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XP compatibility

Issues with software and hardware compatibility caused fear and loathing of XP when it was first released. Eighteen months on, Simon Easterman finds out if Microsoft's flagship operating system has grown up a bit and learned how to get along with other programs and drivers

Microsoft seems to be sending mixed messages about Windows XP and its compatibility with other hardware and software. On the one hand, compatibility was one of XP's much vaunted strengths. There were 1,200 compliant devices on the market when XP was released and, with the addition of Service Pack 1, that figure has risen to 20,000.

On the other hand, Microsoft seems very sensitive about non-licensed drivers and XP flags them up if it detects them, warning that they could impair performance. It also encourages running the compatibility check CD on your PC before buying the

operating system to ensure a successful upgrade won't be too costly.

Even if you err towards pessimism and believe the worst of Microsoft's warnings, you're not getting the full story – often the alerts are unwarranted and equipment can work fine with unsigned drivers.

So what are we to believe? Does getting your hands on the latest and greatest version of Windows mean you will lose the use of your printer and favourite games or are Microsoft and other manufacturers just covering their backs while trying to force you to purchase even more new equipment?

Using Compatibility mode

Your tried-and-trusted games and applications won't necessarily be written to work with Windows XP, but that doesn't mean you'll want to sacrifice them in the upgrade. If you do experience problems with older programs, anything from a loss of functionality to crashes, a good starting point is to employ one of the Compatibility modes included in the OS.



1 If a program is troubling you simply left-click on its icon or desktop shortcut and select Properties from the bottom of the pop-up list

2 Click on the Compatibility tab. You'll see the first category of settings is for the Compatibility mode. Tick the checkbox, and use the drop-down menu to choose which Windows version to run the program in



A problem halved

A recent poll on the *PC Advisor* website asked whether the level of Windows XP's compatibility with hardware and software was still a disincentive to upgrading to the now well-established operating system. The response could hardly have been more equivocal: 49.7 percent of respondents thought compatibility issues were still a problem, while a barely larger 50.3 percent said they weren't. It seems that there is some uncertainty.

Our online forum users' opinions of XP show something similar: a variety of difficulties caused by XP complimented by a good deal of enthusiasm for the OS and even for its level of compatibility.

Take Philip Fraser, for example. A regular visitor to the *PC Advisor* forums, Philip tells us that he had several problems after upgrading to XP. In terms of software he found his PC-cillin antivirus was rejected by the new platform as were a number of his favourite games, including *Tomb Raider*.

These were comparatively minor setbacks, however, as Philip was able to find himself another antivirus program fairly easily (Norton 2002 works fine, he says). Furthermore, not all his games were rendered useless – many could be played

by using XP's software Compatibility mode (see *Using Compatibility mode*, above).

But Philip's hardware troubles didn't end there. Both his sound cards and his graphics cards have given him problems.

Digital signing

Philip has two computers: one has a Creative SoundBlaster Live 5.1 sound card, while the other packs a Creative Audigy 5.1. In both PCs Philip has installed 'digitally signed' XP drivers from Creative. These are proprietary drives produced by the hardware manufacturer that Microsoft pronounce compatible with XP. (Intriguingly, he tells us, the relevant Microsoft drivers crash his computer.)

Yet on both systems it is impossible to get more than two-track sound out of the speaker setup when there is more than one user profile open on the computer. Creative was unable to replicate this problem, so could offer neither explanation nor solution. Having found no assistance online, Philip was forced to reconcile himself to this enduring bug.

Philip's graphics problem was more awkward than that. XP took a dislike to the Via drivers he was using for his graphics card slot. This resulted in a tendency for

both his PCs to randomly reboot – a far cry from the unprecedented stability Microsoft had promised.

Philip had to do some tinkering, hanging on the XP loading screen so he could change the Bios to a non-plug-and-play version. He also installed a new set of drivers – the Hyperion 4-in-1 and nVidia's Detonator – which finally did the trick.

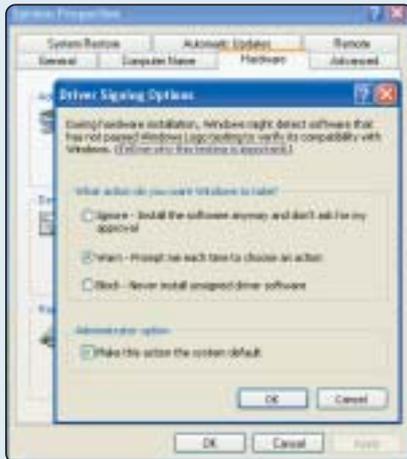
Smiling through the pain

The reboots retreated and he is now quite happy. In fact Philip describes XP as one of the best operating systems he's ever used and says he certainly wouldn't go back to any of the older versions of Windows he'd used before. This high regard is shared by pretty much all the site visitors whose opinion we canvassed about Windows XP.

Forum visitor Chris Thornley, for example, says, "Personally I love XP and have it on four machines at home." Despite the fact he couldn't get his old CD reader to work with it and had to abandon his favourite chess game, Chris finds it "compatible enough as it has a lot of built-in drivers". Reader Andrew Steel-Dodd lauded XP further, characterising its compatibility as "second to none".

Fixing bad drivers

When you install a new hardware device Windows XP checks through its list of drivers to find the best one for it. If it finds an unsigned driver (one that hasn't been tested and approved by Microsoft), it will raise the alarm. You can set the operating system to ignore, flag up or block an unsigned driver. You may want to change an unsigned driver, especially if the device isn't functioning.



