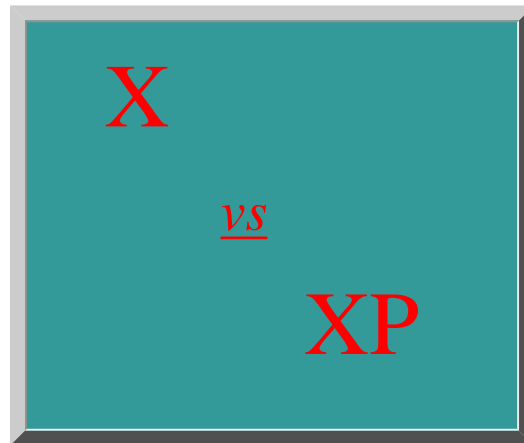


Mac vs PC

The study of why Macs are better than PCs



There has been a LOT of press about Apple's new Mac operating system, OS X. (Note the "X" is the Roman numeral for ten, so you can also call it "OS 10".) The new OS X is based on the well-regarded UNIX foundation. **The benefits include more performance, even better system stability, conformance with a system familiar to businesses and MIS people, adoption of an open source architecture, etc.**

The core of OS X, called Darwin by Apple, combines a UNIX kernel based on Carnegie-Mellon Mach 3.0 and FreeBSD 4.4 (which, in turn came from UC Berkeley's BSD). [Suggest reading this easy overview: [An Introduction to Unix](#). Go [here](#) for a very worthwhile, FREE online OS X tutorial.] So OS X now has the industrial strength benefits of UNIX (preemptive multitasking, full symmetric multiprocessing, memory protection, etc.), combined with significant digital media architectures (QuickTime, OpenGL, PDF, etc.), and all this power has the world renowned, intuitive Mac interface. **Quite a package!**

For more information on Mac OS X read these sample articles about its initial version from places as diverse as [Smart Money](#) to [Network Computing](#) to [iGeek](#). Their praise was universal. Even [PC World](#) said: "Mac's Hot New OS Boasts Brains and Style to Spare". This [InfoWorld](#) story wrote "The Mac OS X combines the power and flexibility of Unix with Apple's classy end-user sensibility. It's a stunning achievement that creates new options for the agile enterprise."... Here is a collection of OS X [screen shots](#) so you can see what it looks like.

Here is a quite reasoned and very detailed [assessment](#) of OS X – along with an analysis of how it compares to Windows and Linux. Who is the independent author? His resume shows that he is a true operating systems expert (e.g. an engineer at IBM, former engineer at Bell Labs, columnist at PCWorld, has received several patents, been awarded national technology prizes, etc.). Even though he finds some faults with it, his bottom line conclusion is that Mac OS X is the "most worthy client platform in my opinion: the only operating system currently in production that, within reason, lets you have your cake and eat it too."

For more technical assessments of the initial OS X release, this Stanford University [White Paper](#) (2002) explains a good deal of what is going on underneath the surface. Additionally, this is an insightful discussion of [Debunking Mac Myths - *NIX Edition](#)... There is an interesting team composed of lab administrators from 25 higher education institutions that has a VERY informative site about setting up Mac OS X labs. This [page](#) of theirs discusses why to use OS X in the first place.

This report from [eWeek](#) says, based on their lab tests of OSX, “**we were impressed** with Apple’s smooth implementation of the open-source Samba Windows file-sharing and Common Unix Printing System components, as well as with the operating system’s interface performance... One of the most intriguing things in the new operating system is **Rendezvous**, a networking technology Apple released under its Public Source License, which is intended to forge links among disparate devices with minimal configuration required... A variety of network printer, consumer electronics and other device and software manufacturers have announced plans to support the technology in their products. ”

In [Reality Check](#), CNET reports that Rendezvous “makes child’s play out of connecting to network-based resources (storage, printers, databases, etc.) including those bound to Windows systems.” For more details see [this](#). Among other lavishly praised Apple developments are [QuartzExtreme](#) (Mac OSX’s high end image rendering engine) and [Expose](#), the most innovative window management tool available anywhere at any price.

The latest version of OS X [10.3.3] is called Panther, and (consistent with Apple’s aggressive approach to innovation) it sports some 150 improvements from the prior release (the very successful Jaguar). [USAToday](#) says "For the second time in just over a year, Apple Computer is out with a major upgrade of the Mac OS X operating system, packing it with features Windows users won't see for years... The most noticeable changes take advantage of the Mac's advanced graphics, which leap over the capabilities of Windows-based machines." Read similar comments from [Forbes](#), and [BBC](#), [BusinessWeek](#), and the [SunSpot](#), and [NewsFactor](#), and [PC Magazine](#).

