Morton A. Kevelson on Hardware

Trumpcard 500 with *Trumpcard* installed.

Let's join Mort as he examines A500 SCSI/RAM expansion boxes from IVS and Supra.

Starting with the 'big belly' RAM boards in issue #38, which were followed by the multislot expansion boxes in issue #40, I have been systematically exposing the possible ways of expanding the operational capacity of the Amiga 500. This time around I will examine 'outboard' expansion boxes for the Amiga 500. I was going to call these 'sidecars'; however, Commodore has already usurped this designation for the Amiga 1000 version of the Bridgeboard.

For our purposes, an Amiga 500 'outboard' is a limited-capacity expansion box that plugs into the Amiga's external expansion port. An 'outboard' is normally used to add a hard drive, additional memory, or both to your system. In this issue, I will be looking at the *Trumpcard 500* from Interactive Video Systems, *Supra Drive 500XP* and *Supra RAM 500RX* from Supra Corporation. In the future I will examine Xetec's *Fasttrak SCSI Host Adapter* and *FastRAM* for the A500, the *DataFlyer 500* from Expansion Systems, and *Impact Series II A500 HD* from Great Valley Products. I will then attempt to finish off this series by loading an Amiga 500 to the gills with every conceivable product from ICD. Specifically, I intend to cram an *AdRAM 540, AdRAM 560D, Flicker Free Video, AdSpeed* and a *Novia 20* hard drive system all into an Amiga 500's case!

TRUMPCARD 500

Interactive Video Systems' (IVS) *Trumpcard 500* is a sturdy aluminum enclosure that extends seven inches to the left of the Amiga 500. Its overall depth is nine inches and it attains a maximum height of 3 1/8 inches, which makes it just about 3/4" taller than the computer. The front of the enclosure slopes down to the same height as the keyboard. Green and red disk activity and power LEDs adorn the sloping front panel. The rear panel sports a five-pin DIN connector for an optional external power supply and a cutout with a plastic insert for an optional DB25 connector which is used for adding external SCSI devices.

Inside the *Trumpcard 500* is a two-slot A2000 expansion chassis. These 100-pin expansion slots can accept standard A2000 plug-in cards; however, the physical dimensions of the enclosure limit the system to half-length cards. The top of the enclosure has enough space to install a half-height 3 1/2 inch hard drive. Note that the hard drive mounts upside down inside the *Trumpcard*. Most hard drive manufacturers do not restrict inverted mounting; however, Seagate does not recommend it. According to an IVS spokesperson, Seagate's engineering department has indicated that some of the early Seagate drives had spindle bearing assemblies which were affected by inverted mounting. All of Seagate's current hard drives have symmetrical assemblies which can be installed either way.

A pair of jumpers on the expansion chassis lets you power the box from either the Amiga or the external power supply. You can probably get away with powering a single hard drive or a low power hard drive and two megabytes of RAM from the Amiga. If you expect to go beyond this, it would be prudent to invest in the external power supply.

IVS offers a choice of four half-length cards with which to fill the slots in the *Trumpcard 500*. *Trumpcard* is a SCSI host adaptor which can be installed in either the *Trumpcard 500* or in an Amiga 2000. On-board connectors are provided for a standard 50-conductor flat SCSI ribbon cable, and an optional 25-conductor cable to the DB25 connector for external SCSI devices. If you buy the *Trumpcard 500* without a hard drive, you will also get an eight-inch length of 50-conductor SCSI cable. An on-board jumper lets you select autobooting if you have Kickstart 1.3 or higher in ROM, or you can choose floppy disk booting if you are still living with Kickstart 1.2.

TCUtils 2.0, *Trumpcard*'s hard drive installation and

setup software, is the best that I have seen for any hard drive system with regard to ease of the initial setup as well as overall flexibility. Starting with a brand new hard drive, if you choose to accept the default option of a single partition *TCUtils* will handle the entire process of low-level formatting, AmigaDOS formatting, and installation of Workbench and AmigaDOS. If you wish to partition the hard drive, *TCUtils* offers a 'click-and-drag' graphical interface which makes partition sizing as painless as possible. You can choose either the old file system or the fast file system for AmigaDOS partitions, or you can create *AMax II* partitions. If you think you know what you are doing, *TCUtils* will also let you directly specify every conceivable user-settable hard drive parameter. The latest release of the *Trumpcard* driver fully supports Commodore's rigid disk block system.

TRUMPCARD PROFESSIONAL

If you are looking for faster performance, then *Trumpcard Professional* is a worthwhile option. *Trumpcard Professional* sports a pair of 50-pin SCSI connectors, autoboot jumpers, and SCSI ID jumpers. The latter let you change *Trumpcard Professional's* SCSI ID if you wish to use the system as part of a SCSI network with more than one host adaptor. Setting up a SCSI network lets you share SCSI peripherals with more than one computer. The present limitation of a SCSI network under AmigaDOS is that only one host system can be allowed to write to any single peripheral. Of course, shared reads are permissible.

