The Old New Thing

Dangerous setting is dangerous: This is why you shouldn't turn off write cache buffer flushing

16 Apr 2013 7:00 AM | **71**

Okay, one more time about the *Write-caching policy* setting.

This dialog box takes various forms depending on what version of Windows you are using.

Windows XP:

☐ Enable write caching on the disk

This setting enables write caching in Windows to improve disk performance, but a power outage or equipment failure might result in data loss or corruption.

Windows Server 2003:

☐ Enable write caching on the disk

Recommended only for disks with a backup power supply. This setting further improves disk performance, but it also increases the risk of data loss if the disk loses power.

Windows Vista:

☐ Enable advanced performance

Recommended only for disks with a backup power supply. This setting further improves disk performance, but it also increases the risk of data loss if the disk loses power.

Windows 7 and 8:

☐ Turn off Windows write-cache buffer flushing on the device

To prevent data loss, do not select this check box unless the device has a separate power supply that allows the device to flush its buffer in case of power failure.

Notice that the warning text gets more and more scary each time it is updated. It starts out just by saying, "If you lose power, you might have data loss or corruption." Then it adds a recommendation, "Recommended only for disks with a backup power supply." And then it comes with a flat-out directive: "Do not select this check box unless the device <u>has a separate power supply</u>."

The scary warning is there for a reason: If you check the box when your hardware does not satisfy the criteria, *you risk data corruption*.

But it seems that even with the sternest warning available, people will still go in and check the box even though their device does not satisfy the criteria, and the dialog box says right there *do not select this check box*.

And then they complain, "I checked this box, and my hard drive was corrupted! You need to investigate the issue and release a fix for it."

Dangerous setting is dangerous.

At this point, I think the only valid "fix" for this feature would be to remove it entirely. This is why we can't have dangerous things.

Blog - Comment List MSDN TechNet

Comments

Grzechooo
16 Apr 2013 7:21 AM
#

I think this could be solved by writing the warning in bold red, and requiring a second confirmation when ticking the box.

egorinsk
16 Apr 2013 7:29 AM
#

Why doesn't OS check whether disk has a backup battery (or whether it is running on a laptop that has) and enable or disable the option?

Jack B Nimble
16 Apr 2013 7:38 AM
#

@egorinsk - How is the desktop going to know it is connected to a UPS? I know some UPS devices have USB (or serial) ports on them for notification, but I also know that people rarely use them on their personal machines.

Adam Ogle
16 Apr 2013 7:40 AM
#

I don't think diesel generators come with a USB/Serial connector.

Nick
16 Apr 2013 7:43 AM

#

I love how you even did the background theme colors :P

Jon
16 Apr 2013 7:44 AM
#

Right - I've worked with servers in rooms that switch to backup power, and there is no way for the servers to know. Also, a laptop's battery won't fix the problem. The user may have disabled all of the options to support hibernation when the battery gets critically low. The laptop could be plugged in, but have a shot battery. Windows would see the battery as charged, but a power failure would still shut down the computer immediately. I've also seen some laptops where the battery latch has worn out over time, making it possible to accidentally remove the battery.

Nick
16 Apr 2013 7:44 AM
#

@Adam: You'd be nuts to run a PC off a diesel generator...

Jon
16 Apr 2013 7:45 AM
#

@Nick

Maybe a home generator, but I suspect he was picturing the tractor-trailer sized units that are used for immediate backup power at larger facilities.

Sven2
16 Apr 2013 7:53 AM
#

But the person who wrote the linked comment didn't mention a power failure, nor did he write that his machines weren't on a UPS. Maybe they were. He wrote that he had data loss on a regular reboot during Windows updates.

Maybe there is a bug that causes the write buffer to not be flushed on a regular reboot. Or maybe it's flushed too early and stuff gets buffered after the final flush. In any case, it could be a bug.

Also, am I the only one who was tempted and checked all four check boxes on the article? ;)

Chris B
16 Apr 2013 7:58 AM
#

We are a little outside my knowledge here, so my apologies if I am asking a stupid question...

