SCAN newsletter

The management Newsletter for all industries involved with bar-code scanning and related technologies.

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INCLUDING THE INTERNATIONAL EDITION

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With this issue of SCAN Newsletter....

....we inaugurate our expanded format, incorporating the INTERNATIONAL EDITION. Up to now the IE has been a separate supplement offered to our subscribers as an option. In keeping with our philosophy that bar code scanning is now international in scope, we will henceforth include total coverage in this one edition.

In our next issue we will report on SCAN-TECH Europe 84. We believe this first major exhibition and conference on bar code scanning held outside North America, is a particularly significant event. It reflects the extent to which the technology is spreading throughout the world.

SCAN-TECH Europe will be held on November 6-8 in Amsterdam. Both our US and international editors will be there to provide a dual perspective to report back to our readers. We expect to learn a great deal about the level of interest and depth of involvement in automatic identification technology in Europe -- a major developing market. Many are predicting this will soon be a source of new product innovations and applications, and all of our readers will be kept current.

After a relatively quiet....

....period, the UPC Council is surfacing with significant news and programs:

- Publication of a new UPC Shipping Container Symbol (SCS) Specification. This new manual combines the old SCS specification and Guidelines No. 6 and 12 covering Fixed and Random-Weight Item Coding. The major changes we noted are the revised bearer bar configurations around the interleaved 2/5 symbols (which are now required); and the addition of the prefix 9 as a "rounding digit" on random-weight products. This new specification does not agree in all respects to the EAN version.

- Publication of the Coupon Code Guidelines Manual to replace Guideline 22. This one has come out just in time. The use of bar codes on coupons is spreading rapidly. A manual to set guidelines, to the issuers of coupons and to the software designers for POS equipment, was very necessary. Of particular interest in the coupon code manual is the suggested method for assigning family codes to products, which may differ from the methods currently in use by some of the larger manufacturers.

(Editor's note: It would be a terrific idea for the UPC Council, and any other body issuing revised standards and specifications, to include an Executive

Summary highlighting the changes. It would make it a lot easier to ferret out the changes in these new specifications to implement them.)

- To help in the implementation of the coupon code, the UPC Council is sponsoring a series of coupon code seminars to be held in Los Angeles (October 30); New York (November 7); Dallas (November 14); and Chicago (November 20). Speakers will be from the UPC Council staff, plus Joe Duff (Bristol Meyers), George Off (Catalina Marketing) and James Smith (P & G).

- In a move to heighten awareness of the need to maintain a high level of quality for printed UPC symbols, the Council published excerpts from an industry study by Supermarkets General (Pathmark Stores). The study explores the reasons for the constant 15% failure to read on first scan. At three seconds a rescan, they estimate this costs the company $2 million a year. The reasons for what they consider a low first-read rate: truncation, poor color contrast, small symbols, poor location, and incorrect orientation of the bars.

- A new orientation seminar, for UPC coordinators from member companies, is scheduled for December 3, 1984 at Dayton, OH. The theory behind this move is that the new generation of personnel responsible for implementation has had no formal training program. Sounds like a good idea.

  Uniform Product Code Council, 7051 Corporate Way, Dayton, OH 45459-4294; 513/435-3870.

When is a UPC symbol....

....not a UPC symbol? When it's a security label intended to foil shoplifters.

One of the more successful methods for detecting items leaving the store before the shopper has paid for them, is an electronic sensing device. The sensors -- similar to the security gates used at airports -- are placed near the store exits. Activating tags are placed on the higher-priced items on the shelf, such as meats in supermarkets and cosmetics in drug stores.

The key to the success of the operation is to make the tags inconspicuous so they are not noticed and removed by the shopper. One way is to print a bar code on the face of the small tags to appear as if it were a UPC symbol. The ubiquitous UPC bar code is no longer noticed by anyone, and serves as a hiding place for the tell-tale tags.

Similar systems have been working in department stores, specialty shops and drug chains for a while. They are now moving into supermarkets, where pilferage -- euphemistically referred to as shrinkage -- has been estimated at a staggering $1.25 billion each year (more than the total net profit of some stores).

As we suggested....

....when we wrote the articles last month, autodiscrimination and symbol proliferation remain two of the warmest technical issues to be resolved in this industry (SCAN Oct 84).

We heard from both Ted Williams (Computer Identics and the AIM Technical Symbology Committee), and Harry Burke (NCR Data Pathing Systems) with comments. Burke has

never had much patience with new symbologies which purport to serve a purpose and usually wind up with unsupportable claims, or as he puts it "about 30% of the technical figures tossed around for bar codes is sheer baloney."