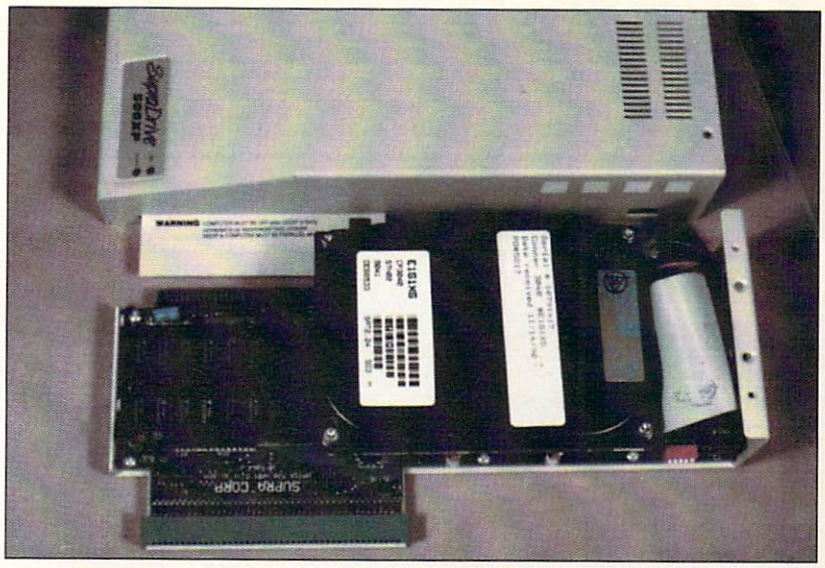
To let you add additional memory to the system, IVS offers *Meta 4*, an A2000 half-card which can add two or four megabytes of fast RAM using one megabyte SIMMs. *Meta 4* will work with either type of one-meg SIMM, as long as they are added in pairs.

Grand Slam, IVS's latest offering, is a *Trumpcard Professional* with an on-board parallel port and sockets for eight megabytes of SIMM-based RAM expansion. I have not worked with *Grand Slam* as of this writing; however, IVS was running a very impressive real-time video demo with a SCSI network using two *Grand Slams* at the New York Amiga World Expo.

Trumpcard 500 is a rugged, economical expansion system for the Amiga 500. I have been using a *Trumpcard* in my A2000 with a 48 megabyte Seagate ST157N for two years, and have recently added an 80 megabyte Seagate 1096N to the system. Keep in mind that if you decide to upgrade to an Amiga 2000, the half-length cards in the *Trumpcard 500* can be used in the new system.

SUPRA DRIVE 500XP

The *Supra Drive 500XP* is housed in an all-metal enclosure that is 11 1/2 inches deep and adds 4 1/4 inches to the width of the A500. When installed in the A500's expansion port, the box extends about 1 1/2" behind the computer. *Supra Drive 500*'s profile closely matches the Amiga 500. Inside the enclosure is a SCSI host adapter with room for up to eight megabytes of fast RAM on-board. A 3 1/2" half-height hard drive is mounted on standoffs to the rear of the enclosure. The



Supra Drive 500XP with 2MB RAM.

system I received was equipped with a Conner 3040 40 megabyte low-power hard drive and two megabytes of RAM. This system was powered from the Amiga 500.

Supra Drive 500XP's back panel is equipped with a DB25 connector for external SCSI devices, a power connector for an optional external power supply, and a miniature 'game' toggle switch which disables the hard drive but leaves the fast RAM in service. At the rear, on the right side of the case, is a set of miniature DIP switches, which can be accessed without unplugging the *500XP* from the Amiga. Three of these are used to set the SCSI ID of the Supra host adapter. A fourth switch is used to enable or disable autobooting. The fifth switch disables the built-in fast RAM. Power supply jumpers for selection between the Amiga's power supply or the optional external power supply are located in the *500XP*'s expansion port connector. These jumpers can be accessed without opening the case by simply pulling the unit out of the expansion slot. Overall, Supra has done an excellent job of making all the needed settings easily accessible to the end user.

The *500XP*'s internal RAM can be configured as 512K, 1MB, 2MB, 4MB or 8MB. The 512K, 1MB, and 2MB configurations use one megabit chips of the 256Kx4 variety. An alternate 2MB configuration, as well as the the 4MB or 8MB configurations, are obtained by using four megabit chips of the 1MBx4 variety. All chips have to be in DIP packages. At the present time the four megabit chips are about twice the price of the equivalent amount of RAM using 1 megabit chips. Eventually, possibly by the end of this year, this situation will reverse itself. Note that you cannot mix the two varieties of RAM chips. If you start out with 1 megabit chips and wish to expand beyond 2MB, the smaller chips will have to be removed.

