

## heavy UPGRADE.....

By Mark Tennent

It all seemed simple at first. Swap the Powerbook 1400 for a 3400 and the 7500 for a G3. Copy the files across the network and make good backups before starting. By the end of the week every file on the main Mac had been corrupted. We witnessed a grown man weeping as the Mac engineer banged his head in frustration, the tears of rage flowing down his cheeks to mingle with his blood and sweat on the desk in front of him.

The Powerbook changeover went without hitch. Once you have a Powerbook it becomes indispensable so losing one is like cutting an arm off. The painful gap between the 1400 leaving and the 3400 arriving passed rapidly with little time for mourning. Powerbooks usually ship with a miserly amount of Ram. Luckily a Powerbook 3400 with 16MB RAM will start from a 20MB System made for a 7500/200 with stonking great hard disks, tons of inits and cdevs and oodles of RAM. Not only that, the Powerbook will run Birmy's PostScript RIP and QuarkXPress, so work-in-hand could carry on while the Mac engineer practiced his arcane art. Apple's virtual ram is a tremendous achievement that really works, in this case invisibly and without hitch.

Unfortunately, the swapping of main desktop Macs was an experience that cannot be recommended to any sane person. Apple have included the option in G3s to run two internal IDE drives. These are getting faster than standard SCSI drives and are half the price per megabyte of storage space. A ten-gigabyte drive costing £150 compared with an eight-gigabyte SCSI drive at £300.

To install two IDE drives, one drive, the slave, is connected to the other, the master. This is done with a looping ribbon-cable that flops around the Mac's guts like a long strip of lasagna. This cable is apparently not on sale anywhere so a bespoke cable is made to order and can ultimately be a source of potential trouble. Get it wrong and it slowly corrupts all the data passing along it.

The problem was identified after a six-hour on-site session by a Mac engineer and solved in a matter of minutes. If only recovering all the data were as quick and easy. In the course of getting up and running, areas of the System folder were reached that hadn't seen daylight since when a Mac SE was a pretty neat computer. There were items in the Preferences folder which had been festering there for the last ten years - scores to games long-since completed, documents misfiled and lost in time, links to the great Mac days of the past. A total of 6.8 megabytes to be exact.

Apple has made great advances in the way their computer equipment is put together. The days of “hide the ram under the disk drives” have long-since passed and Macs have become masterpieces of industrial design. In Apple’s desktop cases the component parts all fold aside to give complete access to the motherboard. On the outside, the cases leave a little more to be desired, iMac aside but they are at least a standard colour of high-grade plastic.

It used to be possible to stack computer hardware like a hi-fi system, the component parts came screwed together inside solid metal cases you could rest your coffee cup on. Trying that with today's modems, Ethernet hubs and Zip disks will result in a pile of plastic on the floor and coffee all over your desk. Why do manufacturers make their devices with rounded tops? Worst still, inside they appear to be assembled with blobs of hot glue that inevitably melts. Wouldn't it be easier to stick to standard sizes? Kitchen manufacturers have managed to reach a level of conformity that allows complete freedom in how you lay out the kitchen. There is always a standard case size to fit into the space left over. Even if computer hardware designers made their cases flat it would be a start.

Of course, this problem really came home to us when bits of two brand new G3s lay strewn around the office. The Mac hardware engineer was trying to make one working Mac from the pair of them. The only common component between them was the dodgy IDE drive cable that was thought above suspicion because he had made it.

Eventually a Mac had been created, the new cable made and everything returned to normal. Then the digital damage was discovered and meant the reinstallation of everything onto the new Mac. This was the point at which Microsoft came into some much deserved derision. It is bad enough that for the sake of compatibility with our digitally challenged Windows-using colleagues we have to have Microsoft Office installed. It is a completely different matter that all Microsoft applications, with the exception of Word 5, throw multi-megabytes of junk into your System folder. Then you have to find and install umpteen different bug-fix upgrades.

All applications need some tweaking from the first version. Microsoft seem to make an art form of designing dreadful-looking applications that don't run properly because they are full of bugs. On Windows PC's Microsoft get away with it because anyone stupid enough not to buy a Mac lacks the sense to realise they are being shafted by Microsoft. The usual response to complaints about Microsoft applications not working is that it because something is causing the problem but not the Microsoft application or Windows. On the Mac they don't have this excuse because they are having to fit their application around an operating system designed by someone else. Every other manufacturer has managed this, shareware programmers manage it, even school children making their first programs manage it but it seems beyond the capabilities of Microsoft to create anything that works properly.

But then, Apple did know that after 1999 the last three digits of the year return to zeros!

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