

# More than a Toy but No Bargain

By Mike Burgard

*Amiga 3000UX offers SVR4 on an outdated chip without the Amiga PC's capabilities*

Commodore is hardly a name you expect to hear bandied about in the UNIX workstation market. Yet, Commodore is positioning its Amiga 3000UX—stocked with UNIX System V Release 4 from AT&T, Open Look, and Ethernet support—as a niche workstation alternative. Despite the good intentions, Commodore misses the mark with the Amiga 3000UX because of its small, 14-inch color monitor, limited software supply, poor price/performance, and no UNIX-to-DOS utilities.

Commodore makes it clear that the Amiga is not going head to head with IBM, Hewlett-Packard, or high-end Sun Microsystems engineering workstations. Instead, Amiga is targeting individual users, the university market, and because of its port of SVR4, the “large quantity development market.” Paul Caulkin, UNIX programs manager for Commodore explains: “We are positioning the Amiga 3000UX for the large in-house developer that would rather have standalone machines than terminals on each developer’s desk.”

As a billion-dollar company, Commodore has a large network of users and dealers. But to compete in the lower end of the UNIX workstation market, Commodore has to offer a sizable price break or solid value-added features: the Amiga 3000UX offers neither. The available system configurations are too expensive and the standout third-party products normally associated with the Amiga PC—namely jazzy graphics and strong video support—are not available for the UNIX Amiga. Commodore promises that multimedia products will be available in 1992.

The base system comes with a 100-

megabyte hard drive and Ethernet card, but no monitor, and costs \$4,998. Although this price seems reasonable, UNIX users need more than the base system to satisfy routine disk and monitor requirements. They need the 3000UXG, the reviewed platform, which had a 200-megabyte hard disk, Ethernet Card, TIGA graphics adaptor, multiscanning monitor, and a price tag of \$7,713. Compare this against Sun’s \$6,995 SPARCstation IPC with its 16-inch color monitor, 207 megabytes of disk, eight megabytes of memory, and 3 1/2-inch floppy drive.

## Compact and Quiet

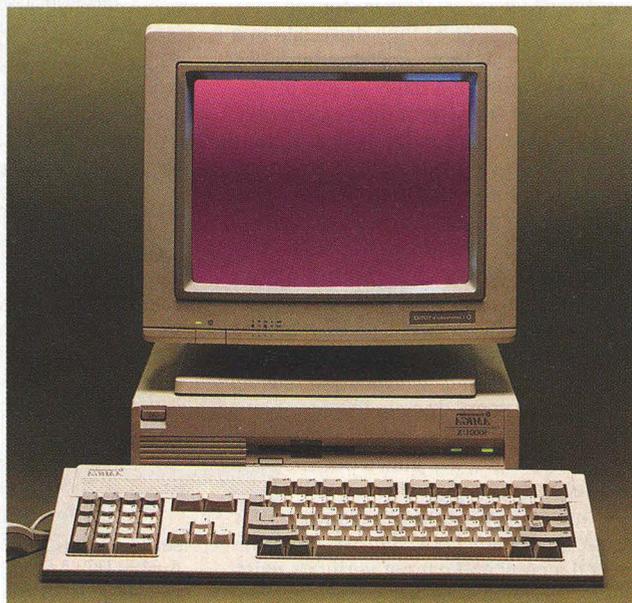
The Amiga 3000UX is an attractive machine. The system box is compact, cleanly

designed, and resembles a small-footprint PC jammed to the gills. Inside the 20-pound system box are four proprietary expansion slots, two floppy drive bays, up to 18 megabytes of RAM, a power supply, and a 68030 processor. The Amiga also supports 100 to 400 megabytes of hard disk.

The location of the floppy bays represents efficient use of space, but makes the Amiga 3000UX a difficult machine to work with at the board level. When our test unit died, the technician had quite a chore getting at the system memory. The fan and hard disk maintain an extremely low ambient noise level in comparison to any machine—UNIX or DOS.

Inside the Amiga is a Motorola MC68030 32-bit processor running at 25

**Commodore's entry into the UNIX workstation market, the Amiga 3000UX, comes with AT&T UNIX SVR4, Open Look, and Ethernet support—but it doesn't have the speed, software, or UNIX-to-DOS utilities that most users demand.**



MHz and a 68882 math coprocessor. The 68030 leaves the Amiga one whole generation behind the Nextstation with the 68040 processor. Commodore would not comment whether they have a 68040 machine in the works, although even a faster processor wouldn't overshadow the UNIX Amiga's other problems.

