

# Win7's No-Reformat, Non-destructive Reinstall



By Fred Langa

*Microsoft won't tell you this, but you can do a fast, non-destructive, in-place, total reinstall of Windows 7 without damaging your user accounts, data, installed programs, or system drivers.*

That means you may never have to do a full, from-scratch reinstall again, even when your system is misbehaving so badly that a full reformat-and-reinstall seems the only answer!

As I'm sure you know all too well, from-scratch reinstalls are ordeals. They take hours. And when a reinstall is done, you still have to recreate all your settings, reinstall all your software, and so on. It can take days to fully recover from a total reformat/reinstall.

Windows' little known, in-place reinstall takes only a fraction of that time and effort and yet completely rebuilds, repairs, and refreshes an existing Windows installation. It leaves your other software alone (no reinstallation needed!) while also leaving user accounts, names, and passwords untouched.

When you're finished, your Windows installation is just as it was before, except that all the system files are fully repaired, refreshed, and ready to go.

This non-destructive-reinstall ability has been in Windows since XP. (See this XP reinstall article (<http://www.informationweek.com/windows/operating-systems/langa-letter-xps-no-reformat-nondestruct/189400897?pgno=1>) that I wrote for another publication, years ago, when XP was new.) But – for reasons unknown – Microsoft has never made non-destructive reinstalls an official repair. In fact, it's not even listed in Win7's System Recovery Options (Help & How-to page (<http://windows.microsoft.com/en-US/windows7/What-are-the-system-recovery-options-in-Windows-7>)).

(Vista users, you're not forgotten! The non-destructive reinstall process for Vista is nearly identical to that described in the rest of this article.)

## You need three things before you begin

First, you need access to a **standard Win7 installation DVD**. Ideally, you have your original setup DVD tucked away somewhere. But if not, it's perfectly OK to borrow one from a colleague or friend, as long as it's the same 32- or 64-bit version as your installation. Ideally, it should also match the general type – retail disk or OEM/vendor-supplied disk – as well.

Why is it OK to borrow? A standard Win7 DVD actually contains all editions of Win7. For example, a 32-bit Win7 DVD has all the files for the 32-bit editions of Win7 Home, Win7 Professional, Win7 Ultimate, and so on. Your license key unlocks whichever edition you paid for.

This means it's perfectly legitimate for you to use someone else's Win7 setup DVD to install Windows on your system, as long as you use your own, original, paid-for product key during installation. Sharing disks is fine. Sharing keys is not.

This also provides an easy workaround for the all-too-common problem of PCs that ship without setup DVDs. As long as you can borrow a standard setup DVD of the same general type (as described above), you should be able to rebuild your system using it, with your own original, unshared product key.

And that's the second thing you need: your **original 25-character product key**. It's usually found on a sticker on your computer or in the paperwork that accompanies a retail copy of Windows 7.

If you've lost track of your product key, no problem: you can use a free key finder tool to dig it out. One such tool is the excellent, but absurdly named, Magical Jelly Bean (info/download (<http://www.magicaljellybean.com/keyfinder/>)). There also are many other free product key finders, as this About.com list (<http://pcsupport.about.com/od/productkeysactivation/tp/topkeyfinder.htm>) shows.

The third and final thing you need is **a current backup**. Although the reinstall process works reliably, it's not infallible. Deep-seated system errors, OEM customisations, hardware trouble, or other variables may foil your reinstall efforts. Having a complete and current backup is a sensible precaution. (See the May 12 Top Story (<http://windowssecrets.com/top-story/build-a-complete-windows-7-safety-net/>), "Build a complete Windows 7 safety net.")

### Avoiding problems with Win7 Service Pack 1

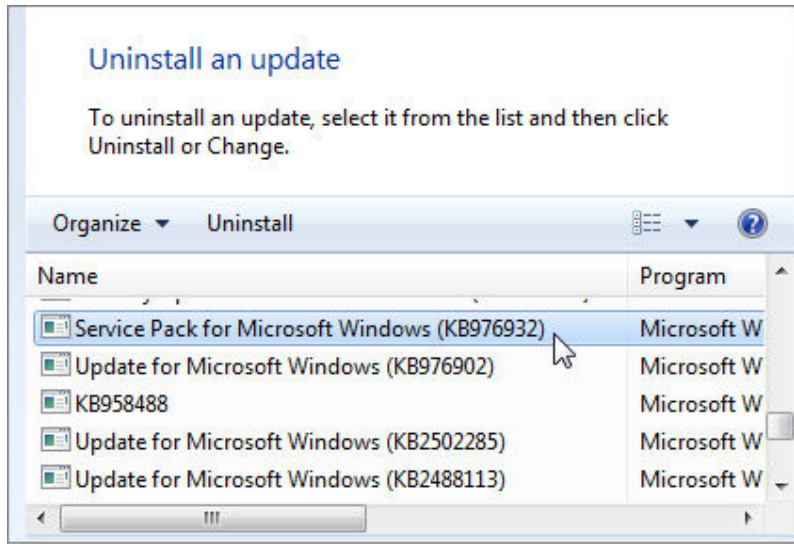
If you're not running Win7 SP1, skip ahead to the next section.

