

Special Report

Will Windows XP make multimedia producers switch?

by Bob Connolly

I had been dreading this day for a long time. Microsoft had just released Windows XP on November 13th, and I had to buy the upgrade to see if the websites we had been making would still work. Although we use a variety of Macintoshes to create our Internet videos and web sites, we know that the majority of visitors to our websites will view the final product on a PC.

I had heard that Java applets wouldn't work, and that *QuickTime* wouldn't work, and that a whole list of applications would need to be upgraded, so I was not looking forward to it. Our clients' websites use *QuickTime* virtual reality photographs and videos, but what would I now have to do to re-configure them to work on XP?

THE LOVE-HATE RELATIONSHIP

First, I'll declare my true feelings. I love Microsoft—and I also hate Microsoft.

I'm writing this column on a Mac, us-

ing *Microsoft Word*. *Microsoft Internet Explorer* is my preferred browser. *Microsoft Outlook* is my one and only e-mail application. So I bought the XP upgrade for Windows 98 and crossed my fingers, hoping that not much would go wrong. With 128MB of RAM (the minimum requirement) on an 800 MHz machine, I didn't need to buy anything special.

The XP upgrade package included free RAM, but after opening up the HP machine to see if I could upgrade it myself I changed my mind because it was so difficult to unscrew all the components to get at the motherboard. This is one area where the Mac really excels—its new tower design allows for much easier access. I decided to put the free RAM into one of my Macs (since, except for PowerBooks, they now also use the same RAM).

The Windows XP installation was dead simple, except that you now have to register the software online—you can't steal XP because its serial number locks itself to your computer. If you don't have an Internet connection, you can call for an authorization code.

Sympatico's high speed connection was unaltered, so my first fear was put to rest. But although the connection to the Internet router was working fine, I lost file sharing with our Macs. We use PC MacLan to network our PC testing station to our seven Macs; now it was basically offline. We got an upgrade from the PC MacLan Miramar site (which came with a modest upgrade fee), and that update went without a hitch, so now all our Macs could see the PC and vice versa.

Except that now everything seemed to work much better. The data moved more quickly between systems, and some things that wouldn't work before (like mounting external Mac FireWire drives on the PC desktop) suddenly showed up just fine, so—way to go, Microsoft! Ten points for networking improvements!

Next on our checklist was surfing the websites that we had created.

The speed with which our sites loaded into the browser was a delight. Searching

huge databases over the Internet seemed like searching databases on a hard drive. Microsoft has tied together the browser and the operating system so closely that the speed of data retrieval and screen display shows significant improvement.

But—*QuickTime* no longer worked!

"#!&*!@", we cried. How could Bill Gates do this to us?

We went straight to the Apple site and uncovered the problem: plug-ins are no longer supported with the latest version of *Windows Internet Explorer* because Microsoft has decided to use ActiveX drivers instead of plug-ins. To get *QuickTime* working again you have to download the *QuickTime* ActiveX driver from the Apple site. This download was semi-painless, although it involved a lot of decisions about the type of data you want *Windows Media Player* or *QuickTime* to handle. It's obvious that Microsoft wants you to use *Windows Media Player* instead of *QuickTime* or *RealVideo/audio*.

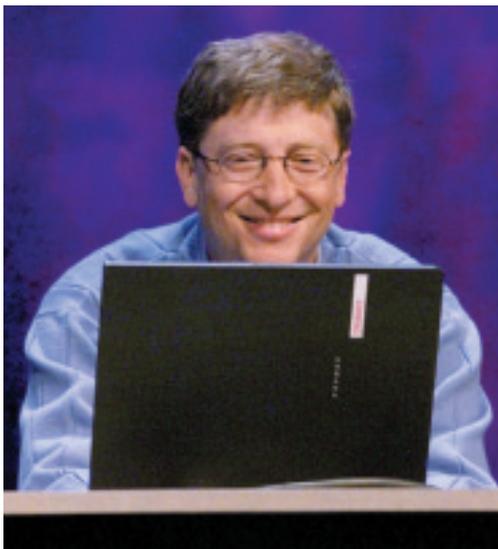
However since the ActiveX drivers for *Acrobat* and *Flash* were pre-installed with the Windows XP installation, the *Flash* and *Acrobat* parts of our website worked fine. And all the Java worked as well, so I guess the panic over that was uncalled for.

