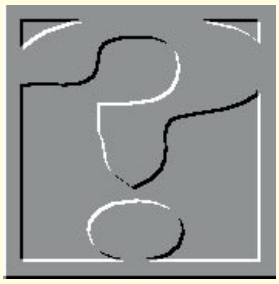
Any **questions**?



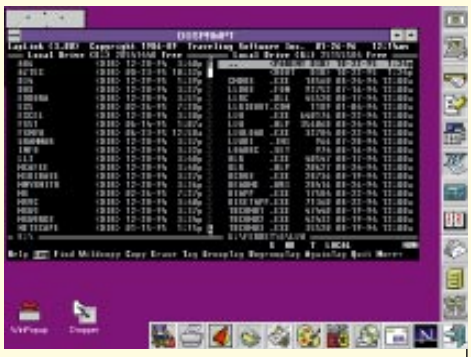
If you have a PC problem or think you could help out other readers, contact Frank Leonhardt.

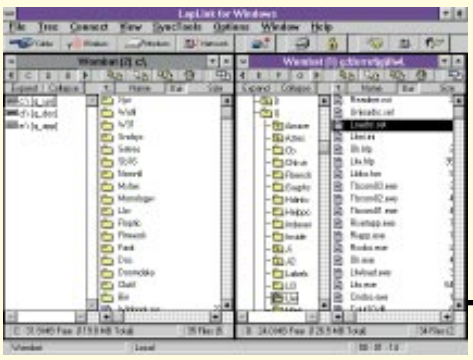
Q "I have two computers connected via LapLink V.5, a Dell 486DX66 with 16Mb RAM and a Compusys 486DX66 with 20Mb RAM. I have Windows 3.1 and DOS 6.0 on both machines and I use an old word processor, PCLite version 1.01. I use this program as it is the best I have found for doing several very specialised tasks.

I run the program from a DOS window, as I have to switch to other programs quickly. My problem is that the program works absolutely fine on the desktop computer, yet on the laptop the system crashes (totally) at a random interval of between five and 30 minutes. This crash only happens in a DOS shell — when used in DOS it works fine.

Can you suggest any causes for this crash, and any possible remedies for the problem?"

Harry Cripps <hrc@hrccons.win-uk.net>





Although you can run LapLink for DOS under Windows, the Windows version is less trouble

There is no magic explanation for this one and you'll probably never get to the bottom of it. Unfortunately, the Windows DOS-compatibility boxes, especially the Windows 3.x type, are far from perfect. Problems manifest themselves with "clever" applications such as LapLink, which have to go straight to the hardware for performance reasons.

If I had to take a guess at it, I'd say it was something to do with LapLink being unable to service the hardware quickly enough on the laptop. You may be able to get around this by selecting a simpler transfer mode. Serial transfers are most likely to work, and a low baud rate will improve your chances further still.

You might get better results if you were to tell Windows to give the DOS box exclusive use of the processor. Select Settings from the System menu of the DOS box (the one you get when you click on the top-left corner of the window) and check the Exclusive option on the resulting dialogue. This doesn't seem to work as well as might be expected, but it should help.

Running programs such as LapLink in full screen mode while they are busy is always a good idea. Writing to the text screen, rather than the graphics one, is much faster for any software. DOS programs running in a window have the additional overhead of Windows intercepting their attempts to write to the text screen and generating the necessary graphics.

Rather than getting DOS LapLink V to work, you could do a lot worse than to take a look at LapLink for Windows. In my opinion, it is one of the most useful utility programs around for anyone with more than one computer in their life. I was never a fan of LapLink V, finding it large, cumbersome and unreliable; while its predecessor, version 3, was small and efficient.

LapLink for Windows may be large by DOS standards, but it is reliable, efficient, and well-integrated within the Windows environment. It allows machines to be connected using modems and a network, as well as the cables, and includes remote control of the other machine. An interim release, version 6.0b, works with both Windows 3.1 and Windows 95. A new Windows 95 version should be available by the time you read this. Traveling Software will put the 6.0b disks in the same box for us Windows 3.11 die-hards.

Quad-speed quandary

"I'm considering purchasing a notebook computer which comes with an internal dual-speed CD-ROM drive. I'd much rather hold off if quad-speed CD-ROM drives are going to become standard issue in the not too distant future. What is the situation regarding quad-speed CD-ROM drives on notebooks?"

Sandy Henderson, Stonehaven

Quad-speed drives are definitely on the way in for notebooks. As you might have discovered, most vendors neglect to mention the speed of their CD-ROM drives unless they are actually quads; most of the time they turn out to be double or even single-speed.

Toshiba sells a quad-speed modular CD-ROM drive, for its Satellite Pro range, at a street price of less than £300. The snag is that the Satellite Pro isn't cheap. The Toshiba Tecra 700CT also has a quad-speed CD-ROM drive as standard, but you are looking at the wrong side of £4,000 for one of these.

What appears to be the same Toshiba drive turns up on the new MBC Enigma range, most of which are priced at under £2,000 if you can live without the brand name. Although I haven't seen one myself, they look good on paper.

It is only a matter of time before all the Far-East clone makers upgrade to quad-speed, but do you really need it? As I've mentioned before, the most important thing to look at is the overall performance of the system. It is true that a quad-speed drive will be able to stream data to a multimedia application faster, but does the

Frank's Bargain Basement

Where have all the modems gone?

For the best part of a year I've been recommending the GVC 1440 modem to most people seeking my opinion. It's fast, reliable and cheap.

