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Ten Things You Should Know about Windows 7

Ten Things You Should Know about Windows 7

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Introduction

We're all trying to get to know the latest revision of the Longhorn platform, arriving in two different suits of clothes: Server 2008 R2 and Windows 7. In this Microsoft white paper, I toss out ten things that you should probably know as you get familiar with the latest version of the Windows client.

1. There Are No Radical Changes
2. Windows XP Mode Runs Older Apps
3. IE Compatibility View Makes 8 Work Like 7
4. Windows Touch Needs Expensive Hardware
5. Libraries Will Require Training
6. Backup Is Better
7. Applets Are Growing Up
8. Windows 7 Is Huge
9. The Versions Are Still Confusing
10. UAC Is Still a Work in Progress

1. There Are No Radical Changes

The first thing you need to know is that Windows 7 does not represent any radical changes compared to its predecessor Vista. It's still Longhorn under the hood, just with some new features and some performance-tuned code for everyday operations. I've said before that Windows 7 is what Vista should have been, and nothing I've seen in Windows 7 changes my mind about that.

If you want proof that Windows 7 is basically a spruced-up Vista, open a command prompt. In Vista, you'll see a version number like 6.0.<buildnumber>. In Windows 7, it's 6.1.<buildnumber>. (See Figure 1) I can't refrain from commenting on the bizarre nature of an operating system whose name is "7" but whose version number is "6.1," although I'll leave the interpretation of that symbolism to the reader!

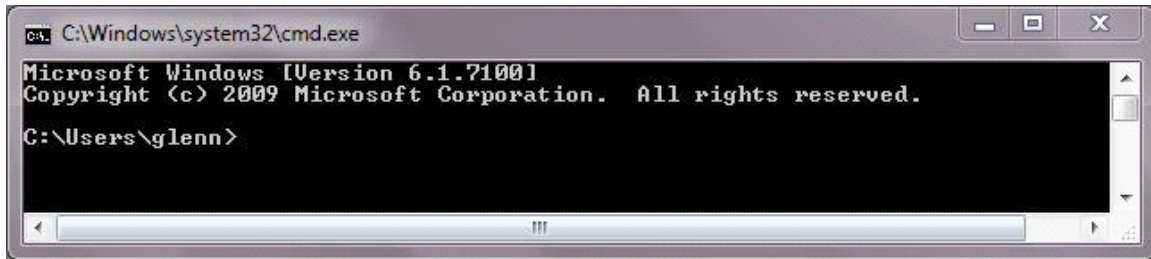


Figure 1: Windows 7 is really Windows 6.1.

In fact, some of the more useful features of Windows 7 (Windows XP Mode, IE8 Compatibility View) have more to do with the past than with the present - they enable you to run applications written for XP, and view websites written for IE7. Thus does the continuing burden of supporting old stuff weigh down Microsoft's new operating systems. I'll bet that sometimes the Microsoft engineers wish they could just start fresh with a clean sheet of paper. (Actually, I wish they would do exactly that - the desktop metaphor has gotten awfully long in the tooth! - but I'm not holding my breath.)

2. Windows XP Mode Runs Older Apps

This capability is only available on Ultimate and Professional versions of Windows 7. It combines two downloadable (i.e., not-in-the-Windows-7-box) technologies: Virtual PC, which, frankly, I'm surprised is still around, given the far-superior performance of Hyper-V, and "Windows XP Mode," which is much larger (approaching half a gigabyte).

My suspicion is that after the IE6 fiasco with Vista (ever try running IE6 on Vista? No? Good!), Microsoft decided that it would be smart to provide a virtual XP system where Windows 7 users can run apps that refuse to run satisfactorily under Windows 7 natively. I put this in the "last resort" category: if you can't get an app to run using the various other tricks (such as the EXE file's Compatibility tab), then use Windows XP Mode.

It's not an elegant solution by any stretch of the imagination, because you're virtualizing an entire XP system in order to run an application that doesn't like Windows 7. But sometimes, an approach that works and isn't elegant is preferable to not having an approach that works!

To use "Windows XP Mode," you have to have virtualization support on your computer (we're talking Intel-VT on Intel motherboards and AMD-V on AMD ones). This shouldn't be much of an issue; most systems of recent vintage will have this capability. You also need gobs more disk space, according to Microsoft.

