



newsletter

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

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While continuing their participation in the work....

....of the Distribution Symbology Study Group (DSSG), the Automatic Identification Manufacturers (AIM) register strong opposition to the adoption of the Distribution Symbol as proposed by Distribution Codes, Inc. (DCI).

The DCI proposal had met with a great uproar from both AIM and the Fibre Box Association when first issued. It was primarily to evaluate the problems presented by printing a scannable symbol on shipping containers that the DSSG was first formed (SCAN Sep 77).

Now the members of AIM, who have been performing the scanning tests to support the DSSG studies, have published the results of a survey taken among their members. This study is intended to explore the requirements and constraints of current scanner technology vis a vis the adoption of any standard specification such as DCI's Distribution Symbol.

It comes as no surprise that the AIM members are not happy with DCI's version. A brief review of the results of their survey:

1. Tests performed have been with helium neon (HeNe) lasers and the specifications must be based on this light source. Other types of light source scanners can be used, but parameters of performance must be clearly stated. Actual field conditions must be considered in establishing these parameters.
2. AIM members would prefer the "ladder" type configuration of the symbol to give them multiple scans, but recognize that package size and field conditions would probably favor the "picket fence."
3. As for the type of symbol itself, AIM members remain convinced that the variable width bar and space symbols (such as UPC, EAN and Distribution Symbol) are unnecessary and make printing and scanning more difficult. A one or two-width bar and space symbol can be as space efficient, easier to scan and allow for the $\pm 10\%$ printing tolerance needed by corrugated container manufacturers.

COMMENT

The resolution of these questions, and the ultimate selection of the symbols to be used, continues to be a major problem. The DSSG has repeatedly stated they will not specify a symbol as part of their recommendations. They view their charter as defining the costs and the limits of the materials, hardware and processes involved in producing

and scanning a shipping container bar code symbol. Within those limits each industry can then select the symbol it wishes to adopt. The grocery industry is known to lean toward the (DCI) Distribution Symbol because of its compatibility with UPC. They will be working with a different group of scanner manufacturers, however, (not those producing check-out scanners) and some understanding and accommodation will have to be forthcoming.

A recent (2/78) article in OCR-Today....

....has us a bit perplexed. Written by Ben Nelson of Markem, the article starts off with "There is one tremendous advantage of OCR over other forms of machine-readable codes -- you need make no investment in electronic equipment to be able to read it." The smallest "Mom & Pop" operation can use OCR even if they have no equipment.

In addition, he says, OCR is much more space efficient than bar codes. For example, the amount of space used to record a number 25 in OCR is 5 units (including separations) while the same number in a bar code takes 57 modules.

And so on, and so forth.

COMMENT

We find it difficult to understand the facts and logic behind this presentation.

- 1. Almost every bar code we have ever seen is accompanied by human-readable numbers, so if that is really what one wants, it's there.*
- 2. Mr. Nelson encodes the number 25 into a UPC symbol to come up with his 57 modules. He includes left, center and right guard bars, the number system character and the modulo check digit in his attempt to make a direct comparison. He must be aware of at least a dozen other codes that are not omnidirectional, which would use many fewer modules and be much more space efficient in all dimensions.*

Do the adherents of OCR really need to be pumped up quite so much as to the advantages of their system? These examples, and other major errors in the article, certainly won't help OCR systems salesmen in their jobs.

The April issue of Modern Materials Handling....

....features a major article on the Sherwin Williams Company's new case sorting and pallet loading operation at their Richmond, Ky. coating plant. Scanning of bar coded labels plays a key role in the system. Sorting accuracy of almost 100%, along with real time information processing, are achieved with the Computer Identics case flow control system employing 6 moving-beam scanners, a mini computer, 5 CRT/keyboard terminals, 2 printers, a bar code label printer and 4 label applicators. Rexnord, Inc. is responsible for the handling system.

Activities in the United Kingdom are stirring....

....in anticipation of the implementation of Article Numbering (EAN). Despite many of the negative comments and cautions at the launch of the Article

Numbering Association in January, the major companies are beginning preparation for front-end scanning in the supermarkets.

Fine Fare, one of the UK's largest chains, has announced they will install NCR 255's and use the ANA codes for price look-up. They expect to gradually phase into scanning within 3 years.

Tesco and CWS, in addition to Fine Fare, are redesigning their own label (private label) products to accommodate the symbol. They are also starting to eliminate price marking of merchandise in favor of clear, readable shelf markers. (So far there has been almost no adverse reaction anywhere in Europe to the suggested removal of item pricing.)

Product manufacturers such as Procter & Gamble and Birds Eye are making plans to incorporate the symbol on their packages. The Food Manufacturers Federation is recommending to its members that they phase in the symbol when labelling changes are made to comply with average weight, metrication and other EEC (Common Market) requirements.

COMMENT

We expect the pace will quicken as the rewards of scanning become better known and as the desire for a competitive edge takes hold. Meanwhile the signs are positive.

As for EAN on the continent, the latest scoreboard....

....looks like this:

- Germany has issued about 2,000 Manufacturer's numbers and has 2 scanner installations operating. One chain has an additional 100 scanners on order (IBM).
- Denmark and Netherlands have one scanner installation each (IBM), with Heijn in the Netherlands planning a second one soon (Sweda).
- Italy leads them all with 5 installations up and/or about to be running (IBM). However Italy has no coding authority, has not yet issued Specification Manuals in Italian and has not assigned any Manufacturer's Numbers. One explanation offered as to why the scanners before any organized effort: scanning offered so many benefits in inventory control and reduction of "shrinkage" that adoption of scanning has provided significant pay-back.

All of the other countries are coming along slowly in various stages of development, and most expect to be well installed by year-end.

