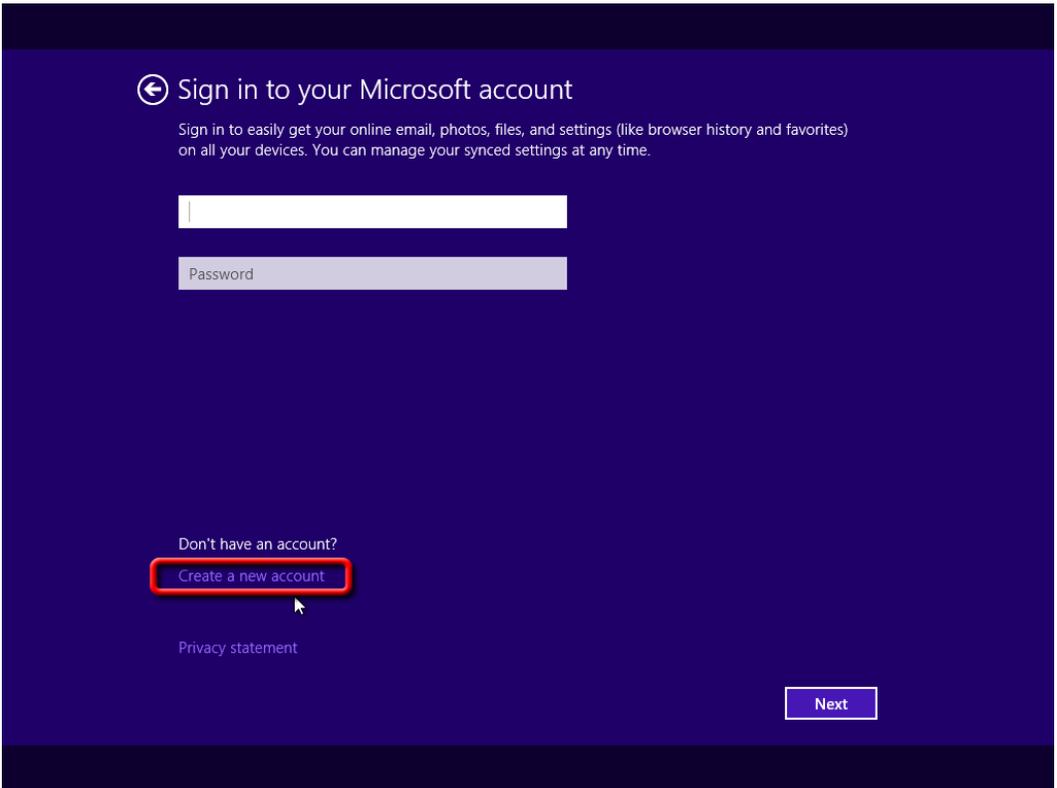


Generally speaking, we prefer not to share information with Microsoft, as we value privacy.

Note that there are several settings we have not changed from defaults. Some are inconsequential as we don't plan to use Metro/Modern Apps, and others can affect how well your applications work. Use your best judgment here.

Note also that we have not disabled the sending of files to Microsoft when Windows Defender is turned on. We will describe how you can replace Microsoft's anti-malware software with Avast! Antivirus later in this book.

## Don't Sign In With a Microsoft Account



Microsoft wants to bring you into their cloud. This may be attractive to casual users who prefer to use their computers for games and frivolity.

But if you prefer to use your Windows system as a secure "To Work" station, you may want to create a **Local** account instead. They don't make it obvious how to do this, but **it IS still possible**... They've all but hidden the method!

Frankly it's beyond our belief that anyone would choose to allow Microsoft to maintain their administrative account information.

If you want a local account, **do NOT enter your eMail address** in the screen above, but rather click the dim **Create a new account** link circled in red. This is your first step to creating a local, secure account - just like in older versions of Windows.

## You Really Do Want a Local Account, Honest

← Create a Microsoft account

Create a new email address. You'll be able to use it with Outlook.com, Xbox, Skype, Windows Phone, and SkyDrive, to keep all of your info together on this PC.

Email address  @ outlook.com ▼

Or use an existing email address

New password

Reenter password

First name

Last name

Country/region  ▼

[Sign in without a Microsoft account](#)

Next

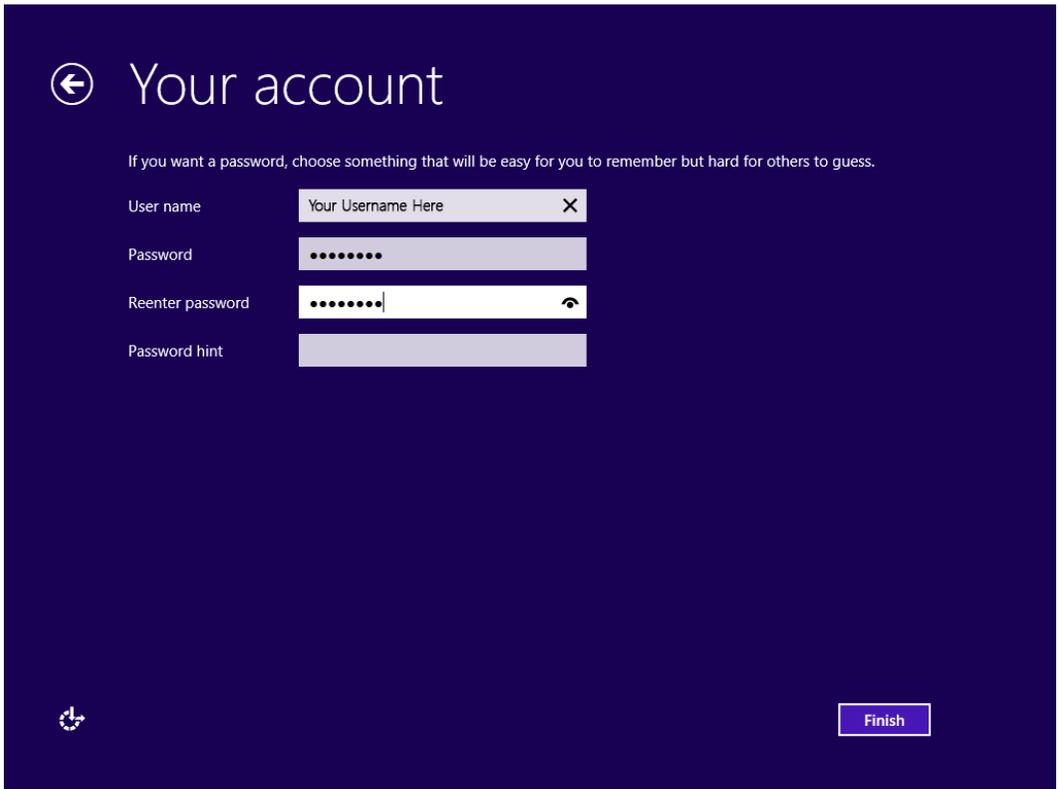
Per our instruction you clicked the "Create a new account" link on the previous screen and it brought you here. Microsoft really, really wants to try to get you to join their cloud of services, all designed with one primary purpose in mind: To **sell you things** through their App Store.

Yet we're quite sure that a secure computer used to get real work done really needs a **Local account**, where YOU manage the security and your account info is not shared with nor stored at Microsoft.

Having a local account does not mean you can't buy things from the App Store. It may mean, however, that your integration with their cloud services will be lowered. Again, we emphasize that we are advising optimizing your *computer system* To Work for business and serious use.

You can take the next step toward creating that local account here. By clicking the dim link circled in red above, choose **Sign in without a Microsoft account**.

## Set Up Your Local Account Info



← Your account

If you want a password, choose something that will be easy for you to remember but hard for others to guess.

User name

Password

Reenter password  

Password hint

 Finish

Clicking the **Sign in without a Microsoft account** link on the previous screen brought you here, where you can now create a user account local to your computer with the username and password of your choice, just like in the "good old days".

This account will be set up with administrator privileges.

**Tip:** If you have an account on other computers in your network and you want to be able to seamlessly network between them, use the **exact same username and password** here as on your other systems.

Case is important with the password, but not with the username.

## It's Installed! But Now I See These Big, Flat Tiles



Congratulations on getting Windows successfully installed. It set itself up per your answers and finally logged you in using the account information you supplied...

### But...

This is not the Windows desktop you might have been expecting!

**Don't panic!** This is just the new Metro/Modern Start screen. These tiles are part of the tablet-style interface Microsoft has added.

There is still a bona fide desktop. We'll show you how to get to it, and to set the system up so you don't have to see this Metro/Modern Start screen - unless you want to (e.g., to play games or to get a reminder of how badly Microsoft wants you to spend money at their new App Store).

**To get to the Windows Desktop**, just click on that wide tile at the lower-left that says **Desktop** on it.

## Get a New Start Button and Menu Today

Okay, you've made it to the desktop - **great!** But now one of the first things you notice on the Windows desktop is that there's no **Start** menu.

Thing is, Microsoft wants you to learn to use your **Win** key - or maybe stumble into the "hot corners", where hidden things pop out when you hover there. What do you get as a reward for clicking on the icon at the left of the Taskbar or discovering one of these hot corners? That infantile Metro/Modern Start screen again.

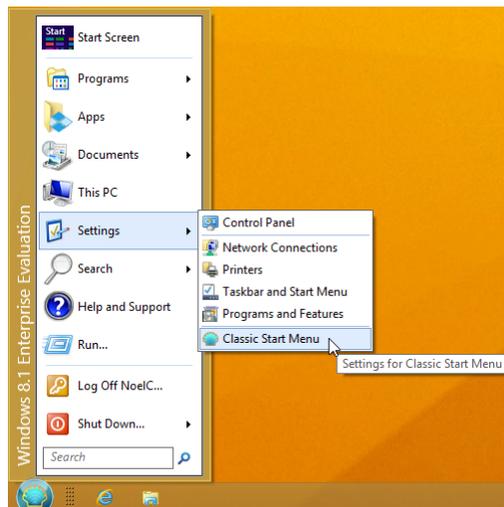
Forget that! **Let's get a Start Menu back right now.** Throughout the rest of this guide we're going to tell you things like "Click Start then type into the search box", which assumes you've installed the following...

### Install the Excellent Classic Shell Freeware Package by Ivo Beltchev

- Open Internet Explorer and **Download** and **install** this software:

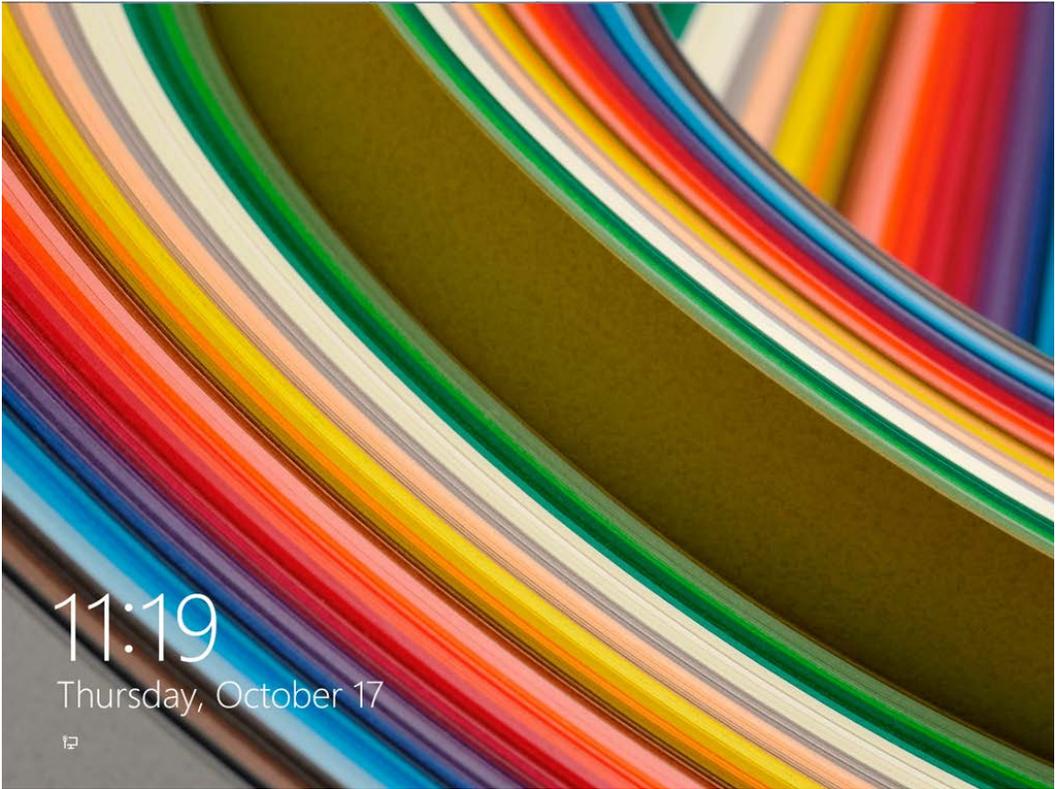
<http://classicshell.sourceforge.net/>

Classic Shell has four parts - **Classic Explorer**, **Classic Start Menu**, **Classic Internet Explorer**, and an updater. All provide sorely missed features, and **we recommend you install them all.** Ivo Beltchev, the author, may have single-handedly saved Windows 8 with this package.



Once you've installed Classic Shell, we encourage you to click the Start button and look at the options. There are a lot of choices - it's very configurable. We prefer the Classic style, shown above.

## How to Log In After Locking the Screen or a Reboot



Perhaps at some point you've rebooted your system or locked the screen and now... You see this.

Where are the prompts into which to put your username and password, in order to log in?

Don't worry, just **click** on the above "cover" image and **drag it up** to reveal the password prompt behind. Oh, so THAT's what that little monitor icon with what looks like a fork next to it means. 😊

In a later step in this guide we'll show you how you can set your system up to automatically log you in after a reboot, so you can more quickly get to work.

## Export an Initial Reference Copy of Your Registry

This can come in handy in the future to refer back to. Do this as one of the very first things after installing Windows.

You may never need to use this information, but later if you ever do want to find out what your initial registry settings were, before all the applications were installed and the system was run for a while, you can open this file with a text editor and see them.

### Here's how to export a reference copy of your registry:

- Click **Start**, type **regedit** into the search box, then hit **Enter**.
- Click on **Computer** (the root of all the registry).
- Choose **File - Export...** from the menu, choose a folder you'll remember in the future (e.g., your **My Documents** folder), and name the file something like: **Entire\_Registry\_MM\_DD\_YY.reg**

*Note that Windows automatically backs your registry up occasionally to the folder **Windows\System32\config\RegBack**. However, that backup is not readable with an editor, and is used during self restoral operations if Windows should find its registry corrupted.*

## Set Up To Do Serious Networking

We recommend you disable "HomeGroup" networking, which is supposed to make things easier but in our experience actually causes compatibility problems and complicates system usage.

*Note that using "Work" networking still facilitates full networking with other computers on your LAN, even if you are at home.*

- Without "HomeGroup" networking, Windows 8 will work more like its predecessors (using "Workgroup" networking), and you'll have fewer problems with sharing and permissions.
- To make the best use of "Workgroup" type networking, maintain the same (privileged) username and password on all your systems. Then connecting to other computers in your network becomes a breeze.
- Windows 8 does not automatically set up Administrative shares like its predecessors. We'll show you how to enable those in a later section.

### Here's how to disable HomeGroup Networking:

- Start **File Explorer**.
- Right-click on **Homegroup** in the Navigation pane, choose **Change HomeGroup Settings**, then **Leave the Homegroup**.
- Click **Start** then type **sharing** in the search box.
- When **Network and Sharing Center** comes up, click it.
- Click the **Change advanced sharing settings** link at the upper-left.
- In the **Private** profile section, scroll down to the HomeGroup connections section, and choose the ( ) **Use user accounts and passwords to connect to other computers** setting.
- Click the [ **Save changes** ] button, and [ **Sign out later** ].
- Click **Start**, type **services** in the search box.
- When **Services** comes up, click it.
- Scroll down and set both the **Homegroup Listener** and **Homegroup Provider** services to Startup type: **Disabled**.
- **Reboot**.

## Change Workgroup Name

Assuming you're using "Workgroup" networking - i.e. you don't have a domain - you'll want to ensure that it works as seamlessly for you as possible. Follow these steps:

- Click **Start**, type **workgroup** into the Search box, and click **Change workgroup name** when it comes up.
- In the **Computer name** section, enter a **Computer description** that will help you recognize which computer it is when you see it in a list.
- Click the [ **Network ID** ] button.
- Ensure the ( ) **This computer is part of a business network; I use it to connect to other computers at work** entry is selected, then press [ **Next** ].
- Select the ( ) **My company uses a network without a domain** entry and press [ **Next** ].
- Enter your preferred **workgroup name** and press [ **Next** ].
- **Reboot** the system after these changes via the [ **Finish** ] button then [ **Restart Now** ].
- Note that it may take a little time after you reboot before your computer can participate fully as a workgroup member. Give it a few minutes.

## Turn User Account Control (UAC) Prompting Down

User Account Control is a Windows feature introduced in Vista and refined in subsequent releases that **even if you're an Administrator causes you to run your applications as a non-privileged user**, except when you approve an "elevation of privileges" or run an app "As Administrator". The intent is to keep malware from being able to install itself without your knowledge.

UAC also invokes some file system "magic" where your application thinks some of your files are on the disk in one place when in fact they're in another - *all in the name of protecting the operating system from you and the software you might run*. Generally speaking, this magic sometimes serves to confuse things, and it can make the system less compatible with older legacy applications.

### Here's How To Turn UAC Prompting Down To Its Lowest Setting

If you'd rather not be bothered, **you know what you're doing with your computer**, and you **take steps not to become infected with malware**, the first possibility is to just set UAC at its lowest setting. This is equivalent to saying "*run my applications non-privileged, but don't bother asking me to escalate privileges because I'm always just going to say yes anyway*".

We advise starting to use Windows 8 this way, then revisiting the next section of this guide if you find things you simply cannot do or finally get fed up with permissions issues and not *\*quite\** being an Administrator.

- Click **Start** and type **User** into the search box.
- When **Change User Account Control settings** comes up, click it.
- Drag the slider to the **bottom**. This sets it to "*Never ask, assume yes*".

## Really Disable UAC

Unfortunately, Windows 8 does not provide a means for you to completely disable UAC through its user interface. What you did in the section above just stopped it from prompting - you're still running things as a non-privileged user. Trouble is, you might need to be a full-time Administrator!

Even with UAC prompting minimized you may have ongoing permissions issues, and some things still just never work quite right. So if you're finally fed up enough to come back here... Good news! **It's actually possible to turn UAC all the way off.**

Microsoft claims allowing us to disable UAC entirely would make the Metro/Modern apps insecure, so they have seen to it that these apps won't run with UAC off. You are faced with a choice: **Run with UAC off and enjoy being a full-time Administrator, or stay with the minimum prompting setting and be able to run Metro/Modern apps.**

If you're a power user - i.e., you won't install things you shouldn't, browse to bad sites, fiddle with operating system files without knowing what you're doing, and you don't give a darn about ever running Metro apps, then **you may prefer to turn UAC all the way off.** Your desktop will still work.

With UAC fully disabled you will always have administrative privileges, "Run as Administrator" will not be required, you won't be blocked by as many Permissions issues, and your system in general may work more consistently and predictably for you. **But you will not be able to run Metro/Modern applications.**

### How to Really Disable UAC, To Turn It All The Way Off

This involves editing the registry with the Registry Editor tool.

**BE VERY CAREFUL WHENEVER EDITING THE REGISTRY.**

- Click **Start**, type **regedit** into the search box, then hit **Enter**.
- Navigate into the key:

[HKEY\_LOCAL\_MACHINE \ Software \ Microsoft \ Windows \ CurrentVersion \ Policies \ System]

- Change the following value to zero:

**EnableLUA REG\_DWORD 0**

- **Reboot.**

## Set Up Windows Update and Apply Current Updates

Depending on what distribution of Windows 8 you have, if you're doing a new install or are late in the Windows release cycle, there may be a significant number of Windows Updates that need to be applied.

### Configure Windows Update to Prompt You

Let's set up Windows Update to download updates but not install them until you give it the go-ahead...

- Click **Start**, type **windows update** in the search box.
- When **Windows Update** comes up, click it.
- Click the **Change settings** link at the left.
- Select **Download updates but let me choose whether to install them**.
- We prefer to check the box next to [ ] **Give me recommended updates the same way I receive important updates**.
- You may wish also to check [ ] **Give me updates for other Microsoft products when I update Windows**.
- Press [ **OK** ].

### Install Current Updates

- After completing the steps above Windows Update will check online for updates.
- If Windows Update reports that updates are available for your computer, **install them**. This may take some time.
- **Repeat the process** until no more updates are reported available. This may take several iterations, including reboots. Take the time to do them all now.
- **Reboot** as directed.

## Configure Windows File Explorer

There are some shortcomings with Windows 8's **File Explorer**. Some can be worked around with configuration, and some behavior is improved by using 3<sup>rd</sup> party applications such as Classic Shell and Folder Options X. Here are some tweaks we like; you don't have to do them all:

**Tip:** *No matter what settings you choose, always remember to collapse **Favorites**, **Libraries**, and **Network** in the Navigation pane before closing Explorer to reduce unexpected jumping when opening Explorer next time.*

Some of these steps involve editing the registry with the Registry Editor tool. **BE VERY CAREFUL WHENEVER EDITING THE REGISTRY.**

### Set Explorer to Always Use General Items View

Microsoft seems to feel you need to see different views of your files depending on what kinds of files Explorer finds in your folder. From our perspective, that just makes Explorer more difficult to use. They're *all* files, and we'd like to see them consistently in one way: "General Items" view, showing the name, folder, date, etc.