3. IE Compatibility View Makes 8 Work Like 7

In the same spirit as Windows XP Mode comes IE8 "Compatibility View." This is a special IE8 mode that interprets Web pages just as IE7 would. By default, IE8 runs in "Standards Mode" for Web addresses. Standards Mode adheres more closely to published Internet standards - something Microsoft has not always been known for, frankly!

To the right of the address bar in Internet Explorer is a button with an icon of a torn page on it (!). Pressing the button when in "Standards Mode" causes IE to activate the Compatibility View and record the setting for reuse when you revisit that particular domain.

There's also a list of public websites that you can "opt into" when IE8 is installed. If you do so, these sites will be viewed in Compatibility View by default.

Visiting intranet locations causes IE8 to default to Compatibility View. However, you can modify the META tag, or the HTTP header, to force Standards Mode, if that's what you want. The META tag or HTTP header will win out over the browser setting, and what's more, it will cause the Compatibility View icon to vanish for that page. You can also write inline code in your intranet pages that checks for the User Agent string (IE7 or IE8) and makes decisions accordingly.

Despite these options, I suspect that it might be easier to configure the IE8 mode via Group Policy if you're in an Active Directory environment. The Group Policy settings (see Figure 2) are basically the same options that you can set in the Compatibility View Settings dialog on the browser's Tools menu (see Figure 3).

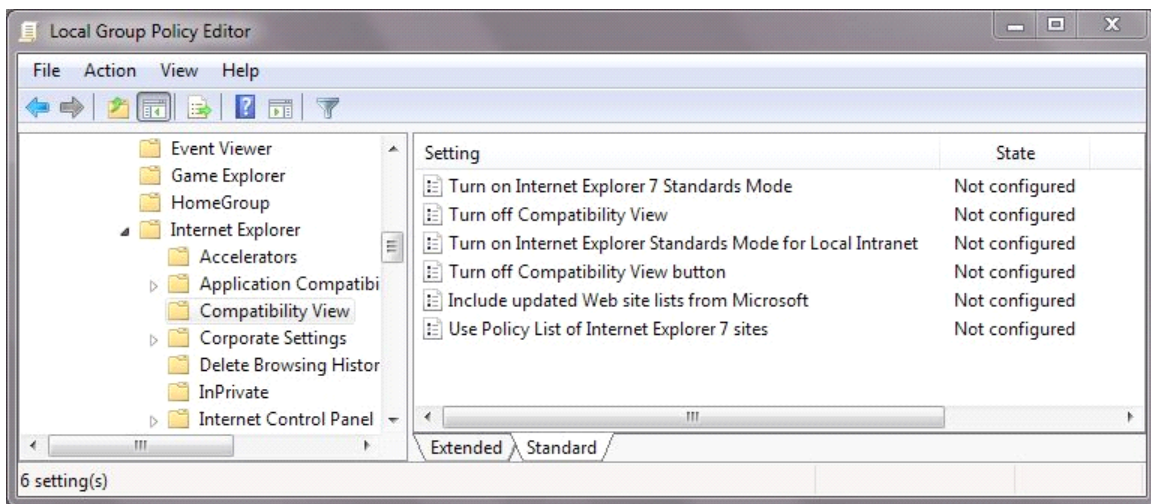


Figure 2: Group Policy settings for IE8 Compatibility View

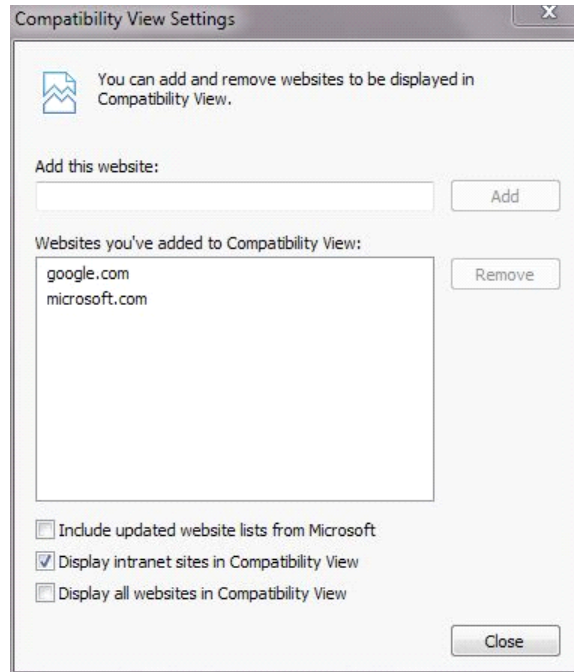


Figure 3: The Compatibility View Settings dialog box

The bottom line for organizations is that they should test internal and external web pages for IE8 compatibility, and then make Group Policy settings and/or modify internal web pages accordingly. If the Web pages you use seem to work fine with IE8 in Standards Mode, then you don't need to deal with Compatibility View, but it's nice to have it there if you need it.

