

# Notebooks May Hold Key to I.B.M.'s Revival

By STEVE LOHR

When I.B.M. brought Bruce Claflin back from Tokyo last year to manage the company's notebook computer unit, he was elated. The 40-year-old marketing executive had been given his own business to run.

Then reality set in. "It took me about a month to understand how deep a hole the business was in," Mr. Claflin recalled. "I don't think you could get it any worse than it was."

That was June 1992. A year later, Mr. Claflin, the general manager of mobile computing for the IBM Personal Computer Company, is riding a runaway success: the I.B.M. Thinkpad.

The first of the Thinkpad line, a top-of-the-line model with a color screen and a \$4,000 price tag, hit the market last fall. An upgraded version of the color model, with a longer-lasting battery, came out in May. And last week, the International Business Machines Corporation introduced less costly Thinkpad models, including a powerful, 3.8-pound machine priced at less than \$2,000. Notebook computers, which weigh less than eight pounds, far lighter than the bulky laptops they replace, are the fastest-growing segment of the personal computer business.

This year, the Thinkpad appears to be on its way to achieving the unthinkable — rivaling the meteoric rise of Apple Computer's Powerbook, the notebook that took the industry by storm last year.

For I.B.M., the lessons of Thinkpad could extend well beyond a single product line. As its new chief executive, Louis V. Gerstner Jr., studies the company and drafts a plan for reviving I.B.M., he must answer a significant structural question: Does a big, integrated company still make sense in the fast-paced computer industry? If not, then the logical strategy would be to sell off large parts of the \$60 billion-a-year company.

But the Thinkpad story suggests a different course: If the enterprise is properly managed, there can be considerable benefits to remaining a huge company like I.B.M. The Thinkpad

product team tapped innovative research from I.B.M. laboratories worldwide, put it quickly into new products and geared up its factories to exploit an opportunity in the marketplace.

"The challenge for us at I.B.M. is how to incorporate small-company attributes — nimbleness, speed and customer responsiveness — with the advantages of size, like a breadth of investment in research and development," Mr. Gerstner said in a telephone interview yesterday. "And the Thinkpad illustrates how that can be accomplished."

## Losses Still Expected

To be sure, I.B.M.'s sudden rebound in portable computers will have only minimal impact on the current company's financial troubles, which have been caused mainly by the declining profits in its \$30 billion business in mainframe sales, service and software. Sales of the Thinkpad are expected to be only somewhat more than \$1 billion for all of 1993, and most analysts expect I.B.M. to lose money again this year and be forced to trim its work force further.

"It's an encouraging sign that I.B.M. can generate a home run product," said Daniel Benton, a computer analyst at Dawson-Samberg Capital Management Inc. "But that doesn't alter the fact that it's going to take a couple of years before we can expect to see real evidence of stability and a comeback at I.B.M."

Still, if I.B.M. is to reverse its slide, the Thinkpad case provides a model. The company has brought innovative technology and competitively priced products into a fast-growing product category. That counters the I.B.M. trend in recent years, when the company's technology has been respected, but it has too often been slow to bring products to market. And when they arrived, they were typically heavy, clunky and overpriced.

"But with the Thinkpad, I.B.M. is doing everything right for a change," said Kimball Brown, a vice president for Infocorp, a research house.

## Overtaking Powerbook

Judging from the sales trends, customers agree. This year, I.B.M. will sell somewhat fewer notebook machines worldwide than Apple. But the Thinkpad line, which includes more expensive, color machines, will over-

take the Powerbook in dollar sales, according to Infocorp.

The research firm estimates that Thinkpad revenues will more than double to \$1.4 billion this year, while worldwide Powerbook sales will increase 40 percent, to \$982 million. If anything, the Thinkpad appears to be gaining momentum recently. Computer Reseller News, an industry newspaper, said this week that demand for Thinkpads is outpacing demand for the Powerbooks.

I.B.M. is also aiming at rivals other than Apple, which sells the most notebook computers in America. With the introduction last week of the Thinkpad 350, a 5.3-pound machine, priced at \$1,999, I.B.M. is going after the leader in lower-priced notebooks, the Compaq Computer Corporation.

Meanwhile, the new 3.8-pound, Thinkpad 500 is a high-powered machine in the nascent, but fast-growing field for "subnotebook" computers weighing less than four pounds. In this weight class, I.B.M. means to

## The success of a new line may be a sign to keep the 'Big' in Big Blue.

challenge Zeos International, Dell Computer, Zenith Data Systems, Hewlett-Packard and others.