- Click **Start**, type **regedit** into the search box, then hit **Enter**.
- If you do not want Explorer to try to auto-detect **Folder Types** but always use "**General Items**" for all, add this new String Value:

[HKEY\_CURRENT\_USER \ Software \ Classes \ Local Settings \ Software \ Microsoft \ Windows \ Shell \ Bags \ AllFolders \ Shell]

**FolderType REG\_SZ NotSpecified**

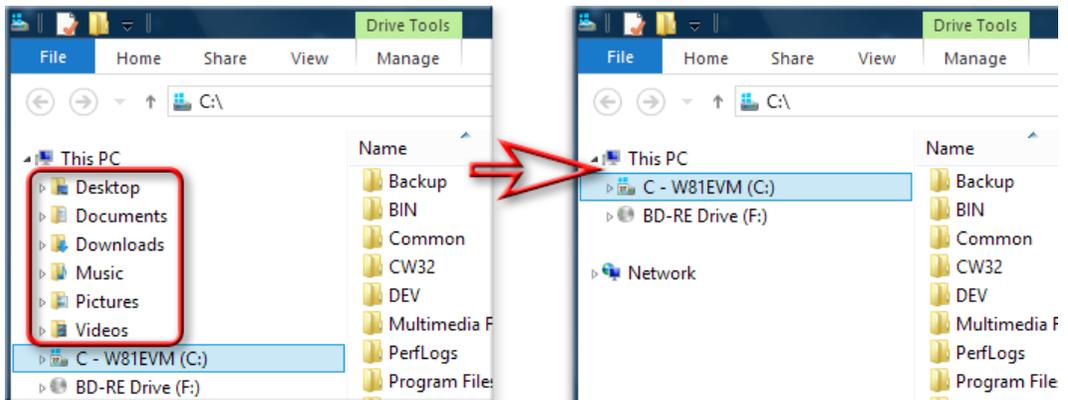
### Hide Favorites and Libraries from the Navigation Pane

We think of Favorites as things we use to find web sites, not places on our hard drives. Therefore we prefer to eliminate the display of Favorites in the Explorer Navigation pane. Similarly, Libraries are a (buggy) abstraction, and we prefer to work in real, actual folders.

- Start a Windows **File Explorer** window.
- Right-click in the empty space in the Navigation pane and **un**check both [ ] **Show favorites** and [ ] **Show libraries**.
- Right-click in there again and check **Expand to current folder** while you're here.

## Hide Default Root Namespaces to Simplify the Navigation Pane

We prefer to work only with real folders on real hard drives for best performance and reliability. Trouble is, Microsoft has included a set of abstract “name spaces” that show up under **This PC** that only serve to make it more difficult to see the real drives in the Navigation pane.



To remove these namespaces from **File Explorer** and the **File > Open** and **File > Save** dialogs in most applications, do the following:

- Click **Start**, type **regedit** into the search box, then hit **Enter**.
- **Expand this key**, which sets namespaces shown in 64 bit software:  
[\[HKEY\\_LOCAL\\_MACHINE \ SOFTWARE \ Microsoft \ Windows \ CurrentVersion \ Explorer \ MyComputer \ NameSpace\]](#)
- **Delete** each of these **subkeys** to remove the namespaces shown:
 

<a href="#">{1CF1260C-4DD0-4ebb-811F-33C572699FDE}</a>	(Music)
<a href="#">{374DE290-123F-4565-9164-39C4925E467B}</a>	(Downloads)
<a href="#">{3ADD1653-EB32-4cb0-BBD7-DFA0ABB5ACCA}</a>	(Pictures)
<a href="#">{A0953C92-50DC-43bf-BE83-3742FED03C9C}</a>	(Videos)
<a href="#">{A8CDFF1C-4878-43be-B5FD-F8091C1C60D0}</a>	(Documents)
<a href="#">{B4BFCC3A-DB2C-424C-B029-7FE99A87C641}</a>	(Desktop)
- **Do the same deletions above** in the following key for 32 bit software:  
[\[HKEY\\_LOCAL\\_MACHINE \ SOFTWARE \ Wow6432Node \ Microsoft \ Windows \ CurrentVersion \ Explorer \ MyComputer \ NameSpace\]](#)

As an alternative to doing all of the above manually, you can just run the companion file we provide: **HideExplorerRootNamespaces.reg**

## Additional File Explorer tweaks you may want to consider:

Some settings, of course, are personal preference, but taken as a whole we experience fewer problems overall with Windows File Explorer using *these specific settings*.

- Open Windows **File Explorer**.
- Navigate to the root of drive **C:** and see that you're in **Details** view.
- Make the window look the way you'd like future Explorer windows to look. Reorganize Details view columns, e.g., to **Name, Size, Type, Date Created, Date Modified**, etc. and size them so they fit.
- Choose **View - Options - Change Folder and Search Options**, then click the **View** tab:
  - Click [ **Apply to Folders** ] to apply the above settings to all folders.
  - Check [  ] **Display the full path in the title bar**.
  - Uncheck [  ] **Hide extensions for known file types**.
  - Uncheck [  ] **Hide folder merge conflicts**.
  - Uncheck [  ] **Hide protected operating system files**.
  - Check [  ] **Launch folder windows in a separate process**.
  - Uncheck [  ] **Use Sharing Wizard**.
  - [ **Apply** ] to save the changes.
- **Search** tab:
  - Check all the boxes.
  - [ **OK** ] to exit.

## Hide the ClassicExplorer Toolbar

We find it convenient to right-click in the space to the left of the ClassicExplorer icons and uncheck the ClassicExplorer toolbar entry. This makes more room vertically inside the Explorer pane for getting real work done.

## Add a Useful File Explorer Shortcut to the Desktop

We've had you remove the pinned Windows File Explorer entry from the Taskbar, and this is how you can set up a handy desktop icon that will open a new File Explorer window rooted on **Computer** (opposed to Libraries, which you should avoid using).

### To Set Up a Desktop Shortcut to Explorer

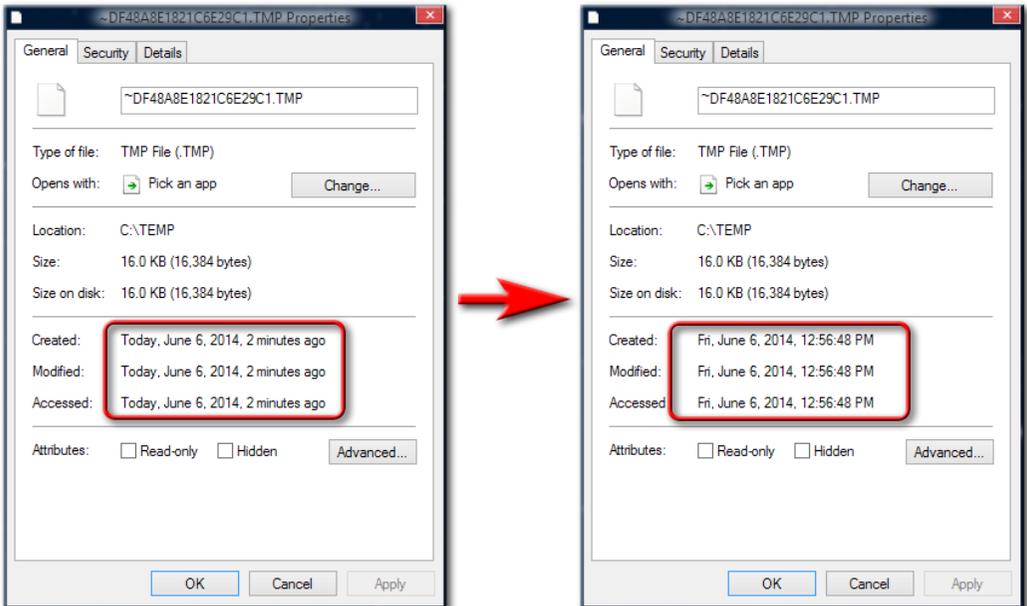
- **Right-click** your **desktop**, choose **New Shortcut**:
  - Location of the item: **explorer.exe /expand,C:\**
  - Name for this shortcut: **C**
- **Right-click** the new shortcut, choose **Properties**:
  - **Change icon**, **%SystemRoot%\system32\SHELL32.dll**, choose a little disk drive icon.
- Copy the new shortcut to **D**, **E**, etc. to set up additional drives, depending on what drives you have installed, and change the **Location** appropriately.
- Copy the new shortcut to another new one named **Other**, with the following Location: **explorer.exe /select,C:\**

### An optional tweak:

- **Right-click** the **desktop**, choose **View - Small icons**.

## Show Actual Times, Not “2 minutes ago”

Out of the box, Windows File Explorer dialogs show your file times in a format that's a bit too casual for serious work. If you've recently modified a file and would like to know when - to the exact second - the nomenclature “2 minutes ago” isn't really sufficient. Take heart, there is a way to have Windows always display the date and time to the second:



### To instruct File Explorer to always show you the actual time, do this:

- Click **Start**, and type **region** into the search box.
- When **Change date, time, or number formats** comes up, click it. You should see the **Region** dialog.
- Click the [ **Additional settings...** ] button at the bottom-right. You should now see the **Customize Format** dialog.
- Click the **Date** tab at the top.
- In the **Long date** field, remove one of the **d** characters from **dddd**. On a US English system you will now have: **ddd, MMMM d, yyyy**
- Click **[OK]** to get out of both dialogs.
- Now your times will always be shown in HH:MM:SS format.

## Configure Menu Opening Direction

We have seen many cases where Windows 8 for some reason defaults the menu-opening direction to the left.

We're used to seeing menus open to the right, and we expect you'll want them to do that too.

### To Change The Menu Opening Direction

This involves editing the registry with the Registry Editor tool.

**BE VERY CAREFUL WHENEVER EDITING THE REGISTRY.**

- Click **Start**, type **regedit** into the search box, then hit **Enter**.
- Navigate into the key:  
    HKEY\_CURRENT\_USER \ Software \ Microsoft \ Windows NT \  
    CurrentVersion \ Windows
- Change the following value to zero to get menus to open to the right:  
    **MenuDropAlignment**      **REG\_DWORD**      **0**

## Font Smoothing Settings and Tuning Your Display

**Font rendering and smoothing** are surprisingly complex processes that can help make characters displayed by Windows on your monitor appear smoother and more fully formed, even though your display provides a limited number of pixels.



### Font smoothing can be enabled or disabled as follows:

- Click **Start**, then type **performance** into the search box.
- When **Adjust the appearance and performance of Windows** comes up, click it.
- Choose the ( ) **Custom** radio button.
- Enable or disable the [ ] **Smooth edges of screen fonts** selection.

### Tune up font smoothing to your liking:

If you've chosen to enable font smoothing, **ClearType** is technology that implements the smoothing to help make more fully-formed characters on your display. It can be quite effective if set up properly and the display is reasonably well calibrated and is good and crisp. Depending on system performance and personal preference, some people like it and some don't.

- Click **Start** and type **ClearType** into the search box.
- When **Adjust ClearType text** comes up, click it.
- Go through the screens of the **ClearType Text Tuner** application and choose your preferences. Note: Try to resist a tendency to choose darker text because making ClearType text too dark can end up causing you to perceive more color-fringing around the characters.
- Note that the 3rd panel is the one that gauges the amount of color used on character edges during smoothing. Try different choices here if you perceive color fringes on your characters.

**It's worth taking the time to get the font smoothing right, just to your liking.** Don't just use the screens in the ClearType Text Tuner application to gauge results, but also bring up your favorite apps or web pages and look critically at them as well. Make notes and go through the ClearType Text Tuner as many times as needed, trying different selections. **This can make the difference between being comfortable with what you see or being irritated by it from now on.**

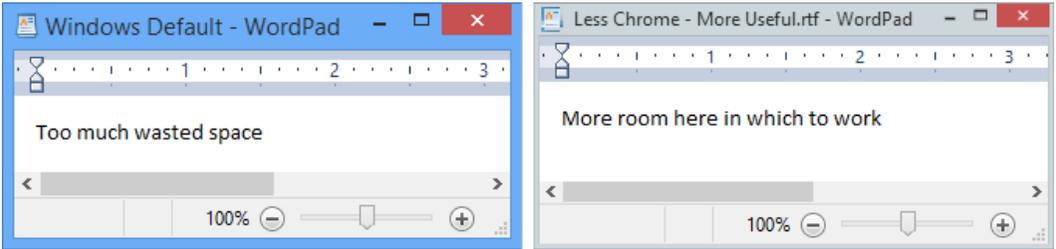
*Note that the Internet Explorer version 10 and newer web browsers ALWAYS use subpixel font rendering with font smoothing even if you disable it via the above settings. Microsoft has chosen to enable both without allowing you the option to choose. There is no known way to disable this.*

*Note also that the current versions of Internet Explorer on Windows 8 do not use color in the font smoothing, which is different from much of the rest of the system, so depending on your display you may find that IE's text rendering looks a little rough. Run the ClearType Text Tuner again to fine the IE text specifically with the last panel (5th of 5) to help minimize this.*

## Minimize Chrome on Your Desktop

Microsoft has "flattened" the appearance of the desktop UI elements in Windows 8, and has actually reduced the default amount of "chrome" (UI space around windows), but they haven't really gone far enough.

If you have good eyes and prefer to reduce the UI elements even further **you can minimize it to leave a little more room to do real work...**



Unfortunately Microsoft has removed most of the ability to set these metrics directly. You can make some improvement as follows:

### To make the Title Bar and Caption Buttons Smaller:

- **Right-click** an open space on the **desktop**, and choose **Personalize**.
- Click the **Display** link at the lower-left.
- In the Change only the text size section, set the **Title bars** to 9, then press [ **Apply** ].

### If You're Itching to Carve Off Even More of the Chrome:

We've found that importing settings into the Windows 8 registry that are no longer directly configurable but which have been saved from a Windows 7 system can tidy things up even further.

On the web page for this guide (listed below) you will find our companion files set. Download and Open the zip file, and save the files to your disk.

<http://www.ProDigitalSoftware.com/W8ToWork.html>

- Double click the companion file **SetWindowMetrics.reg** in order to set the values for the following key in your registry:

[HKEY\_CURRENT\_USER \ Control Panel \ Desktop \  
WindowMetrics]

## Set Taskbar Properties

Some folks like that the Taskbar can contain both running and non-running applications (via a process called "pinning"). We prefer it to show only running tasks.

### Unpin Everything From the Taskbar

If you want to run your common apps conveniently, you can still put them right on the desktop as shortcut **icons**, just like in the good ol' days. *Desktop icons are not evil - especially if you keep it organized!*

- **Right-click** and unpin the **Internet Explorer** and Windows **File Explorer** icons from the Taskbar.

### Further Taskbar Customizations You May Find Useful

These are our preferences, with an eye toward maximizing desktop work space.

- **Right-click** the **Taskbar** and choose **Properties...**

#### Taskbar tab

You can have the Taskbar slide off the screen when not in use. This corrects some window positioning problems if you like to keep your Taskbar at the top of the screen. *Note that programs in the System Tray (including those in the "hidden icons" section) can cause it to slide open and appear to "stick" while trying to notify you of things.*

- Check [ ] **Auto-hide the taskbar.**

The Taskbar doesn't have to stay at the bottom. We like it on top:

- Choose the **Taskbar location on screen** that you prefer.

Instead of just icons, you can have buttons with captions, and when you have many applications open it can combine the buttons logically:

- Check [ ] **Use small taskbar buttons** to reduce height.
- Taskbar buttons: **Combine when taskbar is full.**

Aero Peek is a feature where Windows will make all but one application transparent. We find it distracting and prefer to turn it off:

- **Un**check [ ] **Use Peek to preview the desktop...**

Once you have everything the way you like it:

- Check  **Lock the taskbar.**

### Navigation tab

- Check  **Go to the desktop instead of Start when I sign in.**
- Check  **List desktop apps first in the Apps view when it's sorted by category.**
- We prefer everything else unchecked here.

### Jump Lists tab

- We don't use Jump Lists, and we normally uncheck all these items.

### Toolbars tab

Sometimes you may find that your desktop icons get covered and you really don't want to minimize all your apps just to go click one of them. It's possible to make all the icons on your desktop also appear in a menu near the right end of the Taskbar (just left of the system tray), and from which you can start any one of them.

- Check  **Desktop.**

Here's where to find the button to activate the **Desktop** menu on the Taskbar:



## Disable Aero Peek

Aero peek hides everything on your desktop briefly when you use Alt-Tab or hover over Taskbar icons. Some people find this distracting and disruptive.

We showed how to disable part of Aero Peek in the section above.

### Here's how to turn it the rest of the way off:

- Click **Start** and type **view adv** into the search box.
- When **View advanced system settings** comes up, click it.
- In the **Performance** section, click [ **Settings...** ].
- **Un**check [ ] **Enable Peek**.

## Configure A Shutdown Safety Net

You can set Classic Shell and Windows 8 to issue a confirmation dialog whenever you initiate a Shut Down or Restart.

The good part is that this dialog will **allow you to Cancel the shutdown** if it was unintended. It can also ask you to enter a reason for legitimate shutdowns, which can be handy for helping diagnose problems later.

### Here's how to get a shutdown prompt:

- Click **Start**, then **Settings > Classic Start Menu**.
- Go into the **Special Items** tab.
- Set **Shutdown** to **display as a link** then [ **OK** ] out.

### This will configure the system to ask for a reason:

- Click **Start**, type **gpedit.msc** into the search box, and hit **Enter**.
- When the **Local Group Policy Editor** comes up, navigate into:
  - > **Computer Configuration**
  - > **Administrative Templates**
  - > **System**
- In the console pane, scroll down to the list of objects, right-click **Display Shutdown Event Tracker**, and click **Edit**.
- Choose **Enabled** and in the dropdown select **Always**.

*Note: If you don't have gpedit.msc, the following registry values are created by the above. Delete these values to return to defaults:*

```
[HKEY_LOCAL_MACHINE \ SOFTWARE \ Policies \ Microsoft \
  Windows NT \ Reliability]
```

```
ShutdownReasonOn    REG_DWORD    1
```

```
ShutdownReasonUI    REG_DWORD    1
```

```
[HKEY_LOCAL_MACHINE \ SOFTWARE \ Wow6432Node \
  Policies \ Microsoft \ Windows NT \ Reliability]
```

```
ShutdownReasonOn    REG_DWORD    1
```

```
ShutdownReasonUI    REG_DWORD    1
```

## Adjust the Mouse Speed

The default mouse speed settings can make your system feel sluggish.

Having a more responsive mouse can facilitate you feeling more in control and doing everything more efficiently. A faster motion setting, for example, means you won't have to move your hand as much to get things done. You'll want to strike a balance of speed and accuracy, so perhaps you'll want to experiment a bit.

These settings also depend on your display size. We often use several large monitors on a workstation.

- Click **Start**, then **Settings > Control Panel > Mouse**.
- In the **Pointer Options** tab, **Motion** section, **increase the speed**. Don't be afraid to move it quite a bit to the right (Fast), especially if you have a multiple monitors.
- Also check the box for [ ] **Enhance Pointer Precision**.
- In the **Buttons** tab, **Double-click** speed section, you might want to decrease the double-click speed a bit. Test by double-clicking the little folder icon.

## Speed Up the Display of Menus and Live Previews

In a lot of places in the Windows UI there are times where you have to hover the mouse over things to get them to come up. An example is when you open a menu that has a sub-menu, or when you hover over a Taskbar button and want to see the Taskbar Live Preview.

Normally the wait times before Windows responds are pretty long - a big fraction of a second - and it can feel like a long time when you're trying to get things done quickly. **The good news is that these wait times can be sped up to be nearly instantaneous.**

### Speed up Menus

This involves editing the registry with the Registry Editor tool.

**BE VERY CAREFUL WHENEVER EDITING THE REGISTRY.**

- Click **Start**, type **regedit** into the search box, then press **Enter**.
- Reduce the menu show delay time string from the default of 400 to **50** milliseconds. This is the amount of time the system waits when you hover over a menu item before it brings up the menu item contents.

[HKEY\_CURRENT\_USER \ Control Panel \ Desktop]

**MenuShowDelay REG\_SZ 50**

You can set this value back to **400** to restore the default.

### Speed Up Taskbar Live Previews

The responsiveness of Taskbar Live Previews when you hover over buttons on the Taskbar can be improved.

- Click **Start**, type **regedit** into the search box, then press **Enter**.
- **Add** a new DWORD value to reduce the hover time to **50** milliseconds. This is the amount of time you have to hover over an icon or button in the Taskbar before the system puts up the Taskbar Live Preview.

[HKEY\_CURRENT\_USER \ Software \ Microsoft \ Windows \ CurrentVersion \ Explorer \ Advanced]

**ExtendedUIHoverTime REG\_DWORD 0x00000032 (50)**

You can simply remove this value to return the timing to default.

## Set Up a Short, Simple TEMP Folder Path

Many applications use temporary storage on your hard drive, and it's a long-standing convention to use the value of the **TEMP** or **TMP** environment variable to locate a suitable folder for temporary file storage.

Windows installation sets up a **TEMP** area for you, but as time has gone on, its location has evolved. With Windows 8 it defaults to a folder deep under your Users folder, and since it's kind of a long path - and usernames can have spaces in them - you might end up with a temporary file path that some applications simply can't deal with.

To help ensure the greatest likelihood of all your applications being able to use **TEMP** storage and do proper temporary file storage without problems:

### Create a Simple TEMP Folder

- Create folder: **C:\TEMP**
- In Windows **File Explorer**, right-click **C:\TEMP** in the Navigation pane, choose **Properties**, **Security** tab, and ensure **Full Control** permissions are set for all intended users.
- Right-click **This PC** in the Navigation pane, then choose **Properties**.
- Click the **Advanced System Settings** link.
- Click the [ **Environment Variables...** ] button.
- Change user **TEMP** and **TMP** variables to: **C:\TEMP**

## Create a CMD Shortcut on the Desktop

If you like being able to access the command line easily (and what power user doesn't?) you'll want an icon on the desktop to do this. Here are some handy suggestions...

- Create a new shortcut to **CMD.EXE** on the desktop named **CMD**.
- Set the **Start in** folder to: **C:\TEMP**
- Open a CMD window by double clicking the new shortcut.
- Click the **System menu** icon in the upper-left corner and choose **Properties**.
- **Options** tab:
  - Check [ ] **QuickEdit Mode** and [ ] **Insert Mode**.
- **Font** tab:
  - Choose **10 x 18** (nice and readable if you have a big monitor)
- **Layout** tab:
  - Screen Buffer Size - Width: **120**, Height: **9999**
  - Window Size - Width: **120** (or whatever fits nicely)
  - Uncheck [ ] **Let system position window**.
  - Move the window with the Window Position values to where you'd like it to open.
- **Colors** tab
  - Screen Text - **bright green**.
- **Close** the CMD window.