4. Windows Touch Needs Expensive Hardware

Anybody who has used an iPhone has a pretty good idea of what Windows Touch gives you in Windows 7 equipped with a compatible touch-sensitive screen: zoom in by putting down two fingers and spreading them apart, zoom out by doing the opposite. You can also perform rotation, "right-clicking" and a variety of other commands with Windows Touch.

Touch screens are undeniably cool, but most IT people I know are skeptics of their appeal for most users. The smartboard-style touch devices (think John King's US presidential election coverage on CNN) are great for presentations, but impractically large for daily computing. On the other end of the size scale, the iPhone is generally regarded as having a good touch screen, but it doesn't work well for someone with big fingertips. Microsoft has changed the sizes of certain buttons and icons in the touch interface to make them more "finger-friendly," which moves in the right direction.

If you want to experiment with the touch interface in Windows 7, I highly recommend a "multitouch" computer display or laptop, because single-touch systems really don't tap the power of the interface that Microsoft has built. Unfortunately, at least as of this writing, there aren't many affordable multitouch systems available. I

suspect that for the near future, and for most businesses running common software, the hoopla about Windows Touch will prove to be largely irrelevant.

In a couple of years, though, who knows? Mouse technology has not advanced dramatically in recent years - you still can't buy a mouse that has a really great, smooth feel, like a Mont Blanc rollerball pen, for example; and even expensive mice still feel cheap - so maybe we'll all be using touchscreens once the hardware costs come down. They've got a long way to go though.

5. Libraries Will Require Training

Here is another much-touted feature. The overall concept is that a "library" is a collection of related documents, which may be scattered about in various different folders. You can think of a library as a set of folders that are logically related but not necessarily physically related. (For those of you who remember reading about WinFS, Windows Future Storage, a few years ago, the Windows 7 "library" has some of the same philosophical basis. It's also conceptually related to DFS, the Distributed File System.)

The Windows 7 beta testers seemed to be of different minds when it came to the Libraries concept. Some of them felt that it was a great feature for easily viewing the contents of multiple folders. (The most common example is simultaneously viewing the user's own Documents profile folder along with the machine-specific "All Users" Documents folder.) Others pointed out that it can give rise to some confusion when creating or saving files. For example, when saving a file, Windows 7 tells you that the Library represents multiple folders - but it doesn't show them to you unless you click the Locations link, nor does it give you the opportunity to select which of those folders you want to create or save your document into, unless you change the default save location (see Figure 4).