QUICKTIME SINGS IN XP

Once we got *QuickTime* up and running again, it worked marvelously.

Image quality and motion is much better. The first frame of a *QuickTime* movie takes a few seconds to appear while the *QuickTime* engine loads into *Explorer*; instead of loading the *QuickTime* plug-in, the ActiveX driver is loaded. Each time a subsequent *QuickTime* movie is called up, the movie displayed instantaneously. It looks like *QuickTime* now stays in the RAM buffer once it has been called, so now videos pop up, streaming right away and playing perfectly.

Our next destination was *StarWars.com* to see what all the fuss was about. In the past, George Lucas has forced Star Wars fans to download *QuickTime* to view the latest Star Wars offerings. But to watch the



full screen version, you had to pay for *QuickTime Pro*, and upset many fans.

Since we had the *Pro* version of *QuickTime 5*, we decided to go for the full screen version. We were shocked to see that again *QuickTime* failed to work. The *Star Wars* video was white—sound, but no picture. Yet our Macs played back the same movie just fine. What was wrong?

After some trial and error routines, we figured out that Lucas and Apple had decided to use the new version 3.1 of the Sorenson video codec to compress the movie for Internet delivery, and in this case, Windows XP decided not to play the latest Sorenson decompressor. It works on Windows 98, but not on XP.

We had been thinking about using the new Sorenson 3.1 codec that comes with *QuickTime 5* for our Internet videos but had decided to wait until more people had upgraded from *QuickTime 4*. These video codec incompatibilities are thorny issues for Apple, Sorenson, and Microsoft. But we'll come back to that later.

BETTER COMPRESSION CODECS

Moving on to other parts of the Windows XP upgrade, we decided to see if *Windows Media Player* could live up to its hype. In the past, Microsoft video codecs were so flawed that we could never consider using them—they would stutter, glitch, dropout and lock up the computer. And the picture quality was horrible.

But that's all changed. Microsoft finally has a player that works, and the new codecs look pretty good, too. In addition to the standard *Windows Media Player* codec, they also have their own brand of MPEG-4 (which I hope will become obsolete), although the player can also play the official ISO/IEC MPEG-4 version.

Information on MPEG-4 can be found at MPEG's home page mpeg.telecomitalia-ab.com and at the MPEG-4 Industry Forum address www.m4if.org, but here's a summary:

"ISO/IEC MPEG-4 is a multimedia content representation standard developed by the Moving Picture Experts Group

(MPEG)...MPEG-4 specifies how to describe audiovisual information as a composition of different media types, enabling a high degree of interactivity. This bitrate-independent approach scales from low rates (mobile multimedia) to extremely high fidelity (studio authoring). MPEG-4 facilitates an 'author and encode once, deploy many times' approach, across different platforms and delivery infrastructures, including Internet Protocol, mobile, broadcast, satellite, and cable environments."

AS NICE AS A MAC?

As for the user interface of Windows XP—well, it's downright beautiful. Dropdown menus are elegant, radio buttons are translucent, and everything else generated by the operating system for windows and scrollbars looks much more professional—in fact, almost...Mac-like. Windows XP feels so much like a Macintosh that many people—who haven't seen Windows XP—think our PC is a Mac. I must admit, I can now enjoy using the PC, where before I only used it if I had to.

I should make one thing very clear: all the comparisons I am making are between Windows XP and Mac OS 9.2. Mac OS X is another story altogether.

The problem with my comparisons is—I can't compare.

Sure, I have OS X—and boy, do I want to use it—but my main programs are *Final Cut Pro*, *Photoshop*, *InDesign*, *GoLive* and *Acrobat*, and they all run like mud in OS X Classic.

As *Design Tools Monthly*, the Boulder, Colorado-based newsletter for designers and publishers (www.design-tools.com), sums it up in its November edition:

1. No major graphic design application runs natively in Mac OS X (except for *FreeHand 10*, and some of its features don't work in OS X). The others run more slowly than in Mac OS 9.x and lose features.

