

The market research applications....
....of UPC scanning are booming. The use of UPC-generated data has always had an enormous potential for this application and we have been reporting on it since we started publication. (See SCAN Sep 77, Dec 77, Jan 78, Mar 78, Jun 78, Sep 78, Oct 78, Jan 79, Feb 79.)

As of now we know of at least six market research companies which have developed services based on the use of the UPC symbol and the recording of purchases in scanning stores. These companies are:

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SAMI/New York
Nielsen/Chicago
TeleResearch/Los Angeles (TRIM)
Newspaper Advertising Bureau/New York (NABSCAN)
Information Resources/Chicago (BehaviorScan)
Marketrax/Chicago
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These services range from the simple accumulation of raw scanner data from the retailers' computers, to elaborate schemes for recording the purchases of individual families and tracking their response to specific sales promotions.

An example of one of the more unique services being offered is from Information Resources. This company has selected two cities as their test areas. The primary objective is to test advertising, particularly TV commercials, and they say they will be operational in one city by the end of this year. This is how their BehaviorScan system works:

1. Information Resources purchases and installs the entire retail scanning system for all supermarkets in the test city. The purpose is to make sure that all supermarket purchases by consumers in that city are recorded on UPC scanners. The company has been installing Datachecker equipment. $I / R$ retains ownership for seven years and then turns over title to the equipment to the supermarket.
2. In return for installing the equipment, the company asks each supermarket to guarantee that it will record the UPC number of every product checked out. If the symbol does not scan, the code number is entered manually. Since all scanners are of the same type, data files can be readily merged.
3. A panel of shopping families is selected in the market area. The panel members are issued ID cards which they present at the checkout counter
at the time they make their purchases. Since every supermarket in the area has been equipped with scanners, the company claims that over $90 \%$ of all of the food and grocery purchases will be recorded.
4. The market area selected receives all of its television programming via cable TV. The company is able to control the commercials sent out to the panel families using "split cable inputs." Households can be selected to receive specific commercials and the resultant purchases by that household are matched against the commercials that they have seen.

If all of this sounds a bit futuristic, it may be only the beginning. The UPC symbol is a tool of enormous potential for the manufacturers, their advertising agencies and their sales promotion specialists. As the number of store installations grows, the manufacturers will begin to realize one of the major benefits of their imvestment in the UPC symbol.

There has been a growing awareness and concern....
....about the increasing number of problems attributable to non-readable UPC symbols in the supermarkets. When we reported this a few months ago (SCAN Jul 79) there had not been any serious outcry by the retailers as yet. This seems to be changing.

The Food Marketing Institute is pursuing the problem more agressively, based on the large increase in complaints they have been receiving from their retailer members. Symbols that don't scan disrupt the work flow at the checkout counter and destroy the integrity of the supermarket's records. Robert Aders, FMI's President, indicated at an Association meeting that the organization was going to take steps to set up a "clearing house" for these complaints. This statement was later clarified by Timothy Hammonds, Senior Vice President of FMI, who indicated that the question was going to be reviewed with the Uniform Product Code Council and presumably a common effort would be instituted to examine and resolve the difficulties.

The inference made by Aders and Hammonds was that if the UPCC didn't do something about it, the FMI was going to. There was every indication that FMI would be willing to tackle this problem directly. The question is scheduled for the agenda of the November 7 meeting of the UPCC at which time Hammonds will be present. The problem will be discussed and a plan developed to educate (reeducate?) the industry.

There was a unique coupon promotion....
....run by Welch's Grape Juice recently. On the coupon they printed a UPC symbol, with a code number underneath which was to be matched up with the UPC symbol on two sizes of Welch's Frozen Grape Juice.

The unique part was the method used for matching the numbers. If the last five digits of the coupon code matched the last five digits of the product, it was a Grand prize winner; if the last four digits matched, it was a first prize winner; the last three digits was a second prize winner; etc. This seems to suggest that Welch's was producing each product with at least five different UPC numbers. Although there were probably very few winning code numbers printed on the packages, this could represent confusion in the store data files and at the scanners. It does seem like a peculiar way to identify winning numbers.
....as of September 30, 1979 reflects the rapid growth of scanning installations this past year. The breakout of installations by vendors is of particular interest:

UPC Scanning Installations
US and Canada
As of September 30, 1979

| Hardware Vendors | Total to Date$\text { No. } \%$ |  | $\begin{gathered} \text { 3rd Qtr. } 1979 \\ \text { No. } \quad \% \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| NCR | 461 | 38.5 | 78 | 32.1 |
| IBM | 452 | 37.7 | 79 | 32.5 |
| Datachecker | 179 | 14.9 | 58 | 23.9 |
| Sweda | 78 | 6.5 | 17 | 7.0 |
| Data Terminal | 17 | 1.4 | 10 | 4.1 |
| DataCash/Univac | 12 | 1.0 | 1 | . 4 |
| Total | 1199 | 100.0 | 243 | 100.0 |

As the industry matures, the share of market statistics indicates that this is becoming more than a two-company race. NCR and IBM are still neck and neck, and dominant, but their combined share of market is diminishing as the other suppliers increase their efforts. During the third quarter of 1979 the two leaders split about $65 \%$ of the total market. Previous to this quarter they were sharing almost $80 \%$ of the market. The change is reflected primarily by the rapid increase in sales by Datachecker and Data Terminal Systems.

Of additional interest:

1. The total third quarter installations of 243 stores includes 99 "upgrades" (mostly by NCR) and 144 new systems.
2. The top ten retailers with UPC scanners represent $50 \%$ of all of the scanning installations.
3. A full $20 \%$ of all installations to date were completed in this last quarter. One third of all Datachecker systems were installed during this period.
4. Although Giant Food is still the only major chain with $100 \%$ scanning ( 117 stores), the leader in the number of stores is Winn-Dixie with 129 outlets.
5. The total number of scanning stores in Canada is 54 or approximately $5 \%$ of the total.

The European Article Numbering Association....
....has followed up with additional information to supplement the article in our September 79 issue. In particular, Albert Heijn, Chairman of the EAN, expresses the dissatisfaction of his organization regarding the scanners installed in the US and Canada, and their inability to read EAN symbols.

Heijn is concerned about "educating the American and Canadian supermarket operators to the fact that there are two types of equipment, one that can read just UPC and one that can read UPC and the source-marked imported items in his store. He can then make the trade off and come to the right decision for his store or company." Heijn continued: "Being so close to an international standard, it would be a shame if we would find ourselves in the same awkward situation as the manufacturers and users of TV sets and electric razors!"

We also heard from the EAN Secretary General, Mr. E. Boonet, who referred us to the Memorandum of Agreement on the formation of EAN which deals with the procedure for manufacturers obtaining their EAN numbers. This Memorandum sets out the principles and procedures whereby manufacturers are to obtain their numbers within their own countries and not seek better arrangements or deals elsewhere.

The Australian Product Number Association....
....seems to be alive and doing well in Glen Waverley, Victoria.
Robin Shaw, Executive Director, reports that the organization was incorporated in April 1979 and included, among its supporters, many of the leading retailers, manufacturers and trade associations.

The APNA is part of the European Article Numbering (EAN) system and has issued parallel instructions and specifications. They started with a budget of $\$ 100,000$ to get the organization off the ground in its first year and are charging new members a graduated fee based on annual sales. The fee ranges from $\$ 500$ to $\$ 2500$ as an entry with additional annual fees thereafter.

To contact the APNA: Dr. Robin N. Shaw, 11 Hampshire Road Glen Waverley, Victoria 3150 Australia Phone (03) 5601055

If you have been wondering about....
....The Distribution Symbology Study Group and its progress, things are moving along, although slowly. The DSSG has been studying the feasibility and minimum specifications for printing bar codes on corrugated outer cartons.

The last meeting of the DSSG was held on May 11, 1979, at which time it was decided to institute a new series of tests with printed symbols of specified dimensions and tolerances. The technical group is narrowing down the options, and it is hoped that this will be the final group of tests.

Although the schedule called for results to be submitted by September 15 th, this date has slipped considerably. The next meeting is scheduled for December 6, 1979 and the plan is to put together a final set of recommendations at that time.

These recommendations should include a general description of the symbol paraameters and possibly a listing of known symbologies which conform to these parameters. This would then give industry groups the opportunity to choose a symbology, and hopefully there will be sufficient communication among the industry groups so that a uniform symbol can be adopted.

We had a great time....
....at the New York Marathon on October 21, 1979. Over 14,000 runners started this grueling test and ran for over 26 miles through the five boroughs of New York City.

As we reported in the October 1979 issue, a system was installed for scanning the bar codes affixed to each runner's chest tag. As the runners crossed the finish line their time was recorded, and immediately after, their tags were pulled in sequence and scanned. The computers then matched up the time sequence and the bar code scan sequence to produce a total record of those that finished the race. The names and vital statistics for all runners had been previously entered in the data file, so the matchup was fairly simple.