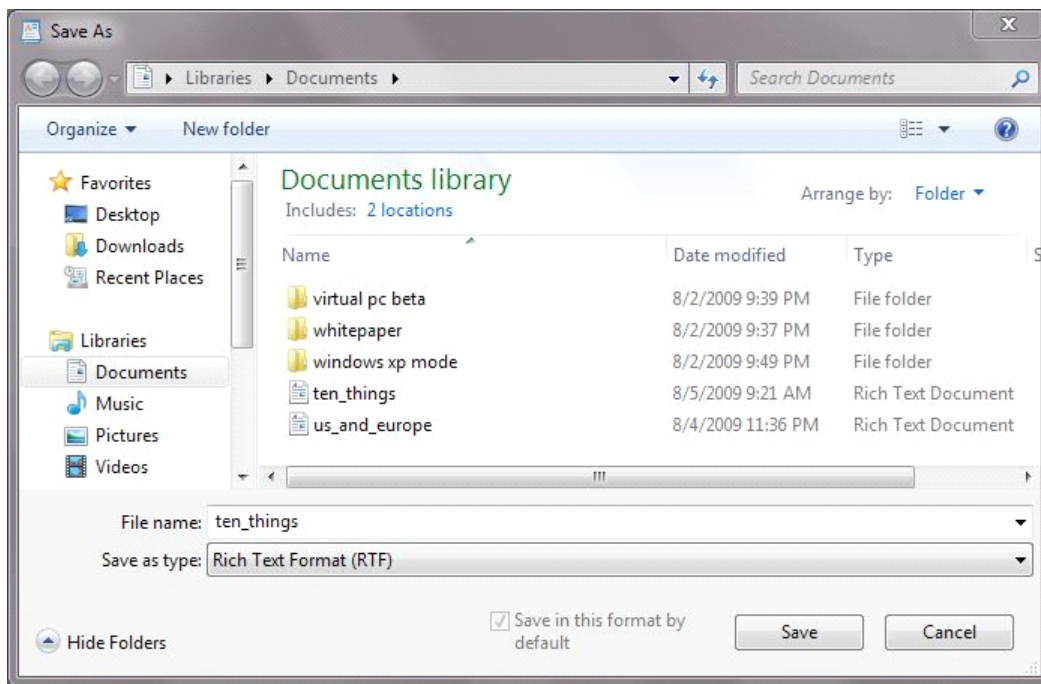


Figure 4: Where Exactly Am I Saving This File?

The only thing that seems certain is that organizations are going to need to do some user education if the Libraries feature is to be used successfully. It's just not intuitive enough for us to be able to assume that users will understand it without some guidance.

6. Backup Is Better

The venerable NTBACKUP.EXE program went away with Windows Vista, as Microsoft decided that, having a few programmers on the payroll, perhaps they could write their own decent backup program. They didn't really succeed in that goal with the Vista version, which did not offer users the ability to select specific files or folders to back up.

The Windows 7 version is still not perfect by a long stretch. For example, when first running the Backup tool, you're prompted where to save your backup - but you can't specify a network location unless you're running Professional, Ultimate, or Enterprise. And the program wants to set up your backups on a schedule, whether that's what you need or not.

On the plus side, you can now select individual files or folders to back up (see Figure 5). To be fair, that's a significant improvement, and possibly just enough to make this applet suitable for business use, where its predecessor was not. And this tool seems just as fast as it was under Vista, that is to say, very.

