

Back to the past for Apple

Written by Darryn Lowe

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It's amazing, the more I read about what Apple is planning for Snow Leopard the more I realise I've already been there.

I'm not knocking Apple but I came from where Apple is heading when I left the sadly sinking ship that was the Amiga. Everything Apple is planning to do has been done on the Amiga back in the 80's and 90's.

Let me explain. Apple is shrinking Mac OS X instead of expanding it. Effectively Apple is removing things that make it bloated namely Carbon. Carbon was designed as a quick way to get Mac OS 9 apps onto Mac OS X. Unfortunately Many developers relied on Carbon to do things that Cocoa wasn't able to do at the time. When Cocoa became more inline with what Carbon did people still didn't move to Cocoa. Now Snow Leopard apparently is removing or at least reducing functionality of Carbon which means a lot of apps need redeveloping and by which I mean most likely Office and Adobe's apps. If apps are already written in Cocoa then there will be no issues.

Anyway, this size reduction should also mean that there will be less resources required to run the OS and applications. It was this lack of resource requirements that made Amiga's Workbench such an awesome OS. I well remember running 16 applications in 1MB of RAM. Now when I say 16 applications I'm not talking graphics free, small apps, or utilities here. I'm talking Final Writer, DPaint IV, Filthy Lucre (spreadsheet app), Super Base, Miami (Internet Dialer), AWeb (web browser), and other full blown apps. Did this make my machine run slowly? Not really no.

How could this happen though? When PC apps were running ports of Amiga games with pathetic graphics and yet still having to have the RAM limit modified how could Amiga do so much with so little? Well the answer came from the OS. Workbench was actually split into two. There was the application part of the OS called Workbench then there was the OS on a chip part called Kickstart. By moving the most required part of the OS to a chip it meant that half the OS was running at hardware level. The bits that needed writing to or changed regularly with updates was running at software level. But Workbench had another neat trick up its sleeve... Shared Libraries. Shared Libraries are a lot like APIs but they are stored in RAM so that any app needing them will open a copy in RAM but if another app needed that library it won't open another copy of that library in RAM it will use the one that is already open. Because only one copy of a library is open resources aren't needed for every app. Workbench was pretty stable on account of the fact that these open libraries weren't writeable meaning apps couldn't do

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stupid things to them. That's not to say that it was perfect. A library could be corrupted while running in RAM by an app using a library in a less than perfect way.

But while Apple might not be using Shared Library in the same way Amigas did they are moving towards something the Amiga used to do and I've kind of already described this in the last paragraph.

Come Snow Leopard apps that require calls to graphics will be processed by the graphics card and not the CPU which processes it then sends that data to the graphics card. The same is going to be the case with audio. What this means is that you don't really need a powerful CPU nor do you need a powerful GPU but if you've got both you'll see amazing performance. This division of work was what made the Amiga an insanely fast machine, that and the fact it was a 32 bit machine when everyone else was 16 (except PCs who were still 8 bit). The TV series Babylon 5 was all done on Amiga 3000s and Amiga 4000s because there wasn't a machine on the planet able to do the rendering required in the same price bracket. Desktop machines doing work normally reserved for Cray supercomputers.

Ok, so Apple isn't going to be putting Mac OS X on a chip as well as a harddrive (although it would be fantastic if they did - it's not like they don't have experience with this on the iPod and iPhone) but their moving into implementing shared loads with processors designed to do this work means that Mac OS X is going to blitz Windows based machines especially in gaming. In fact when Apple goes this route it will become serious competition with the consoles. Once Apple shows the world how gaming SHOULD be done then it could very well be the death knell for Windows who is already losing ground to Macs and consoles.

If Apple pulls this off it will truly be showing that the Old School is the best School.