2. There is no font management software so far. *ATM Deluxe* will not be updated for OS X, but a native version of DiamondSoft's *Font Reserve* is scheduled for

WWW.CPUSED.COM

CPUSED™

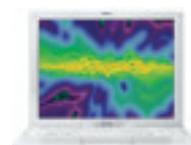
WE BUY AND SELL APPLE™ COMPUTERS INC.

New G4 & Display



Multimedia Dream Machine

New iBook



Your Life. To Go!

New Titanium



Tomorrow's Technology...Today!

488 Dupont Street @ Bathurst
Toronto, Ontario

416.533.2001

• Open 7-Days a Week •

Brainiac Computer Rentals

Computer Rentals
Mac & PC
Daily
Weekly
Monthly
Prop Rentals
Name-Brand
Huge Inventory
Competitive Rates



For more information call
416.534-2001

www.BrainiacRentals.com

488 Dupont Street
Toronto ON
M6G 1Y7

release this month.

3. Printer manufacturers have not written OS X drivers for all printers, and may never write them for older printers. Epson is notably unwilling to support older printers.

4. *Retrospect* won't back up OS X correctly, and no other software can back up OS X.

DTM also quotes a *MacSpeedZone.com* test between OS 9.2.1 and OS X Classic, with the following comparisons for some standard tasks performed in Classic:

- copying—11-18% slower
- launching *Photoshop*—37% slower
- *Photoshop* tasks using G4's Velocity Engine—21% slower

The Mac/PC comparison makes me think back to the days when Apple was pushing PowerPC, and Windows 3.1 was the PC standard. It was a good fight, but most of us in the desktop publishing community stuck to our Macs while the rest of the world went to Windows.

But now that the features of Mac OS 9 and Windows XP are nearly the same, why

stick to Macintosh when the majority of computer users are on Windows?

I figured I might have to wait a year before I could switch to OS X—until I got word that a Carbonized version of *Adobe After Effects 5.5* was being released. At the rate things are going, I might be able to make the move within a few months.

FINAL CUT PRO GOES CARBON

And yes! Even as I was writing this article, the news broke: Apple now has its own native OS X application!

Apple has finally made its video editing application *Final Cut Pro 3* native for OS X and has optimized it for the G4 Velocity Engine. Version 3 looks like a clear winner among all video editing applications—or at least the ones priced under \$50,000. It leverages the power of the G4 Velocity Engine to deliver dual-stream, real-time effects such as cross-dissolves, titles and color correction. The number and complexity of G4 real-time effects scale as processing

power increases. Install the software on a Power Mac G4 with 800MHz dual processor, for instance, and you'll be ready for almost anything—but because *Final Cut Pro 3* has no add-in hardware requirements, even editors using it on a PowerBook G4 have access to true real-time effects playback. You don't need PCI hardware to preview transitions and effects in real-time. Trust me folks, this feat would have been impossible just a short time ago.

Digital video can now be captured in a compressed JPEG format and edited offline. Only the high quality footage that is used in the final production needs to be recaptured. This method takes less space on your hard drive and provides timecode-accurate footage to reconform your final edit. New color correction tools let you fix and color balance your film in real-time, without rendering!

As well, *Final Cut* now has the ability to capture audio directly to your timeline—great for narrating to a locked pic-

Now's the time
to book your
space.

In Toronto call **Lee Kline**
416 350 8199

In Montréal call **Dominke Brunelle**
514 344 4072



creativesource

www.creativesource.ca

PHOTOGRAPHY BY PETER SCHAFFRICK
SEE CREATIVE SOURCE 21 - p169

ture. Sound studios should take note of this capability. You can still export the audio tracks to OMF for audio mixing in *ProTools*, but more vocal booths may show up at the video editing facilities!



Final Cut Pro 3 requires OS X v10.1.1 or OS 9.2.2, a 300MHz or faster G3 or G4 with built-in FireWire, 256MB of RAM (384MB recommended) and 40MB of disk space for installation.