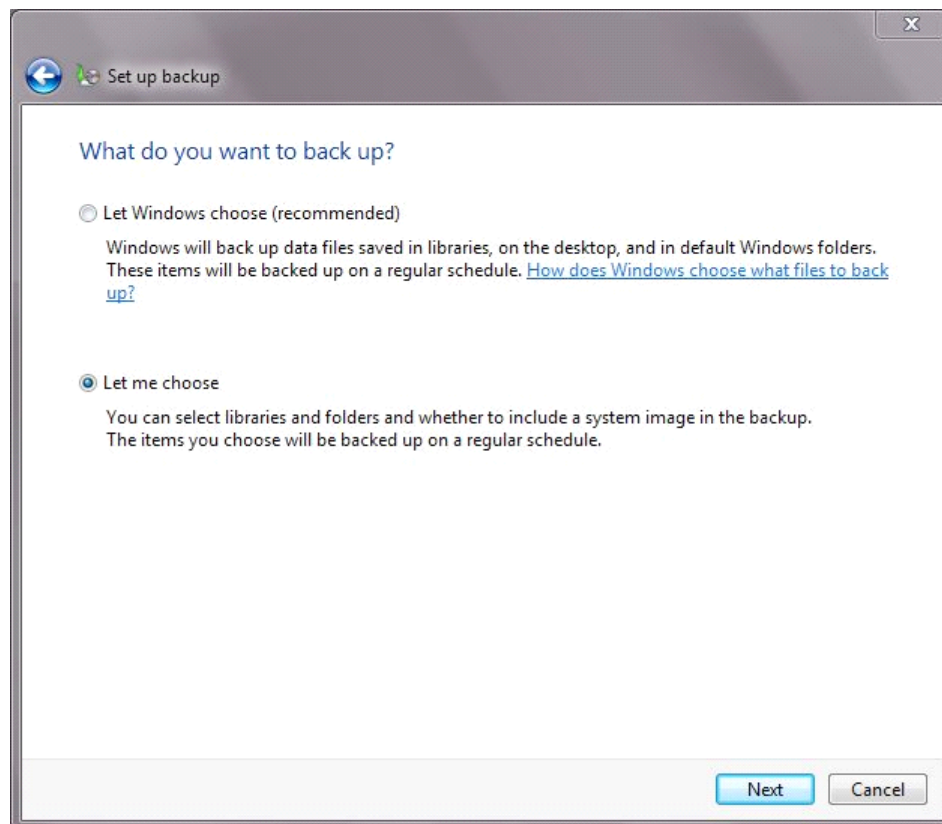


Figure 5: You Can Now Choose to Backup Specific Folders or Files

7. Applets Are Growing Up

I don't know about you, but when setting up home PCs for my kids, it has always seemed a bit silly that the built-in applets that Microsoft ships with Windows were so brain-dead. I know the company is concerned about maintaining the profitability of Microsoft Office, but Paint has been an embarrassment for years, and Wordpad was not much better. It seemed as though the company put all its applet effort into Media Player and all the other applets were left gasping for air.

I'm glad to report that Windows 7 has given the non-Media Player applets a fresh coat of paint and, in some cases, a real structural overhaul as well. WordPad has become a perfectly usable word processor for students and professionals who don't need fancy features; it even "feels" like the Office 2007 applications in terms of the user interface. Calculator (see Figure 6) now includes some very practical capabilities, such as unit conversions, and even features for programmers and statisticians. Paint is no longer a complete embarrassment (although it still lacks the two capabilities I use most, namely contrast and brightness).

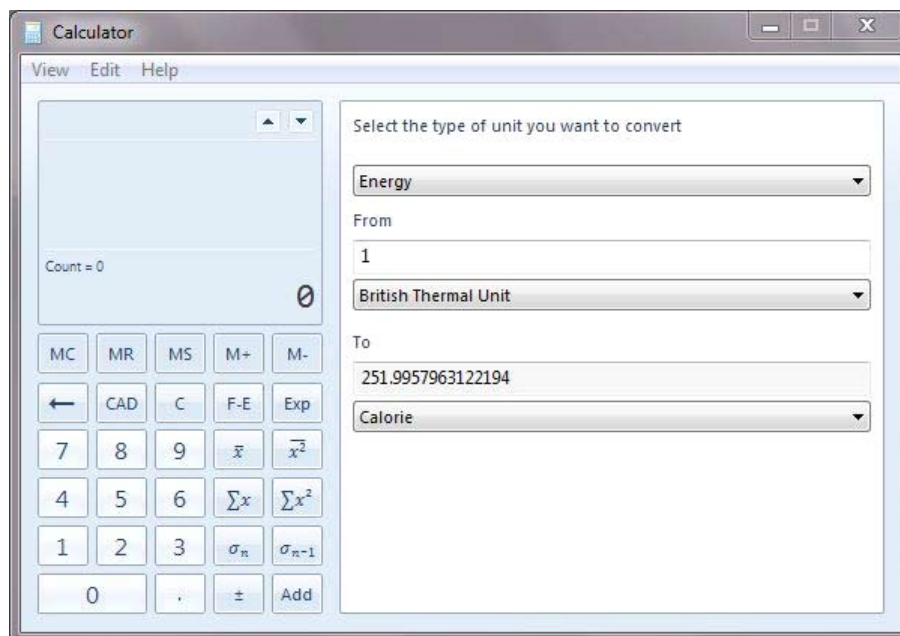


Figure 6: Real-world usability in Calculator

One can debate whether it is the job of an operating system to include useful applets such as these, but if you're going to do it, make them usable and useful. Microsoft has done some nice work along these lines, and organizations will want to make sure users know about it, by including some "applet awareness training" as part of the migration plan.

8. Windows 7 Is Huge

And you thought Vista was a space hog. On the Windows 7 test machine I am using, the OS is using northwards of 10 GB not counting hibernation and paging files (see Figure 7). The total goes to 17GB on my system, if you do include those files.

You do get certain benefits from this very large OS. For one thing, remember the days in Windows XP when you would want to install an optional component, and the operating system would ask you to please insert the Windows CD? That could be a daunting task in many organizations, given the widespread use of imaging software, and preinstallation of operating systems by OEMs. You won't have to worry about that with Windows 7; pretty much all the bits you'll need are sitting on the user's hard drive (although some goodies still need to be downloaded from the Net; see the discussion of Windows XP Mode above, for example.)