I was under the impression that some disk drivers already support caching in a manner that could lead to data corruption. My (admittedly limited) information here comes mainly from the linux world and using dd or shred to overwrite sensitive data. There are warnings there that according to my memory warn that if you can't get the driver to sync the cache to disk, your sensitive data may not actually be overwritten. The situation is further exacerbated by some drivers doing nothing when fsync is called, but reporting that they did it. I am *assuming* that similar situations can also occur on Windows.

So is selecting this option a proxy for a driver setting, or is this caching in addition to what may already be provided by the driver? It seems to me that having two levels of caching here is *really* asking for trouble.

Robin Williams
16 Apr 2013 8:05 AM
#

@Nick: Where I work there are about 200 PCs running off a diesel generator, when the normal power supply fails.

Maurits [MSFT]
16 Apr 2013 8:06 AM
#

We could replace the checkbox with two checkboxes:

[ ] This disk has a backup power supply.

[ ] This disk is used only to store things I'm OK with losing (for example, it's an SMTP spool directory.)

A
16 Apr 2013 8:12 AM
#

Interestingly the Disk Management help makes it sound a lot less scary:

"If high data transfer performance is your paramount concern, you should enable both settings: in the Removal Policy section, select the Better Performance option and in the Write-caching policy section, select Enable write caching on the device (if the system hardware and storage device support these features) ... If your system or power source has known issues with sustaining power, you should not use these features."

Joshua
16 Apr 2013 8:14 AM
#

Such a disk is also suitable for $TEMP, whatever its hardware; however good look setting that up on Windows.

jk
16 Apr 2013 8:18 AM
#

hows about:

[ ] I hereby give Microsoft Tech support the right to mock me if I suffer data loss or corruption

JM
16 Apr 2013 8:22 AM
#

I must say, "my system or power source has known issues with sustaining power" is a really nice way of saying "yeah, blackouts/brownouts are pretty common over here".

Alternatively, the advanced features could be put under "if you have known issues with due diligence and taking personal responsibility, you should not use these features".

Adrian
16 Apr 2013 8:39 AM
#

Having worked for a company that makes disk drives, I am amused. Steering clear of the dangerous setting doesn't guarantee that you won't get corruption in a power outage. Lots of hard drives cheat and do write caching internally--even when the protocol doesn't allow for it. The drive simply lies to the OS, and says, yeah, those bits are stored. Kill the power too soon, and the lie will be exposed.

Danny
16 Apr 2013 8:51 AM
#

<At this point, I think the only valid "fix" for this feature would be to remove it entirely>

Enter BIOS manufacturers. Lately they have nice graphic interface, with a mouse, with a 3D image of mobo, heck you can even have a internet browser integrated there. And they have also this dangerous settings in there. Except they bluntly put it there without the slightest warning. Don't know who gets the last word, OS or BIOS, when it comes to

this, but if is BIOS that would be fun (fun for data recovery labs, cause they will get work).

Joshua
16 Apr 2013 9:00 AM
#

As for the writeup by Raymond and what the other guy was complaining about, I'm surprised that Windows doesn't flush all buffers /on controlled poweroff/ whatever the setting on the drive is.

Took me twice to see it. Expectation on reading that is unexpected disk poweroff will lose data. I would not expect a shutdown from the OS to do the same.

[*Windows tells the drive to flush, and then since it knows that drives lie about flushing, it sends another command saying, "now flush for real, stop pretending". But apparently (according to Adrian above), some drives ignore even this extra bonus flush request, and then you're kind of screwed. -Raymond*]

Anonymous Coward
16 Apr 2013 9:29 AM
#

Sven, I think you're right. The poster that Raymond jeers at with 'And then they complain ...' was complaining that writes got lost even though the power didn't fail. Still don't see why he would complain here, but then again, it isn't always easy to figure out how to complain to big organisations.

Anonymous Coward
16 Apr 2013 9:34 AM
#

Joshua and Raymond's comments weren't there when I typed the previous one. Anyway, isn't it possible to make the hard disk device driver delay shutdown for five minutes or so?

