

SOON, YOU COULD FIND A MOUSE NESTING IN YOUR KEYBOARD



Like its furry, four-legged counterpart, the computer mouse continues to evolve. The trend lately has been to find ways to incorporate the pointing devices into computer keyboards. The latest attempt is from IBM's Yorktown Heights (N.Y.) labs.

It's a miniature joystick that protrudes just above the B and slightly below the G and H on a keyboard. It's just high

enough for either index finger to find, yet doesn't interfere with normal typing. Software calculates the speed and distance of on-screen cursor movement from the amount and direction of pressure applied to the stick. Full pressure to the right, for instance, moves the mouse almost instantly to the side of the screen, where menu choices typically are shown. IBM mathematicians and inventors Ted Selker and Joseph D. Rutledge say the stick can make its first menu selection in about half the time required using a conventional mouse.

THIS LINE OF SUPERCOMPUTERS CAN RUN AT WARP SPEED

For five years, Thinking Machines Corp. has built supercomputers by combining thousands of processors. But because they used custom microchips and an arcane operating system, sales were limited to the technical avant-garde. The company hopes to change that with its new CM-5 line, which uses Sun Microsystems Inc. reduced instruction-set computing (RISC) chips and a modified version of Sun's Unix operating system.

Thinking Machines, based in Cambridge, Mass., says the CM-5, which was slated for introduction on Oct. 29, still requires custom applications programs, but customers will be able to use their experience with other Sun machines to create them faster. CM-5s will cost from \$1 million to \$30 million, depending on the number of processors. The \$30 million version has 1,000 processors and, the company says, will tear through 130 billion complex mathematical calculations per second—or 130 times as many as its older supers can. Thinking Machines says the same design could be extended to include 64,000 processors—for about \$100 million.

A SATELLITE SERVICE THAT DELIVERS TV ADS TO LOCAL STATIONS

Until recently, the fastest way for advertisers to deliver new commercials to TV stations was to mail packages of videotapes overnight. Now, there's something even faster and cheaper: Winnebago. Not those road yachts, though. Cycle Sat Inc., a subsidiary of Winnebago Industries Inc., is delivering commercials by bouncing them off a satellite to TV stations. There, a Cycle Sat box records the signals onto videotape automatically, saving work for technicians.

The Cycle Sat system has been installed at more than 500 U.S. TV stations, the company claims. And in October, Cycle Sat agreed to license its technology to Telesat Canada, the national satellite operator. Big advertisers that use the system include Universal Pictures and Burger King Corp. TV stations pay just \$1 a year to lease the Cycle Sat gear. The company makes its money by charging advertisers for transmission, typically \$15 per spot per station when transmitting to 100 stations, says President Loren Swenson. Cycle Sat revenues doubled to \$10 million in the year ended Aug. 31, and the company expects to turn a profit this year, Swenson says.

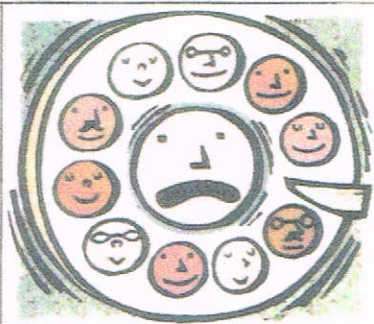
HOW CHICAGO COPS LOOK CRIMINALS RIGHT IN THE EYE

Sophisticated eye scanners, which take pictures of an individual's retinas, are said to make for nearly foolproof identification systems. Such scanners began cropping up in high-security buildings such as the Pentagon in the mid-1980s. But recently, the new technology was adopted by the court system of Cook County, Ill., which handles bond hearings for people arrested in Chicago and its surrounding communities.

Everyone who is arrested steps up to one of 26 machines that look like video-game booths. Three photos are taken of the blood vessels at the back of each eye. The machines digitize the information and search a centralized data base run by a Motorola Inc. file server. Within minutes, if the \$500,000 Criminal EyeDent finds a match, it turns up aliases and other outstanding warrants within the county. The county says that the system has thwarted more than a dozen escape attempts by prisoners who have tried to switch IDs with others who are due for earlier release. Beaverton (Ore.)-based Eyedentify Inc., with about \$1 million in annual sales, has sold nearly a dozen similar eye-scanning identification systems to criminal justice organizations, including Utah State Prison and Brevard County Jail in Florida.

MAKING IT EASIER FOR OLD PHONES TO GET THE MESSAGE

Companies are revved up about delivering information services to people's homes, but a big chunk of the public isn't wired to receive them. Many phone customers can't get—or don't want—touch-tone service. According to a household survey by Link Resources Corp., a New York-based market researcher, about 30% of U.S. households still have rotary phones or push-button phones that aren't hooked up to touch-tone service. Just 10% of households headed by someone under 25 lack touch-tone service.



While people with rotary phones can listen passively to recorded messages, without touch-tone phones they can't make selections from "audiotext" systems, such as railroads use to give out recorded timetable information. Some companies, including Advanced Telecom Services Corp. in Wayne, Pa., which operates 800- and 900-number services for information providers, are getting around the rotary-dial dilemma by installing machines that recognize spoken words and numbers.