



# newsletter

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

SCANNING, CODING & AUTOMATION NEWSLETTER • 11 Middle Neck Road • Great Neck, N.Y. 11021 • (516) 487-6370

INCLUDING THE INTERNATIONAL EDITION

Volume XI Number 4



ISSN 0273-3080

December 1987

## It is generally acknowledged....

....that more attention is paid to the negative, or down, side of the news than to the positive upbeat stories. This holds true in politics, economics, social events, in the affairs of business, and certainly in journalism.

One example is MSI Data, which we had covered in great detail a few years ago (SCAN Dec 85) when the company was going through some difficult business reversals. As a result of those problems, MSI had lost its momentum and its leading position in the marketplace for hand-held data collection systems. Since then, our coverage of the company's activities has been minimal.

During the past two years, MSI came to recognize the need to repolish its tarnished image and to prove itself once again, particularly to its customers. The company undertook a program to carefully and consistently "earn" its way back through results. A specific strategy to achieve this was adopted by the new management team, which was headed by President/Chief Executive Officer Charles Strauch who came aboard in 1984. The four goals that were set out by this team were to strengthen management, develop and introduce new products, emphasize new markets (particularly large accounts), and to improve the company's cash position.

The progress made by MSI toward accomplishing these objectives was suggested in the prospectus issued a few months ago, when the company successfully floated a new issue of 750,000 shares of common stock to raise \$12 million. The prospectus reflected a healthy financial position, listed a number of large OEM and VAR customers, and pointed to the fact that 85% of all products that are currently being shipped did not exist two years ago.

At SCAN-TECH 86, a little over a year ago, MSI had announced its first good news in years: the large Army-Tactical/LOGMARS award (subcontracted to MSI by Syscon); and the new OEM partnership with Allen-Bradley (SCAN Nov 86). The Allen-Bradley relationship was particularly significant in that it was designed to be long-term and involved the development of new products specifically for factory floor applications. Last month MSI made its first major shipment to Allen-Bradley (against a 6-figure order) and both companies are reported to be very pleased with the progress of the partnership.

We reviewed all of this in a mid-November interview with Strauch and attempted to place it into some perspective in terms of the company's growth and

prospects. Strauch admits to having lost significant market position to Telxon in the retail grocery/drug store marketplace. As a result, MSI decided to move aggressively to uncover new market opportunities and to expand in areas such as the field information, manufacturing/warehousing, government, and health care markets. The Allen-Bradley deal was a significant building block toward moving into the manufacturing/warehousing field. The progress evidenced in that partnership has encouraged MSI to seek similar deals with other companies.

Strauch estimates that 65% of all of MSI's current product shipments are equipped for bar code scanning. It is also important to note that 40% of the company's sales are derived from international customers, and about 1/3 of its total worldwide revenues are from service and maintenance income.

Financially, MSI Data is now a stronger company, and one that has reported increased sales and profits for 8 consecutive quarters. In its most recent 6-month report, second quarter sales were up 36% and earnings reflected more than a five-fold increase over one year ago.

<u>MSI DATA</u>	<u>3 Months ended 9/26</u>		<u>6 Months ended 9/26</u>	
	<u>1987</u>	<u>1986</u>	<u>1987</u>	<u>1986</u>
Revenues (\$000)	\$22,061	\$16,165	\$42,554	\$31,607
Net Income/(\$000)	1,159	209	1,964	400
Net Income/Share	.35	.08	.63	.15

The current annual market for hand-held data collection devices has been estimated by Smith Barney Research at \$350 million worldwide, with an expected 20% annual growth compounded over the next few years. (If you prefer, the more optimistic market estimate by Needham & Company states that sales of portable data terminals will reach \$1 billion by 1991). From all indications, MSI Data has repositioned itself to take advantage of that growth.

By the way, the legal battles between MSI and Telxon (dating back to 1985), which involve suits and countersuits over proprietary information, unfair competition and patent infringement, have not been resolved as yet and there is no indication that a clear winner will emerge. When asked about these suits, both companies respond that it's all part of "friendly competition."

One of the more aggressive companies....

....offering portable data collection terminals is Mars Electronics. Their primary product, the Model MEQ300 terminal, is unique in that it incorporates the computer and the moving beam laser scanner into a single unit for one-hand operation. Although no exact figures are available, the company probably sold between 2,000 and 3,000 of these hand-held terminals since they began shipments in April, 1987. The company claims that many of these sales are trial installations to customers from whom they expect large orders during the coming 12 months.

