



# newsletter

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

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This is the first time....

....we have published a Double Issue of SCAN Newsletter and the International Edition. We felt we had to personally cover some of the important current meetings and events, and they all seemed to come together during late September and early October.

We wanted to bring to you our perspective on SCAN-TECH '83 in San Diego: by all accounts the quantity and quality of the attendees to that major exposition exceeded expectations. The October 4-5 meeting in St. Louis, called by the Health Industry Bar Code Task Force Committee, was certainly a turning point in the development of bar code scanning, and that had to be covered. In London, on September 20-23, the annual EPOS Congress on Automation and Retailing was a significant showcase for bar code scanning developments in all of the EAN countries.

*also conferences*

We covered them all. It was an opportunity to meet and speak with the management of the supplier companies, and see and feel the equipment, supplies and services now being offered.

Aside from the expositions themselves, there's been lots of news these past 6 weeks. Young companies going public; new companies emerging; new concepts and new products introduced.

You will notice, therefore, that SCAN and SCAN/INTERNATIONAL EDITION, are expanded in size this month. We have also included special reports from the SCAN-TECH '83 and the London EPOS expositions. Our next edition will be the December 1983 issue.

We have tried to fulfill our obligations as a newsletter to give you the flavor of what is happening and our perspective. We will tell you where to get all of the details of the companies, products and events. Hopefully you will have a better understanding of their significance after reading about it here.

First, you'll want to know....

....about SCAN-TECH '83. We published the San Diego SCAN-TIMES which provided background based on information available prior to opening day. SCAN-TIMES was given to all attendees as they registered for the seminars and show and we are enclosing a copy for each of our subscribers. Now that the show is behind us, we'll share our impressions with you:

- With the 600 seminar seats sold out 2 weeks prior to opening; with 700 "walk-ins" who came to see the exhibits only; and with over 500 exhibitor

personnel manning 88 company booths, the needle on our enthusiasm meter couldn't go any higher.

- The seminar program was much more mature than any we had attended before. There were still items on the agenda for those who needed grounding on how bar code scanning works. But the audio-visual presentations by users were the real test. These were views of full-blown operational systems with quantifiable dollar savings attributable to bar code scanning.
- New products and new ideas remain the mainstay of this industry and they appeared throughout the exhibit hall. We were constantly being button-holed by old and new friends from the industry who wanted to show us the latest and greatest developments from their companies. And many of them were new and fresh and innovative.
- Hand-held scanning devices abound! There were, of course, the wands which have been with us for years and which represent the largest number of scanners in the field, at the lowest cost. At the high end of the cost spectrum were the hand-held laser guns: from Symbol Technologies, Metrologic and Spectra Physics. But in between there are now some fascinating alternatives: Hand Held Products had their Microwand, billed as "shirt pocket data collection for the 80's". In fact, it's a totally independent scanner that fits in the palm of your hand with its own memory and micro-processor built in. Scan-A-Matic presented their alternative to hand-held lasers with the hand-held visible White Light Scanner; Datalogic introduced their new laser gun LG100; Numa, a new company, had their Litescan 100, a non-laser, non-contact scanner that is focussed for depth and moved across the bar code. And we have no reason to believe there won't be a host of new compact versatile products emerging during the coming months.
- The availability of preprinted consecutive and random bar coded labels has exploded in a number of directions. You can still buy high quality photo-composed labels from Computype and Data Composition. But now you can also check out Dennison's Intacs System; York Tape and Label's Label Print Apply System; Analog Technology's Graphics 810 Printer Controller; Soabar's Electronic Printer; and others. Printed bar code labels are coming into their own as a critical element in the functioning of a bar code scanning system.
- The opportunity to participate with AIM in the awarding of the Bar Code Scanning Industry Achievement Award was especially gratifying. This year the joint AIM/SCAN Newsletter Award was designated as the Don Percival Special Award. It was given to Bill Maginnis (Hunt-Wesson Foods) in recognition of his efforts as Chairman of the Distribution Symbology Study Group. The DSSG was an ad hoc committee that labored for 5 years, without funding, without a specific charter and with no direct sponsorship from any established organization, to resolve the major difficulties in printing bar codes on shipping containers. The results are now history, and an integral part of the specifications of the industry.

Next year, SCAN-TECH '84, scheduled for early December in Cincinnati, takes a quantum leap forward. From an educational conference with controlled exhibits, it will become a full-blown exposition with the seminar presentations occupying a less central position.

