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

ISSN 0273-3080

Volume IX Number 8

April 1986

If you happen to believe....

....that the preparation of standards and specifications is a boring exercise undertaken by academics removed from the real world, consider what's going on in the bar coding industry.

In the early years symbology standards were prepared and issued by individual companies, trade associations, industry groups, the government and ANSI. The result has been a hodge-podge of standards which everyone recognized as inadequate, but about which little was done. An indication of how confusing this could get: if you order a code 39 verification device from one company, you must specify which version of code 39 you want to check. Of necessity, therefore, equipment manufacturers produce printers, scanners and verifiers which cannot meet all of the issued standards — and sometimes meet none.

During this past year many voices were raised crying for a solution and we have reported and supported these pleas on these pages. In response, AIM issued a new set of standards; ANSI has a committee addressing the problem; and FACT is trying to develop a method for looking over everyone's shoulder to make sure it gets done.

But it's not an easy task: Harry Burke (NCR, Data Pathing Division) doesn't want individuals with vested interests to participate in the decision making process (SCAN Oct 85); Craig Harmon (QED Systems) writes a 5-page dissertation complaining that the writers of standards are playing fast and loose with important definitions of terms; and major user groups, such as LOGMARS and AIAG, are fearful that if the rules are significantly changed, it will render obsolete a large installed base of printers, readers and verifiers.

The strangest twist in this scenario occurred a few weeks ago. First some background: one of the more important standard writing efforts underway is the one by the joint ANSI Committee on print quality (X3A1/MH10). The current draft being circulated by this committee contains significant changes in the way bar code symbols are to be checked for quality. A similar standard issued by AIM incorporated the same changes. These major revisions include: • The requirement that a verifier make a minimum of 10 equally spaced scans through the symbol under test. • Variable spot sizes (6, 10 or 20 mils) to be available in the verifier to be selected based on symbol density. • Symbol "ratings" based on successful scans. • Revision of the reflectance measurement formula (PCS) to indicate a new Minimum Reflectance Difference (MRD). • New tests for spots and voids.

Back to the "strange twist": The major source for these revisions was a report prepared about a year ago by the unrelated "Palmer boys." Harry Palmer, President of RJS, and Roger Palmer, VP of Intermec, submitted their joint report to the AIM symbology group, and it was also picked up by the ANSI committee.

About six weeks ago, and without notifying either AIM or ANSI, Harry Palmer's company, RJS Enterprises, sent out a memorandum to 40 major companies and trade groups, telling them about these imminent changes and pointing out that "it would obsolete all existing verification equipment...be more time consuming...complicated...and expensive...(and) they are being developed without direction from you, the user." The letter, in a seeming reversal of the company's previous position, told each recipient to write to the committee and tell them to slow down and take a look at how this will affect the users.

Some members of the ANSI group (including Roger Palmer) first learned about the letter just as the committee was about to meet in Santa Cruz on March 5. They went up the wall, feeling they had been betrayed. Kathy Parsons of RJS, who signed the letter, appeared at that ANSI meeting to present her case. It was voted down and ANSI is proceeding as planned.

### COMMENT

Make no mistake about this: These revisions may wind up being the most significant changes in the printing, scanning and verification of bar code symbols for many years. As with most issues, where there are honest, qualified people on each side, there is much merit in both positions.

Unfortunately, the statements issued have been mostly subjective and a bit emotional. We pose the following questions:

- How many verifiers have been purchased and are currently operating?
- What percentage of printed bar codes are actually verified?
- Have the committees explored all of the available alternatives to issuing a standard which may require more sophisticated and expensive printing and verification hardware? Prices now run from \$1,000 to \$10,000. Can equipment be made in that price range that will comply with the standards?
- If the methodology turns out to be too expensive or cumbersome, will the new standards wind up discouraging verification rather than encouraging it?
- Should a standards group consider the economic impact of its decisions -- or should it operate only on the basis of what is technically correct?
- Since the largest number of printed symbols are UPC/EAN -- and will remain so for the immediate future -- should the ANSI Committee request representation from the Uniform Code Council? This could serve to open up the verification equipment market to provide economies of size, and to encourage verification in an area that has tended to avoid it so far.

We are only asking!

## For the past 12 months....

....Intermec's financial results have not met expectations. During the previous fiscal year, 1985 (ended 3/31/85), the company had grown by 50% in sales and 30% in earnings. That was an up year and the company was forecasting it would follow with a strong fiscal '86 (SCAN Apr 85, June 85).

But it didn't work out that way. The first six months' sales were flat, and although there was an uptick in the third quarter, preliminary reports indicate that the results for the last quarter and the year will be less than forecast.