The *Supra Drive 500XP* has an Amiga 500 expansion bus pass-through which lets you hook up additional Amiga 500 expansion peripherals. In an effort to determine just how far I could go with this pass-

Trumpcard 500

With *Trumpcard*

★★★★

$269.95

Trumpcard 500

With *Trumpcard*

Professional

★★★★+

$279.95

Interactive

Video Systems

Yes, this setup works...even the Atari monitor on top.
No, this is not a Macintosh!

through, I plugged in a California Access *Bodega Bay* expansion box. The *Bodega Bay* had a Xetec *FastCard Plus* with four megabytes of RAM and a 40 megabyte Quantum hard drive installed. Using the game switch, I disabled the hard drive in the *500XP*, but I left its 2MB RAM in service. The system actually worked (see photo). My compliments to both Supra and California Access on the design of their Amiga 500 expansion port interfaces!

The setup utilities provided provided with the *Supra Drive 500XP* include *SupraFormat*, a full-screen icon-driven utility which is used to set up the drive from scratch. It automatically identifies and selects the parameters for any SCSI controller and hard drive on your system. *SupraFormat* also makes it easy to create as many as thirty partitions on the hard drive. The *SupraEdit* program, which greatly resembles *SupraFormat*, lets you access the lower-level hard drive parameters. The *SupraTools* disk also contains *CLImate*, Progressive Peripherals' icon-driven file management utility for any AmigaDOS trackdisk device. For data security, Supra includes *Express Copy*, a hard drive backup and file copying utility.

Supra Drive 500XP

★★★★

$449.95 And Up

Supra Ram 500RX

★★★★★

$169.95 (1M)

$279.95 (2M)

Supra Corporation

SUPRA RAM 500RX

Supra Ram 500RX is housed in a 9 1/2 inch deep, all-metal enclosure that plugs into the Amiga 500's expansion port. The enclosure adds only one inch to the width of the Amiga 500, and its profile closely matches the computer's. *500RX* lets you add up to eight megabytes of fast RAM to the Amiga. The RAM can be easily disabled with a miniature toggle switch located on the back panel. A connector for an optional power supply is also located on the back panel.

Using 256Kx4 ZIP dynamic RAM chips, you can add 512K, 1MB, or 2MB of fast RAM to the system. By switching to 1MBx4 ZIP chips you can add either 2MB, 4MB, or 8MB of fast RAM. More ZIP chips can be crowded on a circuit board because they stand on edge.

Like the *Supra Drive 500XP, Supra RAM 500RX* has a pass-through for the Amiga 500's expansion bus. Although I have not yet plugged the *Bodega Bay* into this pass through, I have run several less ostentatious peripherals without any problems.

All of the IVS and Supra products mentioned in this column performed quite satisfactorily. All demonstrated good design characteristics and proved easy to work with. I do not hesitate to soundly recommend them all.

ADDRESSES

Supra Corporation, 1133 Commercial Way Albany, OR 97321, 503-967-9075

Interactive Video Systems, 7245 Garden Grove Boulevard, Suite E, Garden Grove, CA 92641, 714-890-7040

★

CD-ROM UPDATE

I have found several more CD-ROM products that work with the Xetec CD-ROM drive:

✓ **Olivia De Berardinis' Exotica-ROM** #1-1327 Mac & PC version, $199, Educorp Computer Services, 7434 Trade St., San Diego, CA 92121, 619-536-9999

This disc contains 154 of the artist's images in 24-bit TIFF, color GIF, 8-bit gray RIF, GIF, and *MacPaint* image file formats - a total of 846 files and 250 megs of image data. The files can be accessed from AmigaDOS, and the images can be processed and displayed by ASDG's *Art Department* or *Art Department Professional*, as well as with Active Circuit's *RasterLink* (formerly *ImageLink*). The press sheet for this product says, in part: 'Olivia De Berardinis is an artist with a wonderfully deep, vibrant feeling for the feminine form.'

✓ **The Fred Fish Collection on CD-ROM** Volume 1.1, Jan 1991, $69.95, HyperMedia Concepts, PO Box 85303, Racine, WI 53408, 414-632-3766.

This CD-ROM disc contains Fred Fish disks 1-410, the Gold Fish disks, and the Aquarium indexing and search program. Unlike the categorized disc included with the Xetec drive, this library is organized by Fish Disk number in its original form. A second copy of the library is provided with each disk as a single ZIP file for BBS use. Updates will be issued every four months at a cost of $29.95 for registered owners.

✓ **Designer's Club on CD-ROM**, $594, Dynamic Graphics, 6000 N. Forest Park Dr., PO Box 1901, Peoria, IL 61656, 800-255-8800.

This disc contains 517 Encapsulated PostScript clip art files organized in 13 directories. Each EPS file contains a bitmap representation of the image which can be used by some page layout programs, such as *PageStream*, for screen display.

See also this issue's New Products item on *ImageCELs* from Imagetects.