



newsletter

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

SCANNING, CODING & AUTOMATION NEWSLETTER • P.O. BOX 702 • GREAT NECK, N.Y. 11022 • (516) 487-6370

Volume I Number 2

October 1977

European Article Numbering is well on its way....

....to establishing bar-coding for supermarkets. Fully compatible with the U.S. version of UPC, the EAN system has now been adopted as the official code by 12 countries. National organizations, already in place and functioning as administrators of standardized numbering systems, are now part of the EAN network. These include Gencod in France, Ban-L in Germany and ANA in Great Britain. ANA has announced it will start to issue identification numbers to manufacturers in Great Britain in January 1978. Ban-L is already issuing manufacturer's numbers, and printing tests with printability gauges and test symbols are being run by a number of converters.

Meanwhile, 2 stores have installed front-end scanners and are in full operation. Irma in Copenhagen, Denmark, and Albert Heijn in Holland have each installed systems: Irma using NCR equipment and Heijn with an IBM system. Both are using the basic UPC code. Almost all the items sold by Irma are private label so they are able to control the source printing of symbols on some packages. All other products, and all those in the Heijn store, must be store-labelled using imprinters. Early, tentative reports suggest the percentage of scanning rejects is running high.

Although the EAN code will look slightly different than UPC, with 12 digits appearing below the bars, and some bars of different length than UPC, the symbol configurations are identical. A 13th digit is coded into the symbol parity as part of the country of origin or "Flag" code, as it is now called. The Flag code for UPC as used in the U.S. and Canada, for example, will be "00" and will require no change of any kind.

As with any new system, there was opposition, particularly from those who believe Europe's requirements should demand a different, and broader based code. As an example, the distinctions between food and non-food retailing are not so clearly defined as in the U.S. Hypermarkets, in particular, sell a much wider spectrum of products than the U.S. supermarkets. But the advantages of a standard international code, existing hardware and a field-tested system prevailed.

We will be watching the progress of EAN in Europe during the coming months. The relative position can be equated with UPC in mid-1973. The level of cooperation by the manufacturers in source-printing the symbols will determine, to a great extent, the speed with which the system will spread.

Schering Corp. is keeping one step ahead of the FDA....

....with its new on-line bar-code scanning system. The U.S. Food & Drug Administration has been very aggressively pursuing a policy of consumer protection in the pharmaceutical industry. One of its major methods of implementation is the Good Manufacturing Practice (GMP) regulations which are intended to establish guidelines in the manufacture and packaging of drug and related items. A new set of GMP's is scheduled for January 1978 and has the Quality Control managers of the drug firms perched on the edges of their statistical tables, anticipating, among other things, a 25-35% increase in QC costs -- most of it in paperwork.

A key requirement is that a drug must absolutely agree with its identifying label on the container, outer package and descriptive literature. Bill Shultz, Manager of Coding Control invited us out to the Union, NJ Schering plant to witness the testing of a new control system on one of their liquid tube-filling lines. Each tube was pre-printed (Peerless Tube) with a 3-digit variation of the UPC code. UPC was selected because its 7-module arrangement uses less real estate on the tube than other codes and because its reliability and printability have been proven. The bars are printed all the way around the bottom of the tube, so no tube orientation is necessary as it crosses the scanner. Just prior to entering the filling station, each code is laser scanned (Metrologic Instruments) for verification. After filling, most of the bar code disappears under the bottom crimp of the tube.

Shultz stated that the initial test run of 112,000 tubes went well, and that Schering is planning to convert all of their 7 filling lines during the next year. The cost to equip each line, i.e. the scanner and backup controller/computer, is approximately \$6,000. The next steps will be to explore methods to automate the assembly of the tubes into the folding boxes.

Comment

Depending on FDA enforcement, these regulations could open up many new sales opportunities for scanner manufacturers. Wella Corp. has been checking the labels on their hair coloring products by bar-code scanning for about 2 years, but their pressure came from the marketplace. (After all, putting eye drops in your ear may be upsetting -- but a blonde becoming an unplanned redhead could be a public relations disaster.) The point is that production managers are finding they cannot rely on eyeball checking where 100% inspection and virtual zero defects are required. The versatility and dependability of bar codes offer an alternative that is readily justified by results and usually by excellent return on investment analyses.

A relative newcomer to the U.S. market....

....is Sick Optik Elektronik. This German based company has sold about a dozen installations in the U.S. during the past year and anticipates about 50 more during the next 12 months. It's parent has about 3000 installations in Europe, so the company is no novice in the field.

The system application is very similar to the one described above at Schering, but this unit does not use lasers. Sick uses its own simplified binary bar code which it claims is reliable and flexible. A full set of 8-digit codes is available from the manufacturer, as complete artwork ready for duplication, for

a total price of \$45. (That's not very good news for the Film Master manufacturers.)