The Amiga comes standard with either five or nine megabytes of on-board memory. This odd configuration results from the two types of RAM on the Amiga. One megabyte of RAM is set aside for video and sound, giving the Amiga its improved graphics performance. Separate from this are four megabytes of additional memory for operating system use. This memory, called fast SCRAM, runs at 80 nanoseconds and is expandable to 16 megabytes.

### The Return of Zorro?

Four expansion slots are vertically mounted in the Amiga, each capable of holding a full-size card. Two of the slots double as ISA-compatible slots, but all four use Commodore's proprietary Amiga Zorro III bus, which uses a 100-pin slot and limits the options available for expansion because of the limited manufacturers of Zorro-compatible boards. The review machine came with a thin Ethernet card (\$331) and a TIGA high-resolution graphics card (\$998) in two of the slots. According to Commodore, any ISA card will work in the dual bus slots.

The standard hard drive is a SCSI 19-millisecond, 100-megabyte Quantum. This drive is both quiet and quick. The standard 100-megabyte drive is barely sufficient because the system files alone consume more than 70 megabytes. Serious work requires the optional 200-megabyte disk drive unless you rely on a network for most of your storage.

The optional SCSI tape drive sits in a standalone unit that uses standard 150-megabyte tapes and daisy chains off the SCSI port in the rear of the system unit. Thanks to an unfriendly design, if your tape drive is connected, it must be turned on or the hard drive might fail. If there are no additional SCSI devices, a terminator is required on the SCSI port.

The optional 14-inch multiscanning monitor provided with the review unit left much to be desired. Its size makes for a diminutive workstation when compared to any other system. The swivel base broke apart during shipment and the power cord was missing. The screen seemed to have the jitters because the display occasionally wavered.

Commodore claims there is a color version of Open Look, but we never received a copy and cannot verify its existence. The color monitor never got a real

workout. A monochrome monitor with the ability to display 1008 by 800 pixels is available for the same price as the color monitor. A high-resolution TIGA board with 1024-by-768 resolution is also an option. Unfortunately, the TIGA did not boot with the system, so you must have two monitors, which again increases the cost of the Amiga, especially in comparison to a Sun or Next machine.

The 94-key keyboard is also a weak link. There are no dedicated PgUp, PgDn, Home, or End keys, and there are only 10 function keys. The feel of the keyboard is "middle of the road"; it has

## Review Highlights

### CONTACT INFO

#### Amiga 3000UX

Commodore International  
1200 Wilson Dr.  
West Chester, PA 19380  
215-431-9100



Uses UNIX SVR4. Hardware optimized for outstanding graphics and audio. Excellent beginner's manuals. Strong support structure. Easy to set up.



Expensive for a low-end machine. Color monitor choice inadequate for many tasks. Software availability is sparse. Unable to run DOS and UNIX simultaneously. Uses 68030 processor. No SVR4 manuals.

### PRICE

\$6,998 for 200-megabyte hard disk, nine-megabyte RAM, 3 1/2-inch floppy drive, TIGA video. Monitor and tape drive extra.

### WARRANTY

One year parts and service.

### SUPPORT

8 a.m. to 8 p.m. (EST), Monday through Friday, toll free. One year free support and service in the continental United States.

a mushy feel, and lacks a tactile click—or any click for that matter.

### SVR4: Prodigy or Problem?

One reason Commodore is so high on the Amiga is its ability to run SVR4. Commodore states that Amiga UNIX "is an ABI-compliant industry standard configuration of UNIX SVR4." This is one of the first machines that has SVR4 as standard equipment and the first with a Motorola 68000 series processor. The system comes preloaded with UNIX SVR4 and Open Look.

The Amiga 3000UX is essentially the same machine as the highly regarded Amiga PC. AmigaDOS 2.0 is also preloaded on the hard disk, but is not compatible

with MS-DOS because AmigaDOS is a multitasking operating system created specifically for the Amiga. A coprocessing board, such as a \$754 BridgeBoard coprocessor add-in board, must be purchased to run DOS applications. Compounding the Amiga's problems, you cannot run AmigaDOS and UNIX simultaneously, nor is there a DOS emulator. The bottom line is that the Amiga 3000UX is not the machine you want if combining DOS and UNIX is your goal.

