

Sponsored by AIM USA and managed by Reed Exhibition Companies, Scan-Tech drew more than 15,000 attendees and featured 350 exhibitors showcasing the technologies and solutions that will enable manufacturers to be highly competitive today, and maintain that lead into the 21st century.

World-Class Auto ID Tools on View At Scan-Tech

BY DIANE LABRENZ and MARTY WEIL

Unveiled at Scan-Tech '95 were products and application solutions that will lead manufacturers into the 21st century as world-class competitors. Held recently at Chicago's McCormick Place, the event featured four specialized technology pavilions and a 7,000 sq. ft. Solutions Center, allowing attendees to see demonstrations of new technologies and products, and how they can work together for complete factory-floor data collection solutions.

The pavilions addressed EDI; RFDC; Card Technologies; and Biometrics, a new technology that recognizes and identifies people by their biological traits (i.e., fingerprints and voice recognition).

On the show floor, Symbol Technologies Inc., the Bohemia, NY-based maker of bar-code driven data transaction systems, unveiled the LS 3200 ER. This new extended-range scanner reads bar codes of virtually all sizes and at distances ranging from near contact to more than 35 feet. The LS 3200 ER also eliminates the need to purchase multiple scanners for reading bar code symbols at various distances. "For example, a shipment arriving on a receiving dock would include a bar-coded invoice

that a scanner would read at near-contact," explained Robert Hurt, project manager for scanners at Symbol, "the crate is stacked in a holding area where shipping labels are scanned from a distance of several feet and then moved to a warehouse, where shelving labels must be read from the floor, sometimes more than 35 feet below. In the past, a dock worker would need different scanners to read from specific distances. With the new Symbol scanners, a single scanner can be used to handle these multirange scanning tasks."

Symbol's PDF417, as well as other 2-D symbologies, have had a significant effect in the industry. As seen on the show floor, most new products were introduced with the ability to read, analyze or print two-dimensional bar codes. For example, Datamax Bar Code Products Corp. of Orlando, FL, a manufacturer of thermal printer products for bar code labeling, introduced the DMX 2D100, the industry's first PDF417 bar code analyzer.

The DMX 2D100 unit consists of a raster-type laser scanner, an interface controller, a dc power supply and cable, and software. The hand-held "point and shoot" unit analyzes PDF417 data and error-correction formats to ensure readability. It also indicates the error correction level, number of rows, number of columns, and decoded data in the symbol. All of these factors are combined to "grade" the symbol. This methodology differs from traditional bar code verification, which analyzes the bar-width deviation and reflectance parameters of linear bar code symbologies. "PDF417 is increasingly being used to encode portable database files for cost, productivity and safety reasons," says Jack Tedesco, vice president of bar code verification and quality systems for Datamax. "Although this symbology incorporates sophisticated error correction

Photo courtesy: Reed Exhibition Co.

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The solutions on view at Scan-Tech reflected the trends and technologies dominating industry today.

Photo courtesy: Brady USA



Brady introduced a controller system to work with the Data Matrix 2-D symbology.

capabilities, PDF417 symbols are not always decodable, and this problem is not readily apparent to the human eye. The DMX 2D100 offers a solution that detects errors before a bar code label enters a system to prevent potential costly or even life-threatening situations."

Computer Identics Corp. of Canton, MA, introduced its CiMAX 7500 scanner, which also reads PDF417 two-dimensional codes. Providing both high-speed scanning and distributed processing capabilities in one product, the company stated that the 7500 line scanner is ideal for distributed applications needing fast, local decision-making and control.

In the printing arena, PDF417 wasn't the only 2-D symbol around. The Automatic Identification and Data Collection (AIDC) Group of Milwaukee, WI-based Brady USA Inc., in conjunction with International Data Matrix Inc. of Clearwater, FL, introduced the new MX Series Controller System for Data Matrix two-dimensional symbology. The Controller system includes software, CCD readers, and controllers. A variety of label materials and a complete line of thermal-transfer printers complement the system.

