



newsletter

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

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In our first issue of SCAN (Sep 77)....

....we devoted almost four full pages to the "Distribution Symbol". At that time a new symbology designated The Distribution Symbol had been introduced by Distribution Codes, Inc. (DCI) and had caused a great deal of discussion and opposition within the industry. It was felt that the proposed code and symbology were not flexible enough to accommodate the requirements of industry, and would cause difficulties in printing and scanning. It never took hold, and after a number of months, was effectively abandoned.

In March 1977, the Distribution Symbology Study Group was formed and has been meeting and studying the problem on a continuous basis since that date. DSSG sponsored a number of tests related to plate-making, printing, location, color contrast and all of the other factors that might affect the printing and scanning of a uniform symbol. The primary intent was to analyze and resolve all related factors so that all industries which wanted to adopt this automated method for data capture would have a solid foundation of information on which to base their decisions.

Certainly a great deal has been learned from these tests that will serve industry in the years to come. The DSSG was wise enough to include representatives from all of the groups that would be involved in establishing, printing and scanning the symbol. It has taken over three years to resolve the requirements of each group and to come up with recommended procedures and specifications. Although the final report has not been issued, it is in the process of being written at this time.

The general parameters of the final recommendations have been established, based on the underlying determination that it is possible to print a scannable bar code on corrugated carton material. The color contrast between a printed black bar and the normal range of corrugated board colors is sufficient for scanning purposes. (This was a major stumbling block and an issue that was resolved first before additional studies were completed.) It was also established that the various materials used for printing plates: i.e., rubber and different types of photopolymers, could also be used satisfactorily. The key element here, and this was closely monitored by the Fibre Box Association, was that the required symbologies could be printed using the existing equipment and material available to the industry. There should be no requirement for re-tooling or the development and introduction of new plate-making materials or paper substrates.

Having placed these major considerations behind them, the DSSG then directed

its attention to the actual symbology and its specifications. Although DSSG constantly maintained that it was not going to recommend a specific symbology to industry, the final results will "suggest" that either Interleaved 2 of 5 (all numeric) or Code 39 (alpha-numeric) be used. The minimum bar width of the narrowest bar of a symbol will be specified at .040" with tolerances as great as .013". There is a very high level of confidence that these symbologies will be both printable and scannable. The importance of these conclusions should not be underrated.

Comment

The work of the DSSG has been followed closely by everyone in the industry. It has been anticipated that the placement of scannable symbols on outer cartons will be the largest break-through for the bar code scanning industry since the introduction of the Universal Product Code. Since its inception in 1973, there have been approximately 20,000 UPC scanning lanes installed in supermarkets. This has amounted to a total market (for scanners only) of about \$80-100 million. At the current rate of installation this market is running at about \$50-75 million per year. All of this has been divided among the companies offering UPC supermarket scanners as part of their total system including NCR, IBM, National Semiconductor, Sweda, Data Terminal Systems and DataCash/Sperry. (See UPC Scoreboard below.)

With the introduction of Distribution Symbology, we will be entering a new era in scanning. As of now, none of the above companies in POS systems have indicated any interest in this scanning market which will be devoted to the tracking of shipping containers through production, warehousing and distribution. The market will be available to the smaller industrial scanning companies and the next two or three years will determine which of them will succeed.

The total annual sale of industrial scanning equipment is probably under \$25 million at this time. (No accurate figures are available for the industry, and that number includes imprinters as well as contact and remote scanners.) The industrial scanning companies will now have to position themselves in a different marketplace than before. Customized and specially designed systems should give way, to a great extent, to standard packages that can be used by the manufacturers and their distribution networks. One important factor will be the integration of the scanners into material handling systems, and the decisions as to how that integration takes place. Will the prime contractors be the scanner manufacturers or the material handling hardware companies? Will there be some corporate integrations or acquisitions?

As in the early days of UPC, an extensive educational program for industry will be required. An entirely new group of printers and platemakers must be fed information and encouraged to establish testing programs in preparation for the printing of the bar codes. Many of them were frightened off by the early aborted efforts when key industry figures were insisting that corrugated printing methods and materials could never be accommodated to the tolerances required by scanning. Will the nature of the symbol, with its broader tolerances, require verification equipment? Will there be extensive use of pressure sensitive labels where printing on the cartons may not be practicable?