You can also skip ahead if you're repairing an SP1 setup with a Win7 setup DVD that already contains the SP1 files – but such disks are still relatively rare as of this writing.

If you're still reading this paragraph, then you're most likely attempting to repair a Win7 SP1 setup with an original, pre-SP1 DVD. That's OK, provided you take an important preparatory step.

Win7 SP1 replaced many of your original system files with newer versions. If you try to install the older, original Win7 files over the newer SP1 files, the setup process will balk at what it sees as an erroneous downgrade.

So, if you're attempting to repair Win7 SP1 with a pre-SP1 DVD, you need to remove SP1 from the target PC before proceeding. Fortunately, that's easy, as Figure 1 shows.



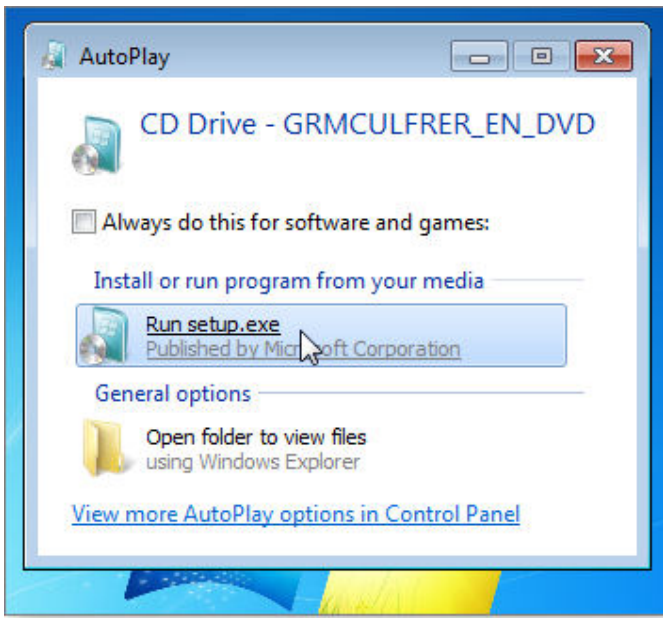
**Figure 1.** Control Panel's *Uninstall an update* feature makes it a cinch to get the SP1 files out of the way.

Here's how: Open Control Panel's default view and click on **Uninstall a program**. In the left-hand pane of the uninstall applet, select **View installed updates**. When the **Uninstall an update** dialogue box opens, scroll down to SP1 – listed as **Service Pack for Microsoft Windows (KB976932)** – and select **Uninstall**.

The system will churn for a while, but when it's done, SP1 will be gone – and you'll be able to use an original Win7 setup DVD to repair your system.

### Start your Win7 in-place reinstallation

With Windows running – or limping, if it's badly broken – insert the Win7 setup DVD. When the AutoPlay dialogue box pops up, click to run **setup.exe**. (See Figure 2.) Alternatively, you can run **setup.exe** manually by navigating to the DVD drive and selecting the setup file.



**Figure 2.** Run the Win7 installation DVD's *setup.exe* from inside your current Windows, either via AutoPlay (shown) or by manual selection.

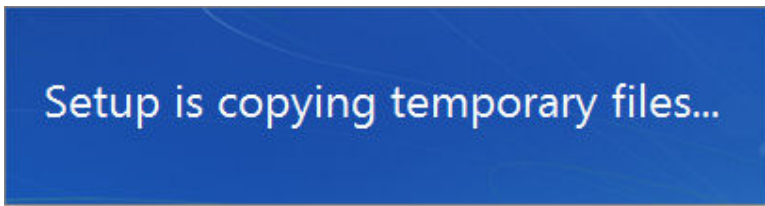
When setup starts to run, the User Account Control asks whether you want to make changes to your PC. Answer **Yes**.