Anticipating FY '86 results (3/31/86), President David Allais admits that the year has been "frustrating." Sales are expected to be about \$43 million (compared to \$40.2 million last year). Fourth quarter revenues will be about \$10 million (equal to last year) and an operating loss is expected for the three month period — although some extraordinary income items will offset that deficit and there will be a net profit. The company's stock (NASDAQ), which had ranged from \$10 to over \$18 this past year, now holds at \$13-\$14 per share.

Allais attributes the below par last quarter to a number of unspecified production problems which they are working to overcome. Although he tell us that the level of new orders is encouraging, there are no figures available as yet as to year-end backlog compared to last year. These problems seem to cap a year in which the company paid a considerable sum to settle a suit brought by an exdistributor, and in which sales were adversely affected by the mishandling of another key distributor in California (SCAN Sep 85).

During the past few months there has been a shake-up of management personnel, culminating at the end of March with a small staff reduction (about 2% of the company's 490 employees) and a temporary wage freeze. In November, 1985 Will Rogers, VP/Sales and Marketing, resigned. In a reshuffling of assignments, Roger Palmer emerged as VP Product and Market Development. Palmer has been with Intermec since 1978 in a succession of technical positions until this key move to Marketing. He will be responsible for product and market strategies, promotions, advertising and trade shows. Palmer, along with Rich Henry, Director of International Sales, and Greg Tannheimer, Director of Domestic Sales, all now report directly to President Allais. Lowell Klaisner has assumed responsibility for all research and development.

Although Allais continues to profess a positive attitude about the immediate future, he now characterizes it as "cautious optimism." He feels that the underlying fundamentals are now better than they have been for a long time and that the belt tightening was long needed and overdue. "Things look better now," he says, "and if the company had been managed better and wiser, these recent problems would not have occurred."

Those are tough words from a hard-nosed chief executive who seems to have a clear understanding of where he wants to take his company.

# Computer Identics was headed....

....for a good sales and earnings year in 1985 until it came up against a very poor fourth quarter. Sales were down about 12% for the quarter and the company suffered a loss of \$880,000 in that period. This reversed the accumulated earnings for the previous 9 months and resulted in a net loss for the year.

COMPUTER IDENTICS	3 Months Ended 12/31		12 Months Ended 12/31	
	1985	1984	1985	1984
Revenues (\$000)	2,640	2,969	12,079	9,955
Net Income (Loss) (\$000)	(880)	172	(493)	657
Net Income (Loss)/Share	(.18)	.04	(.10)	.15

President David Collins cites the effort required to prepare and submit the bid for the U.S. Army's LOGMARS-Tactical contract as the dominant reason for the disappointing earnings results in the last quarter. C/I went all out to bid on this \$100 million dollar project (SCAN Dec 85/Jan 86) and incurred very large related expenses. The results have not yet been announced as to who received that award.

As for 1986, Collins predicts there will be record sales (up 30%) and income, whether or not the company is the successful LOGMARS bidder.

#### Last year....

.... Imtec acquired the assets of Santec, a company which produced dot matrix printers. During the six month period ended December 31, 1985, Imtec sold \$630,000 of these printers, representing over 40% of the company's total sales. Sales of bar code equipment (printer/applicators), the company's original product line, were sharply down during this first half of this fiscal year. Earnings were also down.

IMTEC	3 Months Ended 12/31		6 Months Ended 12/31	
	1985	1984	1985	1984
Revenues (\$000)	\$ 877	\$ 807	\$1,549	\$1,205
Net Income (\$000)	40	86	78	117
Net Income/Share	.04	.08	.07	.11

According to President Jim Williams, the company stumbled across what he believes to be a potentially valuable product among Santec's assets. It is a digital database of character sets (fonts), which can be used with a wide variety of other dot matrix and laser printers. Williams sees this product — actually font modules consisting of two computer chips mounted on a printed circuit board — as the basis for a new business venture. The company does not have the working capital to fund this new enterprise and is looking for new financing.

Imtec, Imtec Lane, Bellows Falls, VT 05101; 802/463-9502.

## A new user's group....

....has been formed: The <u>Industry Bar Code Alliance (IBCA)</u> -- and it requires some explanation. This is an association of trade associations which

characterize themselves as "industrial wholesalers." A listing of the charter members may help define the nature of the membership.

- ARI Air Conditioning and Refrigeration Institute.
- ARW Air Conditioning and Refrigeration Wholesalers.
- ASA American Supply Association.
- NHAW Northamerican Heating and Air-conditioning Wholesalers.