The Sick Optik scanner and evaluator are priced at \$5-6000 depending on options. Jeff Johnson, U.S. Product Manager, states they have reps in California, Chicago and New York. The unit is designed as a production control device for the drug and cosmetic industry and Sick will be selling primarily as an OEM supplier to packaging system manufacturers.

If sales volume grows substantially, Johnson says, the company expects to ultimately assemble the units in the U.S.

Ames, a leading supplier of hospital scanning systems,....

....announces 2 new pieces of equipment. The Model 802 KPT (for Keyboard/Pen terminal) is a 2-way communication data entry system featuring 16 digit display, 17 key manual keyboard, 4 function setting keys and 256 character of buffer storage. Interestingly, this unit can read mixed types of bar codes including Amescod, Codabar, UPC and Distribution Symbol. Up to 16 of these terminals can be connected to a new multiplexer, the Model 810 TMB. According to Jack Goldman, V.P. Marketing, prices will vary according to quantities and options selected.

There are 7 operating installations, but Goldman reports an additional 350 hospitals are building their files with Ames code labels in possible anticipation of the installation of full scanning systems. The company is now also seeking to expand into other industries and applications. In describing a typical hospital installation at the Cleveland Clinic, the versatility of the system in handling accounting and record keeping chores would seem to have many excellent applications for many companies.

Comment

Bar-code scanning is a natural for tracking and recording the movement of goods, and that's where the scanning hardware companies have concentrated most of their attention. There seems to be much less effort being expended to develop system applications in other areas which offer a potential fully as great. The speed, accuracy and flexibility of stroking a code vs key punch entry is a potential not to be ignored. SCAN would like to hear of some actual or potential applications in these other areas, particularly in

* * * * *
* LATE BREAKING NEWS ITEM *
* * * * *
* On September 23 Computer Identics filed a petition with the Interstate Com- *
* merce Commission. The petition requests the ICC take immediate action to *
* block a move by the Association of American Railroads to abandon the auto- *
* matic car location system. Adopted in 1967, this was one of the earliest *
* and largest applications of bar-code scanning with an estimated investment *
* of \$120 million to date. The petition was filed to protect the "shipping *
* community which had been promised a more efficient and reliable service." *
* * * * *

office and accounting systems. The Ames system for hospital records is an excellent example of this. Has anyone ever looked at microfiche information storage and retrieval systems?

Walter Reed Hospital is heavily into scanning....

....and planning to expand even further. According to Major Benjamin Davis, Project Officer for the Walter Reed Army Medical Center in Washington, D.C., the Semi-Automatic Patient Tray Assembly System (SAPTAS) is scheduled for installation early in 1978. The elaborate controls will verify that special diets, prescribed for patients and recorded on magnetic tape, are in fact placed on the meal trays as ordered. In one part of the system, each dish will be covered with a plastic dome labelled with a bar-code. As the tray leaves the assembly area, the dish will be scanned and the bar-coded information matched to the mag tape input back at the head of the line.

Davis indicates the system will use both the UPC code, because many unit packages are expected to come in source-coded, and Codabar imprinted on location with Monarch Marking imprinters. The scanner contracts have not yet been awarded, and the bids should be out shortly. SAPTAS is only the first scanning project at Walter Reed. Davis expects bar-code technology to be introduced later on in patient records and X-ray identification control. It is interesting to note that there has been informal contact and exchange of information between this project and LOGMARS, the Department of Defense group studying scanning and automation in warehousing and distribution. (See SCAN Sep 77)

The Gaylord Circulation Control System....

....is a good example of using bar-code scanning in an innovative manner. Using display terminals supplied by Informer (see SCAN Sep 77) Gaylord Bros. (Syracuse, NY) are marketing a unique system for library service. Every book has a label affixed with a bar code representing its number (Codabar, using Monarch's imprinters). Every borrower's card is also identified with a unique bar code. The pen scanner is drawn across the book code and the borrower's code, immediately recording the transaction. Returns are handled similarly with exceptions such as delinquencies, fines and reserves, showing up instantly on the CRT display.

The library's terminals and mini-computer record the transactions and collect daily circulation data which it then transmits to the central "host" computer at the Gaylord Master Service Center. Daily morning reports from the Master Service Center are transmitted back to the library's mini-computer.

John Houghtaling, Division Manager at Gaylord advises that 8 systems with 30 terminals have already been installed, and by the end of 1978 they are projecting a total of 27 systems with 176 terminals. A library should have a minimum annual circulation of 200,000 books to justify the system, with initial costs running \$20-30,000. Gaylord is selling through a direct sales force, and charges the libraries a service fee of 2¢ per book issued for the ongoing host computer reports. For a library with a 200,000 per year circulation, this amounts to an annual expense of \$4,000. With the client libraries locked into a continuing service from Gaylord's Master Service Center, the continuing income possibilities could be very attractive.