Our unofficial count indicates that IBM has 8 installations (with more to come); NCR has one; Sweda has one scheduled this month.

Dymo Retail Systems announces....

....the appointment of Gerard F. Uva to the position of Manager, Budgets and Analysis.

Some miscellaneous UPC straws-in-the-wind....

....signify the growing commitment to supermarket scanning.

Item: Winn Dixie, long a holdout for scanning-only-with-price-removal, has now made a major commitment to UPC. W-D will be installing about 6-8 NCR units to evaluate the importance of the statistical and product movement data. If successful, there is talk of a \$33 million 500 store installation program.

Item: The National Retail Tracking Index reports 81% of warehoused supermarket items are UPC-marked. They do not include in their survey, produce or meat, or direct delivery items such as dairy, snack foods, and non-foods rack merchandise.

Item: Bill Markets (San Francisco), a 6 unit supermarket chain, is committing its current financial resources to installing scanners in all stores before proceeding with any planned expansion to new stores. Management feels it's the only way to stay competitive.

Item: William Wynn, President of the Retail Clerks International Union, in a published interview in Progressive Grocer (April 78) states, "We see employers moving toward 'automated' stores, and while this is a trend we cannot stop, we do have to learn to live with it."

Item: The New York Metropolitan area finally gets its first supermarket scanners with the opening of the Foodtown store in Nassau County on Long Island.

Item: The rate of new UPC installations is growing each month at record rates. See analysis below.

As of March 1978, there were 250 UPC scanning stores....

....and the first quarter total of 48 new installations is the largest by far. As a matter of fact, each month's count -- January = 13; February =15; March = 20 -- set a record to date.

The break-down by system reflects the continuing increase in share of market by NCR and Datachecker at the expense of IBM:

	3/31/78		% of
	Number of		Total
	<u>Installations</u>		
IBM	136	*(23)	54%
NCR	65	(14)	26
Datachecker	29	(8)	12
Sweda	11	(2)	4
Univac	9	(2)	4
	<u>250</u>		

*Number of First quarter 1978 installation in ().

The medium size chains are still way out in front, with Giant Food a giant step ahead of everyone else:

	<u>Total 3/78</u>	<u>1st Quarter '78</u>
Giant	41	7
Wegmans	18	2
AG (Kansas)	12	0
Ralphs	10	3

The average for the next 9 months will have to be 40 stores per month to reach the goal of 600 stores by year-end -- a projection we recently reported (SCAN, Jan 78).

(As we went to press the April report came in. The total count is now 267.)

John Langan, who left Distribution Codes, Inc....

....a few months ago, has obtained a new position with NCR. Langan started in early April as the Program Manager responsible for product development in food functional areas and in banking. He will be located in Dayton, Ohio.

Leo Beinhorn has also left DCI, but we haven't heard of where he has settled. Don Martin continues as President of the beleaguered company, which has been forced to seek a new identity since the loss of its major contract as UPC administrators for the grocery industry.

Symbol Technologies has introduced the Laserchek,....

....a quality control instrument which the Hauppauge, N. Y. company claims will evaluate all of the factors critical to UPC symbol scannability. It is said to be the only device which uses laser illumination and the same scanning and decoding methodology as the supermarket checkout system.

Priced at \$7950 with an intergral printer (\$6950 without the printer) the unit decodes the symbol, measures bar and space dimensions, analyzes color contrast and provides a GO/NO GO indicator of scannability.

S/T claims very significant advantages for laser verifiers over those with incandescent light sources:

- The 8 mil scanning spot simulates the store scanner and is more accurate in reading and averaging irregular printed edges.
- Lasers make many scans with each pass and report the average or composite reading.
- Laserchek uses the delta decode algorithm as specified and used by store scanners.
- Lasers provide more accurate color contrast readings on problem substrates such as plastic bottles, foils and bare metal cans.

Since introducing the Laserchek, the company has discontinued its distribution of the Model 315 Verifier, which was made for S/T by Metrologic.

Symbol Technologies has also announced the Laserscan, a high speed bar code reader for industrial and commercial applications. The unit comes in portable and stationary models and has optional programmable memory modules. It can be set up with a selector switch to read multiple codes such as UPC, EAN, 2 of 5, Codabar, etc. Pricing varies with specific system requirements.

S/T has designed and is manufacturing both Laserchek and Laserscan in-house. Initial shipments of both units have been made and the company states it is currently back-ordered on the Laserchek.

A survey of 210 food retailers in Ohio....

....and surrounding states was conducted by the Ohio State University Department of Agricultural Economics and Rural Sociology (2120 Fyffe Road, Columbus, Ohio 43210). These 210 companies operate 355 supermarkets. The results, although far from a scientific sampling, do present some interesting indicators:

1. 21% of those with Electronic Cash Registers, and 10% with mechanical registers, plan to convert to scanning within the next 2 years.
2. Of those who do not plan to install scanners in the next 2 years, over 80% might change their minds if equipment costs were lowered and/or ROI results were proven. (Take note, scanner manufacturers.)

The published report is not very definitive with regard to qualifying the respondents by size or type of store, but these numbers could be very impressive if projectable to the entire country.

For further information contact Vern A. Vandemark.

A really dramatic price reduction....

....has been announced by Azurdata. This leading manufacturer of solid-state portable data entry terminals has cut prices on their Scorepad terminals by as much as 35%.

According to the company, these reductions are a result of increased sales volume and reduced manufacturing costs.

Mekontrol announces....

....a new fixed beam code reading scanner insensitive to ambient light and electrical noise.

Its features include a total response time to output of 5 milliseconds, complementary open collector output and a 100,000 hour average life LED with a collimated optical system for reliability.