Williams is concerned about the issue of autodiscrimination. He was the technical adviser brought in to speak to the Health Industry Bar Code Committee about this issue and it was largely based on his presentation that the HIBCC felt more comfortable about including both code 39 and UPC in their standards. (We reassured Ted, by the way, that our comments in the October issue about space-saving trade-offs with reduction in error detection, was not meant to include code 128, which he is closely involved with).

Williams pointed out that the AIM Technical Symbology Committee is moving ahead to organize a very extensive study on bar code scanning reliability, that will include autodiscrimination (SCAN Sep 84). The study is not yet under way, and the university which the committee will designate to conduct the study has not been selected. But based on work he has done, Williams maintains there is no evidence of any increase in misreads when both code 39 and UPC are intermingled. If interleaved 2/5 is involved, however, he says the parameters change and misreads may increase (if the total number of characters is variable and if the intercharacter gap is more than the one module "X" value).

Comment

We have no argument with any of these positions -- nor do we necessarily accept them. Our only point is that this industry cannot continue to grow comfortably and with integrity so long as there is only limited objective, accurate, creditable evidence as to these issues. One of the major foundations of bar code scanning has been accuracy and repeatability. Up to now it has been easy to compare bar code scanning with hand-written, key-stroked, or even OCR-scanned data, and come out way ahead. That is no longer enough. Let's get moving on these studies -- and let's make sure the methodology and implementation will stand up under the harshest scrutiny.

A recent acquisition....

....by General Motors reminded us of a conversation we had at dinner, a couple of months ago, with some of this industry's activists. The subject came up of the staying power of scanning, and whether there were other technologies over the horizon which would replace bar code symbologies. One such example discussed, referred to as machine-vision, is now the focus of special activity at General Motors called Machine Intelligence Technology Implementation.

GM's most recent move was to sign a letter of intent with Applied Intelligent Systems, Inc., (AISI) whereby GM will acquire a minority (15-30%) ownership of the company. AISI is a privately-held, Michigan-based supplier to machine-vision systems. As part of the deal, GM will provide AISI with funding under a research and development contract, and allow AISI to use certain GM machine-vision technology. This is the fifth company that GM has selected for investments in this field.

The point that was raised, at this brain-storming dinner we had, was whether it's a distant leap in technology from recognizing product shapes on an assembly-line (machine-vision), to identifying any item, without special coding or marking, in any environment. Although GM's activity may be the most active and

visible, they are not alone. Ford, Caterpillar Tractor and other industrial companies have been exploring the potential with many small firms developing products in this field. We first wrote about machine-vision in March 1982 when we reviewed Cognex. At that time that new company was marketing its DataMan device which used an "advanced image processing method."

We'll see!

This year, SCAN-TECH 84....

....will bear little resemblance to the 1982 and 1983 events which first showcased the bar code scanning industry. Exhibition booths will not be limited in size and over 100 participating companies are expected to present the widest array of equipment, supplies and services ever assembled.

The seminar program will feature over 100 speakers organized to present their papers in a 5-track format designed to accommodate every level of knowledge, interest and experience:

- Track 1 is for the officer-level executive for a broad overview of bar coding to help with long-range planning.
- Track 2 is for the managers in organizations already into bar coding, or about to implement a system.
- Tracks 3, 4 and 5 are for special information needs for those already involved in automatic identification systems, including application studies.

It will be three days of exploring all of the latest and greatest of what this industry has to offer. As usual, many companies are saving their newest products to show for the first time at this fine exposition.

So -- if you haven't signed up for SCAN-TECH 84 as an exhibitor or attendee, you have delayed long enough -- and what are you possibly waiting for. If you are reading this, in this Newsletter, that is evidence enough that you should have already made your arrangements to be in Cincinnati on December 4-6.

SCAN-TECH 84, 1326 Freeport Road, Pittsburgh, PA 15238; 412/782-1624.

The countdown has started....

....for the formation of AIM/Europe (SCAN/IE May 84), with possible affiliation with AIM, Inc. of the US.

AIM/Europe would be a pan-European organization, providing a basis for industry cooperation for manufacturers and suppliers where no national AIM body exists. A novel proposal would allow a business to have dual membership: in its national organization and in AIM/Europe. Membership would thus be open to members of Cobatech (the new French association) and AIM (UK).

A planning committee has already canvassed the support of some potential members. In the process they find they are discovering well-established companies in the industry who are entirely new to them -- another manifestation of the speed with which the industry is growing.

So, if your company is in the automatic identification business (defined as bar coding -- or any other printed machine-readable codes, image recognition, radio frequency and so on) and you operate in Europe as a manufacturer, supplier or systems integrator in the industrial, commercial, military, distributive or retail sectors: you are a potential member.