It's progress. It is a signal that the industry is maturing to a point where teaching seminars may not be as critical, since some feel that the learning

curve of the potential users is expected to level off. There are pros and cons with which we haven't yet fully come to grips. Our recent ventures into the field, including lectures we have been delivering to associations, company groups, and to college students majoring in packaging design, suggest there is still a great deal of education to be accomplished.

But for now we can only commend the officers of AIM and the staff of MHI for bringing us a most successful SCAN-TECH '83. A copy of the complete proceedings, along with a directory of exhibitors, with the names and addresses of all participating companies, is available for \$35.00 from AIM/MHI; 1326 Freeport Road, Pittsburgh, PA 15238; 412/782-1624.

#### We attended the....

...Health Industry Bar Code Conference in St. Louis on October 4-5. We had been hearing a great deal of rumbling from various sources who thought this was going to be a rough-and-tumble meeting. Potential conflict was surfacing between those who were promoting code 3/9 and those who felt UPC was too well-entrenched to be ignored.

It actually started in the airport limousine on the way to the Chase Park Plaza Hotel in St. Louis. Before we had even exited the airport we were involved in discussions about who the various factions were and how each was going to sound off about his particular point-of-view. There were even assignments being made on the HIBC Task Force Committee as to who would handle the expected attacks from particular sources.

Well, it didn't come off that way at all. If anything, the first day of the meeting was too bland and non-controversial, considering the basic disagreements that were lurking beneath the surface. No one wanted to rock the boat, it seemed. The real problem was that no one wanted to make any decisions either.

The HIBC Task Force had proposed, and placed on the floor for a vote, a specific recommendation that the health industry adopt 3/9 as its standard. The Task Force had also developed recommendations as to the numbering structure of the code. For most of the delegates (particularly the hospitals) that seemed fine and they were ready to move ahead.

But simply adopting the code and symbol really left the program suspended in mid-air. It was left to some late afternoon industry caucuses (quickly convened in corners of the ballroom) and late evening and early morning emergency meetings, to finally develop an approach to a solution. The various industry trade associations, led by the American Hospital Association (AHA), finally recognized that only they could take hold of the program and focus on the major tasks that lay ahead. They had a perfect model in the experience of the supermarket industry and the formation of the UPC Council 10 years ago -- and that seems to be the way things will go.

The outcome was a move to create an on-going HIBC Council (HIBCC) with a Board of Governors having representation from the 8 or 9 key trade and professional organizations involved in hospital management and product supply. A voluntary bar code standard has been targeted for publication by March 31, 1984 after dissemination of the current Task Force recommendation and solicitation of comments.

### Comment

The HIBCC will be charged with "Developing a self-sustaining program to guide implementation and on-going technical modifications." And that, in our opinion, is the most important operative decision to come out of the meeting. The actual vote to adopt code 3/9, or any other code or symbol, may have really become academic at this point. There is now a group about to be set in place, hopefully with sufficient funding and broad-based representation, to analyze the industry's needs and come up with a proposed solution. We certainly believe the recommendations should ultimately represent a consensus of the industry. But we don't see any value in the "Town Meeting" type of environment, with its frustrating parade of speakers to the microphone trying to convince a non-representative industry grouping. What the industry needs right now is strong, informed leadership and not a frustrating exercise in pseudo-democracy.

We will be hearing more about the HIBCC, which we can add to the bar code lexicon of UPCC, LOGMARS, AIAG, DSSG, DCI, ANSI, et al.

### The first introduction....

....of the new Electron Visa Card (SCAN Jun 83) is scheduled for pilot tests in Ohio (Cleveland, Columbus and Cincinnati); Florida (Jacksonville and Tampa); Oregon (Portland); and the Washington, DC area (Falls Church, VA; Baltimore and Bethesda, MD).

The Electron Card, which will offer automated identification through bar codes, OCR-A and magnetic stripe, will be tested at selected retail establishments tied into the banks which will be participating in the test program.

Visa reports strong interest from 100 financial institutions and expects 5 million Electron cards to be in use by mid-1984; with 30 million by 1986. The tests will encompass a cross-section of department, discount and specialty stores and supermarkets. The pilot program will enable merchants and Visa member banks to monitor transactions involving card-reading devices, electronic card holder identification techniques, new generation terminals and electronic cash registers. All of this prior to global expansion of the program.

There is no indication as yet as to the number of retailers who will use each of the automated machine-readable techniques. Certainly the supermarkets are expected to use bar code scanning, but there is no word as to the technology that would be used by others.

