

Crossing the great divide

Gordon Laing, PCW's very own good-times guru, has long wanted his PC and Mac to make beautiful music together, or failing that, at least open each other's graphics documents. Not quite plain sailing, but cool.

It's the new year; a time when our thoughts turn to everybody sharing our world in peace and harmony. With this in mind, I thought it was about time my Mac and PC got on well enough to seamlessly open documents created on each other. Well, it might work.

This is not a time for lack of optimism however, and it certainly seems I'm not alone in the attempts to share across the platforms, judging by the amount of requests we hear on the subject at PCW, so here goes. It's worth bearing in mind, as we attempt to exchange complex graphic documents, that half the Internet-equipped world continually struggles to exchange what is basically plain text. You may or may not be surprised to learn that simply opening the text files sent by the various contributors to PCW is a huge translation job in itself; but back to the plot.

The best intentions

I'm not attempting anything too clever, like opening PageMaker layouts in Quark XPress or Illustrator files in FreeHand. My intention is to take three of the most common Macintosh graphics applications which coexist on the PC, and see how easy it is to exchange documents.

Despite the fact that many earlier versions of one application could open, perhaps by chance, its cross-platform counterpart, I'm only going to be looking at the same version numbers which actually claim compatibility. The three apps are, not entirely surprisingly: Quark XPress 3.31, Adobe Photoshop 3.04, and Macromedia FreeHand 5.0.

XPress proved tricky at first thanks to Quark preferring to work with version 3.31

for cross-compatibility, but Windows 95 refused to co-operate until I updated to revision 5. I downloaded this update from the official Quark website, and everything was fine.

The first major problem to overcome on every type conversion — PC to Macintosh or vice versa — is the filename. Macintosh filenames are limited to 31 characters, but can use upper and lower case, spaces, or in fact any symbol you'd like. DOS and Windows 3.x are limited to the 8.3 file system — that is, an eight-character description followed by a three-character file type. Sadly there is a limited choice of characters, with no case differentiation or spaces.

What's in a long filename?

Windows 95 is a huge improvement over Windows 3.x, offering long filenames of up to 256 characters complete with case and spaces. There are some peculiarities with the banning of several characters, and the option to display or hide the old DOS three-letter file extension. Under DOS, Windows 3.x and Novell NetWare (without the OS/2 long filename support) the first descriptive portion of a long Windows 95 filename is truncated to eight characters, followed by the three-letter file extension, which was there all along.

The file extension is Microsoft's way of identifying the file type. Word knows to look out for DOCs. A paint package knows that TIF, GIF, BMP and PCXs are all bitmaps with known properties. By retaining, but hiding the extension in Windows 95, Microsoft has ensured a certain degree of backward compatibility with DOS and Windows 3.x.

When confronted with a DOS/Windows filename, the Macintosh just sees it as a bunch of characters. The fact that they are arranged as eight, followed by three with a dot in the middle, is of no consequence. However, many Macintosh applications look out for header information, or have been warned in advance of the PC file extensions and recognise them correctly. All three of the apps discussed here recognise and understand the file format from the PC extension.

