trol. There is just enough leeway in the bar's physical sideways motion to move the arrow from one side of the screen to the other.

Once you grow accustomed to its interface, you can use the IsoPoint to move the cursor without lifting your fingers from the keyboard. The tricky part is using drawing and paint packages. In its default mode (450 ppi), the IsoPoint zips the cursor around a little too quickly for some tastes, but its sensitivity and acceleration (or ballistic tracking) can be adjusted from the DOS command line or with a TSR control panel. If you choose to use a standalone pointing device, you can disable the driver from DOS. The IsoPoint uses standard Microsoft Mouse drivers.

The IsoPoint's mechanical rolling-bar-and-button system was invented by GRiD Systems' Craig Culver. Currently, if you want the IsoPoint, you are limited to one computer: the GRiDCase 1550SX, $5,095 with a 60MB hard disk and internal modem. (You can also buy the computer with a CD-ROM drive as the 1550CD.) At 12.7 pounds and 2.5 by 11.5 by 15 inches (HWD), the GRiDCase is not on the cutting edge of packaging. But little of the the unit's bulk (other than an inch of the depth) is related to the IsoPoint. Zenith Data Systems (708-808-4800) expects to ship its new SuperSport 486 and 486SX portable with the IsoPoint before year's end, but these machines will also be heavy: more than 14 pounds.

GRiD IsoPoint

GRiD Systems Corp., 47211 Lakeview Blvd., Fremont, CA 94537; 800-222-4743.
List Price: $5,095 for the GRiDCase 1550SX laptop with the IsoPoint installed. **In Short:** A rotating, sliding, straw-shaped shaft built into a laptop in front of the Spacebar, the IsoPoint adds about an inch to the depth of a portable PC. Its desirability is much a factor of personal preference. Currently available in the 13-pound GRiDCase 1550SX, it is planned for inclusion later in the year in a pair of equally bulky Zenith portables.
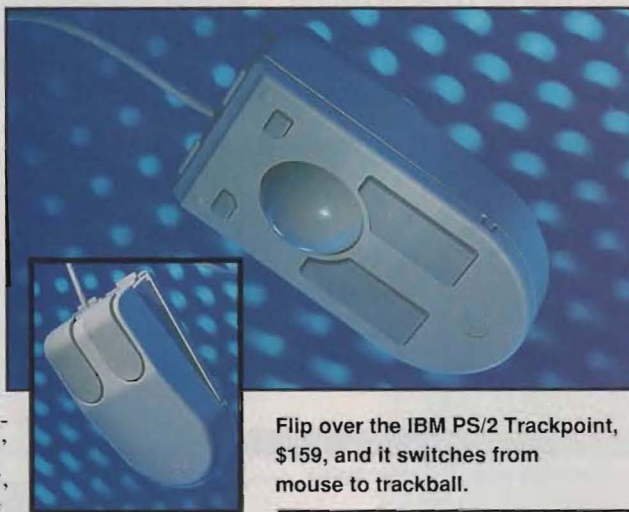
IBM CORP.
IBM PS/2 Trackpoint
by John R. Quain

Of all the portable pointers in this roundup, the $159 IBM PS/2 Trackpoint is the only device that's both a trackball and a mouse. Conceptually, that's admirable. The 6-

Flip over the IBM PS/2 Trackpoint, $159, and it switches from mouse to trackball.

ounce device can be used as a trackball when you're limited to an airplane tray table; it converts to a mouse when you have a desktop to work on. But as with many two-in-one solutions, it's less capable than single-purpose mice or trackballs. Of the two implementations, the trackball mode is more workable.

Introduced in March with IBM's PS/2 L40 SX laptop, the clam-like Trackpoint is a 200-ppi optomechanical system with a round PS/2 connector. The Trackpoint bears a rough family resemblance to IBM's four-and-a-half-year-old PS/2 mouse. At 4.5 inches long by 2.5 inches wide, it's a bit bulkier than a standard mouse. As a trackball, the Trackpoint has four buttons situated around the 1.2-inch-diameter ball: two small drag-lock buttons above the ball, two large click buttons below it. Depress two plastic braces, pull up on the hinged top so less of the ball sticks out, flip it over, and you've got a mouse. The two rubber-like feet that keep it steady as a trackball become the left and right mouse buttons. Unfortunately, enough of the ball still protrudes so that the mouse remains a bit wobbly, making for sloppy cursor con-

trol. The design also means that the ball cannot be removed for cleaning.

The Trackpoint's software driver proved to be one the smoothest trackball operators in *Windows'* Paintbrush, providing steady and consistent control. Users can set vertical and horizontal sensitivity using command line switches, as well as selecting four levels of acceleration: slow, medium, fast, or none. On the downside, the package has no auto-install program or CONFIG.SYS driver, and the command line driver uses 32K of memory, more than twice as much as most other drivers.

IBM PS/2 Trackpoint

IBM Corp., 1133 Westchester Ave., White Plains, NY 10604; 800-426-9292.
List Price: $159. **In Short:** The PS/2 Trackpoint is a bulky, boxy mouse that becomes a trackball when flipped upside down. The trackball mode is the more successful of the two; the mouse is unsteady and a bit hard to maneuver. It's a great idea, imperfectly executed.

KRAFT SYSTEMS INC.
TopTrak
by Eric Berlin

Kraft Systems says that its $89.95 TopTrak trackball merits consideration as a portable pointing device because of its low current requirements. You certainly wouldn't choose TopTrak because of its size. At 2 by 3.8 by 4.5 inches (HWD), it's roughly four

Kraft Systems' TopTrak, an $89.95 trackball, is too big for serious use with a laptop, even without the optional $10 foot pedal that duplicates the left button.