Another benefit is that in-place version upgrades don't require additional media. Microsoft offers an "Anytime" upgrade that basically consists of a new product key, which an individual or business can purchase online. All the necessary bits for the various Windows 7 versions are sitting on your hard drive after you install any version. (Interestingly, as of this writing, the Anytime upgrade will work with OEM versions of Windows 7, too; but individuals and small businesses still won't be able to transfer their OEM Windows 7 licenses to different hardware.) Why Microsoft is apparently not providing an in-place upgrade to Windows 7 from Windows XP is a big mystery to me, and one I certainly hope they will correct before the official launch. Lots of companies like a clean install, but in-place upgrades are very convenient for home and small business users who may not have the time or expertise to manage an app-and-data migration.

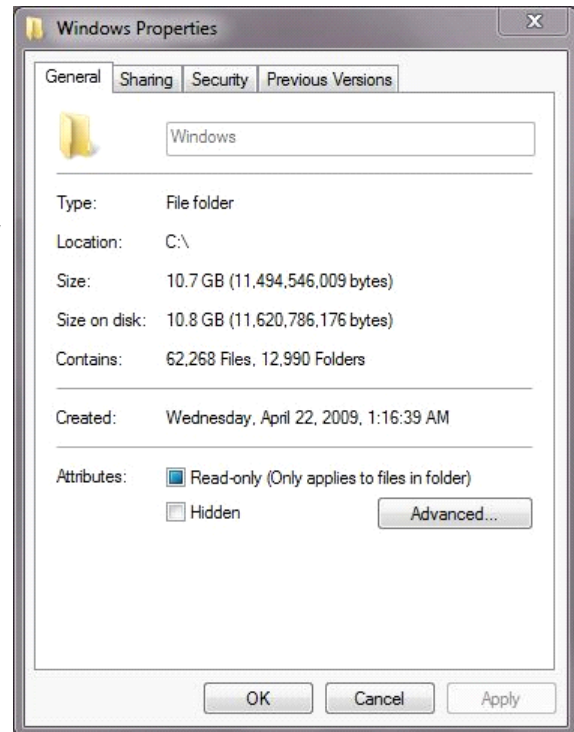


Figure 7: That's a Lot of Files.

9. The Versions Are Still Confusing

When Vista rolled out, many organizations wrestled with which version they should choose. The differences between Vista Business, Ultimate, and Enterprise editions could be confusing and complex. Home users wrestled with Home Basic versus Home Premium and Ultimate.

Sorry to say it, but that hasn't changed with Windows 7. Windows journalist Paul Thurrott (on his Windows SuperSite) has put together an impressive tabular summary of the feature differences between Windows 7 Starter Edition, but it's enough to give you a migraine. (Not Paul's fault, of course!) Corporate IT planners can expect to spend many long hours debating the pros and cons (and costs) of the different versions, and Apple can dust off one of its old "Mac vs. PC" television advertisements that featured a spinning wheel of Vista versions.

One bit of good news is that, apparently, companies that do business in Europe will not need to worry about the "E" versions of Windows 7 (these are the ones that do not come with IE8 built in). Microsoft announced that they will not be releasing these versions and that Europe will get the same versions as the rest of the world.

10. UAC Is Still a Work in Progress

User Account Control may well have been the most disliked feature of Windows Vista. Microsoft has tried to make it a bit more usable by providing a slider control (see Figure 8), but providing four settings, of which two are not recommended, doesn't really offer much of an improvement.