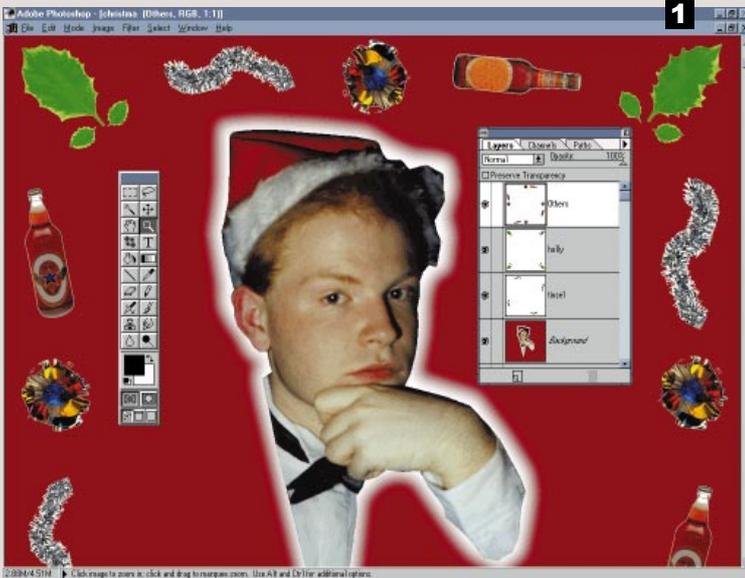
Dot's the way to do it

When the PC platform is faced with a Macintosh filename, it is unable to identify the file type without an extension. A quick and easy solution is for Macintosh users to bung in a dot, followed by the appropriate file extension for their unfortunate PC friends; but it's a tough habit to get into — and why should they?

One reason is that a Windows application immediately looks for its native file format in the open dialogue box. Quark XPress for Windows, by default, looks for anything with a QXD extension. Photoshop seeks TIFs, GIFs, BMPs and the like. The only way a Windows open dialogue box will see unmarked files is to go for a totally wildcard search by typing *.*.

Consequently, opening a Macintosh file under Windows is a multi-problematic affair. Firstly, unless the Mac user has ended the filename with a dot and the correct file extension, Windows will not see it; and even when you force it to, you'll have to know what kind of file it is. Secondly, once you've searched for *.* , you'll only see the first eight characters which may not sufficiently identify the desired file.

Opening PC documents on the Macintosh



Okay okay, I'll use any excuse to get my picture in PCW, even twice on a single page!

(1) Adobe Photoshop 3.04 for Windows, having opened the layered document I created for last month's column. Eagle-eyed readers may have spotted that the type layer has been removed

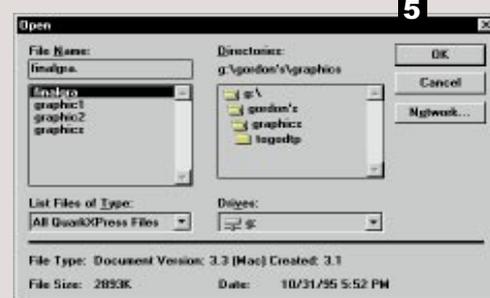
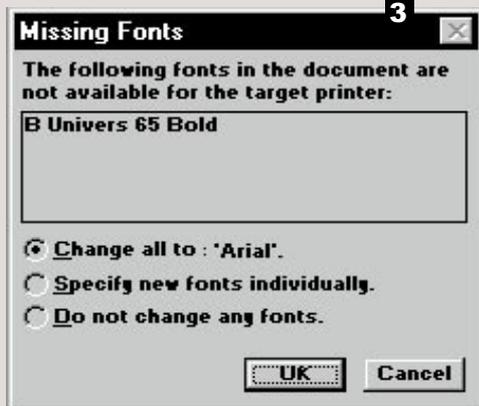
(2) MacroMedia FreeHand 5 for Windows, opening a FreeHand for Macintosh document. (Illustration by Jon Mason.)

(3) Notice the missing fonts alert box. This could be solved by installing the correct fonts on the PC, or by converting all type to curves. However, once converted to curves, type loses any character attributes and can only be edited as a shape

(4) Quark XPress 3.31 for Windows, after opening the layout for last month's column with, er, me on it again

(5) There were a few problems however. The open dialogue box had to search for *.* before seeing the documents, although XPress did identify their Mac origins

(6) The ubiquitous missing fonts alert box, and there's a fair few of them...



Opening PC documents on the Macintosh



Infuriatingly, Windows 95 cannot interpret and display Macintosh long filenames.

Once each platform has seen and identified the desired file, one final hurdle remains: it may just not be able to translate that particular format. Show a Macintosh pict file to many PC painting applications and they'll freak; even some of those claiming support for the suitable PCT extension. Similarly, the Windows Metafile, WMF, and even occasionally PCXs or BMPs, leave the Macintosh none the wiser.

