John Deere Dubuque Works (Dubuque, Iowa), a manufacturer of agriculture and industrial equipment, has implemented a virtual-reality system to use in its construction division. The system enables John Deere to use virtual-product prototypes to assess key design factors in construction equipment, such as visibility and the ability to reach controls.

Nabisco Biscuit (East Hanover, N.J.), a manufacturer of cookies and crackers, has installed an intelligent process-operating guidelines (POG) system. This POG system uses expert system technology to provide real-time process control information to the bakeries.

Automotive manufacturer Ford Powertrain Operations (Dearborn, Mich.) has developed a flexible manufacturing system that is being controlled by an intelligent cell controller. The expert system-based manufacturing system controls the movement of parts through the cell, issues supervisory control commands to the machine tools, and permits process engineers to create flexible routes for pallets of raw material.

ZEBCO MotorGuide (Tulsa, Okla.), a fishing tackle manufacturer, has implemented speech-recognition technology to develop a voice-activated control system for fishing boats. The system provides wireless, hands-free control of a fishing boat’s trolling motor.

Andersen Consulting (Chicago, Ill.) has developed an experimental intelligent agent called lifestyle finder to help companies better understand and target their customers on the World Wide Web. The agent is designed to infer consumer interests and buying preferences without invading the privacy of Internet users.

Oak Ridge Centers for Manufacturing Technology (Oak Ridge, Tenn.) has developed a virtual design and manufacturing system that allows people located hundreds of miles apart to work and learn together. The system allows users linked on a computer network to see and interact with each other.

Carnegie Group (Pittsburgh, Pa.) is developing intelligent software for the City of Pittsburgh Police Department that will allow police officers to access a voice-commanded vehicle-registration information-retrieval system.

ABB Kraftwerke (Mannheim, Germany) has developed an initial visualization of a power plant using virtual-reality software. The application satisfies the requirements for a virtual plant from simple walk-throughs to the representation of complex processes.

Accurate Automation (Chattanooga, Tenn.) has developed a neural network-based low-observable flight-test experiment (LOfiYTE) subsonic prototype. LOfiYTE is a high-lift, low-drag Mach-5 aircraft concept jointly funded by the National Aeronautics and Space Administration and the United States Air Force. The aircraft utilizes neural technology to improve maneuverability, reliability, and efficiency.

Airplane manufacturer Boeing (Seattle, Wash.) has developed fly thru, a digital preassembly system for checking designs. Engineers are able to view as many as 1500 models in three dimensions at high speed. The system is currently being integrated with knowledge-based-engineering geometry-generation tools.

The Microelectronics and Computer Technology Corp. (Austin, Tex.), a technology research and development consortium, has launched a new project to improve the delivery of products and services in global, networked environments such as the Internet. The Object Infrastructure Project seeks to develop and demonstrate an integrated set of services required to support advanced, distributed, object-oriented applications.

The U.S. Navy’s Best Manufacturing Practices Center of Excellence (College Park, Md.) has developed the PROGRAM MANAGERS WORKSTATION, a series of knowledge-based software packages designed to provide timely acquisition and engineering information to the user.

BrainTech (Vancouver, B.C., Canada) has developed a neural network-based video-recognition system capable of examining data from its own real-time video camera and then differentiating the foreground objects from the background using video-tracking technology. Once the foreground objects have been isolated, the system analyzes, classifies, and tracks each object in a real-time environment.

IntelliCorp (Mountain View, Calif.), a vendor of knowledge-based live modeling software, has joined PDES, a global consortium working to accelerate the development and deployment of the standard for the exchange of product data (STEP). Using software provided by IntelliCorp and other companies, PDES members have collaborated to produce PREAMP, a concurrent engineering software system.

David Blanchard is the editor of Intelligent Systems Report, Intelligent Manufacturing, and the new Electronic Commerce Update. Contact Lionheart Publishing Inc. at 2555 Cumberland Parkway, Suite 299, Atlanta, GA 30339, (800) 392-7294, ext. 219, for a free sample copy of these publications or on the World Wide Web at http://lionhrtpub.com.
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