As you may gather from the above, we believe the impact will be enormous and

that this is the time to prepare. Unlike UPC, the efforts in the United States and Canada will probably be paralleled by the EAN groups in Europe. Task Forces are in place and working towards the same goals and the market should be expected to be worldwide.

We will continue to watch developments closely and welcome comments from our readers.

Have you been following....

....the development and introduction of the new 9-digit Zip code? An article in Computer Decisions magazine asks "Business boon or nine-digit nightmare?"

The significance to this industry is the possibility that the nine-digit code will be printed out on envelopes as a bar code symbol suitable for scanning and automatic processing. The Postal Service is trying to introduce the new system to enable further automation of the sorting and delivery of mail and the plan is to add the four numbers to the existing five, separated by a hyphen. The possible combinations are expected to provide sufficient codes for all delivery zones and still allow for growth within each zone.

The smaller units designated by the four add-on numbers may represent a single block or street, an office building, a single floor within a building or even a company receiving as few as 10 pieces of machinable letter mail a day. The complete data base of the new codes is expected to be released in February 1981 and the Postal Service plans to notify the public in July of that year. The use of the longer Zip codes will be voluntary in the beginning, but if it is reasonably well accepted there is a very good possibility that it may eventually become mandatory for some classes of mail.

There is already talk of using optical character recognition readers to decode the nine-digit zip code, as typed by the sender on the envelope, and possibly imprint with a bar code for subsequent automatic sorting.

Comment

This sounds like an excellent time for scanning hardware companies who have something to offer to this system to be in touch with the Postal Service to keep them totally up-to-date and aware of bar code imprinting and scanning technology. Frankly, the use of OCR scanners as an intermediate device to print a bar code does not make too much sense to us. But, then again, we haven't seen any of the proposals for a full-blown system.

For those interested in the progress....

....of European Article Numbering, we recommend the detailed Newsletter No. 2 of April 1980 published by EAN. (Rue de Colonies 28-Rte 8; 1000 Brussels, Belgium.)

The report indicates a broad range of interest and activity by the Executive Committee and its Working Parties. These include symbol marking on books, paperbacks, magazines and periodicals; despatch outers (shipping containers); coding of records; coding of variable-weight items; and coordination with the US Uniform Product Code Council.

There are currently 15 EAN member countries including Australia, Austria, Belgium, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland and the United Kingdom.

Some of the statistical highlights of the report:

- The combined total membership of all the 15 countries was 1504 companies (who were issued manufacturer's numbers).
- 21 scanning stores are up and running with 225 scanning lanes.
- Of the 21 store installations, 10 are in Germany, 6 in Italy, 3 in Japan, 1 in the Netherlands, and 1 in the United Kingdom.
- The hardware suppliers to these 21 stores are IBM (16), NCR (3), Nixdorff (1) and Matsushita Electric (1).

We would like to commend EAN for the publication of the Newsletter and for keeping industry fully aware of the progress of the programs as they develop.

A clear picture has not yet emerged....

....but there seems to be some activity by a few of the major consumer product companies to print cents-off coupons with the UPC symbol. The Pillsbury Company is running symbol-marked coupons in magazines on a test basis. A recent issue of "Southern Living" magazine had such a coupon with "void" printed across the face of the coupon itself. It had the assigned Pillsbury's manufacturer's number and was designed to save 10¢ on new Pillsbury applesauce spice cake mix. It may have been inserted as a printing test on a limited print run.

There are rumors afoot that Wrigley's is also exploring this area. Noone is speaking for attribution. With the pending suit in the courts between the UPCC/GMA group and Walter Kaslow, the holder of the coupon symbol patent, this remains a highly sensitized area (SCAN Apr 80). It is evident that many of the major consumer product manufacturers are becoming restless with the delay and although they refuse to deal directly with Kaslow, they do not want to wait the years it may take to resolve the legal issues.

Meanwhile Giant Food's campaign to eliminate coupons altogether has elicited very little industry enthusiasm. A number of consumer groups are interested, and there has been good coverage in the Washington, DC press, but Giant was frozen out of the FMI convention in Dallas when they were scheduled to show their anti-coupon film. The manufacturers have too large an investment in this marketing technique to abandon it. They still believe it is one of the best methods to introduce a new product, or give a shot-in-the-arm to sales of an old one.

There is a great deal at stake riding on the outcome of this chess game.

Price removal....

....in scanning stores drew some attention on both coasts recently.