And even the Toshiba Corporation of Japan, which retains the No. 1 ranking worldwide in notebook sales, is seeing I.B.M. begin to mount a challenge. In the big United States market, where Thinkpad sales are projected to triple this year, I.B.M. is expected to sell more machines than Toshiba, which will slip to fourth in the American market, behind Apple, Compaq and I.B.M., Infocorp says.

## A Marketing Background

Not a bad first year for Mr. Claflin. When he arrived last year in the Somers, N.Y., headquarters of IBM Personal Computer, its portable business was hardly even a player in the industry. Its offerings were bulky, heavy and overpriced. Yet plans for a comeback were already in the works. James Cannavino, an I.B.M. senior vice president, and Robert Corrigan, president of the PC company, decided

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that I.B.M. had to make the investment and commitment to become a force in the portable business.

Putting Mr. Claflin in charge was part of the plan. "He was not a technologist but a manager with a marketing background," Mr. Corrigan explained. "And our market focus wasn't what it needed to be."

Under Mr. Corrigan, the PC company was also being reorganized under brand teams dedicated to specific product groups, like mobile computing, desktops for large corporations and desktops for small business and home use. Each team includes a core group of less than 200 people from marketing, manufacturing and research, all of whom work full-time on only their team's products.

The intent was to break down the functional fiefs in which manufacturing, marketing and research people were isolated and tended to pursue their own agendas. Such functional organization is the tradition at most big companies, and at I.B.M. it was a carryover from the mainframe business, where product cycles are far slower than in personal computers.

The new personal computer brand teams, in short, were the small-company ingredient in the new business model. "It insures that everybody is talking to each other all the time, so decisions can be made much faster," Mr. Corrigan said.

#### A Winning Product

But speed-to-market is an advantage only if the products that get there are winners. In early 1992, Mr. Cannavino and Mr. Corrigan told the development staff that I.B.M. had to become competitive in portables, and fast. The goal was a premium full-color machine that was light, powerful and had a bigger screen than anything on the market.

Koichi Higuchi, director of portable systems at I.B.M.'s Yamato Development Laboratory outside Tokyo, was assigned to put together a winning product. He traveled the globe for months, and what he found in I.B.M.'s research centers was encouraging.

"In I.B.M., I can use the early technologies," Mr. Higuchi said, "and that's critical in the personal comput-

er industry because speed of development is very important. If it were an outside company, they would want to keep some of it private or wait until they were very confident the technology worked."

There were three key technology advances in the Thinkpad 700C, the color machine that came out last fall. First, it has a very large screen for a notebook computer, 10.4 inches diagonally, which was the product of I.B.M.'s joint venture with Toshiba, set up in 1989.

Second, it has a powerful microprocessor that consumes far less electrical power than conventional chips. The microprocessor is based on the Intel Corporation's 486 design, but the energy-saving features were engineered by I.B.M.'s technology products division in Burlington, Vt., and the chip itself was made by I.B.M. The low-energy consumption is crucial, meaning that power saved can be used to light up the big screen, without requiring the extra weight of a larger battery.

But the most striking feature, included in all Thinkpad models, is a small red "pointing stick" that rests just above the "B" key on the keyboard. It looks very much like the eraser on the end of a pencil.

Called the Trackpoint, the device responds to pressure from a finger, moving the cursor around on the screen, like a miniature joy stick. It performs the same role as a computer "mouse" or trackball found on other computers and, according to I.B.M., works faster than those alternatives. Jim Seymour, a consultant and a columnist for PC Magazine, calls the I.B.M. Trackpoint "one of the best ideas to come out of the PC industry in years."

Again, the benefits of a big company are evident. The Trackpoint was developed by Ted Seiker, a computer scientist at I.B.M.'s Almaden Research Center in San Jose, Calif., with the help of Joseph Rutledge of the company's Thomas J. Watson Research Center in Yorktown Heights, N.Y. Their pointing-stick project started in late 1987.

"The company didn't give me a lot of resources, but they let me chase it, no problem," Mr. Seiker said. "We developed it because we had a patient benefactor."

By last summer, there was a working model of the first Thinkpad 700C. But there were still institutional problems: the personal computer company may have been reorganized on paper, but old attitudes lingered.

Mr. Claflin recalls a Thinkpad meeting in Somers, when a colleague objected to some product specification saying, "I non-concur" — I.B.M.ese for questioning a decision. Under the old I.B.M. system, a "non-concur" could hold up a decision for months.

Signaling that things had changed, Mr. Claflin replied, "I don't recognize that word." Then, making clear that the time for nitpicking had passed, he told his colleague, "You either support the program or you kill the portable business."

Recalling the episode, Mr. Claflin said: "If we hadn't changed the way we do business, we would have killed the Thinkpad. It would have been smothered by the old management gridlock, and none of what we have today would have happened."

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