[*"Sir, you have to turn off your laptop before we can take off." "Yes, I know. Just four minutes, thirty seconds remaining." -Raymond*]

Scott Brickey
16 Apr 2013 9:54 AM
#

For all those talking about UPS and generators and such, you're missing the point of the setting. The assumption is that the PC power supply has lost its power... UPS and generators have already run their course, and have depleted themselves. At this point, the ONLY option to save the data that exists in cache but has not yet persisted to disk,

is through some form of BBU (common on RAID arrays).

Since this is specific to drives, why shouldn't future drive connectivity (IDE/SATA/etc) specs include a flag/field to indicate whether the battery is present. Perhaps an extended SMART capability would also enable battery condition monitoring, to disable the feature if the battery is dead, or to scale the amount of caching with the condition of the battery. Windows could first start by tuning the setting during install... extend to tuning it during bootup... then possibly continuous tuning with daily/hourly scheduled tasks (though I'm not sure the battery condition would change enough to warrant this, and it may or may not be possible to change the setting without a reboot).

Joshua
16 Apr 2013 9:56 AM
#

[But apparently (according to Adrian above), some drives ignore even this extra bonus flush request, and then you're kind of screwed. -Raymond]

That sucks. Microsoft could theoretically stop this practice by testing for it and publishing a big list of all drive models that fail. Will they do it? Probably not. It it their problem? No.

Anonymous Coward
16 Apr 2013 10:01 AM
#

I agree it's hilarious.

Still, if you don't wait for the drive to flush you risk data corruption. Since Windows and applications write a lot during shutdown, you have a simple choice. Data loss or patience. Of course, the user really shouldn't have bought a shitty drive, but I bet the device's non-compliance wasn't mentioned in its advertisements.

In the mind's eye it would lead to a wonderful scenario when someone buys a laptop and straight away brings it onto a plane without giving it a spin. But in practice the flight attendant would just say they don't care about your hung computer - just hold down the power button. Which is just where you would have been.

But if the user has used the thing before, he'll know from experience that it takes X minutes to shut it down, while Windows says '◎ Waiting for hard disk drives to flush...'

Burov Dmitry
16 Apr 2013 10:03 AM
#

i wonder why not make journalling filesystem like OS/2 or Linux ?

Data journalling is overkill, but FS structures journalling works practically. Bah, you even made in in Transactional FAT once..

[*NTFS is a journaling file system for metadata*, but journaling assumes that the hard drive respects the flush command. And now you're back where you started. - Raymond]

dave
16 Apr 2013 10:06 AM
 #

>Since this is specific to drives, why shouldn't future drive

>connectivity (IDE/SATA/etc) specs include a flag/field

>to indicate whether the battery is present.

Disk drives lie. So to get round the fact that disk drives lie, we're asking the disk drive a question?

Burov Dmitry
16 Apr 2013 10:09 AM
 #

"The assumption is that the PC power supply has lost its power... UPS and generators have already run their course,"

And then the only sane thing to do is crash this instant without writing ANYTHING to HDD, liek that BSOD hotkey in WinNT. When PSU capacitors squeeze their last power drops and current becomes dizzy, writing HDD makes strange things, like writing ACROSS plates and such. If UPS is told you to shutdown - try to do it. But if UPS is already dead and you have your last second or two on PSU - halt the HDD and cancel all the operations. Better to loose couple of files in RAM cache than to loose a file-systems wit hall your files. Been there, recovered from that on NT4+UPS, never want again. If only NT lived on JFS, XFS or ReiserFS...

Burov Dmitry
16 Apr 2013 10:22 AM
 #

I wonder is OS can issue "power off" IOCTL to the HDD in extreme case of "flsuh for real NOW!!!" events

Burov Dmitry
16 Apr 2013 10:29 AM
 #

If NTFS *IS* journalling then why chkdsk runs so long on the boot ? VERY long. Like on ext2.

BTW is there way in Win8 to see actual percentage of chkdsk on screen ? had issue wit

hdying HDD and being unable to see if chkdsk is alive or PC is frozen - only stupid gauge there is on boot screen - that hurts.

