

MONEY

On the leading edge

La. pitches (soft)wares East

By JOHN HALL
Business editor

Out at 13700 Chef Menteur Highway, a little company is making time machines that tunnel into the future through the magic of mathematics.

The products of Powertronic Systems Inc. won't help anyone make a killing on the New York Stock Exchange, but they can find out how a radar part will perform in a Navy F-14 fighter even before the radar is built.

This sort of thing attracted 18 representatives of Japanese computer software companies to New Orleans this month.

They came because Louisiana has computer software companies.

That's right. They're innovative companies whose products are doing amazing things — in one case literally from the South Pole to the North Pole.

Software instructs computers how to operate. It comes on magnetic tape and floppy and hard discs.

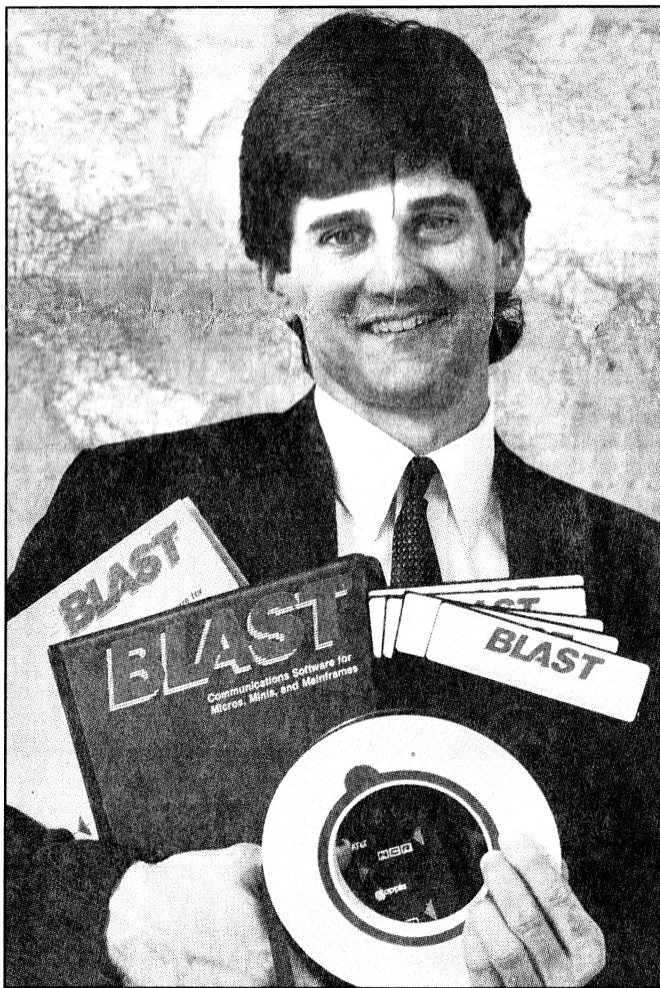
By comparison with Louisiana's petroleum, port and pleasure industries, these companies are as tiny as pre-Eocene mammals compared with dinosaurs. But like the early mammals, the manufacturers say, their prospects are sparkling bright.

Brochures in Japanese

This month, three Louisiana software makers pitched their wares to the Japanese in the fifth-floor briefing room of the New Orleans Chamber of Commerce. The local companies were:

- Communication Research Group, Baton Rouge, with 42 employees.
- Powertronic, with 15.
- Fifth Generation Systems Inc., Baton Rouge, with 135 employees, a specialist, among other things, in protecting computer data.

The Japanese represented 10 of the 75 companies in the



Thomas M. Dickhaus of Communications Research Group: The company's Blast software screens out noisy computer circuits.

STAFF PHOTO BY CHUCK COOK

FACOM Software Association, whose members make software for the FACOM computer built by Japan's Fujitsu Corp.

"They are looking to buy software or get into joint ventures," said Virginia D. Simons, industrial manager at the Economic Development Council, an

arm of the Chamber of Commerce.

The presentation made clear that Louisiana is taking the Japanese market seriously.

Officials of the state Department of Economic Development handed out information in the Japanese language — something

'With two key strokes on my computer, I can say what happens, for example, if the equipment is used in an environment 10 degrees hotter.'

**Robert J. Fousch Jr.,
Powertronics software chief**

unseen before Gov. Roemer took office. The EDC provided similar information on metro New Orleans and the River Parishes.

