



newsletter

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

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There has been positive movement....

....by the Board of Governors of the Uniform Product Code Council regarding shipping case symbology. The Board has approved, in principle, the use of the all-numeric interleaved 2 of 5 symbol for the UPC Case Code and has directed the preparation of a specification manual which should be ready for publication "in the near future".

The human readable portion of the Case Code will continue to be 11 digits, similar to the standard UPC symbol. The bar code symbol, however, will consist of 14 digits as follows: a lead zero (to conform with EAN); one-digit system character; five-digit manufacturer number; five-digit container number; one-digit modulo check digit; and a spare digit to provide the even number of digits required for the interleaved 2 of 5 symbol. The 14-digit format should provide sufficient flexibility for use by other industries with special applications.

Comment

The announcement by the UPCC Board of Governors is very timely. We hope it will set a standard for other industries to follow, and prevent the fragmentation and "symbol pollution" that many of us fear. It will not handle the alpha-numeric codes that are required by some industries, but the alternate use of code 3 of 9 should still permit a high degree of standardization and uniformity. (Except, of course, that we all seem to be calling this symbol by different names: UPC Case Code Symbol, Uniform Container Symbol, Distribution Symbol, Transport Case Symbol, etc., etc.).

AIM has decided to....

....publish the Distribution Symbology Study Group report as a document of interest to the industry. The Automatic Identification Manufacturers will also publish the specifications for interleaved 2 of 5, code 3 of 9 and codabar symbols, to be designated USD-1, USD-2 and USD-3. All of these publications are expected to be ready for distribution before the 1981 Automated Material Handling & Storage Systems Conference scheduled for September 16-18 at the Franklin Plaza Hotel, Philadelphia, PA.

The conference will include two papers on bar code scanning: "Horizontal Systems and Automatic Identification Equipment" by Ed Andersson of Computer Identics; and "AS/RS and Automatic Identification Equipment" by Art King of MEKontrol. Both papers will be presented during concurrent sessions on

Thursday afternoon, September 17. (You will have to pick which one you want to hear.) In addition, Dean Percival of MEKontrol and Rick Bushnell of Accu-Sort will moderate two other sessions.

Comment

We have always been strong supporters of AIM and its activities, and continue to believe in an active trade organization in this industry. We view the items above as containing some good news and some bad news:

- The 1981 MHI Conference has effectively buried bar code scanning in its program. During the past two years the sessions dedicated to scanning have been over-subscribed, and probably the most popular of the conferences. Last year AIM was cut down to one-half day from the previous full day presentations. This year they have all but disappeared from view. At best, an attendee can hear only one paper, and the six-page MHI brochure on the Conference does not mention the word scanning once. We have no basic objection to the term "automatic identification" but it is referred to as scanning by almost everyone else in industry.
- The off-setting good news is that we have heard, unofficially, that AIM has petitioned MHI to hold their own stand-alone conference in 1982, and that such a proposal will come before the MHI Board soon. This is an excellent move! There is enough happening in this industry to fill two or three days of meaty presentations about basic principles, new technology and new applications.
- Membership is growing in AIM, partly due to the expanded eligibility rules adopted by the AIM Board. In order to join AIM, however, it is still necessary to qualify as an MHI member and to join that organization first. That requires fairly high fees for initiation and annual membership, and only companies engaged in manufacturing in the United States are eligible. There are surely many foreign companies which could benefit from membership in AIM and which could offer benefits to the organization as well. AIM membership is now up to 18 companies, with about 6 more expected to join soon.
- AIM has undertaken to publish the DSSG report partly as a result of the fact that no one else wanted to do it. We commend the organization for this move so that this important document can be distributed.

For further information on any of the above, including orders for the AIM documents, contact Bill Hakanson, MHI, 1326 Freeport Road, Pittsburgh, PA 15238; (412/782-1624).

It may be hard to believe....

....but the Canadian Association of Provincial Liquor Commissioners has established a machine-readable Canadian Standard Products Code (CSPC) -- and it's going to be in OCR-A characters. That means that liquor, wine and beer manufacturers must put the OCR code on their product labels. Since most products of this type already have the UPC symbol, this is bound to compound their problems.

Bar codes are easier to scan, more accurate, require less expensive equipment, and are in place and operating. Canada adopted UPC in 1973 at the same time as the U.S., and the system is working well in the supermarkets. Why, then, OCR-A? The Control Board states it needed as short a number as possible for written or key entry and visual identification. It adopted a six-digit CSPC code with a built-in check digit.