Adobe Photoshop is a good all-rounder at opening a variety of different bitmapped files, and indeed just about the only PC application to deal with Macintosh pict's. This won't be an issue here, however, since we're dealing with three applications which should certainly be able to open documents created on their respective cross-platform counterparts.

Starting with the easiest first: Adobe

Opening Windows files on a Macintosh is considerably easier than opening Mac files under Windows.

- (1) *Adobe Photoshop 3.04 for the Macintosh, having opened a Windows PSD file, complete with layer information. To be fair, Photoshop for Windows has no difficulty opening layered Mac documents (see previous page)*
- (2) *Macromedia FreeHand 5 for Macintosh having opened a FreeHand for Windows file. To make life a little more interesting, I got FreeHand for Windows to open a CorelDraw file (the famous eye) and convert it into a FreeHand FH5 file. Once on the Macintosh the image was totally editable, even after two conversions*
- (3) *Quark XPress 3.31 for Macintosh, after opening an XPress for Windows document. The type on the original Windows document was exclusively Helvetica. Since Helvetica was installed on the Macintosh (indeed, on almost every Macintosh in the world) the file opened without reflow or complaints of missing fonts*
- (4) *The Macintosh XPress open dialogue box, having recognised the Windows source of the original*



Font of the Month

SANTA DOMINGO

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Y Z [skull icons]

Photoshop 3.04. Although Photoshop has long been able to open vector EPS files by rasterising them, it is undoubtedly first and foremost a manipulator of bitmaps.

Photoshop handles bitmap files just about transparently across platforms. Sometimes you may have to give it a hand by "opening as" when it's not certain of the file format, but otherwise you'll experience few problems. Photoshop's native format (PSD extension on the PC) opens transparently across platforms, complete with any layer or channel information. "Opening as" may crash under Win95 unless you are running v3.04.

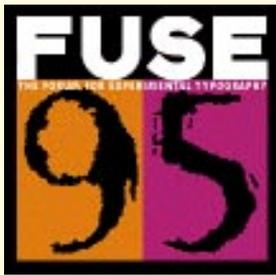
XPress and FreeHand, along with any other application which may deal with text, have one big problem in common: fonts. When you open a document on a machine, even on the same platform which does not have the same fonts installed, you're in trouble. The machine lacking the correct fonts has to substitute something else, causing reflow and no end of worries. In the old days, applications would commonly substitute Courier, partly due to it being a common font on all systems, and also rarely used and hence spotted straight away as a substitution. Not much help though.

Newer applications will list the fonts missing and allow you to make your own closest match substitutions. The process can even be automated using the Panose font matching system, which finds its own closest matches. Unfortunately Panose is not used on any of the three apps discussed here, and despite being a good idea, does not work that well.

The best bet, if you want it to work perfectly, is to buy the same fonts from the same source. The only format I have found for this to work with any degree of success is PostScript Type-1, but be

aware that every foundry has its own slightly different versions of popular fonts. These may not look that different until you have a page of text, at which point the different kerning tables and letter spacing becomes apparent.

This aside, XPress and FreeHand documents appear to cross the platforms without any other difficulties. Even when you do have the same set of fonts on each platform however, you should check all text elements for reflow or incorrect substitution. The situation is better than it was a few years back, but not totally without grief.



Font of the month

Yet another gem from FontWork's *FUSE* (issue number 13, Spring 1995, entitled Superstition), is Santa Domingo by Pablo Rovalo Flores, born 1969 in Mexico City. Along with much TV design work, Pablo designed the Mexican Yellow Pages in 1995. Santa Domingo's lower case characters have different baselines, giving a jumbled effect, while the upper case stay on the same straight. There are four variations of the font, the fourth being a neat set of skull symbols. Those of a superstitious nature should call FontShop for a copy.

PCW Contacts

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FUSE 95 page

<http://www.contrib.net/fuse95/>