Founded in 1979, Powertronics started on the hardware side of electronics. The first contract was \$1.3 million in 1980 for noise-dampening equipment on the Navy's SSN-688 class of nuclear attack submarines.

Saving money for Navy

"We looked at the programs available for testing reliability and maintainability, and decided to write our own," software chief Robert J. Fousch Jr. said.

"It can tell you how long a component will last on average until it will fail," Fousch said. "We have an acronym, MTBF, for mean time between failures."

The Navy liked it tremendously, and Powertronics realized it had a treasure in the reliability software, he said.

As a result, months of math calculations now can be spun out in a day to predict how equipment will function, Fousch said.

Almost 400 customers have bought more than 1,000 programs, he said. They include the Navy, Air Force and Department of Defense, and companies such as Boeing, General Dynamics,

See SOFTWARE, G-5

Software

From G-1

General Electric, Honeywell, Hughes, McDonnell Douglas and TRW. By using the software, manufacturers avoid dead-end streets in building prototypes, Fousch said.

Analysis is fast, Fousch said: "With two key strokes on my computer, I can say what happens, for example, if the equipment is used in an environment 10 degrees hotter."

Applications for carmakers

Maintenance improves, too. A Navy destroyer can better allocate cargo space for spare parts, knowing failure frequency, Fousch said. Equipment modules can be better designed for repair. When a module is removed to replace a dead part, parts near their time can be replaced as well.

"An automobile manufacturer can do the same thing for dashboard circuits. Chrysler uses our software for that," Fousch said.

Powertronics and Communications Research are in effect spinoffs from existing industries.

Some years ago, Powertronics President Charles E. Thomas and most of the other founders were working for Chrysler making space-shot rockets at the Michoud Assembly Center in eastern New Orleans.

"That's when Lee Iacocca said he didn't want to do anything but manufacture cars," Fousch said. "They did not want to relocate."

Communications Research got started in 1973 selling Data Gen-



Engineer Ronnie Smith's face is reflected on a computer display of Japanese letters at Communications Research Group.

STAFF PHOTO BY CHUCK COOK

eral computers, and a problem arose in transferring data — seismic information, wellhole test data or accounting numbers — from offshore to offices in New Orleans and Houston, said Thomas M. Dickhaus, international sales manager.

"The circuits were noisy," Dickhaus said, so the company developed its Blast software to screen out the trouble.

Erasing background noise

Blast eliminates the fear of buying a computer that's not compatible with other equipment, said Robert C. Chinn, a 1935 Fortier High graduate and onetime LSU linebacker who was the company's first chairman.

"Any computer with Blast can

talk to any other computers with Blast," Chinn said.

The program is particularly effective in eliminating propagation delay on telephone circuits — the echo heard on some long-distance calls, especially to foreign countries, Dickhaus said.

Only an irritant in conversation, it can produce multimillion-dollar errors in computer-data transmission, Dickhaus said.

Blast was adopted by a weather research project run by the University of Miami for the National Science Foundation to improve transmission of data from the South Pole to the North Pole, Dickhaus said. It made data move 10 times faster, he said.

Communications Research

expects to make significant Japanese sales for the first time beginning March 1 with a new Blast program designed for Nippon Electric Corp.'s personal computer, the NEC 9801. It will make it easy to link it with mini- and main-frame computers just as the U.S. version does for IBM PCs, Dickhaus said.

LSU has been a major influence at Communications Research. Chinn said the company is the brainchild of LSU graduate and guiding programmer Glenn W. Smith.

Harvesting local talent

"We get the bulk of our staff from LSU," Dickhaus said.

Powertronics' Fousch, a UNO graduate in electrical engineering, praised UNO's Department of Computer Science.

Powertronics is profitable, Fousch said, but can't afford to train programmers. UNO students are hired as technicians at \$5 to \$6 an hour, and on graduation "they go to work at 100 percent effectiveness," he said.

Selling the product is no problem: In 1988, it the company was chosen as software supplier for the Defense Department's RAMCAD program — combining reliability and maintenance programs with computer-assisted design, intended to put calculate lifetime costs into weapons systems contracts in the future.

Powertronics is the leading candidate to provide reliability software for the space station.

The software people are proud of their contribution.

"We use only Louisiana resources to make our product," Dickhaus said. "It's brainpower."