# CONNECTIX MEMORY PRODUCTS

## VIRTUAL

When Connectix introduced VIRTUAL in 1989, it created quite a stir. Before that, virtual memory had only been available for workstations and mainframe computers.

Virtual, the original software SIMM, was the first implementation of general virtual memory on any popular personal computing operating system. It provided Macintosh users with an inexpensive method of increasing internal memory without adding expensive RAM. Virtual received accolades and top industry awards while rescuing users from a temporary shortage of RAM.

Today, Apple has added basic virtual memory (VM) to its System 7 software. But Virtual 3.0 continues to set the performance standard: it's faster, more compatible, and can use less disk space that VM. System 7 VM requires 1MB of hard disk space for each megabyte of application memory, regardless of the amount of physical RAM installed. Virtual 3.0's new Disk Saver feature only requires as much disk space as is needed to extend your physical memory. For example, consider a Macintosh equipped with 8MB of physical RAM. To run 10MB using VM requires setting aside 10MB of hard drive space. Using Virtual with Disk Saver on, the required hard drive file is only 2MB.

Virtual 3.0 is fully compatible with System 6 and System 7 (24-bit or 32-bit addressing mode). And, Virtual 3.0 provides 14MB of virtual memory in 24-bit addressing mode while System 7 VM usually offers 13MB (12MB on the IIsi).

Virtual 3.0 has also been optimized for use with the Mac Plus, SE, and Classic equipped with a compatible 68030 accelerator card. This version, Compact Virtual 3.0, creates 16MB of virtual memory on an accelerated compact Mac with four or less megabytes of RAM. Since the Mac Plus, SE and Classic do not have support for 32-bit addressing or System 7 VM, Compact Virtual is the unique solution for access to much needed memory. Compact Virtual improves 24-bit addressing by eliminating some memory pre-fragmentation to create nearly 12MB of contiguous application memory.

With most accelerators, Virtual Compact can also access 16MB of physical RAM (four 4MB SIMMs), all in 24-bit addressing mode. Virtual Compact can create a a protected non-volatile RAM disk with any RAM that is not used as application memory, a feature that Connectix's MAXIMA provides for SE/30 and the Modular Macintoshes. This RAM disk survives system crashes, shutdowns and restarts. And by automatically copying your start-up files, Virtual's RAM disk can reduce restart time, accelerate many routine operations and speed up memory-intensive applications.

## MAXIMA

Maximize your RAM investment

Maxima is the unique RAM enhancement utility that extends access to large amounts of RAM without using 32-bit addressing and also creates a powerful RAM disk. For Macintosh computers with more than eight megabytes of RAM, Maxima is a productivity tool that lets you get even more out of your memory investment.

Maxima can extend System 6 and 7's 24-bit addressing capacity to 14MB. For applications which cannot yet address large amounts of memory through 32-bit addressing, Maxima creates enhanced 24-bit addressing, allowing access to much needed application memory. Maxima is ideal for those applications which are not yet 32-bit clean.

For RAM that is not used as application memory, Maxima creates a protected non-volatile RAM disk (24- or 32-bit compatible). This RAM disk survives system crashes, shutdowns and restarts. Information that has been changed since the last Shutdown is automatically copied back to your hard drive before you shut off your Mac.

And by automatically copying your startup files, Maxima's RAM disk can reduce restart time, accelerate many routine operations and speed up memory-intensive applications. Macintosh systems with exactly 8MB of memory can also take advantage of the RAM disk by using it under System 7 in 32-bit addressing mode.

# OPTIMA

Run 32-bit clean applications under System 6.0

Optima is the only solution for accessing very large amounts of RAM for a single application under System 6. Optima gives you unprecedented flexibility for image processing, graphics design, pre-press and many other memory intensive applications.

Optima enables 32-bit addressing for an SE/30 or any Mac II series computer running System 6.0.7 or greater (earlier systems will work on some Macintosh systems). With Optima's 32-bit addressing (which is similar to the optional mode under System 7), you can run up to 128MB of contiguous application memory in programs such Photoshop, Xpress, ColorStudio, Studio/32 and dozens of others.

For RAM that is not used as application memory, Optima creates a protected non-volatile RAM disk (32-bit compatible). This RAM disk survives system crashes, shutdowns and restarts. And by automatically copying your startup files, Optima's RAM disk can reduce restart time, accelerate many routine operations and speed up memory-intensive applications.

When you buy Optima, you also get a copy of Maxima at no additional charge. Maxima extends 24-bit addressing for applications which are not capable of accessing memory in 32-bit mode. In addition to providing access to 14MB of RAM through enhanced 24-

bit addressing, Maxima also has a RAM disk feature in 24-mode similar to Optima’s 32-bit RAM disk.

Working together, Optima and Maxima can automatically enable or disable themselves whenever you switch between 32-bit and 24-bit modes. The Optima and Maxima combination allows you to make the most 4MB and 16MB SIMMs.

# MODE32

Don't miss one of the best parts of System 7.0. Make sure you get 32-bit addressing.

Your Mac II, IIx, IIcx or SE/30 lacks some important capabilities of the current generation of Macs. It won't run Apple's new standard 32-bit addressing mode which lets you use much more memory and run programs faster.

In fact, you'll discover that 32-bit addressing does not even appear in the System 7.0 Memory control panel.

That is why Connectix created MODE32, the simple and unique software solution that lets older Macs use 32-bit addressing.

MODE32 gives you access to more memory and boosts your productivity. With additional memory, applications can work faster and more programs can run concurrently.

MODE32 breaks through the eight megabyte barrier to access up to one full gigabyte of virtual memory, or as much physical RAM as you can put in your Macintosh.

You can get full use of 4, 8, and 16MB SIMMs or push virtual memory beyond the 13 megabyte limit with MODE32.

It's ideal for memory-intensive applications such as graphics, desktop publishing, multimedia, CAD, large spreadsheets, databases, file servers, and image processing.

*MODE32 is now available for unrestricted use worldwide through a special distribution agreement between Apple Computer and Connectix.