

Re: External HDD vs Reinstall XP

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<http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.hardware/2006-08/msg00414.html>

- *From:* Ted Ziegler <teddy.z@xxxxxxxxxxxxx>
 - *Date:* Thu, 03 Aug 2006 23:56:26 -0400
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Glad I could help.

Ted Ziegler

"Backup is a computer user's best friend."

Dudley Henriques wrote:

Thank you. Sorry for bending your ear off :-)
Dudley Henriques
International Fighter Pilots Fellowship

"Ted Ziegler" <teddy.z@xxxxxxxxxxxxx> wrote in message
news:%23Z1BU1tGHA.4336@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx

"I guess what I need to know is whether or not I HAVE to use the "safely remove hardware" icon to shut down the external drive BEFORE exiting XP..."

There are two ways to 'safely remove hardware'...you can do it yourself or let XP do it as part of the shutdown process. It amounts to the same thing either way.

"If I shut down without using the icon to close down the external drive, will I lose the data on that drive?"

Nope. The most you will lose is any data in the drive's cache...which didn't have a chance to get written to the disk because you went ahead and RIPPED that cable right oughta there.

What follows was copied from notes I previously took on this subject, so don't think I wrote all this just for you, pal:

The objective of write caching is to free the fast PC from the slow mechanics of the hard disk.

With write caching enabled, when the system sends data to be written to the

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hard disk, the data is stored in the disk's cache, and the disk then sends back an acknowledgement to the operating system saying "all done." The rest of the system can then proceed without having to sit around waiting for the data to be actually written. This is called write-back caching, because the data is stored in the cache and only "written back" to the platters later on.

Without write caching, every write to the hard disk involves a performance hit while the system waits for the hard disk to access the correct location on the hard disk and write the data. This mode of operation is called write-through caching.

Write-back functionality improves performance. There's a catch however. The drive reports back saying "all done" when it really isn't done—the data isn't on the disk at all, it's only in the cache. The hard disk is using a variant of that old "the check is in the mail". The hard disk's logic circuits will eventually write the data to the disk, but of course this takes some time.

Now, this isn't really a problem most of the time, as long as the power stays on. Since cache memory is volatile, if the power goes out, its contents are lost. If there were any pending writes in the cache that were not written to the disk yet, they are gone forever. Worse, the rest of the system has no way to know this, because when it is told by the hard disk "all done", it can't really know what that means. So not only is some data lost, the system doesn't even know which data, or even that it happened. The end result can be file consistency problems, operating system corruption, and so on.

It's easy to tell if your USB drive has write caching enabled. You'll find that in Device Manager.

"...at what point after the reinstall is it ok to plug the drive back into the computer and regain access to what's needed?"

Man, you ask a lot of questions for one post. First reinstall Windows. Once your computer is updated and running properly, then restore your backups. You won't have any trouble because I can tell you're someone who is careful. That's an excellent trait for working with a computer.

Ted Zieglar

"Backup is a computer user's best friend."

Dudley Henriques wrote:

Thanks Ted, for responding. I think I understand what you're saying, but let me restate the question another way just to be sure. I don't want to screw up on this one, as it's real important to me to get it straight.

Here's what I'm saying;

I've hooked up this new external drive on an existing USB port and I'm using it ONLY for data files, downloaded program files, and copies of drivers.....things like that. I'm simply copying and pasting these various data onto this drive

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as backup in case the system goes down and I have to reinstall XP for some reason.

So there's no "ghosting" or imaging connected with it; just simple backup.

If the system does crash for some reason, and I have to reinstall XP, I'll be doing that from a reboot into the CDRW drive using the bootable windows CD. I'm set up in the BIOS now for a boot sequence to the CDRW, then the HDD, and last the floppy. So all should be well if I have to reinstall. Naturally I would disconnect all my peripherals before booting up to the XP CD to do a format, single partition the HDD and reinstall XP.

What I'm not sure about concerning the new external drive is exactly how or when I should take that USB plug out of the back of the computer assuming I'm doing a reinstall of XP. I'm getting the impression that there's a big difference between how you disconnect the external drive if the system is up and running and how you can disconnect it if the system is shut complete down.

I guess what I need to know is whether or not I HAVE to use the "safely remove hardware" icon to shut down the external drive BEFORE exiting XP to reboot to the CD for the reinstall, or whether its ok to shut down the system normally, then take out all the USB plugs, INCLUDING the external drive and then reboot to the CD.

If I shut down without using the icon to close down the external drive, will I lose the data on that drive?

Also, since some of the drivers and some misc programs needed after the reinstall will be on that external drive, at what point after the reinstall is it ok to plug the drive back into the computer and regain access to what's needed?

Sorry if this is long winded, but I need to understand this one out of the box or I'm toast if I get something backwards :-))

Thanks
Dudley

"Ted Ziegler" <teddy.z@xxxxxxxxxxxx> wrote in message news:ejJ0IB0tGHA.5032@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx

I'm not exactly sure if I understand what you're asking, but I'll attempt an answer...

You should always use the Remove Hardware Safely utility to close your USB drive. Once the drive is closed, you may safely unplug it (USB cable and power cord).

If you're reinstalling Windows over itself from your Windows CD (a repair install) it doesn't matter whether or not your USB

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drive is plugged in or turned on.

If you're doing a clean install of Windows (erasing your hard disk and starting from scratch) you should leave the the USB drive unplugged, i.e., don't have the USB cable plugged into your computer. In fact, don't have any external peripherals attached to your computer other than your keyboard and mouse.

If you're restoring your system from backup files on the USB drive, boot the computer from your backup program's CD and let the backup program 'find' your USB drive. In this case your USB drive has to be attached to your computer before you boot from the CD (and your BIOS has to be set to boot from the CD drive first.)

So...was I close?

Ted Zieglar

"Backup is a computer user's best friend."

Dudley Henriques wrote:

Just purchased a Maxtor external HDD (100gig Personal Storage USB 2.0) . Have a question please. I can't foresee any situation where I would be disconnecting this drive from the computer while windows is operating, but if I even have to reinstall XP, what is the safe way to handle this drive?

Is it safe to power down the computer and then unplug the drive from the USB port, or do I have to use the utility shutdown icon on the taskbar before shutting down windows for the reboot to the XP CD?

In other words, I'm using this drive along with CDR's for duplicate backup for

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data and I sure don't want to
lose the external drive's
contents by doing this the
wrong way.

Thanks very much
Dudley