In October, as part of a "significant reorganization and refocusing" to concentrate on transaction electronics and portable data acquisition, the operating unit was renamed Mars Electronics International (MEI). MEI, which is a division of the multi-billion dollar, privately-held company whose candy

bars and M & M's are known all over the world, wants very much to be considered a serious player in the automatic identification industry. The commitment of the enormous resources of the giant parent company is a factor in the development of its products and is reflected in its very elaborate, expensive-looking brochures and literature. MEI has relocated its corporate headquarters and its automated manufacturing operations to a new facility near Philadelphia.

MEI has now introduced its Model MEQ130 (with an attached wand scanner so that it also can be operated with only one hand) and is adding peripherals and communications to broaden its product line in order to present a "total solution approach" to the systems needs of its customers. Products will include standard communication software; a new modem unique to data collection; and networking communications. Retail still remains a significant part of its market and the company will be concentrating much of its efforts on the non-grocery retail sector.

In the last 6 months, the company has signed up more than 65 new VAR's to carry its line in the United States and Canada. The MEI marketing approach is to provide a basic hardware package to its VAR's who, in turn, add applications software as required by their customers. Five direct regional sales managers (two of whom had previous experience with Telxon) have been added to support the VAR group, and bring with them a broad range of experience in the automatic identification market.

MEI, 130 Wilson Drive, West Chester, PA 19380; 215/430-2500

Although sales keep rising....

...at a significant rate, Photographic Sciences has just not been able to turn the profitability corner this year.

<u>PHOTOGRAPHIC SCIENCES</u>	<u>3 Months ended 9/30</u>		<u>6 Months ended 9/30</u>	
	<u>1987</u>	<u>1986</u>	<u>1987</u>	<u>1986</u>
Revenues (\$000)	\$2,167	\$1,343	\$7,311	\$3,239
Net Income (Loss) (\$000)	(395)	20	(649)	141
Net Income (Loss)/Share	(.10)	.01	(.18)	.06

In spite of Chairman Jack Blackert's prediction a few months ago (SCAN Jul 87) that his company would be able to pull things together sufficiently to post net earnings for this year, it doesn't look as if they're going to make it. Sales and marketing costs have increased significantly -- including a major advertising program (SCAN Nov 87) -- and revenues are down for the company's Techtran unit (automatic test equipment). No current forecasts have been released by management for future sales or earnings.

Our last reference....

...to Recognition Equipment (REI) (SCAN Aug 86) noted the heavy advertising budget that was being invested to introduce and establish their Beam Reader, a hand-held non-laser bar code scanner. A company spokeswoman had told us that the Beam Reader was "a new class of product" which "outperforms lasers." She

added that REI wanted to be more than just a "me-too" company with another laser scanner.

In the months since that initial burst of publicity and enthusiasm, we hadn't heard too much about the product or its sales. We wondered about this recent low profile and called John Hall, REI's Vice President/Wands, for clarification. Hall replied that the company was "rescoping the product, looking for attractive alternatives [to the retail market], and seeking new market niches...like warehousing and a few other OEM applications."

We pressed Hall to comment about a rumor (which came to us from Europe) that discussions had been under way for REI to sell their Wand Division. "We have been contacted regarding the product," Hall admitted, "but for now, it's business as usual. We are only looking to sell the product in the marketplace."

Hall's final remarks were unequivocal, "There is absolutely no thought that REI has the Beam Reader on the market in order to get rid of it," he said, "but we are looking for other opportunities to sell the product."

#### Although sales and earnings....

...were up for Graphic Technology Inc. for the first quarter of fiscal year 1988 (the company's seventh consecutive quarter to reflect such comparative gains), the results were somewhat qualified by management.

Sales, which rose only 4% when compared to last year, were less than expected by company President, Terry Van der Tuuk. He attributed this small rise to "the timing of orders for bar coded products." He expects the company to realize benefits from these orders during the second quarter. (The 24% increase in earnings was partly attributed to the reduction in the corporate income tax rate from 44% to 38%.)

#### GRAPHIC TECHNOLOGY

#### Three months ended 9/30

	<u>1987</u>	<u>1986</u>
Revenues (\$000)	\$5,509	\$5,290
Net Income/(\$000)	511	412
Net Income/Share	.18	.14

#### The almost paranoid....

....preoccupation of public companies in the US with short-term financial results, has come under close scrutiny in the international debate over how to improve profitability and competitiveness -- particularly in manufacturing. Each quarterly report issued by a public corporation is scrutinized by stockholders and the investment community to evaluate every perceived nuance of progress and present value.

The problem this presents -- according to the latest revisionist thinking of some important business analysts -- is that significant long-term programs are often sacrificed on the altar of short-term visible progress. Such things as: research and development; retooling of production facilities; installation of

cost-saving systems; new product testing; and investments in marketing, may be deferred or abandoned because they might reflect negatively on the "bottom line" of the next financial report. The traditional defense for insisting on short-term corporate reporting (aside from the SEC requirements) is that company managements must be closely monitored, and that sophisticated investors can understand the difference between short- and long-term results.