## Speed Up NTFS File Access

The Windows 8 file system can still generate old 8.3 format file names for each file you store on your disk.

Unless you have old (ancient) applications that work only with 8.3 filenames and need these special names, which look like "**Progra~1**", you can disable creation of the 8.3 format filename to increase the file system performance.

### To Disable Generation of 8.3 Filenames for Compatibility

- Execute this command in a CMD window:

```
fsutil 8dot3name set 1
```

- You can undo this by setting it to the default value of 2.
- You can request the current setting value via the following command:

```
fsutil 8dot3name query
```

## Improve Disk Cache Efficiency

Windows does not enable one of its best performance features right out of the box: The ability to cache disk writes in RAM, allow the application to go on, and write the data to the disk later in an efficient manner.

Instead, Windows 8 runs with **write-cache buffer flushing** enabled by default. This essentially makes applications wait for the hard drive to finish writing their data before allowing them to continue, which slows things down.

Microsoft defaults the system to the slower setting because they may feel you risk losing more data on an unexpected crash or power loss if more data is staged in RAM.

With **write-cache buffer flushing** disabled and the full power of the disk cache brought to bear, the OS is free to batch together disk writes and schedule them more efficiently, so as to maximize throughput and minimize seeking. You can actually hear a physical difference in electromechanical drives as the drive will not seek nearly as much. This not only increases throughput but also the longevity of your hard drive as well.

**If your computer is stable and reliable, you have battery backup (UPS), and your disk driver supports it,** you can confidently disable write-cache buffer flushing. Do the following for each internal **disk drive** for which you want to speed up access.

### To Turn Off Write-Cache Buffer Flushing:

- Open an **Explorer** Window.
- **Right click** on your C: drive and choose **Properties**.
- Click the **Hardware** tab.
- Click on the **physical hard drive** for which you want to change the setting to highlight its name.
- Click the [ **Properties** ] button.
- Click the **Policies** tab.
- **Check** the box next to [  ] **Turn off Windows write-cache buffer flushing on the device.**

## Enable Default Administrative Shares

By default Windows 8 (like Windows 7) does not enable the default hidden administrative shares its predecessors offered, such as C\$ and ADMIN\$, right out of the box.

In a corporate environment, or even if you just want to remotely manage a computer in another room on your home LAN, having these shares available can be helpful.

- **C\$, D\$,** etc. - Partition root shares.
- **ADMIN\$** - Share of %SYSTEMROOT%.

You could, of course, just share each of the root folders of the drives you want to be able to access, and set the appropriate permissions yourself. Or you could enable the whole lot at once using the technique listed here.

*Note: Be sure you understand the implications of file sharing if your computer is not isolated from the Internet by a router. We strongly recommend using a router.*

### Here's how to enable Administrative Shares

- Click **Start**, type **regedit** into the search box, and hit Enter.
- Add a new DWORD value called LocalAccountTokenFilterPolicy to the following key:

[HKEY\_LOCAL\_MACHINE \ SOFTWARE \ Microsoft \ Windows \ CurrentVersion \ Policies \ System]

**LocalAccountTokenFilterPolicy    DWORD    1**

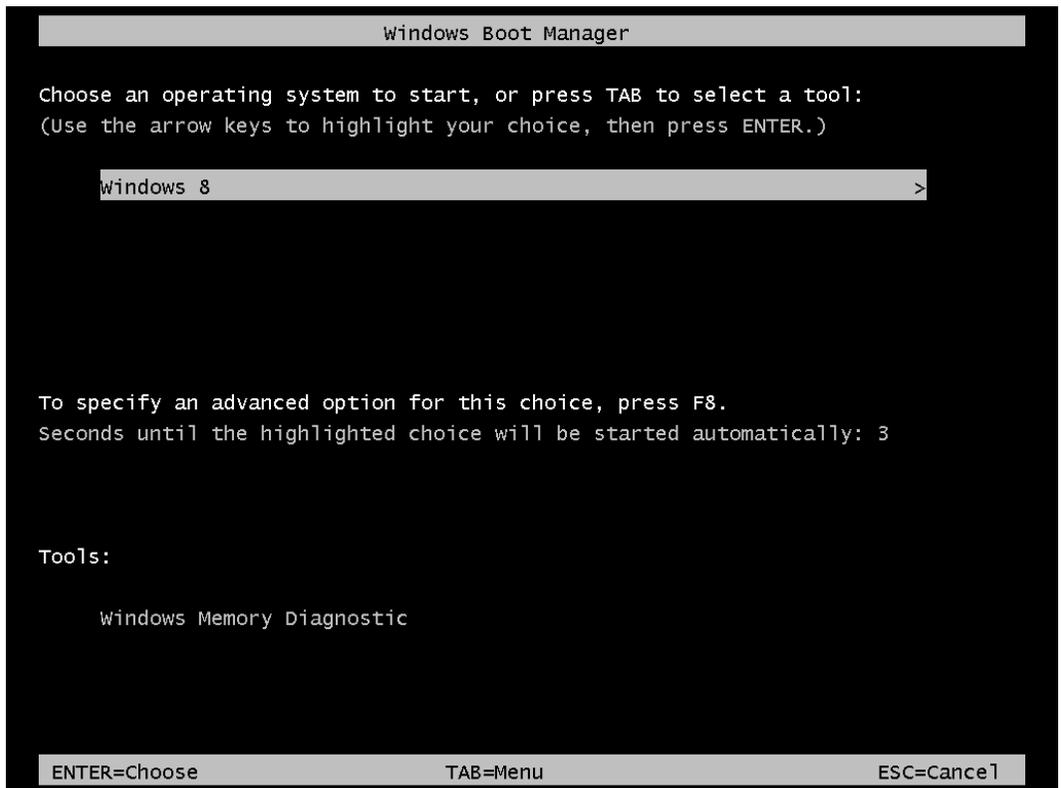
- **Reboot.**
- Note now that from another computer, using administrative credentials, you can now access your drives and system root via the hidden administrative shares, such as: **\\YourW8PC\C\$**

## Always Show Advanced Boot Options

The Windows 8 bootup process has been re-engineered to be hyper-fast. This is generally a good thing, but it may be that in a pinch you'll want to access the advanced boot options - the kind of thing you used to be able to do by pressing the F8 key, but can no longer easily do.

You can request advanced bootup options for one time only in Windows by holding down the Shift key while selecting Restart, or you can set it to prompt you at every bootup (our preference).

If you're willing to sacrifice 5 seconds of boot time to see options you may one day need, there are a few commands you can enter that will cause Windows to show you the Windows Boot Manager screen during startup.



### To See the Above Screen for 5 Seconds During Every Bootup:

- Start a CMD window and enter these commands:
  - BCDEDIT /set {bootmgr} displaybootmenu yes**
  - BCDEDIT /timeout 5**

## Change Explorer's Sort Order

Since Explorer seems bent on keeping files sorted, you might have noticed that it makes some effort to put files with numbers in the names in numerical order. This is usually good, if you expect it, but it can be occasionally confusing. Some people prefer pure alphabetic sorting.

### **If you prefer your lists to be PURELY alphabetical, you can do this:**

- Click **Start**, type **gpedit.msc** into the search box, and hit **Enter**.
- When the **Local Group Policy Editor** comes up, navigate into:
  - > **User Configuration**
  - > **Administrative Templates**
  - > **Windows Components**
  - > **File Explorer**
- **Right-click** the entry **Turn off numerical sorting in File Explorer** and choose **Edit**.
- Choose (  ) **Enabled** to enable the setting.

*Note: If you have an edition of Windows that does not provide gpedit.msc, the following registry value is created by the above. Delete this value to revert to default behavior:*

[HKEY\_CURRENT\_USER \ Software \ Microsoft \ Windows \  
CurrentVersion \ Policies \ Explorer]

**NoStrCmpLogical REG\_DWORD 1**

## Make It Less Likely a Window Will 'Pop Behind'

Windows 8 exhibits a tendency for "pop-up" dialogs (e.g., "Delete this, are you sure?") to occasionally pop **behind** other open windows.

This is partly because Microsoft has specifically programmed Windows to avoid popping things in front of you while you're typing, relying instead on flashing the icon or button in the Taskbar to get your attention.

Windows measures the amount of time that's elapsed since you last typed a character, and if something tries to pop up a dialog in that time it will open *behind your app* instead. They call this the **Foreground Lock** time. It can actually be a good thing, because with most dialog boxes the space bar will activate the [ OK ] button - and [ OK ] isn't always what you want to press!

That's all fine and good, but for some reason Microsoft has chosen a long default timeout for this - 3 minutes and 20 seconds, to be exact!

It seems prudent to make the timeout a lot shorter - say 5 seconds. That way you're still protected from an application popping in front of you while you're actively typing, but you're less likely to miss a dialog while you're waiting to see it.

### How to shorten the Foreground Lock time:

- Click **Start**, type **regedit** into the search box, then hit **Enter**.
- Change the following value, which sets the foreground lock time in milliseconds from the default of 200000 decimal to, say, **5000** (5 seconds):

[HKEY\_CURRENT\_USER \ Control Panel \ Desktop]

**ForegroundLockTimeout REG\_DWORD 0x00001388 (5000)**

- **Log off** Windows and back on.

*Note that you can set this value to 0 to ALWAYS have pop-up windows pop in front, but if you do set it to 0 **beware** - sooner or later something will pop in front of you while you're typing and you'll end up hitting [ OK ]!*

## Turn Off Caching of Thumbnails in Thumbs.db Files

People sometimes report that they cannot manipulate their folders as they want to because Explorer has a Thumbs.db file open. Windows generates these files for compatibility with older software that may expect such files to exist in folders with, for example, photos in them. **It does NOT need Thumbs.db files itself to show thumbnails in folders.**

Unless you're running such old software (which is uncommon at this point), you can just turn this off without consequences, and with a benefit: You'll no longer be blocked from manipulating folders because of Thumbs.db file conflicts.

The good news is that you can disable this with the **Group Policy Editor**.

### To Disable Generation of Unneeded Thumbs.db Files:

- Click **Start**, type **gpedit.msc** into the search box, and hit **Enter**.
- When the **Local Group Policy Editor** comes up, navigate into:
  - > **User Configuration**
  - > **Administrative Templates**
  - > **Windows Components**
  - > **File Explorer**
- **Right-click** the entry **Turn off the caching of thumbnails in hidden thumbs.db files** and choose **Edit**. **Make sure you find the right setting as there are several with similar names.**
- Set the policy to **Enabled**.
- **Log off** Windows and back on.

*Note: If you have an edition of Windows that does not provide gpedit.msc, the following registry value is created by the above. Delete this value to revert to default behavior:*

[HKEY\_CURRENT\_USER \ Software \ Policies \ Microsoft \ Windows \ Explorer]

**DisableThumbsDBOnNetworkFolders REG\_DWORD 1**

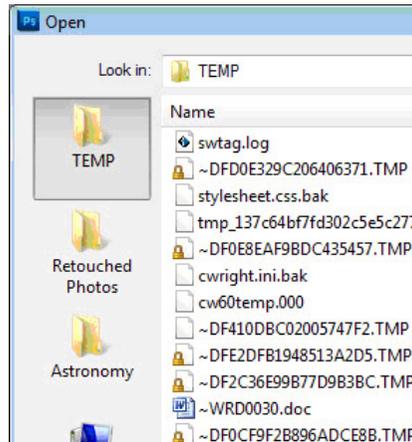
## Configure What Shows on Your Desktop

Here are some small tweaks to help support the use of desktop icons.

- **Right click** the desktop, choose **Personalize**.
- Click the **Change desktop icons** link near the upper-right.
  - Check [ ] **Computer** and any other items you'd like an icon for on your desktop.
  - **Un**check [ ] **Allow themes to change desktop icons**.
  - [ **OK** ] to exit.
- You will be back at the **Personalization** dialog. If you've customized your desktop background or made any changes to the chrome sizes, you may want to save your current theme.
  - Click the **Save theme** link. Name it something you'll remember.

## Customize the Places Bar in Common Dialogs

Some applications still use older style Explorer **common dialogs**, for example for their **File - Open** and **File - Save** operations. These have a list of handy places running vertically down a bar on the left side of the dialog. Microsoft populates the Places Bar with default locations they think you might find handy, but if you work in particular folders that are not the defaults, you might find it handy to personalize these. For example:



### To Change the Items Shown in the Places Bar:

- Click **Start**, type **gpedit.msc** into the search box, and hit **Enter**.
- When the **Local Group Policy Editor** comes up, navigate into:
  - > **User Configuration**
  - > **Administrative Templates**
  - > **Windows Components**
  - > **File Explorer**
  - > **Common Open File Dialog**
- Open the **Items displayed in Places Bar** setting.
- Set it to **Enabled**, and edit the list of **Places to display**.

*Note: If you have an edition of Windows that does not provide gpedit.msc, the above change causes registry modifications of a complex nature that we do not advise attempting manually.*

## Internet Explorer Tweaks

Internet Explorer is a good browser. Since the release of IE9 it's been one of the best, and with Windows 8.1 comes IE11, with unprecedented security. But there are ways to make it even better with just a few configuration changes and installation of some free software.

### Create a Desktop Shortcut

We don't like pinning things to the Taskbar. Here's how to set up a handy shortcut icon on the desktop to run Internet Explorer.

- Right-click on the desktop and choose **New > Shortcut**.
- Browse to **C:\Program Files\Internet Explorer**, choose **ieexplore.exe**.

### Configure Internet Explorer to distrust all sites in the Internet zone

There are security features that Windows provides that are configured too permissively by default, probably because Microsoft wants people to be able to see all the glitz the internet has to offer out of the box.

For example, one of the main security holes through which threats can pass through is that Internet Explorer can install and run Add-ons, also known as ActiveX programs. Unfortunately, these are often malware's "foot in the door". **This is especially important once you've disabled UAC.** And, at the very least, Add-ons use up your resources, and you just don't want a lot of ActiveX to be installed on your system.

If you disable ActiveX installs from all web sites except those you explicitly say you trust, your chances of getting malware from the Internet go down significantly, and ads will be reduced as a bonus. Here's how:

- Start **Internet Explorer**, and **right-click** on the **Title** bar. Click **Menu Bar** to cause the menus to show.
- Click **Tools - Internet Options**, then click the **Security** tab.
  - Click the **Internet** zone icon, then the [ **Custom level...** ] button.
  - **Disable** all settings having to do with installing or **running** ActiveX or .NET applications.
  - **Review** all other settings, and choose conservative, high-safety settings for any/all you're not sure about. The only things you want to allow to run are scripts. [ **OK** ] to exit when done.

- Back at the **Security** tab, click the **Trusted Sites** zone icon, then set it to Medium-Low or use [ **Custom level...** ] to define permissive settings. This is where you want to allow things to run from sites you trust, such as your bank or Microsoft.com.

Once you have done the above, Internet Explorer simply **will not install or run Add-ons** from Internet Zone sites unless you take specific action. Most sites will still work, because they use scripting.

### **To add a site you trust, such as your bank, to your Trusted Sites list:**

- Click the **Trusted Sites** zone icon, then the [ **Sites** ] button.
- **Un**check [ ] **Require server verification (https:)** for all sites.
- The current site will be shown as default. Shorten it to just the *domain* (e.g., **microsoft.com**) to instruct IE to trust all pages on that domain.

To **BLOCK** a site you DON'T want even running scripts, add it to the **Restricted Sites** zone using a similar process.

### **What to do about Add-ons**

You may be reading this guide after having run Internet Explorer for a time, and you may have already accumulated Add-ons (ActiveX). These both open you up to security risks and slow your system down.

Applications sometimes offer you the option of installing handy toolbars (e.g., Google Toolbar). Sometimes these sound very desirable, but every one takes up space in your browser window, uses up computer resources, slows your browsing experience, and may even cause crashes!

We suggest you review the list of installed Add-ons, and **remove all those that you don't absolutely know you need**. Your goal is to run a lean, reliable system, right?

### **Here's how to disable Add-ons that have already been installed:**

- Click **Tools - Manage Add-ons**.
- At the lower-left, change the **Show:** box to **All add-ons**.
- Go through the list carefully and methodically and look at every Add-on listed. **Disable** any Add-on that you don't know you need.

You'll likely want to leave most all of the **Microsoft Corporation** Add-ons enabled, though we don't like the sound of the one called "Research".

There are almost no non-Microsoft Add-ons you need to browse the web. If you install the freeware listed in this guide, you'll have some Add-ons from **IvoSoft** and **Viktor Krammer** that you'll want to leave enabled (they may say "Not verified" - this is OK).

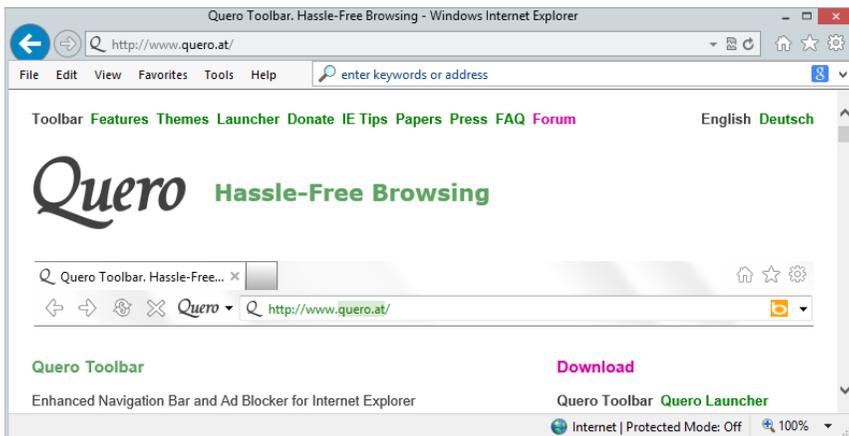
## Where's the missing search box?

Microsoft has done away with the separate search box. There are many reasons this was a bad idea - apparently Microsoft employees themselves don't embark on many actual web searches (they know everything). One need only try to search for something, follow a few pages, then want to modify the search to see the fallacy in eliminating a separate search box.

The good news is that there's a small freeware package called the **Quero Toolbar** available that can be installed to provide a separate search box. This is one toolbar we DO recommend.

- **Download** and install the **Quero Toolbar** software from this site:

<http://www.quero.at/>



- Most of Quero's functionality can be disabled through its configuration menu if you prefer, leaving only the search box, as above. Consider especially unchecking the "**Quero context menu extension**" option.

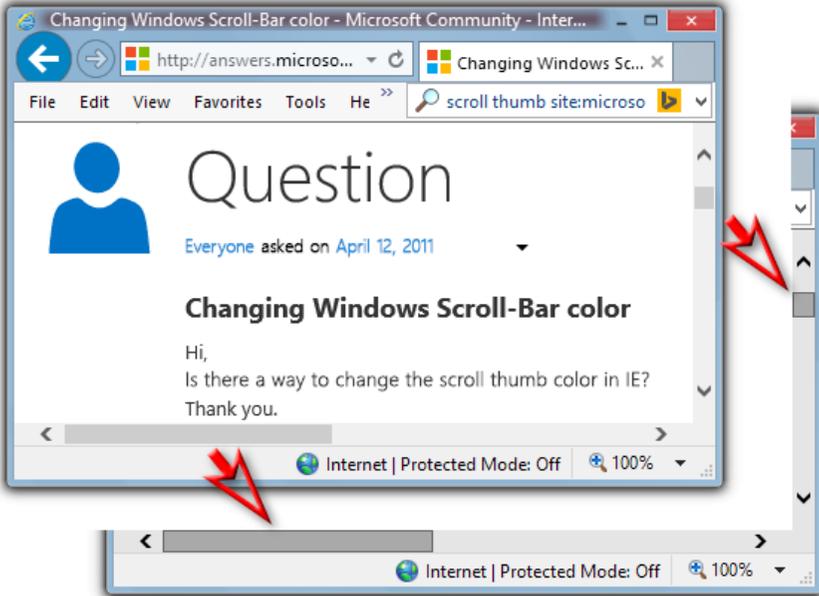
Once Quero is installed you can turn off searching from the Internet Explorer address bar:

- Click **Tools - Manage Add-ons**, click the **Search Providers** link.
- Uncheck [ ] **Search in the address bar**.

## Fixing the Hard-to-See Light Gray on Lighter Gray Scroll Thumb

Much of Windows 8's UI is more difficult to perceive than its predecessors, but for some reason – perhaps because Internet Explorer has varied content inside it – the scroll bar thumb (the little box you drag up and down to cause scrolling) can be particularly difficult to spot.

It's possible to make the scroll thumb easier to see by darkening it.



### To Darken the Scroll Thumbs in Internet Explorer:

- Create a small text file called **Scrollbar.css** containing the following line and save it on your disk:

```
html { scrollbar-base-color: darkgray; }
```

For your convenience we have included, in the companion files set, a **Scrollbar.css** file you can save to your disk and use for this.

- Click the **gear icon** or **Tools menu** and choose **Internet options**.
- Click the [ **Accessibility** ] button.
- Check the [✓] **Format documents using my style sheet** box.
- Click the [ **Browse...** ] button and navigate to your **Scrollbar.css** file.
- [ **OK** ] all the way out.

## **Block Bad Internet Sites via a Custom HOSTS File**

Ever accidentally browse to an unintended site and suddenly have a bunch of pop-ups appear, or have your malware alarm go off, or see ads you don't want? Ever wish you could avoid being tracked online?

There's a great way to block a huge number of web sites that are predatory or malicious or just plain intrusive on your privacy. It involves adding information to your local HOSTS file, which is used by your system before ever going out on the net to resolve internet names into IP addresses. This file, called **hosts** with no extension, normally has very little in it and resides on your Windows system in this location:

**C:\Windows\System32\drivers\etc\hosts**

Address 0.0.0.0 is a special address that always routes to your local computer. It's considered the "home" address, and if you configure a web site name to route to this address it effectively is blocked, because requests to that site never reach the network.

You may have configured Internet Explorer to avoid running ActiveX and you may have a good antivirus/antimalware software package, but blocking sites as described here is a valuable additional strategy.

### **The MVPS HOSTS file:**

The good folks at the MVPS organization maintain a huge list of "parasite" websites that they allow you to freely download in the form of a HOSTS file that effectively blocks your computer from ever even trying to access one of the sites that supply ads, banners, 3<sup>rd</sup> party tracking cookies, page counters, and malware to your computer. Even if malware does somehow get into your computer, this file will even help block it from calling home.

