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

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The Fortune Magazine article....

....in the December 27, 1982 issue, "The Bar Coding of America" was pretty reasonable in its coverage of this industry. As was to be expected it featured some of the "schmaltzy" applications — like scanning bar coded labels on logs floating in the river in Tacoma, WA, and on the chests of the runners in the New York Marathon — but all—in—all it was a balanced presentation of the technology.

Certainly the estimates, attributed to David Allais of Intermec, that the industry's sales will double annually until it reaches \$1 billion a year, will not detract from the public's perception of scanning. And we also like "bar codes are to computers what Braille letters are to the blind".

Characterizing the industry as made up of mostly small, privately-held companies, there was almost no attempt to analyze or investigate any individual companies or their achievements. A few names were mentioned in passing, but it will have to be left to a later article to explore the individual company achievements or positions. According to the author "By the end of the decade...most products and quite a few people will be, as it were, behind bars".

In what must be viewed....

Symbol Technologies has made a number of announcements:

- The company raised \$1.2 million in the first phase of a private placement. These consist of 5 year/10% convertible notes, with 5 year warrants to purchase 60,000 shares at an exercise price of \$5.50/share. The funds are intended to cover contract manufacturing costs incident to the startup of production of the LS7000 hand-held laser scanner; and for increased marketing, sales and administration expenses. S/T has continued to obtain on-going support from its venture capitalists, as well as from previous public offerings of its stock. The price of the company's common stock (NASDAQ) is currently quoted at about \$9/share, up over \$3 from January 1982.
- There is a reported accumulation of orders for over 5,000 of the LS7000 scanners, including 2,100 from Telxon and 1,000 from Data Terminal Systems. These orders are scheduled for shipment by the spring of 1984.

- Appointment of Michael McHale as president and chief operating officer. McHale hales from General Instrument Company where he was general manaager of the Special Computer Department. The appointment of McHale to handle day-to-day operations will permit Jerome Swartz, now the chairman of the board and CEO, to concentrate on product development and advanced planning. Additional recent company appointments have been Fred Arnold as VP/Operations; and Edwin Deagle, Jr., as a new director of the company. Arnold comes from Hell Graphics, and Deagle is currently the Director for International Relations of the Rockefeller Foundation.
- The company expects the imminent issue of what it considers an important patent covering hand-held laser scanners. According to their patent attorney, the allowable claims will be "broad in scope and should...offer very valuable patent protection".

### Those who question ....

....the health and survival of American ingenuity, haven't been following the rash of innovative developments related to the LOGMARS symbol requirements. More and more companies are surfacing with products designed to provide the 3 of 9 bar coded labels to be affixed to merchandise sold to the US Department of Defense, and other government agencies.

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Consider Tamco, Inc., a company engaged in the manufacture and distribution of heating elements, who happened to have a Radio Shack computer and printer in their office. Edward Eby of Tamco promptly sat down and wrote a software package to print the LOGMARS bar code on his own equipment. And he likes it so much he wants to share it with everyone.

Tamco offers its software package for under \$700 and will also sell you a Skan-A-Matic reader to check your results. The system will provide 400 to 1800 labels per hour. The company also plans to program for codabar and interleaved 2/5, and is working on a program which can be run on the IBM Personal Computer.

Tamco, 10854 Gorsuch Road, Galena, OH 43021; 614/864-5700.

# And on the same general subject....

\*\*RJS Enterprises\* seems to believe that sometimes you have to take a few steps backward in order to move ahead. Aiming directly at the market comprised of companies who only need a few bar coded labels to fulfill the LOGMARS requirements for their government contracts, RJS has introduced The Impresser. The company calls it "The LOGMARS bar code printer you've been waiting for."

It is simplicity itself, and Gutenberg would have been proud of it. The operating instructions best describe it, and read as follows:

- 1. Set the type by placing the specially prepared printing elements with the bar code and OCR-A digits on them into a code block.
  - 2. Mount the code block into the Impresser.
  - 3. Push the handle and the code prints onto the label.

The unit generates code 3/9 bar coded labels from 3 to 28 digits at 9.4 characters to the inch; no electrical power is required; carbon ribbon is used for sharp images; labels cost less than 3 cents each; and the entire unit, looking something like an automobile jack, is priced at under \$1,000. The Impresser is impressive!