The organization was formed this past February and had its first Board of Directors meeting in March, at which time officers were elected. Rick Bushnell of Controls for Automation and Management (SCAN June 85) was appointed administrator for the organization. New members are expected to join soon from the plumbing industry.

The goal of the IBCA is to foster and develop systems and means for identification of sellers and products in the distribution industry. Also, it is to provide education and encourage research activities in the future development of systems employing automatic identification, mainly bar codes. Membership is open to other related trade organizations and associated members. The first conference will be held in St. Louis on May 5, just prior to the LOGISTEX show (sponsored by MHI).

One major goal of the group is to provide the mechanism for the assignment and employment of commodity codes — and this alone promises to be one mean task! We spoke with Bushnell about this and other complex coding systems that are under study. These industrial wholesalers, and their manufacturing suppliers, are planning to use the UCC Shipping Container Symbol for some items; to apply code 39 for other variable length alpha-numeric item fields; to provide for order number, date and other descriptive information; and more. At this point we got the idea and lost the details.

As a user group, IBCA would be a perfect candidate to join the Federation of Automatic Coding Technologies (FACT), which is actively seeking new members (SCAN Mar 86). To get more information, and a copy of the IBCA guidelines, contact Bushnell at C.A.M., 24 Far View Road, Chalfont, PA 18914; 215/822-6880.

## The inaugural meeting....

....to set up AIM/PACIFIC (AIM/PAC) took place on March 25 in Melbourne, Australia to coincide with the first day of the SCAN-TECH PACIFIC show (SCAN Dec 85/Jan 86). There are 30 founder members of AIM/PAC, all from Australia. The geographic scope will be expanded soon to include New Zealand and Southeast Asia. The elected officers at the first meeting were: Trevor Dean of Bar Code Data Systems as chairman; Peter Reid of Fielder Computer Service as deputy chairman.

AIM/PAC is the first regional AIM affiliate to join AIM/International since the organization was founded with three charter members: AIM Inc/US, AIM/Europe and AIM/UK. We wish AIM PACIFIC the very best for its future. Secretariat services are being provided by the National Materials Handling Bureau, PO Box 344, North Ryde, NSW 2113 Australia; telephone (02) 887 8111; telex AA25386.

# The second conference and exhibition....

....sponsored by AIM/UK is set for May 20-22 at the Novotel Hotel, London. A special half-day session has been scheduled for the first morning to introduce automatic identification to newcomers.

The emphasis of the conference and exhibition is on bar coding, but it is truly a show dealing with automatic identification. Speakers and exhibitors will be demonstrating OCR, radio frequency and machine vision technologies. Exhibitor bookings are running ahead of the same period last year and new names are expected to be visible at AIM/UK '86.

AIM/UK Secretariat, The Old Vicarage, Haley Hill, Halifax HX3 6DR England; telephone (0422) 59161; telex 517250/ISMARK.

While we're on the subject of conferences, here are some additional dates for your diary:

- SCAN-TECH Europe '86 is scheduled for November 11-13 in Basel, Switzerland. More about AIM/Europe's premier event in future issues.
- RMDP Ltd's EPoS series of conferences and exhibitions will now be known as EPoS 86/EFTPOS 86 and will incorporate electronic funds transfer (the technology where your bank account is debited with your purchases before you even leave the store). The four day combined exhibition will debut October 7-10; the venue is the Barbican Centre, London England.

## Of the 32 speakers....

....announced for the <u>ID Expo Conference and Exposition</u> (SCAN Feb 86, Mar 86), about two-thirds are people we have never seen or heard from at automatic identification shows — and that's refreshing. Most of these speakers will be describing specific applications in their companies or industries. The three day show, sponsored by <u>Bar Code News</u>, will be held May 19-21 in San Francisco.

Bar Code News, 174 Concord Street, Peterborough, NH 03458; 603/924-7136. Or Expocon Management, 3695 Post Road, Southport, CT 06490; 203/259-5734.

# Since this industry....

....has only limited data available on equipment performance, we welcomed the news that a study was completed and available on the subject. Its title:

Hands-on Evaluation; Very High Resolution Hand-Held Bar Code Readers.

It was prepared by  $\underline{\text{TM}}$  Planning Services and President Tom Mosher provided us with a copy. The purpose was to find the best devices for collecting bar coded information in hospitals — although the introduction states the results can be applied to any bar code system.

There are certain caveats noted by the author: • This was a private study (commissioned by an unnamed source) to physically evaluate the performance of very high resolution hand-held bar code readers. • The main focus was on "the perception of users during the actual use of each product." • The physical

testing was conducted by four people ranging in experience from expert to novice. • There were about 60 hand-held devices supplied by 20 companies. They included contact and non-contact, as well as infra-red and visible light types of scanners. Of these, 20 were selected for the tests. • The tests were performed on various symbol densities, ranging from "X" values of .004" to .010" on a variety of surfaces, using two printing techniques. • The number of scans per person per test ranged from about 10 to 30 totalling 1,000 scans per device.