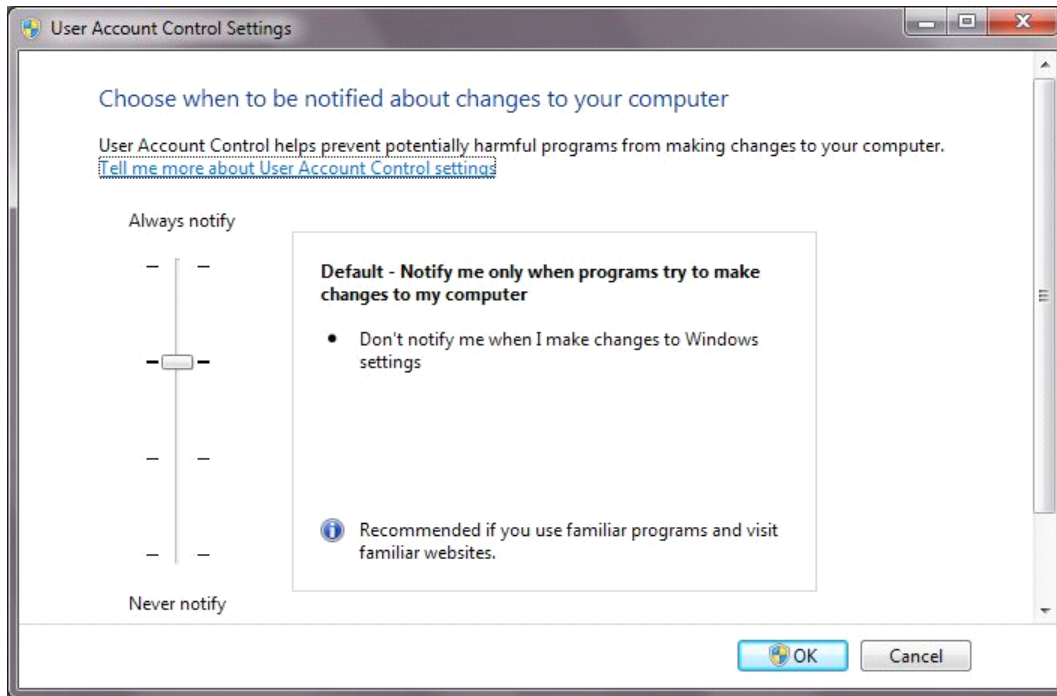


Figure 8: The New UAC Slider Control

Microsoft still has not integrated UAC with the command prompt, either. If you run a CMD session and try to do something administrative, UAC does not prompt for elevation, it simply issues a denial (see Figure 9), with a spelling error thrown in for free! (OK, this copy is just a Release Candidate, maybe they'll fix it for RTM.) As with Vista, if you think you might perform an administrative operation within a CMD session, you must invoke CMD with the "Run as administrator" context menu option.

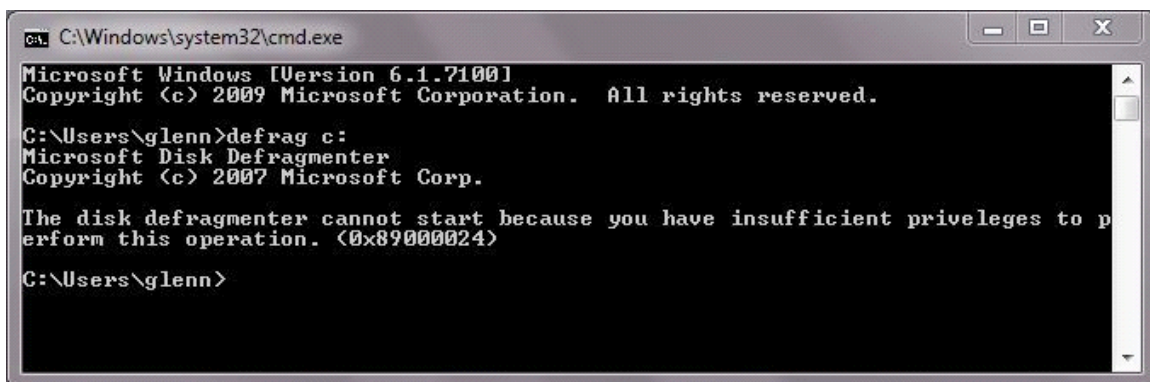


Figure 9: UAC Still Does Not Integrate with CMD

Finally, the Group Policy settings for UAC remain virtually unchanged, which falls into the category of Large Missed Opportunity. Giving administrators a much greater degree of control over this feature would have gone a long way towards removing administrators' objections to it. Perhaps that is too much to ask for what is really a "point upgrade," but Microsoft is calling Windows 7 a new operating system, so perhaps it is not.

Conclusion

There's a lot to Windows 7 - as one might expect, in a 17GB operating system! I hope that these ten tidbits will either get you off to a good start in your evaluation process, or perhaps suggest one or two areas for examination that you might not have thought about before. Warts and all, it looks like Windows 7 has a much better chance than Vista did of convincing organizations to upgrade from Windows XP.

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About the Author

Glenn Weadock is a longtime instructor for Global Knowledge and teaches Vista, Server 2008, and Active Directory. He has most recently co-developed with Mark Wilkins two advanced Server 2008 classes in the Microsoft Official Curriculum. Glenn also consults through his Colorado-based company Independent Software, Inc. and is the author of 18 computer books.