### **Download the updated HOSTS file from this page:**

<http://winhelp2002.mvps.org/hosts.htm>

Either replace your HOSTS file with this file entirely, or (better yet) use your text editor to merge the data from the hosts file supplied by MVPS into your local copy. There are instructions on the above page.

Remember to check back every so often, as MVPS maintains this file nicely, adding new sites and dropping obsolete entries every few months.

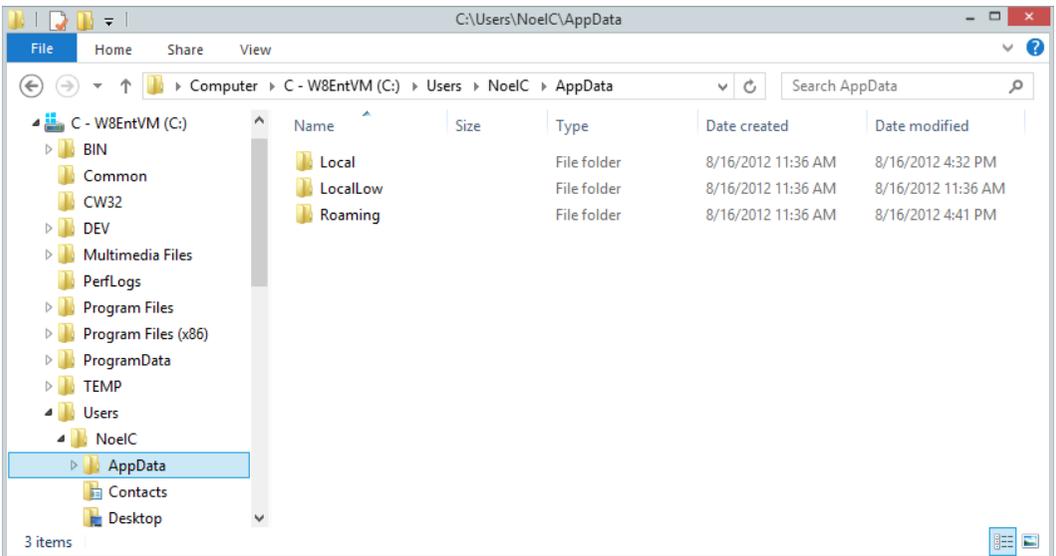
## Unhide ProgramData and AppData

If you're a developer or power user, at some point you'll want to be able to access these areas in Explorer. Microsoft thought it was best to hide them from you. Tsk tsk!

- In a **CMD** window, type these commands:

```
attrib -h C:\ProgramData
```

```
attrib -h "%USERPROFILE%\Appdata"
```



## Organize the Start Menu

The **Classic Shell** Start Menu is quite customizable.

It's beyond the scope of this guide to go into Classic Shell configuration in great detail, but keep in mind these things:

- Be sure and investigate the many, many settings the Classic Start Menu component offers. Tweak it to your liking! That's what the P in PC is all about. One adjustment we're particularly fond of is to reduce all the delays from 400 milliseconds to 50.



- Keep in mind that you can move shortcuts and folders around via **drag and drop** to allow you to maintain a hierarchy of menu entries, which can help you in the long term to find things you need but infrequently use. Just because many applications drop their shortcuts right at the root doesn't mean they have to stay there!
- You can right-click on a menu entry and do things like open an Explorer window to that location, or choose Properties to change.

## Set Drive Letters in Disk Administrator

Drive letters are pretty flexible, and Microsoft does a passable job of assigning good ones by default (i.e., hard disks first, then CD drives, etc.) but the following suggested good practices can help you keep things better organized across multiple systems.

### Some suggestions for setting your drive letters:

- Click **Start**, type **diskmgmt** into the Search box, and hit **Enter**.
- Give it a moment to populate its display.
- We prefer to always use drive letters **C:**, **D:**, and **E:** only for hard drives.
- You certainly don't want to mess with drive **C:** - leave it at what it's already set to.
- The next letter, e.g., **F:**, can be your CD/DVD/Blu-Ray drive.
- External backup drives are good to put next, e.g., **G:**.

## Rename Drives So Their Drive Letter is First

This causes them to sort well in listings where you only see the name.

- Open **Computer** with Windows File Explorer.
- Right-click a drive (e.g., **C:**) and choose **Rename**.
- We prefer names of the form **drive letter** dash **Computer Name** (for example, **C - SVNServer**). This can help you easily identify drives from other computers on your network when you're using them, and the drive letter being first will help keep things sorted in the right order.

## Adjust Power Settings

Many Windows problems are reported when people allow the system to be put into sleep mode. While this is a green thing to do, not everything always comes up properly afterward, so for a desktop computer that you want to be stable and stay that way, **don't allow it to power down to sleep mode.**

You can set the drives to power down, and the monitors to power down as those things don't seem to cause any problems.

- Click **Start**, type **power options** into the search box.
- Click **Power Options** when it comes up in the Control Panel section.
- Open the **Show additional plans** section.
- Choose **High performance**.
- Click **Change plan settings** for High Performance.
- Turn off the display in **10** minutes, or whatever you find comfortable.
- We suggest you leave the **Put the computer to sleep** setting at **Never**. Though it may not be "green", computers last longer and have fewer problems if they stay on and at a more or less constant temperature. Plus Windows has never been 100% perfect at reinitializing all its hardware after a Sleep or Hibernation state. Note that it's important to keep the power on SSDs to give them ample idle time to do internal maintenance.
- Click the **Change advanced power settings** link and review the settings for each category.
- [ **Save Changes** ] on the way out.

### If You Have Problems With Slow Bootup

Your computer may not be able to support Windows 8 "Fast Startup" and you may want to disable it. Add to the above instructions the following:

- Click the **Choose what the power button does** link.
- Click the **Change settings that are currently unavailable** link.
- **Un**check [ ] **Turn on fast startup (recommended)**.

## Install the .NET Framework for Older Apps

Some legacy applications may require, as prerequisites, the features of .NET framework versions older than the version 4.5 Windows comes set up with.

To avert the "*This setup requires the .NET Framework*" prompts older desktop applications will put up when they don't find support on your system, do this:

### Add Support for .NET Framework 3.5 & Older from Windows Update:

- With your computer online, click **Start - Settings** and choose **Programs and Features**.
- Click the **Turn Windows features on or off** link in the upper-left. Wait a few moments for it to populate its display.
- Click the [ ] **.NET Framework 3.5 (includes .NET 2.0 and 3.0)** box. A square will show up. You do not normally need to check the Windows Communication Foundation sub-entries.
- Press [ **OK** ] and the Windows Features dialog will search for the required support through Windows Update.
- Choose **Download files from Windows Update**.
- The feature will be downloaded and installed. This may take some time to complete as the size of the data is substantial.

## Create a 'GodMode' Configuration Shortcut

This is a geeky way to get every known control panel applet all in one place in one Explorer window, which can easily be searched (as can the Start Menu, but some folks think this is cooler).

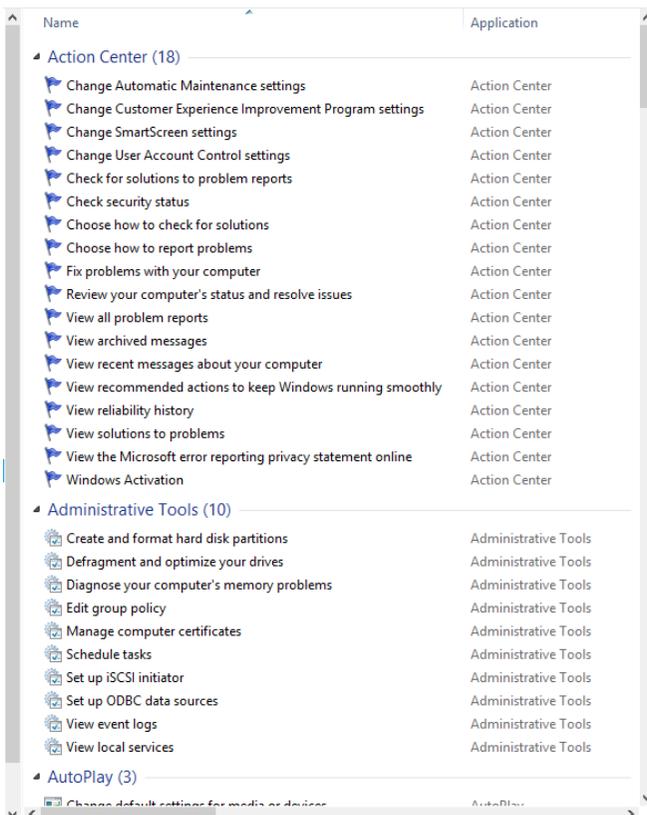
- Open a Windows **File Explorer** window and navigate to your Users folder:

**C:\Users\YourUsername**

- Create a subfolder named exactly as follows:

**GodMode.{ED7BA470-8E54-465E-825C-99712043E01C}**

- Drag a shortcut to this folder to your **desktop** or somewhere in your **Start Menu** structure.
- When you open this shortcut you will see a list with every configuration applet available all at once.



## The Microsoft Customer Experience Improvement Program

Microsoft gathers statistics and other telemetry from your computer. You might think this is good, in which case you can skip to the next section.

### BUT, if you don't want Microsoft watching what you're doing:

- Click **Start**, type **customer** into the search box, and hit **Enter**.
- In the **Customer Experience Improvement Program** dialog that comes up, select **No, I don't want to participate in the program**.
- Click the [ **Save Changes** ] button.

### You will also want to set the policy that controls this:

- Click **Start**, type **gpedit.msc** into the search box, and hit **Enter**.
- When the **Local Group Policy Editor** comes up, navigate into:
  - > **Computer Configuration**
  - > **Administrative Templates**
  - > **System**
  - > **Internet Communication Management**
  - > **Internet Communication settings**
- In the details pane, double-click **Turn off Windows Customer Experience Improvement Program**, and then click **Enabled**.

*Note: If you have an edition of Windows that does not provide gpedit.msc, the following registry values are created by the above. Delete these values to revert to default behavior:*

[HKEY\_LOCAL\_MACHINE \ SOFTWARE \ Policies \ Microsoft \ SQMClient \ Windows]

**CEIPEnable**            **REG\_DWORD**        **0**

[HKEY\_LOCAL\_MACHINE \ SOFTWARE \ Wow6432Node \ Policies \ Microsoft \ SQMClient \ Windows]

**CEIPEnable**            **REG\_DWORD**        **0**

## Copy Utilities Folders, Set Up Path

Assuming you're doing an upgrade and are moving things from another computer, you will want (via networking) to copy the utilities, etc. folders you have set up there to the new machine, and add them to your path. Examples: C:\BIN, C:\Common, C:\Program Files\GnuWin32\bin, etc.

### To add utilities folders to your Path:

- Click **Start**, right-click **This PC**, choose **Properties**.
- Click the **Advanced System Settings** link.
- Click the [ **Environment Variables...** ] button.
- Add a new **User variable** if it doesn't already exist: **Path**
- Set it to the list of the additional folders you want in your PC's path, separated by **semicolons** and no spaces. For example:

**C:\BIN;C:\Common;C:\Program Files\GnuWin32\bin**

*Note: If you anticipate using scheduled tasks that need to be able to find things in your path even when you're not logged-in (for example, in a nighttime backup without a UI) you may want to consider adding all your path entries to the **System variables** section instead.*

## Set Your System to Automatically Log On

If your computer is in a place with excellent physical security, and you don't mind it automatically logging in with your username and password upon booting up, this can save you a few seconds. This is also handy for virtual machines.

*Note: You MUST be willing for anyone who boots up your system to be able to use it as though they are you, without entering a password, or this is not recommended.*

### To Configure Your System to Automatically Log On:

- Click **Start**, type **netplwiz** in the search box, and hit **Enter**.
- In the **User Accounts** dialog that comes up:
- **Un**check [ ] **Users must enter a user name and password to use this computer.**
- [ **OK** ] to exit.
- Store your password when it prompts.

If you ever want to reverse the above, just check the box again.

## Configure System Tray Icon Visibility

The system tray is that area in your Taskbar near the right end just to the left of the clock. It holds handy icons, such as your volume control, that can give you quick access to system features or other tools you may have installed.

However, in some cases the list of icons can become so large as to get out of hand, and having a whole sea of them to search through is no fun.

Windows 8 provides a way to hide those you don't really want to click on unless they have a message for you. If you choose "**Only show notifications**" the icon will be hidden unless the application has a message to show you, then it will appear. This reduces clutter.

### To Configure the System Tray Icon Behaviors:

- Click on the little **arrow** to the left of your system tray icons and choose **Customize**. Some suggestions:
  - **Volume** - Show icon and notifications.
  - **Windows Explorer** - Only show notifications.
  - **Network** - Only show notifications.
  - **Action Center** - Only show notifications.

Note: If you have an icon showing in the System Tray that you really never want to see, instead of choosing the **Hide Icon and Notifications** setting, first **see if the application itself offers a configuration option to turn it off**. If you can do this it will save you some resources.

## Start Task Manager and Configure Its Display

Many folks don't realize that the Windows Task Manager can show quite a bit more information than it does by default. Also, sometimes it's helpful to expand columns to be able to see more information. The good news is that once you've made changes the Task Manager will remember your display preferences and window position and open the same way again next time you use it.

- A quick way to start the **Task Manager** is to **right-click** the **Taskbar** in an open area to the right of your icons or buttons then choose **Task Manager**.
- Initially it will come up with a blank display. Click the **More details** button at the bottom-left.
- In many of the tabs you can make more columns visible. Right-click in one of the visible titles of a column to see if there are additional entries you can select or if there's a **Select Columns** entry.
- You can reorder columns by grabbing their headings with the mouse then moving them. For example, in the **Details** tab it can be handy to grab the **Description** heading, and move it to the left to be the second column, just to the right of **Name**.
- Columns can be expanded by dragging the divider between columns. For a quick auto-sizing of a column to just fit the longest data displayed on any of the rows below, just **double-click the divider** at the right end of the column heading.

## Set the Maximum Password Age to 0 to Avoid Expiry

Under some conditions Windows sets up a password expiration timeout on the general thinking that it's good to force you to change your password from time to time.

We prefer to manage the timing of our password changes manually, rather than have the system force us to change a password at a time of its choosing.

### This is how to set your Windows logon password not to expire:

- Log in to the account you want to affect.
- Click **Start**, type **gpedit.msc** into the search box, and hit **Enter**.
- When the **Local Group Policy Editor** comes up, navigate into:
  - > **Computer Configuration**
  - > **Windows Settings**
  - > **Security Settings**
  - > **Account Policies**
  - > **Password Policy**
- In the details pane, double-click **Maximum password age** and change it to **0**.

*Note: If you have an edition of Windows that does not provide gpedit.msc, you can use this alternate method to set this policy:*

- Start an elevated **CMD** window.
- Type the following command, after which press **Enter**:  
**NET ACCOUNTS /MAXPWAGE:UNLIMITED**
- To check the status of the settings, execute this command:  
**NET ACCOUNTS**

## Get Initial Baseline Process and Service Lists

On the web page for this guide (listed below) you will find our companion files set, which contains **ShowTime.exe** and **GetTaskList.bat**. Together these can be used to generate a list of processes and services running on your computer.

<http://www.ProDigitalSoftware.com/W8ToWork.html>

This may seem like a pretty geeky thing to do, but such a list (even better, a history of such lists) can prove valuable if you get to a point where you feel something has been installed and is now running on your computer, and you want to know what it is.

For example, you may observe your system has started running sluggishly, and you may fear malware may have been installed. Using accumulated **GetTaskList.bat** log files and a comparison tool you could compare the list of processes and services that were running before and after the problem occurred to see what processes or services are now running that weren't before.

- Download **GetTaskList.bat** and **ShowTime.exe** from our web page into a folder in the PATH on your computer from which you can run them, for example **C:\BIN**.
- You can run **GetTaskList.bat** manually in a CMD window to get a current list. The result can be found here:

**[%USERPROFILE%\Log\TaskList\\_YYYY\\_MM\\_DD\\_HH\\_MM\\_SS.log](#)**

- You can schedule **GetTaskList.bat** to be run by the **Task Scheduler**, for example every day, and it will store its results in log files each named for the date and time. A text file comparison tool can be handy for comparing them. These aren't too large, so you can let them accumulate virtually forever.

## Install a Quality Anti-Malware Package

Practicing safe computing is always the best first step, but having a safety net to back you up is essential.

Microsoft has packaged their Windows Defender and Security Essentials packages into a full antimalware solution, and with Windows 8 this solution is provided as part of the OS, so **it may no longer actually be necessary to make a choice about which antivirus package to install.**

However with Windows 8, while Microsoft's offerings are good, you may feel the addition of a 3<sup>rd</sup> party package can add security, so you may want to check out **avast! Free Antivirus.**

<http://www.avast.com>

These people have been making native 64 bit antivirus software since back when XP x64 was new. They appear to know what they're doing. We find the system to run more efficiently, while maintaining an arguably higher level of protection than that afforded by Microsoft's out-of-the-box software.

Note: Avast Marketing is aggressive and their installer puts up a number of “big shiny buttons” to try to tempt you to buy an upgrade. You don't need it. **Their free version works just fine.**

They also put up questions where you have to “opt out” - **uncheck** boxes in order to **avoid installing things like Google Chrome.**

**Read each screen carefully, and make sure you're quite sure of what components you're installing.**

During the setup process, look specifically for the **Custom install** link (*not* on a big shiny button) and click it. When prompted to install components, leave checkmarks next to all the Shields (left column) but **consider opting out of installing most or all of the “tools” in the center column.** The Shields are what are important to maintain proper virus protection. The other “tools” are mostly fluffware, with the possible exception of the Software Updater.

## Enable Remote Desktop

- Click **Start**, type **advanced** into the search box, and click **View Advanced System Settings** when it comes up.
- Click the **Remote** tab:
- **Un**check **Allow Remote Assistance connections to this computer**.
- Choose **Allow remote connections to this computer**.
- Use your judgment about whether to uncheck the [ ] **Allow connections only from computers running Remote Desktop with Network Level Authentication (recommended)**. You will need to uncheck this to do what's listed below.

### If you want to access your computer from away from home

If you have a router connecting your LAN to the outside world, you'll need to open a port to your machine to be controlled. RDP listens on port 3389. What we suggest is choosing a different port than 3389 to forward, and use advanced port mapping (most routers support this) to get it to your computer on 3389. When you make the connection from a remote site, you'll need to use both your home's IP address and this port you choose (e.g., you'll connect using the form 11.22.33.44:567).

Just to be absolutely clear about this, your router is the entity that has the outside IP address, and it will be the one with the port open whose number you choose. Make that port anything BUT 3389, and have the router forward incoming connections on that port to 3389 on the computer to be controlled. This just makes it all that much more difficult for someone out there to guess you have an RDP port open.

- Your login **username** and **password** should be very strong and thus near impossible to guess. Controlling your computer remotely is not something you want a stranger to be able to do.
- You'll need to set your Windows 8 **firewall settings** to allow incoming Remote Desktop connections through the Public profile.
- It's a little difficult to test this whole arrangement, since there's really no good way (beyond ensuring you can make local RDP connections within your LAN) to look like an outside computer except to BE outside... We find it a convenient excuse to take a laptop to Starbucks.

## Deepen Your System Restore History Storage

Windows provides a very nice, powerful facility for helping you restore your computer to a working state if you somehow get it into a condition where it doesn't work properly. It's called **System Restore**.

Thing is, the default amount of space allocated for keeping older versions of system and configuration files seems to be a bit small, and so it may not be quite enough so that your system will provide you with an adequate history depth when you discover a problem.

For example, it could be very frustrating to know that your system worked properly two weeks ago, but only have enough System Restore history to go back one week.

### Here's how to increase the depth of your System Restore history:

- Click **Start**, type **protection** into the search box, and click **SystemPropertiesProtection.exe** when it comes up.
- Click on your **C:** drive in the Protection Settings box to highlight it.
- Under the **Protection Settings** box, click the [ **Configure** ] button.
- Choose the (  ) **Turn on system protection** setting if it is not on.
- Assuming you have sufficient disk space, **increase the Max Usage slider** until you have allocated at least 20 GB of storage for System Restore settings. This will give you a nice, deep multi-week System Restore history if ever you should need it.

*Note that deepening your volume snapshot storage quota as described above may cause your system to do more work at bootup, as Windows validates all your volume snapshots as part of its normal post-bootup activity. If your system seems a bit sluggish and the System process uses CPU time for too long after bootup, you may have chosen a too-large value for Max Usage.*

## Install Shortcut Overlay Mgr Freeware by FrameworkX

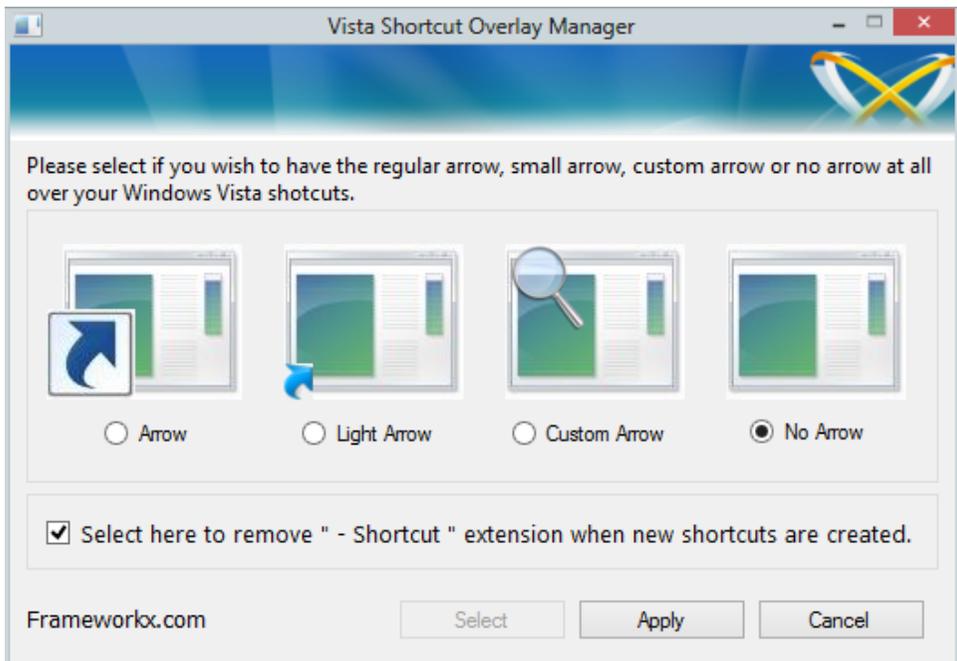
Starting with Vista, Microsoft decided that you really need to know whether your icon on your desktop is a shortcut or a real program. Perhaps many users accidentally deleted documents or programs from their desktops, thinking they were shortcuts.

