## IBM Breaks From Laptop Pack With ThinkPad's Mini-Joystick

Associated Press

ed Selker's work building a better computer
mouse gave life to
International Buss
Machine Corp.'s moribund laptop
computer business.

Selker and fellow IBM scientist Joseph Rutledge created Track-Point II, the red cursor control button on the keyboard of IBM's ThinkPads.

The innovation, brought to the market a year ago, was radical for IBM, which had been viewed as falling behind in new PC technology.

Competitors' laptops chiefly rely on trackballs—stationary rolling balls mounted in or attached to computers—to move the cursor that directs computer commands. The TrackPoint II functions like a mini-joystick.

"TrackPoint has been a very good differentiator for them and it's been an important part of the overall success of the ThinkPad line," said Jeffrey Henning, PC analyst for BIS Strategic Decisions in Norwell, Mass.

Before last fall, IBM was barely in the laptop business. But Think-Pad models accounted for about

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800,000 of the 4 million PCs that IBM has sold in the past year, analysts say.

The peg is also on the keyboard of one IBM desktop model and may become an option for others.

But the decision to incorporate TrackPoint II didn't come easily. The researchers put some pressure on IBM by touting it in a press release, which prompted

some customers to ask when the company was going to start using it.

"One of the things we really needed was for the product managers to believe this was going to make a splash," Selker said.

"A lot of what it took to get it into a product was documenting carefully that it did make an improvement for people and that it could be made cheaply."

The project took six years, with most of the time spent finding the right balance between finger pressure and cursor speed. The researchers created a "dead zone" in which the cursor doesn't move if the button is accidentally bumped, two slow speeds, a fast speed the eye can follow and a "turbo" speed the eye can't.

"Everyone wanted to drive a Ferrari," Selker said.

They tried 50 different styles for the peg's cover. And they built 80 prototypes with the peg located between the G and H keys before settling on a slightly lower spot between the G, H and B keys.