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The company also offers, for an additional \$695, The Inspector, a small (fits in your pocket) wand reader to "prove your bar coded LOGMARS symbols are machine readable". It has a 16-digit display and interfaces with an optional printer.

RJS, 135 East Chestnut Avenue, Monrovia, CA 91016; 800/423-7121 or 213/357-9781.

#### We have always been ....

Comment

....enthusiastic supporters of the LOGMARS (Department of Defense) program adopting bar code scanning. The detailed analysis and study by the Coordinating Group has provided a great deal of valuable information for all potential users of bar codes.

We are therefore a bit disappointed in the inadequacy of the Military Standards that have been published as guidance to government contractors, as well as to equipment, label and film master suppliers. In addition to some important omissions in MIL STDS 1189 and 129H, we have learned that there have been a number of informal changes made which are not documented but which are nevertheless significant. For example:

- The 13 character stock number (NSN) and 13 character contract number can be printed as one long string of 26 characters without stop and start characters between them.
- The bar height specification (in 1189) can be ignored. A 1/4" height is acceptable for all code lengths, for both wand and non-contact scanning.
- The distance between symbols, when placed one over the other, and the maximum distance from the bottom of the bars to the top of the OCR-A characters are never defined.

And we suspect there are other changes, omissions and subjective interpretations we have not yet uncovered. A program as far reaching and important as this one needs more definitive specifications. It affects the costs estimated by bidders; the hardware, software and labels provided by suppliers; and the ultimate efficiency of the system. We urge the LOGMARS Coordinating Group to correct the situation as soon as possible.

# The changes in supermarket merchandising....

....as a result of UPC scanning, are becoming more apparent. The changes are not as obvious as those installed in front-end operations, inventory maintenance and material handling. In the long run, however, they may be more significant. Now the retailers are getting deeper into the realm of the intangible benefits, which have been promised since UPC was first proposed, but not yet fulfilled, nor too well understood.

These merchandising improvements are still considered "intangibles" and the difficulties in evaluating them go beyond quantifying the dollar benefits. There are no ready sources of information on how to improve merchandising using scanning data, and how to measure the results: the hardware companies have very little to offer; competitors often discuss the mechanics of labeling and checkout techniques, but not their special use of scanning data for merchandising; there aren't too many consultants around with the necessary credentials and experience; suppliers and their marketing people remain a bit fearful of how all this will affect their shelf space allocations and promotional advantages, so they can't be relied on.

What it all comes down to is in-house development of techniques and ideas, and the larger chains are finding that they must stretch their minds and resources to come up with the answers. Here are some interesting side lights:

- The advantages enjoyed by the small independents, who traditionally could move faster and tailor their promotions and displays to local demographics, may be diminished. With timely, accurate scanning data, the chains can now treat each store as a separate marketing center and individualize merchandising programs. This point-of-view was expressed by Bill Brodbeck, president, Brodbeck Enterprises (Dick's Supermarkets) and analyzed by Lynne Dumas, editor, Non-Foods Merchandising (Oct 82). They are suggesting that the small retailers may have to look to other sources, such as the independent distributors to help them keep up with the new demands of these more sophisticated systems.
- The pinpoint analyses of individual product areas to maximize profits can now be done with surprising success. Supermarket Business (Dec 82) analyzed the benefits that can be derived from using scanning data to control inventory and improve merchandising in the cigarette department. These included an analysis of the advantages of marketing cartons versus single packs; reduction of store and warehouse inventories; increase in merchandise turnover; adjustment of retail display allowances (RDA's). All of these contribute to greater profits in this generally taken-forgranted department.
- Growing sophistication in the type and use of reports and studies generated or based on scanning data. Exception reports, itemized product movement reports, price elasticity studies are just a few examples.

#### Comment

In some ways there is a great deal to be learned from the developments which have grown out of the use of scanning -- and these lessons do not only apply to retailing. Certainly supermarket operators all over the world must be taking notice of the competitive advantages that can accrue when front-end scanners are installed.

But beyond that, the timely, accurate, efficient means for collecting data has implications in manufacturing, transportation, services, office management, warehousing and every other function in business, government and institutional operations. We are just beginning to appreciate the inadequacies of the data input functions which have lagged so far behind the data processing and output functions. And as data input catches up—through the use of bar code scanning in particular—the benefits will become more apparent and profound.

