A team that includes AI Ware (Cleveland, Ohio), a vendor of intelligent systems for design and manufacturing applications, has been awarded a $3.8 million grant by the National Institute of Standards and Technology (NIST) to develop an aluminum diecasting process monitoring and optimization system. The team will develop a neural network-based system with self-improving capabilities to detect as well as predict process and quality problems, and that can suggest corrective actions before quality degrades below acceptable limits.

Caterpillar (Peoria, Ill.), a manufacturer of construction, earth-moving equipment and engines, working with the National Center for Supercomputing Applications (NCSA) at the University of Illinois, has developed a virtual reality environment for testing new machine designs. These tests assess the vehicle’s design and determine visibility from the cab.

Verity (Mountain View, Calif.), a supplier of information retrieval tools based on intelligent agent technology, has teamed up with Netscape Communications Corp. (Mountain View, Calif.), a provider of open software for the Internet and other global networks, to bring Verity’s Topic Agent technology to the Internet. Netscape will embed Topic Search Engine in its Netscape servers. Topic Agents allow users and on-line providers to filter incoming information against interest profiles and send automatic alerts via personal HTML pages, e-mail or fax.

Kolvox Communications (Toronto, Ont., Canada), a provider of speech recognition solutions for office productivity, and Phoenix Technologies (Santa Clara, Calif.), a supplier of system-level software for PC manufacturers, have signed a contract to jointly develop a new computer telephone integration solution, based on speech recognition for the PC. Users will be able to access important information on their desktop computer through the telephone, with the goal of increasing office productivity, regardless of location.

Avatar Partners (Boulder Creek, Calif.) has been awarded a $1 million R&D contract from the U.S. Army Simulation Training and Instrumentation Command (STRICOM) to develop the Dismounted Infantry Virtual Environment (DIVE) system, a wireless unencumbered virtual reality system for infantry training applications. Applications of the DIVE system include hazardous operations training and simulation for both military and civilian operations, and location-based entertainment.

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A computer-based vision system has been developed that reportedly can identify faces as accurately as the human eye, even to the point of seeing past most disguises. The system, a joint project of the University of Southern California and Bochum University in Germany, works even if subjects have changed their hairstyle, have grown or shaved a beard, or have donned or doffed their glasses. The U.S. Army is currently evaluating the vision system for possible uses, and a German spin-off firm has already licensed a version of the system, called ZN-Face, to Deutsche Bank for security applications.

The Swiss Bank, one of the largest banks based in Switzerland, has reached an agreement with virtual reality tool developer Sense8 (Mill Valley, Calif.) to integrate Sense8's WorldToolKit software with an enhanced 3-D graphical user interface (GUI) that the bank is developing. The GUI will allow users to access and view financial data.

Gensym (Cambridge, Mass.), supplier of the G2 real-time expert system development tool, has signed a solution partner program agreement with I-Net (Bethesda, Md.), a provider of network integration and operations services. I-Net will use G2 to perform the essential functions of intelligent network management, such as alarm filtering, alarm correlation, fault detection, and diagnosis.

Motorola (Schaumburg, Ill.), a manufacturer of computer chips and other electronics equipment, has introduced virtual reality into its training programs to save itself millions of dollars in training costs. Rather than fly trainees to dedicated training facilities in Schaumburg or to other company locations, Motorola plans to deploy virtual worlds for on-site training at plants around the world. Motorola expects a ten-fold savings because the computer models can be modified on-site as equipment is upgraded or new employees are hired.

Mitek Systems (San Diego, Calif.), a manufacturer of advanced character recognition products for intelligent forms processing, has signed an agreement with Kleindienst Datentechnik (Augsburg, Germany). Kleindienst’s application will use Mitek’s QuickStrokes, a neural network-based character recognition engine, in a new multi-recognition engine system aimed at high-speed data and character recognition processing applications for financial markets.