This comprehensive, ten page December 2003 [review](#) "...is being targeted towards recent or potential Switchers from Windows or a Unix-style OS such as Linux." Two excellent critiques are from the O'Reilly Network: [here](#) and [here](#). And the more technically inclined will appreciate this [arstechnica](#) piece.

This December 2003 article nicely sums it up by saying “Apple has once again lapped Microsoft in the operating system race. With Windows 'Longhorn' still three years away, the smooth interface and robust underpinnings of Panther leaves XP's cluttered 2D interface eating dust – and signposts the road we expect Windows and Linux to follow in the years ahead.”

A Wintel person? Then how about [Business Week](#). A Linux fan? Then you'll really relate to this LONG Linux Journal article: [UNIX Under The Desktop](#). They say such things as “OS X gives us the first popular desktop OS that fits into a prevailing Linux environment and also into the prevailing marketplace. On the bottom, it's UNIX. On the top, it runs Microsoft Office and the whole Adobe suite.” They go on to emphasize another significant distinction of OS X: **it is basically open-source**. “Apple also has attracted some top talent from the open-source ranks. Brian Croll, who runs OS X engineering for Apple, was recruited from Eazel. Jordan Hubbard, the world's foremost BSD hacker (and a founder of FreeBSD), actually pitched his way into a job working on Darwin at Apple.”

And for Linux advocates, here is a bonus: Linux guru Dr. Moshe Bar has a lot to say at [Byte](#): “If you have been using Linux for some time and just love its stability and performance, and find it a natural platform for development, **you'll feel right at home on the Mac OS X**. On the other hand, if you feel at times frustrated by the difficulty with which modern devices (like wireless, DVD, or FireWire devices) work on Linux, then you might find Mac OS X to be what you've been longing for. I for one, am convinced: I am switching my laptop to Mac OS X.” He went on to say the conversion was “trivial”.

Now that you are warmed up maybe you'd like to check out how [Gentoo](#) is on a Mac, or [GNUstep](#), or [Fink](#), or [Wine](#), or [Darwin](#), or [more](#) than you could have imagined.

Get the idea?

“Windows XP is now equal to the Mac OS!”

I know what you're thinking, but no – this is **not** a quote from the late Rodney Dangerfield!

One of my favorite sayings is “People who do not learn from history are doomed to repeat it.” I have found it more than amusing when I heard something like “Windows has now caught up with the Mac”, following the introduction of Windows 3.1, 95, 98, NT, 2000, ME, XP, etc. Yet every one of these Macintosh-Wanna-Be versions of Windows has been not much more than a second rate copy of the Mac OS.

Every indication is that this RELATIVE difference will continue for the foreseeable future, based on one fundamental fact: **Apple is the technology leader of the personal computer industry, while Microsoft's primary claim to fame is that it has mastered the skill of copying well.** Read more of what others have to say about [Microsoft](#).

If you choose not to take my word for how XP compares to the Mac OS, then you should do some reading. Here are a few sample places to start (note the diversity of sources, **none** of which are Mac sites):

[Windows XP - Breaking Things](#) [Forbes]

[Microsoft Does Not Understand Security](#) [Gibson Research]

[Why We Should Chuck XP Out The Windows](#) [The Observer]

[My Trip To Windows Hell](#) [ZDNet]

[Windows XP Home: Don't Go There](#) [PCMagazine]

[Windows XP - A Complete Disaster](#) [Fab Net]

[XP Means Extra Pain](#) [Fortune]

[Mac OS X Takes Some Polish Off Windows XP](#) [USA Today]

[There Will Be No XP For Me](#) [InfoWorld]

[Mac, Linux, Even DOS Fans Diss XP](#) [Reuters]

[Windows XP Gotchas](#) [PC World]

[Meet The Dark Side of Windows XP](#) [ZDNet]

[Why I Have Bought My Last Windows-based Computer](#) [Vanderwal.net]

[Sleeping With The Enemy](#) [Los Angeles Times]

[Windows XP Isn't Worth The Trouble](#) [CNET]

[XP - Feel The Pain](#) [Anandtech]

[The Problems With XP](#) [Issues Magazine]

[Microsoft Admits XP Media Player Spies On Users](#) [News Factor].

[Top Ten Reasons To Steer Clear of XP](#) [Internet Week].

The Detroit Free Press put it into perspective by saying: “The new OS X for Mac runs circles around Windows XP, booting up faster, recognizing digital devices easier, burning CDs better and playing digital music and video cleaner. Mac's iMovie video editing feature is simply astounding and so simple that it makes the Windows XP video editor look clumsy and complicated...”