The committee extends an open invitation to all eligible company representatives to attend a plenary meeting. The meeting will take place immediately after SCAN-TECH Europe on the afternoon of November 8 at the RAI Center, Amsterdam. Those planning to attend should make their intentions known to the SCAN-TECH Europe Committee during the show. Speakers at the meeting will include Ed Andersson (President of AIM, Inc.) and Mark Marriott (Chairman of AIM (UK)) and time has been set aside for the necessary discussion and exchange of views.

There is a strong hope by some for links with the International Article Numbering Association EAN. The supporters of this view consider that it is too important to have a demarcation between the industrial and consumer systems. Formal links already exist in France where Gencod (the French EAN affiliate) is a member of Cobatech. Members of AIM (UK) consider it very desirable for cooperation with the Article Number Association (the UK EAN affiliate).

Comment

In a matter of months, the industry has gone from having one national body (AIM, Inc./US) to three. Now the formation of the first regional body is in sight. The next task is to establish a federation, or umbrella organization, to hold together the regional and national bodies. Within such a framework the climate will be right for national groups to spring up all over the world. The concept of regional bodies, such as AIM/Europe, will provide a functioning organization for many companies to join in countries which cannot yet support a national group.

As the industry expands....

....in international outlook, more bar code scanning-related international conventions are going to take place in Europe and elsewhere. We already reviewed AUTOMACOM '85 (SCAN/IE Aug 84), whose venue is Montreux, Switzerland, March 19-23, 1985. A month after that, AIM (UK) plans to hold AIM '85 in London, England (more about this next month). The most recent announcement is for the Monte Carlo Convention on Retail Automation, February 26-28, 1985.

Each of these conferences is being staged by responsible organizations, who obviously believe that there is a particular need for their conference. Sometime next year the industry in Europe may want to give more thought to the coordination of such events.

The Monte Carlo Convention on Retail Automation is organized and controlled by RMDP who stage the successful EPoS Conferences in London each September. There is no doubt that the Monte Carlo Convention is international: speakers already confirmed come from nine countries and the conference will be conducted in three languages (French, Italian and English) with tri-lingual convention documentation.

Many of the sessions relate to bar coding and other machine-readable technologies. The theme throughout is the need to harmonize and standardize. The sessions are: • Towards International Unity: operational standards, scanning

systems, electronic funds transfer, communications, networks and merchandise coding. • Setting the Industry Standard for Coding and Marking. • Data Communications -- Tackling the Complexities. • Rationalization of Payment Systems. • Integrating Personal Computers into Retail Systems. • Systems for Voluntary Groups. • Cost Benefit Analysis for Investment in EPoS Systems. • Does Scanning Keep Its Promise? • Store Location. • Software.

The conference is formatted on a parallel-streamed basis, backed up by workshops and smaller meetings on specialized topics. Besides the Conference, there will be an exhibition of the latest EPoS equipment. The fee is £200 ($250) per delegate. Details from: RMDP Ltd., 61-63 Ship Street, Brighton, Sussex BN1 1AE, England; UK 'phone (0273) 203581; Telex: 877159 ref RMDP.

About a year-and-a-half after....

....the merger of the Datachecker division (National Semiconductor) with Data Terminal Systems (SCAN Feb 83), the merged company has completed its organizational changes. (The Datachecker/DTS combined US supermarket scanning installations total to about a 32% market share, in second place not far behind NCR.)

According to President Johnny Humphreys "All departments are organized along functional lines and the divisional organization adopted for the transition period following the purchase of DTS last year is eliminated. We took the time to turn DTS around and make it profitable while effectively blending the two divisions into a smooth-running, highly-efficient organization."

Some personnel changes accompanied this announcement. Lou Orsatti, General Manager of the DTS division during the transition and a key contributor to its return to profitability, has elected to leave the company. Orsatti said "I feel that I successfully completed my assignments at DTS and now is the time to seek new challenges. I have no commitments at this time." Larry Panattoni was named VP/Finance and Administration and will remain at the Maynard, MA facility where he will also serve as plant manager.

In a brief announcement....

....Intermec reported that it has filed a registration statement with the SEC for a public offering of 700,000 shares of common stock. This will be in addition to the 4.5 million shares currently outstanding. The share price will be based on the market price at the time the offering is effective. (On October 24, Intermec was quoted at about $15.00 on the NASDAQ listing.)

The proceeds of the offering (approximately $10 million if the price holds) are for working capital and capital expenditures to support future growth. The underwriters are Dean Witter Reynolds (NY) and Piper Jaffray & Hopwood (Minneapolis, MN).

As usual, the company's prospectus for the public offering provides interesting insights into operations. About 20% of the company's sales are made through 22 foreign distributors selling in 38 countries. Of the domestic revenues, 60% are made through distributors. And, significantly, Intermec is proceeding with its plan to restructure, and eventually acquire, these US distributor organizations (SCAN Jun 84). Negotiations are already under way with one distributor with just such a goal in mind.

