



newsletter

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The management
Newsletter for all
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related
technologies.

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We are witnessing....

....some disparate signals which suggest that major changes are in the offing which will revise the way in which bar code scanning may work in the future.

Slowly, but inexorably, a pattern is emerging that is different from the bar code scanning world of just a few years ago. This changing pattern is partly attributable to the widespread efforts of many industries and organizations which are striving to establish standards, guidelines and specifications to govern the adoption of codes and symbols.

The forces at work have been moving the scanning industry away from the simple world comprised of UPC/EAN, Code 39 and a little interleaved 2/5 and Codabar scattered here and there. As automatic identification has grown worldwide, and attracted industries with applications that were not anticipated even a few years ago, the demands for specific, distinguishable code identifications have outstripped the capabilities of those few popular bar code symbols. In the real world, it has become virtually impossible to retrofit each industry's perceived requirements for auto ID Systems into any predetermined format.

These are a few of the signals we refer to:

- Multiple codes on a single package or document (e.g. item number, supplier, purchase order number, quantity, serial number) are becoming the norm and have led to the development of Data Identifier (DI) prefixes to recognize each code and to isolate its meaning (SCAN April 88). Since the DIs can be incorporated into any alpha-numeric symbology, and with most scanners able to autodiscriminate, the selection of the machine-readable code has become an independent decision.
- On the other hand, the international UPC/EAN community -- by far the largest code and symbol system in use today -- is not going the route of the Data Identifiers. The 20-digit Serial Shipping Container Code and Symbol, just adopted this month by the Uniform Code Council (UCC) and the International Article Number Association (EAN), will employ the unique field identifying system that is built into Code 128 (SCAN March 88). According to the UCC: "The Code 128 architecture selected specifies the use of function code one following the Code 128 A, B, and C start codes. This will be followed by unique two digit UCC and EAN



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qualifiers which supply unambiguous identification for each coding application." This decision by the UCC and EAN is a novel method for distinguishing between coded designations among worldwide retail products. At present, it is not too clear as to why the UCC and EAN chose this somewhat controversial approach rather than going with the Data Identifiers, which everyone else seems to be running with.

- The Department of Defense, through its LOGMARS Coordinating Committee, has also decided to set aside the Data Identifier concept, at least for the time being. No alternative has yet been offered to distinguish among the various codes that may appear on a package destined for a DOD installation.
- The very significant development of electronic data interchange (EDI) is impacting on the coding assignment in many industries. Even though EDI is very dependent on rigid code structures, it has little regard for the choice of symbologies.
- We are aware of serious discussions currently under way to develop new or revised codes and symbols for the following industries: Health, Horticulture, Publishing, Transportation (air and ground), Home Appliances and Communications. Each will be concerned, and properly so, with the specific requirements of its constituent companies.

We sense the fast disappearance of any remaining strong positions that promote the uniform assignment of codes and symbols across industry lines. In the past, most scanning was employed in a static environment, i.e. where the bar code was designed and applied to be read in a specific location. We are now entering an era in which bar coding will be utilized in new geographic regions, industries and applications. In such an environment, the old ground rules must be reexamined. As the applications cross industry lines and become entwined with distribution and transportation, the systems and hardware designs must accommodate the new requirements.

[We must point out one serious caveat: Although autodiscrimination allows for multiple codes and symbols to be read on the same package, such a mixture could present problems if taken to extremes in code density. For instance, an open system that includes ultra high density symbols ("X" dimension = 5.0 mils) intermingled with low density symbols (X = 40.0 mils) cannot be easily read by the same scanner.]

We continue to monitor....

....the progress of what may very well be this industry's single most important current project -- the establishment of the Data Identifier (DI) standard and dictionary. In our last reports (SCAN March 88, April 88), we described the work of the FACT (Federation of Automated Coding Technologies) committee that has undertaken this task of assigning designated prefixes to identify different types of coded information. As of this past spring, the DI group was in the process of circulating early drafts of the DI dictionary for comment.

In its latest effort to evaluate the efficacy and validity of the assigned DI codes, the committee set up a series of limited field tests. Specific application documents and media were described and circulated to various individuals in different industry groups. Their task was to select the

Data Identifier they believed should be assigned to each item from the draft dictionary. The object of the test was to judge the extent to which everyone selected the same DI for each item, which would indicate the clarity and workability of the DI dictionary definitions.

Initial evaluations of the results were very positive, according to committee members interviewed by SCAN. Dick Meyers (NCR) told us that these preliminary results validated the DI concept but he believes that the DI dictionary must be used to be fully understood. According to Chairman Bert Moore, the FACT committee is now editing the fifth draft and additional, more extensive, field testing is being planned. The committee hopes to produce a final working document by the end of this year.

