ALLEGRO CL® @Work!

A Franz Inc. Customer Success Story

Ascent Technology:
Mission-Critical Decision-Support Systems

"Mission-critical? You can't get much more mission-critical than this!" Tom Fleming of Ascent Technology Inc. is talking about the commercial software systems his company has implemented in Common Lisp.

"Our solutions have planned troop and equipment deployments for the U.S. Transportation Command during Operation Desert Shield/Desert Storm. They're also used by major airlines and airports worldwide for controlling the movement of aircraft, resources, and information. These systems are real-time, up 24 hours a day, and - absolutely - they're mission-critical."

With an impressive client list that includes Delta Air Lines (for its operations in Atlanta, Dallas/Ft. Worth, Cincinnati, and Salt Lake City), Japan Airlines, the Hong Kong Civil Aviation Department, and Kobenhavns Lufthavne (for its operations at the Copenhagen International Airport), Ascent has found success building, deploying and maintaining its decision-support systems in Common Lisp.

"We're very objective about the development tools we use," comments Fleming, Manager of Sales and Marketing for the Cambridge-based Ascent. "Our chairman, Patrick Winston, is well-known for his books on various languages like C++, C, Java and Lisp. So we're not terribly biased towards one tool over another. It's just a fact that Lisp is the best tool for creating complex systems like ours, and we've chosen Franz's Allegro CL."

According to Fleming, Lisp's flexibility, its ability to handle complex programming, and its rapid prototyping capabilities, make it ideal for Ascent's decision-support systems. "Lisp is one of those secrets that you don't hear too much about," he says, "But take any sophisticated

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>
> *Tom Fleming, Manager of Sales & Marketing*

analytical application... financial, scheduling, whatever. There's a great likelihood that it's built in Lisp."

"Frankly, our customers don't really care what language their solution is built with," he continues, "What they care about is getting a solution that works, a solution that can be implemented quickly, easily maintained, and deployed at a competitive price. Lisp just happens to be the best way for us to give them what they want."

Ascent's applications provide high-level real-time overviews of the movements of people, goods, and information throughout a system, as well as lower-level views that focus on specific events and objects. These solutions generally contain planning, implementing, tracking, replanning, and recovery modules, and they run on a wide range of standard hardware platforms, connecting to standard relational databases such as Oracle and Sybase. Many of the projects were done in conjunction with systems integrator IBM.

"I hope it's clear from our example that Lisp is not an academic or prototyping language. We are not a research organization; we're interested in selling software. Lisp is a standard software development language for business apps, used to build highly successful commercial systems, and interoperating with other key business application tools like the standard RDBMS's, as well as other programming languages."

Ascent's ARIS® software provides real-time decision support for gate allocation, ground resource allocation, aircraft routing, tracking, and maintenance scheduling for clients in the air transportation industry. New, leading-edge airport facilities in Europe and Asia have chosen the ARIS resource allocation system for handling check-in counters, baggage belts, and other airport resources. Delta Air Lines uses Ascent's ARIS software to plan and monitor fuel usage and wear on the airplane taking place during taxiing.

"Saving fuel and avoiding general wear and tear on the plane through proper planning of where the plane goes after it lands can literally save this client hundreds of thousands of dollars per week." says Fleming. With mission-critical systems such as these, "our solutions have to be absolutely bullet-proof."

"For us, Lisp is a corporate competitive advantage," says Fleming. "We've used it as a competitive advantage to sell our solutions. Our customers use it as a competitive advantage to plan and maintain state-of-the-art airport systems, to optimize the operation of their airlines, to set the standards for the 21st Century."

Ascent Technology Inc., a privately held corporation, was founded in 1986 by members of the Artificial Intelligence Laboratory of the Massachusetts Institute of Technology.

For more information on AscentTechnology, please visit http://www.ascent.com.