Here is an exceptionally detailed, current (2004), and objective OS X side-by-side XP [comparison](#) that concludes that **OS X is the better choice.**

The gist of these articles is that "Windows XP is a downgrade of Windows 2000", which itself was no match for the Mac OS (especially OS X). [Example: ref [Windows 2000 Bugs](#).] And note that the Anandtech [XP - Feel The Pain](#) article cited above shows that, as tested, **Windows XP is some 25% slower AND more-resource-hungry, than the already-demanding Windows 2000.**

Even a self-proclaimed fanatical Windows promoter, John Dvorak, [says](#) about XP: "I do sense that, **like many Microsoft products**, XP suffers from software entropy. Each new patch fixes one thing **but also introduces new bugs. These second-generation bugs tend to go unnoticed at first and are seldom, if ever, fixed.**" He then goes on to elaborate on several more XP deficiencies...

Additionally, there have also been **many** reports of **serious security issues** with XP (e.g. for a slightly different type of discussion see [The Death Of TCP/IP](#)). And read this **profoundly comprehensive write-up** about Microsoft security in XP, which concludes "It is apparent that, for unfathomable and never articulated reasons of their own, **Microsoft is DETERMINED to ship an inherently unsecurable, consumer-targeted operating system**, containing the openly accessible Internet research interfaces known as Full Raw Sockets. I think that's **really dumb.**"

This disturbing but interesting [story](#) at *New Scientist* discusses a serious Windows liability. "An '**unfixable**' **flaw** that leaves your desktop PC open to serious abuse has been exploited in the Windows operating system. The trick could be used by an attacker to discover your passwords, copy your files or even format your hard disk... a Microsoft VP Jim Allchin told a court (May 2002) that errors had been identified in Windows but should not be revealed for security reasons...**The flaw is part of the fundamental design of the Windows operating system... and has remained unchanged since 1993.**"

If that weren't bad enough, this recent [article](#) says that not only do Windows XP error reports have dubious value, but they can convey private information about you to Microsoft. This 16 page 2003 [piece](#) says "Microsoft learns a lot about your computer, when you connect to Windows Update. Newer versions of Windows Update send a significant amount of data to the Microsoft update server". And this [story](#) makes a similar conclusion about XP's "product activation process". And [then](#) "XP's Wi-Fi software may tell hackers an access point's hidden SSID. But it doesn't stop there, it's possible to "spoof" the XP machine into believing it has connected to a familiar network."

Another scientist phrased the security problem from a slightly different perspective: "In biology, if the members of a herd are too genetically similar, a single disease can wipe them out. Ditto with computer systems. As Microsoft becomes increasingly dominant, the users of its programs are open to weaknesses that they may not know exist – until it is too late... If nothing else, the problems of macro-viruses have shown the weakness inherent in Microsoft's dominance of both business software and home PCs."

Consistent with this, in a technical [study](#) released in November of 2002, it was reported that 2002 "has been the worst on record for overt digital attacks, with 57,977 attacks to date. Microsoft Windows suffered the highest percentage of overall attacks, 54 percent, followed by Linux, with 30 percent... The Mac OS suffered only 31 overt digital attacks, only 0.05 percent of the total."

With all this negative publicity, one would think that by now Microsoft would be REALLY sensitive to security matters, and would be going out of their way to see that any new OS would be **super** secure. *Guess not.* So if they are that cavalier about something as important as YOUR security, what might that tell you about the quality of the rest of their OS???

The ever-more control that Microsoft is attempting to take over computer operators (forcibly and without the user's awareness) is also a VERY disturbing trend that continues unabated with XP. ([Note](#).) Then read this lengthy and **very reasoned discussion**. It says (in part): "Microsoft Windows XP connects with Microsoft's computers in **at least sixteen hidden ways!** It is expensive to evaluate the present privacy and security vulnerabilities of these connections and **impossible to evaluate the future vulnerabilities.**

"The issue is not that the connections are always bad for the user. The issue is that Microsoft has moved from making operating systems that are independent to **making operating systems that are dependent on Microsoft computers.** Besides privacy and security vulnerabilities, this raises numerous concerns. For example, if Microsoft decided to remove the support for Windows XP, users might be forced to upgrade. Or, Microsoft could decide to ask for monthly payment for the use of its computers."



This [open letter](#) to the FTC says: "On July 26, 2001, we submitted a complaint to the Federal Trade Commission endorsed by fifteen leading consumer advocacy groups detailing the **serious privacy implications of Microsoft Windows XP and Microsoft Passport**, and alleging that the **collection and use of personal information by the company would violate Section 5 of the FTCA**. On August 15, 2001, the groups submitted a supplement to the FTC further detailing the specific ways in which Microsoft XP and Passport would harm the consumer interests you have been charged with protecting... Subsequently, Microsoft announced plans to make Passport more open to other companies, and **falsely** claimed this as an improvement in privacy. Although this change may address other legal concerns, it does not address the major privacy and unfairness objections in the groups complaint."