Intermec Corp. of Everett, WA, clocked in with nothing less than a new standard in printing performance. The Models 3240 and 3440 direct thermal and thermal-transfer printers operate at speeds of 406 dots per inch—a substantial increase over the 200-dpi and 300-dpi printers common in industry today. They feature Intermec's Precision Print Technology, which ensures superior print registration for consistent image placement. Both models

produce bar codes with "X" dimensions as small as 2.5 mils. Unlike 300 dpi printers, they deliver bar codes that exactly match the specifications for all of the major industry standards, including those required for 2-D symbologies.

"When the ability to print high-quality, high-density, in-spec bar code symbols is combined with the ability to print small fonts and smooth graphics, end users may minimize the size of their labels—a big advantage since paper costs have skyrocketed—thus reducing their labeling costs without giving up label print quality and performance," said Laura McCluer, senior product manager at Intermec.

Principal Engineer Sprague Ackley noted, "When using Intermec's 3240 printer with Precision Print Technology, end users can print on-demand labels as small as one-tenth of a square inch with repeatedly accurate image registration over an entire 6,000-inch roll of labels."

This wouldn't have been 1995 without some talk of Microsoft Windows. Tharo Systems of Brunswick, OH, introduced its Gemini Windows bar code printer. Gemini is so completely integrated with the Windows environment that most printer control is done by a simple mouse-click within the on-screen control panel. "It's a 'dumb' printer," stated Thomas Thatcher, president of Tharo Systems. "The only button on it is the on/off button."

Central to this new concept in label printing is Gemini's high-speed parallel interface, along with bi-directional communications, a combination that provides lower time to first label and one which, according to the company, is not available on any other bar code printer on the market. Tharo says that this speed will be further reduced when the drivers are rewritten as 32-bit applications for Windows

95 and NT—right now, it works best with Windows 3.1 and 3.11.

"Because it's controlled through software, this printer will never be obsolete," said Thatcher. "The software can be upgraded as technologies evolve. We feel that, if Windows is the operating system of the world, we like to think of Gemini as the bar code label printer of the world."

User needs for mobility were addressed by Monarch Marking Systems of Dayton, OH, with the introduction of the Monarch Mobile Printing Station (MMPS). It is a full-featured, mobile RF bar coding station for multiple labeling applications. With the MMPS, Monarch offers from one to four Renegade bar code printers in one unit to handle compliance, carton, part ID and shelf/bin labeling. It also provides the flexibility, portability and power of a labeling and automatic data collection system that is ideal for large manufacturers with multiple facilities.

Weber Marking Systems of Arlington Heights, IL, introduced its steel-encased 73 Series thermal/thermal-transfer label printer. It provides high-resolution, 300 dpi printing with a print width of 8.5 in. High-density bar codes, variable text and graphic images can be printed at speeds programmable up to 5 in. per sec. It is equipped with a 32-bit processor that delivers fast throughput of labels being printed on-demand or in large batches.

Zebra Technologies Corp. of Vernon Hills, IL, showcased its Value-Line thermal-transfer printer, the model 160S. Capable of printing up to six-in. wide labels, the Zebra 160S is ideal for creating various compliance label formats without rotation. The company notes that the metal-cased 160S can print in any environment, such as on shipping docks for producing AIAG labels for automobile parts shipments to important suppliers. This printer too, can handle PDF417, MaxiCode and Code 49 2-D bar codes.

Highlighting products that support highly effective 2-D bar codes, run on the Windows operating system, and fulfill users' needs in a wide variety of applications, Scan-Tech thus reflected the dominant trends in the auto ID arena as well as the broader manufacturing realm. MA

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| Brady USA Inc. | |
| MX Series Controller System..... | 800-537-8791 |
| Computer Identics Corp. | |
| CiMAX 7500 scanner..... | 617-821-0830 |
| Datamax Bar Code Products Corp. | |
| DMX 2D100 scanner..... | 612-946-0026 |
| Intermec Corp. | |
| Models 3240, 3440 printers..... | 206-348-2600 |
| Monarch Marking Systems | |
| Monarch Mobile Printing Station.. | 513-865-2123 |
| Tharo Systems Inc. | |
| Gemini printer..... | 216-273-4408 |
| Weber Marking Systems | |
| 73 Series printer..... | 800-225-0883 |
| Zebra Technologies Corp. | |
| Zebra 160S printer..... | 708-634-6700 |

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