1 From the Start menu choose Control Panel, Performance and Maintenance, System. Select the Hardware tab and click on Driver Signing. The resulting dialog box allows you to choose XP's reaction to an unsigned driver: Ignore, Warn or Block



2 To install a new driver, follow the same path as in the previous step but click on Device Manager instead of Driver Signing. Once in Device Manager, double-click on the device you are having problems with. The resulting dialog box gives you several options



We were surprised at the extent of praise and satisfaction from readers, even though almost all of them had experienced difficulties at some point during the upgrade process. But when we examined the difficulties we realised why they posed little problem to users and, when losses were involved, they were negligible.

Like Philip Fraser's problems, most of the complaints were driver-based and were easily solved by seeking out the correct versions. This is mainly down to the diligence with which Microsoft and the rest of the industry collaborated in the production of tried-and-tested drivers that would ensure you could use your equipment with the OS. Any lack of compatibility is down to a shortfall in that diligence.

Microsoft began encouraging the industry to write drivers for XP well before its release. Programmers for the software giant regularly meet with their counterparts from hardware manufacturers around the world to write code for their new products. These meetings of minds often go on at

Microsoft-organised conferences such as its Professional Developers' Conference and WinHEC (Hardware Engineering Conference), where manufacturers attend lectures and workshops and make the contacts they'll need to liaise with during the driver-writing process.

Conference call

David Weeks, Windows product manager for the UK, says that all and sundry are welcome at these conferences.

"Microsoft will work with any manufacturer to encourage them to write drivers to get the best user experience," he says.

The relationships built up at these conferences are vital in oiling the wheels of the driver-writing process. Code is shared, possible solutions evaluated and, finally, manufacturers submit their drivers to the Windows hardware quality labs for approval and the ultimate prize: the Microsoft digital signature, which will keep XP's vigilant driver detector off their back. The WHQL's tests are thorough to say the

least, lasting a minimum of seven weeks – more if the driver needs attention.

Everyone wants to be compatible with the world's most popular operating system, so Microsoft places considerable emphasis on the value of going through this process. The website makes it quite clear: "All drivers that will be distributed to end users should be digitally signed to preserve the integrity of the released operating system and ensure the best possible user experience."

What determines your 'user experience' is the enthusiasm with which makers respond to this carrot-and-stick treatment and this can vary considerably. Graphics specialist nVidia, for example, was on the XP bandwagon as early as possible.

Andrew Fear, nVidia's driver product manager, is proud of the company's relationship with the Windows stable: "Our strong partnership with Microsoft allows us to work closely in the beginning to ensure our products are fully capable of all the features in a new operating system

3 Clicking on Update Driver brings up a wizard that will take you through the process. If XP finds a driver that isn't digitally signed by Microsoft it will react as you have set it to do – in our case, it's warning us of the situation. Unless you have set it to block unsigned drivers, it will allow you to continue with the install



4 After successful installation of the driver, the device should function perfectly. If this is not the case go to the manufacturer's website and search for an up-to-date driver

when it launches." The partnership is so close that some of Microsoft's rhetoric has rubbed off on Fear: "nVidia used the *Microsoft Design Guide for Windows XP*, our technical contacts at Microsoft and our own engineering teams to architecture hardware and software solutions that deliver the best end user experience."

Preferred solution

Not all manufacturers are as eager for Microsoft's approval. A customer service representative on the Brother technical helpline says driver problems are the most common XP-related complaint from Brother users. He told us that at the time of XP's launch none of the new drivers necessary for XP compatibility was ready. While they are now all finished and signed off, there was a while when users who had updated didn't have the preferred solution.

Like Brother, most manufacturers have now caught up and all new products have the correct functionality with XP. However, older devices may still be a problem

as the inexorable onward march of development leaves certain technologies behind. XP itself rendered several technologies obsolete, which means that for some users the upgrade will mean a further outlay to maintain functionality.

For instance, a number of the PCAdvisor.co.uk visitors that we canvassed said that their modems had refused to work with XP. A surprisingly high proportion of them also had trouble using their old Norton AntiVirus products. Microsoft's David Weeks blames the demise of 16bit code for the end of legacy Norton products and many older modems. XP is fully 32bit, so frequently deals with information too complex for these products, hence the crashes they can cause when working with the new OS.

While this isn't unforgivable – no one expects an abacus to interface with a mainframe – an oversight that has stuck in the craw of a few of our readers is inadequately updated drivers for pre-XP devices.

In the driver's seat

We had an email from Alaric Corner, who has upgraded to XP to find that his HP LaserJet 690c would no longer print on both sides of the page, even though he had installed the latest drivers from the HP website.

Alaric has found no further help on the HP website and our Helpline guru Julian Moss suggests he won't get it anywhere else. Manufacturers often just don't bother going this extra mile for their existing customers.

"HP doesn't consider it worthwhile writing new drivers for products that are no longer current models when a new version of Windows is released," says Moss. "The support under XP is from generic drivers that support only the 'lowest common denominator' of features," he continues.

John Duckworth, HP's inkjet category manager, claims the company can only guarantee that devices from up to two generations before the release of the OS will be fully compatible. Beyond that the company can only make its "best effort" to keep devices up to date, as the technology can become incompatible.

For its part, Microsoft claims it encourages manufacturers to make compatible all devices going back 18 months before the new OS' launch, though it can't force them to do so. The net effect is that, just as Microsoft regularly stops supporting its older operating systems, so hardware and software companies will only find themselves able to maintain their legacy products' place in the fast-moving IT world for a limited length of time.

And that is the essence of the Windows XP compatibility debate. Microsoft has designed a popular, stable and widely compatible operating system and made every effort to enable manufacturers to produce new products that will work with it. But the constant drive to invent new ways of bringing you that all-important 'user experience' leaves some older solutions behind.

If you want to keep up with the latest technological offerings, you'll have to put your hand in your pocket again and again. ■



Unsure of a technical term? Find out exactly what it means in our searchable Glossary which is on the cover disc