

# Generation Shift

Sven Harvey returns with an other look at the Amiga side of life

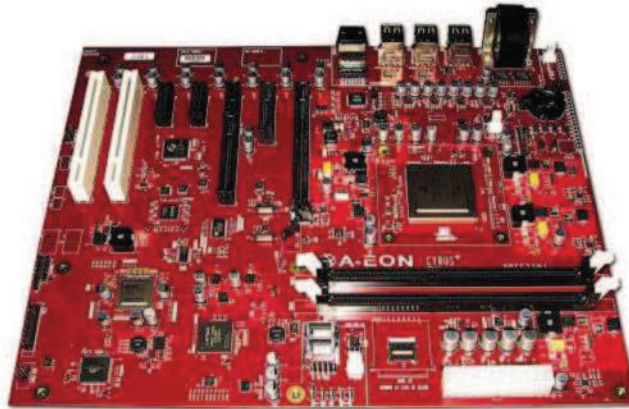
It's now 14 years since Amiga Mart started, and it has now been a decade since Amiga OS 4.0 first broke cover with screenshots and, indeed, the tenth anniversary of the first public demos is only a month away.

Software-wise the OS has been moving on – at a pace that, to the naked eye of someone not intimate with the Amiga's, shall we say, uniquely handicapped position for most of the time since Commodore's collapse nearly two decades ago, might seem slow.

Until 2003, the AmigaOS was pretty much locked into the custom co-processors and the Motorola 68000 CPU series, because although some work (WarpUP/PowerUP) had started with the adoption of PowerPC in 1995 with small chunks of OS particulates being replaced for use with PPC accelerators, no actual integration of non-68k code into the OS started until Hyperion Entertainment started work on Amiga OS 4.

The task was immense and hardware scarce, to say the least, with very limited numbers of the original AmigaOne machines available. The OS code needed a complete rewrite from top to bottom to take advantage of PowerPC with the extended aim of supporting multi-core processors still being in the future at this point, and the eventual fully 64-bit version on the horizon that can then be ported to other 64-bit architectures (including, hopefully, ARM-64).

Hardware-wise, though, the development is a bit more obvious. ACube has offered three different PowerPC-based boards that support AmigaOS 4.x, culminating in the AmigaOne 500 machine (see [tinyurl.com/mtly4tvk](http://tinyurl.com/mtly4tvk)). Parallel



▲ The next motherboard for AmigaOS (which may also support MorphOS and Linux)

to that is a new start-up, A-Eon Technology, partnered with Hyperion Entertainment and Ministry of Defence contractor Varysis (set up by the creators of the Transputer, no less), to develop a new high-end AmigaOS 4.x specific machine.

The result of that is the AmigaOne X1000 (in Amiga terms, it's a dual-core 64-bit powerhouse, based on the scarce and increasingly expensive PA Semi PA6T-1682M PowerPC processor and Varysis' Nemo motherboard).

Every, admittedly small, run of this machine, which includes a custom Boing Ball embossed version of Fractal Design's Define R3 case, sells out before final assembly at AmigaKit (which is A-Eon's distributor).

Nemo's successor is on the way fortunately as the PA Semi CPU disappears from availability. Cyrus entered development a little while ago and at Silicon Dreams 2013, Trevor from A-Eon put Cyrus (Mk 1) and Cyrus+ (Mk 2) boards on display.

The Cyrus Plus 2.0, to use its full name, is a larger (full-size ATX) board than the Cyrus micro-ATX board, and although it's officially the mark-two

version of the board, Trevor is not ruling out the development of both board sizes. This led to the glib remark from me of referring to it as the AmigaOne X1200, because the A1200 is my favourite of the classics at Silicon Dreams, but Trevor did say it was far too soon to think of such things.

The Cyrus Plus 2.0 is designed to take SoC processors from Freescale's P50x0 line with the 2GHz 64-bit dual-core P5020 being the initial target CPU, although it will support the P5040 quad-core 2.4GHz unit when commercially viable. Interestingly, the boot ROM takes the form of an SD card, opening up the possibility of big portions of the OS being on there rather than the hard disk.

We're talking second prototype here, though, so testing, development and then a small run for a closed beta test will have to take place before a release candidate is selected, so 18 months at the least. At least there will be something to base a replacement of the X1000 on (and given the CPU name, the moniker 'AmigaOne X2000' seems sensible).



Sven Harvey has been our Amiga specialist for over 12 years, drawing on his vast computing knowledge which is itself the result of 21 years of retailing computer and video games

# Amiga