



History

Kirtas Technologies is a company focused on using digital technology to automate the book scanning process, one page at a time. By doing so, anyone, anywhere with Internet access could potentially access a 500-year backlog of unscanned books and a huge collection of corporate information and documentation.

Located in Victor, N.Y., Kirtas Technologies, Inc. was founded in 2001 on the belief that the need for digitized book formats will significantly increase over time, creating myriad opportunities for academia, corporations, the public, the government, and others. Document-dependent organizations seeking to digitize their legacy documents for duplication, preservation or access can employ Kirtas' book scanning technologies for fast, reliable and cost-effective digitization of extensive collections of books, magazines, corporate information and public records.

Background

Born from a concept initiated through the Xerox Venture Lab (XVL) in the late 1990s, the idea of an automatic book scanner yielded an overwhelmingly positive response from the very concept stage. All existing, or planetary, book scanners at the time were manual and required a dedicated operator to turn the pages. They also required a high-speed production scanner with an automatic document feeder, making it necessary for the user to disbind, scan and then rebind documents. This process was cumbersome, costly, and prohibitive for fragile and/or rare volumes.

Having spent many years at Xerox, Dr. Lotfi Belkhir, an XVL Principal, supervised the creation of growth businesses based on radical innovations such as this. Dr. Belkhir, a Ph.D. in physics and an MBA graduate, was the primary architect on the Book Scanner project, working in close association with Xerox's Palo Alto Research Center (PARC) and the Wilson Center for Research & Technology in Webster, N.Y. (WCR&T).

In March 2001, despite a successful proof of concept, Xerox management decided to cancel funding for all non-core projects, including the Book Scanner project. Dr. Belkhir then left the company with an exclusive license for the page turning technology that he helped create and went on to establish Kirtas Technologies.

The company currently employs nine people and expects to double its payroll by the end of the year, hiring additional engineers and sales and marketing professionals. Kirtas anticipates growing

100 percent in the next year with a 50 percent growth rate over the next three to five years. The company already holds one patent for the Kirtas APT BookScan 1200™ and has eight more patents pending.

Kirtas chose Rochester, N.Y. as its headquarters as this area has more knowledge and expertise in the paper and media handling competency than any other city in the U.S. (as these technologies were developed primarily at Xerox and Kodak, which are also located here). Kirtas also has partnerships with other Rochester area companies including the Appcon Group for electrical, controls and software; and FTT Manufacturing for prototyping and manufacturing production.

Situation Analysis

Kirtas' APT technology breaks the document scanning bottleneck by accelerating the current business processes of publishers, libraries, educational organizations, government organizations, corporations, imaging service bureaus, religious organizations, and others.

For the first time, these organizations can digitize bound collections at a mere fraction of the cost associated with conventional, labor-intensive scanning methods. As the only automatic page-turning bound document scanner on the market, the APT BookScan 1200™ is poised to emerge as the key enabling technology in book preservation, e-book publishing, print-on-demand, and online libraries. No other comparable digital, automated book scanning technology currently exists on the market.

Kirtas' APT BookScan 1200™ is based on a disruptive digital imaging technology initially developed by the Xerox team led by Dr. Belkhir. Featuring SureTurn™ Advanced Page Turning Technology and the innovative SmartCradle™ Support, the APT BookScan 1200™ streamlines the way all bound documents are scanned. These technologies enable unprecedented productivity for the digitization of massive document libraries, fully automating the scanning of bound documents at a capture rate of 1200 pages per hour.

In addition to serving mass audiences, the APT BookScan 1200™ is a revolutionary assistive technology for supporting book conversion to other formats (e.g., Braille, audio books, magnification, etc.).

After a two-year development process, the Kirtas APT BookScan 1200™, the world's first automatic book scanner, was first introduced to potential customers at the March 2003 AIIM Exposition and Conference Center. By November, the company was shipping the product. Also in November, the book scanner won *Popular Science* magazine's 2003 Best Of What's New (BOWN) award, in the category of General Innovations.

The APT BookScan 1200™ offers an unparalleled return-on-investment with costs as low as 3¢ per page compared to 35¢ to \$1.50 per page using manual methods. Other benefits include the same cost per page for color and grayscale as for black and white pages, top quality service maintenance (insured by Kirtas' partner AB Dick with close to 250 field representatives across the nation), and a free software upgrade with purchase of a maintenance contract.

In addition, the scanner weighs only about 160 pounds, and uses a vacuum arm to lift and turn book pages – gently enough even for rare and fragile books -- so there's no need to take books apart.

The Kirtas APT BookScan™ continues to get industry accolades. It will be a key product at the "World's Best Technologies Showcase," a major national technology event held in Arlington, Texas this March. The event showcases seed and pre-seed technologies developed at top universities, federal labs, and federally supported research and development institutions. Thousands of companies worldwide vie to be one of 25 given a unique opportunity to present to influential seed and corporate investors – Kirtas is one of those few companies invited to present.

Libraryjournal.com critiqued the scanner and said "I have seen this device in action and it is awesome. About the size of a small kitchen refrigerator it can be easily moved between locations." The Web site also noted the fact that the unit turns, captures, and batch processes a page of image data every three seconds (1200 pages per hour) off of a PC platform and accommodates books up to 4" thick, and from 5" x 8" to 10" x 13".

In February 2004, New York State Governor George Pataki announced a \$500,000 investment in Kirtas. The Empire State Development (ESD) Board of Directors approved equity investment from the Small Business Technology Investment Fund (SBTIF) which was created to provide start-up high-tech companies throughout New York State with a source of early stage venture capital to promote job creation and economic growth. The investment gives Kirtas a unique competitive advantage and helps the company make a growing and lasting economic impact at both local and state levels.

Conclusion

Libraries, universities, government agencies, and global corporations who face the challenge every day to make information accessible while preserving precious original documents are already interested and buying Kirtas' book scanner. For years, these institutions have had no other choice but to use antiquated technology like microfilm, destructive high-speed sheet-fed scanners or painfully slow planetary scanners. These institutions have been waiting for an automated process that safely transforms printed pages into easy-to-store-and-share digital information.

Kirtas APT BookScan 1200™ is an asset to any document-intensive organization – offering increased revenues from expanded customer capacity and faster turnaround, dramatically reduced labor costs, and providing lower per-page scanning costs. As for organizations with smaller volumes of bound material, Kirtas has started offering a digitization service at a much lower cost, and faster turn-around than any other service bureau could possibly afford. Kirtas' technologies will change the way books and other important information are scanned and preserved for future generations.