Whatever the history, Windows 8 puts absolutely HUGE shortcut arrows on shortcuts, often obscuring much of the icon and making it more difficult to tell what is what. If, like me, you know what's what on your desktop, and you prefer seeing the **whole icon** to better help you choose the application you want to run, **you can remove that arrow**. This little freeware app will do it for you in a set it once and forget it operation.

- **Download** and install the 32 or 64 bit package for Vista, to match the bitness of Windows you have installed. Don't worry about the name; it works perfectly in Windows 8:

<http://www.vistax64.com/tutorials/67615-shortcut-arrow.html>

- Install the software by double-clicking the .msi file.
- Once installed, find the application in your Start Menu as **Vista Shortcut Manager** and run it. The following settings are suggested:

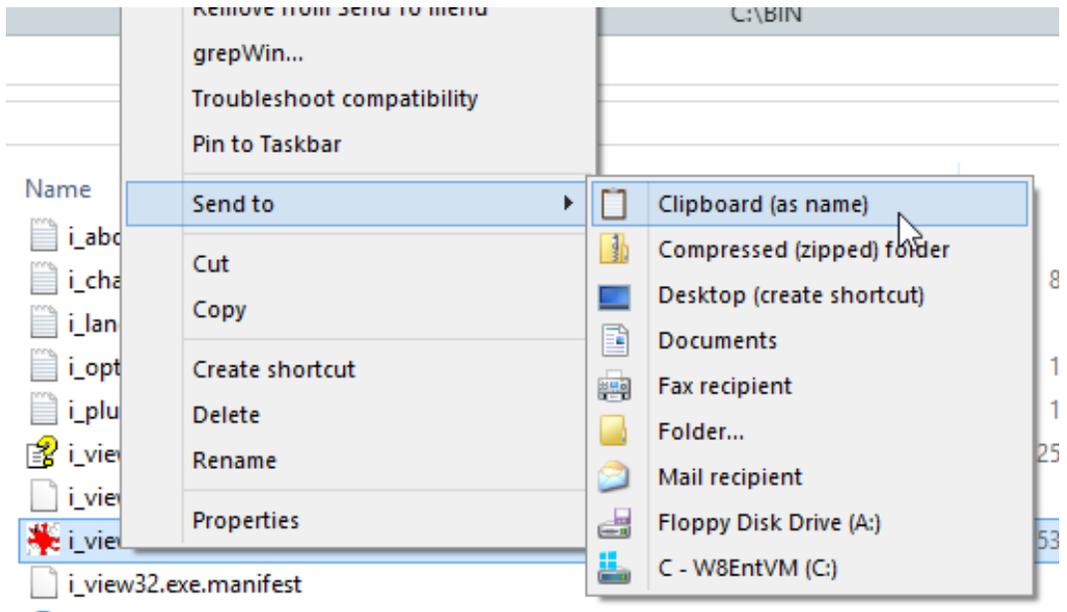


## Install Send To Toys Freeware by Gabriele Ponti

Sometimes as a power user you have to switch back and forth between the Windows File Explorer GUI and applications that want your file or folder name as a path string. All it takes is typing the name of a long path once before you start thinking there has to be a better way.

Well, there is. Windows 8 actually does provide a secret way to get a path into the clipboard, but you have to hold down the Shift key while right-clicking to see **Copy as Path**. Workable, but a bit inconvenient...

However, this little freeware applet adds to your "Send To" menu and will allow you to simply right-click on a file or folder - *without Shift* - and do the following:



- It's configurable to do some nice little things, such as to put quotes around paths only when needed, via its entry in the Windows **Control Panel**.
- **Download** and install Send To Toys from this site:

<http://www.gabrieleponti.com/software/>

Note that Windows may try to tell you that it's protected your computer from this program. Click the **More info** link to see the [ **Run Anyway** ] button.

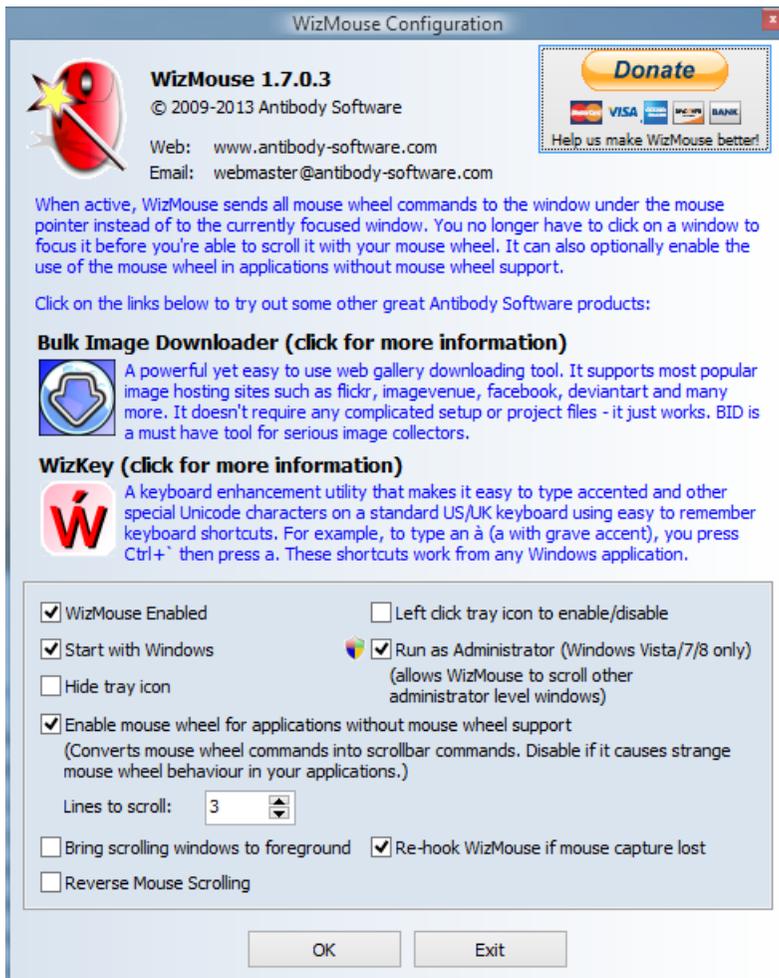
## Install WizMouse Freeware by Antibody Software

This little utility makes the mouse wheel scroll whatever window the cursor is over, instead of whatever window was last clicked-in, which is Windows' default behavior. This seems almost trivial, but it's way better than the default behavior and SUPER handy! You'll never want to use Windows without it again.

- **Download** and install the software from this site:

<http://antibody-software.com>

- Configure the software through it's **applet** in the **System Tray**.



## Install ShellFolderFix Freeware by Georg Fischer

Windows File Explorer in Windows 8 is incapable of remembering the size or position of anything but the very last window closed. Perhaps Microsoft decided not to ever even try to remember positions any more, since Vista tended to forget them fairly often anyway.

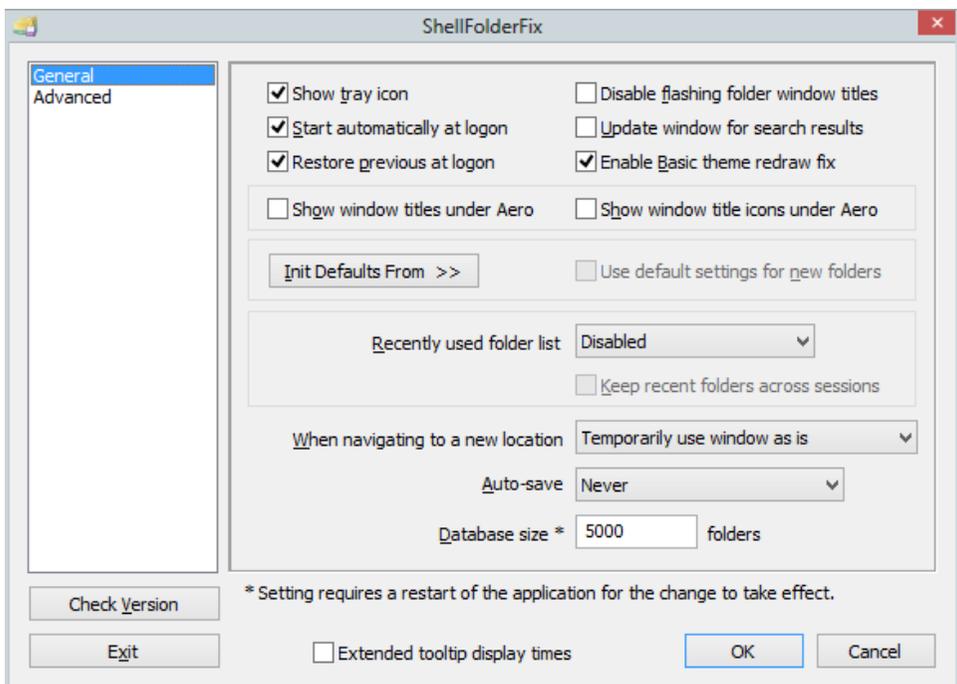
This little freeware app fixes that, as well as allowing you to optionally see the path in the title of your Explorer windows.

**ShellFolderFix** can not only remember where you left your Explorer windows and open new ones in the same place, but it's quite configurable, to allow you to set your system up to work just the way YOU want. Good stuff!

- **Download** and install the Setup software from this site:

<http://www.sevenforums.com/customization/40916-shellfolderfix-manage-folder-window-positions-size.html>

Note that Windows may try to tell you that it's protected your computer from this program. Click the **More info** link to see the [ **Run Anyway** ] button.



## Install grepWin Freeware by Stefan Kueng

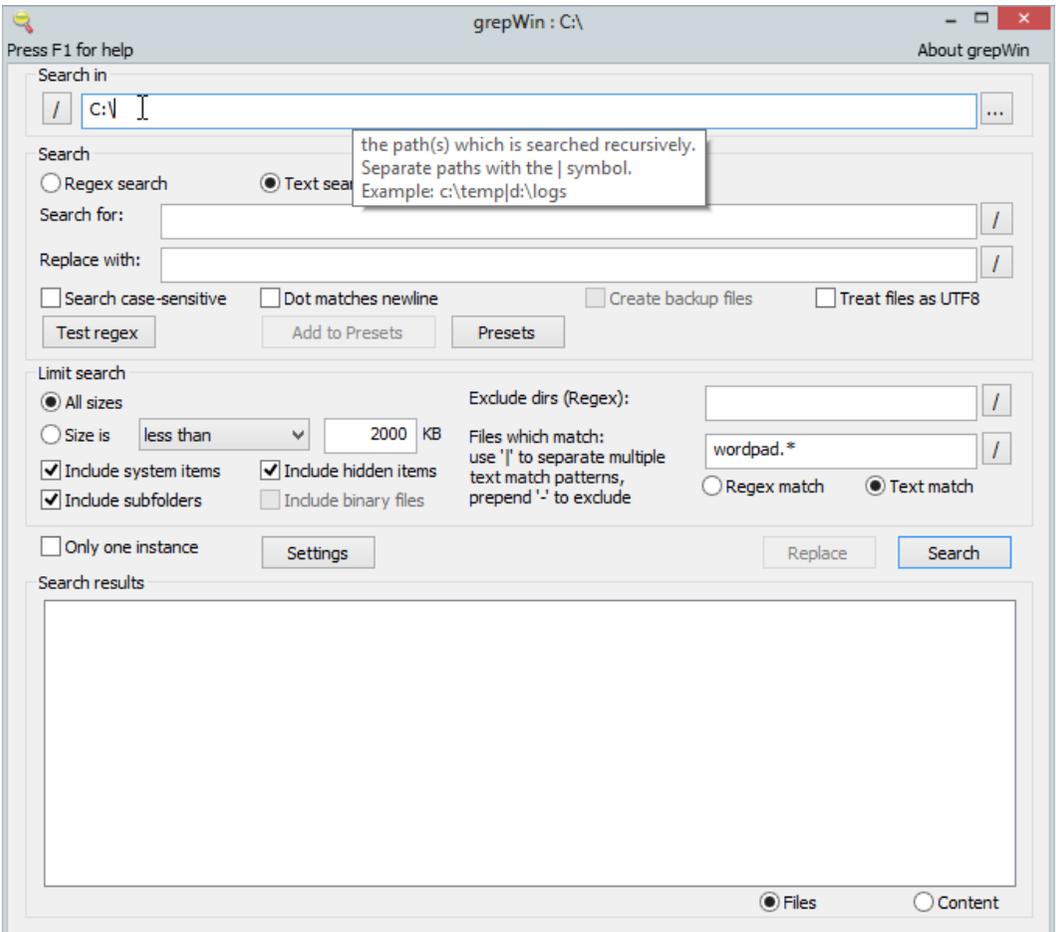
Microsoft replaced the ability to search reliably with a twisted scheme that's not trustworthy called Windows Search, and moved it off the right mouse button. Don't trust Windows Search!

If you want a search that's always trustworthy, and gives you a lot of power-user options - and can get as geeky as you want when you need it, install this software.

- **Download** and install the software from this site:

<http://tools.tortoisesvn.net/grepWin>

- Run a search by **right-clicking** a **folder** in Windows File Explorer, then choosing **grepWin**.

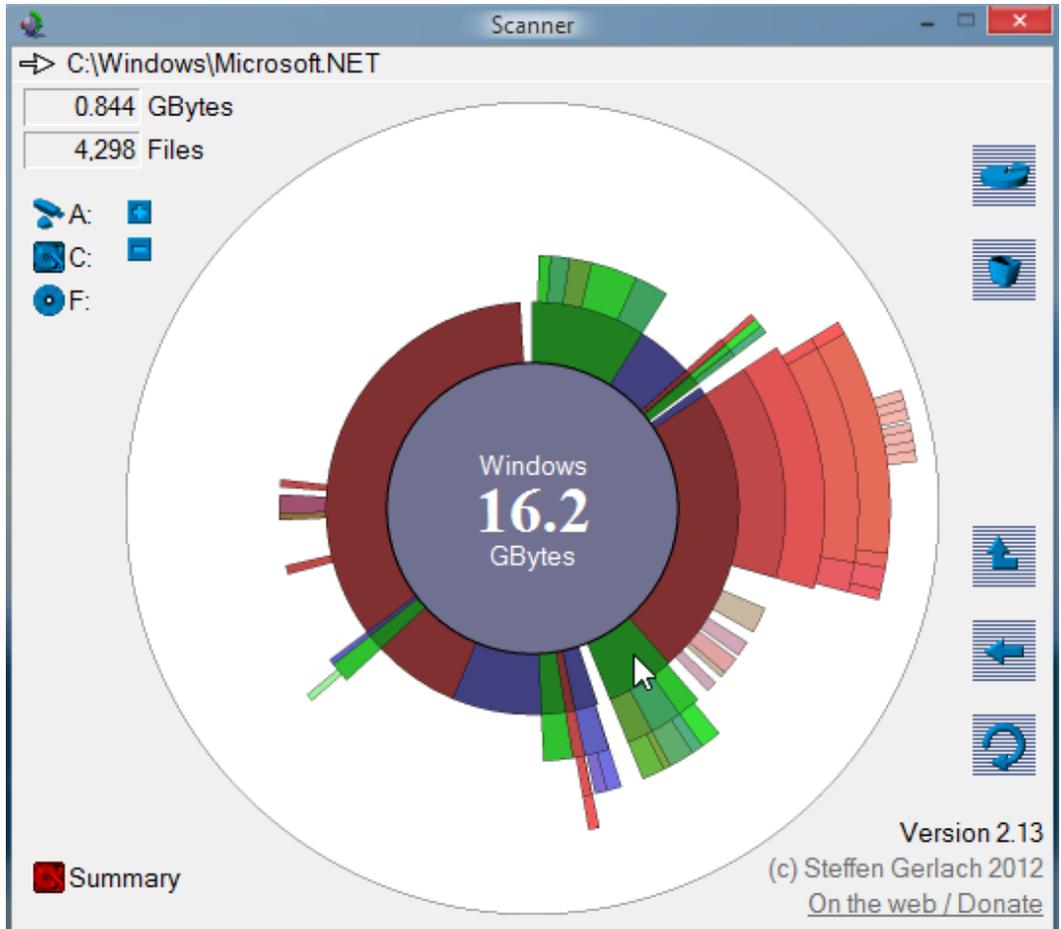


## Install Scanner Freeware by Stephan Gerlach

This little tool can help you manage your disk space, providing an at-a-glance view of what space is being taken up, and allowing you to hover over parts of the view to see the precise folder that's taking up a large block of space.

- **Download** and install the software from this site:

<http://www.steffengerlach.de/freeware/>



## Install HWMonitor Freeware by CPUID

If you have a reasonably modern computer, it has all kinds of temperature sensors in it. You'll want to be able to monitor these sensors.

With HWMonitor you can see how well your computer's cooling system is working, monitor temperature increases when it's under load, and if you check occasionally when it's idle and watch for trends (e.g., gradually rising temperatures week to week) you can spot and act on things like dust buildup and blocked airflow before they cause failure.

- **Download** and install the software from this site:

<http://www.cpubid.com/software/hwmonitor.html>

The screenshot shows the CPUID Hardware Monitor application window. The window title is "CPUID Hardware Monitor" and it has a menu bar with "File", "Edit", "View", and "Help". The main area displays a tree view of hardware components with their temperatures. The components are:

- W8ENTVM
  - Intel Xeon X5460
    - Temperatures
 

Sensor	Value	Min	Max
Core #0	67 °C (152 °F)	64 °C (147 °F)	70 °C (158 °F)
Core #1	63 °C (145 °F)	59 °C (138 °F)	67 °C (152 °F)
Core #2	62 °C (143 °F)	59 °C (138 °F)	65 °C (149 °F)
Core #3	60 °C (140 °F)	58 °C (136 °F)	64 °C (147 °F)
    - Intel Xeon X5460
      - Temperatures
 

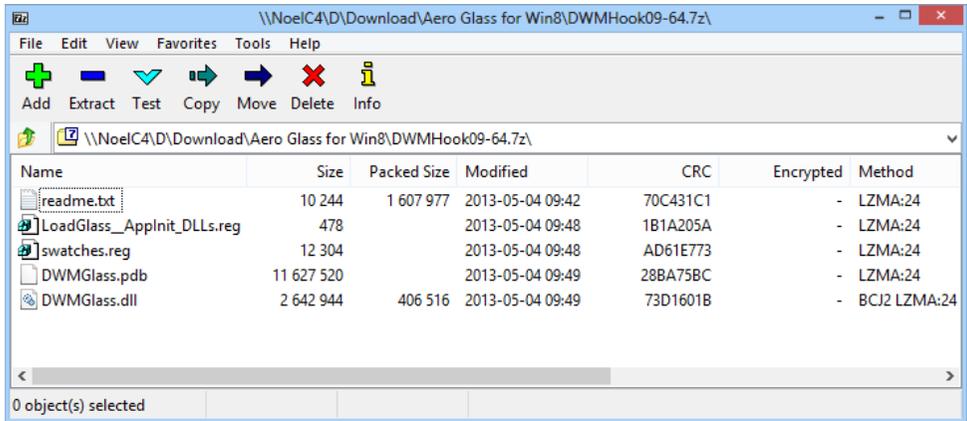
Sensor	Value	Min	Max
Core #0	62 °C (143 °F)	57 °C (134 °F)	68 °C (154 °F)
Core #1	61 °C (141 °F)	56 °C (132 °F)	65 °C (149 °F)
Core #2	61 °C (141 °F)	58 °C (136 °F)	64 °C (147 °F)
Core #3	62 °C (143 °F)	58 °C (136 °F)	67 °C (152 °F)
    - Micron Technology PC2-5300
      - Temperatures
 

Sensor	Value	Min	Max
core	86 °C (186 °F)	83 °C (180 °F)	87 °C (187 °F)
core	83 °C (181 °F)	80 °C (175 °F)	83 °C (181 °F)
    - Kingston PC2-5300
      - Temperatures
 

Sensor	Value	Min	Max
core	87 °C (187 °F)	83 °C (181 °F)	87 °C (188 °F)
core	83 °C (180 °F)	79 °C (174 °F)	83 °C (181 °F)

## Install 7-Zip Freeware by 7-Zip.org

7-Zip is a handy program that opens various kinds of compressed files you might find online (e.g., xxxxx.7z).



We like open-source projects, because you can actually look inside them in great detail and vet the software, if you have security concerns.

- **Download** and install the software from this site:

<http://www.7-zip.org/>

- **Run** the 7-Zip File Manager and configure it through the **Tools - Options** menu to be associated with the compressed file types of your choice.

*Note that if you haven't fully disabled UAC you'll need to run 7-Zip As Administrator to do the above.*

## Install Aero Glass for Windows 8

Aero Glass was eliminated by Microsoft in Windows 8. They've also removed drop shadow effects, and we find the lack of such shadows introduces degradation in desktop usability.

With the light colored window borders lacking contrast and depth **it's simply more difficult to see where one window ends and the other begins**. It seems Microsoft wants us all to learn to use just one application at a time. Yeah, right. NOT.