As for software for the Amiga, we were able to get a copy of Empress Software's DBMS, but other products and information are slow in coming. Commodore provided a list of approximately 50 separate applications, but the only well-known names were Oracle (DBMS products), Quadratron (Cliq), and Quality Software Products (Exclaim). Noticeably absent were multimedia, engineering, and scientific applications. Only university users interested in exploring and using SVR4 will not be bothered by the small number of applications.

### On the Other Hand

There really are some likable features in the Amiga, such as the Open Look GUI. The system comes with a small set of utilities built into the GUI—most useful is the file manager, which gives you a visual picture of all directories and files. The file manager runs **vi** or executes a file when you click on an icon, depending on whether the file is text or an executable.

SVR4 supports virtual screens in a fashion similar to The Santa Cruz Operation. Alt-F2 invokes a second screen and log-in. Virtual screens allow a single user to conduct a variety of sessions on the same workstation. X Windows reduces the need for virtual screens in a single-user machine, but the option is still a benefit.

On the value-added side, Commodore promotes the Amiga as a multimedia box. Unfortunately, Commodore admits that there is no multimedia software yet available under UNIX. For a machine with multimedia features, you might be better off with a monochrome Nextstation for \$4,995. If it's applications development software that you want, Commodore has about 15 developer's tools, but nothing at the level of Saber Software's Saber C or ParcPlace's Objectworks.

A network card provides both thin and thick Ethernet support and support for TCP/IP and NFS is built into SVR4. The process of connecting to a network is a simple matter of altering the **/etc/hosts** file and hooking up the cable.

### How fast is fast?

Performance issues are difficult to nail down with the Amiga. The 68030, the

math coprocessor, and the one megabyte of video RAM contribute to making the machine responsive, but Commodore has deliberately tried not to position the Amiga in markets in which performance is the major evaluation criteria. However, SPECmarks have shown even the 68040 processor to be slower than the SPARC chip in the IPC. There is doubt that the Amiga is

quick enough to handle common tasks such as document creation and educational uses. Our experience with scrolling documents and using X utilities tells us the Amiga is on par with a slow 386 machine running SCO Open Desktop.

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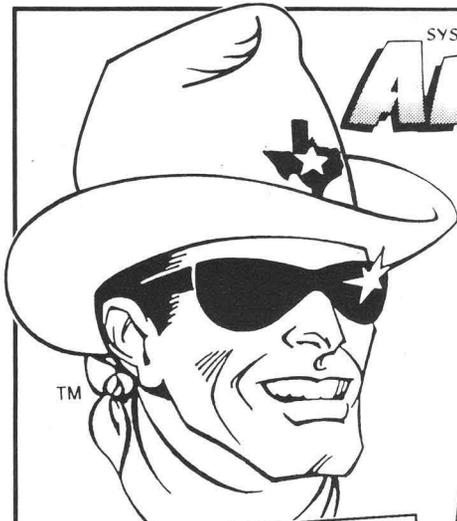
The Amiga was truly easy to set up and get running. A color brochure leads you

through the cable connections and set-up steps in an almost simplistic manner. With all the operating system software preloaded, you can have a login prompt within about 30 minutes of opening the boxes. The plug-and-play aspects of the Amiga make it attractive to many users.

The Amiga also comes with an outstanding support policy: if anything goes wrong with the machine in the first year, Commodore will fix it free of charge. We were able to have a technician up in the boondocks of Montana within 24 hours when a set of RAM chips died.

Documentation stands out from the typical. Three small manuals take you

**C**ommodore hasn't given us a convincing reason as to why it put UNIX on the Amiga



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through installing, learning, and using Amiga UNIX. The small-format manuals come with spiral binding, detailed instructions, and frequent illustrations. The main AT&T UNIX manual pages are online and can be accessed with the man command. Commodore does not offer a full SVR4 documentation set.

The Amiga draws a fiercely loyal following in the PC world and we can see the characteristics of a soundly built machine. Quiet and small, the Amiga packs a lot of system into a tight space and supports it with one of the best service guarantees in the business.

Even so, Commodore hasn't given us a convincing reason as to why it put UNIX on the Amiga. And we haven't a clue. The Amiga 3000UX is a sound hardware box looking for a home. At its present price, it provides no attraction compared to inexpensive Suns, SPARC clones, or even Nextstations. The lack of multimedia software also leaves the Amiga hollow. But if you like a mystery and are willing to risk \$7,000, give it a try. ■

*Editor-at-Large Mike Burgard is a regular reviewer for UNIXWORLD and a data systems information manager for a commercial printing company in Montana.*

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