Klimax
16 Apr 2013 10:29 AM
#

@Burov Dmitry:

"If only NT lived on JFS, XFS or ReiserFS..."

No filesystem will save you from lying drive. Also there were quite few changes since NT4...

Burov Dmitry
16 Apr 2013 10:36 AM
#

@Klimax sure, but the average expected damage would be muuuch less.

And we have advertisements boxes made on Linux ext2 that - despite all manuals - were simply pulled out by AC cord. And then peoples either returned then as defective for booting too long, or if they managed to cancel fsck (chkdsk) - then few months later by total trashing of FD. And except for %TEMP% and LAN-updatable settings that was a file system never written to. ReiserFS fixed both eventually. In practical sense, not in theory.

Surely i cannot judjge the internals of NTFS.SYS, but if i pull the power cord of my computer, Win8 chkdsk runs as long as NT4's one.

Jim
16 Apr 2013 11:22 AM
#

I just cannot get over Artem S. Tashkinov's comment. Not only did he make the mistake of turning this checkbox on despite the warnings, and then blame Microsoft about the "bug" instead of himself, but he then asked essentially a random Microsoft employee about it ("since your are on a Windows development team" maybe he thinks there's only 4 or 5 people working on Windows?) as a comment to a blog post about formatting doubles! The mind absolutely boggles!

Beldantazar
16 Apr 2013 11:24 AM
#

@Burov:

Do you really have a harddrive that is exactly the same size for Windows 8 as you did for

NT4? Have you really not upgraded to much larger/multiple harddrives since then?

AndyCadley
16 Apr 2013 11:40 AM
#

@Chris B: From what I recall, a similar situation was identified after Windows Vista came out and in the end Windows gained a sort of blacklist of "known lying" drives for Windows 7. It was one of the reasons some people found the WEI score for disk performance drop drastically after upgrading, because on a "known lying" drive, Windows would be extra vigilant to ensure that the data really did get written to disk.

Destroyer
16 Apr 2013 1:16 PM
#

@Burov - Since when did pulling the power cord in Windows 8 did the system run a chkdsk? I've never seen this.

Even in XP I know of machines which are abruptly powered off every day for years with practically no ill effects, so your mocking of the robustness of NTFS (and Windows, for that matter) is not fair. NTFS is super robust.

Of course if you persist in doing this there is a chance something is going to go wrong, but it is not very often.

I am quite looking forward to ReFS coming to the consumer system...

chentiangemalc
16 Apr 2013 1:55 PM
#

i find it suprising people still use this setting...

Azarien
16 Apr 2013 4:20 PM
#

I don't see the problem. I use this setting for all my drives, including external ones. Yes, I am willing to take this risk. Nothing disastrous happened yet.

alegr1
16 Apr 2013 5:14 PM
#

@Dmitry Burov:

I'm afraid your NT4 installs used FAT for a boot drive, not NTFS.

Danny
16 Apr 2013 5:21 PM
#

Having read more on topics, there is a work-around for making the lying HDD flush for real, when it comes for sensitive data. Fill their cache with junk, all xx MB they have. That will make them flush your need it sensitive data to the real deal and fill their buffer with junk. Losing the junk because they lie it's not a problem. The real ones will simply write the data in your temp junk file, which can be reused next time for the same purpose. And even with HDD's old as 5 year and slow this will still work on those last 2 seconds you got.

Rick C
16 Apr 2013 5:45 PM
#

"The assumption is that the PC power supply has lost its power... UPS and generators have already run their course,"

If you're in this situation there's a good chance you've already done something wrong! If the power goes out, you need to immediately prep for shutdown, not keep working until the battery's exhausted.

Killer{R}
17 Apr 2013 12:34 AM
#

replace text with 'Varranty void if this option enabled'

J
17 Apr 2013 2:46 AM
#

"If you're in this situation there's a good chance you've already done something wrong! If the power goes out, you need to immediately prep for shutdown, not keep working until the battery's exhausted."