Although the UPC revolution....

....is developing as more of an evolution, the enthusiasm of the Ralph's Grocery Co. should have all supermarket operators sitting up and taking notice. In an in-depth article in September's Progressive Grocer, and an extensive interview in DCI's UPC Newsletter, President Pat Collins describes the very significant "hard" and "soft" benefits his company is already deriving. Hard savings alone -- 18% in front-end costs and 25% in shrink -- are expected to bring an attractive 3 year pay off of the capital investment.

Collins believes the additional benefits derived from an ongoing analysis of market data will be even more significant.

In addition to the 7 stores already scanner-equipped, Ralph's has 25 ECR-equipped stores, that are readily upgradeable to scanning, standing in the wings.

Comment

Ralph's, Giant (28 stores scanning) and Wegman's (16 stores scanning) have been the most vocal in their support of UPC and they have obviously committed a great deal of their resources to this support. (These 3 chains alone operate 25% of all UPC scanners.)

Why then, after 4 years, is there only a miniscule 1% of all stores scanning?

We would suggest 4 major reasons:

1. These past few years have not provided the best economic climate for major new capital investments.
2. The "price removal" uproar by consumer advocates and legislators confused many people. We believe that was -- and still is -- a public relations and education problem that has been poorly handled. The industry hasn't geared up for the unified effort that is most necessary in this area.
3. UPC is much more than just an upgrading of front-end checkout equipment. It requires a complete rethinking and reorganization of well-entrenched systems and practices in warehousing, inventory, ordering, merchandising, couponing, advertising and virtually all store operations. It requires a total management commitment in all areas to make it work to its fullest potential.
4. The 200 stores that are scanning may very well be the tip of the iceberg. Although accurate data is not available, by most estimates there are thousands of stores equipped with modern ECR equipment. These registers can be upgraded to scanning at considerably less cost than the \$100,000+ required for a full new scanning system.

We hesitate to fall into the trap of estimating how many and how fast new stores will become equipped. We can express confidence that the number will grow steadily and that UPC will be a way of life for the retailing future.

Let's hope the hardware manufacturers have the staying power!

DCI has announced a new "Action Advisory Service"....

....which is intended to provide retailers with information on new and revised UPC numbers. DCI will ask each retailer/subscriber for a list of all the suppliers they deal with. DCI will then forward to each retailer/subscriber update information for their file maintenance of UPC numbers for those suppliers. Manufacturer subscribers will pay a \$75 annual fee plus \$10 for each item submitted for dissemination to the retailers. Retailers will pay a \$300 minimum fee to create their file of suppliers, plus a \$25 per month subscription fee, plus \$1.00 per Action Advisory. The effectiveness of the service to the retailers would seem to depend on how many manufacturers will subscribe to cover all of the suppliers on a store's listing.

The use of UPC codes in sales promotions....

....is beginning to surface. Although the widespread use of UPC codes on store coupons depends on a much larger number of operating stores, some similar applications are already in use.

Union Carbide's Glad promotion in the newspaper Sunday supplements in mid-September offered a total of \$4.86 in a coupon-type promotion. The customer is required to clip the UPC code from the package as proof-of-purchase and mail it in to the redemption center. The stores are not involved at all. We have not found out whether the redemption centers will be scanning these codes for automatic processing. (This is a variation of the technique pioneered by UP\$. See SCAN, Sep 77). This method of proof-of-purchase identification, using the UPC symbol, is positive and avoids many of the potential areas for fraud inherent in coupon redemption promotions.

We are pleased to note that....

....the Distribution Symbology Study Group and the Department of Defense Joint Steering Group -- LOGMARS -- are now in contact with each other. As a result of the SCAN articles on both groups (Sep 77) they have opened a dialogue with the possibility of a worthwhile exchange of information at the scheduled November 10 meeting of the DSSG in St. Louis.

Photographic Sciences is marketing a new verifier....

....made for them by RJS Enterprises. The Auto-Scan can be used to verify and analyze both printed symbols and Film Masters for UPC and EAN codes. Priced at \$5,900, the unit measures the width of each bar, compares it to the allowable specifications and provides a print-out analysis of the results in English and metric measurements. The Auto-Scan also analyzes color contrast of the bars and spaces. This unit, and a similar one marketed by James H. Matthews, are the only verifiers which will measure Film Masters as well as printed symbols. Because of size limitations, the device cannot be used for the Distribution Symbol. It is programmable for other symbologies on special order.