As for the results, we are not sure that any new ground has been broken. Under Observations, the report seems to confirm generally accepted notions of the advantages and disadvantages when comparing imaging devices, wands and noncontact scanners. The Summary cautions that "to attain maximum system performance, you must carefully match reader capabilities to application requirements. You need to catalog the sources, the surfaces and the work areas."

TM Planning Services, 9010 Tobias Avenue, No. 110, Panorama City, CA 91402-1705; 818/893-9451.

### Are you ready....

....for automatic identification systems sold through direct mail? Monarch Marking believes they have introduced the first direct marketing catalog of bar code products. It is being mailed to product manufacturers in the automotive, electronics and health care industries.

The catalog — complete with prices, descriptions and an 800-number to place your orders — covers the company's range of printers, labelers and supplies. If you need assistance, there are technicians at the other end of the phone to help you fill out your order form. And if that doesn't work, the qualified lead will be turned over to the sales department for personal follow-up. Marketing Director Dan McGilvery thinks it's an exciting new marketing opportunity.

The company has also introduced a new hand-held industrial labeler. The Pathfinder Model 6053 is a fully portable microprocessor-controlled unit that produces bar codes (39, I 2/5, UPC) and human readable information in various formats and densities. Models are available that operate on-line to a PC with fixed formats, or with custom formatting. The unit produces very high density code 39 bar codes with "X" values of less than 6 mils and a 2.1:1 ratio. The printer is direct thermal and production is rated at 96 labels per minute. The list price is \$2,900.

Monarch Marking, Box 608, Dayton, OH 45401; 513/865-2123.

# A bar code data collection system....

....has been introduced by  $\underline{\text{Welch Allyn}}$ . It is called  $\underline{\text{Fac}}$   $\underline{\text{Trac}}$  and is designed for use with the IBM-PC/XT,  $\underline{\text{AT}}$  and compatibles.

According to the manufacturer, the system software is designed to simplify the collection and transmission of bar code information to the users' application software and is adaptable to work-in-process, inventory control, time and attendance and quality assurance. Features include date/time stamp, look-up tables, branching and printing of bar code labels and menus. Up to 31 terminals can be

connected to the PC through a Welch Allyn controller. The Fac Trac system software sells for \$3,500.

Welch Allyn, Bar Code Products, Jordan Road, Skaneateles Falls, NY 13153-0187; 315/685-8351.

## A series of....

....C-MOS based bar code readers with interfaces to IBM's 3270 PC's and various terminals is now available from Barcode Industries.

The Mind Reader MR-230 series enhances the IBM terminals and PC's by enabling users to add bar code reading capability without any software or hardware modification. The MR-230 can be equipped with any of 3 optical wands, a bar code slot reader or magnetic stripe reader. Another version, the MR 200SP, can be equipped with hand-held or fixed mount laser scanner. Prices range from \$630 to \$770 for quantity one.

Barcode Industries, 17 Barstow Road, Great Neck, NY 11021; 516/466-5770.

### At press time....

....we learned that <u>RJS International</u> has had a slight location crisis as well as the identity crisis we reported recently (SCAN Feb 86). RJS International did actualy transfer European headquarters from the UK to Germany, but not to the address they had given to us. The new address should read: RJS International, GmbH, Postfach 4969, Hohenstaufenstrasse 7, 6200 Wiesbaden, West Germany; telephone 06121 700861; Telex 4186538.

Jean-Luc Bruno has joined RJS International as product manager for their verification and printing products. Bruno was previously employed by Symbol Technologies as area manager, dealing with laser scanners and verification equipment.

#### We sort of suspected ....

....that it would be the type of record that would be quickly surpassed. No sooner had we reported the Australian Pick 'n Pay store as the largest, with 75 scanners (SCAN Mar 86), than we heard from Datachecker/DTS about the Carrefour hypermarket on the outskirts of Paris with 76.

Any other news about monster scanning installations?

SCANNING, CODING & AUTOMATION NEWSLETTER. 11 Middle Neck Road • Great Neck, N.Y. 11021 • 516/487-6370 Published monthly. PUBLISHER/EDITOR: George Goldberg; CIRCULATION DIRECTOR: Teddy Allen. INTERNATIONAL EDITOR: Paul Chartier • P.O. Box 7 • Cirencester GL7-1JD England • 285-3011