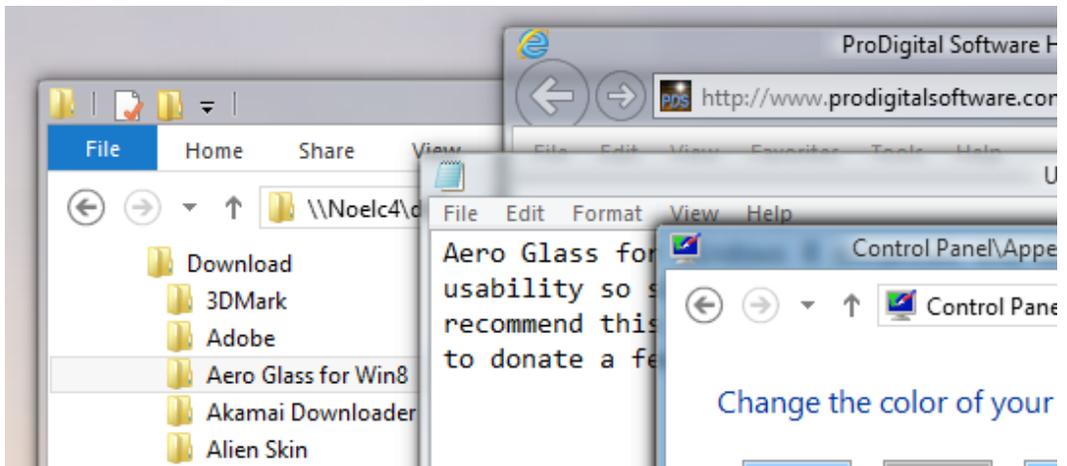
There's a 3<sup>rd</sup> party downloadable "donationware" package that adds Aero Glass effects back into the Windows user interface. It's very good!

- **Download** the Aero Glass for Windows 8 software from this site:

<http://www.glass8.eu/>

While changing the look and feel of window borders may seem frivolous, we find the usability of the Windows 8 desktop **so significantly improved** by the replacement Aero Glass effects and drop shadows that this is worth a serious look. Note that this software does *not* hack into Windows executables or break system protection.

With the addition of a custom theme atlas containing replacement graphics, you can even get back your drop shadows around windows. You can find a theme atlas that will make your Windows 8.1 desktop look like the following in our [Companion Tools](#) package.



## Install Windows Update Notification Tool

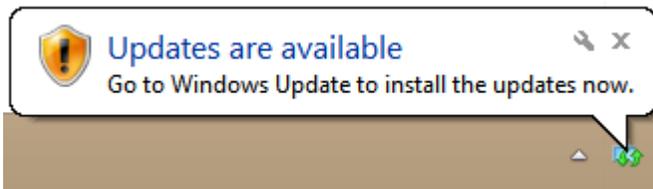
Windows 8 has twisted around the method of notifying you that updates are available to where it doesn't really notify you properly if you want to do anything but have them install automatically whenever Microsoft sees fit to do so.

Specifically, now if you configure updates not to be installed automatically (per the advice in this book), you're shown a message that you need updates on the lock screen (i.e., before you log in), but only rarely if ever will Windows notify you on the desktop that updates are available - **it appears to be intermittent**. Thus If you only rarely reboot or log in, you may never know updates are available!

Fortunately, a free 3<sup>rd</sup> party tool is available that you can use to get back to where you can be notified of available updates right on the desktop. It can even be configured to run occasionally via the Task Scheduler so that no process or service is running continuously, taking up system resources.

- **Download** and install the software from this site:

<http://www.quppa.net/wunotify/>



*Tip: This software can be configured to run on a schedule, so that it doesn't take up additional resources while you're normally working. Look specifically for the **/createtask** instructions on the above site.*

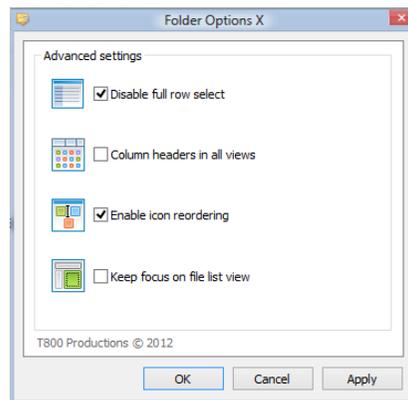
## Make File Explorer Show More Files and Be Easier To Use

Microsoft changed File Explorer to use new list controls. What this means to you, among other things, is that if you use Details view, there's a lot of wasted space and the text is light, full rows highlight, and it's more difficult to drag and drop files. But the old XP-like list functionality is still in there.

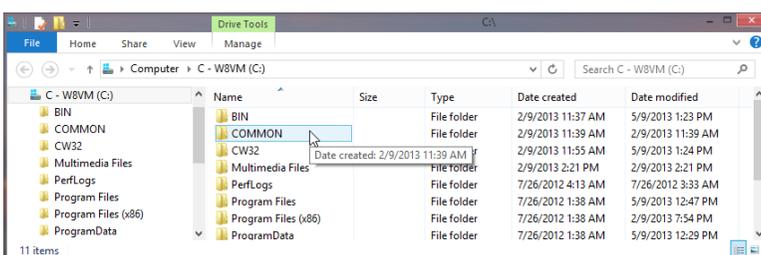
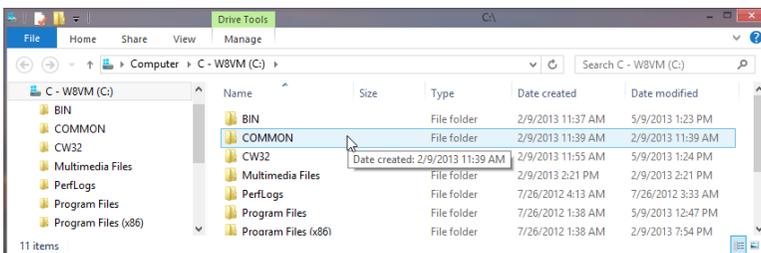
There is free tool we've found called **Folder Options X** that re-enables the old File Explorer functionality to decrease space between rows, darken text, make dropping files easier, disable Auto Arrange of icons, etc.

- Download the **Folder Options X** tweaker from this site:

<http://free-sk.t-com.hr/T800/software/FolderOptions.htm>



Coupled with the ability of Classic Shell to compress the space between entries in the Navigation window, we find this to enhance usability.



## Configure Aero Accessibility Enhancements

Windows has some features to help you arrange your windows on screen. Some people like being able to maximize a window by dragging it to the top edge of the screen, or maybe tile windows side by side by dragging them to the right and left edges.

You can also enable Sticky Keys by holding down the Num Lock key. Trouble is, it's possible you might do that accidentally - this can be confusing if you don't expect it.

Microsoft considers these **Accessibility Enhancements**, and they're on by default.

But those who don't prefer to use these features can become frustrated when they accidentally invoke them. If you're like us, these things just seem distracting.

### The good news is that you can turn these things off:

- Click **Start**, type **ease** in the search box, and open the **Ease of Access Center**.
- Click **Make it Easier to Focus on Tasks** (you may have to make the window larger and/or scroll down).
- Uncheck [ ] **Turn on Toggle Keys by holding down the NUM LOCK key for 5 seconds**.
- Check [ ] **Prevent windows from being automatically arranged when moved to the edge of the screen**.
- Review the other settings while you're here.

## About Windows Search & Disabling Indexing

Indexing is supposed to make it quick and easy to find things on your computer using Windows Search (that little box at the upper-right of the Windows File Explorer application).

But when you think about it, does it make sense to read all the files on your disk, extract everything you could possibly want to search for, and store it on that same disk another way? To even *consider* indexing providing better performance than just searching the files, Microsoft must be picking and choosing the data they think you'll want to look for (excluding data you *WON'T* want to search for), where you'll want to search, and in what kinds of files, and in fact they are. How could they know everything you'll ever want to search for?

They can't. *Not everything is indexed, and never will be!*

**Try this:** Create a simple text file on your disk, in a temporary folder. Call it "**FindMe.log**" and put in the text "**This file contains important tax information**". Now navigate to that folder with Explorer and enter the word "**tax**" into the Search box at the upper-right. Enter any of the words in that file! Windows Search will not find the file, because it simply does not LOOK in .log files by default, and there's no fallback strategy - Windows Search simply does not index nor search for information for some kinds of files. **Incredible!**

All it takes is ONE TIME searching for something you know is there and NOT finding it to destroy your confidence in Windows Search.

And so they scan through (some of) your files endlessly, pick out the strings you might someday search for, and store them in yet another set of files (the "index"). As though your computer has nothing better to do.

Not only is the basic premise of this wrong, but it's not even implemented very well. The index often becomes corrupted, and so Microsoft has provided functions for you to clear and regenerate it. Just what you wanted to be doing. NOT!

### Consider these shortcomings:

- Only strings Microsoft thinks you'll search for are indexed.
- Some file types are simply not indexed or searched by default, e.g., .log files, and there's no fallback. If you create a new file type no one's seen before, its contents will not be indexed.

- Because of poor implementation, indexing will miss things in some file types that are indexed - e.g., older Microsoft Word documents or files using Unicode (Microsoft's own invention).
- Indexes often become corrupted and the Windows Search results fall out of date or it stops finding things entirely.
- Indexing uses computer time and increases disk wear.
- Indexing can interfere with file operations, causing your system to report disk corruption (search the web for "Atomic Oplock") or to fail on simple operations such as removing folders.
- It's not actually all that much faster than just a real search!

In summary, **indexed Windows Search operations in Windows 8 are intrusive and can't be trusted to find your data** in your files when it's critical. Searching for *filenames* on the disk using Windows Search actually can be useful (though the syntax to ensure it searches only filenames is a bit tricky), *but this doesn't require indexing*.

Knowing these things, **you may wish to disable indexing**. This won't stop you being able to use Windows Search - on the contrary with indexing turned off Windows 8 will actually search your actual files (within the limitations listed above) just when you tell it to, and (since indexing isn't implemented very well) it can actually INCREASE the probability that you will find what you're looking for. Do all of the following:

### **Disable the indexing service:**

- Click **Start** and type the word **services** in the search box.
- When **Services** (with little gears) comes up, click it.
- Scroll down to the **Windows Search** service.
- **Right-click** it and choose **Properties**.
- Change the **Startup type** to **Disabled**.
- Click [ **Stop** ] to stop the service.

### **Delete the existing index:**

- Click **Start** and type the word **index** in the search box.
- When **Indexing options** comes up, click it.

- Click the [ **Advanced** ] button.
- Click the [ **Rebuild** ] button to delete the index. Don't worry, this will just delete the remnants of any prior index created.

### So that you're not nagged by Windows to reenale indexing:

- Click **Start** and type **folder options** in the search box.
- In the **Folder Options** dialog, click the **Search** tab.
- If it's not already checked, enable the setting [ ] **Don't use the index when searching in file folders for system files (searches might take longer)**.

### Ensure Library features don't try to use Indexing:

- Click **Start** and type **gpedit.msc** into the search box.
- In the **Local Group Policy Editor**, navigate into:
  - > **User Configuration**
  - > **Administrative Templates**
  - > **Windows Components**
  - > **File Explorer**
- Enable the setting **Turn off Windows Libraries features that rely on indexed file data**.

*Note: If you have an edition of Windows that does not provide gpedit.msc, the following registry value is created by the above. Delete this value to return to default behavior:*

[HKEY\_CURRENT\_USER \ Software \ Policies \ Microsoft \ Windows \ Explorer]

**DisableIndexedLibraryExperience REG\_DWORD 1**

- **Reboot** after completing all of the above.

*Note: Once you have disabled indexing per the instructions in this section, the various "[ ] Allow files in this folder to have contents indexed" checkboxes will have no function – no data will be indexed regardless of their settings.*

## Install Your Favorite Applications

Since Configure The Windows 8 To Work Options started out as a set of notes for me to use when setting up new systems, this section remains, though it's quite beyond the scope of this guide to suggest a full set of applications for you to use.

### These are some of the apps we use. You'll have your own list:

- Business e.g., **Office, Outlook.**
- Collaboration e.g., **RAdmin and Skype.**
- Development e.g., **Visual Studio**, your favorite **text editor**, **Beyond Compare**, **Windows SDK**, **Tortoise SVN**, etc.
- Additional browsers for testing during web development, e.g., **Firefox, Safari, Chrome.**
- Virtual computing e.g., **VMware Workstation.**
- Image Editing e.g., **Photoshop.**
- Image Viewing e.g., **IrfanView.**

*Note: Don't forget to check for and install any service packs that may be available. Don't assume Windows Update will do this automatically, though it may.*

## Get a Copy of the XP Calculator

Many people like the Windows 8 Calculator. There are articles all over the place for "upgrading" your old Calculator to the new, "improved" Windows 8 model.

However, unfortunately, there are several ways that the Windows 8 Calculator is actually LESS functional than its predecessors.

For example, if you want to convert a very large 64 bit unsigned decimal value to hex, you simply can't do it. Don't believe me? Try entering the number **10376293541461622784** into the Windows 8 calculator in Programmer Mode. You'll find you can't get it all in. This is the 64 bit hex value 0x9000000000000000 expressed in decimal.

And there is the small matter that changing from Scientific view to Programmer view causes the clearing of the accumulator.

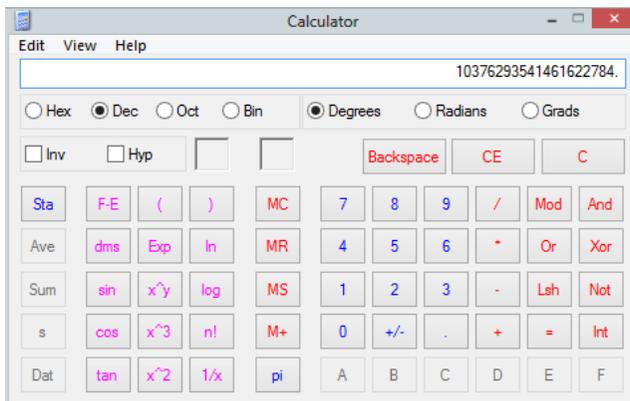
What were they thinking?

**The fix: Use an old copy of calc.exe from Windows XP.**

You might wonder why we're suggesting getting it from **XP** instead of **Vista**. The answer: Vista's version is tightly tied to the OS and won't run under Windows 8. **XP's will run perfectly.**

If you have an old copy of XP, copy **Windows\System32\calc.exe** from your XP system to a folder you set up yourself on your Windows 8 system for handy applications. You might even want to put a shortcut to it in the Start menu structure, or maybe an icon on the desktop.

Don't have an old copy of XP? A web search could turn up a copy of XP's **calc.exe**.



## Create System and Password Recovery Media

It's a good idea to go through this process from time to time, especially after major updates or service packs.

### Create a Recovery Drive:

While you should not invite disaster, there's nothing wrong with preparing for it. Assuming your computer is equipped with a USB port, this can help you if your system will not boot up.

- Click the **Start** orb and type **recovery** into the search box. Click **Create a recovery drive** when it comes up.
- Get a small USB memory stick (e.g., 1 GB) and plug it into your computer.
- Follow the instructions to increase a recovery drive. This can help you boot up your system in the event of a failure.

### Create a Password Recovery Disk:

Most folks don't forget their Windows password, but it can happen. Here's a way for you to prepare for that.

- Get a diskette (if your system has such a drive) or a small USB memory stick and plug it into your computer.
- Click the **Start** orb and type **password** into the search box.
- Click **Create a password reset disk** when it comes up.
- Go through the dialogs, and enter your password.
- **Store** the diskette or USB memory stick somewhere safe.

## Save Your Desktop Theme

Now that you have your computer all set up and working just the way you want, it's a good time to save your theme, just in case something gets changed and you want to return your look and feel to what it is now.

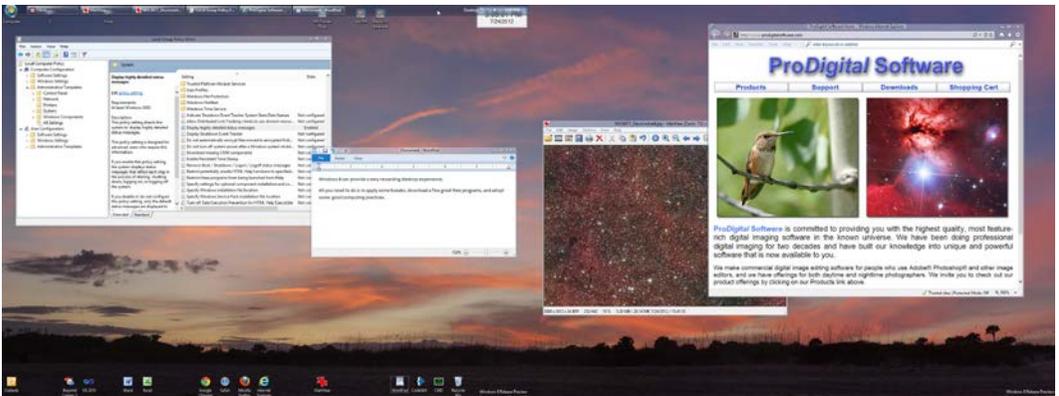
- **Right-click** on an open space on your **desktop**.
- Choose **Personalize**.
- **Right-click** on the leftmost entry ("**Unsaved Theme**") in the **My Themes** section.
- Chose **Save theme**.
- **Name** it something you'll remember.

## Desktop Background on Multiple Monitors

Did you know that if you extend your desktop across more than one monitor, it's possible to have a single desktop image displayed - i.e., parts of the image shown on each monitor?

To do so, simply determine your total horizontal and vertical pixel count, create an image exactly that size using resizing and cropping in your favorite photo editor, and set it as your desktop background. Be sure and choose **"Tile"** mode - that's what makes it span multiple monitors.

For example, if you have two 1600 x 1200 pixel monitors side by side, your total desktop space is 3200 x 1200 pixels. Make a 3200 x 1200 pixel image (or download one from the web) and **Tile** it. Voila, a panoramic display of a single image as your desktop background.



## Prevent the Cursor From Catching Between Monitors

If you have multiple monitors, and you have disabled the “hot corners” (e.g., via the Windows or Classic Shell settings), you might notice that if you try to move the cursor across the bottom or top toward the other monitor, your cursor catches and stops at the corners.

This is “by design” behavior, as Microsoft believes we’ll actually want to use those corners.

The good news is that they’ve made it a configurable feature that can be disabled. They’ve provided a registry value that defines the number of pixels the “catch” occupies. By setting this to zero, you disable this “feature”.

### To stop the cursor from catching at the corners between monitors:

- Click **Start**, type **regedit** into the search box, then hit **Enter**.
- **Navigate** into the key:  
[ HKEY\_CURRENT\_USER \ Control Panel \ Desktop ]
- **Change** the following string value to zero:  
**MouseCornerClipLength REG\_SZ 0**
- **Log off** and on again for it to take effect.

## Disable Hibernation and Reclaim Gigabytes

Not everyone needs / wants to be able to have their computer Hibernate. This is a power-off mode where rather than doing a full shutdown Windows quickly writes everything from RAM into a pre-allocated file then just turns off the power.

Hibernation seems more applicable to laptops than desktop machines, especially considering waking a system from any of the power-saving modes has remained somewhat problematic.

If you don't need to be able to Hibernate your system, you can free a fairly large amount of disk space used by hiberfil.sys.

### To see if you have a hiberfil.sys, and how much space it's using:

- Start a CMD window (As Administrator if you still have UAC enabled).
- **CD \**
- **DIR /AH**

If you see a file hiberfil.sys listed, and you know you'll never want to Hibernate your system, you can reclaim that space as follows:

### To disable Hibernation free the space used by hiberfil.sys:

- Start a CMD window (As Administrator if you still have UAC enabled).
- **POWERCFG /HIBERNATE OFF**

## **How to Invoke Your Screensaver Immediately**

Occasionally you just want to blank out your screen right now. But there's no obvious way to invoke the screensaver without waiting for it to time out.

### **Here's how you can get it to run right now:**

Create a shortcut with the following command, or just run it:

```
C:\Windows\System32\scrnsave.scr /s
```

## Request More Detailed Status Messages

Windows sometimes puts up status messages (such as during startup and shutdown) describing what it's doing. These are pretty dumbed-down, normally. As a power-user you may prefer to see more detail, and it's easy to ask the system to provide more plentiful and meaningful status messages.

### Here's how to request highly detailed status messages:

- Click **Start**, type **gpedit.msc** into the search box, and hit **Enter**.
- When the **Local Group Policy Editor** comes up, navigate into:
  - > **Computer Configuration**
  - > **Administrative Templates**
  - > **System**
- In the console pane, scroll all the way down to the list of objects, right-click **Verbose vs normal status messages**, and click **Edit**.
- Choose **Enabled**.

*Note: If you have an edition of Windows that does not provide gpedit.msc, the following registry values are created by the above. Delete these values to return to default behavior:*

[HKEY\_LOCAL\_MACHINE \ SOFTWARE \ Microsoft \ Windows \ CurrentVersion \ Policies \ System]

**VerboseStatus REG\_DWORD 1**

[HKEY\_LOCAL\_MACHINE \ SOFTWARE \ Wow6432Node \ Microsoft \ Windows \ CurrentVersion \ Policies \ System]

**VerboseStatus REG\_DWORD 1**

## If You Prefer Not To Be Quite So Cloud-Integrated

Microsoft delivers cloud-integration in the form of OneDrive (formerly known as SkyDrive). They're installing and running it by default, depending on how you've initially set up your system.

The idea is that you save files on your system and they just magically migrate up to Microsoft's online servers and ultimately down again to your other devices. It's an idea that sounds cool on paper, but it's not for everyone. If you really don't want Windows working behind your back to put your data online, here's how to disable key operations to stop it from doing so.

The best part is that even after disabling the automatic features you can still just as easily copy files to/from the OneDrive servers manually using the web interface. You'll still have the online storage, you are just shutting off the automatic integration.

### Uninstall OneDrive from Windows 8

- **Right-click** the OneDrive icon from within the system tray, if it is there, and choose **Unlink OneDrive**.
- Go to the **Control Panel – Programs and Features** section and **uninstall** OneDrive.

### Disable OneDrive in Windows 8.1

- In the PC Settings App, **OneDrive** section and select the **File Storage** category and disable **Save documents to OneDrive by default**.
- Select the **Sync Settings** category and disable the setting **Sync your settings on this PC**.

### Disable Idle Synchronization

This will stop event 10010 errors being logged on some systems.

- Click **Start**, type in **sched**. When **Task Scheduler** comes up, click it.
- Navigate to **Task Scheduler Library > Microsoft > Windows > SkyDrive** (you will have to scroll down).
- You will see two jobs, **Idle Sync Maintenance Task** and **Routine Maintenance Task**. Right-click on each of these and choose **Disable**.

## Section 2 - Good Practices to Keep Windows Working

Okay, so now you've got a good, solid Windows 8 installation - lean, stable and fast.