The company's 6 months' operating results (ended Sep 30) showed revenues of $18.3 million, up a healthy 62% over the same period last year; net income rose 31% to $1.5 million (32¢ per share).

By the time this reaches you....

....the 1984 New York Marathon (Oct 28) will have been history. But did you know that at the finish line a bar coded strip on each runner's bib was detached and scanned to record the runner's identity and finishing time? This year Computer Identics supplied 6 hand-held laser scanners to do the scanning. QMS printed the special bar coded bibs worn on the chests of the 18,000 runners. A Computer Identics scanning system has been used by the N.Y. Road Runners organization the last five years (SCAN Nov 81), but this is the first year they have upgraded to laser scanners to record and report on as many as 2,000 runners who crossed the finish line in one 10-minute period.

In a more prosaic announcement, Computer Identics has signed a letter of intent with the N.V. Bakaert Company of Belgium to form a Belgian company to manufacture, sell and service bar code systems and equipment in Western Europe. The new company, Computer Identics N.V., will be owned 60% by Bakaert and 40% by CI/USA. Final agreements have not yet been prepared and are subject to approval by both boards of directors.

Computer Identics produces bar code scanning equipment and related-system application software. Bakaert is a billion-dollar company producing steel wire products with plants in 40 countries, and this is part of their diversification program into new fields.

For those who may [illegible]

....have had trouble ordering the IBM Selectric II element that types in bar code (SCAN Oct 84), the correct part number is 1167659. Thanks to John Nachtrieb of Fotel (Villa Park, IL) for pointing out the error.

A new label material....

....has been introduced by Watson Label Products (aka Watson Directory) that the company claims is stronger, lighter in weight, and less expensive than vinyl. The pressure-sensitive Composite Label is available in roll or sheet form, die-cut with scrap removed, and printed by the company in batch mode or numerically sequenced. Watson Label Products, 3684 Forest Park Boulevard, St. Louis, MO 63108; 800/325-0969.

A company that may be....

....new to the bar code scanning industry (new to us in any case) will be at SCAN-TECH 84 as an exhibitor. Teklogix will be exhibiting their Tekscan Radio-Linked System. The Tekscan product line includes Mobile "Vehicle-Mounted Terminals, Portable Hand-held Terminals and Radio Data Link Remotes." Unique system options include contact and non-contact bar code readers, alphanumeric

printers, bar code printers, special display screens, and special interfaces to other equipment (e.g., electronic scales and vehicle-positioning systems).

Teklogix, 1199 Fewster Drive, Mississauga, Ontario, L4W 2A9, Canada; 416/625-5673.

Books published in Japan....

....are supposed to carry the ISBN (International Standard Book Number) in OCR-B. This approach is the result of decisions made by the Distribution Code Center (DCC) -- the Japanese EAN affiliate -- to separate all products into two categories: those suitable for EAN bar coding, and those suitable for OCR-B coding. Books were designated as OCR-B, and for the last two years the level of source marking has been increasing, but progress is going slowly.

Recent conversations with senior executives of Japanese publishing houses and of the Japan ISBN Agency indicate that all is not plain sailing. There has been some resistance to any form of machine-readable code which some consider ugly (a view shared by many publishers and art directors throughout the world). OCR-B does work successfully in the bookstore, but it's not suitable for every application. This has led to some questioning of the original decision and consideration of the EAN bar code as an alternative for those publishers who wish to use it.

The option favored by the Japan ISBN Agency is to allow the publisher the option to use either EAN or OCR-B source marking and to scan with readers capable of recognizing both machine-readable forms. (As yet Japan does not have such a device, but MITI development money is available.) The other option is to adopt the dual symbol -- EAN/ISBN format -- as used in the UK book trade. This route is favored by the DCC. It will be interesting to follow the outcome.

American distribution arrangements....

....have been announced for the Ecupan 1100 thermal label printer. Since the product's launch in 1982 (SCAN/IE Jan 83), distributor deals have been set up in Denmark, France, Germany, Israel, the Netherlands, Norway, Switzerland and the United Kingdom. According to Tommy Halen, President of Ecupan AB (Staffanstorp, Sweden) establishing more than a toehold in the American market place has not been easy. Ecupan now has the following distributors in the United States: Signode Corporation (Cintrak), Chicago, IL (312/724-6100); Microm Corporation, Columbus, OH (614/895-0320); Lord Label Systems, Dallas, TX (214/647-2504).

The Ecupan 1100 can be used as a stand-alone printer or linked to other equipment, such as electronic scales, and be operated under computer control. The arrangement of the information on the label is highly flexible to meet the user's requirements. Bar code symbologies are: EAN/UPC, interleaved 2/5 and code 39.

Ecupan has developed a host of accessories: alphanumeric keyboard for the input of label text, pillar stands, working table and different types of label applications.

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