### The Automotive Industry Action Group (AIAG)....

....has issued its draft specifications for Shipping/Parts Identification Labels (dated September 23, 1983). From the document introduction:

"These specifications provide guidelines for printing and applying a label with bar coded data to shipping packages. The label is designed to improve the productivity and controls at suppliers and customers by allowing effective and efficient capture of data for production counts, warehouse input/output, cycle checking, shipping generation, forwarding, freight transfer control, receiving, and other inventory controls. Strict adherence

to these specifications for the Shipping/Parts Identification Label will reduce implementation costs and increase benefits throughout the auto industry."

The specification details size and materials for labels and tags, and the specific data and their locations to be included. The 3/9 code has been the sole symbology specified for this application. There are as many as 5 bar codes to a label in a medium density format. The bar coded information includes part number, quantity, supplier number, serial number and a special data area for additional information.

To obtain your copy and to submit your comments (deadline December 31, 1983) contact AIAG, 6560 Cass Avenue, Suite 425, Detroit, MI 48202; 313/871-3700.

#### The Request For Proposal for....

....the first major procurement of bar coding systems by the US Army (SCAN Jul 83) is enlightening. There have been about four previous large Air Force purchases, and the procedures and the pattern of successful bidders is significant.

- The only bidders for the Air Force procurements had been computer manufacturers/system integrators. Previous successful bidders for Air Force contracts have been Sperry and Burroughs.
- The bid is offered as a Request For Proposal (RFP) and not the more formal Invitation For Bid (IFB). Under IFB procedures, bids are opened publicly. The RFP procedure allows for a more informal bid evaluation procedure including subsequent negotiations after bids are opened. Even one responsive bid may be considered adequate.
- There is currently an amendment in process to increase the quantities. This will not reopen the bidding, but will delay the award past the end of this year. The name of the successful bidder will be published with award totals only. No line item detail will be available.

#### Comment

*Here we have an example of a large scanning system procurement which bar code companies cannot handle. The fulfillment of the contract obviously requires a company with major facilities for hardware, software, maintenance and training.*

*It's a fact of life in this industry of smaller companies. Bar coding companies will obviously be supplying the bar coding components -- but only as secondary contractors. Maybe in a few years....*

Reference: RFP #DAHC26-83-R-0004. Contact Douglas Redding, US Army Computer Systems Selection & Acquisition Agency, 2461 Eisenhower Avenue, Alexandria, VA 22331; 202/325-9506.

#### The plans for Computer Identities....

....to raise additional capital (about \$8 million) through the public registration route (SCAN Sep 83) may be augmented by another very significant infusion of cash.

A new offering is now in registration with the Securities & Exchange Commission (SEC) for Hutton/PRC Technology Partners Ltd., which plans to raise \$25 million. This will be a limited partnership. It was formed to conduct research and development activities in connection with the commercial application of technology in electronic, communications, data processing, robotics and related systems.

The way it works is that Hutton/PRC will enter into agreements with companies to pay for the R & D expenses on specific projects. In return Hutton/PRC negotiates license/option agreements which will pay royalties if the products are successfully developed and marketed. (The 100 page prospectus explains these complicated arrangements in much greater detail.)

Part of the \$25 million to be raised by Hutton/PRC has been earmarked for 3 projects. One of them is for an R & D investment of \$4 million in Computer Identics over a 24 month period to (and we are quoting directly from the prospectus) "develop an integrated set of standard hardware and software products which will provide the basis for a systems approach and thus reduce the special purpose hardware and software typically used for such purposes. If successful, the products and technology developed should be less expensive and easier to adapt to a broad range of industrial bar code system applications. The priority or use of bar code products and technology is anticipated to continue to be in the manufacturing, materials handling and distribution markets."

This is an enormous vote of confidence in Computer Identics, and in the bar code industry and its potential.

#### The surfacing of a number....

....of new companies in the bar code industry, the rapid expansion of bar code technology, and the heated-up new issues market, have all combined to create just the right climate for venturing into the public sector to raise fresh capital. In addition to Computer Identics we have two new offerings to report:

- The October 5, 1983 Preliminary Prospectus filed by Imtec, Inc., (formerly Imaging Technologies of Keene, NH) is for 250,000 shares at \$8.00/share. The issue is being underwritten by Pendrick Reeves Associates, Southport, CT (203/259-5558). Imtec designs, assembles and markets microprocessor-based bar code printing accessories, such as laminators, cutters and applicators, which it integrates with a bar code printer which the company purchases from Intermec and then modifies. The initial markets targeted are commercial laundries and printed circuit board manufacturers. Imtec began business in June 1982. Total sales for its first fiscal year were \$554,000 (with a net loss of \$268,000). Sales for the first two months of the current year were \$202,000 (with a modest operating profit). Imtec, Box 529, Chester, VT 05143; 802/875-3989.
- We don't have as much detail about Bar/Code Inc., of Richardson, TX other than the company is now in the process of filing with the SEC for 2.5 million shares at \$1.00/share. Vice President Hugh Calder tells us the underwriting will be handled by Matthew R. White Investment Company of Salt Lake City and they hope to be effective in about a month. Bar/Code was formed in 1982 and its current product lines include bar code readers and printers (described in the enclosed San Diego SCAN-TIMES). Bar/Code Inc., 1251 Exchange Drive, Richardson, TX 75081; 800/527-4719 or 214/231-2412.