#### We just knew....

....it wouldn't last! We found it hard to believe (SCAN Jun 81) that supermarket shoppers would tolerate additional noise pollution when National Semiconductor introduced their POSitalker. And now we've learned that a Stop & Shop store in Boston has decided to return the "talking scanners" after a survey of its customers indicated they were annoyed or distracted by the prices called out as the items were scanned.

Actually we must admit that this return is something less than a straw-in-the-wind. National Semi has already installed over 1,000 of these units and claims to be backordered for the next year and a half. According to the company, which has been achieving outstanding success in its sales of scanning systems, the POSitalker is included with 85% of all its new scanning installations.

And, if that weren't evidence enough of the success of more babble in the supermarkets, <a href="Sweda">Sweda</a> will soon be introducing their version of the "Scat Scanner" (our euphemism, which we don't have to explain to jazz buffs, and which we happily bequeath to the industry). Initial units were developed and are being installed by one of their dealers, and Sweda is expected to introduce their own version within the year.

It beats us as to where the industry is going to find that many "little people" to sit in all those little boxes and yell out the prices every time an item is checked out.

#### <u>ln what could be a major move....</u>

count stores. According to VP Daniel McCarthy "Smaller retail stores...need systems like the 2126 which can speed customer service, force strict transaction control and provide sales and financial information for better store management."

The system has five models with a broad range of options. There is a capacity for 13,000 price lookup records held in non-volatile bubble memory. It can function as a standalone terminal (\$2380), or up to a five-lane checkout store with scanning and communications costing about \$8400 per lane. Deliveries are scheduled for January 1983.

#### Identiprint has announced....

....a licensing agreement with Algographic Corp. for Identiprint to have exclusive use of patented new technology for non-impact, high-speed printing. According to Evan Ragland, president of Algographic, "Our new ion deposition technique initially will allow high-speed printing of 30 pages per minute, with a design goal of 300 pages per minute." With fewer moving parts, the inventor claims this system to be more cost effective than laser and ink jet systems, and capable of producing fine quality graphics. Prototype development started in December 1982 and a working model is expected in 18 months.

The development was a result of a five-year effort by Algographic and Identiprint in consultation with Richard Doran, chairman of Doring Labels.

Doring is a manufacturer of pressure sensitive labels. Identiprint is a producer of electronic variable copy imprinters. According to Frank Brennan, president of Identiprint, "applications...include commercial printing, in-house corporate printing, computerized creation of business forms, and in-plant labeling of products (enabling) high-speed continuous changing of data." The possibilities suggest high-speed printing of bar code labels with variable or sequential data.

Identiprint, 2550 Boulevard of the Generals, Jeffersonville, PA 19403; 215/539-4400. Algographic, Atherton, CA; 415/367-1257.

### In what is described....

....as the "electronic brain of an industrial bar code reader" Skan-A-Matic has introduced its new D4 Series Bar Code Reader.

This is an industrial style unit, according to the company, designed to offer application versatility to the user of bar codes. It can accommodate a number of sensing devices and utilizes interchangeable decoder cards to read a variety of bar codes. It also provides output modes, status signals, a 20 character display of the decoded symbol, and optional features to optimize system operations.

The modular construction allows the user to tailor the reading system to his specific needs. A Mother Board can accept six plug-in circuit cards: three for standard functions, and three for options and future expansion. The unit is priced at \$1,990. Skan-A-Matic, Box S, Elbridge, NY 13060; 315/689-3961.

### A new portable data collector....

....featuring hand-free operations, alphanumeric keyboard and a bar code reader has been introduced by Accurtone Systems. Designated the Accurtone IV, the unit is adaptable to retail and industrial inventory systems.

The device records information on magnetic tape and can produce hard copy printouts. It can be computer interfaced and is programmable for custom functions. The company says the unit is primarily designed as a portable data collector to accumulate product-by-product inventory quickly and accurately, eliminating hand-written inventories, saving expense and tedious processing. Accurtone Systems, 54 East Foothill Boulevard, Box 3199, Arcadia, CA 91006; 213/446-6433.

# MSI has rearranged....

....some of its executive personnel:

Joseph Falvey has been appointed Director of North American sales replacing Aubrey Easterlin, who left the company. Falvey was promoted from National Sales Manager. Charles Butler is now VP/General Manager of European operations replacing Peter Weinreb, who left the company. Butler's previous position with the company was VP/Finance and Administration. David Young has been promoted to the vacated VP/Finance and Administration from his previous position of Corporate Controller.

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