The timing mechanisms were installed by the New York Telephone Company, and three bar code scanners were supplied by Computer Identics. The recording of the runners as they finished, and the production of the records, were handled by Personnelmetrics under the supervision of Robert Tilewick. This New York company has managed the computerized system, cum scanning, for the last three years. Built into the systems are all types of fail-safe devices so that the exact record of who finished, in what sequence, and at what time, is always protected. At times the finishers were coming across the line at the rate of 150 per minute. It required a large crew of administrators to help them across the finish line and to record the data, using 3 independent lanes, each with its own timing device.

The same system has been used for a number of other marathons administered by the New York Roadrunners Club. It was all done in a small "computer shack", which contained the scanners and the computer terminals and printers, and functioned in a state of organized bedlam.

By the way, we don't know if the purpose was to test the scanning system, but Dave Collins and his daughter came down from Massachusetts to compete, and both finished in very respectable times. (Collins is the President of Computer Identics.)

Three of the public companies....
....in this industry have sent out recent reports.
Interface Mechanisms reported a "near doubling in sales for the first half of fiscal 1980, (ended $9 / 14 / 79$ ), but profits remained equal to the previous year's first half." Sales for the period were $\$ 4.1$ million compared to $\$ 2.1$ million for fiscal 1979. Net income for the same six-months' period was $\$ .17$ per share compared to $\$ .16$ per share last year, which was a disappointment. David Allais, President, goes on to say, "I believe that deferring higher earnings this year will yield even greater sales and profits in the years ahead. Considering these current investments and a downward revision in our near-term sales growth, now projected at about $\$ 10$ million for the 1980 fiscal year, I expect annual profits to be modestly above last year's level."

MSI Data Corporation reported quarterly sales for the three months ended September 29, 1979 at $\$ 11.4$ million compared to same period last year of $\$ 9.4$ million. Per share earnings for these same periods was $\$ .14$ and $\$ .11$. For the six months ended September 29,1979 sales were $\$ 21.8$ million compared
to $\$ 20.4$ million last year. Earnings were $\$ .21$ and $\$ .43$ per share respectively, a considerable decrease. These figures have been restated to include the acquisition of Chase Computer Corporation in May 1979.

In its first report since going public a few months ago, Symbol Technologies sent out a letter to shareholders. Although no financial data was included, the company did state that it sold 62 Lasercheck verifiers in the 11 -month period from its introduction in April 1978 through February 1979. During the six-months' period from March through August 1979 an additional 49 units were sold and delivered. As of August 31, the company had a backlog of 31 Laserchecks and additional contracts for its European distributor, Plessey, France, SA, for a minimum of 47 additional units during the next 12 months.

## Mark your calendars....

....for the following meetings to be held in 1980:

1. The 1980 Automated Material Handling \& Storage Systems Conference will be held April 23rd through 25th, 1980, at the Atlanta Hilton Hotel. This will include the Automatic Identification Manufacturers section and the theme of the conference is "What's New In Technology and Applications." For more details, write: Education Department, The Material Handling Institute, Inc., 1326 Freeport Road, Pittsburgh, PA 15238.
2. The National Retail Merchants Association will hold their 69 th Annual Convention and Retailers Business \& Equipment Exposition on Jan. 13-16, 1980 at the New York Hilton. The title of this one will be "Retailing and the Challenge of the ' 80 's'. This annual exposition features products and services related to OCR scanning by the NRMA members. Contact: Convention Registrar, NRMA, 100 West 31 Street, New York, NY 10001.

Some new equipment....
....that has recently been introduced:
Plessey Communications and Data Systems, Ltd., of Poole, Dorset, England, has announced their model 1485 Portable Data Capture Unit (PDCU). This is a new portable data entry terminal with enhanced memory organization and editing facilities. The light-weight, hand-held Plessey light pen scans bar codes, and programs can be changed by simple installation of a new program chip. Plessey also announced the OCR series 2800 unit which is compatible with the full Plessey range of data capture equipment, and offers the choice of bar code or Optical Character Recognition scanning.

Scanmark's New Tag and Label Printer is available in three versions to produce eight lines of 27 characters of OCR-A material to NRMA/UVM specifications. The model U-1270 series will print on plain, punched, notched or perforated tags and labe1s.

NCR Corporation has announced their new NCR 7887 hand-held OCR reader programmed to read standard NRMA OCR-A characters. The 7887 OCR reader sells for $\$ 995$ and is programmable for a wide variety of standard and special formats.