There are many things you can and should do while using Windows to keep it in tip top shape. From not installing software you don't absolutely need, to making sure your backups are current to occasionally looking over the list of what's running, an ounce of prevention can prevent the need for pounds and pounds of cures.

In this section we list a few things we do to keep everything running smoothly.

60 seconds			
Utilization	Speed		Maximum speed: 3.16 GHz
4%	3.16 GHz		Sockets: 2
Processes	Threads	Handles	Virtual processors: 4
36	510	12113	Virtual machine: Yes
			L1 cache: N/A
Up time			
25:06:30:49			

## Buy the Best Disk Drives You Can

One of the most intrusive failures you can experience is a drive failure, and make no mistake - they DO happen. Even with a good, current backup of your system on hand, **you really don't want to have to try to recover from a drive failure.** Consider what your time is worth!

Why not pay just a little bit more for top-of-the-line disk drives? Manufacturers of electromechanical (spinning) drives all generally have a high-end product line that professionals use in server farms, etc., when reliability is of great concern. And they're not all THAT much more expensive!

One such line is the Western Digital "RAID Edition" or **RE** series of drives. These drives not only sport MTBF figures of in excess of a million hours, but they have such features as being designed for continuous duty, cooler operation, active vibration reduction, and fast controllers. These drives are - as their name implies - ideal for RAID operation, which if your system supports it can speed up disk access quite markedly.

Or should you be tempted to get the ultimate speed out of your computer by stepping up a notch further and putting in one or more Solid State Drives, make sure you give your system enough space. Don't skimp on cost here. If you can't afford at least 512 GB (ideally 1 TB) of SSD drive storage, consider going with spinning drives this time around, until the cost of SSD storage comes down. Otherwise you'll be struggling with lack of space issues before long.

**Buy the best disk drives you can for your computer,** with plenty of space for your operating system and data to grow. You may never have to think about your disks again, and you may forget to thank us for recommending this but... Isn't that the point? 😊



## Back Up Your System

Set up Windows Backup. We suggest you **do it ASAP**.

With the price of external USB drives being \$100 or less, it's silly to be without backup. Get a good brand-name USB drive - we specifically recommend the **Western Digital MyBook**. People have reported data errors / corruption with the cheaper models, and we've found these Western Digital MyBooks work really well. Get one that's at least as big (ideally a good bit bigger) than your boot volume. We use the 3 TB model.

With Windows 8.1, even though Microsoft has removed the GUI for setting it up, we'll show you how here to schedule a regular recurring **System Image** backup. This is nothing less than a full backup that can be used to restore your entire system onto bare metal after a catastrophic failure - AND - you can retrieve individual files or folders from it too.

The neatest part is that once scheduled, this backup is integrated with your Volume Shadow Copy Service and is kept up to date incrementally! This is a **great feature** of Windows that few know exists; it really works!

### To Set Up a Recurring Incremental System Image Backup:

- Set up your external USB backup drive permanently in a secure place near your computer where it can sit quietly 24/7, accumulating backup data. Note the drive letter assigned to it (you can change this with diskmgmt.msc).
- Click **Start**, type **sched** into the search box, and click **Task Scheduler** when it comes up.
- On the left side, right-click on Task Scheduler Library, and select **Create Task**.
- In the **General** section, name the task something like **Nightly Backup** and select ( ) **Run whether user is logged on or not** and [ ] **Run with highest privileges**. Add a description if you like.
- In the **Triggers** section, choose [ **New...** ] and set the job to run **Daily** at the time of your choosing. If you leave your computer on 24/7, you might set this time to be in the wee hours of the morning. After the first run, it usually won't take too long to complete, nor be too intrusive, but depending on what you do with your computer it may take up to several hours to finish. Make sure [ ] **Enabled** is checked.

- In the **Actions** section, press the [ **New...** ] button, then choose Start a program and enter this command into the box:

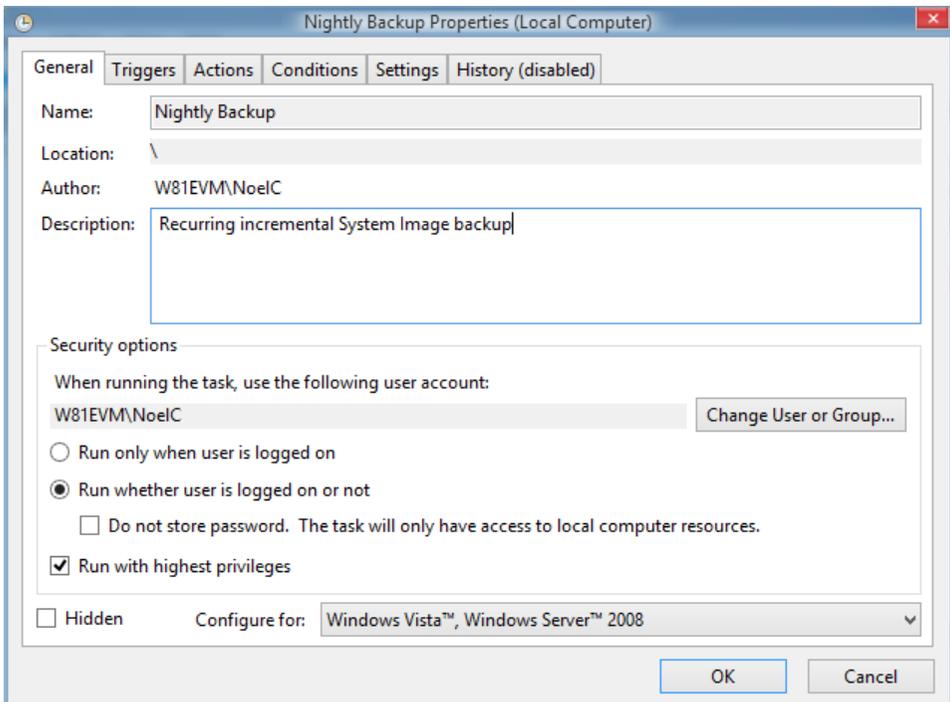
**wbadmin**

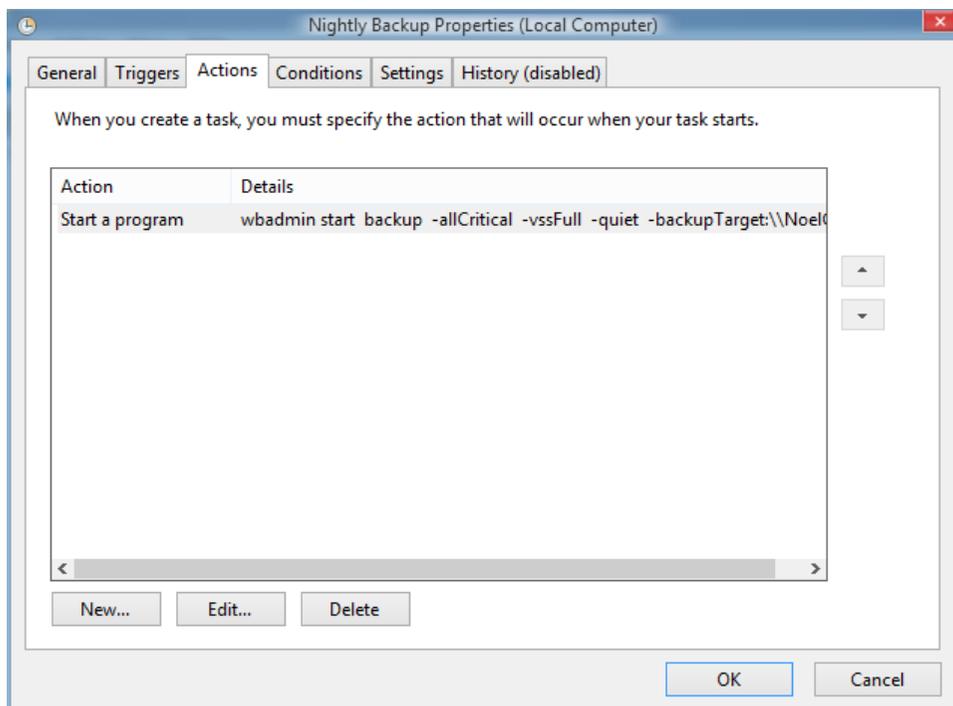
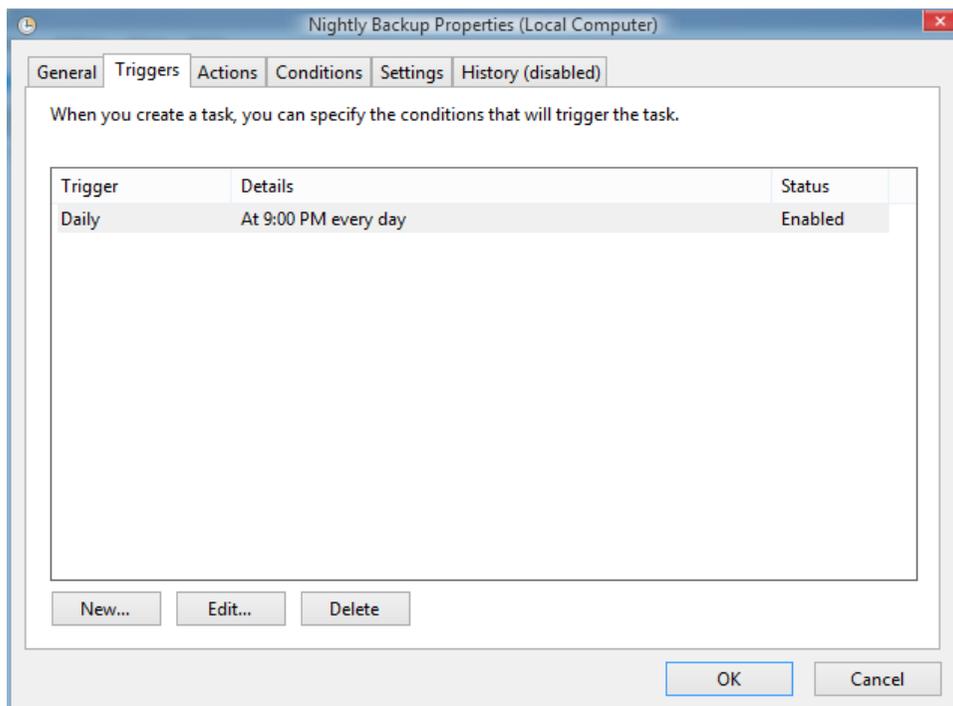
Enter the following in the **Add arguments (optional)** field. If your backup drive is other than **G:** change it to the actual drive letter:

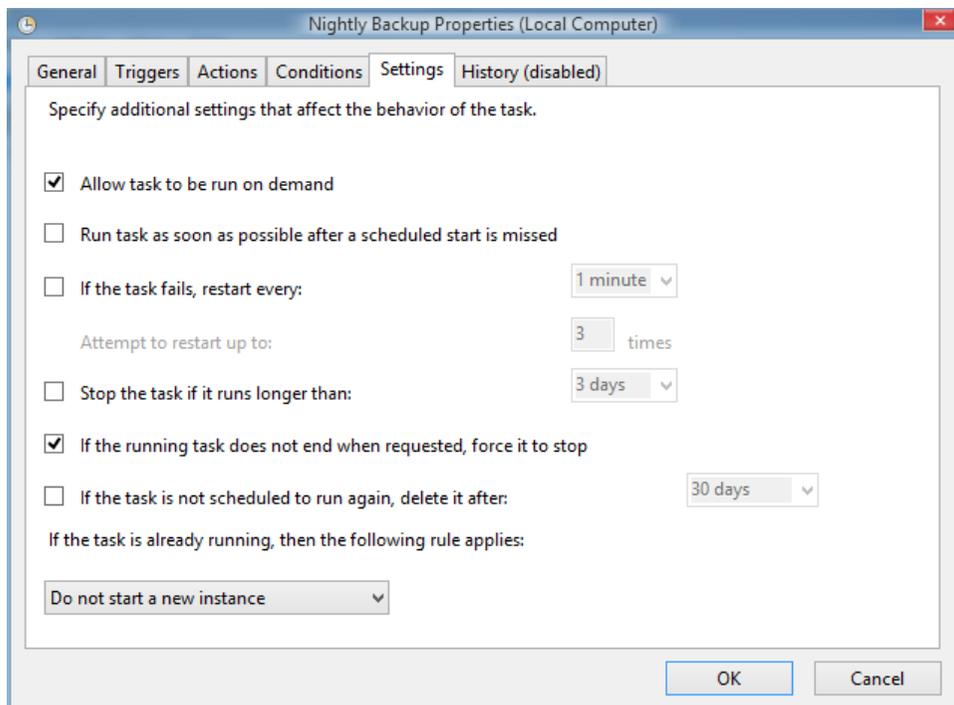
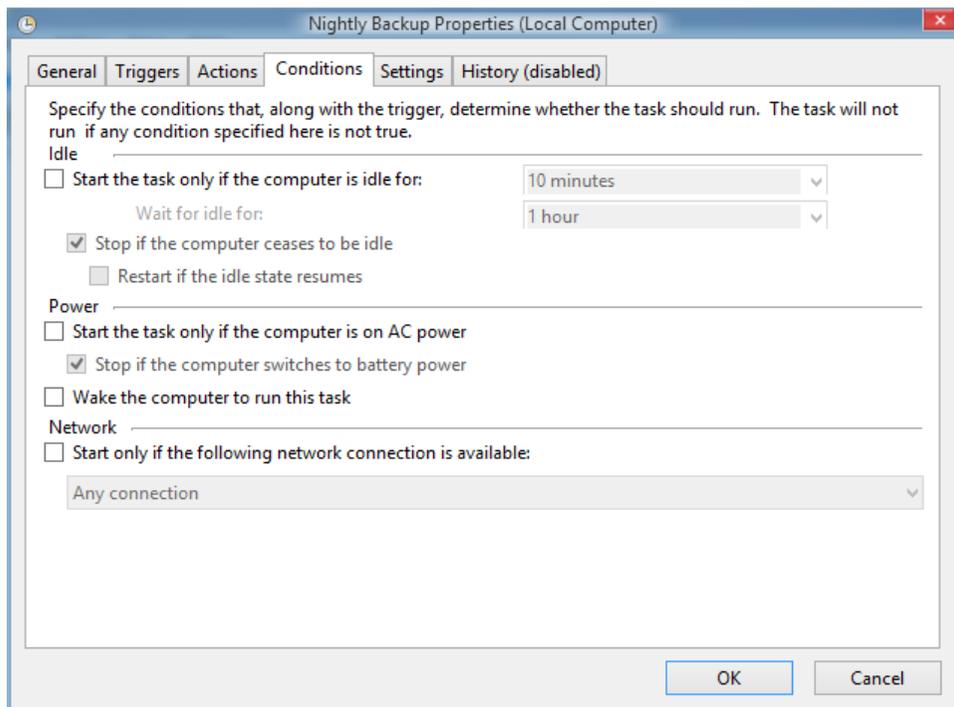
**start backup -allCritical -vssFull -quiet -backupTarget:G:\**

The above backs up all volumes critical to booting up your computer. Add an **-include:** switch to the above start command and specify a comma-delimited list of additional drives you want backed up.

- In the **Conditions** section make choices appropriate to your system.
- In the Settings section we suggest just checking [ ] **Allow task to be run on demand** and [ ] **If the running task does not end when requested, force it to stop**. Also **Do not start a new instance** in the bottom section is appropriate.
- After you hit [ **OK** ] enter your administrative account and password at the prompt. Here's what our Task Scheduler screens look like:







- After scheduling the above, you can wait for the time to arrive, or you can manually start the task by right-clicking it in the list and choosing **Run**. The very first time you run it, it will have to back up your entire system, so it could run for hours. Thereafter it will run more quickly.
- The results of your backups, showing whether they completed successfully, and what things were backed up, can be found here:

### **C:\Windows\Logs\WindowsBackup**

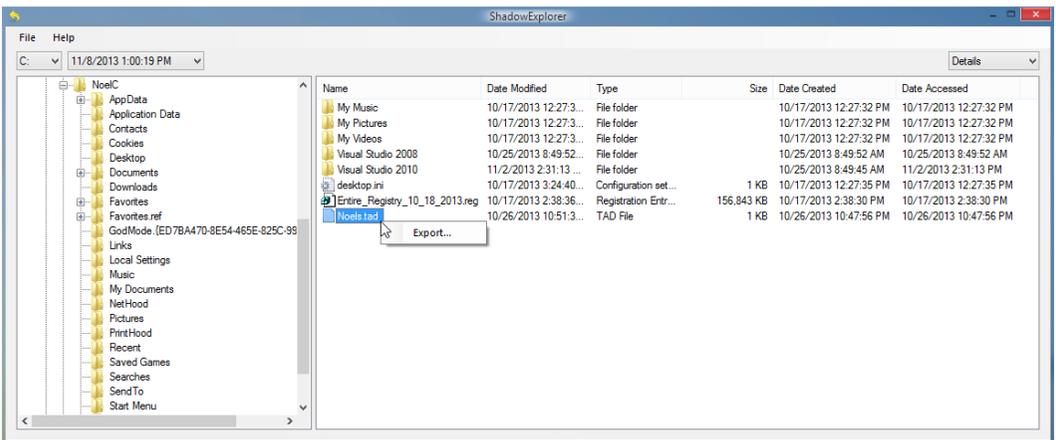
Normally you will see just a few "succeeded" messages in the logs.

## Restoring Files or Folders from Backup

Everyone occasionally goofs up and deletes or overwrites something they didn't mean to. The good news is that because the backup we set up in the previous section employs the Volume Shadow Copy Service to create Shadow Copies, and even though Microsoft eliminated the "Previous Versions" feature from Windows 8, **you can use a handy 3<sup>rd</sup> party tool to easily access your backed-up files** by volume and date of the backup.

- Download the **ShadowExplorer** software from the following site:

<http://www.shadowexplorer.com/>



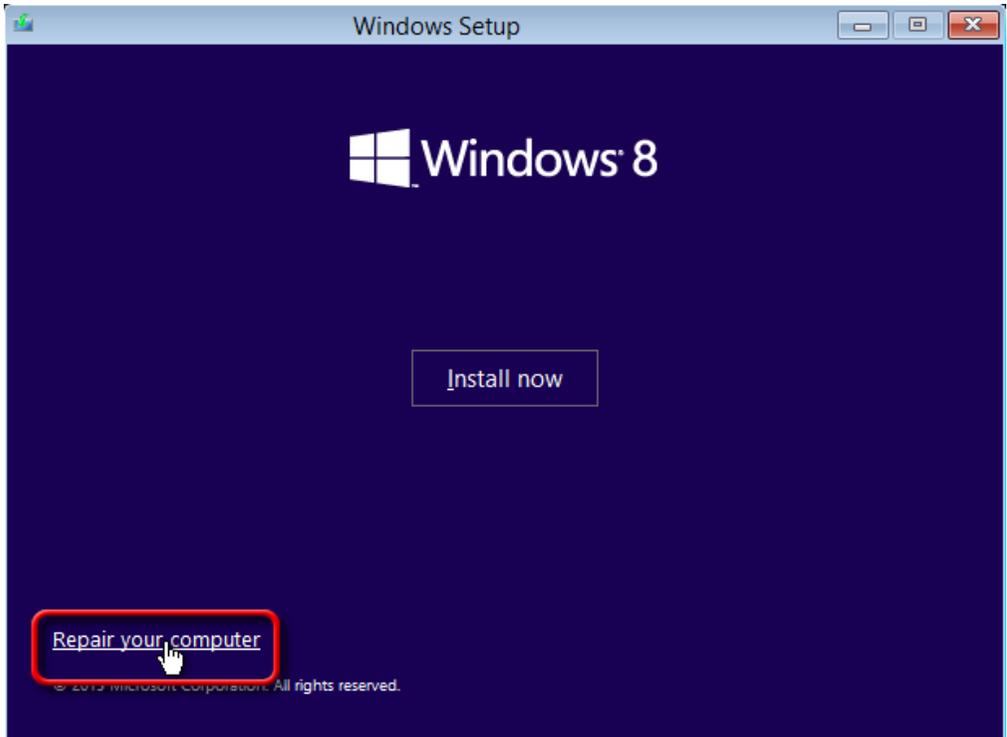
- Just run it. With this tool you can choose the partition, date of the backup, and export (restore) specific files or folders that you have backed up.

## Restoring Your System from Backup

If you have a catastrophic failure, don't worry - your files are backed up.

To initiate a System Image Recovery on a machine that doesn't have Windows 8 booting up on it, you'll need to boot either the **Windows 8 disc** or the **Restoral Drive** that you created in an earlier step in this guide.

Here's the sequence of screens you'll see, with the choices you'll need to make highlighted. It starts with choosing **Repair your computer**...



The additional screens you can expect to see are shown on the next several pages, with the choices you'll need to make highlighted...

