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CREATING AN IMAGE

RECORD-KEEPING TECHNOLOGY BRINGS WORLDWIDE ATTENTION TO COMPANY IN BLACKSBURG

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Byline: ***LURA ASTOR*** SPECIAL
TO THE ROANOKE TIMES & WORLD-NEWS

BLACKBURG - Recognition Research Inc. is a homegrown business that is casting a global shadow on the information-processing industry.

From classic humble beginnings, the company was born when Pat Bixler and Chris Thompson got together on a project in 1989. Thompson, then working at another Blacksburg company, went to his friend Bixler, who was a Tech professor, with an engineering problem in the rapidly expanding field of electronic image management.

While Bixler worked on his basement computer, Thompson worked out of his home and car developing the market for their new product-to-be.

Within a year, Bixler had a workable solution, Thompson had customers, and their company was formed.

Recognition Research has only 15 employees, but its products are sold to the largest companies in the computer business. Customers include IBM, EDS, GTE, Wang and Xerox. The privately owned company does not release any financial statistics. Its offices are in the Corporate Research Center, on Virginia Tech's campus.

Bixler, 40, and Thompson, 36, had long been friends with mutual interests in computer technology.

Bixler had a doctorate in mathematics and was a full-time faculty member in Virginia Tech's computer science department.

Thompson, graduated in 1981 from Tech with a degree in engineering science and mechanics and had been involved since 1984 in digital document imaging, the process of using computers to process pictures of documents and retrieve material.

It was four years ago that Thompson came to Bixler with the document-imaging problem, which people all over the world had been trying to solve for 20 years.

Thompson's interest had been piqued three years earlier when his automobile insurance company could not find his records. The state required proof of insurance, but the insurance company could not locate his account.

He was told various things: It was in microfilm processing and could not be retrieved; someone would try to look it up in the archives; it was in the mail room. It made him think there had to be a better way.

Now, with document imaging, complete customer files can be brought up on an insurance adjuster's computer screen, including images of original applications, handwritten correspondence and even pictures of accidents. Recognition Research's main product is called forms removal for optical character recognition technology. It affects how companies and agencies will process and store the millions of forms they generate daily. The results of this technology often are unseen by the general public, but it means cheaper and faster records keeping and retrieval.

And it promises a boom to the nation's $20 billion-per-year data-entry business.

"One, their forms recognition-processing technology is among the very best in the world," said Dan Elam, a Washington, D.C., consultant in electronic imaging. "It's inexpensive for what it does [and] they've developed new ways of dealing with the way characters are read into computers."

It can be used by hospitals, insurance companies, the Postal Service, the military, educational institutions, credit-card companies, tax agencies - in short, any business that processes forms.

Here's how it works. Optical character recognition, in which text-filled pages are scanned into computers, has been available for more than 20 years. The problem that confounded everyone was it didn't work on printed forms. Scanner software could not separate the form's information from words added by the user.

The process developed by Recognition Research separates information on the form from the scanned image so the scanner sees only a clean image of the information to be entered into the computer.

"I don't know anyone else like them," Elam said. "They keep everyone happily quiet, busy with their projects. They don't take ads out. Their competitors put time into looking flashy and impressive . . . but companies buy RRI products, he said.

IBM and Unisys had been using optical-character-recognition technology to handle just financial applications, he said, but Recognition Research technology can be used for anything.

"They are impressive in their creative approach to handling engineering problems as well as their ability to pinpoint and improve processes," Elam said.

In simple terms, their stuff does it faster and better than other products right now.

Elam said the imaging-technology field is growing by 45 percent a year, and the optical-character recognition field has a 65 percent growth rate in just the past year.

Recognition Research is well positioned, he said. For example, in a $100 million project

recently submitted to the the Internal Revenue Service, five of the six bids included Recognition Research technology.

Pete Galloway, chief operating officer for the international AEG Corp.'s recognition-systems division in the United States - and the world's largest provider of optical-character recognition - said he has found Recognition Research unusually responsive to AEG needs.

The Blacksburg company's small size has been an advantage because "they have consistently been able to respond to the rapidly changing market conditions with leading-edge technology," Galloway said.

Recognition Research also is production oriented and has been able to tailor products for AEG AG, one of Europe's largest industrial corporations in Europe, he said. The Frankfurt, Germany-based company provides technology for industrial automation and electronic systems.

In recent tests, Galloway found Recognition Research technology applies to the European market, which he says is unusual.

"Usually, a technology will fit a specific market, such as health care in the U.S. RRI technology is usable in the U.S., Europe and Australia."

Recognition Research form-removal product can be used to significantly reduce the size of forms stored in image format.

After the U.S. Army specified that Recognition Research products be used in converting all of the Army Reserve personnel records to image form, the winning bidder, I-NET of Bethesda, Md., asked the company to build the whole system.

In document imaging, scanned documents are stored as images, as opposed to using a scanner to convert the documents to computer text. The complete image is captured and stored so that even handwritten notes and signatures can be retrieved.

Col. Jim Lingvai of Fort Belvoir, program manager of the Army's Personnel Electronic Records Management Systems (PERMS), says document imaging will have the same impact on records management, information storage and retrieval as personal computers had on the electric typewriter.

The technology will eliminate microfiche and film by putting the information on large optical disks, he said.

Records of military personnel are being scanned, cataloged and stored, using the Recognition Research conversion system.

This eliminates over 100 million pieces of paper and microfilm and saves vast amounts of warehouse space.

Lingvai said the real savings are yet to come.

The project also allows quick mobilization of military personnel in a national emergency.

That's in contrast to the Defense Department's experience during the Persian Gulf war, when the agency was unable to recall personnel who were just out of the service, trained and ready to go. That's bcause their files had been placed in boxes and sent to a warehouse where it took six to 12 months to catalog them.

Safety in records preservation is another benefit of document-imaging technology. A fire at the Army Reserve personnel records center in 1972 destroyed over 17 million individual records - all the paper files on the building's sixth floor.

New technology means backup disks provide easy accessibility and security for the records of future veterans and will help the Army to call up reserves when necessary.

Recognition Research technology also has been used for processing the records of Greyhound bus drivers during their strike, by the Municipal Securities Rulemaking Board that manages the $1 trillion worth of municipal securities released annually, and American College Testing in processing student aid applications.

Medical records with doctor and patient signatures, applications, correspondence, images of checks now can be stored safely, inexpensively, and retrieved readily. "One percent of the world's information is currently on computers, 4 percent is on microfiche, 95 percent is on paper," Thompson said. "Document imaging allows information to be cost-effectively put into the computer, to be more readily available, from all over the globe."