

BY STEPHEN MURPHY

Let me state for the record that I am not a computer expert or electrical engineer. I am, however, an avid fan of both computer technology and DIY electronic projects. Though I have not confirmed the following through a repressed-memory specialist, I am convinced that the combination of these two interests, born at an early age from hobbyist fascinations, naturally led me to a decades-long affiliation with what were once commonly referred to as IBM-compatible computers.

In a form of *ritualistic legal back pedaling* (to nick a phrase I once spotted on Monty Python's website), I would also like to state for the record that, gosh darn it, I do use Macs fairly regularly, and quite like them (very much, in fact; no need to write in).

It's just that I can't take Macs apart, swap out motherboards, pop in one of several available brands of \$40 dual-layer 16x DVD burners, or build a new internet-only computer from the remnants of older upgrades. It may be me, but I just don't get the feeling that those sorts of things are encouraged. Yet that is precisely what I enjoy, if not crave.

Thus, for better or worse, through good operating systems and bad, I have emerged from the potentially dispiriting PC black hole intact and reasonably adept at configuring powerful audio and video workstations.

The good news is that one no longer needs to be a manically obsessed, semi-masochistic tinkerer to configure from the ground up a cutting-edge workstation capable of handling a multitude of high-resolution audio tracks and/or uncompressed HD video editing. My latest beast, based around two of AMD's latest-generation dual-core 64-bit Opteron processors, was by far the smoothest and most rewarding configuration process yet.

The times, they are a changin'...

FROM C-64...

For you amateur psychologists out there, my computer-fixated masochism began early (1981, 13 years old) and acutely, with the unrelenting badgering of the parents to hand over a check for \$99.99 (plus shipping and handling) for a Sinclair ZX81 computer – in kit form. I showed them the picture of the computer, pointed out all its educational benefits, and then begged. A lot.

Apparently, the bright yellow Sinclair magazine ad filled with highly innovative and successful subliminal messages designed to

Building the Perfect Beast (Part 1)

inspire unceasing desire only worked on the weak of mind. So, two months and six or seven lawn mowings later I had that check.

The Sinclair computer was about the size of a hard-back book, had a plastic membrane keyboard, ran its own version of BASIC, output its RF video signal to channel 3 on my black & white TV, and boasted 1k of RAM. I was in heaven.

But there was no love lost on the Sinclair when, later that year, we got a Commodore VIC-20. Sorry, Sinclair, but this baby had a 1MHz processor and a whopping 5k of RAM, plus displayed 22 lines of video display in any of 16 glorious colors. Now that's livin'!

But, really, you haven't lived until you've fired up the all-powerful Commodore 64, which we did about a year later (I know... we were so behind the times it was embarrassing). For myself, and many others, this computer was the turning point. With an inexpensive price, growing selection of commercially available programs (including – most significantly for me – a sequencer program called Steinberg Pro 16 that worked with a new technology called MIDI), and a wide range of add-on peripherals, the C-64 catapulted the personal computer into the popular market, ultimately selling over 1.7 million units.

...To x64

I got plenty of mileage out of my faithful C-64, but ultimately the advance of processing power and increased demands of professional use propelled me into the world of PC-compatibles. The next significant move was from a two-floppy Kaypro to an x286-based machine running MS-DOS 3.1 (with an early version Cakewalk and a Minnetonka CardD audio interface). Pretty much the rest of the next 10 years is a blur of configuring, upgrading and trashing (with large chunks of time and many unhappy experiences intentionally blacked out, I am sure).



Things are quite different now: since Windows NT4, Microsoft's operating systems have become increasingly stable and easier to install, driver development has become more robust, and peripheral hardware conflicts are essentially a thing of the past. At the same time, processing power has begun to leap frog over most users' processing demands, so we are able to hang on to computers longer before sending 'em out to pasture (especially with the availability of DSP add-in cards).

Now, with the increased demands of high-definition video and high-resolution surround audio, that time arrived for my system. In making the leap to the dual dual-core AMD Opterons, I am now exploring the power and pitfalls of 64-bit computing, and am every bit as excited as when I built the Sinclair 25 years ago.

Next month I will describe the configuration process and offer tips on building your own perfect beast.

PAR Studio Editor Stephen Murphy has over 20 years production and engineering experience, including Grammy-winning and Gold/Platinum credits. His website is www.smurphco.com