After a few moments, the Win7 installation process starts. (See Figure 3.)



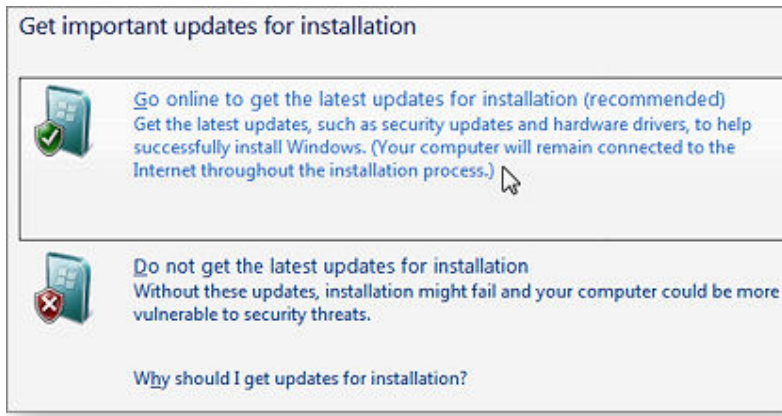
**Figure 3.** When asked, click *Install now* to get the ball rolling.

Next, you'll see several information screens such as that in Figure 4.



**Figure 4.** Screens such as this one are just FYI and require no user intervention.

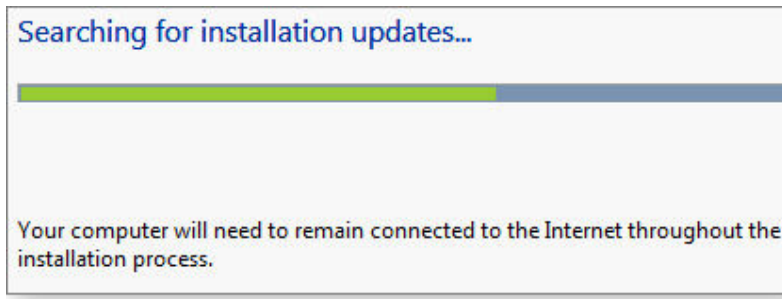
After several moments, you'll be asked whether you want to check online for updates related to the installation process, as shown in Figure 5. I recommend that you allow this online access to ensure essential files are current.



**Figure 5.** It's usually smart to allow the setup program to check for installation-related updates.

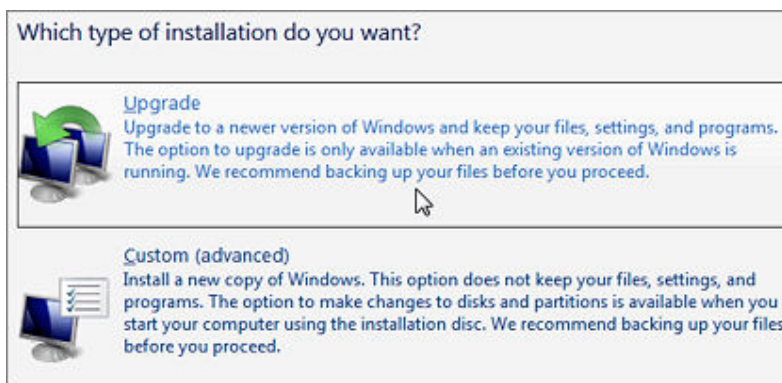
You can accept or reject the **I want to help make Windows installation better** option shown further down in the same dialogue box. Your reinstall will proceed in the same way, regardless of your answer.

Assuming you allowed it, Windows then goes online to collect essential updates. (See Figure 6.)



**Figure 6.** It normally takes only a few moments to collect any needed installation updates.

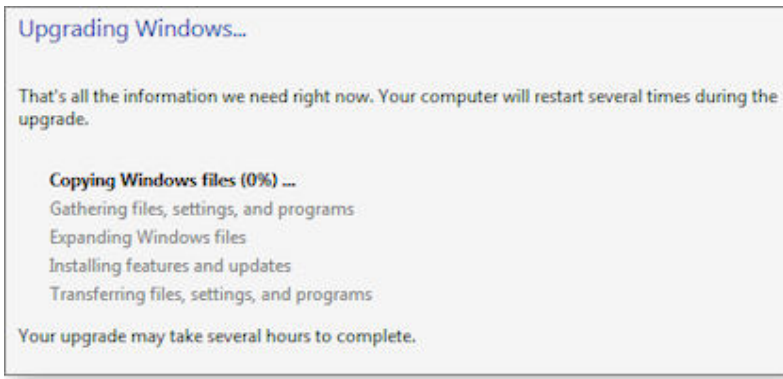
Now we come to the heart of the matter. Windows asks you **Which type of installation do you want?** (See Figure 7.) But there's no **Reinstall** option listed. Instead, you have to bend the normal installation routine to your wishes by selecting the **upgrade** option.



