

PERIPHERALS OF THE FUTURE

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If you've never heard of brain wave input, read/write laser disks, flat screen video, or sound sampling, you're in good company. Many of these products are still in development, still in prototype in laboratories. Nevertheless, these peripherals could add great power to your computer. Some are available now, some will be soon. Here's an overview of the next generation of input and output devices.

• **Compact disks:** The disk that is revolutionizing the recording industry can also work with computers. Current models can only act as Read Only Memory (ROM) data storage devices. Electronics giants Sony and Philips are both working on computer applications for compact disks, and Nippon Columbia of Japan has introduced a compact disk that has a storage capacity of more than 550 megabytes per side—the equivalent of 500 to 1,000 floppy disks.

Measuring about five inches across, a compact disk uses the same type of laser mechanism as audio compact disks. Sound and data, as well as digitized images, can be stored on the disks.

However, engineers are at work on a read/write CD that would provide home computers with astounding amounts of on-line memory and would quickly replace current floppy disk devices.

• **Electromyograph/Brain Wave Input:** Synapse Software Corporation already sells a headband controller-based biofeedback system called *Relax*. And Atari, Inc., (before corporate reformation) exhibited a similar system, *MindLink*, at the Summer 1984 Consumer Electronics Show. Both are based on electromyographic impulses—slight electrical pulses from muscles in the forehead—which permit the user to control onscreen computer action without touching a keyboard, joystick, or other input device.

• **Laser disks:** More and more uses are being found for laser disks as computer peripherals. For now, most applications are commercial or governmental, things like employee training, says David S. Backer, director of videodisk research for Mirror Systems Inc., a firm that is developing uses for laser disks in the business market.

With the ability to put more than 50,000 live action images on one side of a disk, and the availability of inexpensive interfaces, the future looks bright for this peripheral. Digital Research, for example, markets a \$49 interface which attaches a Commodore 64 to a laser disk player.

"I think you're going to begin to see large image data bases, or big slide-a-thons produced by various institutions—everything from museums like the Smithsonian on up to publishers—people who have some kind of interesting image file. That [area] has consumer potential," Backer predicts.



Compact disks, which measure about five inches across, have the capacity to become mass storage devices for computers.



Laser disks will probably be a major force in interactive video over the next few years. More than 50,000 live-action images can be contained on each side.