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## Victor company rolls out 'revolutionary' scanner

*Kirtas Technologies has made a machine that automatically flips through books and photographs the pages.*

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VICTOR - This week, Kirtas Technologies Inc. will ship its first product to its first customer. In doing so, the 2-year-old high-tech company is literally beginning to change the world, a page at a time.

Kirtas makes the Bookscan APT 1200™ a book scanner that automatically flips through up to 1,200 pages an hour, taking color photographs and converting them to a digital format that can be read, printed, filed or distributed worldwide by computer. It does this at a cost of just two or three pennies a page — making the mass digitization and preservation of books feasible for the first time ever.

"It's revolutionary," said Jeremy Teboul, managing director of a Beverly Hills, California company that takes out-of-print books and republishes them. "Until now it has been cost prohibitive to scan a large quantity of books."

Three weeks ago, Teboul and other officials from Page Collector came to Kirtas, located in Omnitech Place on Phillips Road, to see the Bookscan APT 1200 first-hand. They now plan to purchase a half-dozen of the machines, listed at \$150,000 each, over the next 18 months.

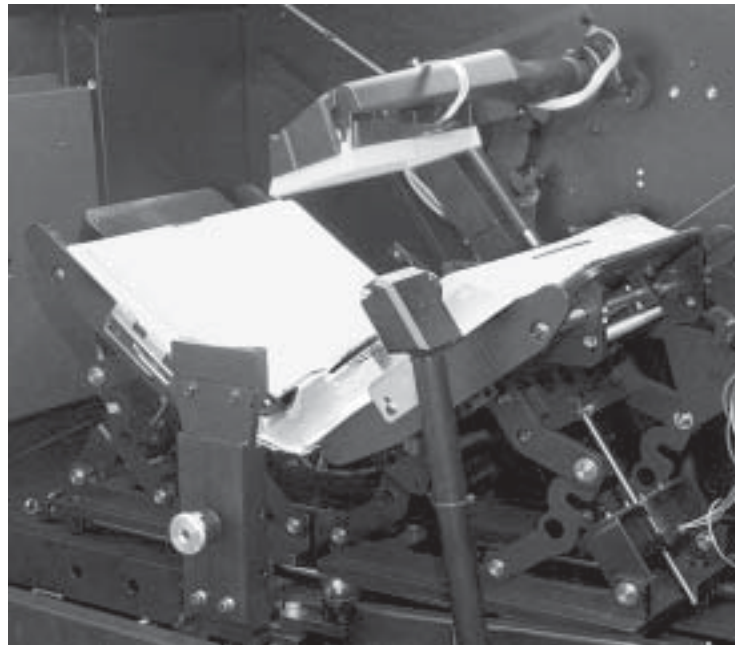
"We've been looking for something like this," Teboul said. "This is going to allow for a rapid expansion of our activity."

Book scanning has always been a labor-intensive and time-consuming job. Books have to be taken apart, and the pages turned by hand. Kirtas officials said manual scanning averages less than 200 pages an hour, at a cost of close to \$1 per page.

Scanning has also been a risky endeavor — books are subject to damage when dismantled, separated pages frequently end up out-of-order, and single pages from confidential documents are easily stolen.

The Bookscan APT 1200™ takes care of all these problems by allowing books to remain intact during scanning, with very little human intervention.

The portable machine cradles the open book in a V-shape, protecting the binder. A mirror mounted above the book reflects each page, creating a reverse image. This image is then reflected in another mirror — thus converting the page back to its normal appearance. A digital camera mounted on the top of the machine snaps



STAFF PHOTO/EMILY MCELLIGOTT

A close-up of the APT BookScan 1200.

a picture of the second mirror to send to a computer, which is equipped with special software. After each photograph, a gentle stream of air blows through the book's pages to separate them. Then a vacuum drops down, using suction to grab a page and turn it.

Company officials said a single operator could easily keep three of these machines running at the same time — scanning more than 3,000 pages in an hour.

"In many ways, it's a project that sold itself," said Kirtas founder and Chief Executive Officer Lotfi Belkhir.

Kirtas leaders have identified four potential markets: government agencies, corporations, libraries, and imaging businesses like Page Collector. The Victor firm said inquiries have come from around the world, and officials expect to bring in \$10 million in revenues within a year or two.

The first six machines to leave the assembly line are going to an unidentified customer.

"As a condition of purchase, they've required complete anonymity," said Kirtas spokesperson Randi Winterman. "They feel it's going to give them such a competitive advantage."

But Kirtas isn't all about profit.

"There's no one here who doesn't see the social impact this machine can have," said Robert Gregory, vice president of operations.

Gregory said he got involved with Kirtas at the same time his son was getting ready to go to college. While looking at different academic institutions, he noticed a huge disparity in university library collections. Students who attend Ivy League schools have 20-million books at their disposal; those conducting research at less expensive colleges have access to a few hundred thousand.

"I can understand economic disparity," he said, "but I have a different rationalization in my mind when it comes to disparity in access to books."

By digitizing books and textbooks — and setting up some sort of fee system to reimburse publishers — Gregory envisions an unparalleled spread of knowledge around the world.

"Once you have them in digital format," said Teboul from California, "somebody in India could accept the page of an out of print book that right now is only available, in a few libraries in the United States."

Libraries will be the focus of Kirtas' next project: a smaller, more affordable version of the Bookscan APT 1200™. Library patrons could scan pages rather than use a traditional copier, which is hard on book bindings.

"That drives librarians crazy," said Belkhir, noting there are 120,000 libraries in the United States alone — each having at least one copier. "We want to replace each one."