

# OS 4 on AmigaOne!

When producing a magazine, you quickly learn that the big news stories always seem to break just after an issue goes to the printers, but of course, before readers receive their magazine. With this issue of Total Amiga we had just committed the final version to a CD-R for the printers when reports came in that OS 4 had been demonstrated running on an AmigaOne at the Pianeta Amiga show in Italy. Rather than delay this issue, especially when the reports were rather sketchy, we decided to include this "Stop Press" sheet to update those of you who don't regularly scour the Internet for Amiga news.

## Italy

At the Pianeta Amiga show OS 4 was demonstrated on an AmigaOne-XE G4 system with a Voodoo 3 graphics card. At the time of the show booting on the AmigaOne had only just been achieved, the developers said that it had taken about one and a half weeks of work to get the OS to this stage from the beta versions which currently run on classic Amigas with a CyberStorm PPC.

The move to the AmigaOne required the solution of a number of tricky problems including support for vital AmigaOne hardware (so the OS could be loaded) and the removal of chipset dependencies such as those for the mouse, keyboard and, most importantly, the graphics system. To achieve the port in such a short time the AmigaOne at the Italian show booted over a serial connection (removing the need for an IDE driver). The AmigaOS graphics.library and Picasso 96 were 68k versions running under interpreted emulation. Because the graphics.library relies on the classic Amiga's custom chipset, code was written to emulate just those parts of the chipset the library functions require when running with Picasso 96 (it is important to note that this is not a step towards full chipset emulation). To make the system usable drivers for a PS/2 mouse

OS 4 running on an AmigaOne-XE G4. "Show Config" recognises the 7400 series PowerPC G4 processor.



and keyboard attached to the AmigaOne's built-in sockets were also written.

Because the OS had to be loaded across a serial connection booting was slow at the Italian show. There were also some comments from visitors that the display of windows was sluggish, however this was to be expected with the stop-gap graphics solution being used. Ben Hermans, the OS4 project manager, stated on AmigaWorld.net that the performance was less than 10% of what is expected once the graphics sub-system is ported to PowerPC. Despite the limitations many show-goers reported that OS4 on the AmigaOne was usable and a number of demo programs were shown, including a speedy fractal explorer.

## The Netherlands

As I write it is two weeks after Pianeta Amiga and OS4 is being demonstrated on AmigaOne-XE G4 systems at another Amiga show. This time it's the Benelux Amiga/Pegasos show held in Rotterdam, The Netherlands. In those two weeks a surprising amount of progress has been made. Support for the AmigaOne IDE controller has been implemented meaning the AmigaOne can now boot into OS 4 from its own hard disk. In

contrast to the long boot times seen in Italy the system now boots from cold in about 15 seconds (5 seconds of which is for the U-Boot "BIOS") including loading a backdrop picture and AmiDock. The current IDE driver is still a prototype without UDMA support, when the full driver is implemented Ben Hermans expects even faster booting (and of course even better general performance). Many more programs were shown running on the AmigaOne at this show, including a native port of Quake I (without 3D acceleration) and the word processor Wordworth running under 68k emulation. The 68k version of Moovid (the popular shareware movie player) was demonstrated under emulation, a native PPC version is currently being prepared.

## What's Left to do?

According to the developers the major task remaining for the completion of AmigaOS 4 is the porting of the graphics.library and Picasso 96 to native PowerPC code. This is a more complex task than some other OS modules, because both include significant amounts of assembler code which must be re-written rather than just re-compiled. At this point the CyberStorm PPC version should be ready for final testing before

release (remember that most OS components have been in beta testing for several months already) because it can use the Picasso 96 graphics card drivers already available. The AmigaOne version will then have the SNAP drivers integrated which support a huge range of graphics chips.

The OS4 developers still expect to have CyberStorm PPC version ready first, but due to the work done over recent weeks, it looks like the AmigaOne version won't be far behind.

## Editor's Note

It is great to see OS4 booting on the AmigaOne and while what was seen at the recent shows was obviously an early version it is a great milestone and a huge boost to the project. Most of the reports from the two shows have been positive and a great deal of interesting information has been made public on the OS4 project. If you want more detail I've listed some useful web sites in the "Hot Links" box out.

## Hot Links

### www.amiga-world.net

This portal has the first official screen-shot of OS4 running on the AmigaOne (reproduced above) and forums with regular contributions from members of the OS4 team.

### www.amiga.org

Full coverage of the Benelux show including written reports, a photo gallery and transcripts of on-line chats with the OS4 developers (well worth sifting through).

### www.beneluxamigashow.com

The official Benelux show website where photos and reports should be available by the time you read this.