FACT, 1326 Freeport Road, Pittsburgh, PA 15238; 412/963-8588

With membership....

....now at 126, including 11 companies just admitted at the May midyear meeting, the Automatic Identification Manufacturers (AIM/US) is going through a new period of rapid growth in numbers and activities. The trade organization's focus has expanded well beyond the annual SCAN-TECH shows and now encompasses a broad range of educational and promotional efforts:

- The second annual Teachers Institute -- cosponsored with Ohio University's Department of Industrial Technology -- is scheduled for July 11-15 at the University's campus in Athens, OH. About 30 college professors and instructors (last year there were 17) have signed up for the one-week intensive course in automatic identification to provide them with a foundation to teach the subject to their students.
- AIM participates in a number of joint sponsorship programs and conferences with organizations such as the American Management Association, Health Industry Business Communications Council, and other professional groups and universities. AIM's involvement varies and may include providing speakers, coordinating promotion and schedules or arranging for exhibits. One example was the Quick Response Conference and Exposition which was held on June 14-15 in Raleigh, NC. Sponsored by North Carolina State University, *Textile World Magazine*, and AIM/US, the subject was "Electronic Data Interchange and Bar Coding in the Textile/Apparel Industry." Another joint program is TELEXPO 88, scheduled for Sept 13-14 in Detroit. This will be cosponsored by AIM and the Telecommunications Industry Forum (TCIF). Established in 1986, in the post-AT&T divestiture era, TCIF serves as a platform for the "trading partners" of the telecommunications industry to develop standards and to provide a forum for purchasers, manufacturers and suppliers to explore information technologies such as auto ID and EDI. TELEXPO 88 will focus on how bar coding and EDI can help telephone companies, long distance carriers and their suppliers cut costs, reduce inventory levels, and implement paperless billing procedures. There will be vendor exhibits at the TELEXPO conference.
- Through its various industry committees, AIM is providing a forum for various technologies and disciplines to get the word out to the marketplace. The two most recent groups formed were the Magnetic Stripe Committee and the Systems Integration Committee. The latter

group, chaired by Andy Anderson (CACI), is developing educational programs on how to implement automatic identification technology through the use of systems integration disciplines. Nearly 30 companies attended the Committee's organizational meeting.

- AIM has compiled a Case History Directory of 100 auto ID users, which briefly outlines the industry, the application and how each company is making use of such systems. Interested organizations can call AIM to obtain more details and to establish direct contact with the user.

The major AIM/US project has been the annual SCAN-TECH show and seminar which will be held this year on November 1-3 at Chicago's McCormick Place. AIM is gearing up for over 225 exhibitors to attract 8-10,000 visitors -- both record numbers. (About 84% of the available space was reserved by 160 companies at the initial exhibitor drawing last October.)

The keynote speaker this year will be Buck Rogers, former VP Marketing for IBM. Of special interest will be a series of special seminar sessions by several industry associations: Automated Vision Association, Automotive Industry Action Group, Graphic Communications Association, Health Industry Business Communications Council, Institute of Industrial Engineers and the National Electrical Manufacturers' Association.

AIM/US continues to be a dynamic organization with major emphasis on education. That emphasis is exactly where the automatic identification industry should concentrate its talents and resources since, by most estimates, the market penetration is still below 10% (in areas other than retail).

In recognition of the growth potential....

....for scanning equipment in the retail market -- certainly for the next 3 to 5 years -- a group of AIM members petitioned the organization's Board of Directors to inaugurate a new trade show.

The proposal was approved a few weeks ago at the trade association's midyear meeting in Denver -- and thus SCAN-TECH/RETAIL was born. The new show will be held at the Dallas/Fort Worth (Airport) Hyatt Hotel on March 21-22, 1989, and will be sponsored, managed and promoted by AIM. (The project has been endorsed by VICS -- the group that is most responsible for pushing the non-food retailers headlong into the world of scanning/automation.)

Initial plans call for space to be limited to 10' X 10' booths, with each exhibitor restricted to only one booth. Bill Hakanson, Executive Director of AIM, anticipates about 66 booths and about 600 attendees. Emphasis will be on the educational seminars.

The choice of venue is an interesting one. This hotel is the same one that hosted the first SCAN-TECH show back in 1982, and the conditions and restrictions are very similar. There is no reason why SCAN-TECH/RETAIL won't grow up to be as successful as its predecessor. We will provide additional information as it becomes available.

AIM Inc., 1326 Freeport Road, Pittsburgh, PA 15238; 412/963-8588.

A presentation we attended....