*[Editor's Note : We're not so sure about the value of corporate report cards every three months. In this issue alone, we are reporting on the quarterly results of four auto ID companies, and we suspect we may be compounding the potential problem of short-term reporting. Hereafter, as our small gesture on the side of longer term judgements, unless something of particular significance occurs, we will try to keep our financial reports to every six months for each company.]*

This disagreement over the value and validity of short-term reporting was highlighted for us by the latest results from Computer Identics. In the company's third quarter statement (for the period ending September 30, 1987), sales were reported to be \$9.4 million for the year so far (versus \$6.6 million last year), with a 1987 nine-month loss of \$1.8 million (compared to \$1.9 million for the same period last year).

In his report to stockholders, C/I's new President and Chief Executive Officer Frank Wezniak points out that "significant progress has been made toward achieving profitable operations." Then he goes on to state, "In fact, September was a profitable month, the first in over a year." He winds up his report by saying, "The outlook for the fourth quarter and next year has been projected to be excellent as the bar code industry continues its expansion into retail and industrial applications, and Computer Identics improves its sales, service and support organizations in the United States and Europe."

It is certainly no reflection on Wezniak that he feels compelled to grasp at straws as flimsy as one month's profitability after a period during which his company had gone through some very difficult times. He will probably need many more calendar quarters to pull the company out of the deep hole he found them in about six months ago (SCAN March 87, June 87), and much more than a one-month track record to prove it to stockholders and investors.

#### We have an update....

....to the "EAN 500 Club" (countries outside North America with over 500 scanning stores in operation), based on the latest reports from the International Article Number Association/EAN as of June, 1987.

Japan estimates current installations at 11,175 stores (with 36,749 scanning lanes), which comprise about 60% of all automated retailers in the EAN community. The other six countries in the EAN 500 Club are: France-1,945 stores (+319 since February, 1987); Germany-1,246 (+280); UK-853 (+50); Sweden-650 (+75); Italy-618 (+68); and Australia-599 (+38).

The EAN Association has also compiled new data (representing 96% of all store installations) on the market share of the equipment vendors in all EAN countries. There are 42 different companies represented in the tabulations, led by TEC (7,585 stores), NCR (2,976), Hugin-Sweda (1,227), Nixdorf (919), Datachecker/DTS (875) and IBM (750).

TEC's substantial lead (by store count) is attributable to that company's strong market position in Japan. Since many of the scanning stores in Japan are one- and two-lane convenience stores (notably Seven-Eleven with 3,100 scanning outlets), a vendor ranking by scanning lanes might be a more accurate reflection of market-share position. Data on the number of scanning lanes by equipment vendor may be available from the EAN Association in the future.

Retail bar coding in Spain is reported as moving ahead successfully. There are 281 scanning stores as of June, 1987 (the leading scanning retailer, Mercadona, has 54 automated stores with 558 scanners). The Spanish market, which is shared by 13 EPOS vendors, has Nixdorf in a dominant position with 141 stores (50%) and 1,127 scanners (65%). NCR ranks second with 15% of the stores, followed by TISA and Hugin-Sweda (with about 10% each).

In another part of the EAN world, Mexico, which joined as the 31st EAN member country earlier this year (SCAN April 87), has now reported 16 scanning store installations, and growing.

#### A very unique addition....

....to coding systems materialized about four years ago when the Automotive Industry Action Group (AIAG) developed the Data Identifier (DI) concept. This innovative idea was adopted to distinguish among the multiple codes and symbols that appear on the AIAG shipping labels. The purpose of the DI's is to provide coded prefixes to be sure that the alpha-numeric designations of products, packages and documentation, are recognized for what they are (e.g. V=vendor; P=part number; Q=quantity).

The AIAG has since taken on the chore of maintaining a Data Identifier Dictionary Standard which lists all of the approved DI's. The most recent DI Standard cites 32 different identifiers covering order numbers, part numbers, vendor numbers, stocking locations, quantity, weight, size and a whole set of additional codes intended to track products through their distribution channels. Additional codes have been approved by the AIAG Board but have not yet been published as part of the Dictionary Standard.

This concept is now catching on in other industries that recognize the need for isolating and identifying coded information from an array of different codes and symbols: The Furniture Industry Task Force is currently circulating a draft document -- the Furniture Industry Bar Code (FIBC) Standard -- which incorporates the DI concept; The Book Industry Systems Advisory Committee (BISAC) is considering DI's for shipping labels for the publishing industry; the same is true for the HIBCC (health industry) and the Bar Code Alliance (heating, air conditioning). Inquiries have also been received from European organizations who wish to adopt the same system.

