RIT grads working at Pictometry include, from left: (front row) Debra Reid, William Justin Barrett, Stephen Schultz; (second row) Brian Jackson, Chris Schnaufer, Sophia Stecyk Crosier, Chris Stanger, Steve Adams, Charles Mondello, John Stoia; (third row) David Finger, Craig Woodward, Andrew Stewart, Frank Giuffrida, Astrida Rideout-Merritt, Jon Lynn, Scott Cooper, Alan Costich, Robert Gray; (fourth row) Thomas Guhl, Keith Avery, R. David Gregg, Alan Powers and Thom Salter.

An overhead view of success

Contributions of RIT grads helped get Pictometry off the ground

Detailed aerial pictures of buildings and land features have a huge variety of uses.

• Public safety agencies can use them to pinpoint locations in emergency situations.

• Community planners use them to develop land-use concepts.

• Insurance companies can verify certain property information.

• Roofers can get a good idea of the scope of potential jobs.

"Once you start talking about it, you can think of ideas and ideas," says Steve Schultz '89 (computer science), chief technology officer, Pictometry International Corp.

No wonder the Rochester-based company's sales revenues have doubled for each of the past four years. Pictometry captures digital images with specially equipped airplanes and uses the information to create a seamless mosaic of pictures that customers can access using the company's interactive software. The company's growing list of customers includes 125 counties, major metropolitan areas including New York City and Los Angeles, several states, federal government agencies and private businesses.

Last year, Pictometry entered into a five-year agreement with Microsoft Corp. to provide aerial images for use in Microsoft's Windows Live Local system.

"Pictometry is going to be one of the most successful companies to come out of the Rochester area," says CEO Dick Kaplan.

RIT graduates are central to Pictometry's success. Of 71 employees in Rochester, 26 are RIT alums. Within the software engineering department, nine of the 12 engineers are RIT grads.

"The original idea and name for the technology was the brainchild of John Ciampa, a former RIT professor in the School of Photography," says Schultz. "After obtain-

ing a patent in 1993, he contacted me to develop the technology and I began working on it part-time in 1994. I was employee No. 1 when we incorporated in 1996."

The company reincorporated as Pictometry International in 2000. John Ciampa retired and Kaplan took over as CEO.

At that point, the company faced a problem. Pictometry had unique technology but no actual product. Kaplan, who has no technical background, figured out how to wrap the technology into a product. Schultz made it work.

While traditional satellite and aerial photography provide a straight-down view, Pictometry's images are shot at an angle. This gives an oblique, 3-dimensional view that provides much more information to users. Pictometry also offers higher-resolution images than typical satellite photos.

Pictometry's images are shot at an angle, providing a 3-D view such as this shot of the Administration Circle at RIT.

Pictometry contracts with companies that fly the small planes taking the pictures. The imaging systems are built at Pictometry headquarters, and the pilots are instructed to fly precise grid patterns over areas to be mapped. Typically, 12 shots of each parcel in the grid are captured. The hard drives containing the images are sent back to Pictometry for processing and incorporation into the ever-growing database.

This spring, about 40 planes will be capturing images for Pictometry in the United States, with 12 more in Europe. Schultz expects to have 80 percent of the U.S. population covered soon – which amounts to about 15 percent of the country's geography.

How much data is that? About 60 to 70 terabytes (a terabyte is a trillion bytes) of imagery so far. Monroe County – where Rochester is located – amounts to about 70,000 individual images. Los Angeles equals half a million.

To keep the information up to date, each area is photographed every two years.

Besides collecting the images and processing them into a usable database of images, Pictometry also develops software suited to customers' particular needs. For instance, a fire department wanted to be able to superimpose a map showing the location of water mains and hydrants over the aerial photographs of a neighborhood. Another fire department requested an interface that allowed firemen wearing bulky gloves to navigate the keyboard.

Pictometry accommodates such requests.

"One of the advantages of being a start-up is you're very nimble," says Schultz.

"We've got tons of testimonials. Customers love the software and the images."

Schultz was working full-time at RIT's Chester F. Center for Imaging Science when he left to join Pictometry. He says some colleagues questioned his decision to leave a secure position to go with an unproven start-up. Schultz had no doubts.

"It was a great opportunity, even if it hadn't worked out," he says. He's proud of the company's accomplishments, and also pleased with the working environment he helped create. Turnover is low. In fact, no engineers have left the company since 1998.

Possibly that is due to connections formed at RIT. Five of the top engineers were members of Computer Science House (a special-interest campus residence for technically inclined students); Schultz and Frank Giuffrida '89 (electrical engineering), Pictometry's vice president of engineering, were co-founders in 1981of the modern CSH. The two were responsible for obtaining a PDP-11 minicomputer for the house. They also worked with Barry Culhane (now executive assistant to RIT President Albert Simone) to develop "RITCISS," an early computer information system kiosk for students.

"It can be such a crap shoot when you hire someone," says Schultz, "so if you know how they work or what they can do, that's a huge plus. The RIT grads are a good match for the work we're doing at Pictometry."

For more information about Pictometry, visit www.pictometry.com.

RIT Works! **focuses on the contributions of RIT graduates in the workplace.**

RIT grads at Pictometry

Pictometry employs 97 nationwide, including 26 RIT alumni. They are:

- Stephen Schultz '89 (computer science), chief technology officer.
- Frank Giuffrida '89 (electrical engineering), senior vice president, engineering.
- Steve Adams '96 (computer science), software engineer.
- Debra Reid '93 (computer science), software engineer.
- Craig Woodward '96 (computer science), software engineer.
- Robert Gray '00 (M.S., computer science), manager, software development.
- Chris Schnaufer '88 (computer science), manager, software development.
- R. David Gregg '84 (business administration), software engineer.
- Alan Powers '98 (computer science), software engineer.
- Charles Mondello '83, '84 (B.S., M.S., imaging science), senior vice president for business development.
- Brian Jackson '96, '05 (B.F.A. advertising photography, M.S. printing), director, technical services.
- David Finger (electrical engineering), vice president for customer technical services.
- Jon Lynn (computer engineering), geospatial analyst.
- Thom Salter '06 (M.S., applied mathematics), senior geospatial analyst.
- Sophia Stecyk Crosier '00 (fine art photography), senior processor.
- Astrida Rideout-Merritt '02 (imaging and photographic technology), senior processor/trainer.
- William Justin Barrett '05 (management information systems), processor.
- John Stoia '93 (photo science), processor.
- Keith Avery '00 (illustration), processor.
- Andrew Stewart '06 (information technology), processor.
- Alan Costich '75 (business administration), data coordinator.
- Chris Stanger '02 (information technology/new media), network administrator.
- Thomas Guhl '79, '81 (B.S. professional photography and filmmaking. M.S. istructional technology), area sales manager.
- Scott Cooper '06 (M.B.A., marketing sales management), marketing intern.
- Scott Wilday '01 (information technology), Pictometer.
- Jeff Chadwick '01 (photo illustration), processor)