What happens if someone trips over the cable that connects the UPS to the machine?

Ultimately the checkbox really means "I don't mind if the disk gets corrupted in the case of an unexpected loss of power". There a number of reasons you might be fine with it:

- The disk might only be used to store temporary data, and you're fine with just wiping it and carrying on after a hard reset.

- The disk has an on-disk battery backup so that data won't actually get corrupted even if an unexpected loss of power happens.

- You've done a risk analysis and have determined that the chance of an unexpected loss of power is so unlikely that you're willing to take that chance in exchange for the extra performance.

Anonymous Coward
17 Apr 2013 3:20 AM
#

Hey, why are all the database-related comments gone?

[*They're still there. You're looking at the wrong article. -Raymond*]

Neil
17 Apr 2013 5:15 AM
#

I've only been fortunate to use one BBU, but the RAID controller lies in the nicest possible way - only when the BBU is fully charged. Otherwise it disables its internal write cache.

Eitan
17 Apr 2013 5:34 AM
#

Of related interest: queue.acm.org/detail.cfm

GWO
17 Apr 2013 5:40 AM
#

Without wishing to seem belligerent, but I'm confused why a warning message that applies to "power outage" / "equipment failure" / "power loss" and "power failure" should apply to Artem's case - which is a clean shutdown. Clean shutdowns are not power outages.

Paul Mitchell
17 Apr 2013 5:44 AM
#

This can't be too complicated. Even the UK Civil Aviation Authority understand the issue.

www.caa.co.uk/application.aspx

jcs
17 Apr 2013 6:05 AM
#

GWO: Probably because, in the case of a clean shutdown, the drive with the battery backup will continue flushing its cache even after an ACPI power-down (because it's powered by a battery...)

kog999
17 Apr 2013 6:33 AM
#

I've checked all the boxes on this post. I hope your blog doesn't lose power.

GWO
17 Apr 2013 6:55 AM
#

@jcs: Nevertheless, it means that the warning - no matter how scarily worded - isn't really applicable. Rather than making the warning scarier, I think effort would've have been better spent making it more accurate.

"To prevent data loss, do not select this check box unless the device has a separate, uninterruptible power supply."

Rather than attempting to suggest bad things only happen in exceptional situations, point out that this flag can cause some drives to also lose data in unexceptional ones (like shutdown).

alegr1
17 Apr 2013 8:11 AM
#

>I wonder is OS can issue "power off" IOCTL to the HDD in extreme case of "flsuh for real NOW!!!" events

The OS *does* issue "power off" to the HDD before the box powerdown. And the HDD completes the command *before* the OS proceeds.

alegr1
17 Apr 2013 8:16 AM
#

The checkbox should randomly jump in the dialog box, allowing only very persistent users to set it.

BOFH
17 Apr 2013 9:01 AM
#

Or better yet; The checkbox should have no effect.

The placebo-effect in the user's mind will still make it seem awesomely fast.

Rick C
17 Apr 2013 9:23 AM
#

"What happens if someone trips over the cable that connects the UPS to the machine?"

Then I give an answer and people continue to move the goalposts further? At some point you have to take responsibility for your actions. When the power goes out, the first thing you do is make sure you and the people around you aren't in any immediate danger. Then, if feasible, you begin orderly shutdown. You don't keep working until the UPS dies, duh.

Why have you not moved the cord to where it's safe? If you can't do that because your boss is a idiot, then duct-tape the cord to the floor. Really, this isn't rocket science, ya know? Be careful picking up the hot coffee carafe--it could shatter and douse you with boiling water, etc., etc.

Zan Lynx'
17 Apr 2013 2:31 PM
#

I would set this option on laptops with good batteries, except for the fact that so many laptops have no reset button anymore. So if the system freezes for any reason the only way to recover is by holding down the power button or in extreme cases removing the battery. And I have no idea what happens to the data in those cases. Nothing good I expect.

It also worries me about what happens to the data when a battery protected server with a BBU RAID blue-screens or freezes. Is the data intact or does this option mean that it cached a ridiculous amount of writes in system RAM with no way to get it to disk during a crash? How many bytes and/or seconds of data could be affected?