The specifications point out that the system "does provide for some compatibility with the Uniform Product Code standard of the grocery industry. If the manufacturer wishes to do so," they continue, "the CSPC five-digit number, without the check digit, may be used as the last five digits...of a UPC Code. Labels may carry both the CSPC optical character code and the UPC bar code for distribution in other countries, without causing confusion at the retail level."

Target dates are January 1, 1982 to print the CSPC number on all shipping cases; January 1, 1983 to have the encoded OCR-A characters on all products; July 1, 1982 to include the CSPC number on all correspondence and communications.

Comment

We have not yet spoken to any of the liquor, wine or beer producers or distributors, but they must be overjoyed by this development.

Which reminds us....

....apropos of a recent interview with a staff member of the Washington State Liquor Control Board. Their retail operation consists of 200 state-owned stores totalling 500 lanes, and 200 privately-owned stores (with state-owned inventory) with somewhat fewer total lanes. The total number of purchased line items is about 2500, with an average of 1800 products per store. The current proposed system calls for inventory and orders to be transmitted daily to a host computer based on the scanned data. Since not all liquor labels are now bar coded, they are using Vidac hand labellers to fill in.

Washington set up a pilot program to test various front-end scanners, and attached both wands and slot scanners (Spectra-Physics) to NCR, DTS and A-M units for tests. There are also test programs under way for inventory and backroom scanning. The Board is currently out for bid for wand scanning system hardware. Requests-for-bid were sent to companies including MSI, Norand, Telxon, Azurdata and Intermec. The Board is looking for one unit per store and one per travelling auditor.

Sounds good so far -- except that after working through the testing phase for two and one-half years, developing a software program, and now ready to move into the implementation phase, the state legislature has cut off all funds. Specifically, they cannot proceed with their POS equipment program, although they expect that funds will be restored to continue with the inventory and back-room scanning systems.

In the early stages, the Control States complained bitterly about the lack of cooperation by the suppliers, who were reluctant to add the bar codes to their labels. That part of the program has actually proceeded nicely and almost all of the majors are source-marking machine-readable symbols on their products, particularly those items bought by the Control States. Now the ball is in the hands of the bureaucracy.

Since April 21, 1981....

....every issue of the New York Daily News has carried a bar code on the lower right-hand corner of the back page. We believe this is the first application of bar code scanning by a daily newspaper. Since that date the newspaper (circulation over 1.3 million) has coded each daily issue with 15 to 20 different 3-character code 3 of 9 symbols. Initially the company considered OCR-A, which would not have been as obvious on the printed page, but rejected it because of the high cost of equipment.

The purpose of the system is to record and monitor returns and to apply dealer credits. There are 10,000 news dealers handling the paper, and over 300 trucks making daily deliveries. Everything that is not sold is picked up weekly and returned for full credit. Up to now, except for random spot checks, the weekly return slips, completed by the dealers, were accepted for full credit at face value. Under the new system, all returns will be counted and verified.

The total project group for the Daily News consisted of two staff members who designed the system and implemented it with a minimum of outside help. The current test phase uses two Intermec wands and a multiplexer. A Symbol Technologies' Laserscan unit has been brought in for a three-month test. Controlled tests, scanning only a small percentage of the returns, have revealed discrepancies when matching the actual scanned returns against the dealers' reports. The potential savings are large enough to repay the costs of a full system in a very short period of time. There are almost 100,000 returns every day valued at over \$150,000 per week, and closing up even a small leak could be very valuable.

The target date for full implementation, which will require about 16 scanners, is mid-summer 1981. If this date is met, the entire program from concept to full operation will have taken less than one year, probably something of a record for a new system concept such as this. The system has wide application for newspapers with broad distribution through newsstand sales rather than home delivery. The Daily News will be happy to exchange information and ideas with any other publications and manufacturers. Contact Barry Elkin, New York Daily News, 220 E. 42nd Street, New York, NY 10017 (212/949-1103).

Spectra-Physics has decided....

....to concentrate on retail applications for their slot scanners and not move into the industrial market which they were considering. They feel that the basic unit construction of their scanner would require redesign of the software and optical systems, and they will stay with the market they know best. The company now plans to sell direct to the supermarkets, in addition to OEM, and is looking for expanded markets in Europe.

The Spectra-Physics Model F slot scanner lists at \$2500 with quantity discounts. They have shipped 17,000 Model F units and the company claims they are still providing the majority of NCR scanners on newly installed systems. In addition, Spectra recently signed a \$4 million contract with National Semiconductor to supply scanners for their Datacheckers. NSC will continue to make their own scanners as well.