The newly restructured....

....and consolidated Photographic Sciences Corp. reports that for F/Y 1983 (ended June 30) the company suffered a \$1.3 million loss on \$4.8 million in sales. A major portion of the loss (\$1.0 million) was attributed to one-time non-recurring write-offs, resulting from the company's disposition of certain foreign and domestic operations (SCAN Aug 83, Feb 83, Nov 82).

On the positive side there were modest operating profits in the third and fourth quarters and, according to Chairman John Blackert, "The company has no short-term bank indebtedness at June 30, 1983, a new bank credit agreement has been put in place and the company's independent auditors have rendered a 'clean' opinion for both the 1983 and 1982 fiscal years. In addition the prior year's working capital deficit has been essentially eliminated".

The company seems better positioned for the future than it has been for the past few years.

For the fiscal year....

....ended June 30, 1983, Symbol Technologies showed a 17% increase in sales with a loss about equal to last year. (For F/Y 1983 the company had a shortened 10 month year as it adjusted to a year end closing of June 30 from the previous August 30.)

	<u>10 Months Ended</u> <u>June 30, 1983</u>	<u>12 Months Ended</u> <u>August 31, 1982</u>
Net sales (\$000)	\$3,418	\$2,906
Net loss (\$000)	1,679	1,694
Net loss per share	.61	.62

One of the interesting sidelights at SCAN-TECH '83 was the aggressive showing of hand-held laser scanners made by companies other than Symbol Technologies. Companies such as MSI and Azurdata, for example, were promoting Spectra Physics scanners. One of the reasons, according to these companies, is the agreement Symbol Technologies had reached with Telxon in 1981. That agreement gave Telxon exclusive rights to the S/T Model LS7000 for 7 1/2 years in the portable data entry field, in return for \$112,000 in development funds. This agreement is now "under review" by the two companies -- with Symbol Technologies taking the position they are free to sell their newest models in this industry segment.

Meanwhile Telxon had agreed to purchase 2100 units of the hand-held laser scanners from Symbol Technologies through February 29, 1984. This comprises a significant portion of the reported Symbol Technologies' backlog of orders.

This will take some sorting out....

....but the Food Marketing Institute has published its revised UPC scanning installation figures. This is a result of their recent discovery that the published figures were significantly inflated because of reporting errors (SCAN Sep 83).

Here are some of the previously reported and currently corrected data. All figures are for the US and Canada:

Supermarket UPC Scanning Installations  
Cumulative -- As of the end of the period

*also scanning scoreboard*

	Previously Reported	Corrected Data
1978	562	432
1979	1471	1144
1980	3108	2406
1981	4890	3843
1982	7106	5715
June 30, 1983	7961	6513

The reported discrepancy as of June 30, 1983 is significant, amounting to a reduction of 1448 stores or 18.2% of the total previously reported. This is important to companies who have been basing marketing and planning decisions on these numbers. For example, of the total items purchased in supermarkets, what is the percentage scanned at the checkouts? Is the market ready for the scanning of coupons, which has been awaiting minimum volumes before it could be considered feasible? What is the real market potential for scanning-related equipment and supplies at the retail level?

Now let's look at the share of market statistics among the POS equipment vendors:

Scanning Equipment Suppliers  
Share of Market  
As of June 30, 1983

	<u>Previously Reported</u>		<u>Corrected Data</u>	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
NCR	2909	36.6	2419	37.1
Datachecker	2022	25.4	1719	26.4
IBM	1764	22.2	1508	23.2
Sweda	508	6.4	418	6.4
DTS	690	8.6	386	5.9
Berkel	42	.5	38	.6
TEC	27	.3	25	.4

The ranking of the hardware suppliers has not changed. The largest percentage revision was with Data Terminal Systems which had over-reported by a factor of almost 80%. (We can't help but wonder whether these figures are a surprise to National Semiconductor's Datachecker Division, and whether that might have affected their acquisition of DTS last year.)