640k
17 Apr 2013 3:05 PM
#

Extra fun when windows update shutdowns your computer for you, even if you don't

want to, and the OS gets corrupted because WU was half through a critical update. Thank you very much.

Jon
17 Apr 2013 6:49 PM
#

@Paul Mitchell. Except the engineers who designed and certified the thing were smarter than the AAIB. The reason most QARs are buffered is because they have used 230 MB magneto-optical disks until very recently. A shock during landing, for example, could cause the entire contents of the disk to be corrupted. Therefore, designs avoided recording during this period. In this case, you want data to be buffered because writes are potentially hazardous.

dncer
18 Apr 2013 12:49 AM
#

@Neil:

> I've only been fortunate to use one BBU, but the RAID controller lies in the nicest possible way - only when the BBU is fully charged. Otherwise it disables its internal write cache.

Most RAIDs I've seen actually have an option to allow write caching even if the battery isn't present or fully charged, but it's disabled by default. I also saw what happens when there's still data in RAID controller's cache and server shuts down - the tiny speaker on BBU started shrieking like mad, and it was physically painful to be in the same room as the server.

@Zan Lynx`:

> It also worries me about what happens to the data when a battery protected server with a BBU RAID blue-screens or freezes. Is the data intact or does this option mean that it cached a ridiculous amount of writes in system RAM with no way to get it to disk during a crash? How many bytes and/or seconds of data could be affected?

The flush cache setting only applies to data that has gone from system RAM to the disk or controller write cache. This means that in case of blue screen or freeze the RAID controller can still write the data at any time it wants - it's separate from the rest of the system, and can continue functioning as long as it and the disks have power. If the power goes out, the BBU will be able to hold the data in cache for about a day or so (newer controllers also have flash storage, so if power goes out the data from cache is written to flash, where it can wait indefinitely until the system is powered back on, and the data can be flushed to disks).

David
18 Apr 2013 3:17 AM
#

And yet, without ever enabling that setting, power failure caused corruption often enough. So what's the difference? Is there more corruption with that setting enabled?

Burov Dmitry
18 Apr 2013 3:31 AM
#

@Destroyer Hmmm... my Win8 box at last drove HDD dead, so i don't have it now. My Win7 box moved to SSD, so whil i can try those experiments, maybe it would take time to notice chkdsk working. Well, okay, would try to do it someday. What about Reiser... ReFS 3 is history and about ReFS4... it's unorthodox features like FS plugins, could be cool to implement smart redirections, like HURD file translators or Linux FUSE on FS level, dunno whether that would be good idea or bad. And ReFS4 common features are more or less covered by BtrFS and ext4. Usual filesystems would catch up and ReFS4 would only have a historical value. {Pity, but seems inevitable.

Burov Dmitry
18 Apr 2013 3:33 AM
#

Beldantazar: Do you really have a harddrive that is exactly the same size for Windows 8 as you did for NT4?

For transaction rollback that would not make a difference.

Burov Dmitry
18 Apr 2013 3:35 AM
#

@alegr1 Maybe, maybe not. It would be hard to check. But i still think it was NTFS. Because HDDs were a bit too large for FAT16 back then (gigantic clusters for keeping hundreds ofLNK files) and FAT32 was not bootable on NT4

@David
18 Apr 2013 3:40 AM
#

> And yet, without ever enabling that setting, power failure caused corruption often enough. So what's the difference? Is there more corruption with that setting enabled?

Power corrupts, and absolute power corrupts absolutely.

Burov Dmitry
18 Apr 2013 3:46 AM
#

@AndyCadley: It was one of the reasons some people found the WEI score for disk performance drop drastically after upgrading, because on a "known lying" drive

Miscommunication, like Opera and Mozilla did. What should customer think then? Either "Windows is lying, buggy crap!" or "Windows update made worse, buggy crap!". If you have a well-defined reason to penalize HDD rather than benchmarking its performance - then just voice it. WEI claims to represent "speed of data exchange with disks" - not reliability, not honesty, speed. And i also recall as switching between EIDE and AHCI changed WEI drastically. Together that means that neither illiterate users nor geeks would trust WEI. There was great link blogs.msdn.com/.../5386979.aspx

If that is true that Vista faked little performance results on WEI for lying disks, then it is really Vista to blame. That decision was both non-actionable and mis-informing. Hope this "black list" was nothing but urban legend.