Spectra is also looking at what they consider a very large potential scanning

market with the drug retailers. They estimate that over 60% of all of the items on the drugstore shelves are already marked with the UPC symbol, making these retailers excellent candidates for front-end scanning. For this market, they have interfaced the Model F scanner with the IBM 5260, which has stand-alone price lookup capability.

The company has been in the financial news recently because of its overall disappointing sales and profit picture. According to Herbert Dwight, Jr., chairman, "We suffered from over-blown expectations. This is a technology with great potential, but it has not created overnight revolutions." These over-blown expectations included point-of-sale scanners. Sales in that area were estimated at \$37 million in 1980. Because of the excessive inventories currently held by NCR, Spectra is anticipating sharply reduced sales of scanners in the current year. Dwight added, however, that the market for such equipment has barely been penetrated and was expected to resume a vigorous rate of growth.

A new research report....

....on systems, equipment, costs, and markets for electronic checkout systems in large retail stores has been published in England. The report concentrates on the UK market and Europe with considerable detail on past performance, current status and forecasts. Some of the conclusions:

- The old electromechanical cash register will virtually disappear from department stores by the mid-1980's.
- A very high proportion of super-stores and hypermarkets are expected to install laser beam scanners, and will do so rapidly.
- Electronic funds transfer will come into widespread use.
- OCR scanning by non-food retail outlets has been disappointing and well below users' expectations.
- Surveys of UK department stores indicate large scale installations of automated front-end equipment.
- Estimates are made of the installed base of electronic POS units for 1985 and beyond in the UK and Europe.

The 173 page report titled "Electronics in Large Stores" was edited by Ronald Brown and can be obtained from Freepost, Stoke-Sub-Hamdon, Somerset, TA14 6BR England (Telephone 0935-88-245). Price: £54 (UK); \$144 (US-elsewhere).

A new reel-to-reel....

....random label printer has been introduced by Scanmark/Markem. The unit will accept data via computer or local CRT, and produces pressure sensitive die-cut or butt-cut labels. The maximum label size is 4.5" x 9.4" with a maximum print area of 3.5" x 9".

The Model 7000 is a non-contact electrostatic printer with infinitely variable and sequential printing of bar codes and numbers. The data format and content can be changed at random, and if desired the bar codes can be printed

at right angles to provide omnidirectionality. The Model 7000 is a dot-matrix printer, using special dielectric paper supplied by the company. The bar codes that can be printed at this time are code 3 of 9, interleaved 2 of 5, straight 2 of 5 and codabar. Applications are geared to shipping containers and the company claims that there is no direct competition for the performance and flexibility of the unit.

The Model 7000 is priced at \$25,000 and UPC/EAN capability can be special ordered. There are five prototypes out on customer trial following a one-year field test period. No placements have been made as yet but there is a very high level of interest from top companies, according to Ben Nelson, product manager. He advises that production of the Model 7000 is scheduled for December 1981. The Model 7000 has been designed, engineered and manufactured from the ground up by Scanmark/Markem and does not include any Intermec components, as with most previous units sold by the company. Markem Corporation, 150 Congress Street, Keene, NH 03431 (603/352-1130).

A new type of scanner....

....has been introduced by Skan-A-Matic (we do wish the company would change their spelling policy and drop skan, skanning and skanners from their literature and correspondence.)

The company's new Skan-IV Moving Beam Detector operates by illuminating the target area with two high-output incandescent lamps and then scanning the code with an "oscillating, focused return beam". As we understand it, the "focused return beam" is actually the photo-detector moving across the bar code at a rate of 10 to 50 scans per second. The unit's long sweep of 4 inches is in the X axis. In addition, there is a synchronized increment in the Y axis, stepped at the end of every X sweep to a total of up to .6 inches. The list price of the Skan-IV is \$2495 with discounts of up to 10% for quantity.

The same principle is employed in the Skan-II model except that this unit employs only the X axis sweep. Skan-II is priced at \$1295. The company claims that these units offer the same features as laser scanners without the "high installation expense and rigid safety precautions required". Skan-A-Matic Corporation, Elbridge, NY 13060 (315/689-3961).

Score one....

....for the U.S. Postal Service. In spite of opposition from Congress and the White House, they are moving ahead with ZIP+4. The Office of Management and Budget (White House) dropped its objections after receiving a revised cost-benefit analysis from the Postmaster General. Both the White House and Congress are moving aside very reluctantly, and there is still some movement in Congress to block implementation. The Postal Service contends that the voluntary nine-digit plan should improve efficiency of mail delivery and hold down costs. When finally implemented the system will include bar code scanners and imprinters and is expected to save over one-half billion dollars per year.