"GVC?" I hear you ask. This is one of the biggest Far-Eastern manufacturers which turned out units for everyone else to badge and sell as their own.

Now, it seems, the supply of cheap modems from the Far East has dried up. Why? Allegedly, Rockwell, the American company which makes most of the world's standard modem chips, is now supplying local companies in favour of those abroad.

American companies now have a short-term advantage. Motorola and US Robotics make their own chips, so they aren't affected, but the rest of the world has had to put its prices up.

I say "short-term advantage" for good reason: rumours abound that groups of angry modem-makers in the Far East are planning chipsets of their own; possibly made by the likes of UMC or Cirrus Logic. Going by past form, they'll succeed and modem buyers will be the winners as competition resumes.

Rockwell can't stand still on this one for much longer without being hit by Uncle Sam's infamous "friendly fire". Good quality, cheap, modems are bound to return one way or another.

application actually need it that fast?

When it comes to database-type applications, the most important thing to watch is the access time. If you're looking up a page full of text, say 4Kk in length, then a quad-speed drive will read it in about 7ms (i.e. 1/150th of a second). A double-speed will take 14ms and a single-speed will obviously need 28ms.

Now, assuming that the application looks at half a dozen places in the CD-ROM index in order to find your information, and that each access takes 200ms (which is typical), you end up with around 95 percent of the search time being taken up with CD-ROM accesses and 5 percent being used for data transfer. Therefore, by simply doubling the transfer rate, your application will run about two percent faster. Big deal.

I can hear those word processors being fired up to write me letters insisting that quad-speed drives are much faster than that. Yes, in most cases they are. The newer quad-speed drives often have faster access times too. But don't be bamboozled by vendors waffling on about double-speed versus quad-speed, or greater. It's impressive if a drive has a 100ms access time as opposed to 600ms which was normal only a few years ago.

As far as ultra-compact notebook drives go, I wouldn't be surprised to find that many double-speed units offer faster access than the newer quads.

A hundred an inch

"I was recently told by a computer dealer that 14in monitors were being replaced by 15in because of an EC directive. The dealer was attempting to sell a monitor which cost £100 more as a result.

What is going on? Is it really worth an extra £100 per extra inch?"

Richard Allen, Worthing

It appears that at the beginning of 1996, a change in EC radiation specifications came into force. I have talked to several dealers, and they are all interpreting the rules in different ways, but they all agree that they can't go on stocking monitors which haven't been tested and found to meet the radiation emission standards. This lead to a drop in the price of old-model 14in monitors during 1995 as dealers ran down their stock, followed by a shortage of the newer units in 1996. At the moment, 14in monitors are hard to find and when you do track one down, the price has risen. As a result, dealers are offering 15in units instead.

Fifteen-inch monitors have always cost around £100 more than 14in for some unspecified reason. Whether the extra screen area is worth another 70 percent on the price tag is up to you.

PostScript print out

"I have a few (huge) PostScript files I want to print out. The problem is, I don't know how to send them to the printer from Windows.

I've tried clicking onto a .ps file in File Manager and then selecting File/Print, and I've even tried dropping them onto the print manager directly. But both times I get the 'file not associated with any program' message.

I'm on a Windows for Workgroups network with the laser printer attached to one of the PCs (the printer is PostScript compatible). I've tried from the DOS command line, too, but without luck. (I tried 'type manual.ps > prn' , 'type manual.ps > LPT1', 'print manual.ps', etc.)

What's the solution?"

Iqbal Vorajee, Lancashire

What you are attempting to do from the DOS prompt looks about right. Windows doesn't actually have an easy-to-use facility for transferring data from a file directly to a printer without attempting to format the data.

The opposite facility does exist. You can print data to a file by simply specifying FILE as the output port in the Control Panel printer setup dialogue.

There is a problem using the DOS TYPE command, however. It expects to be used on purely text files. It may well fail to copy data files correctly to a printer if they contain binary data. In particular, if it encounters the ASCII EOF character ($1A), it will consider the file to be ended at that point.

The safest method is to use the DOS COPY command instead. You can use the line "COPY /B manual.ps LPT1:" and all should be well, even if manual.ps contains binary data.

The "/B" switch forces COPY to treat the data as binary rather than ASCII text. In particular, it causes it to ignore the EOF character. By default, COPY assumes files are binary except when copying them to a device like the printer or when it is being used to join several files together.

You didn't say exactly what went wrong when you tried to print, but I would have expected you to have seen some sign of life by doing what you did.

It is possible that your printer requires the PostScript file to start with a code to tell it to switch to PostScript mode. The obvious thing to do is to look in the manual, but you may not actually have one so you'll need to resort to trickery to find out what the codes are.

Assuming that the printer works in PostScript from within Windows, map a printer of the same type to the FILE device using the Control Panel. Print something from an application to a disk file and compare the results obtained with your existing PostScript files. You should be able to figure out what you need to add to them to make them acceptable to your printer.

PCW Contacts

Frank Leonhardt is an independent computer boffin who can sometimes be contacted on **0181 429 3047** or via email as **frank@dircon.co.uk** or **leo2@cix.clink.co.uk**. Letters may be sent to *PCW* at VNU House, 32-34 Broadwick Street, London W1A 2HG. Sorry, but due to the high volume of correspondence, individual replies are not normally possible.

Traveling Software (LapLink) **01753 818282**

MBC (laptops) **0181 208 2333**