If *Final Cut Pro* doesn't become the *Photoshop* of the video industry it will be Apple's fault for not promoting it. Lower cost and the recognition of *QuickTime* as a digital media standard are two key reasons for its adoption into digital video production. *QuickTime* and FireWire are the best things to come out of Apple—and they have nothing to do with an operating system. Both work well on Windows XP—but they work superbly on the Mac.

One can only hope that application developers like Adobe and Macromedia will now appreciate *Final Cut's* incredible speed improvements and move swiftly to develop native OS X applications that are written for the AltiVec chip. The Mac is now better suited than ever for professionals in the graphics industry, whether in video, print or multimedia.

WINDOWS MEDIA, REALVIDEO OR QUICKTIME?

I have a feeling that Real Networks will soon be history. Many content creators will continue to develop video on Macs and the majority will soon compress and deliver it using the new MPEG-4 codec. When this happens, one type of Internet video will work on all computers, and the codec wars will be over. Then, expect to see the video industry go interactive via the web.

Just like MP3 audio files gave birth to Napster and iPods, MPEG-4 will give birth to video phones, Internet video cameras, and Internet TV. And best of all, this format will work on *all* computers.

But there should be *one* codec for Internet-related video. The *official* MPEG-4 is closely tied to (and even based on) *QuickTime's* architecture, but there are several versions of MPEG-4 out in the marketplace and they all require dedicated players. Divx, Microsoft and Philips each has MPEG-4 players—but they won't play one another's MPEG-4s!

These incompatibilities are truly insane. They're the result of codec developers trying to cause confusion or impose their own standards. This MPEG-4 codec is extremely valuable—in its official finalized compatible form it's bound to be a big moneymaker in licencing fees. It's really up to Apple Computer and Microsoft to now work out their differences and start to promote ISO/IEC MPEG-4.

But of course Microsoft is still trying to settle its lawsuit with the U.S. Justice Department. And the bundling of *Windows Media Player* with Windows XP continues to make Microsoft's competitors cry foul.

Windows Media Player is a good step forward for the multimedia industry in general. Internet video is finally moving ahead as broadband is adopted everywhere. I'm happy to create my videos using a Mac via *QuickTime* and happy as well to compress these videos to both Sorenson and Windows Media codecs because they look great.

But... I'm sure most Internet video content producers—including me—would be much happier using one official MPEG-4 codec where the licencing fees go to the Moving Pictures Expert Group.

SO WHEN WILL WE START SEEING MPEG-4 VIDEO?

Most multimedia developers use an application called *Media Cleaner Pro* to compress their videos into various formats such as Cinepac, MPEG 1 RealVideo, Soren-

son and Windows Media. *Cleaner* was recently purchased by Discreet, a first-class software company known for its high definition non-linear video editing/compositing and animation software such as *3D Studio Max*, and it couldn't be in better hands—Discreet's engineers are some of the best in the industry.

Discreet just released a 5.1 upgrade that allows variable bitrate encoding for the Sorenson 3.1 codec. Unfortunately, it is the one Sorenson codec which Windows XP will not play. But the good news is that XP *will* play ISO-MPEG-4 (version) 1. When Discreet licences the ISO/IEC MPEG-4 codec for *Cleaner*, real Internet video should begin.



With the release of *FINAL CUT PRO 3*, due out before the end of 2001, Apple will finally be supporting OS X with a Carbonized application of its own. Meanwhile, rumours are flying about the possibility that Apple will announce a 1600 MHz G5 at Macworld San Francisco in January.

I suspect that Apple will soon (maybe by Macworld San Francisco in January) release a new version of *QuickTime* that includes MPEG-4 playback. If we see an AltiVec G4-aware, OS X version of *Media Cleaner Pro* at the same time, the whole industry will get to see OS X's rendering speed in action. Fast video compression is what we've all been waiting for...and waiting...and waiting...and waiting... 🍌

Bob Connolly is a principal in BC Pictures, a new media production company that creates content for TV, CD-ROM, DVD and Internet websites. He can be reached at 416-521-7462 or by e-mail to b.connolly@sympatico.ca.