**Figure 7.** Tell Windows a little white lie – that you're *upgrading*, even though you're really not.

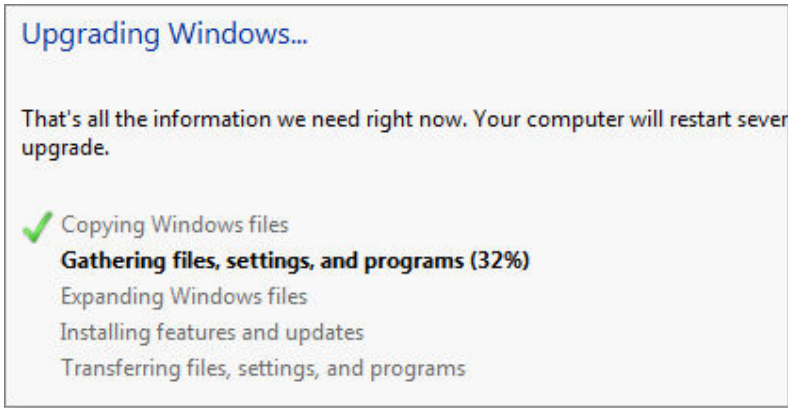
You're not really upgrading; you're reinstalling the same version of the OS that's already on the PC. But the **upgrade** option leaves your files, settings, and programs in place, undisturbed. By **pretending** that you're upgrading, you can trick the setup program into doing an in-place reinstall!

And then, finally, the installation process begins in earnest, as shown in Figure 8.



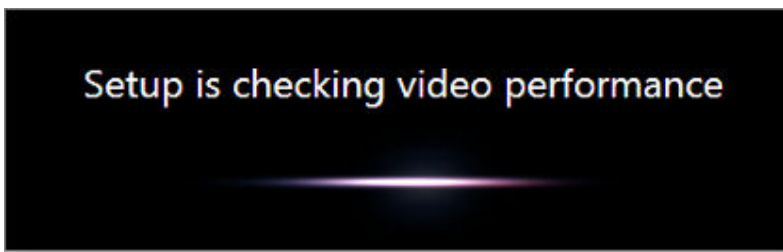
**Figure 8.** Depending on the complexity of your setup and the speed of your hardware, reinstallation can take up to several hours.

There's no need for you to baby-sit the installation; no further user input is required until near the end. As you check in from time to time, note the progress indicators (see Figure 9) to keep track of the installation's evolution.



**Figure 9.** The progress bar at the bottom of the screen and the numeric indications (e.g., per cent complete) let you easily monitor the process.

Windows reboots several times during the installation; you see various information screens – some unusual – along the way. (See Figure 10.)