....this past April at ID Expo, has refocused our attention on the US government procurement of bar code scanning equipment and supplies (SCAN June 88). In a special seminar, tailored to prospective federal contractors, Jacqueline Jenkins of Syscon addressed the question: "So you want to sell bar coding systems to the Department of Defense?"

Jenkins was very blunt about the booby traps to be encountered in trying to sell LOGMARS equipment and supplies to the Army, which has been assigned procurement responsibility for the entire DOD.

Among the difficulties she described:

- The Government has created confusion by failing to provide specific information about specifications and other data directly related to the bids.
- The level of knowledge is very low among the various agencies destined to use the scanning equipment. According to Jenkins, the educational programs conducted by the DOD have been minimal, and the resulting unfamiliarity has retarded the acquisition and use of bar coding equipment by the military.
- Jenkins strongly supports the role of the "systems integrators" -- those companies which specialize in pulling together all of the various components required for these types of bids. She maintains that only a small portion of the required equipment is directly related to bar coding. Since computer hardware and software, handling equipment and related services are all involved, she believes that it is imperative that only a company with the necessary experience, personnel and capability take over these complicated contracts. [This point of view is sharply contradicted by Intermec, which recently won the Army N-T award (SCAN May 88) in spite of the bid protests that had been lodged by Syscon.]
- Jenkins cautions that prepared bids must always offer exactly what the Government thinks it wants. Among the underlying requirements of all LOGMARS procurements, she pointed out, is that all supplies and equipment must be "off-the-shelf" and that no special products or development costs are to be included.

During the Jenkins' presentation, we happened to be sitting next to one of the key members of the LOGMARS Coordinating Group, who was squirming in his seat throughout the hour. He felt that much of the criticism was unfounded, that the Defense Department has been making good progress (considering the size and complexity of its program) and that the Army is upholding its responsibilities.

He also brought us up to date on the status of the modifications to the key bar coding specifications -- Mil Stds 1189B and 129K -- which are currently under review. The revised 129K (covering bar code marking on packages) is at the printers and distribution is expected by the end of July; it doesn't look as if 1189B (basic LOGMARS bar coding specification) will be out until early next year.

CKAH-Moskba or....

....SCAN-Moscow is firmly set and an exhibitor's package has been prepared by the AIM-Europe Secretariat. The event, cosponsored with the Soviet Union Chamber of Commerce and Industry, takes place on Sept 20-21 at the Sovincentr, Moscow's World Trade Centre. Exhibitors and speakers will be staying in the adjoining Mezhdunarodnaya Hotel.

Automatic identification technology is new to the Soviet Union (although AIM-Europe has learned of one pilot scheme operating in a men's suit factory). SCAN-Moscow is seen as a first step toward a gradual expansion of a potentially vast market. In addition to the exhibition, arrangements can be made (through the show's sponsors) for formal discussions of joint ventures or direct sales opportunities.

Table-top exhibit space is limited and will be assigned on a first-come, first-served basis. The AIM-Europe Secretariat will be offering a total travel and accommodation package for all Western participants and will coordinate all customs clearance of exhibition material.

In addition to the business program, a social and sight-seeing program has been arranged to include a welcome reception on September 17, sight-seeing in Moscow and Zargorsk, and a short visit to Leningrad. A final gala dinner has been tentatively scheduled to be held on a boat moored alongside the hotel on the Moscow River. A word of warning from the Secretariat: The trip to SCAN-Moscow must be planned in advance and commitments made as to the length of the visit; it will not be possible to stay an extra night, or leave a day early and get a refund.

Further information may be obtained from AIM-Europe, The Old Vicarage, Haley Hill, Halifax, HX36DR, ENGLAND Phone: 0422 59161; Telex: 517250 ISMARK; Fax: 0422 55604.

[Please note that we really screwed up some of the dates in last month's calendar of SCAN-TECH shows: SCAN-Sweden will take place on September 6; SCAN-Moscow (as is noted above) will be held on September 20-21; and SCAN-Europe will be in Dusseldorf on October 11-13. See you all there!]

In a move to strengthen....

....its product line for retailer customers, Telxon has acquired Information Management Group, Inc. (IMG), a systems company based in Redmond, WA. IMG has two major software products targeted at retail grocery chains: the first provides accounting and store support functions; the second features an analysis of daily operations.

According to Steven Galvanoni, Telxon's Senior VP-Retail Systems: "The systems capabilities....combined with Telxon's in-store applications for portable hand-held computers, now provides retailers [with] a complete retail automation solution." IMG will operate as a wholly-owned operating division of Telxon Corporation, while maintaining its independent identity. Terms of the agreement will not be disclosed.