The Massachusetts regulation requiring item pricing was declared constitutional

by the Supreme Court of that state. Purity Supreme had argued that it was technically in compliance with the regulation, because it affixed prices at the point of consumer decision to purchase (shelf markers) and visually displayed the price on the register and printout tape. The Court ruled, however, that the regulation, issued in 1971, required that item marking be continued and that Purity's contention was without merit. Item marking is item marking, the judges maintain.

In California, Ralph's Grocery Company is extending price removal to 45 stores in a continuing Los Angeles test. The chain's management expects the savings to run as high as \$50-60,000 a year per store and they do not expect any significant adverse reaction from their customers. Some of the stores will be in areas which do not require item pricing, and others will be located in the Los Angeles area where a test program is currently underway.

The expected report by the committee appointed by the Los Angeles City Council, which is monitoring the tests, may be of significance to the entire industry. Los Angeles is proceeding with its one year compromise test program which allows one scanner-equipped supermarket, in each of 15 designated districts, to remove item prices (SCAN Mar 80).

The UPC Scoreboard (US and Canada)....

....reflects 123 new installations for the month of May bringing the total to 2047:

Company	Total		May 1980		Total	
	As of 4/30/80				As of 5/31/80	
	#	%	#	%	#	%
NCR	693	36.0	37	30.1	730	35.7
IBM	673	35.0	38	30.9	711	34.7
Datachecker	374	19.4	32	26.0	406	19.8
Sweda	120	6.2	6	4.9	126	6.2
DTS	58	3.0	10	8.1	68	3.3
DataCash/Sperry	6	.3	--	--	6	.3
Total	1,924	100.0	123	100.0	2,047	100.0

The liquor industry....

....is trying to cope with the requirements of the various Control States with regard to the placement of UPC symbols on liquor and wine bottles. (A Control State is one which sells alcoholic beverages only through state owned-and-operated stores.)

Although the 18 or 20 Control States have attempted to speak with one voice through their trade organization, in actual fact each state is running off in its own direction. Some have not yet committed to the UPC symbol on bottles, but will require code marking on the outer carton. Others are worrying about whether or not they should require the distillers to mark miniatures (which is a real challenge). Rulings such as "symbols on bottle necks are not appropriate but acceptable" will quickly drive package designers straight up the wall.

Some states are proposing label formats for outer cartons which include symbols. Others are concerned with integrating uniform invoice formats into the

new system. In some cases the label with a printed symbol must be placed on the bottle; in some instances it will be acceptable if it appears on the individual containers (folding box, for example).

Comment

The industry is now going through its second time around. In most cases the distillers seem to be moving ahead with the most logical implementation of the program. They are placing the UPC symbol on the back or neck labels of the bottles for those major items that are most easily marked. Having gotten their foot in the door of the program with those items they will then approach other individual problem areas as they arise.

That certainly seems to be the most cautious approach to the problem since any semblance of uniformity by the Control States seems impossible to achieve. Most requirements for the system will probably take shape by their own momentum, guided, to a large degree, by the previous experience of the Universal Product Code in supermarkets.

Symbol Technologies has been waging....

....a very aggressive campaign based upon the reported high rate (as much as 10%) of rejected UPC symbols at the point-of-sale scanners in the supermarkets. Their new brochure for the Laserchek verification unit reads "Avoid returns from UPC symbol no-scans" and an ad in the Flexographic Technical Journal blares "Drug company recalls 2 million packages for faulty UPC symbols". Regarding the recall of 2 million packages, the ad goes on to say that this might be far-fetched but it could happen.

This theme was even picked up on the editorial page of Paper, Film and Foil Converter, June 1980, and it foments growing concern that supermarkets with scanning systems are losing their patience with suppliers who cannot source-mark scannable symbols.

Comment

This may very well turn out to be an excellent way to sell verification equipment. There has been a notable lack of concern by most of the smaller to medium-size manufacturers and printer/converters about symbol quality, and this may signal a new reality. Our only comment is that we believe there is a real need for independent industry data, developed by a neutral trade group. We are still awaiting news of the preliminary studies undertaken by the Uniform Product Code Council.

Accu-Sort Systems has announced....

....a new Model 4610 Light Pen Bar Code Reader for automatic data entry. The unit features "internal memory, multiplexing, daisy chain interconnection to existing systems, two serial transmit/receive ports and 24 additional parallel lines to meet special user needs". The base price of the unit is \$1200 with special programming available from the company.