# Choose an option



## Troubleshoot

Refresh or reset your PC, or use advanced tools



## Turn off your PC

# ⏪ Troubleshoot



## Refresh your PC

If your PC isn't running well, you can refresh it without losing your files



## Reset your PC

If you want to remove all of your files, you can reset your PC completely



## Advanced options

## ← Advanced options



**System Restore**  
Use a restore point recorded on your PC to restore Windows



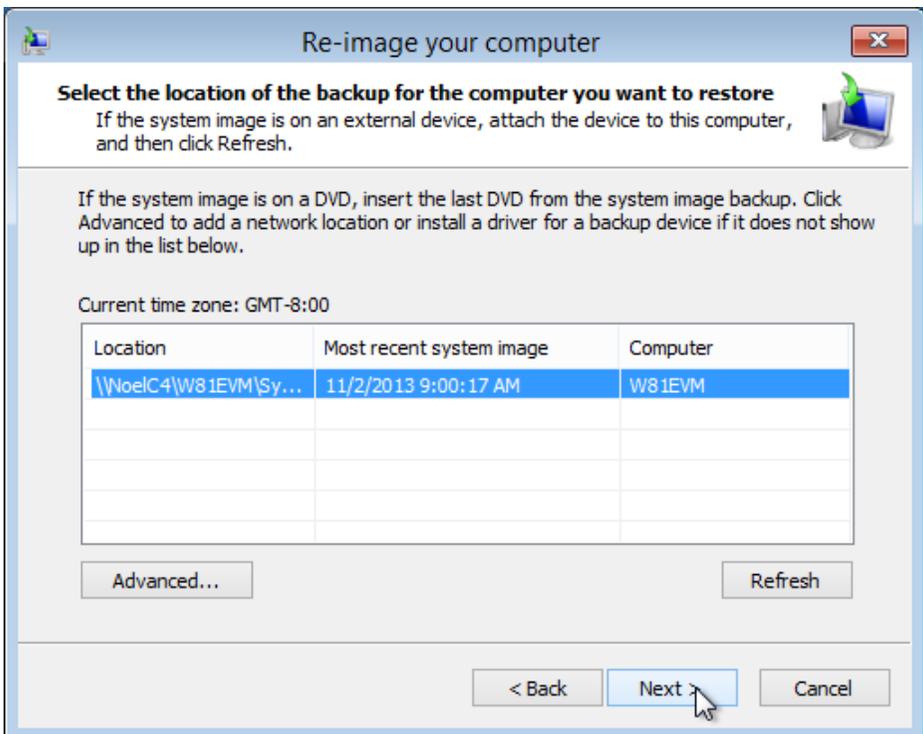
**Command Prompt**  
Use the Command Prompt for advanced troubleshooting

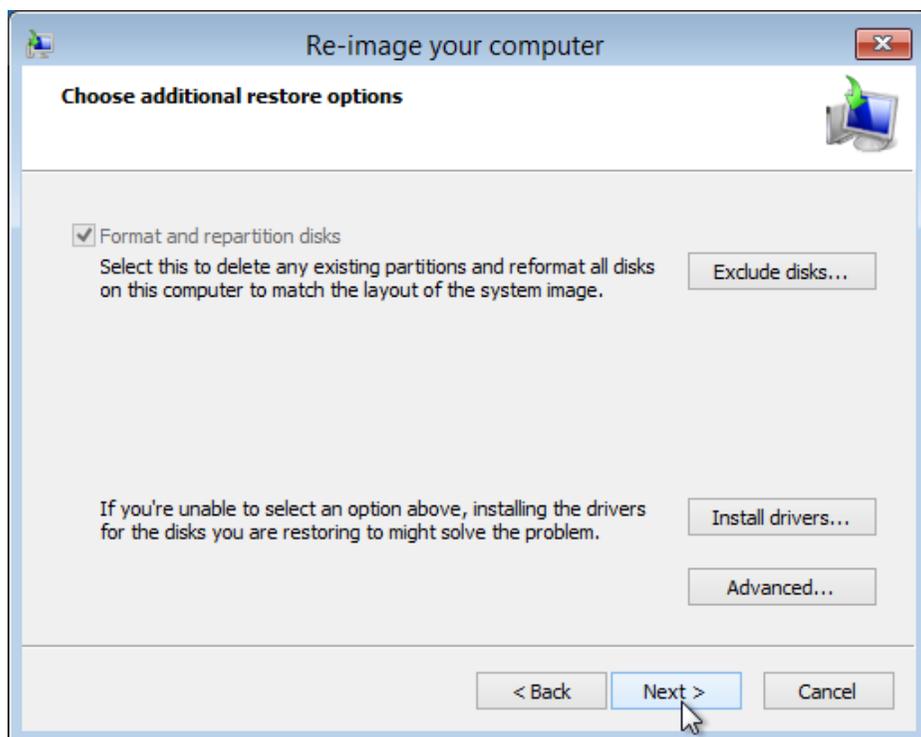
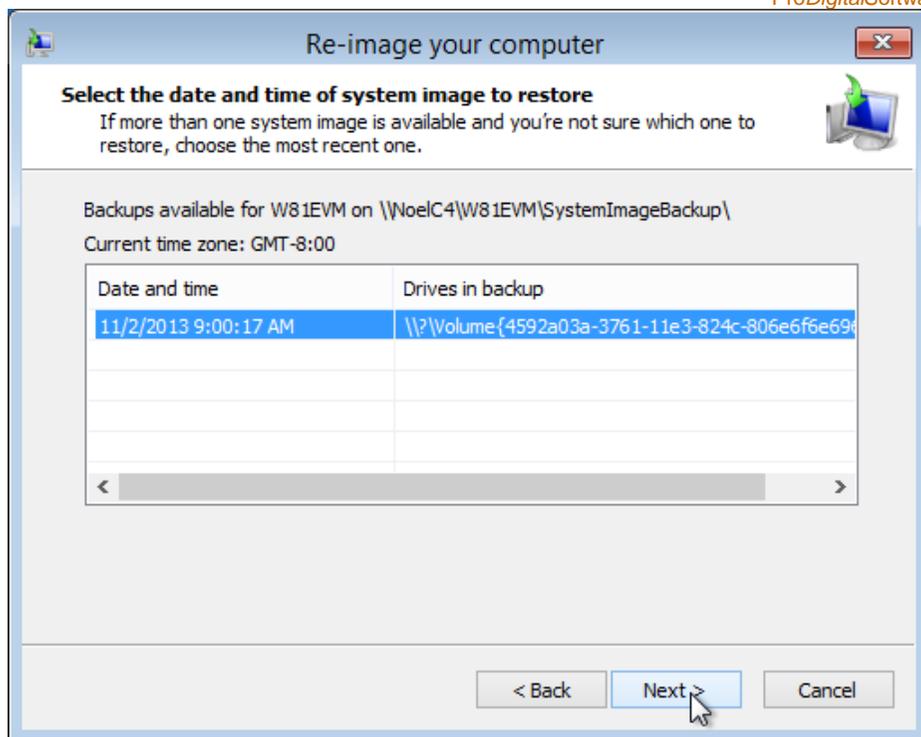


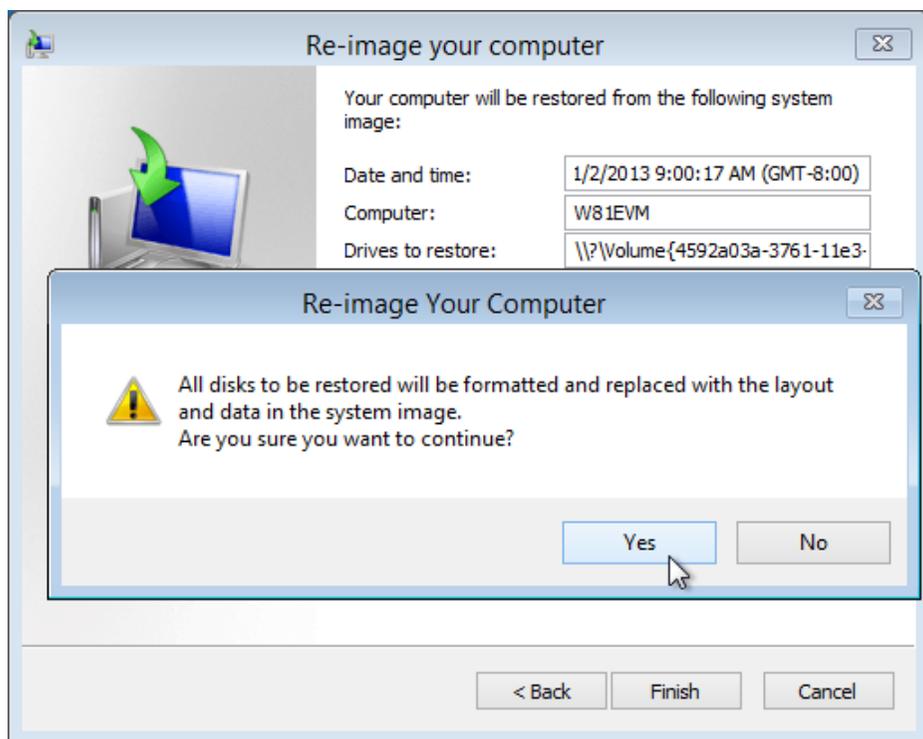
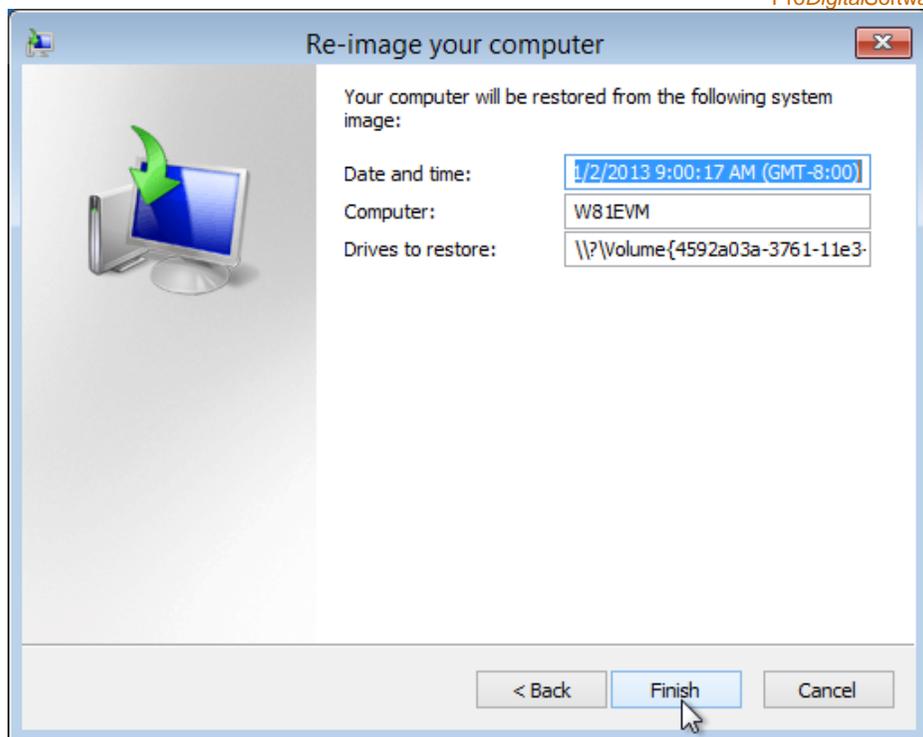
**System Image Recovery**  
Recover Windows using a specific system image file



**Startup Repair**  
Fix problems that keep Windows from loading







## Review the Software Running on Your Computer

It never hurts to check from time to time to see whether something's running that you didn't expect. You should know what each and every process is, and why it's running. The internet can provide help with identification, and it's surprising how many processes end up running that don't provide much of any benefit.

Earlier in this guide we suggested downloading **GetTaskList.bat** and scheduling it to run every night. Just remember, from time to time, to look in the log file, and maybe compare it with an older one to see what's different.

Also, it doesn't hurt occasionally to look in the **Task Manager** to see what's running. Windows 8 can run with a process list count in the thirties, but a healthy system set up to do a lot of work can see the count regularly in the sixties or seventies.

Occasionally review the list of software that starts and runs on your system using the freeware application **AutoRuns**.

- **Download** and install **AutoRuns** from this site:

<http://technet.microsoft.com/en-us/sysinternals/bb963902>

Another good application to use to see what's installed into Windows File Explorer is the freeware **Shell Extensions Manager** by Nir Sofer.

- **Download** and install **Shell Extensions Manager** from this site:

<http://www.nirsoft.net/utils/shexview.html>

Also, from time to time remember to re-review the list of installed **Add-ons** in **Internet Explorer**, and remove all those that you don't absolutely know you need. Your goal is to keep your system lean and reliable, right?

## Links to Remote Computers

People report major Windows File Explorer and desktop slowdowns if they store shortcuts to remote computers or shares in their Libraries or on their desktop. This is because Windows occasionally goes looking for the target of the shortcut, and if the remote computer is offline it may go into a "timeout" condition waiting for a response. When this happens everybody waits - you and your computer.

Here's a handy workaround to ensure that never happens: Never make a shortcut point directly to a network resource if you can help it. Instead, make the shortcut point to the local executable that opens a folder or file on the remote computer.

The shortcut target is the Windows File Explorer executable, and put the remote computer name and share name in as an argument:

**explorer.exe \\Computer\Share**

Here's another example. Instead of just having the shortcut point to the text file directly, use the application that would open it in the command line:

**notepad.exe \\Server\Share\log\BackupLog.txt**

## **Don't Install Things You Don't Absolutely Need**

Everything you install uses resources. Just **ignore "handy toolbars"** or other software that sounds nice but for which you can't think of a specific use right now. Your system will run better for longer.

Always know what you're installing. Take a few minutes to read about what you're about to install, to make sure it's really what you need. Maybe even go online and look up what others are saying about it.

Installing software then uninstalling it always tends to leave "junk" behind. It's better if you don't do it in the first place!

If you need to evaluate a lot of different software, **consider getting a virtualization application** (e.g., such as VMware Workstation) or using Windows' own HyperVisor to allow you to set up "throwaway" virtual machines for doing your installations and evaluations, saving your main system for the things you really need it to do.

## Avoid Registry Cleaners

One kind of program seems to have made its own market: The registry cleaner / defragger.

The very existence of the software makes you believe you need to "clean" your registry (you don't), and the advertising always proposes doom and gloom if you fail to use it. They even have TV commercials!

Trouble is, doom and gloom comes more often if you DO use a registry cleaner.

The registry is just a big database that individual programs and parts of the system write data to for later retrieval. There's nothing magic or mysterious there, it's just a repository. **Those programs and the operating system expect the data to be left where it was put!**

There's no consistent way, registry-wide, to detect "orphans" or "left over" information. The plain and simple fact is that the content of the registry is dynamic, and while in time there may get to be entries in the registry that are not needed, there's no guarantee they'll never be needed, and they don't generally hurt anything.

People may tell you how many problems this or that cleaner has solved for them. **Don't listen to them!** The registry cleaner program told them what to say.

You don't have their problems and *you won't get them* just by reading this guide and heeding our advice.

We do the specific maintenance described in this guide, but we don't use registry cleaners, and **we run our Windows systems for years without experiencing instability or slowdowns.**

Don't trust some hacker somewhere to have better knowledge of what should be in YOUR registry on YOUR computer than YOU do. **Never install or run a registry cleaner.** Seriously.

## Opt Out of Customer Experience Improvement Programs

There are sometimes cases where you will be prompted to check a box (e.g., when installing a big Microsoft package) in which they will ask you to "participate in a customer experience improvement program" by sending some telemetry back to Microsoft. Microsoft won't like me saying this, but you might want to make a habit of **opting out of these**.

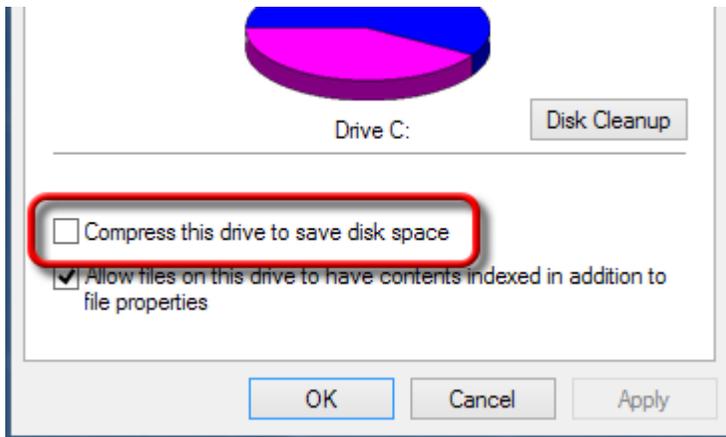
You want your computer available for YOU, working for YOU, and doing as little as possible that's unexpected. You've paid Microsoft for the software and you pay for your Internet access.

Some folks might say that opting out of such programs just deprives Microsoft of just that much statistical data on how serious power users run Windows. There's a certain amount of merit to that. But each of us is really just one user amongst hundreds of millions.

If participating in such programs was 100% unobtrusive we might advise differently, but unfortunately such programs DO occasionally interfere with normal operations.

## Use Of NTFS Data Compression

In the properties panel for disks, files, and folders we see an option that allows us to compress data, which at first glance seems to be a good way to be able to store more data without having to buy more disk hardware.



Our advice: **If I/O performance is important, avoid using this feature.**

It works as advertised, but it comes with ongoing baggage you may not want: **Every I/O access, read or write, costs extra CPU time.** File operations can end up being a lot slower with this option since every data block must be compressed or decompressed by the CPU.

With a spinning electromechanical hard drive (**HDD**), the extra overhead is offset somewhat by the fact that less data needs to be written to or read from the (relatively slow) disk, so the disadvantage may be small. For infrequently accessed data (e.g., backup) on HDD devices where performance isn't critical, compression may be quite useful.

However, with modern **SSD drives**, since the I/O is generally very fast and there's virtually no seek time, the extra compression overhead can cause a **BIG degradation** in performance. Also, as most SSDs *internally* compress your data, just writing and reading compressed data (which is by nature difficult to compress further), can slow the SSD interface transfer speeds down markedly, so compression is a double whammy.

If you're short on disk space and performance is important to you, consider spending the money to get higher capacity disk hardware instead of using compression.

## Maintain Your System's Health

Microsoft provides a couple of geeky command line commands to help you maintain the health of your system files.

It's a good idea to occasionally run the Windows **System File Checker**, to ensure that your files remain uncorrupted and exactly as expected by Windows.

### First, Check the Health of Your System Files

- Start a **CMD** window.
- Run the command line command: **SFC /VERIFONLY**

### If SFC Finds Problems, You Can Repair Them

- Run the command line command: **SFC /SCANNOW**

This will re-run the check and try to fix any problems it finds. However, it may not be able to fix all of them as all the information it needs may not be on your computer. In that case, do the next step...

- Run the command: **DISM /Online /Cleanup-Image /RestoreHealth**

This **Deployment Image Servicing and Management tool** command will use Windows Update as needed to download files it needs to resolve corruption problems on your system.

```

Administrator: CMD
C:\TEMP>DISM /Online /Cleanup-Image /RestoreHealth
Deployment Image Servicing and Management tool
Version: 6.3.9600.17031
Image Version: 6.3.9600.17031
[-----100.0%-----]
The restore operation completed successfully. The component store corruption was repaired.
The operation completed successfully.
C:\TEMP>sfc /verifonly
Beginning system scan. This process will take some time.
Beginning verification phase of system scan.
Verification 100% complete.
Windows Resource Protection did not find any integrity violations.
C:\TEMP>
  
```

## **Section 3 - Known Windows Bugs**

Sometimes something happens and you're just not sure why. Quite often it's Windows working the way it should and once you understand why it's working that way you can take advantage of the functionality, or change it through configuration. That's what we have been doing in prior chapters.

However, sometimes, it's just a plain and simple bug. Here's a short list of subtle, known bugs in the Windows 8 release, along with some suggested workarounds. If you see something unexpected happen, check here to see if it's been seen before.

Some of these may be fixed by a Windows Update or a service pack.

## Can't Set a Wallpaper Screen Background Image

It's been seen that a system can get to a state where the screen background cannot be set manually or by selecting a theme. None of the "typical" methods of making your computer desktop environment look the way you want seem to work... Here are some extreme measures that may help:

- Make sure these two **Wallpaper** registry **keys** are deleted:

[HKEY\_CURRENT\_USER \ Software \ Microsoft \ Windows \  
CurrentVersion \ Policies \ System \ **Wallpaper**]

[HKEY\_LOCAL\_MACHINE \ Software \ Microsoft\Windows \  
CurrentVersion \ Policies \ System \ **Wallpaper**]

- Delete the following file if it exists:

**C:\Users\YourUsername\AppData\Roaming\  
Microsoft\Windows\Themes\TranscodedWallpaper**

- Set your new wallpaper. It should work now.

## File Explorer Sorting Glitch

An Explorer sorting issue is that Explorer will actually consider the *entire* filename, including the extension, in its sorting process. Thus the following files seem to be in the wrong order because a "period" character is considered higher in sort order than a "space" character.

**Back to the Future II.avi**

**Back to the Future III.avi**

**Back to the Future.avi**

This can look pretty strange, especially when the file extension is hidden, as it is by default.

This won't be affected by the **turn off numerical sorting** setting, and is a bona fide bug, in our opinion.

## **File Explorer Fails to Update**

Some people report that Windows File Explorer fails to update its panes after operations on files shown within, or with files dropped on the Desktop. This may occur more often with files in Libraries. A refresh (F5) is required to cause Explorer to update.

You really should be able to expect that you can save a file to any folder that's displayed in Explorer, and just have it show up, or to delete a file from a folder and have it disappear WITHOUT forcing a refresh.

It's not clear what triggers this problem, nor what helps work around it, but we have had good results avoiding it on our development systems after tuning all the settings per this guide, and by using Computer - Hard drive rooted paths and avoiding the use of Libraries.

## File Explorer Becomes Confused After Moving Folder

Moving folders around in the Navigation (left) pane of Windows File Explorer can sometimes leave things in a confused state. One of the easiest ways to reproduce this is to create three nested folders:

**First**

**Second**

**Third**

Within each of these folders create a text file, named so that you'll know which one you're looking at (e.g., 1.txt, 2.txt, 3.txt). The content is unimportant.

Now open a Windows File Explorer window and navigate to **Third**, so that it is selected in the Navigation pane and its contents are visible in the Files pane.

To reproduce the problem, **right-click Third**, choose **Cut**, then **right-click First** and choose **Paste**.

What you SHOULD see is the **Second** folder selected in the Navigation pane and the **content of Second** displayed in the Files pane. When it fails, the Files pane is usually blank, and can sometimes be shown by pressing F5 to refresh it, or by clicking elsewhere then back on Second.

We have had good results minimizing this problem on our development systems after tuning all the settings per this guide. It's not clear that any one tweak works around it, but the combination of everything seems to help.

## About the Author

Noel Carboni is passionate about Windows. A career Software Engineer who has been actively working in the computer industry since the mid 1970s, and a Florida Gator, he's done design engineering for mainframes, mini computers, 8 bit microprocessor systems, all manner of custom controllers and systems, and of course PCs and even Macs. He's led engineering groups in implementing operating systems, embedded controllers, and application software, using Microsoft operating systems and others. He has also developed and managed Engineering Processes and Configuration and Release Management for large engineering organizations.

Noel now runs his own software firm, **ProDigital Software**, with sales worldwide. Still very much hands-on, he leads the development of top quality, high performance cutting-edge graphics and image processing software.



### Connect with Noel Online

**ProDigital Software:** <http://www.ProDigitalSoftware.com>

**eMail:** [NCarboni@ProDigitalSoftware.com](mailto:NCarboni@ProDigitalSoftware.com)