Last year Telxon acquired Real Time Computer Specialists, a software house specializing in retail communications and applications. According to President Ray Meyo, these acquisitions are part of Telxon's corporate goal to increase its revenues, and also to enhance its capabilities to develop and customize applications and communications software for its portable computers.

Parlaying almost fifty years....

....of the combined experience of its executives in the bar code scanning industry, a new company was inaugurated this month. Laserlight Systems was founded by Ted Williams-President; Frank Goodfinger-Senior VP Sales and Marketing; and Rick Connole-Senior VP Operations. Joining the three principals will be Robert Farrier as Director, Systems Engineering, and William Schultz, who will be coordinating the company's efforts toward the health and pharmaceutical industries.

All five men have arrived at the new company via Computer Identics (C/I), where they ran the Custom Systems Division, created last year as a separate unit to concentrate on systems integration projects. C/I President Frank Wezniak -- who had decided that C/I's future success depended on manufacturing and marketing standard, off-the-shelf, products -- isolated the systems group as a separate profit center, to see if it could carry its own weight.

Wezniak was clearly unhappy with the outcome. In C/I's most recent financial report (SCAN June 88), he pointed out that there were "disappointing results from the Custom Systems Division, which has had weak orders for several months." Wezniak added: "Action has been taken to reduce the expense level of that group."

The result is the start-up of Laserlight Systems. President Williams told SCAN that the management of his new company believes in the systems integration concept and they will continue to concentrate their efforts in that same direction. They have taken with them some of the C/I backlog and will provide ongoing service to their existing customers.

Williams emphasized that Laserlight will maintain good working relations with Computer Identics and will continue to provide their specialized services to their old employer, as well as to other bar code equipment manufacturers. In their system packages, Williams pointed out, his company plans to include equipment from all manufacturers they deem appropriate.

Williams characterizes his company as "unique" based on the depth of experience, talent and knowledge of the founding group. One of Laserlight's immediate projects is the development of standard software to be used as part of their integrated systems for distribution and manufacturing applications. These packages are expected to be available later this year.

Laserlight Systems, Inc., 4 Retrop Road, Natick, MA 01760; 617/653-1577.

With a new corporate identity....

....to reflect a change in ownership, Swedot Inc. became Atech Systems, Inc. as of July 1. The new company is now a subsidiary of Atech AB of Sweden -- which, in turn, is an operating group under the corporate umbrella of

Beijer Industries of Sweden, a 100-year-old, \$750 million company. Atech AB manufactures thermal, dot matrix and non-contact ink jet printers sold under the brand names of Swedot and Antonson.

Swedot entered the US market in early 1985. At that time, Ed Andersson left Computer Identics and moved to the West Coast to head up the North American arm of Swedot. In about a year, Andersson had established a network of distributors covering the US and Canada (SCAN April 85, May 86).

Commenting on the current change, Andersson told SCAN: "We will expand our distribution to include the Antonson printers as well as Swedot. Additionally, we have entered into a marketing agreement with Ahearn and Soper of Canada through which we will offer integrated automatic identification systems, including our printers, leading brand name bar code verifiers, scanners, fixed and portable data collection terminals and the Ahearn and Soper Model 1280 transaction processor and software."

One of the major market applications for the Swedot printers has involved airline and baggage handling. Andersson described successful installations at Air Canada, which has installed 250 Swedot Model 1952 printers at air cargo locations around the world. These devices print bar coded air cargo labels to track shipments from point of origin to destination. Two hundred forty of these same model printers have been installed by SAS and they are currently printing baggage tags at 43 cities around the globe. Similar systems have been sold to Qantas, Alitalia and KLM, and are also up and running at two large airports for a major US airline. According to Andersson: "We see the airline industry as a major market for our high-speed, compact intelligent printers."

Atech Systems is also in the non-food retail sector selling printers for bar-coded shipping labels used in distribution centers for automated material handling and sorting systems which feature high-speed laser scanners.

Atech Systems, 1400 Bristol St. North, Newport Beach, CA 92660; 714/752-1814.

The excellent graphics, layout and quality....

....of Intermec's Annual Report (FY 1988) deserve special comment. Using the theme "Intermec Solves Problems", the company illustrated some striking examples of how bar code scanning is employed -- from tracking honey bees in a field, to retrieving blood bags in a hospital.

In his report to shareholders, President/CEO John Paxton predicted that Intermec would reach \$300 million in sales in 5 years. He also laid out the three strategic objectives on which he expects the company to focus: First, to achieve worldwide dominance in the industry, by expanding marketing efforts throughout North America, Europe and Asia; second, to refine and improve systems capability; and third, to develop new products and solutions through enhanced research efforts.

The image created by the report was one of quality. Fortunately, the company's excellent 1988 financial results (SCAN April 88) backed up that image.

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