And then there is the issue of **stability**. No contest here. This [tech alert](#) by Symantec tells why Windows NT/2000/XP hard drives **cannot be properly defragmented**. It explains in some detail why "Two features of Windows NT/2000/XP can prevent full defragmentation of a drive. These are the unmovable entries on the drive, and the buffers at the beginning of each file..." This fragmentation could lead to instability.

"In mid 2002 we undertook a simple test. The purpose of this test, which we called the 'Mac Challenge', was to do a direct comparison between a Wintel PC and a Mac. The test's **primary focus was on stability**, with secondary emphasis on performance and usability. For 30 days, I used an iMac exclusively, running Mac OS X; for the next 30 days, my sole computer was a Dell running Windows XP. Both were configured with similar hardware and software applications." The fascinating [story](#) details exactly what happened every single day. The net result: one problem with the iMac (with Microsoft's Word application) and ten with the Dell. Also see the [follow-up](#).

Writer Mikey Kaus [says](#): "In late 2001 I predicted that Microsoft's introduction of Windows XP would spark the nation's economic recovery because, unlike its predecessors, XP won't crash. Having now purchased a Windows XP computer, I can say I was wrong – not about the recovery but about XP, at least as evidenced by my machine. It crashes all the time! It crashed, in fact, while I was writing this item... How's that?" I find it very interesting that Mike understands the connection between Windows and our economy. Not many people have been able to grasp that.

In a revealing [collection](#) of comments by cross-platform users, here is a VERY good example attempting to explain the stability gap: "I think that you can achieve a level of stability with Windows, but it takes a lot of tweaking. With the Mac, stability is there from day one, and some tweaking just makes things better. Microsoft insists on intertwining/tangling all their programs with the OS in order to support their illegal monopoly position – this is what may be causing a lot of the instability. Apple has made a brilliant OS with X, and when you add the programs, they aren't intertwined with the OS. **Eventually the desire for total control proves to be insane, unstable and unworkable.**"

The Washington Post (evidently an Apple shill) ran a detailed [article](#) studying how the Mac OS X handled digital photography, as compared to the Windows XP methodology. (This area was chosen as the Post says that it is accepted as being an important part of the computing experience, and will be even more-so in the future.). The long two-part story says such things as "Apple's **much richer system** offers multiple ways to view your shots...**Apple takes a decisive lead** at putting your photos on the Web...XP's two integrated Web-publishing options are lame in comparison..." and concludes with "The verdict: If you're shopping for a new machine, **you'll probably be much happier with iPhoto" on a Mac.**"

Here is a well-written [article](#) that identifies a very fundamental reason why X and XP differ – and a reason you might not have given enough thought to.

"The operating system of any computer has one basic function. It is supposed to operate the computer. It's supposed to be in charge. But the central problem of Windows is something else: **Windows is not in charge...** It allows any program to mess up any other program at any time. This is bad enough, but Windows does something much worse. **It allows any program to mess up the operating system's own files at any time...**

"The fact that Windows is so badly behaved while being so widely used tells us more about ourselves than about Microsoft. **It tells us we have no common sense.** We have a choice. We can exercise that choice. Microsoft's biggest worry is that **we will stop accepting the status quo.**"

After absorbing this you might be thinking something like "Well, OK, Windows XP is crap – BUT Microsoft will certainly be coming out with an improved operating system shortly." Wrong. The XP Upgrade (bug fix) is known as Longhorn. After several delays the official [word](#) from Microsoft is that it will not be out until

2006!

And it might well be worse than that. In December of 2003, Gartner, the well-respected computer research firm, [stated](#) that its best guess was that there was only a 50 percent chance Longhorn will be available in 2006, and a 40 percent chance it won't be available until 2007.

That amount of time delay in the computer world is simply stunning. In the eWeek story "[Will Panther Make A Meal Of Longhorn?](#)" among other observations, the author says "The ' Longhorn' code name once suggested a powerful stampede – but whose leisurely pace now seems more like that of placidly grazing cash cows."

Of course, as always, if you simply MUST play with XP, the best option is probably to do it on a Mac. In fact with Virtual PC 5+, there are those who contend that **XP operates BETTER on a Mac than on a PC!** See this [Wired story](#) as an example. And, by the way, this article also says: "Over the last year a new trend has emerged: more and more Windows users are changing over to a Mac."

For information about this trend, and even MORE comparisons of how the Mac OS X stacks up against Windows XP, read our section called [Testers and Switchers](#).

This section's Haiku
(see the bottom of page 1 for more explanation):

**Windows XP crashed.
I am the Blue Screen of Death.
No one hears your screams.**

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