> [*Obviously, it's "speed of data exchange with disks <u>while still behaving correctly</u>." The underlined clause is so obvious it doesn't need to be said explicitly. You are reading the text like a lawyer rather than a human being. -Raymond*]

Burov Dmitry
18 Apr 2013 3:56 AM
#

@Danny: Fill their cache with junk, all xx MB they have. That will make them flush your need it sensitive data to the real deal

There is an option that you can abuse this way: there is a security option to wipe PageFile.sys on shutdown. Though it takes a bit long... The problem is... you still cannot be sure that HDD did not re-ordered operations and is not happily applying your linear garbage *instead* of flushing randomly positioned important data.

JamesNT
18 Apr 2013 5:05 AM
#

This article is very close to my heart. Over the years I have seen IT person after IT person click that checkbox and when I questioned them, they all gave me some half-assed story/reason/rationalization for why they did it. One guy just looked at me and said, "That's just how I run my Windows boxes."

Holy. Crap.

And over those same years I watched some of those Windows boxes just die. Horribly. In some cases the client just lost their data and had to deal with it. In other cases, the IT persons raked in more cash charging by the hour as they restored from backup.

I'll never get how some people think or how they just blatantly set up a client to fail.

JamesNT

Burov Dmitry

18 Apr 2013 8:50 AM

\#

"Obviously, it's "speed of data exchange with disks while still behaving correctly." The underlined clause is so obvious it doesn't need to be said explicitly. You are reading the text like a lawyer rather than a human being"

No. I can read it as mere user: "Oh, i pressed the button, and Windows booted. My disk is okey." I can read it as programmer: "I called a function GetHDDSpeed(), and it returned a number. No exception were thrown. Disk is okay and the result is the speed" And the lawyer would not even read the WEI window: he read EULA and knows that Microsoft bears no responsibility for anything written in Windows windows and thus WEI window is not worth reading for a lawyer.

[*You read my statement (about reading like a lawyer) like a lawyer, not a human being. -Raymond*]

Burov Dmitry
19 Apr 2013 12:39 AM

\#

Oh, surely you now how the users see the box better than users themselves. I wonder if your car's speedometer would suddenly show half the real speed, would you be so non-lawyer human being to stop the car and inflate the back right tire. It would be obvious for you, won't it ?

And you can go further ad hominem, can call me a lawyer, stupid, or whatever you want, but there is the fact: Microsoft failed to convey to users that their HDD is unreliable, but they conveyed that with new update the performance of the Windows box slashed. And instead of calling names, you could better show some plausible scenario that an average illiterate user can extract some "actionable" information from WEI suddenly slashed a-half.

Let's just assume the average Joe or Sue did opened the WEI window and (s)he did remembered the previous score. Now (s)he knows three facts: 1) nothing changed in hardware, 2) the only thing changed in software was new Vista update, 3) the value "speed of data exchange with HDD" is half of what it had been before update. What should the user plausibly deduce from this and what "actionable" information (s)he just got ?

[*"Some drives were exploiting a loophole in WEI to obtain inflated scores. That loophole has been closed." -Raymond*]

Burov Dmitry
19 Apr 2013 12:39 AM

\#

now -> know

ErikF

19 Apr 2013 7:32 AM

#

@Burov: I'm not sure what the WEI has to do with the write cache setting, but if I saw that the WEI changed my first guess would be that a driver changed. The WEI never was meant as a diagnostic tool anyways; it just gives you a rough estimate of what kinds of programs work well with your computer!

640k

19 Apr 2013 3:32 PM

#

Of course WEI isn't a diagnostic tool, winsat doesn't even work in XP/Vista/7 N Edition.