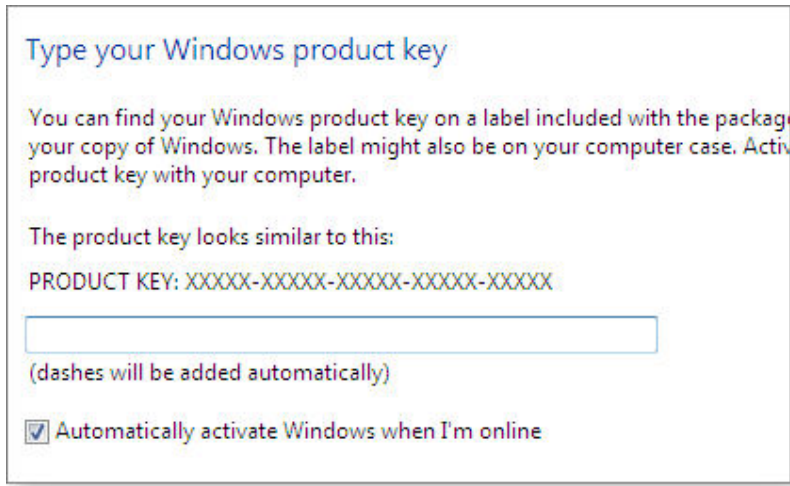


**Figure 10.** Don't be alarmed at unusual-looking screens, such as this one.



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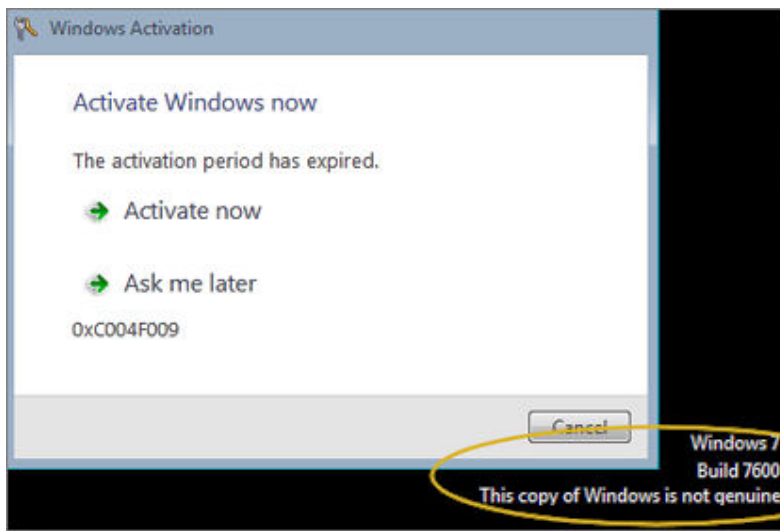
At the very end of the installation process, you're asked to enter the product key from your original installation of Win7. (See Figure 11.)



**Figure 11.** When prompted, enter your original product key.

You also can elect to either **Activate** the fresh install of Windows immediately or wait. But un-activated instances of Windows get only limited access to Windows Updates and related services. I recommend activating without delay so you have immediate access to all Windows Update services.

If you defer activation, your desktop background will be set to an ominous black with the words **This copy of Windows is not genuine** (circled in yellow in Figure 12) in the lower-right corner. You'll also see Activation nag screens, as shown in Figure 12.



**Figure 12.** An un-activated Windows gets an ominous desktop background and recurring nag screens.

Personally, I think it's simpler and better to just activate and get it over with. (See Figure 13.)



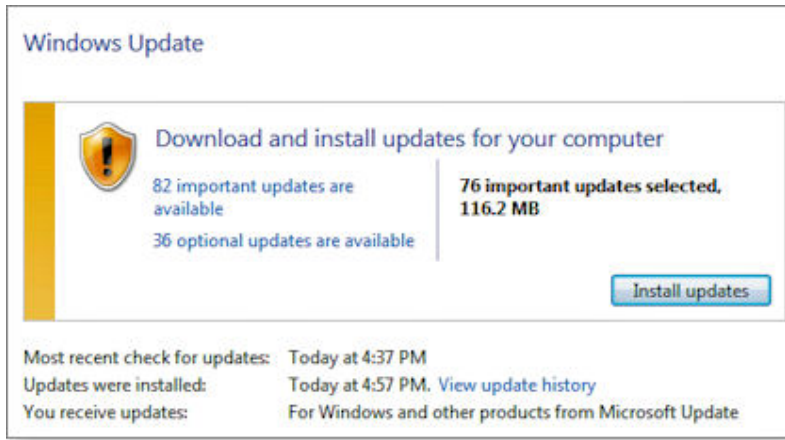
**Figure 13.** Once it's activated, your reinstalled Windows desktop background can be set normally, and no further activation nags will appear.

By the way, activation is not a one-time-only thing – Microsoft allows for periodic reactivations of a given product key. Unless you've done several reactivations in a relatively short time, you should have no trouble. But if you do, just follow the remedies listed in the Activation Failed dialogue box. As long as your product key is legit, Microsoft will work with you to resolve an accidental activation mishap.

**Your Win7 reinstall is almost done!**

At this point, the basic reinstall is finished. Your Win7 setup now has fresh copies of all the original system files. All that's left is to bring the installation up to date.

This generally takes several iterations of running Windows Update. (See Figure 14.) Run WU once, let the updates install, and then reboot. Repeat until WU reports that no further updates are available.



**Figure 14.** Your new Windows installation immediately needs to be brought up to date with the latest security patches from Windows Update. Don't put off this step

When you're done, you have a fully refreshed, up-to-date copy of Windows with all your essential files, settings, and programs intact and working. In fact, if all has gone as planned, the only significant change you'll notice is that the original problem is gone!

With just a smidgen of luck and this article, you'll never again have to face a dreaded, start-over-from-scratch reformat/reinstall of Win7!

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