

Applied AI News

By David Blanchard

Foremost Manufacturing Inc. (Union, NJ), a manufacturer of reflectors for lighting fixtures, has adopted a fuzzy logic-based application to produce quotations for customers in less time. The company is using a fuzzy system to produce bids in about 15 minutes, compared to an industry average of two weeks.

Carnegie Group Inc. (Pittsburgh, PA) has developed a hybrid neural network/expert system for diagnostic situations where signal data and symbolic data must be combined to perform a definitive diagnosis and repair procedure. This technology was developed with funding from the National Science Foundation. Working with experts from Armco Steel (Middletown, OH), Carnegie Group developed a prototype system to diagnose chatter in a coldrolling mill.

Maxus Systems International (New York, NY), a financial management and consulting company, has developed a PC-based virtual reality system to provide financial planners a visual metaphor for viewing large amounts of financial data. The system allows the user to "fly" over the entire financial world, represented as a huge, chessboard-like grid, with each quadrant corresponding to a country and industry group.

Japan-based Meiji Mutual Life Insurance Co. has developed the Life Insurance Plan Selection expert system, which can select the most suitable plan, along with a reason for the choice, from Meiji's range of 37 individual-oriented plans. The expert system is installed in Meiji's Tokyo service center and in all other service plazas throughout Japan.

Xilinx Inc. (San Jose, CA), a vendor of field programmable gate arrays, has implemented an expert system-based bug tracking system. Bugs that used to take three to five days to communicate to all the appropriate parties now take one hour or less to route, thanks to a customized solution called BITA (Bug and Information Tracking Application).

Domain Dynamics Ltd. (Windsor, England) has developed a PC-based neural network application to automate the recognition of data from the output of its signal processing technique, TESPAP. Currently available in the form of two circuit boards, TESPAP (which stands for Time Encoded Signal Processing and Recognition) is capable of being converted to a single piece of silicon. TESPAP provides a means of capturing and storing a single elemental "signature" of acoustic activity, which then provides a reference for recognizing patterns.

Ricoh Company Ltd. (West Caldwell, NJ) has developed a neurocomputer which it plans to apply to its office equipment for such tasks as controlling printing. The neurocomputer reportedly has a processing speed as high as 128 Mcps (million neuron connections per second).

Italy's National Companies and Stock Exchange (CONSOB) has implemented an intelligent application that sounds an audible alarm whenever trading conditions exceed specific guidelines. The system, called the Italian Stock Exchange Control System, was developed for CONSOB to ensure regulatory compliance, but it can also be used by traders, brokers, analysts, and others to alert them to market fluctuations within minutes of their occurrence.

Brooklyn Union Gas (New York, NY), a natural gas utility, has developed a palmtop-based expert system for issuing credit agreements. The application software is stored on an integrated circuit card. The expert system utilizes a touch-sensitive screen to prompt representatives through the process of issuing deferred payment agreements to the utility's customers. The palmtops are currently in use in one district office, with plans for expansion to all the district offices.

MPR Teltech Ltd. (Vancouver, BC, Canada), the R&D division of British

Columbia Telephone, has embedded an expert system in BCTel's sales and marketing customer contact system to help enhance customer service while boosting sales revenues. By capturing the experience of product managers familiar with the phone company's services and salespeople who understand how to present those services, the system guides hundreds of BCTel salespeople in determining a customer's exact needs.

Sony, the Japanese consumer electronics company, has developed an intelligent system to improve productivity and speed time-to-market for its camcorders. In the company's semiconductor group, an expert system is at the core of a system for speeding up the design and testing of CCD chips, which are highly specialized, photosensitive semiconductors that gather light in video cameras. The intelligent application is said to have reduced the chip design process by two-thirds.

Attachmate Corp. (Bellevue, WA), a vendor of micro-to-mainframe connectivity software, has developed a large-scale help desk automation system that uses case-based reasoning techniques. With the system, technical support problems that used to take two days to solve with a text retrieval system now take just a few minutes.

Bechtel Software Inc. (San Francisco, CA) has been awarded a contract by the Minnesota State Board of Technical Colleges to develop a knowledge-based department/college scheduling system for its 34-campus system. The system will provide a tool for developing, tracking and maintaining schedules at both the college and department levels.

David Blanchard is editor of *Intelligent Systems Report*, the monthly newsletter of applied artificial intelligence. For further details on the above stories, or to report information on other applications of AI, contact ISR at 2555 Cumberland Parkway, Suite 299, Atlanta, GA 30339, (404) 434-2187, FAX: (404) 432-6969. Subscription price: \$299 for 12 issues.