Comment

*We must also wonder at the inaccurate reporting by every one of the companies. It's hard to believe that management didn't realize that these published data just didn't agree with internal sales figures. It's a little embarrassing, to say the least.*



Spectra Physics wants to be sure....

....that everyone understands that the problem of scanning the EAN symbol in North America is not restricted by the inability of their front-end scanners to decode the symbol.

According to company sources, 33,000 of the total 40,000 installed scanners supplied by Spectra Physics can scan EAN symbols with the simple adjustment of an internal "jumper wire". All S/P scanners manufactured and shipped since 1979 have been equipped to make this adjustment. The root problem is attributed by them to the systems that have not been programmed to accept the special decode signals of EAN bar code.

This doesn't make the complaint of Albert Heijn and the EAN Council (SCAN Sep 83; SCAN/IE Aug 83) any less significant. It suggests that the required change necessary to retrofit existing installations may be even simpler than some think, and that what is needed is for someone to build a fire under the supermarket operators and instill a greater sense of urgency to get this done.

It's great to see....

....an important magazine, like Industrial Engineering, devote a major section to bar code scanning -- it would have been even greater if the article and directory (Buyer's Guide) were more accurate.

The Buyer's Guide, in particular, was a very ambitious undertaking with 15 different categories of equipment and supplies, and detailed product descriptions in each. But one feels a bit reserved about the accuracy of the information when, for example, the category Bar Code Guns excludes Spectra Physics, but includes 3 or 4 companies that are supplied by S/P; Pre-Printed Pressure Sensitive Adhesive Bar Code Labels lists a potpourri of equipment and label suppliers omitting the hundreds of label printers who could have been included; and under Bar Code Data Collection Terminals only Computer Identics is shown, ignoring such Johnny-come-latelies as MSI, Azurdata, Telxon, et al.

We really do commend the attention to bar code scanning, but hope next year's efforts on the same subject (November 84) will be a little more accurate. May we suggest consultation with AIM, which could provide additional information and possibly a screening group to help?

There will be a seminar....

....in Chicago's McCormick Inn on December 7-8, 1983 on Practical Applications of Bar Code Scanning. The event is sponsored by the Society of Manufacturing Engineers and its Computer and Automated Systems Association. It is the second such seminar by this group. This organization plans to increase its educational programs in the area of automatic identification.

Tom Sobczak (Little People's Productivity Center) will be the seminar chairman, and the program will include an orientation to the fundamentals of bar coding, along with vendor presentations dealing with available equipment. User presentations will cover planning, purchase and installation of various bar code systems. There will also be table top displays and demonstrations.

The seminar is being held in conjunction with the MACH-TEC International Conference and Exposition at McCormick Place on December 5-9. Contact Lisa Sellers, SME, One SME Drive, Box 930, Dearborn, MI 48121; 313/271-1500, Extension 389.

#### The integration of bar code scanning....

....as part of a management information system and computer application, has been accomplished by Criterion Systems. The company claims to be the only firm in the country to fully develop, test and implement the use of bar code, portable data entry terminals, telecommunications and custom computer software into a fixed asset management system.

Criterion presents FAMIS as a system providing total physical and accounting control of fixed assets. The method of data collection uses optically scannable tags and portable data entry terminals with detailed reports provided. According to the company, the package includes "no high front-end implementation costs" (they finance it) and no capital equipment investment (they provide all the hardware and software).

Criterion Systems, Inc., 1174 Lincoln Avenue, San Jose, CA 95125; 408/279-8013.

#### Digitronics is offering....

....a group of products built around bar code scanning and reasonable prices.

- The Model BCR 232 Bar Code Reader reads a variety of bar codes, with audible tone for a successful decode, and an RS 232 output port to hook up to your terminal. Cost \$595.
- Also at \$595, the Model BCV 100 Verifier is battery operated and portable, has a 16 character display, and is listed as "ideal for LOGMARS label verification".
- The LOGMARS Label Printing System comes with a number of options and is priced from \$2995 to \$4995.

Digitronics, Division of Comtec Information Systems, 53 John Street, Cumberland, RI 02864; 401/724-8500.

#### Bar codes....

....have become the widely-accepted medium for automated data input in the microfilm industry. Computer output microfilm (COM) devices and fiche duplicators are reading bar code symbols internally to communicate the number of copies needed and collating instructions. Among the first to adopt bar codes was Datagraphix (SCAN Aug 82). Now both NCR and Kodak have adopted similar capabilities.

Bar codes are a natural for use with microforms. COM equipment, for example, can generate the bar code, add it to the film, and then read the information to automatically carry out the instructions.

Just keep your eyes open -- bar codes are happening everywhere.