A key element underlying the continued success of the Data Identifier program is to insure the existence of only one common DI Standard for everyone. It would be an invitation to chaos if each industry were to assign unique data identifiers on the assumption that theirs is a "closed loop" system. The beauty of this concept, it seems to us, is to be able to use a worldwide standardized list that can be freely assigned to coded products without regard to whether they might cross industry lines.

Although AIAG is currently acting as the clearing house to maintain the standard list, that organization would like to see the function transferred to the American National Standards Institute (ANSI). One possibility under consideration is to have ANSI designate FACT (Federation of Automated Coding Technologies) as the accredited agency of record. If FACT does not pick up on this offer, AIAG will probably continue to perform this important responsibility (with or without ANSI).

To obtain a copy of the Data Identifier Dictionary Standard (there is a charge for the document), contact AIAG, 17117 West Nine Mile Road, Southfield, MI 48075; 313/569-6262.

#### Depending on who is compiling the figures....

...it is estimated that the Department of Defense (DOD) represents about 15% to 30% of the total US market for non-retail bar code scanning equipment, supplies and services. And even though the Government's prime contracts tend to be clustered among a few system integrators, the final production requirements filter down, through large subcontracts, to many of the auto ID manufacturing companies throughout the industry. No one has a real handle on the actual amount of the annual shipments to the Government. This is because most of the awards are made as open-end contracts against which many user agencies requisition materials as needed over a period of years.

Because of the size and importance of this business to the industry, we sought out two DOD experts, Stu Crouse and Mike Noll, to get their views on the latest developments. Both Crouse and Noll participated in the seminar program at SCAN-TECH 87 where we questioned them about the most recent activities that will affect the vendors and users involved in LOGMARS applications. Crouse (based at Tobyhanna Army Depot) is a key member of the LOGMARS Coordinating Committee; Noll is acknowledged to have been an important mover during the critical early days in the implementation of the LOGMARS program. (Noll has since been promoted a number of times and is now at the Pentagon, but he has never strayed too far from the Government's bar coding program.)

Of immediate concern are three government specifications that are being revised:

- The basic LOGMARS specification -- Military Standard 1189 -- is out for comment in its latest revision, "MIL STD 1189B." The recommended changes do not seem to be too radical or significant, although references to higher density bar codes could prove to be important.
- MIL STD 129K deals with the use and placement of bar codes on packaging. The current draft revision contains some important additions covering: bar coded shipping documents (Appendix F); bar coded shipping labels (Appendix I); and shipping label location (Appendix H).
- MIL STD 130, which relates to the coding of individual products, identifies each unit-of-use item with three different code numbers: National Stock Numbers (NSN); Federal Supply Code for Manufacturers (FSCM); and the product's individual serial number. Consideration is being given to determine how to best introduce the automatic identification of these numbers through bar coding.

We also questioned Noll and Crouse about a rumor circulating at SCAN-TECH that the DOD was moving toward centralized procurement of bar code products for all services (Army, Navy, Air Force). They saw no sign of that, did not expect it to happen, and felt that the rumor was groundless.

Although neither Noll or Crouse could provide a definitive estimate of the volume of bar coded DOD procurements actually released for shipment during the current year, both agreed that the figure was probably running well in excess of \$100 million.

So pay attention to the LOGMARS Committee's activities; obtain the current standards that are out for comment; and let Stu Crouse know what you think. He is really interested.

Stuart Crouse, Tobyhanna Army Depot, SDSTO-T, Tobyhanna, PA 18466;  
717/894-7144.

Michael Noll, Office of Assistant Secretary of Defense - Production and Logistics, Room 3C841, Pentagon, Washington, D.C. 20301-8000; 202/695-2850.

#### A complete reversal is apparent....

.... -- thank goodness -- in the attitude and approach of the National Retail Merchants Association (NRMA) toward UPC and bar code scanning.

For example, as recently as last January, the NRMA management had scheduled only one seminar on UPC and bar codes for their annual Convention. The auditorium, which seated only 150, was overflowing and, according to a report in Women's Wear Daily: "Fisticuffs almost broke out when latecomers could not gain entrance." (SCAN Dec 86; Feb 87)

In contrast, the program for the upcoming 1988 Convention and Exposition in New York reflects a total turnabout in attitude and direction. At this next show (January 10-13, 1988), there are four sessions devoted to UPC, including a basic "what it is, how it works" session, and additional seminars covering updates on UPC standards and applications.

Last year, we found that bar code scanning was featured in just about every convention booth related to front-end check-out and administration. We're sure that bar codes will be even more in evidence this year.

Since (non-grocery) retail automation is probably the fastest growing application of bar code scanning today, the NRMA Convention has become a most important showcase.

NRMA, 100 West 31 Street, New York, NY 10001; 212/244-8780.